

2022 Webinar for Noyce Tracks 1, 2, & 3 and Capacity Building Projects

Jennifer Ellis, Noyce Program Co-Lead

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National Science Foundation
WHERE DISCOVERIES BEGIN

Robert Noyce
Teacher
Scholarship
Program (Noyce)
[NSF 21-578](#)

Webinar Topics

General Info on NSF 21-578

- Grantee Eligibility
- Program Background and Overview
- Descriptions of Program Pathways (e.g., Tracks 1, 2, & 3 and CB)

Q & A #1

Preparing the Proposal

Merit Review

Proposal Writing Tips

Q & A #2

Additional Conversation

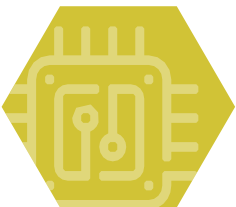
Q & A #3



Proposal Deadline for NSF 21-578

Tuesday, August 30, 2022

*Last Tuesday of August,
Thereafter*



See the [Noyce Program webpage](#) for additional program information.

Noyce Program Director Team



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Noyce Lead**



**Jennifer Ellis,
Noyce Co-Lead**



John Haddock



Michael Ferrara



Thomas Kim



Mindy Capaldi



Susan Carson



Bonnie Green



Robert Mayes



Kimberly Tanner



Noyce Program Goals

Address the critical need for recruiting, preparing, and retaining K-12 STEM teachers and teacher leaders in high-need school districts

Support talented STEM undergraduate majors and professionals to become K-12 STEM teachers in high-need school districts

Support experienced, exemplary K-12 STEM teachers to become teacher leaders in high-need school districts

Support research on the effectiveness and retention of K-12 STEM teachers in high-need school districts



To qualify as a High-Need School District, the school district must have at least one school that:

1

- Serves at least 20% students are from low-income families;
- Serves at least 10,000 students from low-income families;

OR

- Qualifies for funding under the *Small, Rural School Achievement Program* or the *Rural and Low-Income School Program*

AND

2

- Has a high percentage of teachers not teaching in the academic subject area or grade level for which they were trained to teach;
- Has a high teacher turnover rate or a high percentage of teachers with emergency, provisional, or temporary certification or licensure

Work with your LEAs to determine if they qualify as a High-Need School District

**What is a
High-Need
School
District?**



Noyce

Tracks

Noyce Tracks

Track 1: Scholarships and Stipends (S&S)

- Noyce-eligible undergraduate STEM majors and/or STEM professionals
- Up to \$1.2M with a project duration of up to 5 years*

Track 2: NSF Teaching Fellowships (TF)

- STEM professionals
- Up to \$3M with a project duration of up to 6 years*

Track 3: NSF Master Teaching Fellowships (MTF)

- Exemplary, experienced STEM teachers
- Up to \$3M with a project duration of up to 6 years*

Track 4: Noyce Research

- Research on STEM teacher effectiveness and retention in high-need school districts
- Up to \$1M with a project duration of up to 5 years*

Capacity Building (CB)

- Team building, need analysis, & other activities required to develop and submit a proposal to any other track
- Up to \$75K with a project duration of up to 1 year*

*Awards may exceed the budget maximums through Collaboration Incentives for engagement of community colleges in Capacity Building or Track 1 projects, engagement with Noyce awards in Track 4 projects, or engagement with minority-serving institutions in any Noyce submission.

Scholarships for Undergraduate STEM Majors

- Supports undergraduate Noyce-eligible STEM majors
- \$10,000+ per year (not to exceed cost of attendance) for up to 3 years (**NEW**), beginning in junior year

Stipends for STEM Professionals

- STEM professionals (with Noyce-eligible STEM baccalaureate degree) enrolled in a teacher certification/licensure program
- \$10,000+ per year (not to exceed cost of attendance) for 1 year

Track 1: Scholarships & Stipends and Stipends (S&S)

Fellowship and Salary Supplement

- Supports STEM professional enrolled in a master's degree leading to teacher certification (no requirement on length of degree program but support can only be in final year of degree) --- **NEW**
- \$10,000+ (not to exceed cost of attendance) while enrolled in the **final year of the** master's degree program
- \$10,000+/yr for 4 yrs while teaching in a high-need district
- Take on leadership role(s) within the school or district
 - ✓ Participation in preservice teacher education
 - ✓ Develop curriculum
 - ✓ Plan or implement professional development

**Track 2: NSF
Teaching
Fellowships
(TF)**

Fellowship and Salary Supplement

- Supports exemplary K-12 STEM teachers with a bachelor's or master's degree in their field to become teacher leaders within school or district
- \$10,000+ per year for 5 years while teaching in a high-need school district
 - for teachers without a master's degree, first year of support will be for cost of attendance to complete master's degree
 - no requirement on length of master's degree program but support can only be in final year of degree --- **NEW**

Track 3: Master Teaching Fellowships (MTF)

Project Features

- Support preparation of future Noyce submission in any track.
- Develop strategies, models, infrastructure, etc.
 - How? Why? Who? When?
- Use evidence-based innovative models and strategies.
- Collect data to determine need, interest, or capacity.

**Capacity
Building**

Examples of CB Project Activities

- Identify or develop models, research designs, or collaborative partnerships to study STEM teacher effectiveness and retention.
- Conduct needs assessments to determine areas of teacher shortages and interest among STEM professionals.
- Re-imagine teacher preparation, education, and retention efforts to reflect current school needs.
- Establish partnerships or methods for recruiting a diverse pool of Noyce recipients, including those from talent pools that have not yet been fully tapped (e.g., African Americans, Alaska Natives, American Indians, Hispanics, Native Hawaiians, Native Pacific Islanders, and persons with disabilities).

See solicitation NSF 21-578 for other examples of possible project activities.



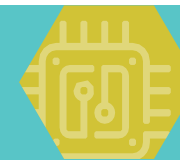
Partnership, Cost Sharing, and PI Requirements

	Track 1 (S&S)	Track 2 (TF)	Track 3 (MTF)	Capacity Building
High-Need District Partner	REQUIRED	REQUIRED	REQUIRED	NOT REQUIRED
Institution of Higher Education Partner	REQUIRED	REQUIRED	REQUIRED	NOT REQUIRED
Nonprofit Partner	NOT REQUIRED	REQUIRED	REQUIRED	NOT REQUIRED
Cost Sharing	NOT ALLOWED	REQUIRED	REQUIRED	NOT ALLOWED
PI Team Requirements	STEM Faculty and Education Faculty			No Requirements



Highlight of Other New Noyce Program Features in NSF 21-578

- ❑ See Definition of Terms section in NSF 21-578.
- ❑ Collaboration Incentives are available for engagement with MSIs for any submission (up to \$250K) and available for engagement with two-year colleges in Track 1 and CB submissions (up to \$250K).
- ❑ Noyce-eligible STEM majors are defined using CIP codes.
- ❑ STEM teachers (as used in the solicitation) do not include teachers w/o teacher certification or licensure, vocational or career technical education teachers, substitute teachers, paraprofessionals, or teaching assistants.
- ❑ Individuals who have previously served (including concurrent service) as a K-12 teacher are not eligible for support in Track 1 or Track 2.
- ❑ MTFs with elementary certification or licensure should teach mathematics and/or science for at least 50% of their classroom teaching responsibilities.
- ❑ As funding permits, proposals for teacher research experiences in STEM settings may be submitted after consultation with (and approval of) a Noyce Program Director.



True or False “Quiz”

- Education majors are eligible to receive a Noyce scholarship in Track 1: S&S projects.
- Track 1: S&S, Track 2: TF, and Track 3: MTF projects all require a non-profit partner.
- Cost sharing is allowable for any Track but only required for Track 2: TF and Track 3: MTF.
- Teachers without a master’s degree may receive fellowship support for Track 3: MTF projects.
- Capacity Building projects are required to have a PI/co-PI from both a STEM and Ed department.

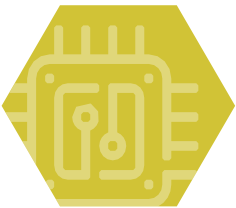


True or False “Quiz”

- Education majors are eligible to receive a Noyce scholarship in Track 1: S&S projects.
 FALSE
- Track 1: S&S, Track 2: TF, and Track 3: MTF projects all require a non-profit partner.
 FALSE but required for Tracks 2 & 3
- Cost sharing is allowable for any Track but only required for Track 2: TF and Track 3: MTF.
 FALSE not allowable for other tracks
- Teachers without a master’s degree may receive fellowship support for Track 3: MTF projects.
 TRUE but most earn in 1st year
- Capacity Building projects are required to have a PI/co-PI from both a STEM and Ed department.
 FALSE



Q & A # 1





Proposal

Preparation

Project Summary

Must address in no more than 1 page:

Overview

The first sentence MUST:

- Indicate the specific Track of the proposal (i.e., Track 1: Scholarships and Stipends)
- Name all institutions and partners, including high-need school districts and non-profit organizations, as appropriate, that are involved in the project.

Intellectual Merit

How important is this work & how well designed is the project?

Broader Impacts

What is the benefit of this work to STEM Education, to society?

Project Description (Tracks 1, 2, & 3)

See Section V of solicitation NSF 21-578 for supporting details.

Must be clearly identified, in any order, in no more than 15 pages:

Broader Impacts

Scope

Recruitment & Selection

Project Administration

Teacher Induction & Development

Degree, Preparation, or Leadership Program

Cost Sharing (TF & MTF Only)

Project Activities & Supports

Monitoring & Compliance

Evaluation

Dissemination

Collaborations

Prior Support (if applicable)

Note: NSF no longer requires a section entitled

Intellectual Merit

However, Intellectual Merit remains one of NSF's two core merit review criteria and must be evident from the content of your proposal.

Project Description (Capacity Building)

See Section V of solicitation NSF 21-578 for supporting details.

Must be clearly identified, in any order, in no more than 10 pages:

Broader Impacts

Rationale

Project Plan

Partnerships

Assessment of Project Outcomes

Prior Support (if applicable)

Project Management

Note: NSF no longer requires a section entitled

Intellectual Merit

However, Intellectual Merit remains one of NSF's two core merit review criteria and must be evident from the content of your proposal.

Additional Requirement for All Submissions

- Letters of Collaboration
 - Tracks 1, 2, and 3 require at least 4 letters, including letters from:
 - deans of **both** the participating STEM college/school and Education college/school,
 - superintendent of partnering school district (or comparable school district administrator), **and**
 - principal of partnering school (or comparable school administrator)
 - Tracks 2 and 3 require an additional letter from nonprofit partner
 - Capacity Building
 - allowed but only required if requesting collaboration incentive(s)
- Supplementary Documents Section must only include:
 - letters of collaboration (if applicable), biosketch of the project's independent evaluator (if applicable), postdoctoral research mentoring plan (if applicable), and data management plan





Merit

Review

Intellectual Merit

- What is the potential for the proposed activity to advance knowledge and understanding within its own field or across different fields?

Broader Impacts

- What is the potential for the proposed activity to benefit society or advance specific, desired societal outcomes?

Intellectual Merit and Broader Impacts

- To what extent do the proposed activities suggest and explore creative, original, or potentially transformative concepts?
 - 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?
 - How well qualified is the individual, team, or organization to conduct the proposed activities?
 - Are there adequate resources available to the PI (either at the home organization or through collaborations) to carry out the proposed activities?

General Tips for Success

1. Be aware of prior and ongoing projects and advances in the field (and discuss the results).
2. Cite the literature.
3. Include timelines and benchmarks in your plan for independent feedback.
4. Propose a cost-effective but high-impact project.
5. Make sure you have included all required details and sections.
6. If resubmitting a previously declined proposal, consider reviewers' feedback and do not resubmit the declined proposal without making substantive changes.
7. Put yourself in the reviewers' place. Have someone else read the proposal.
8. Provide supporting details to substantiate identified partnerships.
9. Align the requested budget with the scale and scope of work.
10. Call or email cognizant Noyce Program Officers.



One Question “Quiz”

Which of these are required in the Project Description for a Track 1, 2, or 3 proposal?

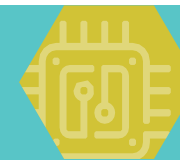
- Recruitment strategies
- Monitoring and compliance plans
- Dissemination plan
- Partners
- Names of students/teachers participating
- Letters from leaders from at least one partnering school and district (LEA)
- Journal (or conference) medium for disseminating results
- Identification of knowledge generation in the project
- Intellectual Merit and Broader Impact explicitly stated



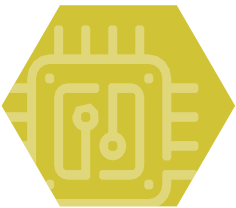
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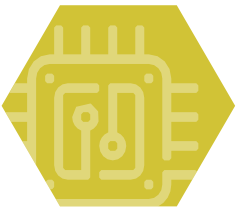
- Recruitment strategies
- Monitoring and compliance plans
- Dissemination plan
- Partners **(not required for Track 1)**
- Names of students/teachers participating **(not required)**
- Letters from leaders from at least one partnering school and district (LEA)
- Journal (or conference) medium for disseminating results **(not required)**
- Identification of knowledge generation in the project **(not required)**
- Intellectual Merit and Broader Impact explicitly stated



Q & A # 2



Additional Conversation



Critical Resources

Solicitation [NSF 21-578](#)

[Noyce Program webpage](#)

www.nsfnoyce.org

<https://aaas-arise.org/>

NSF Proposal and Award Policies and Procedures Guide (PAPPG), [NSF 20-1](#)

Other EHR Programs of Possible Interest

Improving Undergraduate STEM Education (IUSE: EHR): [NSF 21-579](#)

Seeks to improve the quality and effectiveness of the education of undergraduates in all STEM fields, including preservice teachers.

Scholarships in STEM (S-STEM): [NSF 21-550](#)

Seeks to increase the number of low-income academically talented students with demonstrated financial need obtaining degrees in S-STEM eligible disciplines and entering the US workforce or graduate programs in STEM.

Discovery Research PreK-12 (DRK12): [NSF 20-572](#)

Seeks to enhance the learning and teaching of STEM by preK-12 students and teachers through research and development of STEM education innovations and approaches.

Cognizant Noyce Program Directors

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Kimberly Tanner	ktanner@nsf.gov

Contact Program Director in August of the submission year if you are not submitting a proposal and interested in serving as a program reviewer.



Upcoming Noyce Events

- Webinar for Track 4: Noyce Research
 - June 7th (3:30 – 5:00 pm ET)
 - [Register](#)
- Visit the [Noyce Program webpage](#) and www.nsfnoyce.org for additional updates and upcoming events



Q & A # 3

Thank you for attending!

Jennifer & Mike

