

Robert Noyce Teacher Scholarship Program, [NSF 17-541](#) 2019 Proposal Writing Webinar

Webinar Focus: Capacity Building and Tracks 1, 2, & 3 projects



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Webinar Outline

- General Info on NSF 17-541
 - Grantee Eligibility
 - Program Background
 - Descriptions of CB and Track 1 - 3 Projects

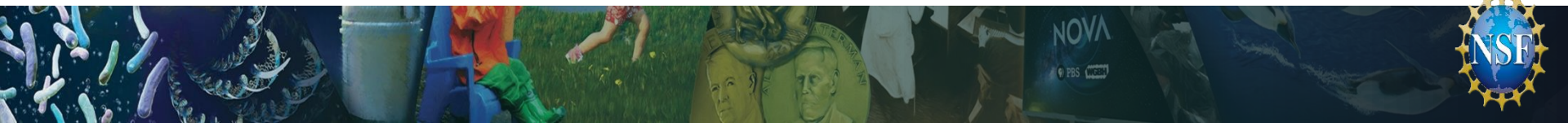
Quiz/Q & A #1

- Preparing the Proposal
- Proposal Processing & Merit Review

Quiz/Q & A #2

- Proposal Writing Tips

Q & A #3



Proposal Due Date for NSF 17-541

- Tuesday, August 27, 2019 for FY20 funds
- Last Tuesday of August, Annually Thereafter

Note: No new Noyce solicitation was released in 2019.



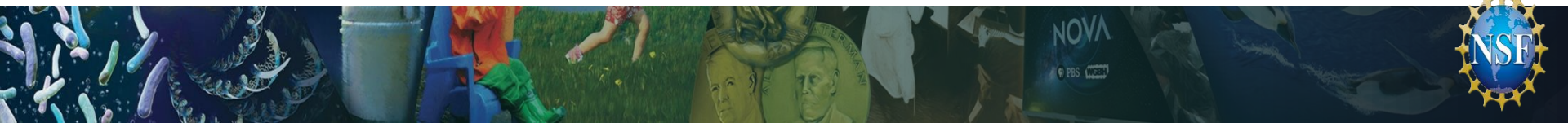
Robert Noyce Teacher Scholarship Program

Act of Congress

The primary program goal is to encourage talented STEM majors and STEM professionals to become K-12 STEM teachers.

Scholarship, stipend, and fellowship recipients must teach in a **high-need** school district for a specified number of years.

Institutions are responsible for tracking recipients and monitoring teacher service (or repayment).



Definition of High-Need LEA

High-Need Local Educational Agency (LEA) (e.g., a high-need school district)

A high percentage of individuals from families with incomes below the poverty line;

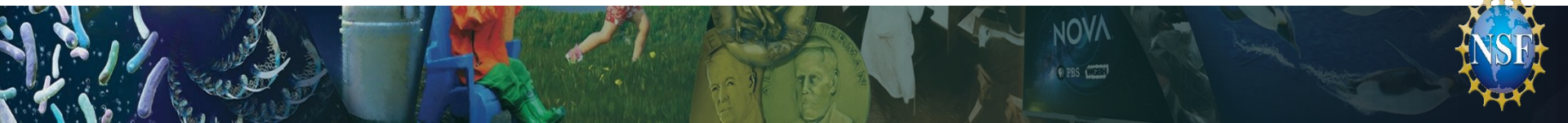
high = at least 50%

A high percentage of secondary school teachers not teaching in the content area in which they were trained to teach;

high = at least 35%

A high teacher turnover rate.

high = at least 15%



Track 1: S&S
Scholarships & Stipends

Undergraduate STEM majors
and/or STEM professionals

Track 2: TF

NSF Teaching Fellowships

STEM professionals

Robert Noyce
Teacher Scholarship
Program

Solicitation NSF 17-541

Track 3 (MTF)

NSF Master Teaching
Fellowships

Exemplary, experienced STEM
teachers

Track 4: Noyce Research

Research related to STEM
teacher effectiveness,
persistence, and retention in
high-need LEAs

*Capacity Building projects, which may lead to the development of full proposals for Tracks 1, 2, or 3, are also supported.



Requirements/ Features	Track 1 (S&S)	Track 2 (TF)	Track 3 (MTF)	Capacity Building
STEM Major	✓	✓	Degree in field	
Scholarships/ Fellowships	✓	✓	✓	
High-Need District Partner	✓	✓	✓	
Non-Profit Partner		✓	✓	
PI/co-PI Team of STEM & ED Faculty	✓	✓	✓	✓
Evaluation/ External Feedback	✓	✓	✓	✓
Cost Sharing		✓	✓	
Funding Amount	Up to \$1.2M*	Up to \$3M*	Up to \$3M*	Up to \$75K**
*\$250K Community College Incentive		**\$50K Community College Incentive		

Capacity Building Projects Must Describe (when applicable):

Entities to be engaged and processes to be employed in designing plan for recruiting, preparing, or supporting new or current STEM teachers;

Evidence-based innovative models and strategies for recruiting, preparing, & supporting STEM teachers.

Plans for collecting data to determine need, interest, capacity;

Available infrastructure and aspects taken into account in designing a credible, effective STEM teacher prep program;

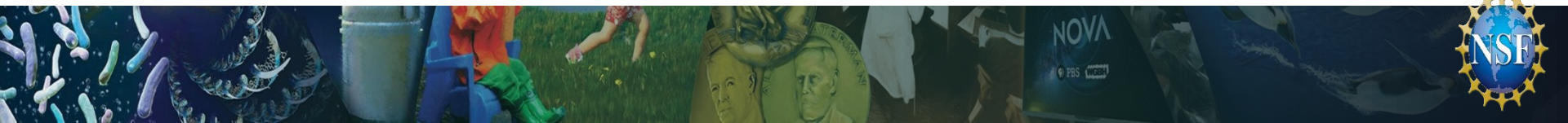
Process and plan for developing strategies, model, infrastructure, etc. ... How? Why? Who? When?



Examples of Possible CB Project Activities

- Development of new teacher preparation programs or courses for STEM majors and STEM professionals;
- Development of new programs for developing Master STEM Teachers;
- Conducting needs assessment to determine areas of STEM teacher shortages in local high-need school districts;
- Identifying/studying challenges or effective practices in recruiting and preparing STEM teachers for high-need school districts;
- Knowledge syntheses, identification, or dissemination of resources and evidence-based practices.

See solicitation for other examples of possible project activities.



Track 1 (S&S)

Scholarships & Stipends

Undergraduate STEM
majors and/or STEM
professionals

Scholarships for
Undergraduate STEM
Majors

and/or

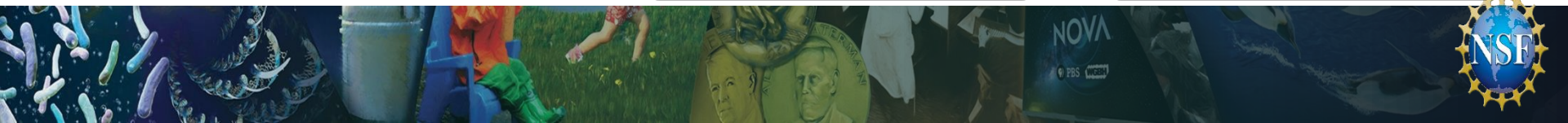
Stipends for STEM
Professionals

Junior and Senior
STEM majors
[and post-bacs]

STEM Professionals
enroll in a teacher
certification program

≥ \$10,000 per year
not to exceed cost of
attendance

≥ \$10,000 for one year
not to exceed cost of
attendance



Track 1 (S&S)

Scholarships & Stipends

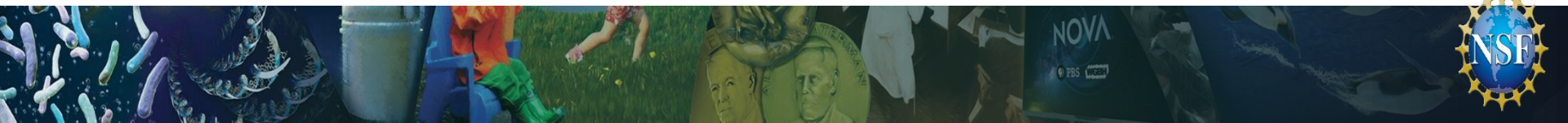
Undergraduate STEM
majors and/or STEM
professionals

Some Additional Considerations

Internships for
freshman and
sophomores
to attract
STEM majors
into K-12
STEM
teaching
careers.

Recruit STEM
majors who
may not have
previously
considered a
career in K-12
STEM
teaching.

Involvement of
master
teachers.



Track 3 (MTF)
NSF Master Teaching Fellowships

Exemplary, experienced STEM teachers

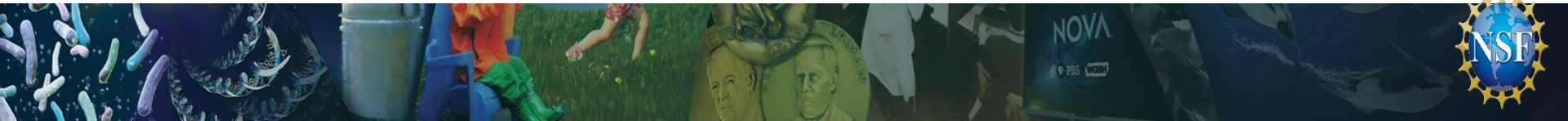
Fellowship and Salary Supplement

≥ \$10,000 per year for 5 years while teaching in a high-need school district

For Bachelors:
1-year fellowship support while in Master's program, up to 4 years while teaching

Take on leadership role within the school or LEA

- Mentoring
- Curriculum development
- Plan/implement PD
- Participate in pre-service education



Poll – True or False Quiz

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



Q & A # 1

15 minutes



Preparing the Proposal

Solicitation Section V



Project Description - 15 pages (CB Projects)

Include descriptions of:

- Strategies/activities/proposed efforts;
- Infrastructure and/or partnership needs;
- Evaluation and/or research plan;
- Plans for implementing a future Track 1: S&S, Track 2: TF, or Track 3: MTF project.



Merit Review Procedures

Solicitation Section VI



NSF Merit (*Required*) Review Criteria

Intellectual Merit

- Importance to advancing knowledge and understanding
- Creative, original, and/or potentially transformative
- Proposers' qualifications
- Sufficient access to resources
- Proposed activity well-conceived and organized
- Data management plan
- Post-doc mentoring plan, if applicable
- Evaluation

Broader Impacts

- Promote teaching, training, and learning
- Broaden the participation of underrepresented groups, new institutions, influence on field, etc.
- Enhance the infrastructure for research and education
- Partnership development
- Disseminate results broadly
- Benefit society



Review Criteria Specific to Noyce Solicitation

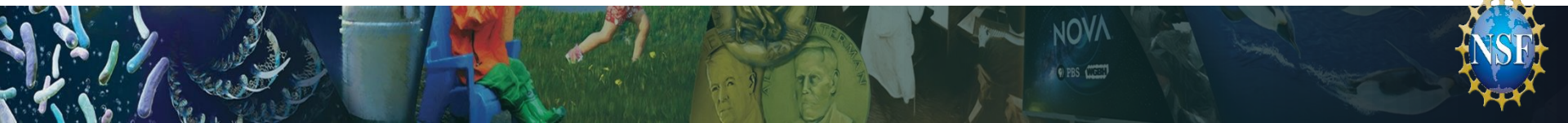
In addition to the IM & BI criteria, reviewers will be asked to consider the evidence of the following central issues (including results of prior Noyce awards, if applicable):

- Extent to which the proposed work attends to the expectations and requirements discussed in *Section II Program Description*.
- Potential of the project to recruit, prepare, and retain STEM majors and/or STEM professionals (for S&S and TF) or develop and retain NSF Master Teaching Fellows (for MTF), in teaching careers in high-need local educational agencies.
- Quality of the academic requirements and other components of the program, the extent to which the proposed preparation, recruitment, and retention strategies reflect effective practices based on research.
- Institution's commitment to sustaining the program beyond the period of NSF funding.



Q & A # 2

15 minutes



Proposal Writing Tips



General Tips for Success

1. Be aware of other projects and advances in the field.
2. Cite the literature.
3. Include details and all requirements per solicitation.
4. Discuss prior (including Noyce) NSF results.
5. Include evaluation plan w/ timelines and benchmarks.
6. Propose a cost effective but high impact project.
7. Put yourself in the reviewers' places.
8. If resubmitting previously declined proposal, consider reviewers' feedback. Do not resubmit same declined proposal.
9. Have someone else read the proposal.
10. Call or email cognizant Noyce Program Officers.



Common Weaknesses for Track 1: S &S

1. Does not follow guidelines for Noyce Program
2. Failure to indicate students will complete STEM major
3. Little information about teacher preparation program
4. Unrealistic projections
5. Recruitment and selection strategies not well described
6. Lack of support for new teachers
7. Lack of involvement of STEM faculty (or education faculty)
8. Lack of plans for monitoring compliance for teaching requirement
9. Weak evaluation or lacks objective evaluator
10. Does not address *Prior Results* or *Lessons Learned*



Common Weaknesses

(Track 2: TF and Track 3: MTF)

1. Insufficient details for preservice and induction program for TFs or professional development program for MTFs.
2. Vague recruitment plans.
3. Selection plans do not follow guidelines.
4. Master Teacher roles and responsibilities not discussed.
5. Limited identification of leadership development focus.
6. Matching funds not identified.
7. Role of non-profit organization not clear.
8. Weak school district partnership.
9. Weak evaluation plan.
10. Limited innovativeness or establishment of need for project.



Common Weaknesses for CB Projects

1. Institution already has needed capacity.
2. Requests CC incentive but no CC involvement.
3. No clear indication of how proposed work can lead to future Track 1, 2, or 3 proposal.
4. Unrealistic plans for a one-year project.
5. No form of evaluation included.



Additional Resources

- [nsfnoyce.org](https://www.nsfnoyce.org)
- [NSF 19-1](#): *NSF Proposal and Awards Policies and Procedures Guide* (PAPPG)
 - includes detailed instructions on items such as required biosketches, required Data Management Plan, IRB approval, allowable budget items, etc.
- See Additional Resources listed in NSF solicitation [NSF 17-541](#)



Other EHR Programs of Possible Interest

- Improving Undergraduate STEM Education (IUSE: EHR [NSF 17-590](#))
- EHR Core Research (NSF [19-508](#))



Cognizant Noyce POs

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Note: If you are interested in serving as program reviewer and not submitting a proposal in 2019, contact a cognizant PO by email in August.



Q & A # 3

15 minutes

