

EDU Core Research (ECR) Solicitation 21-588

Last Minute Tips & Audience Q&A

Co-hosted by the ECR Hub and the National Science Foundation

ECR Hub Overview

- 5-year resource center funded by the National Science Foundation (Award Abstract # 2208422)
- **ECR Hub Leadership**
 - American Institutes for Research
 - Georgia State University
 - Morgan State University
 - Northwestern University



Overarching Goals and Target Audiences

Two overarching goals:

- Extend the influence and reach of existing ECR investments
- Build career development opportunities, especially for underrepresented institutions and scholars

Three target audiences:

- Current ECR grantees
- Prospective ECR grantees
- Stakeholders in other NSF EDU programs (reached via other NSF EDU resource hubs)



ECR Hub Goals

- **Identify the needs of a diverse ECR grantee community** through interviews and surveys of key stakeholders such as current and prospective ECR grantees.
- **Catalogue and synthesize past and current ECR research** through building interactive data tools and topic-specific evidence snapshots for finding specific kinds of ECR projects and learning about their results.
- **Strengthen research networks and information sharing for more than 400 current grantees** through organizing grantee meetings and workshops, creating a centralized website, and sharing information and engaging the community via social media.
- **Conduct outreach and broaden participation of prospective grantees** through proactive efforts to reach scholars and institutions underrepresented in the current ECR portfolio through targeted workshops, webinars, and communities of practice.
- **Consolidate and disseminate resources from existing ECR training institutes** by creating an efficient, one-stop, location on the ECR Hub website for users to access methodological training content (e.g., slides, videos, upcoming events).
- **Build collaborations with other NSF STEM education resource hubs** to advance long-term ECR program goals, such as realizing the potential of fundamental research to inform the next phases of more applied research.



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ECR supports curiosity-driven and use-inspired fundamental research that contributes to the general, explanatory knowledge that underlies STEM education.



Fundamental research:

- Generates knowledge that advances research literature.
- Is grounded in theoretical or empirical frameworks that inform research questions.
- Does not necessarily generate findings with immediate applications at the practical level although the research may have implications for policy or practice.



Identify ECR Research Areas

Research Area I – Research on STEM Learning and Learning Environments

- Studies may inform or draw upon research from multiple disciplines that study learning at the level of the learner, the teacher, the learning environment, or the broader institutional or systemic context, as well as other organizations or individuals that may influence STEM learning.

Research Area II – Research on Broadening Participation in STEM

- Broadening participation research may focus on the individual and/or the organizational factors that positively or negatively impact individuals from diverse groups in STEM. “Diverse groups” refer to people of various races and ethnicities, genders, sexual orientation, and ability who are currently underrepresented in their participation in STEM education and the STEM workforce.

Research Area III – Research on STEM Workforce Development

- Basic questions examine how best to prepare a STEM workforce that is ready to capitalize on the latest advances in technology and science, as well as to tackle current and future social and economic challenges.
- Of particular interest are frontier topics in the education and training of a workforce for the industries of tomorrow, pushing the boundaries of technology use in STEM workplace learning, and examining how learning will change for STEM workers because of advances in technology.



ECR Funding Levels

Level I: Up to \$500,000; approx. 15 awards

Level II: Up to \$1,500,000; approx. 12 awards

Level III: Up to \$2,500,000; approx. 5 awards

3 to 5 years for any level

The amount of funding and duration requested in proposals submitted to the ECR solicitation should align with the maturity of the proposed work and the size and scope of the empirical effort.

Merit Review Process



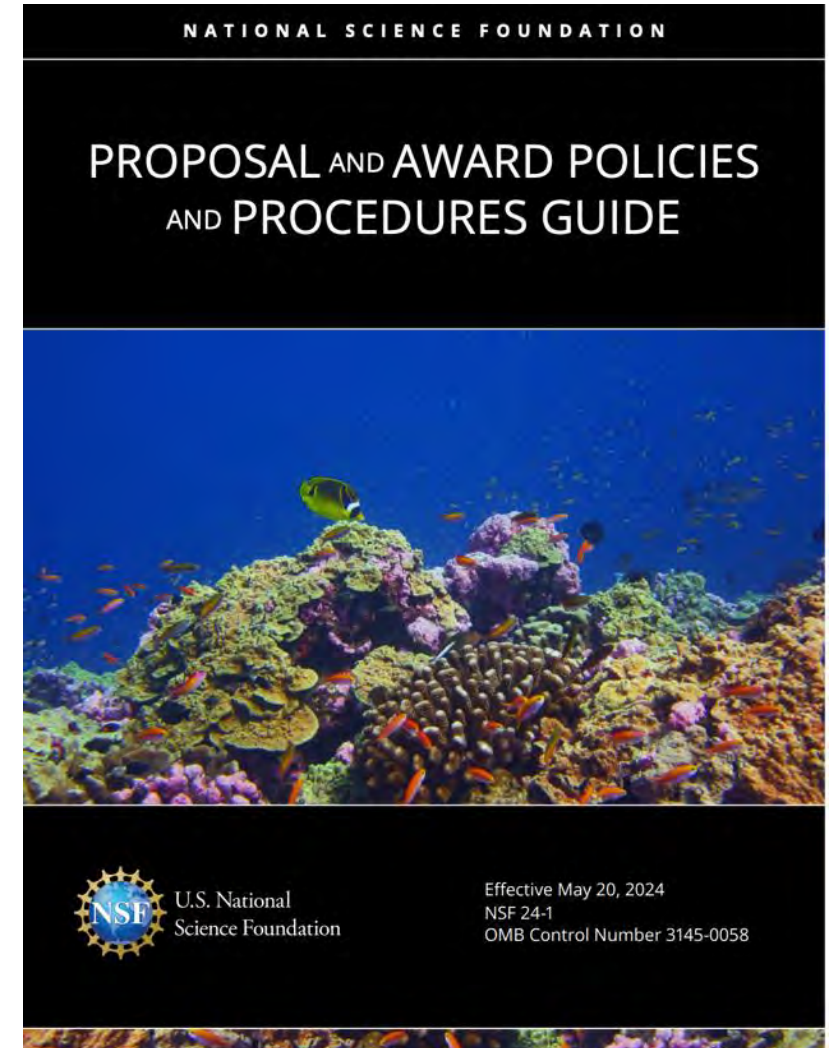
- **Intellectual Merit:**
 - Potential to advance knowledge and understanding
- **Broader Impacts:**
 - Potential to benefits society or advance desired societal outcomes

Proposal and Award Policies and Procedures Guide (PAPPG)

- Current version is NSF 24-1:

<https://new.nsf.gov/policies/pappg>

- Commonly referred to as the “P.A.P.P.G.” or the “Pap-Gee”
- Use your web browser to search (using Ctl+F or Cmd+F) specific proposal preparation topics



NSF Proposal Components

- Project Summary (Intellectual merit & Broader Impacts)
- Project Description
- References Cited
- Data Management Plan
- Biographical Sketches
- Current and Pending Support
- Budget and Budget Justification
- Facilities, Equipment and Other Resources
- Letter(s) of Collaboration
- Mentoring Plan (if applicable)

See “Proposal Preparation Instructions” in the PAPPG for more details and a full list of required documents

Elements of a Successful ECR Proposal

- Justification/Innovative idea or approach
- Theoretical frameworks
- Comprehensive literature review
- Clearly written research questions
- Identify data sources
- Strong research design with appropriate methods and analysis
- Effective dissemination plan
- Description of timeline for project activities
- Expert project team
- Advisory board
- External evaluator (optional)

Common Budget Pitfalls/Red Flags

- **Going for the maximum:** Reviewers and program officers can tell when proposers are aiming to get the most out of NSF.
 - “Proposals that request the highest level of funding are particularly expected to discuss the need for resources.”
- **Project timelines:** Do you really need 4 years to accomplish what you can do in just 3? Is 3 years enough time for data collection and analysis?

Common Budget Pitfalls/Red Flags

- **Inequitable budgets:** Are partners and participants being compensated fairly? Are community-based organizations or schools being compensated for their time and efforts on par with researchers?
- **Start preparing your budget now:** Don't wait till the day before the proposal deadline!

Proposal Submission

Proposals need to be submitted using Research.gov or Grants.gov

For technical support with Research.gov, contact the Help Desk at rgov@nsf.gov or 1-800-381-1532

Questions?

ECR deadline is **October 3, 2024, at 5:00pm** local submitter's time
Email ECR@nsf.gov with questions

Thank you for attending today's webinar.

Complete the exit survey: <https://tinyurl.com/ECRAug28Webinar>