

NSF 25-514: NSF Scholarships in Science, Technology, Engineering, and Mathematics Program (S-STEM)

Program Solicitation

Document Information

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U.S. National Science Foundation

Directorate for STEM Education

Division of Undergraduate Education

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

March 04, 2025

First Tuesday in March, Annually Thereafter



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Important Information And Revision Notes

The NSF Scholarships in Science, Technology, Engineering, and Mathematics (S-STEM) program solicitation has been revised for the FY2025 competition. Prospective Principal Investigators are encouraged to read the solicitation carefully. Changes and important information affecting **Track 1** proposals:

- The maximum award amount has been increased to up to \$2,000,000 for up to 6 years.
- The eligibility requirement has changed. Institutions submitting a Track 1 proposal may not have had an active Science, Technology, Engineering, and Mathematics Talent Expansion Program (STEP) or S-STEM award in the past 5 years.
- Track 1 proposals must include an initial planning/capacity building period during which scholarships are not made to students. Scholarships should be awarded to students after the conclusion of the planning/capacity building period.
- For Track 1 proposals, at least 50% of all funds must be provided solely as pure scholarships to cover the cost of attendance and entered as Participant Support – Stipends (Line F1) on the NSF budget form.

Changes and important information affecting All proposals:

- A one-page analysis of job prospects is no longer required and should not be included as a Supplementary Document.
- The Collaborative Planning Grants track has been removed from the S-STEM program. Instead, interested parties are encouraged to consider developing a Planning proposal as described in Section II.B.1., Program Description.

For proposals with a duration of six years, Current and Pending (Other) Support should be reported for the first five years of the project. In addition, proposals requesting a six-year duration must be submitted via Research.gov because Grants.gov will not accommodate a six-year budget.

The S-STEM program team will host webinars in which key features and expectations of the S-STEM program will be discussed. Information regarding the webinars will be posted to the S-STEM program web page:

<https://new.nsf.gov/funding/opportunities/nsf-scholarships-science-technology-engineering>.

Active Dear Colleague Letters associated with the S-STEM Program.

Please check that the DCL is still active and contact a S-STEM Program Director prior to submission.

- DCL 22-120, Enhancing Engineering Technology and Advanced Semiconductor Manufacturing Technician Education (ETSTE): https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf22120

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:

NSF Scholarships in Science, Technology, Engineering, and Mathematics Program (S-STEM)

Synopsis of Program:

The main goal of the S-STEM program is to enable academically talented, low-income students to pursue successful careers in promising STEM fields. Ultimately, the S-STEM program seeks to increase the number of academically promising low-income students who graduate with an S-STEM eligible degree and contribute to the American innovation economy with their STEM knowledge. Recognizing that financial aid alone cannot increase retention and graduation in STEM, the program provides awards to institutions of higher education (IHEs) not only to fund scholarships, but also to adapt, implement, and study evidence-based curricular and co-curricular^[a] activities that have been shown to be effective in supporting recruitment, retention, transfer (if appropriate), student success, academic/career pathways, and graduation in STEM.

To be eligible, scholars must be domestic low-income students with academic ability, talent, or potential and demonstrated unmet financial need who are enrolled in an associate, baccalaureate, or graduate degree program in an S-STEM eligible discipline. Proposers must provide an analysis that articulates the characteristics and academic needs of the population of students they are trying to serve. NSF is particularly interested in supporting the attainment of degrees in fields identified as critical needs for the Nation. It is up to the proposer to make a compelling case that such a field serves a critical need in the United States.

^[a] an activity at a school or college pursued in addition to the normal course of study.

S-STEM Eligible Degree Programs

Associate of Arts, Associate of Science, Associate of Engineering, and Associate of Applied Science

Bachelor of Arts, Bachelor of Science, Bachelor of Engineering and Bachelor of Applied Science

Master of Arts, Master of Science, and Master of Engineering

Doctoral (Ph.D. or other comparable doctoral degree)

S-STEM Eligible Disciplines

Disciplinary fields in which research is funded by NSF, including technology fields associated with the S-STEM-eligible disciplines (e.g., biotechnology, chemical technology, engineering technology, information technology, etc.).

The following degrees and disciplines are **excluded**:

- Clinical degree programs, including medical degrees, nursing, veterinary medicine, pharmacy, physical therapy, and others not funded by NSF, are ineligible degrees.

- Programs for STEM teacher certification or licensure currently covered by the Robert Noyce Teacher Scholarship program (NOYCE) are ineligible for S-STEM funding.
- Business school programs that lead to Bachelor of Arts or Science in Business Administration degrees (BABA/BSBA/BBA) are not eligible for S-STEM funding.
- Masters and Doctoral degrees in Business Administration are also excluded.

Proposers are strongly encouraged to contact Program Officers before submitting a proposal if they have questions concerning degree or disciplinary eligibility.

The S-STEM program particularly encourages proposals from 2-year institutions, Minority Serving Institutions (MSIs), predominately undergraduate institutions, and urban, suburban, and rural public institutions.

Broadening Participation In STEM

NSF recognizes the unique lived experiences of individuals from communities that are underrepresented and/or under-served 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.

- Thomas D. Kim, Lead, telephone: (703) 292-4458, email: tkim@nsf.gov
- Michael J. Ferrara, Co-Lead, telephone: (703) 292-2635, email: mferrara@nsf.gov
- Olivia S. Long, telephone: (703) 292-7897, email: olong@nsf.gov
- Nasser Alaraje, telephone: (703) 292-8063, email: nalaraje@nsf.gov
- Karen Crosby, telephone: (703) 292-2124, email: kcrosby@nsf.gov
- Christine Delahanty, telephone: (703) 292-8492, email: cdelahan@nsf.gov

- Connie K. Della-Piana, telephone: (703) 292-5309, email: cdellapi@nsf.gov
- Abiodun Ilumoka, telephone: (703) 292-2703, email: ailumoka@nsf.gov
- Kalyn Owens, telephone: (703) 292-4615, email: kowens@nsf.gov
- Monisha Pulimood, telephone: (703) 292-4257, email: spulimoo@nsf.gov
- Josephine J. Rodriguez, telephone: (703)292-2986, email: jrodrigu@nsf.gov
- Keith A. Sverdrup, telephone: (703) 292-4671, email: ksverdru@nsf.gov
- Paul Tymann, telephone: (703) 292-2832, email: ptymann@nsf.gov
- Gordon E. Uno, telephone: (703) 292-2574, email: geuno@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: 40 to 60 subject to availability of funds.

Anticipated Funding Amount: \$80,000,000 to \$120,000,000

Awards for Track 1 (Institutional Capacity Building) projects may not exceed \$2,000,000 total for a maximum duration of 6 years.

Awards for Track 2 (Implementation Projects) projects may not exceed \$2,000,000 total for a maximum duration of 6 years.

Awards for Track 3 (Inter-institutional Consortia) projects may not exceed \$5,000,000 total for a maximum duration of 6 years.

Eligibility Information

Who May Submit Proposals:

Proposals may only be submitted by the following:

- Institutions of Higher Education (IHEs): Two- and four-year IHEs (including community colleges) accredited in, and having a campus located in the U.S., acting on behalf of their faculty members. Special Instructions for International Branch Campuses of US IHEs: If the proposal includes funding to be provided to an international branch campus of a US institution of higher education (including through use of sub-awards and consultant arrangements), the proposer must explain the benefit(s) to the project of performance at the international branch campus, and justify why the project activities cannot be performed at the US campus.

Who May Serve as PI:

For Track 1 and Track 2 proposals, the Principal Investigator must be (a) a faculty member currently teaching in an S-STEM eligible discipline, or (b) an academic administrator who has taught in one of the eligible disciplines and can dedicate the time necessary to assure project success. Projects involving more than one department within an institution are eligible, but a single Principal Investigator must accept overall management and leadership responsibility. Faculty from all departments involved must have roles in the project as either Co-Principal Investigators, other senior/key personnel, or scholar mentors. Other members of the S-STEM project senior leadership and management team may be listed as Co-Principal Investigators.

For Track 3 (Inter-institutional Consortia) projects, the Principal Investigator must be (a) a faculty member currently teaching in an S-STEM eligible discipline, (b) an academic administrator who has taught an S-STEM eligible discipline, or (c) a non-teaching institutional, educational, or social science researcher investigating questions related to low-income student success. The Principal Investigator must be able to provide the leadership and time required to ensure the success of the project. Track 3 consortium proposals must have a Principal Investigator who accepts overall management and leadership responsibility across all consortia members. Faculty from all institutions and departments involved need to have roles in the project as either Co-Principal investigators, other senior/key personnel, or scholar mentors. Other members of the S-STEM project senior leadership and management team may be listed as Co-Principal Investigators or as Principal Investigators on collaborative research proposals.

Limit on Number of Proposals per Organization: 2

For a given S-STEM deadline, an institution may submit up to two proposals in which it will be directly involved in providing scholarships. Multiple proposals from an institution must not overlap with regard to S-STEM eligible disciplines. See Additional Eligibility Information below for more details (see IV. Eligibility Information).

Institutions with a current S-STEM award should wait at least until the end of the third year of execution of their current award before submitting a new Track 2 or Track 3 S-STEM proposal focused on students pursuing degrees in the same discipline(s).

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

There are no restrictions or limits.

Proposal Preparation and Submission Instructions

A. Proposal Preparation Instructions

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

March 04, 2025

First Tuesday in March, 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:

Standard NSF award conditions apply.

Reporting Requirements:

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

I. Introduction

To meet the national need for a globally competitive STEM workforce, the National Science Foundation (NSF) established the Scholarships in Science, Technology, Engineering, and Mathematics (S-STEM) program in accordance with the American Competitiveness and Workforce Improvement Act of 1998 (P.L. 105-227 and as reauthorized by P.L. 105-313 in 2000, P.L. 108-447 in 2004, and P.L. 117-167 in 2022). The Act provided funds for NSF to create a mechanism whereby the hiring of foreign workers on H-1B visas would help address the long-term workforce needs of the United States in technology-intensive sectors. The Act assessed a fee on each visa petition on behalf of an individual being hired by a US employer to fund scholarships for educating and training American post-secondary students who would in turn become members of the workforce in these high-demand sectors. An important feature of the Act was to specify that these scholarships should be provided to academically promising low-income students to boost economic mobility for as broad a population as possible.

At its core, the S-STEM program seeks to increase the success of academically talented, domestic low-income students with demonstrated financial need who are pursuing associate, baccalaureate, or graduate degrees in eligible disciplines of strategic importance for the Nation. Initially, scholarships were only provided for students in math, engineering, and computer science. Later legislation authorized NSF to expand the eligible disciplines at the discretion of the NSF director. Currently, eligible degrees include those in all fields funded by NSF as long as there is demand in the regional or national workforce for professionals with those degrees, potential to address the long-term workforce needs of the United States, or other evidence of positive job prospects within the STEM workforce upon graduation with an undergraduate or graduate degree.

II. Program Description

A. Overview

The S-STEM program provides IHEs with funds for scholarships to support academically talented, domestic low-income students with demonstrated financial need to enter the US workforce following completion of associate, baccalaureate, or graduate degrees in S-STEM eligible disciplines. Funds also enable IHEs to establish and assess evidence-based curricular and co-curricular activities and supports. See Section IV.B.2 for details on some common elements of all Track 1, 2, and 3 proposals and Section V.A.11 for additional details on required supplementary documents.

S-STEM scholarship awards facilitate the establishment of infrastructure and collaborations to: (1) provide scholarships to academically promising, domestic low-income students with demonstrated financial need pursuing a degree in an eligible S-STEM eligible discipline; (2) adapt and implement evidence-based curricular and co-curricular activities to support S-STEM scholars in ways that align with institutional context and available resources, taking into account scholars' strengths, needs, and realities; (3) increase retention, student success, and graduation of these NSF S-STEM scholars in STEM; and (4) disseminate effective outcomes, supports and interventions undertaken by the project.

B. Description of Program Tracks

1. S-STEM Tracks

Track 1 (Institutional Capacity Building)

The aim of Track 1 is to build capacity and develop infrastructure to support low-income STEM students at institutions that have not had a recent award from the S-STEM program. Institutions without active S-STEM or STEP funding in the 5 years prior to the submission deadline may submit to this track. The entire institution is ineligible if any program, department, or school within the institution has had an active STEP or S-STEM award in the past 5 years. Track 1 proposals may include a focus on student transfer or progression to graduate school for its scholars' benchmark of success.

Budget Guidelines: Track 1 proposals may request up to \$2,000,000 total for up to 6 years. In Track 1 proposals, at least 50% of all funds must be provided solely as pure scholarships to cover the cost of attendance and entered as Participant Support – Stipends (Line F1) on the NSF budget form. Support for all non-scholarship costs must be included in the remaining portion of the budget. See additional budget guidelines in section V.A.6.

Project Leadership and Management Team: Track 1 projects must be led by a PI who is (a) a faculty member currently teaching in one of the S-STEM eligible disciplines being pursued by the targeted scholars, or (b) an academic administrator who has taught in one of the eligible disciplines and can dedicate the time necessary to assure project success. The leadership and management team should also include a STEM administrator at the level of department head or above.

Faculty members from all departments or academic units involved should have a role in the project either as Co-PIs, other senior/key personnel, or scholar mentors. The project team could include, if appropriate, a project manager to support the leadership and management team in areas where individual or institutional resources may not be available.

Initial Planning Period: Track 1 proposals must detail an initial planning/self-study period to further develop institutional capacity before awarding scholarships. Examples of activities during this planning period include: piloting strategies to effectively solicit scholarship applications, curricular, or co-curricular activities; providing professional development for mentors or other individuals that will support scholars; or analyzing and revising institutional policies or practices that might inhibit the success of low-income STEM students. This planning period should last between 6 and 12 months and should be described in a supplemental document of no more than 4 pages. This document should include defined activities, a clear timeline, and designated roles for members of the project leadership team in the planning process.

Track 2 (Implementation Projects)

Any IHE (as described under the eligibility section) can submit a Track 2 proposal, regardless of prior S-STEM or STEP awards.

Budget Guidelines: Proposals for Track 2 may request up to \$2,000,000 total for up to 6 years. In all Track 2 proposals, at least 60% of all funds must be provided solely as pure scholarships to cover the cost of attendance and entered as Participant Support – Stipends (Line F1) on the NSF budget form. Support for all non-scholarship costs must be included in the remaining portion of the budget. See additional budget guidelines in section V.A.6.

Project Leadership and Management Team: Track 2 projects must be led by a PI who is (a) a faculty member currently teaching in one of the S-STEM eligible disciplines being pursued by the targeted scholars, or (b) an academic administrator who has taught in one of the eligible disciplines and can dedicate the time necessary to assure project success. The leadership and management team should also include a STEM administrator at the level of department head or above.

Faculty members from all departments or academic units involved should have a role in the project either as Co-PIs, other senior/key personnel, or scholar mentors. The project team could include, if appropriate, a project manager to support the leadership and management team in areas where individual or institutional resources may not be available.

Track 3 (Inter-institutional Consortia)

Track 3 projects support multi-institutional collaborations that focus on a common interest or challenge. Inter-institutional Consortia projects represent diverse collaborations, including partnerships between 2-year colleges and 4-year colleges and universities, between 4-year colleges and graduate programs, or between comparable institutions looking to implement and study parallel interventions. For example, a collaboration among community colleges and four-year institutions may focus on issues associated with successful transfer of low-income students from 2-year institutions to 4-year programs. In another example, a multi-institutional collaboration may focus on factors that contribute to the success or degree attainment of domestic, low-income students in different types of institutions.

Proposals with a strong focus on the transfer or advancement of students from one educational level to another should collaborate with appropriate institutional partners. For example, proposals focused on the transfer of students from 2-year institutions to 4-year institutions should include faculty and administrators from 2-year institutions and 4-year institutions in the leadership team; likewise, proposals focusing on the advancement of undergraduate students at predominately undergraduate institutions to graduate programs should include institutions, administrators, and Co-PIs representing both the undergraduate programs and the receiving graduate programs.

Track 3 projects have similar aims as Track 1 and 2 projects but seek to achieve these aims at a large scale by leveraging multi-institutional efforts and infrastructure. In addition to the expectations stated below in section II.B.2 for all tracks, Track 3 projects are also expected to:

- Establish an authentic, strong, and mutually beneficial collaboration across all institutions involved in the consortia, providing comparable benefits to all institutions in terms of number of scholarships as well as in the infrastructure established to serve low-income students.
- Establish strong technical assistance and processes that support and manage project activities across institutions involved in the collaborative effort.
- Engage in high-quality educational or social science research to advance understanding of how to adapt, implement, and scale up effective evidence-based programs and practices designed to foster positive outcomes for low-income students in STEM.

NSF does not favor a particular research design over others. The alignment of the chosen research methods and approaches with the research goals of the project should be fully explained in the proposal. Practically speaking, the goal of S-STEM is to support academically talented, low-income students with scholarship support covering their unmet need, up to the maximum allowable scholarship amount (whatever is less). Projects are strongly discouraged from allowing a desired enrollment size to play a role in the determination of the size of awarded scholarships.

Track 3 projects are managed by leadership and management teams composed of faculty members who are currently teaching in an S-STEM eligible discipline(s), STEM administrators, and non-teaching institutional, educational, or social science researchers. The PI of Track 3 proposals must be either (a) a faculty member currently teaching in one of the S-STEM eligible disciplines, (b) a STEM administrator (department head or above), or (c) a non-teaching researcher whose expertise is in institutional, educational, or social science research in higher education. Key faculty from all the institutions and disciplines involved need to be included in the leadership team and/or senior/key personnel. The lead PI needs to demonstrate the capacity, experience, and resources needed to manage a complex, large-scale project and the necessary time to dedicate to assure project success.

Track 3 proposals may request up to \$5 million total for up to 6 years. In all Track 3 proposals, at least 60% of all funds must be provided solely as pure scholarships to cover the cost of attendance and entered as Participant Support – Stipends (Line F1) on the NSF budget form. Support for all non-scholarship costs must be included in the remaining portion of the budget. See additional budget guidelines in section V.A.6.

Proposers should be aware that Track 3 projects will be formally reviewed by NSF during their third year to determine whether satisfactory progress has been made, with continued funding contingent on the result of the third-year review. See section VII.C on reporting requirements.

Planning Proposals

Planning proposals may be submitted at any time following consultation with and consent of an S-STEM Program Officer. Planning Proposals should allow institutions to gather data, assess the needs of low-income students in the local context, design or pilot student support mechanisms, create or strengthen partnerships, or otherwise prepare for a Track 1, 2, or 3 submission. Information about preparing Planning proposals is contained in PAPPG Chapter II.F.

Conferences

Proposals for conferences addressing important needs within the S-STEM community may be submitted at any time following consultation with an S-STEM program officer. Conference proposals that address effective student supports for low-income STEM students, professional development of S-STEM project personnel, and research collaborations of educational researchers and disciplinary scientists are especially encouraged. Information about preparing Conference proposals is contained in PAPPG Chapter II.F.

2. Common Elements of Track 1, Track 2 and Track 3 proposals

The following principles and expectations apply to submissions to Track 1 (Institutional Capacity Building), Track 2 (Implementation Projects), and Track 3 (Inter-institutional Consortia).

Scholar Eligibility and Selection Criteria: All students meeting the institutional definition of low-income status and enrolled in degree programs listed in the proposal should receive fair consideration for S-STEM funding based solely on their academic talent and potential. Interest in specific subdisciplines, intention to participate in project activities, plans for future graduate study, and other similar criteria are not indicators of talent and cannot be used to select scholarship recipients.

Membership in groups based on a specific demographic or shared experience (e.g., first-generation college attendee) is also not permitted as a selection criterion. Proposers may recognize, however, that certain populations of students are overrepresented in the pool of prospective scholars or may benefit from specific curricular or co-curricular activities proposed. In this case, the proposal may include targeted recruiting plans to encourage applications from these students. Such efforts will allow the project to leverage the full spectrum of talented, low-income students, which helps to broaden participation, increase the number of US STEM degree recipients, and grow the domestic STEM workforce.

See Section IV. Additional Eligibility Information, B. Scholarship Recipients, for additional details for both undergraduate and graduate students

Evidence-based, context-specific interventions must be linked to low-income student needs: All projects must build their project on needs analyses specific to the targeted population of low-income students in the proposed disciplines. See Section V.A.4.a. for additional information on how to establish student needs.

Scholar Cohorts and Faculty Mentoring: Educational research has established the importance of mentoring and cohort formation for low-income students. These efforts provide important touchpoints for scholars that can foster a sense of belonging and provide academic support. To this end, IHEs are expected to develop, support, and maintain S-STEM scholar cohorts and provide each scholar with at least one faculty mentor. Cohorts should be formed in a way to enable scholars to support each other academically and socially and should reflect each institution's local context. Proposals that plan to support a diverse collection of disciplines should explicitly demonstrate how cohorts will be maintained. Proposals should also ensure that there are enough faculty mentors with sufficient expertise to provide support to scholars within any proposed discipline or major. Plans for faculty mentoring of graduate student scholars should be described in the Project Description and can be referenced in the proposal Mentoring Plan.

Involvement of Office of Financial Aid and Other Campus Partners: Each institution that will award scholarships must submit a letter from their respective Office of Financial Aid certifying the Office's understanding of the guidelines and

requirements of the S-STEM program, in particular, that S-STEM scholarships must be "last dollar scholarships", i.e., intended to be paid after all other grants and scholarships (but not loans or work-study awards) for which the student qualifies have been awarded. This letter must provide the institutional definition of low income, affirm that scholars will meet its definition of low income, and commit to supporting the project as described in the proposal if awarded.

Internal partnerships with other institutional offices or departments may be presented via separate letters of commitment. Examples of such partnering units include residential life, student services, tutoring services, or institutional research.

Determination of Scholarship Amounts: S-STEM scholarship amounts are determined by the cost of attendance defined at the institutional level, which generally includes not only tuition and fees but other costs such as room and board, textbooks, transportation, laptops, etc. In all cases, the maximum duration of any scholarship is up to 5 years at each institution that an individual scholar attends or at each academic level.

The established maximum amount of an individual scholarship is \$15,000 per year for undergraduate students and \$20,000 per year for graduate students. Scholarships also may not exceed a scholar's unmet need, which is the gap between what aid has been awarded and what aid is still needed to help a student meet the cost of attendance in full. This is an individual calculation to be performed by the Office of Financial Aid.

Scholarships must cover the scholars' actual unmet need or the maximum allowable scholarship amount, whatever is less. Proposers should use institutional data to calculate an anticipated average award per scholar for budgeting purposes.

See section V.A.4.b for more details on cost of attendance, and how to calculate scholarship amounts based on each individual scholar's unmet need.

Analysis of Prospective Scholar Pool: All Track 1, 2, and 3 proposals must provide and analyze institutional data at all institutions that would award scholarships to substantiate the potential number of eligible scholars. The goal is to deduce how many available and eligible students would qualify for the scholarships at the time of proposal submission and provide evidence to justify financial and academic eligibility requirements imposed by the institution. Describing the general characteristics of the overall population of the institution's low-income students is insufficient to meet this analytical requirement.

For each proposed S-STEM eligible discipline, proposals should provide the following data for each year of study (i.e., first year, second year, etc.) **as a supplementary document** (see Section V.A.8. for additional information):

1. The number of students meeting both the institutional definition of low-income and any nominal criteria meant to estimate academic talent (e.g., GPA); and
2. The average unmet need of these same students, as calculated by the institutional Financial Aid office.

The analysis should clearly describe the calculation method used to determine the number of students who meet the income and academic criteria provided. NSF understands that this analysis must rely on current student data and hence may only serve as an estimate of the prospective pool of future scholars.

Additional participation requirements in other project activities: S-STEM projects often include enhancements such as seminars, graduate school application workshops, field trips, student-faculty interaction outside classes, research opportunities, tutoring, and internships. These valuable opportunities can be strongly encouraged but participation cannot be required of scholars or used as criteria for scholar selection or retention. The primary criteria for continued scholarship eligibility must be satisfactory progress towards a degree or successful transfer and continued determination of low-income status. Under no circumstances should the scholarship funds be structured as compensation for either work or participation in other project activities.

Knowledge Generation and Dissemination: Track 1 and Track 2 proposals require a strong evaluation plan, but do not require an additional research component. In contrast, Track 3 (Inter-institutional Consortia) proposals must include both a strong evaluation plan and a strong research component. See additional details in section V.A.4.h.

Student data collection: S-STEM projects (Track 1, 2 and 3) are required to participate in regular NSF-led data collection activities to follow student progress as specified in section VII.C of Reporting Requirements.

III. Award Information

The number and size of awards will vary depending upon the scope of projects and subject to availability of funds. Approximately \$80 - \$120 million is expected to be available annually to support approximately 40-60 new S-STEM Awards in these tracks.

Awards to support Track 1 (Institutional Capacity Building) projects may not exceed \$2,000,000 total over a maximum duration of 6 years. Awards for Track 2 (Implementation Projects) projects may not exceed \$2,000,000 total for a maximum duration of 6 years. Awards for Track 3 (Inter-institutional Consortia) projects may not exceed \$5,000,000 total for a maximum duration of 6 years. The level of funding requested should be based on the actual number of low-income students in the disciplines targeted.

IV. Eligibility Information

Who May Submit Proposals:

Proposals may only be submitted by the following:

- Institutions of Higher Education (IHEs): Two- and four-year IHEs (including community colleges) accredited in, and having a campus located in the U.S., acting on behalf of their faculty members. Special Instructions for International Branch Campuses of US IHEs: If the proposal includes funding to be provided to an international branch campus of a US institution of higher education (including through use of sub-awards and consultant arrangements), the proposer must explain the benefit(s) to the project of performance at the international branch campus, and justify why the project activities cannot be performed at the US campus.

Who May Serve as PI:

For Track 1 and Track 2 proposals, the Principal Investigator must be (a) a faculty member currently teaching in an S-STEM eligible discipline, or (b) an academic administrator who has taught in one of the eligible disciplines and can dedicate the time necessary to assure project success. Projects involving more than one department within an institution are eligible, but a single Principal Investigator must accept overall management and leadership responsibility. Faculty from all departments involved must have roles in the project as either Co-Principal Investigators, other senior/key personnel, or scholar mentors. Other members of the S-STEM project senior leadership and management team may be listed as Co-Principal Investigators.

For Track 3 (Inter-institutional Consortia) projects, the Principal Investigator must be (a) a faculty member currently teaching in an S-STEM eligible discipline, (b) an academic administrator who has taught an S-STEM eligible discipline, or (c) a non-teaching institutional, educational, or social science researcher investigating questions related to low-income student success. The Principal Investigator must be able to provide the leadership and time required to ensure the success of the project. Track 3 consortium proposals must have a Principal Investigator who accepts overall management and leadership responsibility across all consortia members. Faculty from all institutions and departments involved need to have roles in the project as either Co-Principal investigators, other senior/key personnel, or scholar mentors. Other members of the S-STEM project senior leadership and management team may be listed as Co-Principal Investigators or as Principal Investigators on collaborative research proposals.

Limit on Number of Proposals per Organization: 2

For a given S-STEM deadline, an institution may submit up to two proposals in which it will be directly involved in providing scholarships. Multiple proposals from an institution must not overlap with regard to

S-STEM eligible disciplines. See Additional Eligibility Information below for more details (see IV. Eligibility Information).

Institutions with a current S-STEM award should wait at least until the end of the third year of execution of their current award before submitting a new Track 2 or Track 3 S-STEM proposal focused on students pursuing degrees in the same discipline(s).

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

There are no restrictions or limits.

Additional Eligibility Info:

A. Institutions

An institution that is part of a larger system is considered separate for proposal submission purposes if it is geographically separate from the other campus(es) and has its own chief academic officer. The address of the place of performance on the NSF cover sheet should be different as well.

Institutions with current active S-STEM awards should not submit a new proposal focusing on the same student population until after the third year of execution has been completed and the corresponding annual report approved. For example, if in Fiscal Year 2022, an institution was awarded an S-STEM grant for undergraduate scholarships for students pursuing a BA in Mathematics, the institution should wait until Fiscal Year 2025 to submit a new S-STEM proposal that includes the same population of students.

Only institutions without active S-STEM or STEP funding in the 5 years prior to the submission deadline may submit to Track 1. The entire institution is ineligible if any program, department, or school within the institution has had an active STEP or S-STEM award in the past 5 years.

B. Scholarship Recipients

S-STEM scholarship recipients (i.e., S-STEM scholars) will be selected by the recipient institution(s), but recipients must:

- Be citizens of the United States, nationals of the United States (as defined in section 101(a) of the Immigration and Nationality Act), aliens admitted as refugees under section 207 of the Immigration and Nationality Act, or aliens lawfully admitted to the United States for permanent residence. Please note that Deferred Action for Childhood Arrivals (DACA) individuals are ineligible for support from this solicitation unless they meet the requirements listed in the first sentence of this bullet by the time of application for scholarship support;
- Be enrolled at least half-time as defined by the institution in a program leading to an associate, baccalaureate, or graduate S-STEM eligible degree in an S-STEM eligible discipline;
- Demonstrate academic ability or potential as defined by the institution;
- Be low-income. The definition of low-income must follow the institutional guidelines for income thresholds that qualify the student as low-income (for example, see eligibility requirements for the U.S. Department of Education (DOE) Pell [<https://studentaid.gov/understand-aid/types/grants/pell>] and TRIO grant [<https://www.ed.gov/about/ed-offices/ope/trio/federal-trio-programs-current-year-low-income-levels>] programs or for the U.S. Department of Housing and Urban Development (HUD) public housing program [https://www.hud.gov/topics/rental_assistance/phprog]. For graduate students, the institution should define guidelines either based on eligibility calculated similar to an undergraduate student or the establishment of the individual as independent from the student's parents and the calculation of the independent student total income. The institution's definition of low-income must be included in supplementary documents within the letter from the Financial Aid Office.

- Have demonstrated unmet financial need. Demonstrated financial need for undergraduate students is defined by the US Department of Education rules for need-based Federal financial aid Free Application for Federal Student Aid (FAFSA), or, for graduate students, it is defined as financial eligibility for Graduate Assistance in Areas of National Need (GAANN). In the case of S-STEM, institutions are required to follow the calculations in section II.B that include other grants, fellowships, and scholarships but not loans (see <https://studentaid.ed.gov/sa/fafsa/next-steps/how-calculated#need-based>). Income from potential work study should not be included in the calculation for undergraduate students. In the case of graduate students, payment for work associated with their own research can be included. Loans should not be included in calculations of unmet need for either undergraduate or graduate students.

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.

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

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

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.

Proposals requesting a six-year duration must be submitted via Research.gov because Grants.gov will not accommodate a six-year budget.

The following instructions supplement the guidance contained in the PAPPG and the NSF Grants.gov Application Guide.

1. Title

An informative title for the proposed S-STEM project must be provided on the appropriate line. Please start the title with the acronyms "S-STEM" followed by ":" and the complete project title.

2. Project Data Form

A DUE Project Data Form must be completed for all proposals. The information on this form is used to direct proposals to appropriate reviewers and to determine the characteristics of projects supported by DUE. In Research.gov, this form appears in the list of required Proposal Sections for the proposal only after the program solicitation number indicated on the cover of this document has been selected. Grants.gov users should refer to Section VI.5. of the NSF Grants.gov Application Guide for specific instructions on how to submit the DUE Project Data Form.

3. Project Summary

The Project Summary is a one-page description of the proposed project that consists of an overview, a statement on Intellectual Merit, and a statement on Broader Impacts. In the overview, provide a brief description of the S-STEM project being proposed. For Tracks 1, 2 and 3, also include the number of scholarships to be provided, the number of unique scholarship recipients, the disciplinary areas to be served by the scholarship funds, the objectives of the project, the expected retention or transfer and graduation rates, and basic information about student outreach, application processes, selection, support, and career counseling and placement services to be provided as part of this S-STEM project.

The project summary MUST explicitly address both Intellectual Merit and Broader Impacts in separate statements. See Section VI. A., Proposal Review Process, for a description of the two criteria. NSF will return without review proposals that do not address both criteria in the Project Summary.

4. Project Description

The following is a list of key components within the project description of every Track 1, 2 and 3 proposal for implementing a program outlined in the prior and following sections. The Project Description must conform to the requirements specified in the PAPPG, including the requirement for a separate section labeled "Broader Impacts."

In addition to the requirements specified in the PAPPG, the Project Description for Track 1, Track 2, and Track 3 proposals must contain the following information:

a. Project Significance, Objectives and Rationale

NSF expects that scholarship recipients will achieve at least one of the following outcomes by the end of the scholarship award period:

- Attain an associate, baccalaureate, or graduate degree in an S-STEM eligible discipline and enter the workforce or a graduate program in STEM;
- Transfer from an associate degree program to a baccalaureate degree program or advance from an undergraduate program to a graduate program in an S-STEM eligible discipline.

The project should have specific objectives that reflect the goals of the S-STEM program and a deep analysis of local needs. Institutional self-studies relevant to the targeted student population can be used to provide a more complete picture of what these low-income students need. Based on a needs assessment, proposers should focus on implementing appropriate interventions that target cognitive or non-cognitive aspects of their low-income students' experiences and success (such as research experiences, internships, participation in student cohorts, the mentor/mentee relationship, basic needs security, psychosocial interventions, mental health, financial literacy, etc.).

b. Pool of Potential Scholars and Determination of Scholarship Amount

All Track 1, 2 and 3 proposals should include the following, as detailed in Section II.B.2: Scholar Eligibility and Selection Criteria, each institution's cost of attendance, a clear mechanism to determine scholar eligibility, a justification of scholarship amounts that includes the calculation of the average unmet need for a typical cohort of eligible students currently enrolled at the institution and an analysis of the prospective scholar pool.

Determination of Scholar Financial and Academic Eligibility: Beyond US citizenship or immigration status of the scholars pursuing an eligible degree program, proposing institutions must determine all three additional eligibility requirements for scholars: low-income status, demonstrated unmet financial need per FAFSA⁽²⁾, or GAANN⁽³⁾, and academic ability, talent or potential. Academic ability, talent, or potential must be defined by the institution in a way that allows for

equitable consideration of all students. By Congress' mandate, all students who meet a project's eligibility requirements terms of low income, financial need, and academic talent must have an equal opportunity to receive scholarships, regardless of any other factors.

Cost of attendance: Cost of Attendance (COA), determined by each educational institution, is the total amount it will cost a student to go to school, including tuition and fees; on-campus room and board (or a housing and food allowance for off-campus students); allowances for books, supplies, computer equipment, transportation, loan fees, dependent care, mandatory health insurance, graduation fees, and costs related to a disability; and miscellaneous expenses. It is recommended that the PI works closely with the campus financial aid office to identify what the official institutional COA is. The following are federal guidelines on the types of broad expenses included in the COA https://fsapartners.ed.gov/knowledge-center/fsa-handbook/2022-2023/vol3/ch2-cost-attendance-budget#pid_1272312.


Unmet Need Calculations: In demonstrating unmet need, financial aid offices should not include student loans (for either undergraduate or graduate students) or undergraduate work-study. Instead, the S-STEM scholarship should be used to reduce or replace scholars' need to work or acquire additional debt, to the extent possible. The calculation of need may include any other grants, fellowships, or scholarships that the student is entitled to.

Unmet financial need is calculated in part by the institution's determination of cost of attendance (COA). Generally, the Financial Aid Office determines unmet need for undergraduate students as:

COA – Student Aid Index (SAI) – other grants and scholarships (for the purpose of this program should exclude loans and work) = Unmet Need.

The SAI is determined by the FAFSA form and represents the expected family contribution toward the COA (<https://studentaid.gov/>). In the case of independent students please see definitions in Chapter 28 Part F, Subchapter 4 of the Higher Education Act of 1965, amended in October 2022.

The proposal and budget justification must clearly specify the average unmet need of a potential pool of eligible students in the targeted disciplines. However, the Office of Financial Aid must commit to calculating the unmet need and the scholarship amount for each individual scholar. The scholarship amount should not exceed the unmet need of the scholar or the maximum scholarship amount, whatever is less.

In the case of graduate students, each institution should present the method selected to assess not only unmet need but also low-income status. One of the biggest considerations is whether graduate students are considered dependent or independent from their parents' income. Students who are married, have children, are over 24 years of age, or are veterans of the US armed forces are generally considered independent by FAFSA provided they have filed independently from their parents in the last two tax cycles. Their income from all sources can be counted independently from their parents', but as with undergraduate students, all scholarships and fellowships should be included in the calculation of unmet need. Institutions can add additional requirements such as prior PELL eligibility during undergraduate studies or other metrics if they find them necessary, but those are at the discretion of the institution's financial aid office. It has been documented that low-income students tend to carry over more debt than their counterparts, according to the Council of Graduate Schools (<https://cgsnet.org/data-sources-increasing-number-graduate-and-professional-students-are-former-pell-recipients-0> ). These undergraduate debts compounded by the potential unmet financial needs from their graduate degree can prevent these students from attaining advanced degrees, thus acting as a deterrent of upward social mobility.

Financial eligibility: The institution's definition of low-income must be included in the proposal and in the letter from the Financial Aid Office or equivalent submitted in supplementary documents. When determining eligibility, IHEs must first determine which students are low-income and then, from that pool, determine the level of unmet need. Demonstrated unmet financial need is not equivalent to low-income status. A student can be low-income and have a generous scholarship that covers all the student's expenses and therefore not have unmet need. Conversely, a student can demonstrate unmet need but not satisfy any acceptable definition of low-income.

NSF cannot prescribe the way in which local financial aid offices or departments develop policies or manage their students. NSF relies on local standard financial aid office policies to define low-income status in the same way that each

institution determines measures of academic ability, talent, or potential for its students. However, these definitions need to be clearly disclosed in the proposal.

Academic eligibility: In addition to meeting the financial criteria, scholars should also demonstrate academic ability, talent, or potential, and be pursuing a degree in an S-STEM eligible field. To ensure scholars meet these requirements, IHEs are expected to establish clear and equitable selection criteria for scholarships and describe how scholars will be selected out of the pool of all qualified individuals.

All proposals should provide an estimate and justification for the average scholarship amount used in the budget. NSF expects that all projects meet the unmet need of the student or provide the maximum allowable scholarship amount if the unmet need is greater than the maximum scholarship amount. NSF also expects that the project will support scholars until graduation or transfer.

When discussing the pool of potential scholars, data on all low-income students at the institution are insufficient unless they also analyze the disciplines and academic eligibility requirements put forth in the proposal specifically. For example, consider a project that targets computer science students and defines a student to be low-income if they are Pell eligible. In this case, the potential pool of applicants should be calculated by considering historic or current data for computer science students who: (a) are Pell eligible, (b) have demonstrated unmet financial need, and (c) meet measurable academic eligibility requirements imposed by the project team (e.g., above certain GPA, above an SAT threshold, or any other metric the project team considers adequate for the local institutional context.).

Proposals should also include current one-year retention rates and graduation rates for the above pool of students in each S-STEM eligible discipline that is included in the proposal. See additional instructions for required Supplementary Document in Section V.A.8., below.

c. Infrastructure on which the Current Project Builds

S-STEM projects should build on existing academic infrastructure and student supports. Proposals should discuss such existing academic and student supports that are relevant to the S-STEM project and describe ways in which those structures (e.g., mentoring, residential life, tutoring, career services, mental health services, supports for students facing food or housing insecurity, etc.) will be tailored to the needs of S-STEM scholars.

For all tracks, the selection of activities, student support services, and other planned interventions should draw upon the ways in which the impact of these evidence-based approaches can be assessed.

d. Additional S-STEM Evidence-Based Student Support Services and Programs

Proposals must include a literature review that establishes the rationale for new proposed evidence-based activities to be implemented with the proposed S-STEM funds. These activities need to respond to the documented low-income student and institutional needs or goals. Evidence from the research literature that those supports are effective given the institutional context is needed. These evidence-based interventions should be clearly linked to the needs identified and the target student population.

All Track 1, 2 and 3 proposals must include detailed plans to provide scholars with STEM faculty mentors and placement in student cohorts as discussed in Section II.B.

S-STEM scholarships may not be, nor appear to be, payment for services. Since the scholarship often provides funds that allow a student to concentrate on full-time studies, opportunities for extracurricular activities are valuable components of S-STEM projects that can be strongly encouraged but not required. The primary criteria for continued scholarship eligibility should be satisfactory progress towards degree or successful transfer. The one exception is that graduate students can be required to conduct research if they are doing research as part of their thesis or dissertation or any research activities that are part of regular coursework required for graduation. Proposals should include adequate justification that any suggested courses, seminars, or other activities will not increase scholars' time to degree completion.

See Section V.A.6 below for further discussion of budget details.

e. Results from Prior NSF Support

Report on the results from related prior NSF support in accordance with the requirements in Chapter II.D.2 of the PAPPG. Additionally, if there have been any prior S-STEM or STEP awards at the institution, active within the last five years even if not to the same group of PI or Co-PIs, those results should be included here. The proposed project should build on the institutional experience from the prior or ongoing project. Proposals should include quantitative and qualitative outcomes of any current or former project(s) and how the experience has informed plans for the current project. Proposers may use the NSF web search [<https://new.nsf.gov/funding/opportunities/s-stem-nsf-scholarships-science-technology-engineering-mathematics>], at the bottom of the program webpage select the link "What Has Been Funded (Recent Awards Made Through This Program, with Abstracts)" to search for prior awards in the S-STEM program. Required information is listed below.

Results from prior or ongoing STEP and S-STEM awards should include at a minimum: Award number(s); amount of the scholarship; number of scholarship recipients; number and percentage of recipients transferring from 2-year institutions to 4-year programs (if appropriate); number of recipients graduating; percentage of recipients graduating; and number and percentage of recipients leaving the program. If available, proposers could include a concise description of the project activities, retention, and graduation rates. Descriptions of the results from prior S-STEM and/or STEP support must also discuss: (1) lessons learned from the implementation of project activities and outcomes of the project(s) and (2) how these lessons influenced the proposed project.

f. S-STEM Project Management Plan

S-STEM projects must be guided by a management plan in which the key personnel and project logistics are explicitly defined. The roles and responsibilities of the personnel involved should be clear. The proposal must describe specific roles for each person in the project. The lead PI will have overall responsibility for administering the project and for interacting with NSF.

g. Generation of Knowledge

The nature of S-STEM projects generally aligns with generation of knowledge through efficacy or effectiveness studies, as outlined in the Common Guidelines for Education Research and Development (https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf13126). In this context, S-STEM projects should strive to increase understanding about the contributions that proposed student supports can make to program goals of STEM retention and graduation when coupled with scholarships. Track 1 and 2 projects are expected to contribute to knowledge by disseminating results from their external evaluation reports. Projects should strive to inform understanding about the effectiveness^[1] of factors and/or activities associated with retention, student success, transfer, academic/career pathways, and degree attainment through the dissemination of their evaluation results. The project's effectiveness should be assessed according to the nature of the problem that the proposed approach is intended to address. Incorporation of local expertise in institutional, educational, or social science research could provide significant guidance and facilitate generation of knowledge but is not a requirement for Track 1 or Track 2.

Track 3 projects are expected to generate knowledge through external evaluation as well as through a clear and rigorous research plan based on the scalability of the interventions to the different institutions in the consortia. This research is led by PIs, Co-PIs, or senior staff who are faculty in social sciences or educational research. The faculty involved in the research component of Track 3 proposals cannot act as external evaluators for the project or work.

For Track 3, proposals should clearly describe the approach and research questions to be tested and should provide a strong theoretical or empirical justification for their choices, including the role and impact of institutional and student contexts. Research questions must be grounded in the education or social science research literature but should also be informed by and linked to the specific needs of the student population being served at the different institutions in the consortia. The study design should leverage this justification to identify suitable project data, describe plans for data collection, and select appropriate methodologies for data analysis. These features of the study design should be aligned with the scope and focus of the project approach. The inclusion of appropriate expertise in institutional, educational, or social science research is expected to guide the development and implementation of knowledge generation within the

project. The research component of Track 3 projects is different from the external evaluation and should not be executed by the same personnel. External evaluation is discussed in the next section.

h. Evaluation

Each Track 1, 2, and 3 proposal should describe a rigorous, clear and specific external evaluation plan that is clearly aligned with the stated goals of the project and is executed by an external evaluator as detailed in Section II.B. The evaluation plan must include periodic formative evaluation to guide project improvement and to allow for any necessary corrective action, and summative evaluation to assess and document project outcomes, accomplishments, and lessons learned over the full duration of the project. Summative evaluation generally reports on the number of students who graduated from the program, their career trajectories, and the implementation and lessons learned through the life of the project. Beyond the direct impact on S-STEM scholars, S-STEM projects should also attempt to measure the project's outcomes and/or impacts on the departments and/or disciplines involved, and on the institution.

The evaluation design should match the scope of the project and funds dedicated to evaluation efforts should be commensurate to the time requirements needed by a professional external evaluator to execute the plan appropriately on an annual basis. A theory of change or logic model is expected and should be included as a Supplementary Document (see Section V.A.8. for additional information). A biographical sketch with the qualifications and evaluation experience of the external evaluator should also be included in supplementary documents.

The evaluation must be executed by an evaluator who is external to the project to provide objective and independent feedback regarding the progress of the overall project. The external evaluator may be employed by a project's home institution, as long as he or she works in a separate organizational unit (e.g., a different department) that has a different reporting line than that of the project's home unit. The evaluator should not be Co-PI or other senior/key personnel on the project but should be compensated appropriately using other direct cost lines, such as consulting or other direct costs. The budget justification for the external evaluation budget line should specify how many hours/days the evaluator will dedicate every year and the going daily rate.

i. Dissemination

All Track 1, 2 and 3 proposals should include robust dissemination plans to share the project's implementation mechanisms, Scholar outcomes, and/or other findings with communities that are similarly engaged in efforts to improve outcomes for low-income STEM students.

j. Broader Impacts

As specified in the PAPPG, the Project Description also must contain, as a separate section within the narrative, a section labeled "Broader Impacts".

5. References Cited

References should draw on the discipline-based education research literature, on the literature on STEM teaching and learning, and on the research literature on higher education.

6. Budget, Budget Justification, and Allowable Costs

Provide a budget for each year of support requested. The maximum duration for a Track 1, 2 or 3 project is expected to be 6 years. Proposals requesting a six-year budget must be submitted via Research.gov.

It is expected that proposers will request funds commensurate with the number of eligible scholars determined by the Analysis of Prospective Scholar Pool. In addition, proposers are strongly encouraged to request funds for the number of years needed to support all students in different cohorts through graduation or successful transfer. For example, projects that aim to support entering first-year students to complete a bachelor's degree could support three 4-year cohorts of students over six years. Projects that aim to support students to earn an associate degree could support five 2-year student cohorts.

The following instructions refer to the NSF proposal budget form. The sections and budget line designations correspond to the Research.gov budget screen.

For Tracks 1, 2 and 3 allocations for scholarships should be indicated in NSF budget form section F, "Participant Support," line F1 - "Stipends" of the Research.gov budget form. Scholarships may be requested for up to \$15,000 per undergraduate student per year or \$20,000 per graduate student per year. Because many students may not be eligible for the maximum scholarship amounts, the proposal should explain how the number of scholarships requested and the average total scholarship amount requested were determined. It is expected that the actual scholarship amounts to individual students may vary because of differences in unmet financial need.

For Track 1 projects, at least 50% of the total requested amount must go to pure scholarships to cover the cost of attendance of academically talented, domestic low-income students with demonstrated financial need. Support for scholarships should begin within the second budget year of the project. The number of unique students helped each year should be recorded in every budget year in which scholarships are provided. Track 1 proposals can include, within their scholarship budgets, funds to support scholars overcoming financial hurdles that prevent them from continuing in school or degree obtainment. For example, help to students who meet the low-income definition and who have completed all degree requirements in the field(s) supported by the proposal, but cannot obtain their degree because of debt to the college or university is possible. These scholarship supports cannot exceed the maximum stipend amount per year of allowable funds per student (\$15,000 for undergraduate students and \$20,000 for graduate students). Other student supports that do not count as scholarships can be paid out of the 50% remaining budget funds (e.g., payments to students for participation in internships, research experiences, conference attendance, etc.)

For Track 2 and 3 projects, at least 60% of the total requested amount must go to pure scholarships to cover the cost of attendance of academically talented, domestic low-income students with demonstrated financial need. The number of unique students helped each year should be recorded in every budget year. Track 2 and 3 proposals can include, within their scholarship budgets, funds to support scholars overcoming financial hurdles that prevent them from continuing in school or degree obtainment. For example, help to students who meet the low-income definition and who have completed all degree requirements in the field(s) supported by the proposal, but cannot obtain their degree because of debt to the college or university is possible. These scholarship supports cannot exceed the maximum stipend amount per year of allowable funds per student (\$15,000 for undergraduate students and \$20,000 for graduate students). Other student supports that do not count as scholarships can be paid out of the 40% remaining budget funds (e.g., payments to students for participation in internships, research experiences, conference attendance, etc.).

Faculty salary requests must be accompanied by an appropriate indication of the fraction of academic or summer months to be paid by the grant.

For Tracks 1, 2, and 3, funds must be requested for expenses related to supporting the implementation and assessment of high-quality extant curricular and co-curricular activities, student support, project evaluation, dissemination, and project management. These costs may include funds associated with personnel required to implement project activities, including a non-faculty project manager if appropriate. These direct costs must be assigned to the appropriate NSF budget categories on the NSF budget form and must be explained in the budget justification. Refer to the PAPPG instructions for appropriate categories. Items that are for direct support of Scholar participants (for example, student travel to professional meetings or meeting registrations) should be listed in the "Participant Support" section on lines F.2, "Travel" or F.3, "Subsistence." Other costs should be listed in other sections of the budget as appropriate. These non-scholarship costs could include:

- Support for adaptation and implementation of high-quality evidence-based academic and non-academic student support efforts. Group activities, such as peer mentoring, tutoring, seminar series, bridge programs, and career development programs, may serve both scholars and other students but individual funds can only be allocated to support scholars.
- Career counseling and job placement services for S-STEM scholars.
- Support for Scholar professional development experiences, such as internships, research experiences, and conference attendance. These experiences may be year-long or take place during academic recess periods, such

as over summer or winter breaks. Note that NSF is particularly interested in supporting internships and research experiences in fields identified as critical needs for the Nation. These fields include quantum computing and quantum science, robotics, artificial intelligence and machine learning, computer science, data analytics, and other frontier STEM areas in need of domestic professionals.

- Mental health services.
- Equipment and internet services for the use of the scholars exclusively.
- Support for coordination and management, and
- External evaluation (formative and summative) of the project.

Indirect costs (NSF budget form line I) are subject to the institution's current Federally negotiated indirect cost agreement. The total budget request (sum of direct and indirect costs to be entered on budget line J) must not exceed the amount set for each type of project. Prospective PIs should consult with their university Office of Sponsored Programs about the calculation of indirect costs.

For Tracks 1, 2, and 3, funds should also be included for the PI or another member of the leadership team to attend periodic S-STEM PI Conferences. For Tracks 1, 2 and 3 these funds should cover participation for at least one member of the PI team to come to Washington DC every other year (at least 3 times during the life of the award). For Track 1 proposals, in addition to the above, funds for the PI to participate in new PI professional development hosted by the S-STEM REC should be included in Year 1 of the budget.

For proposals in all tracks, the level of funding requested should be congruent with the focus, scope, and size of the effort.

7. Current and Pending (Other) Support

For proposals with a duration of six years, Current and Pending (Other) Support should be reported for the first five years of the project.

8. Supplementary Documentation

Supplementary documents are limited to the specific types of documents listed in PAPPG Chapter II.D.2 with the following exceptions for Track 1, 2 and 3 proposals:

- Proposals must include a letter from the Financial Aid Office or equivalent that includes the commitments and information outlined in Section II.B.
- Proposals must include the biographical sketches in NSF format of all key collaborators not included as senior/key personnel, such as the external evaluator, advisory board members, or other consultants engaged with the project.
- Proposals must include the following information in a single document PDF entitled "Project Details" in tabular form. If scholarships of different amounts or lengths of time are planned, the first table should be duplicated multiple times to capture all the information. For collaborative and multi-institutional proposals, the requested data should be provided for each institution separately.

Name of institution =	Enter Name
Anticipated number of unique scholars supported =	Enter Number
Anticipated average annual amount of each scholarship =	Enter Amount or Range

Anticipated number of years of scholarship support per Scholar =	Enter Number or Range
Name of degree on diploma awarded to scholars:	Name #1
	Name #2
	Name #3
	Name #4, etc.

- Track 1 proposals must include a description of their initial planning activities, entitled "Track 1 Planning" to better understand their pool of prospective scholars, pilot key project components, or shore up relevant institutional infrastructure. Examples of activities during this planning period include: piloting strategies to effectively solicit scholarship applications, curricular, or co-curricular activities; providing professional development for mentors or other individuals that will support scholars; or analyzing and revising institutional policies or practices that might inhibit the success of low-income STEM students. This planning period should last between 6 and 12 months and should be described in a supplemental document of no more than 4 pages. This document should include defined activities, a clear timeline, and designated roles for members of the project leadership team in the planning process.
- Proposals must include a logic model or theory of change that informs the project's evaluation plan.
- Proposals must include the following table (or similar) regarding the pool of potential scholars and current 1-year retention rates and graduation rates for the same pool of students in each S-STEM eligible discipline that is included in the proposal.

	Number of Domestic Low-Income Students with Unmet Need Currently Registered (per academic level if applicable)					Total No, of Eligible Students
	1st year	2nd Year	3d Year	4th Year	Other Years	
Department or Program 1						
Average Unmet Need						
Average GPA						
Department or Program 2						

Average Unmet Need						
Average GPA						
Total						

Proposals that include supplementary documents beyond those specified in the PAPPG and in this solicitation may be returned without review.

[1] Institute of Education Sciences, US Department of Education, and the National Science Foundation. (2013). Common Guidelines for Education Research and Development: A Report from the Institute of Education Common Guidelines for Education Research and Development, Sciences, U.S. Department of Education and the National Science Foundation, August 2013, [NSF 13-126](#). Arlington, VA: National Science Foundation.

[2] <https://studentaid.gov/h/apply-for-aid/fafsa>.

[3] <https://www2.ed.gov/programs/gaann/faq.html#q17>.

B. Budgetary Information

Cost Sharing:

Inclusion of voluntary committed cost sharing is prohibited.

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):

March 04, 2025

First Tuesday in March, 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/ProposalPreparation

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 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 asked to consider the extent to which the project is aligned with the spirit of the legislation that created the program in view of:

- The case made about the regional or national need for professionals with degrees being awarded in this project.
- The information provided about the likelihood of low-income scholars to find a rewarding job in the STEM workforce upon graduation with either an undergraduate or graduate degree.

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)*; 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 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.

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.

S-STEM Monitoring system: In response to the need for NSF to report on the operation and success of the S-STEM program, an additional web-based data collection site has been developed for the purpose of collecting information about program participants. This system: [S-STEM.ORG](#)  is maintained by an external contractor.

Each Track 1, Track 2 and Track 3 S-STEM PI is required to complete information about each S-STEM Scholar and subsequently update the information reported through the website during each semester of continued S-STEM support. Instructions will be provided shortly after the award to successful grantees. This information must be provided within 30 days of the beginning of each semester or quarter). Any information that would permit identification of individual responses will be held in strict confidence.

Data collection efforts from S-STEM Resource and Evaluation Center (S-STEM-REC): NSF has awarded an S-STEM Resource and Evaluation Center tasked with collecting and synthesizing outcomes and achievements of Track 1, 2 and 3 projects nationwide. Projects are required to collaborate with the S-STEM-REC initiatives to showcase the impact of S-STEM funding.

S-STEM Program Evaluation: Projects are required to cooperate and participate in a third-party independent evaluation of the S-STEM program.

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:

- Thomas D. Kim, Lead, telephone: (703) 292-4458, email: tkim@nsf.gov
- Michael J. Ferrara, Co-Lead, telephone: (703) 292-2635, email: mferrara@nsf.gov
- Olivia S. Long, telephone: (703) 292-7897, email: olong@nsf.gov
- Nasser Alaraje, telephone: (703) 292-8063, email: nalaraje@nsf.gov
- Karen Crosby, telephone: (703) 292-2124, email: kcrosby@nsf.gov
- Christine Delahanty, telephone: (703) 292-8492, email: cdelahan@nsf.gov
- Connie K. Della-Piana, telephone: (703) 292-5309, email: cdellapi@nsf.gov
- Abiodun Ilumoka, telephone: (703) 292-2703, email: ailumoka@nsf.gov
- Kalyn Owens, telephone: (703) 292-4615, email: kowens@nsf.gov
- Monisha Pulimood, telephone: (703) 292-4257, email: spulimoo@nsf.gov
- Josephine J. Rodriguez, telephone: (703)292-2986, email: jrodrigu@nsf.gov
- Keith A. Sverdrup, telephone: (703) 292-4671, email: ksverdru@nsf.gov
- Paul Tymann, telephone: (703) 292-2832, email: ptymann@nsf.gov
- Gordon E. Uno, telephone: (703) 292-2574, email: geuno@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>.

- **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: nspubs@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/recipients 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:

Suzanne H. Plimpton
Reports Clearance Officer
Policy Office, Division of Institution and Award Support
Office of Budget, Finance, and Award Management
National Science Foundation
Alexandria, VA 22314

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[Plain language](#) |



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