

**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’s Strategic Plan for 2014-2018](#)).

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, and veterans.

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 [www.nsf.gov/fastlane](http://www.nsf.gov/fastlane) for information and guidance about current and emerging themes for NSF.

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

The information collected is used to support the Graduate Research Fellowship Program of the Foundation. The information collected is used in application assignments and referral, 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 and program oversight, including data compiled from the applications, 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 GPRA, NSF tracks the number of eligible applications submitted by applicants from underrepresented groups.

The information collected on gender, race, ethnicity, disability 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.

The Science and Technology Equal Opportunities Act, Part B of Pub. L. No. 96-514 (42 U.S.C. 1885a and 1885b), as amended, authorizes and requires NSF to increase the participation of groups underrepresented in science and engineering. In addition, the Act specifically authorizes the Foundation to "undertake or support a comprehensive science and engineering education program to increase the participation of minorities in science and engineering."

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

All eligible individuals must submit their applications through the Foundation's FastLane submission process. Approximately 14,000 applications are received each year via FastLane.

## **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 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. Only one application may be submitted in each application cycle. Reviews are conducted annually; pools of potential applicants change regularly.

**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 May 18, 2017 (82 FR 22857) 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, with the assistance of many outside sources. These sources include other Federal agencies, academic and business officers representing institutions of higher education, and individuals submitting the application.

**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 handicap 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. The reduction in total submissions is due to a change in the eligibility of graduate student applicants as of the 2017 competition. Graduate students are limited to only one application, submitted either in the first year or in the second year of graduate school. The adjustment is reflected in this request for approval.

## **13. Burden Cost to Respondents.**

There is no cost to the applicant above the expense of preparing and submitting the application – Student completes the application package—estimating cost of stipend annual cost is \$34,000; \$17/hour x 12 hours = \$204 per applicant. This figure is estimated at \$34,000 per year; \$17 per hour.

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

It is difficult to estimate the annualized cost to the Federal government in terms of number of hours expended, salaries, equipment involved, etc., because the number of applications received varies from year to year. The staff responsible for processing applications are full-time employees ranging in grade levels from GS-9 to GS-15. 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.

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

The overall burden has decreased due to the decrease in the number of eligible applicants; however, the amount of time estimated to complete the application has not changed.

## **16. Publication of Information.**

Not applicable.

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

Many of the Fellowship guidelines for submitting applications are used for several years unless the NSF policy changes regarding those fellowship programs. In those cases we

would be required to return to OMB for clearance. NSF is requesting permission to not display the OMB expiration date of approval because it is expected that these formats will not change and the effort of having to revise those electronic formats could be saved.

**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