NSF 24-588: NSF EPSCoR Graduate Fellowship Program (EGFP)

Program Solicitation

Document Information

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

October 02, 2024
June 02, 2025
June 01, 2026

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The NSF EPSCoR Graduate Fellowship Program (EGFP) is a new three-year pilot program that responds directly to input from recent studies and legislation, including the Envisioning the Future of NSF EPSCoR report and the CHIPS and Science Act (Public Law 117-167). The EGFP is intended to advance graduate talent recruitment, development, and retention at graduate institutions in the eligible EPSCoR states and territories, hereafter referred to as EPSCoR jurisdictions. Through the EGFP’s investments, NSF intends to help build additional capacity for science, technology, engineering, and mathematics (STEM) research and in turn promote innovation and economic growth in EPSCoR jurisdictions and across the Nation.

EGFP is designed to enhance the STEM research capacity and competitiveness of EPSCoR jurisdictions by providing funding to graduate degree-awarding institutions that will allow them to recruit NSF EPSCoR Graduate Fellows. Awardee institutions will select fellowship recipients, the NSF EPSCoR Graduate Fellows, from the pool of exceptional talent who received Honorable Mention from the NSF Graduate Research Fellowship Program (GRFP) no more than three years prior to the proposal due date. NSF will provide the mechanism for awardee institutions to connect with GRFP Honorable Mention recipients through the NSF Education and Training Application (ETAP) system.

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:
Synopsis of Program:

The NSF EPSCoR Graduate Fellowship Program (EGFP) provides an opportunity for applicants who received the distinction of GRFP Honorable Mention no more than three years before the proposal due date to be named NSF EPSCoR Graduate Fellows and obtain financial support for their graduate education at an institution in an EPSCoR jurisdiction. EGFP aims to enhance the capacity and competitiveness of EPSCoR jurisdictions by providing funding to graduate degree-awarding institutions to support NSF EPSCoR Graduate Fellows as they pursue graduate degrees in the disciplines specified by the NSF Directorates and Office that are participating in the EGFP funding program. Fellows may pursue degrees in a field that differ from the field or sub-field of study that the GRFP Honorable Mention recipients previously listed in their GRFP application.

EGFP awards will be made to institutions in EPSCoR jurisdictions. Awards will provide three years of stipend and associated cost-of-education allowance for each NSF EPSCoR Graduate Fellow. Stipends must be budgeted at the level of $37,000 per year per Fellow and cost-of-education allowances must be budgeted at the level of $16,000 per year per Fellow. A total of three years of support must be budgeted per Fellow. Each Fellow must be given up to five years to utilize the support. Awardees will administer the awards such that the Fellows receive the full stipend amount and the institution retains the full cost-of-education allowance during the three years that each Fellow receives support. All submissions must request support for a minimum of three Fellows.

Broadening Participation In Stem:

NSF recognizes the unique lived experiences of individuals from communities that are underrepresented and/or underserved in science, technology, engineering, and mathematics (STEM) and the barriers to inclusion and access to STEM education and careers. NSF highly encourages the leadership, partnership, and contributions in all NSF opportunities of individuals who are members of such communities supported by NSF. This includes leading and designing STEM research and education proposals for funding; serving as peer reviewers, advisory committee members, and/or committee of visitor members; and serving as NSF leadership, program, and/or administrative staff. NSF also highly encourages demographically diverse institutions of higher education (IHEs) to lead, partner, and contribute to NSF opportunities on behalf of their research and education communities. NSF expects that all individuals, including those who are members of groups that are underrepresented and/or under-served in STEM, are treated equitably and inclusively in the Foundation's proposal and award process.

NSF encourages IHEs that enroll, educate, graduate, and employ individuals who are members of groups underrepresented and/or under-served in STEM education programs and careers to lead, partner, and contribute to NSF opportunities, including leading and designing STEM research and education proposals for funding. Such IHEs include, but may not be limited to, community colleges and two-year institutions, mission-based institutions such as Historically Black Colleges and Universities (HBCUs), Tribal Colleges and Universities (TCUs), women's colleges, and institutions that primarily serve persons with disabilities, as well as institutions defined by enrollment such as Predominantly Undergraduate Institutions (PUIs), Minority-Serving Institutions (MSIs), and Hispanic Serving Institutions (HSIs).

"Broadening participation in STEM" is the comprehensive phrase used by NSF to refer to the Foundation's goal of increasing the representation and diversity of individuals, organizations, and geographic regions that contribute to STEM teaching, research, and innovation. To broaden participation in STEM, it is necessary to address issues of equity, inclusion, and access in STEM education, training, and careers. Whereas all NSF programs might support broadening participation components, some programs primarily focus on supporting broadening participation research and projects. Examples can be found on the NSF Broadening Participation in STEM website.

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.

- EGFP: Program Contact, telephone: (703) 292-2440, email: egfp@nsf.gov
- Narcrisha S. Norman, telephone: (703) 292-7965, email: nnorman@nsf.gov
- Rebecca Shearman, telephone: (703) 292-7403, email: rshearma@nsf.gov
- Jeanne R. Small, telephone: (703) 292-8623, email: jsmall@nsf.gov

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

- 47.041 --- Engineering
- 47.049 --- Mathematical and Physical Sciences
- 47.050 --- Geosciences
- 47.070 --- Computer and Information Science and Engineering
- 47.074 --- Biological Sciences
- 47.075 --- Social Behavioral and Economic Sciences
- 47.076 --- STEM Education
- 47.083 --- Office of Integrative Activities (OIA)
- 47.084 --- NSF Technology, Innovation and Partnerships

**Award Information**

**Anticipated Type of Award:** Continuing Grant

**Estimated Number of Awards:** 5 to 35

**Anticipated Funding Amount:** $17,000,000

Proposals must request at least the amount of funding required to support three Fellows over three years ($477,000 total). It is anticipated that no proposals will request support for more than 20 Fellows over three years ($3,180,000 total). It is also anticipated that the average award size will allow five Fellows to be supported for three years ($795,000 total).

Number of awards and award sizes are subject to the availability of funds and quality of proposals submitted.

**Eligibility Information**

**Who May Submit Proposals:**

Proposals may only be submitted by the following:

- Institutions of Higher Education (IHEs) that are accredited, have a campus located in an eligible EPSCoR jurisdiction at the time of proposal submission, and offer at least one master's and/or doctoral degree in a STEM discipline aligned with the topical focus area(s) described in this solicitation.

**Who May Serve as PI:**

As of the submission deadline, PIs, co-PIs, or other Senior/Key personnel must hold primary, full-time, paid, and continuing appointments at an institution that is eligible to submit in response to this solicitation (see above), with exceptions granted for family or medical leave, as determined by the submitting institution. Individuals holding term-limited appointments are not eligible.

**Limit on Number of Proposals per Organization:** 1
Each submitting organization is limited to one proposal per annual competition. Potential PIs are advised to contact their institutional office of research (or equivalent) regarding processes used to select proposals for submission.

Institutions interested in supporting Fellows in multiple topical focus areas must submit a single proposal that addresses all topical areas of interest.

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

An individual must not participate as PI, Co-PI, or Senior/Key Personnel on more than one proposal submitted for the same deadline.

**Proposal Preparation and Submission Instructions**

**A. Proposal Preparation Instructions**

- **Letters of Intent:** Not required
- **Preliminary Proposal Submission:** Not required
- **Full Proposals:**

**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):**
  
  October 02, 2024
  
  June 02, 2025
  
  June 01, 2026

**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.
II. Program Description

The EPSCoR Graduate Fellowship Program (EGFP) aims to enhance the STEM capacity and competitiveness of EPSCoR jurisdictions by providing graduate degree-granting institutions with funding that can be used to provide fellowships to students who received a GRFP Honorable Mention. The EGFP program specifically seeks to empower IHEs from EPSCoR jurisdictions to attract and retain extremely high-quality graduate students.

This program is an opportunity for GRFP applicants who received the distinction of GRFP Honorable Mention to obtain financial support for their graduate education in STEM disciplines, including the discipline of STEM education research, at an institution in an EPSCoR jurisdiction. Eligible students must have received a GRFP Honorable Mention no more than three years prior to the deadline date for submission of proposals to the EGFP. Students who receive support through this program are known as NSF EPSCoR Graduate Fellows, and are referred to as Fellows for the remainder of this solicitation.

EGFP awards are made to institutions to support graduate students in specific fields of study. Institutions that receive funding through this program will be eligible to recruit and support meritorious GRFP Honorable Mentions to attend their institutions and pursue a graduate degree. Support from the EGFP program is only available for those fields specified by the NSF Directorates and Office participating in the EGFP. Students must be recruited for and pursue degrees in the field(s) addressed in each EGFP proposal.

As authorized in the CHIPS and Science Act (Sections 10325, 10387, 10383, and 10393), the EGFP program will help NSF to increase its investments in EPSCoR jurisdictions, while growing STEM talent and providing an opportunity to support the development of a ready workforce in critical and emerging technologies. EGFP investments in the future STEM workforce are intended to build capacity for STEM research in EPSCoR jurisdictions, which in turn is intended to promote innovation and economic growth in EPSCoR jurisdictions and across the Nation.
STEM Topics and Areas Eligible for Consideration

The following NSF Directorates and Office are participating in this solicitation:

- Directorate for Biological Sciences (BIO)
- Directorate for Computer and Information Science and Engineering (CISE)
- Directorate for Engineering (ENG)
- Directorate for Geosciences (GEO)
- Directorate for Mathematical and Physical Sciences (MPS)
- Directorate for Social, Behavioral, and Economic Sciences (SBE)
- Directorate for STEM Education (EDU)
- Directorate for Technology, Innovation and Partnerships (TIP)
- Office of Integrative Activities (OIA)

Each participating Directorate and Office has identified specific topics or areas that align with their unique goals and the programs they support. These topics or areas may differ from the field or sub-field the Honorable Mention recipients previously listed in their GRFP applications.

The topics and area that will be considered for funding by each of the participating Directorates and Office are described below.

**Directorate for Biological Sciences (BIO):** BIO will consider proposals that engage Fellows with research on any topic normally supported by the Directorate for Biological Sciences with an emphasis on proposals that combine biology and artificial intelligence, that advance the bioeconomy, and/or create solutions for a resilient planet. More information about BIO is available on the NSF.gov website. https://www.nsf.gov/dir/index.jsp?org=BIO.

**Directorate for Computer and Information Science and Engineering (CISE):** CISE will consider proposals that engage Fellows with research on any topic normally supported by the Directorate for Computer and Information Science and Engineering. More information about CISE is available on the NSF.gov website. https://new.nsf.gov/cise.

**Directorate for Engineering (ENG):** ENG will consider proposals that engage Fellows with research on any topic normally supported by the Directorate for Engineering. More information about ENG is available on the NSF.gov website. https://www.nsf.gov/dir/index.jsp?org=ENG.

**Directorate for Geosciences (GEO):** GEO will consider proposals that engage Fellows with research on any topic normally supported by the Directorate for Geosciences. More information about GEO is available on the NSF.gov website. https://new.nsf.gov/about/directorates-oces#geo.

**Directorate for Mathematical and Physical Sciences (MPS):** MPS will consider proposals that engage Fellows with research on any topic normally supported by the Directorate for Mathematical and Physical Sciences. More information about MPS is available on the NSF.gov website. https://www.nsf.gov/dir/index.jsp?org=MPS.

**Directorate for Social, Behavioral, and Economic Sciences (SBE):** SBE will consider proposals that engage Fellows in any field or fields of study supported by the Directorate for Social, Behavioral, and Economic Sciences. More information about SBE is available on the NSF.gov website. https://new.nsf.gov/sbe.

**Directorate for STEM Education (EDU):** EDU will consider proposals that provide support for graduate students pursuing a master's or doctoral degree in STEM education. This includes degrees offered within STEM disciplines that involve discipline-based education research. More information about EDU is available on the NSF.gov website. https://new.nsf.gov/edu.

**Directorate for Technology, Innovation and Partnerships (TIP):** TIP will consider proposals that engage Fellows in graduate curricula designed in collaboration with non-academic employers to address skills gaps in the ten key
technology areas that are described in Sec. 10387 of the CHIPS and Science Act and correspondingly the focus of the Directorate. NSF recognizes that each of these key technology areas spans multiple fields of study and expects graduate program offerings to demonstrate such multi-disciplinary training. Graduate programs eligible for support must incorporate experiential learning and problem-solving components beyond traditional research activities typically expected of graduate programs in STEM fields. Industry- and policy-based experiential learning opportunities are strongly preferred. Proposals considered for funding by TIP must indicate how specific non-academic employers have been engaged in the development or modification of relevant graduate curricula. More information about TIP is available on the NSF.gov website. https://new.nsf.gov/tip/latest.

Office of Integrative Activities (OIA): The Established Program to Stimulate Competitive Research (EPSCoR) in OIA will consider proposals that provide support for graduate students pursuing a master's or doctoral degree in a STEM discipline aligned with an EPSCoR Research Infrastructure Improvement (RII) award within the jurisdiction. These submissions should focus on leveraging existing NSF EPSCoR RII investments to improve research, education, broadening participation, and economic development in the jurisdiction. Proposals should identify graduate student experiences that synergize with the currently funded RII project(s) in ways that engage in academic, government, and private sector partners, as appropriate. Currently funded RII projects may be found on NSF’s website at this link, by exploring the websites of EPSCoR jurisdictions, or by contacting an NSF EPSCoR RII Program Director.

Institutional Responsibilities

Proposing institutions must be prepared to provide NSF EPSCoR Graduate Fellows with a high-quality graduate experience in the discipline(s) in which each Fellow will pursue a graduate degree. Institutions must provide clear evidence of an existing graduate program in the discipline(s) relevant to the proposal. Only proposals focusing on one or more of the topics or areas described above will be considered for funding. Other proposals will be returned without review. See the Full Proposal Preparation Instructions section for more information about the expected contents of a proposal.

Institutions receiving awards through this solicitation will be required to use the NSF Education and Training Application (ETAP) system to recruit prospective Fellows. Institutions may recruit potential Fellows from the pool of highly qualified individuals who received Honorable Mention recognition from the NSF GRFP no more than three years prior to the proposal submission deadline.

NSF conducts ongoing program monitoring and evaluation to determine how effective its programs are at achieving their goals. Proposing institutions must present a plan for ensuring that all project participants, including employees of the proposing institution, as well as supported Fellows, will comply with NSF’s requests for information related to program-level evaluation, including requests to participate in surveys, interviews, and other methods for collecting evaluation data. Prospective Fellows offered funding through this program must be informed of and agree to this obligation prior to receiving support.

Proposing institutions should note that for this solicitation, a graduate student Mentoring Plan, prepared in accordance with the guidance contained in the PAPPG, must be included in the Other Supplementary Documents section of the proposal. In submission of each annual and final annual project report, the PI or co-PI is certifying that every graduate student receiving substantial support through this program had an Individual Development Plan (IDP) during the reporting period. NSF defines “substantial support” as support provided to an individual that is equal to one person month or more during the annual reporting period for the NSF award. Other requirements in the PAPPG that apply to all NSF research proposals and awards apply to EGFP proposals and awards.

Fellow Responsibilities

Prospective Fellows will connect with institutions offering fellowships via the NSF Education and Training Application (ETAP) system. In addition to completing an ETAP application, Fellows will also be required to submit any additional documentation required by the institution(s) offering fellowships to be considered for support. Prospective Fellows must have received the distinction of Honorable Mention from the NSF GRFP program no more than three years prior to the deadline date for the institution's proposal to the EGFP program. Fellows can apply to graduate programs that differ from those listed as field or sub-field in their previous GRFP application. To be eligible for ongoing support, fellowship
recipients must be enrolled full-time in an eligible master’s or doctoral degree-granting program and make ongoing satisfactory progress toward completion of their graduate degree. Fellows must remain enrolled in a degree program in the same discipline as when they were admitted by institution. Full-time enrollment must be certified by the awardee institution’s registrar (or equivalent). Fellowships are granted by the institution and not portable to another institution. If a Fellow transfers to another institution, the Fellow will forfeit continued access to the fellowship.

III. Award Information

$17,000,000 available annually. Number of awards is approximate and subject to the availability of funds and quality of the proposals submitted.

IV. Eligibility Information

Who May Submit Proposals:

Proposals may only be submitted by the following:

- Institutions of Higher Education (IHEs) that are accredited, have a campus located in an eligible EPSCoR jurisdiction at the time of proposal submission, and offer at least one master's and/or doctoral degree in a STEM discipline aligned with the topical focus area(s) described in this solicitation.

Who May Serve as PI:

As of the submission deadline, PIs, co-PIs, or other Senior/Key personnel must hold primary, full-time, paid, and continuing appointments at an institution that is eligible to submit in response to this solicitation (see above), with exceptions granted for family or medical leave, as determined by the submitting institution. Individuals holding term-limited appointments are not eligible.

Limit on Number of Proposals per Organization: 1

Each submitting organization is limited to one proposal per annual competition. Potential PIs are advised to contact their institutional office of research (or equivalent) regarding processes used to select proposals for submission.

Institutions interested in supporting Fellows in multiple topical focus areas must submit a single proposal that addresses all topical areas of interest.

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

An individual must not participate as PI, Co-PI, or Senior/Key Personnel on more than one proposal submitted for the same deadline.

Additional Eligibility Info:

A proposing institution must provide clear evidence of an existing graduate program in the discipline(s) relevant to the proposal.

All proposals must include a Letter of Collaboration from the submitting institution’s Graduate School Dean, or from a person with similar responsibility and authority for the graduate programs that are relevant to the proposal.

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.

**The following instructions are specific to proposals submitted to the EPSCoR Graduate Fellowship Program and supplement the NSF PAPPG.**

- Separately submitted collaborative proposals will not be accepted and will be returned without review.

**The following information is in addition to the guidance provided by the NSF PAPPG, which applies to all proposals submitted to NSF.**

**Cover Sheet:** For planning purposes, use March 15 of the upcoming year as the award start date.

**Project Summary:** (1-page limit): The first sentence of the Project Summary should clearly identify the NSF Directorate(s) or Office that provides funding for research in the disciplinary area and topic that are the focus of the proposal and the number of graduate students for whom Fellowships will be provided. In the case that the proposal focuses on areas that are associated with more than one NSF Directorate or Office, the number of graduate students should be disaggregated by Directorate or Office. The remainder of the Project Summary should describe the proposed project. See the NSF PAPPG for additional instructions. The summary should be written in a manner that will be informative to STEM professionals working in related fields and understandable to a scientifically literate lay reader.

**Project Description:** The Project Description may not exceed 15 pages, including tables and illustrations.

Each proposal should provide an overview of the educational ecosystem represented by the proposing institution. This may include topics such as size, setting, areas of emphasis, number of undergraduate and graduate degree programs, collaborations with other educational institutions, connections to businesses and industry, or other topics that the proposal authors feel are relevant.

Each proposal must explicitly identify the STEM or STEM education research area(s) for which Fellows are sought, and the number of students for whom Fellowships will be provided (disaggregated by research area as appropriate).

For each relevant discipline, the proposal must provide credible evidence that the institution has the capacity to serve the number of students for whom support is requested. In addition, the institution must demonstrate in the proposal that
they have the capability to provide students with a high-quality graduate experience. This means that, at a minimum, the graduate program(s) for which students are sought:

- already exists;
- is supported by a sufficient number of faculty who are willing to advise the students;
- possesses or has access to the facilities and tools necessary to support high-quality research and mentoring in the relevant disciplines;
- is within an institution that has a track record of effectively recruiting, retaining, and graduating STEM or STEM education graduate students and supporting them in finding employment after graduation;
- is within an institution that has demonstrable experience on-boarding new STEM or STEM education research graduate students and promoting their sense of belonging by providing an introduction to the local community, ensuring awareness and access to resources available at the school, and facilitating peer mentoring and support among graduate students; and
- is within an institution that has experience providing professional development for STEM or STEM education graduate students and mentoring them to successful completion of the graduate degrees.

Most of the project description portion of the proposal should focus on providing a complete description of the characteristics of the graduate program that selected Fellows will experience, from matriculation through graduation. Alignment of the graduate program with one or more of those specified by the Directorates/Office collaborating to issue this solicitation must be clearly articulated. Discussion of the topics shown as bullet points in the preceding paragraph must be included. Additionally, each proposal should describe compelling characteristics of the relevant graduate degree program that can be highlighted as evidence of quality. Each proposal should also summarize what constitutes "satisfactory progress" toward completion of a STEM or STEM education research graduate degree in the relevant discipline(s) and describe how students are guided to make continuous satisfactory progress throughout their graduate program. The process by which students who are not making satisfactory progress are notified, given opportunities to improve, and, if no improvement occurs, are dismissed from the program(s) should be addressed.

Additional information may also be included as deemed appropriate in judging the overall potential of the institution to provide Fellows with a high-quality graduate experience. For example, proposals may include information about services and other resources offered to graduate students by relevant departments and/or colleges (or equivalent) and the institution. Proposal authors are encouraged to review the information in Section VI of this Solicitation (NSF Proposal Processing and Review Criteria), including the additional solicitation-specific review criteria.

The proposal must include a commitment to collaborate with NSF to prepare and disseminate institutional graduate admission resources via the NSF Education and Training Application (ETAP) system. A description of the process by which prospective Fellows’ information submitted via ETAP will be reviewed, the additional application materials that will be requested from the prospective Fellows, and the process for making final decisions regarding which applicants will be offered fellowships, must be included. Proposing institutions are strongly encouraged to make the application process as simple and straightforward as possible for prospective Fellows because these individuals have already been pre-screened and received an Honorable Mention as a result of the NSF GRFP application and review process.

**Other Supplementary Documents:** All proposals must include the following two items, which must be uploaded into the Other Supplementary Documents section of the proposal:

- a Letter of Collaboration from the submitting institution's Graduate School Dean, or from a person with similar responsibility and authority for the graduate programs that are relevant to the proposal; and
- a graduate student Mentoring Plan applicable to all Fellows at the proposing institution. Proposers should follow the instruction for preparing and submitting a Mentoring Plan contained within the PAPPG.

**B. Budgetary Information**

Cost Sharing:
Inclusion of voluntary committed cost sharing is prohibited.

**Other Budgetary Limitations:**

Awards will support up to three years of stipends and associated cost-of-education allowances for Fellows. Stipends should be budgeted at the level of $37,000 per student per year and cost-of-education allowances should be budgeted at the level of $16,000 per student per fellowship year. The cost-of-education allowance provides payment in lieu of tuition and mandatory fees to the institution. A total of three years of support must be budgeted per student. Each student must be given up to five years to utilize the support. Both stipends and cost-of-education allowances must be listed as Participant Support Costs in the NSF proposal budget.

During the years in which students are receiving fellowship support, the institution is required to exempt Fellows from paying tuition and fees normally charged to students of similar academic standing, unless such charges are optional or are refundable (i.e., the institution is responsible for tuition and required fees in excess of the cost-of-education allowance). Acceptance of fellowship funds by the awardee institution indicates acceptance of and adherence to these and other terms and conditions as specified in this solicitation and the PAPPG. The cost-of-education allowance is provided to institutions in lieu of tuition and mandatory fees and it can be used for any purpose that the institution would normally use the revenue it collects via tuition and fees.

Each proposal should develop a three-year budget for the project in which all the funds requested are evenly distributed across the three project years. If the project is on track, the funding requested will be provided to each awardee institution as continuing grant increments during the three project years. The institution can use all the funding for Fellows during those years, or, if one or more Fellows chooses to defer their fellowship, the institution may request one or more no-cost extensions, as necessary, to allow each Fellow up to five years to utilize their three years of fellowship funding. All Fellows' requests for deferral must be approved by the institution. Awardee institutions' requests for no-cost extensions must be documented and approved as described in the PAPPG.

To reiterate, each Fellow will receive up to three years of support and that support may be utilized at any time during a five-year period. A Fellow's cost-of-education allowance, which is to be used at the discretion of the institution, can only be charged to the award during the same year that the Fellow receives a stipend.

Fellows receiving fellowship support must have full access to all resources and other benefits available at the institution to other graduate students supported at the “full-time” support level (normally 20 hours per week average expected commitment) as research or teaching assistants. Once a Fellow matriculates at an institution in a discipline supported by the institution's EGFP award, the Fellow cannot change their field of study to pursue a degree for which the institution has not received EGFP support.

If, for any reason, a supported Fellow leaves an institution, the institution should contact the cognizant NSF program officer. The potential next steps are: (1) the awardee institution recruits a new Fellow; or (2) NSF reduces the value of any upcoming continuing grant increments to reflect the reduction in number of Fellows supported by the institution and/or arranges for the return of some portion of the funds previously provided to the institution by NSF. If the institution receives permission from NSF to recruit a new Fellow and does not have sufficient funds remaining to provide a full three years of support to the incoming Fellow, they may request a supplement to their award. The availability of supplements is dependent upon the availability of funds at NSF. No commitments of NSF-provided funding should be made to incoming replacement Fellows beyond what the host institution is able to provide with the funds remaining in the project budget (including awarded supplements) at the time the commitment is being made. New Fellows must have received Honorable Mention from the NSF GRFP no more than three years prior to the date of submission of the institution’s EGFP proposal. New Fellows must connect with the institution via NSF’s ETAP system.

Support for no fewer than three Fellows can be requested in any proposal. This requirement does not apply to supplement requests.

**C. Due Dates**

- **Full Proposal Deadline(s)** (due by 5 p.m. submitting organization's local time):
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?_nfb=true&_pageLabel=research_node_display&_nodePath=/researchGov/Service/Desktop/ProposalPreparation
For Research.gov user support, call the Research.gov Help Desk at 1-800-381-1532 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/applicants. 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.


When submitting via Grants.gov, NSF strongly recommends applicants initiate proposal submission at least five business days in advance of a deadline to allow adequate time to address NSF compliance errors and resubmissions by 5:00 p.m. submitting organization’s local time on the deadline. Please note that some errors cannot be corrected in Grants.gov. Once a proposal passes pre-checks but fails any post-check, an applicant can only correct and submit the in-progress proposal in Research.gov.

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 and Sharing Plan and the Mentoring Plan, as appropriate.

Additional Solicitation Specific Review Criteria

In addition to the standard NSF Intellectual Merit and Broader Impacts Criteria, reviewers will be required to carefully consider the extent to which the following aspects are addressed in proposals:

- The capacity and exemplary characteristics of existing graduate education and research programs in the discipline(s) relevant to the proposed project at the proposing institution.
- The effectiveness of graduate education and mentoring programs in the relevant discipline(s) at the proposing institution in retaining students to degree completion and preparing them for success in their future careers.
- The extent to which the proposed project will enhance the capacity for research and/or contribute to innovation in the EPSCoR jurisdiction.

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 proposers whether their proposals have been declined or recommended for funding within six months. Large or particularly complex proposals or proposals from new recipients 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 nspubs@nsf.gov.


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 infrastructure projects under 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.

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 annual project report, and a project outcomes report for the general public.

Failure to provide the required annual or final annual 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 annual 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.


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:

- EGFP: Program Contact, telephone: (703) 292-2440, email: egfp@nsf.gov
- Narcrisha S. Norman, telephone: (703) 292-7965, email: nnorman@nsf.gov
- Rebecca Shearman, telephone: (703) 292-7403, email: rshearman@nsf.gov
- Jeanne R. Small, telephone: (703) 292-8623, email: jsmall@nsf.gov

For questions related to the use of NSF systems contact:

- NSF Help Desk: 1-800-381-1532
- 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](https://www.nsf.gov).

- **Location:** 2415 Eisenhower Avenue, Alexandria, VA 22314
- **For General Information** (NSF Information Center): (703) 292-5111
- **TDD (for the hearing-impaired):** (703) 292-5090
- **To Order Publications or Forms:**
  - Send an e-mail to: nsfpubs@nsf.gov
  - or telephone: (703) 292-8134
- **To Locate NSF Employees:** (703) 292-5111

**Privacy Act And Public Burden Statements**

The information requested on proposal forms and project reports is solicited under the authority of the National Science Foundation Act of 1950, as amended. The information on proposal forms will be used in connection with the selection of qualified proposals; and project reports submitted by proposers 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 proposers 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:

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