U.S. National Science Foundation (NSF) Annual Evaluation Plan - FY 2026

Subject to the availability of necessary resources, NSF plans to carry out three significant evaluations in FY 2026. NSF chose these evaluations because they (1) align with Administration and Agency priorities, (2) fill gaps in evidence needed, (3) have organizational support, (4) support upcoming decisions, and (5) have the potential to result in findings that are useful to a broad set interested parties, programs, or organizations.

1. Evaluation of the National Artificial Intelligence Research Resource (NAIRR) Pilot

Description

The National Artificial Intelligence Research Resource (NAIRR) is a proof-of-concept pilot for a national infrastructure that connects U.S. researchers to computational, data, software, model, and training resources they need to participate in AI research. The NAIRR pilot will be completed in January 2026. In FY 2026, NSF plans to evaluate the NAIRR pilot, focusing on one of the two following questions: *"What lessons have been learned from the NAIRR pilot in one priority topic area that can inform the design and scaling of the full NAIRR?"* and *"What early outcomes or breakthroughs have resulted from NAIRR-supported research or training in one of the priority topic areas?"* Interviews, document review, and descriptive analyses may be conducted. Available data sources include NAIRR's project mapping data, annual meeting recordings, and user experience working group reports and recordings. NSF will use the insights gained from the evaluation to inform an iterative design process for a full-scale NAIRR program in one of the following priority topic areas: safe, secure, and trustworthy AI; human health; or environment and infrastructure.

Statutory Alignment:

- National Artificial Intelligence Initiative Act of 2020 (P.L. 116-283)
- Foundations for Evidence-Based Policymaking Act of 2018 (P.L. 115-435)

Alignment with Administration Priorities:

- Artificial intelligence research and education (Executive Orders 14179 and 14277)
- 2. Evaluating STEM Workforce Investments through NSF's Research Experiences for Undergraduates program

Description

NSF's Research Experiences for Undergraduates (NSF REU) program supports intensive research by undergraduate students in any area of research funded by NSF. This study will address questions such as *"What are the gaps and opportunities for the REU program to serve all Americans everywhere?"* and *"Is there evidence of an unmet need for STEM training in some areas of research?"* NSF will use data collected via the Education and Training Application (ETAP), which enables NSF to gather high-quality data about applicants and participants in NSF-funded training opportunities that can be used to evaluate investments in human capital development that address agency priorities. NSF will compute comparative descriptive analyses of ETAP data on applicants to and participants in the REU program to examine their STEM field, institution, and location. A short survey may be administered to declined applicants to assess the extent of demand

for REU opportunities in specific STEM fields. Results of this study will provide insights to inform future investments in human capital and in efforts to recruit more NSF programs to use ETAP.

Statutory Alignment:

- Foundations for Evidence-Based Policymaking Act of 2018 (P.L. 115-435)
- America COMPETES Reauthorization Act of 2010 (Section 514(a)(6) of P.L. 111-358)
- CHIPS and Science Act of 2022 (P.L. 117-167)

Alignment with Administration Priorities:

• Supports the development of a strong and talented science and technology workforce (Executive Order 14277 and 14278; OSTP Director Kratsios' comments during hearing of Senate Committee on Commerce, Science, and Transportation, February 25, 2025)

3. Evaluating the effectiveness of NSF's STEM Mentoring Plan requirement

Description

Since 2009, Congress has required that proposals requesting funding for postdoctoral researchers include plans for mentoring activities, a requirement that NSF has extended to all proposals requesting funding for graduate students. This study will identify high-impact mentoring practices in NSF funded mentoring plans. Evaluation questions may include *"What activities are most frequently reported in mentoring plans submitted as part of proposals to NSF?"* and *"What mentoring activities are related to STEM career intentions?"* Descriptive data will be computed from a representative sample of NSF data on postdoctoral mentoring activities between 2007-2024. A survey of postdoctoral students may be conducted to assess their STEM career aspirations or positions. Analysis of survey data will include descriptive and regression computations to connect mentoring activities to STEM workforce participation. The evaluation results will inform NSF leadership and program directors in refining strategies to improve the postdoctoral research opportunities that NSF funds.

Statutory Alignment:

- America COMPETES Act of 2007 (Section 7008(a) of P.L. 110-69)
- CHIPS and Science Act of 2022 (Sec. 10313, 42 USC 18993, of <u>P.L. 117-167</u>)

Alignment with Administration Priorities:

• Supports the development of a strong and talented science and technology workforce (Executive Order 14277 and 14278; OSTP Director Kratsios' comments during hearing of Senate Committee on Commerce, Science, and Transportation, February 25, 2025)