NSF 23-565: Centers of Research Excellence in Science and Technology HBCU Research Infrastructure for Science and Engineering (CREST HBCU-RISE)

Program Solicitation

Document Information

Document History
- **Posted:** March 1, 2023
- **Replaces:** NSF 18-509
- **Replaced by:** NSF 24-562

View the program page

National Science Foundation
Directorate for STEM Education
Division of Equity for Excellence in STEM

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

May 30, 2023

December 01, 2023

First Friday in December, Annually Thereafter

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Important Information And Revision Notes

This activity was previously included in NSF 18-509 and is now a separate solicitation.

Any proposal submitted in response to this solicitation should be submitted in accordance with the *NSF Proposal & Award Policies & Procedures Guide* (PAPPG) that is in effect for the relevant due date to which the proposal is being submitted. The NSF PAPPG is regularly revised and it is the responsibility of the proposer to ensure that the proposal meets the requirements specified in this solicitation and the applicable version of the PAPPG. Submitting a proposal prior to a specified deadline does not negate this requirement.

Summary Of Program Requirements

General Information

Program Title:

    Centers of Research Excellence in Science and Technology HBCU Research Infrastructure for Science and Engineering (CREST HBCU-RISE)
    Referred to in this solicitation as HBCU-RISE

Synopsis of Program:

    The Centers of Research Excellence in Science and Technology (CREST) program provides support to enhance the research capabilities of minority-serving institutions (MSI) through the establishment of centers that effectively integrate education and research. CREST promotes the development of new knowledge, enhancements of the research productivity of individual faculty, and an expanded presence of students underrepresented in science, technology, engineering, and mathematics (STEM) disciplines.

    The HBCU-RISE is a component of the CREST program that supports the expansion of institutional research capacity as well as the successful training of doctoral students, especially those from groups underrepresented in STEM at HBCUs.

HBCU-RISE projects must have a unifying research focus in one of the research areas supported by NSF; a direct connection to the long-term plans of the host department(s) and the institution's strategic plan and mission; and plans for expanding institutional research capacity as well as increasing the production of doctoral students, especially those underrepresented in STEM.

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.

- Sonal S. Dekhane, Program Director, telephone: (703) 292-5029, email: sdekhane@nsf.gov

- Tomasz Durakiewicz, telephone: (703) 292-4892, email: tdurakie@nsf.gov

- Nicole E. Gass, Program Specialist, telephone: (703) 292-8378, email: ngass@nsf.gov

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

- 47.076 --- STEM Education

Award Information

Anticipated Type of Award: Standard Grant or Continuing Grant

Estimated Number of Awards: 5

Up to five HBCU-RISE awards will be made annually contingent on the availability of funds and the submission of meritorious proposals.

Collaborating institutions external to the primary (lead institution) must be budgeted as subawardees. The total amount of funding to subawardee institutions must reflect the institution's effort. The total amount of funding to all subawardee institutions cannot exceed 10% of the cumulative budget going to the primary institution, for example $120,000 for a $1,200,000 budget.

Anticipated Funding Amount: $6,000,000

HBCU-RISE awards will not exceed $1,200,000 during a three-year period. HBCU-RISE awards will be managed through Standard Grants or Continuing Grants. An institution may only have one active HBCU-RISE award. The institution is responsible for verifying if they have a current active HBCU-RISE award.

Eligibility Information

Who May Submit Proposals:

Proposals may only be submitted by the following:

- Only Historically Black Colleges and Universities that offer doctoral degrees in science (including social, behavioral, and economic science), technology, engineering, and mathematics disciplines.

Who May Serve as PI:

The Principal Investigator (PI) must hold a full-time faculty appointment at the institution submitting the proposal.

Limit on Number of Proposals per Organization: 1

An institution may have only one active HBCU-RISE award, irrespective of focus area. Therefore, institutions with an active HBCU-RISE award are not eligible to submit a proposal in response to this

solicitation unless the active award will end prior to the proposed start date specified in the proposal. The institution is responsible for verifying if they have a current active HBCU-RISE award.

Only one HBCU-RISE proposal may be submitted per eligible institution.

Separately submitted collaborative (linked) proposals are not allowed and will be returned without review.

Limit on Number of Proposals per PI or co-PI: 1

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 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. submitting organization's local time):

    May 30, 2023

    December 01, 2023

    First Friday in December, Annually Thereafter

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:

Additional award conditions apply. Please see the full text of this solicitation for further information.

Reporting Requirements:

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

I. Introduction

In addition to bolstering the research infrastructure and research competitiveness of minority serving institutions (MSIs), the CREST program seeks to support efforts to strengthen the science and engineering research and education capacity at institutions with strong track records of producing STEM graduates from populations that have been underrepresented in their participation in STEM fields of study: women, Blacks and African Americans, Hispanic or Latino Americans, American Indians, Alaska Natives and Native Hawaiians, Native Pacific Islanders, veterans, and persons with disabilities.

NSF expects that awards made under the HBCU-RISE solicitation will catalyze institutional transformation through the development of research capabilities, commensurate with the institution's mission and long-term goals and the involvement of groups underrepresented in STEM at all levels - students, postdoctoral researchers, and faculty. The projects should promote synergy between education and research. Both undergraduate and graduate students should be engaged in the process of discovery and innovation and guided by the faculty. Institutions will evaluate the impact of the award in accomplishing the institutional transformation as part of their project evaluation.

Projects should employ modern and relevant curricula to support the student's academic success and should provide relevant research experiences that will support their transition into graduate studies or STEM careers. Students should have the opportunity to become significant participants in the broader community of scholarship in their respective fields.

Outcomes and activities such as publications; involvement in regional, national, and international research forums; patents and commercial dissemination of research results; professional development of postdoctoral research associates; training of doctoral and master's students; and involvement of undergraduates in research activities should all occur in ways that establish the potential for national leadership.

An important consideration for projects is to leverage the funds from the awards to obtain more support from federal, state, and local agencies, and to develop industry and academic partnerships to sustain the work initiated by the HBCU-RISE award.

A key feature of projects will be a program strategy and plan for recruitment, mentoring, retention, and graduation of students (U.S. citizens, nationals, and permanent residents) in NSF-supported STEM fields, with specific efforts aimed at members of groups underrepresented in science and engineering. NSF's 2022-2026 Strategic Plan 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. Data from the National Center for Science and Engineering Statistics (NCSES) projects that close to 4 million additional people – specifically people who are underrepresented in STEM, including women, Blacks and African Americans, Hispanic or Latino Americans, American Indians, Alaska Natives and Native Hawaiians, Native Pacific Islanders, veterans, and persons with disabilities – are needed in 2030 for the science and engineering workforce to be representative of the U.S. population. NSF is committed to reaching these individuals – the Missing Millions in STEM – and to the principle of diversity, which it deems central to the programs, projects, and activities it considers and supports. America's diversity is a great strength. Leveraging this strength to broaden participation in the U.S. science and engineering enterprise will be crucial to fostering individual opportunity and a thriving economy. Across the agency, and with guidance from the National Science Board, NSF continues working to increase STEM skills and opportunities for all Americans (National Science Board: Vision 2030).

II. Program Description

A. Program Goal

HBCU-RISE is a component of the CREST program, and its goal is to support the development of research capability at Historically Black Colleges and Universities that offer doctoral degrees in science and engineering disciplines. HBCU-RISE ensures that research capacity at these institutions is enhanced by:

- Making resources available through projects that effectively integrate education and research

- Promoting research productivity of faculty and postdoctoral researchers and consequently expanding diversity in student enrollment in science and engineering disciplines at the graduate level

B. Characteristics of the HBCU-RISE Awards

HBCU-RISE awards support the development of research capability at HBCUs that offer doctoral degrees in science and engineering disciplines. Projects should be designed to enable awardee institutions to enhance the integration of education and research. The proposal should include a component that outlines a strategy for connections with other NSF-funded awards at the institution which are related to the proposed project's goals and scope.

Supported projects should have a unifying research focus in one of the research areas supported by NSF, a direct connection to the long-term plans of the host department(s) and the institution's mission, and plans for expanding institutional research capacity as well as increasing the production of doctoral students, especially those from underrepresented groups who are U.S. citizens, nationals, or permanent residents.

HBCU-RISE projects are open to all NSF-supported disciplines and areas of strong national interest, such as data science and analytics; advanced materials, manufacturing, robotics; cybersecurity; plant genetics/agricultural technologies; quantum information sciences; nanotechnology, semiconductors/microelectronics technologies; climate change and clean energy, are strongly encouraged. In addition, for this solicitation, the areas outlined in the resources below are of great interest:

- CHIPS and Science Act of 2022 https://www.whitehouse.gov/briefing-room/statements-releases/2022/08/09/fact-sheet-chips-and-science-act-will-lower-costs-create-jobs-strengthen-supply-chains-and-counter-china/)

- Industries of the Future (https://www.whitehouse.gov/wp-content/uploads/2022/04/04-2022-OSTP_IOTF_Report.pdf)

- Understanding the Brain (https://www.nsf.gov/news/special_reports/brain/)

- DOE Earthshots (https://www.energy.gov/policy/energy-earthshots-initiative)

In addition to the research project, institutional activities supported by the HBCU-RISE may include but are not limited to faculty release time, technical support for research, faculty professional development, acquisition or upgrading of research equipment, development of new advanced level curricula or courses, workforce development in areas of national needs and interest, and collaborative research efforts with partner universities and national laboratories. HBCU-RISE funding may, for example, be used to support competitive levels of start-up funding for outstanding new faculty hires with research interests related to the project, or to acquire key equipment and instruments, including high-performance computing and networking capabilities. Career development opportunities, provision for developing professional skills, instruction in ethics and the responsible conduct of research, and training in the communication of the substance and importance of research to non-scientist audiences may be part of the proposed activities.

HBCU-RISE projects must offer considerably more to an institution's capacity to carry out doctoral level research than is afforded by traditional single- or multi-investigator research proposals. In this way, HBCU-RISE support should not replace other active or available federal, state, or institutional resources, but rather should add significant value to the existing institutional strategic plan. Reviewers will be asked to consider the unique goals of the HBCU-RISE application in developing doctoral program capacity, in addition to supporting research activities.

Each HBCU-RISE project should describe an evaluation plan to track progress and strengthen cooperative efforts. In addition, each project will be required to participate in a CREST program-level evaluation to assess outcomes and the CREST program's contributions to advancing the science and engineering research and education capabilities of minority-

serving institutions. Special attention should be given to increasing doctoral degree attainment among U.S. citizens, nationals, and permanent residents at those institutions who are underrepresented in STEM.

It is not necessary for HBCU-RISE projects to convene meetings of an external advisory group or committee. However, each project shall identify an internal steering committee to include the PI, co-PIs, and other applicable stakeholders to review the results of the evaluation process and to ensure that the progress is consistent with departmental and institutional goals. HBCU-RISE project personnel are expected to participate in principal investigator meetings and should include travel funds to attend these annual meetings in their budget.

Support may be requested for activities that enhance the quality of research training and the research preparedness of graduate students (especially those from groups underrepresented in STEM) that are U.S. citizens, nationals, or permanent residents. NSF encourages the inclusion of veterans and persons with disabilities in its programs. In identifying the members of the research team, the proposing institution should strongly encourage participation by these groups. Supportable activities may include but are not limited to: research projects; acquisition of materials, supplies, research equipment, and instrumentation; hiring nationally competitive scientists and/or engineers; securing visiting scientists and engineers as short- or long-term consultants; faculty attendance at professional meetings and seminars; faculty sabbaticals and exchange programs; education activities directed toward the development of a diverse, internationally competitive and globally engaged workforce of scientists, and engineers well-prepared for a broad set of career paths; undergraduate and graduate research activities; and strengthening technical support personnel.

C. Commitment and Sustainability

Organizational commitment from administrators and leaders to the proposed project activities is vital for successful projects and for the financial and organizational sustainability of promising activities. Letters of support from the provost or equivalent university officials with authority related to faculty, research, facilities and/or equipment, and education are required and should be submitted as supplementary documents.

Proposals should discuss the commitment of leadership to research enhancements either through changes to current practices, additional grants, or other activities that will further enhance the research capabilities of the institution. Proposals should discuss how the successful components developed under the project will be sustained. Awards are expected to lead to long-term organizational change in the way that the institution supports faculty to increase their research productivity. Therefore, awards are expected to consider the financial and organizational sustainability and institutionalization of the project activities from the beginning of the project.

D. Other Funding Opportunities

Supplements for existing awards are permitted. Supplemental funding requests may be submitted as described in Chapter VI.E of the PAPPG.

III. Award Information

Anticipated Type of Award: Standard Grant or Continuing Grant

Estimated Number of Awards: 5

Up to five HBCU-RISE awards will be made annually contingent on the availability of funds and the submission of meritorious proposals.

Partner institutions external to the primary (lead institution) must be budgeted as subawardees. The total amount of funding to subawardee institutions must reflect the institution's effort. The total amount of funding to all subawardee institutions cannot exceed 10% of the cumulative budget going to the primary institution, for example $120,000 for a $1,200,000 budget.

Anticipated Funding Amount: $6,000,000

HBCU-RISE awards will not exceed $1,200,000 during a three-year period. HBCU-RISE awards will be managed through Standard Grants or Continuing Grants. An institution may only have one active HBCU-RISE award. The institution is responsible for verifying if they have a current active HBCU-RISE award.

The estimated HBCU-RISE budget, number of awards, and award size and duration are subject to the availability of funds.

IV. Eligibility Information

Who May Submit Proposals:

Proposals may only be submitted by the following:

- Only Historically Black Colleges and Universities that offer doctoral degrees in science (including social, behavioral, and economic science), technology, engineering, and mathematics disciplines.

Who May Serve as PI:

The Principal Investigator (PI) must hold a full-time faculty appointment at the institution submitting the proposal.

Limit on Number of Proposals per Organization: 1

An institution may have only one active HBCU-RISE award, irrespective of focus area. Therefore, institutions with an active HBCU-RISE award are not eligible to submit a proposal in response to this solicitation unless the active award will end prior to the proposed start date specified in the proposal. The institution is responsible for verifying if they have a current active HBCU-RISE award.

Only one HBCU-RISE proposal may be submitted per eligible institution.

Separately submitted collaborative (linked) proposals are not allowed and will be returned without review.

Limit on Number of Proposals per PI or co-PI: 1

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 Research.gov or Grants.gov.

- 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) 292-8134 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) 292-8134 or by e-mail from nsfpubs@nsf.gov.

See PAPPG Chapter II.D.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.

Eligible parties intending to submit a proposal are encouraged to participate in webinars that will be webcast after the release of this solicitation. See CREST webpage for dates.

Proper Institutional Review Board (IRB) documentation or certification on the use of human subjects, or Institutional Animal Care and Use Committee (IACUC) documentation or certification on the use of vertebrate animals, and outcomes of prior NSF support, as applicable, should be included with the proposal at the time of submission, or the absence of such documentation explained. Failure to self-declare in this manner my result in the proposal's decline or return without review.

HBCU-RISE Proposal Contents

Proposals must include all of the following items. In cases where requirements given in this document differ from those given in the PAPPG or Grants.gov Application Guide, this solicitation takes precedence.

1. Cover Sheet

- Start date: For planning purposes, September 1 of the award year should be shown as the start date.
- PI: The proposal must show the proposed project Director as the Principal Investigator.
- Title of the Proposed Project should begin with: "CREST HBCU-RISE:"
- The title must be informative and descriptive of the project, concise (20 words or less), and uses Title Case.
- The title should not include the institution name, any acronyms ("STEM" excepted), or quotation marks.

2. Project Summary (1 page)

Provide an overview of the CREST HBCU-RISE project.

- Both NSF merit review criteria (intellectual merit and broader impacts) must be addressed in separate statements in the project summary (see the PAPPG for additional instructions).
- The summary should be informative to persons working in the same or related fields, and understandable to a broad audience within the scientific domain.
- The summary should provide a clear and concise description of the project including mission and vision, and significance of the research.
- The summary should clearly describe the research focus and goals for education and broadening participation.

3. Project Description (15 pages)

The Project Description must contain only Sections 3.a through 3.g described below and cannot exceed 15 pages including tables and illustrations.

- Importantly, the project description should contain specific, measurable, and obtainable objectives that will be used to measure the progress of the award, if funded.
- The broader impacts resulting from the proposed project must be addressed and described in a separate section of the narrative.

3.a Problem Description and Rationale for Selected Approach

Describe the challenge that you aspire to solve. Include timeliness of addressing the challenge.

- This section indicates how the project is aligned with the mission of the institution and long-term goals of the department(s) in building the research capacity and increasing the number of doctoral students in STEM.

- The goals and objectives of the project must be clearly stated, measurable, aligned with the strategic plans of the institution and achievable within the proposed time frame. This section includes baseline data.
- The proposal must address institutional support for, and financial and organizational sustainability of the project.
- The proposal should include a component that outlines a strategy for the creative integration of NSF-funded awards at the institution as well as the integration of the research and educational activities.

3.b Description of the Research Objectives

State the overall vision and long-range research goals. Describe the proposed research areas/themes and how they integrate with each other. Provide a timeline for the activities.

- This section should provide a research plan with sufficient detail to allow assessment of the scientific merit.
- Indicate in the plan the specific role of each participant in each research topic area.
- Indicate in the plan the potential impact or expected significance the research will have.

3.c Description of the Education and Human Resource Development Objectives

Describe how HBCU-RISE will provide professional development and other appropriate opportunities to faculty members and students to assist them in setting up a research agenda and progressing in their careers.

- This section describes how research and education will be integrated. Education programs and activities should be evidence-based practices developed in the context of current education research and be monitored through a formal project-specific evaluation effort led by independent evaluators as described in 3.f.
- This section describes plans for the recruitment and retention of students, and the mentoring and professional development of students and faculty members.
- Describe all proposed activities in sufficient detail to allow assessment of their intrinsic merit and potential effectiveness.

3.d Broader Impacts

Describe the broader impacts objectives and outline strategies for achieving them.

- Describe plans for increasing diversity through the inclusion of individuals from groups underrepresented in STEM, including veterans and persons with disabilities.
- Describe the contribution/role of students and faculty and how they will be integrated into activities.
- Explain how mentoring will be used to provide a supportive environment for all project participants.
- Explain how progress will be measured and how strategies will be adapted, as appropriate.
- Describe the proposed activities in sufficient detail to allow assessment of their intrinsic merit and potential effectiveness.

3.e Description of the Management Plan

Describe the management of the HBCU-RISE project to ensure optimal performance.

- Present a management plan including a diagram to explain the organizational relationships and reporting structure among the key areas of responsibility.
- The management plan identifies key members of the Management Team and explains their specific roles and areas of responsibility.
- The management plan explains the role of each key participant/component.
- The management plan describes the processes to be used to prioritize activities; to allocate funds and equipment across activities; and to select a replacement PI, if needed.

- The management plan should identify members of the Internal Steering Committee and the evaluator.

3.f Evaluation Plan

All proposals should include an evaluation section that describes how the project evaluator/evaluation team will gauge the accomplishment of project goals and the impacts of the project. The budget must include adequate resources for project evaluation. This section should:

- Include a logic model with short-term, and intermediate-term expected outcomes
- Include a description of the evaluation design and methods that will be used
- Include in the evaluation plan formative aspects that will provide information to inform evidence-based decisions about changes in its activities, and summative aspects that will provide evidence of overall impacts of the project
- Include an evaluation design based on benchmarks, indicators, or expected outcomes related to project goals, objectives, and activities
- Identify the person(s) who will lead the evaluation and briefly describe their academic training and professional experience that qualifies them to serve as an evaluator. Evaluator(s) may be internal or external to HBCU-RISE institutions but should be external to the project itself and positioned to carry out the evaluation plan independently.

3.g Results from Prior NSF Support

Results from Prior NSF Support (up to 5 pages) in accordance with the guidance in the PAPPG.

4. Facilities, Equipment and Other Resources (1 page limit)

Provide a synopsis of institutional resources that will be available (dedicated space, access to facilities and instrumentation, faculty and staff positions, including plans to make cluster hires if appropriate, access to programs that assist with curriculum development or broadening participation, or other institutional programs that could provide support). Note that inclusion of voluntary committed cost sharing is prohibited. The description should be narrative in nature and must not include any quantifiable financial information.

5. Budget and Budget Justification

HBCU-RISE awards will not exceed $1,200,000 during a three-year period.

Provide a budget for each year. A cumulative budget will be generated automatically. The proposed budget should be consistent with the needs and complexity of the proposed activity. Funds also should be included for attendance to an annual PI meeting in Washington D.C.

Submit a budget justification. Identify items of equipment costing more than $25,000. Full justification for these is required.

Collaborating institutions external to the primary (lead institution) must be budgeted as subawardees. The total amount of funding to subawardee institutions must reflect the institution's effort and contributions. The total amount of funding to all subawardee institutions cannot exceed 10% of the cumulative budget going to the primary institution, for example $120,000 for a $1,200,000 budget.

Financial support may be provided to student participants under the HBCU-RISE projects. However, financial support may only be provided to students that are U.S. citizens, nationals, or permanent residents. Student support should be included on the "stipends" line under the "Participant Support Costs" section of the budget. Stipends to students should not replace other need-based grants and scholarships already awarded to the students.

6. References Cited (5-page limit)

7. Biographical Sketches

The following individuals should be designated as senior personnel: PI, Co-PI(s), evaluator, and any faculty members whose research, education, or broadening participation efforts will be supported. All biographical sketches should follow PAPPG guidelines.

8. Special Information and Supplementary Documents

The proposal should include applicable supplementary documents as instructed in the PAPPG. The following items must be provided as additional supplementary documents.

8.a Ethics Plan (1-page limit)

Provide a clear statement of the proposed policies on ethics training, responsible conduct of research, and intellectual property rights. A program of training in ethics and responsible conduct of research for all faculty, postdoctoral researchers, and graduate and undergraduate students is required. Training topics should include the nature of the research, methodologies used, ownership of research and ideas, and roles and responsibilities regarding intellectual property, and civil treatment of colleagues.

8.b Shared Experimental Facilities (1-page limit)

When appropriate, describe the shared facilities to be established, including research instrumentation.

The following elements should be addressed in this section: maintenance and operation of facilities, including assurance of organizational commitments/support; infrastructure and technical expertise to ensure effective usage; and provisions for user fees and plans for ensuring maintenance and operation of facilities after the end of the award.

8.c Students Mentoring Plan (1-page limit)

Each proposal that requests funding for undergraduate students and/or graduate students must include, as a supplementary document, a description of the mentoring activities that will be provided for such individuals. Proposers are advised that this plan is separate and distinct from the Postdoctoral Researcher Mentoring Plan that is conditionally required by the PAPPG. The students mentoring plan may not be used to circumvent the Project Description page limitation.

8.d Letter of Support (2-page limit) (Required) and Letters of Collaboration (Required) (2-page limit each)

A letter of support from the provost or equivalent university official with authority related to faculty, research, facilities and/or equipment, and education must be submitted, which describes the support for and commitment to the award (including space). The institution must commit to implementing systemic changes to increase research productivity. The letter of support must express awareness of, support for, and specific commitments to the project.

The letter of support may include information related to financial and organizational sustainability and commitment of the provost or equivalent university official to the project and do not need to be limited to the recommended language in the NSF PAPPG. A letter of support that merely endorses the project or offer nonspecific support for the project activities should not be included and the proposal may be returned without review if general support letters are included. Note that organizational commitment can also be demonstrated through commitment to project's financial and organizational sustainability. For guidance on voluntary uncommitted cost sharing please review the NSF Proposal and Award Policies and Procedures Guide (PAPPG).

Letters of collaboration must be provided for collaborative arrangements of significance to the proposal.

Proposals submitted without a Letter of Support and Letters of Collaboration may be returned without review.

8.e Quotes for Equipment

Include quotes for equipment costing more than $25,000.

9. Information to be submitted to NSF via the Single Copy Documents Section

9.a Optional

List of suggested reviewers and contact information or reviewers not to include.

B. Budgetary Information

Cost Sharing:

Inclusion of voluntary committed cost sharing is prohibited.

Other Budgetary Limitations:

HBCU-RISE awards will not exceed $1,200,000 during a three-year period.

Partner institutions external to the primary (lead institution) must be budgeted as subawardees. The total amount of funding to subawardee institutions must reflect the institution's effort. The total amount of funding to all subawardee institutions cannot exceed 10% of the cumulative budget going to the primary institution, for example $120,000 for a $1,200,000 budget.

C. Due Dates

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

    May 30, 2023

    December 01, 2023

    First Friday in December, Annually Thereafter

D. Research.gov/Grants.gov Requirements

For Proposals Submitted Via Research.gov:

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/ProposalPreparationand For Research.gov user support, call the Research.gov Help Desk at 1-800-673-6188 or e-mail rgov@nsf.gov. The Research.gov Help Desk answers general technical questions related to the use of the Research.gov system. 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 Research.gov for further processing.

Proposers that submitted via 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 *Leading the World in Discovery and Innovation, STEM Talent Development and the Delivery of Benefits from Research - NSF Strategic Plan for Fiscal Years (FY) 2022 - 2026* . 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.D.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.D.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

Reviewers will be asked to consider the following:

- To what extent are the proposed activities likely to enhance institutional research capacity?
- Is there a demonstrated need for HBCU-RISE funding for the expansion of research capacity?
- Is the development of doctoral program capacity adequate?
- Is the proposed research aligned with the long-term plans of the host department(s) and the institutional mission?
- Are plans for expanding institutional research capacity as well as increasing the production of doctoral students, especially those from groups underrepresented in STEM who are U.S. citizens, nationals, or permanent residents, adequate?
- Is the strategy for the creative integration of NSF-funded awards at the institution adequate?
- Is the institutional support for and financial and organizational sustainability of the project adequate?

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 or the Division of Acquisition and Cooperative Support 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 an NSF Grants and Agreements Officer. 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.

Administrative and National Policy Requirements

Build America, Buy America

As expressed in Executive Order 14005, Ensuring the Future is Made in All of America by All of America's Workers (86 FR 7475), it is the policy of the executive branch to use terms and conditions of Federal financial assistance awards to maximize, consistent with law, the use of goods, products, and materials produced in, and services offered in, the United States.

Consistent with the requirements of the Build America, Buy America Act (Pub. L. 117-58, Division G, Title IX, Subtitle A, November 15, 2021), no funding made available through this funding opportunity may be obligated for an award unless all iron, steel, manufactured products, and construction materials used in the project are produced in the United States. For additional information, visit NSF's Build America, Buy America webpage.

Special Award Conditions:

HBCU-RISE personnel will be expected to participate in convocations of EES activities and principal investigator meetings.

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.

Additional Reporting Requirements:

In addition to progress reports required annually, awardees will be expected to submit reports on project participants, publications, outreach efforts, patents, proposals, leveraged funding efforts and similar data to the CREST data collection system (CRESTWeb).

Acknowledgment of Support and Disclaimer

All publications, presentations, and creative works based on activities conducted during the award must acknowledge NSF CREST HBCU-RISE support and provide a disclaimer by including the following statement in the Acknowledgements or other appropriate section:

"This material is based upon work supported by the National Science Foundation CREST HBCU-RISE under Grant No. (NSF grant number). Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation."

Program Evaluation

The Division of Equity for Excellence in STEM conducts evaluations to provide evidence on the impact of the EES programs on individuals' career progress, as well as professional productivity; and provide an understanding of the program policies in achieving the program goals. Additionally, it is highly desirable to have a structured means of tracking awardees to assess the impact the award has had on their career. Accordingly, support recipients may be contacted for updates on various aspects of their employment history, professional activities and accomplishments, participation in international research collaborations, and other information helpful in evaluating the impact of the program. Support recipients and their institutions agree to cooperate in program-level evaluations conducted by the NSF and/or contracted evaluators.

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:

- Sonal S. Dekhane, Program Director, telephone: (703) 292-5029, email: sdekhane@nsf.gov

- Tomasz Durakiewicz, telephone: (703) 292-4892, email: tdurakie@nsf.gov

- Nicole E. Gass, Program Specialist, telephone: (703) 292-8378, email: ngass@nsf.gov

For questions related to the use of NSF systems contact, contact:

- NSF Help Desk: 1-800-673-6188
- 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.F.7 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** (703) 292-5111
  (NSF Information Center)**:**
- **TDD (for the hearing-impaired):** (703) 292-5090
- **To Order Publications or Forms:**

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

  or telephone: (703) 292-8143
- **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

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