

Overview of S-STEM Program

[NSF 24-511](#)

Deadline: March 11, 2024 for Tracks 1, 2, 3, & Collaborative Planning Grants



Directorate for STEM Education (EDU)
Division of Undergraduate Education (DUE)



Summary of Program Changes and Important Info

- The deadline for Track 1 proposals is concurrent with Tracks 2, 3, and Collaborative Planning Grants (March 11, 2024).
- Maximum award amount for Track 2 has changed to up to \$2,000,000.
- Evaluation plan logic models may be included either as a supplementary document or as part of the project description.
- The required data table summarizing the pool of potential scholars at each participating institution may be included either as a supplementary document or as part of the project description.
- The calculation of scholars' unmet need now reflects the Student Aid Index, which will replace EFC in the 2024–25 FAFSA.



Reminder of Previous Program Changes

- Maximum scholarship amounts increased to \$15,000/year undergrad and \$20,000/year graduate (master's or Ph.D)
- Maximum duration of scholarships increased to 5 years per degree.
- Scholarship Calculation: scholarships should meet students' unmet need, up to the max allowable amount. S-STEM remains a last-dollar scholarship.
- Involvement of Financial Aid Offices: must be part of determining the definition of low-income, scholars' eligibility, and scholarship amounts.
- Project Viability: proposers should demonstrate that comparable numbers of eligible students have enrolled in the disciplines/degrees.



S-STEM Program Goals

- Provide scholarships to **academically talented, domestic low-income students with demonstrated financial need** pursuing a degree in an S-STEM eligible discipline.
- Adapt and implement evidence-based curricular and co-curricular activities to support S-STEM Scholars. These should include cohort building and faculty mentoring.
- Increase retention, student success, and graduation of these low-income students in STEM.
- Test strategies for systematically supporting student academic and career pathways in STEM in ways that align with institutional contexts and resources.
- Disseminate findings related to the supports and interventions undertaken by the project.



Expected Scholar Outcomes

It is anticipated that S-STEM Scholars will achieve one of the following by the end of the scholarship award period (up to 5 years per degree):



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 to a baccalaureate degree program or advance from an undergraduate to a graduate program.



Project Activities

Academic and student support activities must **promote student success, retention, transfer/graduation in STEM, and/or entry into the STEM workforce or graduate studies.**

Findings from S-STEM projects should serve to:

- ✓ improve local implementation of academic and student supports;
- ✓ provide an understanding of student success (e.g., effects of project activities on student outcomes); and/or
- ✓ inform any future proposals to S-STEM.



S-STEM Activities – Flexibility is Key

S-STEM projects often include activities such as
(but not limited to)

Seminars • Career Guidance • Social Gatherings • Internships/Research

Choose activities based on the interests and needs of the target Scholars.

These activities :

- Cannot be required (but can be strongly encouraged).
- Should be structured whenever possible to facilitate participation by Scholars with work, family or other responsibilities.



Student Eligibility Criteria – Low Income

The definition of low-income must be determined systematically by the institution's **financial aid office** and should be applicable to the S-STEM project or any other federally-funded project that requires a definition of low-income.

Reasonable definitions include eligibility for federal Pell grants or prior Pell eligibility for graduate students, but other definitions applied consistently are also possible when well justified.

Each institution that will award scholarships must **submit a letter from the Office of Financial Aid** certifying the Office's understanding of the guidelines and requirements of the S-STEM program, confirming the institutional definition of low-income, that the eligible students will meet its definition of low-income, and stating their commitment to support the project as described in the proposal if awarded.



Student Eligibility Criteria – Unmet Financial Need

Cost of Attendance (CoA) is determined by each educational institution and is the total amount it will cost a student to go to school, including tuition and fees, on- or off-campus housing and food costs, books, supplies, transportation, costs related to a disability, and miscellaneous expenses. Any items incorporated in the definition of COA may be supported with S-STEM scholarship funds.

Student Aid Index (SAI) is defined for undergraduate students by the U.S. Department of Education Free Application for Federal Student Aid (FAFSA), or, for graduate students, defined as financial eligibility for Graduate Assistance in Areas of National Need (GAANN).

Scholarships awarded in S-STEM Tracks 1, 2 and 3 cannot exceed the smaller of \$15,000 (undergrad) or \$20,000 (grad) and the scholar's unmet need, where

 **Unmet Need = CoA - SAI - other grants and scholarships (but not loans or work)**

Student Eligibility Criteria – Academic Talent

The definition of **academic talent** is determined by the project and may include a GPA target, letters of recommendation, and other factors.

Low-income students often have additional responsibilities that may reduce their access to opportunities.

Projects are strongly encouraged to develop **holistic** selection criteria that look to identify talent in many ways.

It is acceptable for projects to use targeted recruiting (i.e. try to attract talented students from specific populations).

However, all students who meet a project's citizenship, academic, and financial eligibility requirements must have an equal opportunity regardless of any other factors. Demographic information, gender, etc. cannot be part of selection criteria.



S-STEM Eligible Degrees and Disciplines

Projects supporting scholars studying in any disciplinary fields in which NSF provides research funding are eligible for the S-STEM program, with the exception of:

- All clinical fields
- Degrees in Business Administration at any levels
- Student pursuing K-12 teacher licensure

Each directorate maintains a web page that describes their research programs:

https://www.nsf.gov/about/research_areas.jsp

S-STEM Eligible Degrees

Associate of Arts, Science, Engineering, or Applied Science

Bachelor of Arts, Science, Engineering, or Applied Science

Master of Arts, Science, or Engineering

Doctoral

Please contact an S-STEM Program Officer before submitting a proposal if you have questions concerning degree eligibility.

Required: Analysis of Potential Scholar Pool

All Track 1, 2 and 3 proposals must provide information about the size and characteristics of their pool of potential scholarship applicants.

Proposers must provide an analysis that articulates the population of students they are trying to serve:

- The predicted number of students who meet all eligibility requirements at the time of proposal submission as a proxy measure for the pool of students that would qualify in the future if the proposal is awarded.
- This number may be based on current and/or historical data about students who are currently pursuing degrees in the STEM disciplines targeted by the proposal.



Required: Analysis of Potential Scholar Pool

The goal is to deduce how many students would qualify for the scholarships at the time of proposal submission and simulate different scenarios before deciding on academic requirements. The following table is required (and may be submitted as a supplementary document.):

	Number of domestic Low-Income Students with Unmet Need Currently Registered (per academic level if applicable)					
	1st year	2nd Year	3rd Year	4th Year	Other Years	Total No. of Eligible Students
Department A						
Average GPA						
Average Unmet Need						
Department B						
Average GPA						
Average Unmet Need						
Total						

Current 1-year retention and graduation rates for this pool of students should also be included.



Strategic Need and Scholar Job Prospects

All proposers must demonstrate that the degrees pursued by students supported with S-STEM funds are within a disciplinary area of strategic national need for the economic competitiveness or national security of the United States.

In addition, proposers must show that upon graduation, S-STEM scholars will have positive job prospects, either regionally or nationally, even in cases where transfer or graduate study is being promoted as a primary pathway for scholars.

- This analysis of scholar job prospects should be submitted as a supplemental document of no more than one page.

The mechanism chosen to demonstrate national need and positive job prospects for scholars is entirely up to the proposer.



The S-STEM Program Encourages:



The use of **data analytics** to **examine patterns** in institutional data and **predict successful completion** of academic and career pathways.



Proposals that incorporate strong campus partnerships across departments/colleges, student affairs, admissions, financial aid, and other areas of the institution.



Proposals that build on institutional strengths and address documented institutional needs (e.g. via institutional needs assessments or scans)



Other Proposal Requirements

Refer to the S-STEM solicitation

(<https://www.nsf.gov/pubs/2024/nsf24511/nsf24511.htm>)

for more information about:

- Required sections of the Program Description
- Required supplementary documents
- Additional proposal guidelines (e.g. budget)



S-STEM Program Tracks

Track 1: Institutional Capacity Building

Track 2: Implementation: Single Institution

Track 3: Interinstitutional Consortia

Collaborative Planning Grants to Develop an Inter-Institutional Consortium (Track 3)



Limits on Number of Submissions

An institution may submit up to two proposals across Tracks 1, 2 and 3 (either as a single institution or as sub awardee or as a member of an interinstitutional consortium project) for a given S-STEM deadline. Multiple proposals from an institution must not overlap with regard to S-STEM eligible disciplines (e.g. a B.S. in Mathematics cannot be included in multiple proposals).



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 S-STEM proposal focused on students pursuing degrees in the same discipline(s).

The above restrictions do not apply to collaborative planning grant proposals.



Common Requirements for Tracks 1, 2, and 3

All proposals should include a **literature review** that establishes the basis for the proposed evidence-based activities. Institutional needs assessments can also be used to justify activities.

All proposals are expected to develop and support **student cohorts** and provide S-STEM Scholars with **faculty mentors**. **These activities are critical.** However, remember that activities that are not degree requirements cannot be required of scholars. It can be beneficial to describe training or support for mentors, if applicable.

Every Track 1, 2 and 3 proposal should describe a **clear and specific evaluation plan** to be executed by an **evaluator that is external to the project, but not necessarily external to the institution.**



Track 1: Institutional Capacity Building

Up to 6 years and \$1,000,000

60% of Total Budget Devoted to Scholarships (Budget Line F.1)

Eligibility: Single Institutions of Higher Education that have not previously received funding from the NSF S-STEM or STEP programs.

The project principal investigator (PI) must be a STEM faculty currently teaching in one of the S-STEM eligible disciplines pursued by the proposal's potential Scholars or a STEM administrator who has taught in one of those disciplines in the past two years.

If not serving as PI, a STEM administrator (department head or above) should also be a member of the project leadership.

Faculty members from all departments or academic units involved should have a role in the project either as Co-PIs, senior personnel, or Scholar mentors.



Track 2: Implementation: Single Institution

Up to 6 years and \$2,000,000

60% of Total Budget Devoted to Scholarships (Budget Line F.1)

Eligibility: Single Institutions of Higher Education. If the project focuses on student transfer or progression to graduate school, two or more institutions could partner.

The project principal investigator (PI) must be a STEM faculty currently teaching in one of the S-STEM eligible disciplines pursued by the proposal's potential Scholars or a STEM administrator who has taught in one of those disciplines in the past two years.

If not serving as PI, a STEM administrator (department head or above) should also be a member of the project leadership.

Faculty members from all departments or academic units involved should have a role in the project either as Co-PIs, senior personnel, or Scholar mentors.



Knowledge Generation: Track 1 and 2

Track 1 and 2 proposals are **scholarship-intensive**.

Formal **research** activities are not required. Track 1 and 2 proposals should center on supporting the successful degree completion of Scholars and their progress towards graduate study and/or the workforce.

Proposals can utilize non-scholarship funds to provide additional support for Scholars (e.g. research opportunities, internships, travel to conferences).

Proposals must generate new knowledge via **robust project evaluation** and include **substantive dissemination plans**.



Track 3: Inter-Institutional Consortia

Up to 6 years and \$5,000,000

60% of Total Budget Devoted to Scholarships (Budget Line F.1)

Eligibility/Focus: Multi-institutional collaborations that focus on a common interest or problem.

Track 3 proposals should include a **strong and mutually beneficial collaboration across all institutions involved** in the consortium, providing equivalent benefit to all institutions.

The PI of a track 3 proposal must be one of:

- (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 researcher whose expertise is in institutional, educational, or social science research in higher education.



Track 3: Inter-Institutional Consortia

All Track 3 projects should engage in **high-quality 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.

This research is led by PIs, Co-PIs, or senior personnel 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.

The S-STEM program welcomes all appropriate theoretical frameworks and methodological approaches for research projects in Track 3 proposals.



Collaborative Planning Grants to Develop an Inter-Institutional Consortium (Track 3)

Up to 1 Year and \$100,000

Support for groups of two or more institutions of higher education and other potential partners to:

- establish collaborations,
- increase understanding of complex issues at each institution,
- pilot evidence-based supports, and/or
- establish inter-institutional agreements

in anticipation of a future Track 3 proposal.



Collaborative Planning Grants: Additional Items

The project PI must be a faculty member teaching in any S-STEM eligible discipline or a STEM administrator (department head or above) at one of the institutions within the envisioned inter-institutional consortium.

No formal **dissemination plan** or **evaluation plan** is required.

The **Project Description** for a collaborative planning grant should be no more than 8 pages. Please see the program solicitation for a specific list of required items to be covered in the narrative.



Miscellaneous Considerations

For proposals with a duration of six years, current and pending support should be reported for the first five years of the project.

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

Please visit the S-STEM website for additional information, including upcoming community office hours and links to the current solicitation.

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



Thank You!

U.S. National Science Foundation

