

**NATIONAL SCIENCE FOUNDATION**  
**SUPPORTING STATEMENT FOR PAPERWORK REDUCTION ACT**  
**SUBMISSION**  
**NATIONAL SCIENCE FOUNDATION**  
**GRADUATE RESEARCH FELLOWSHIP PROGRAM**  
**3145-0023**

**A. Justification**

**1. Circumstances making the collection of information necessary.**

The mission of the National Science Foundation (NSF) was established by Congress in legislation that created the agency. The NSF Act of 1950 (Public Law 81-507) sets forth the mission: ***“to promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense; and for other purposes.”***

“In order to unleash the Nation’s innovation potential, a well-prepared knowledge workforce - one that is steeped in the expanding knowledge base and the advanced technology being generated by fundamental research activities - is essential. NSF meets this need by seamlessly integrating the education of future scientists, engineers, and educators into the broad portfolio of research that we support. This investment strategy generates not only groundbreaking science and engineering discoveries, but it also equips the future science and engineering workforce with the knowledge and experience to apply the most advanced concepts and technology to meet societal challenges.” ([NSF Strategic Plan for FYs 2022-2026](#).)

Section 10 of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1869), states that “[t]he Foundation is authorized to award scholarships and graduate fellowships for study and research in the sciences or in engineering at appropriate nonprofit American or nonprofit foreign institutions selected by the recipient of such aid, for stated periods of time.” Among the first programs offered by NSF at its inception in 1952 were a Graduate and Postdoctoral Fellowships Program. The program is administered by the Division of Graduate Education, Directorate for Education and Human Resources.

The purpose of the NSF Graduate Research Fellowship Program (GRFP) is to help ensure the vitality and diversity of the scientific and engineering workforce of the United States. The program recognizes and supports outstanding graduate students who are pursuing research-based master's and doctoral degrees in science, technology, engineering, and mathematics (STEM) or in STEM education. The GRFP provides three years of support for the graduate education of individuals who have demonstrated their potential for significant achievements in STEM or STEM education.

The program goals are:

- 1) to select, recognize, and financially support, early in their careers, individuals with the demonstrated potential to be high achieving scientists and engineers, and
- 2) to broaden participation in science and engineering of underrepresented groups, including women, minorities, persons with disabilities, veterans, and persons from underrepresented geographic areas of the U.S.

GRFP is a critical program in NSF's overall strategy to develop the globally engaged workforce necessary to ensure the nation's leadership in advancing science and engineering research and innovation. The ranks of NSF Fellows include numerous individuals who have made transformative breakthrough discoveries in science and engineering, become leaders in their chosen careers, and been honored as Nobel laureates.

Applicants are encouraged to visit the NSF web page at <https://www.research.gov/grfp/Login.do> for information and guidance.

## **2. How and By Whom the Information will be Used.**

The information collected is used to support the GRFP. The information collected is used in application reviewer assignments, initial review, award processing, and grant accounting. The database is used to provide complete, accurate, and up-to-date reports to all levels of management.

The program uses multiple data sources for program improvement, program evaluations, and program oversight, including data compiled from the applications, reviewers, awardees, honorable mentions, and declinations. The data are tracked over multiple years to examine trends and identify gaps that need to be addressed in subsequent competitions. As an example, outreach in the preparation of competitive applications has been identified for targeted groups. Under the Government Performance and Results Act (GPRA), NSF tracks the number of eligible applications submitted by applicants from underrepresented groups.

The information collected on gender, race, ethnicity, disability, geographic location, past schools attended, or veteran status is used in meeting NSF needs for data to permit response to Congressional and other queries into equity issues. These data also are used in the design, implementation, and monitoring of NSF efforts to increase the participation of groups underrepresented in science and engineering.

In 2023, representatives from the GRFP met with NSF's Research.gov IT specialists to align the GRFP's data collection more closely with the rest of NSF. For example, the GRFP will no longer collect such detailed information related to type of disability.

## **3. Consideration of the Use of Information Technology.**

All eligible individuals must submit their applications through the Research.gov submission process. Approximately 14,000 applications are received each year.

**4. Efforts to Identify Duplication.**

NSF has attempted to eliminate collection of duplicate information for each individual. For the Graduate Research Fellowship Program, data collected at the application stage is integrated into an awarded Fellow database, eliminating the need for new data capture. Fellows are permitted to update some of their information as needed.

**5. Efforts to Minimize Burden on Small Entities.**

Small entities are not affected by this information collection.

**6. Consequences if Data Collection is Not Conducted.**

Since each application is evaluated on its own merits, by selected reviewers, applicants are required to submit separate applications, each accompanied with applicable forms. Reviews are conducted annually; pools of potential applicants change regularly, as do reviewers. Without data collection, the Foundation would not be able to evaluate the effectiveness of the GRFP or its outreach efforts. The GRFP would not be able to conduct formative assessments, course-correct, or provide reports to stakeholders such as Congress.

**7. Circumstances Requiring Deviation from Guidelines of 5 CFR 1320.**

Not applicable.

**8. Federal Register Announcement and Other Consultations Outside the Agency.**

The first notice was published in the *Federal Register* on September 28, 2023 (88 FR 66910), and no comments were received.

The processes for announcing availability of support and for receiving applications and making awards have been developed over the life of the Foundation, and through consultation with, and assistance of, many outside sources. These sources include other Federal agencies, academic and business officers representing institutions of higher education, and individuals submitting the applications and their academic advisors.

**9. Payments to Respondents.**

Not applicable.

**10. Confidentiality.**

The Foundation is committed to monitor and identify any real or apparent inequities based on gender, race, ethnicity, or disability of the applicants. The collection of this information is a part of all regular applications to the Foundation. Information concerning the applicants is maintained in accordance with the requirements of the Privacy Act of 1974. The Graduate

Research Fellowships Program has its own Privacy Act System of Records – NSF-12. No personal information is released to the public.

**11. Sensitive Questions.**

Information collected on gender, citizenship, race, ethnicity, disability and veteran status is collected as a part of the electronic application. NSF retains these data as an integral part of its Privacy Act System of Records, NSF-12, “Fellowships and Other Records” (revised at 79 FR 76398). This information is treated as confidential to the extent permitted by law.

**12. Response Burden Hours.**

The Foundation expects to receive approximately 14,000 fellowship applications annually. We have estimated that an average of approximately 12 burden hours is expended by the public for each application for an annual total of 168,000 hours. Graduate students are limited to only one application, submitted either in the first year or in the second year of graduate school.

**13. Burden Cost to Respondents.**

There is no cost to the applicant above the expense of preparing and submitting the application. Using an NSF Graduate Research Fellow’s annual stipend (\$37,000 for 2,000 hours) as a monetary estimate of time, a student spending an estimated 12 hours on an application package would be \$222 per student applicant. ( $\$37,000/2,000 = \$18.50/\text{hour}$ ;  $\$18.50 \times 12 \text{ hours} = \$222.$ )

**14. Annualized Cost to the Federal Government.**

Approximately 5,200 hours annually are expended on in terms receiving and reviewing applications to the program. The staff responsible for processing applications are full-time employees in grade levels GS-9 through GS-15, or the AD salary equivalents. The staff responsible for assessing and analyzing applicant data are full-time employees, with positions ranging from grade levels GS-12 to GS-14, or the equivalents, depending on the year. In addition, the program is dependent on external peer reviewers from the scientific and engineering communities at large. Applications are reviewed online by virtual panels of disciplinary and interdisciplinary scientists and engineers and other professional graduate education experts.

The average salary of the staff responsible for carrying out these duties is \$64.66.

The estimated cost for this is:

Employees, 4,500 hours x \$64.66 = \$290,970  
Reviewers, 700 hours at \$110/hour – \$77,000  
Total: \$367,970

**15. Reasons for any Program Changes.**

Applicants' and reviewers' short-term burden is slightly increased through NSF's implementation of the new "single ID" system, which requires a new registration before interacting with NSF. However, because this is a one-time registration that will remain with the individual throughout his/her career, the future burden is reduced.

**16. Publication of Information.**

Not applicable.

**17. Display of Expiration Date for OMB Approval.**

The GRFP will display the OMB approval number and expiration date on the greeting screen applicants see after signing in to work on their applications.

**18. Any Exceptions to the Certification Statement.**

There are no exceptions to the Certification Statement.

**Part B: Collections of Information Employing Statistical Methods**

Not Applicable