

NATIONAL SCIENCE FOUNDATION PROPOSAL and AWARD POLICIES AND PROCEDURES GUIDE, OMB Clearance No. 3145-0058

Part A. Justification

1. Background

The National Science Foundation Act of 1950 (Public Law 81-507) sets forth NSF's mission and purpose:

“To promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense....”

The Act authorized and directed NSF to initiate and support:

- basic scientific research and research fundamental to the engineering process,
- programs to strengthen scientific and engineering research potential,
- science and engineering education programs at all levels and in all the various fields of science and engineering,
- programs that provide a source of information for policy formulation, and other activities to promote these ends.

Over the years, NSF's statutory authority has been modified in a number of significant ways. In 1968, authority to support applied research was added to the Organic Act. In 1980, the Science and Engineering Equal Opportunities Act gave NSF standing authority to support activities to improve the participation of women and minorities in science and engineering. Another major change occurred in 1986, when engineering was accorded equal status with science in the Organic Act.

NSF has always dedicated itself to providing the leadership and vision needed to keep the words and ideas embedded in its mission statement fresh and up-to-date. Even in today's rapidly changing environment, NSF's core purpose resonates clearly in everything it does: promoting achievement and progress in science and engineering and enhancing the potential for research and education to contribute to the Nation. While NSF's vision of the future and the mechanisms it uses to carry out its charges has evolved significantly over the last five decades, its ultimate mission remains the same.

The *Proposal & Award Policies & Procedures Guide (PAPPG)*¹ is comprised of documents relating to the Foundation's proposal and award process. The PAPPG, in conjunction with NSF's award terms and conditions, serves as the Foundation's implementation of 2 CFR §200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*. If the PAPPG and the award conditions are silent on a specific area covered by 2 CFR §200, the requirements specified in 2 CFR §200 must be followed.

It has been designed for use by both our customer community and NSF staff and consists of two parts:

¹ This Guide has been developed for use with NSF assistance programs. For information relating to NSF contracts, consult the [Guide to the NSF Contracting Process](#).

- Part I, sets forth NSF's proposal preparation and submission guidelines. The coverage provides guidance for the preparation and submission of proposals to NSF. Some NSF programs have program solicitations that modify the general provisions of the PAPPG, and, in such cases, the guidelines provided in the solicitation must be followed.

The guidance contained in the *NSF Grants.gov Application Guide* should be followed when preparing and submitting proposals to NSF via Grants.gov.

- Part II of the NSF PAPPG sets forth NSF policies and procedures regarding the award, administration, and monitoring of grants and cooperative agreements. Coverage includes the NSF award process, from issuance and administration of an NSF award through closeout. Guidance regarding other grant requirements or considerations that either are not universally applicable, or which do not follow the award cycle also is provided. Part II also implements other Public Laws, Executive Orders (E.O.) and other directives insofar as they apply to grants and is issued pursuant to the authority of Section 11(a) of the [NSF Act](#) (42 USC §1870). When NSF's award terms and conditions or an award notice reference a section of the PAPPG, then that section becomes part of the award requirements through incorporation by reference.

A revised version of the *NSF Proposal & Award Policies & Procedures Guide* that addresses comments received as part of the public comment process is included as an Exhibit to this Supporting Statement.

2. Use of Information

The information collected is used to help the Foundation fulfill this responsibility by initiating and supporting merit-selected research and education projects in all the scientific and engineering disciplines. In FY 2023, NSF expects to receive more than 50,000 proposals annually for new or renewal support for research in math/science/engineering education projects and make approximately 13,500 new awards. The Foundation exercises its authority primarily by making merit-based grants and cooperative agreements and providing other forms of assistance to individual researchers and groups, in partnership with about 1,800 colleges, universities and other organizations – public and private, state, local and federal – throughout the United States. The information collected on gender, race, ethnicity, or disability is used in meeting NSF needs for data to permit response to congressional and other queries into equity issues. Demographic data allows NSF to gauge whether our programs and other opportunities in science and technology are fairly reaching and benefiting everyone regardless of demographic category; to ensure that those in under-represented groups have the same knowledge of and access to programs and other research and educational opportunities; and to assess involvement of international investigators in work supported by NSF.

The information collected via the proposal evaluation module is used by the Foundation in applying the following criteria when awarding or declining proposals submitted to the agency: (1) intellectual merit; and (2) the broader impacts of the proposed activity.

The information collected on reviewer background questionnaires is used by managers to maintain an automated database of reviewers for the many disciplines represented by the proposals submitted to the Foundation. Information collected on gender, race, ethnicity, and disability status is used in meeting NSF needs for data to permit response to congressional and other queries into equity issues. These data are also used in the design, implementation, and

monitoring of NSF efforts to increase the participation of various groups in science, engineering, and education.

3. Use of Automation

The NSF FastLane System and Research.gov use internet/web technology to facilitate the way NSF does business with the research, education, and related communities. All FastLane and Research.gov functions are accessed by using a web browser on the Internet. These electronic systems are used for the following interactions between NSF and the science and engineering research and education community:

- communicate the Foundation's strategic priorities to proposer and awardee communities;
- proposal preparation & submission;
- proposal reviews;
- panel travel initiation;
- panel electronic funds transfer information;
- interactive panel system for panel meetings (including proposal ranking and submission and approval of panel summaries);
- proposal and award status inquiries (proposal status includes release of reviews to PIs and co-PIs);
- revised proposal budget preparation and submission;
- supplemental funding request preparation and submission;
- access to award notices for use by PIs, co-PIs, and Sponsored Project Offices;
- post-award administrative notifications and requests for NSF approval;
- organizational management; and
- review and/or revision of organizational information.

There are 103,737 individual researchers and organizations registered in NSF electronic systems. In FY 2021, 52,861 competitive proposals were submitted electronically to NSF, either via FastLane, Research.gov or Grants.gov. Electronic submission accounts for 99.9% of all proposals submitted to NSF.

In addition, 183,177 reviews were submitted electronically, in FY 2021. Our users represent a diverse group of proposer and grantee organizations including major U.S institutions of higher education, small colleges, community colleges, and non-profit organizations. NSF electronic systems proposal evaluation module contains the electronic format used in the evaluation of proposals for NSF. This module permits persons reviewing NSF proposals to submit ratings and comments electronically using this application. The reviewer uses a special review PIN (specific to that proposal) to access a template that can be used to "copy and paste" reviewer comments and to record other required information.

Relationship to Grants.gov Activities.

Grants.gov provides a common website to simplify competitive discretionary grants management and eliminate redundancies. There are 26 Federal grant-making agencies and over 1000 grant programs that award more than \$500 billion in grants each year. The grant community, including state, local and tribal governments, academia and research institutions, and not-for-profits, need only visit one website, Grants.gov, to access the annual grant funds available across the Federal government. Grants.gov provides a:

- single source for finding grant opportunities;
- standardized manner of locating and learning more about funding opportunities;
- single, secure and reliable source for applying for Federal grants;
- simplified grant application process with reduction of paperwork; and
- unified interface for all agencies to announce their grant opportunities, and for all grant applicants to find and apply for those opportunities.

Since the inception of Grants.gov, NSF has been an active partner in Federal-wide electronic grant efforts. NSF continues to participate in various committees of the Financial Assistance Committee for e-government (FACE).

Unless specified in an NSF program solicitation, proposers are authorized to submit proposals to NSF via Grants.gov or Research.gov. Until such a time, however, as Grants.gov is able to accept all types of NSF proposal formats through the Grants.gov portal, separate application formats for use by NSF applicants remain necessary.

4. Efforts to Identify Duplication.

NSF's electronic systems automatically pull in information about the proposing organization and Principal Investigators that is already available in the NSF database thereby reducing the need to re-enter previously provided data. NSF is expanding its efforts in this area by making use of our electronic systems to fully integrate data, where possible and appropriate. NSF is able to take advantage of information technology to assure that the duplication of information is kept to a minimum.

No duplication exists in the evaluation process since each proposal is evaluated on its own merits. A centralized database is maintained containing the names, background data, and reviewer history of all individuals evaluating proposals for NSF. It also contains the names of potential reviewers. This database can be accessed, and new reviewers added, by any program officer needing reviewers. Program officers cannot remove names from the database once they have been asked to review a proposal. The names and related information about reviewers are maintained in the system indefinitely to account for disclosures under the Privacy Act and to fulfill NSF's policy on releasing the names of all individuals who have reviewed proposals.

5. Small Business Considerations

Proposals from small businesses are solicited in accordance with the NSF Act of 1950, as amended, the Small Business Innovation Development Act of 1982, as amended and Public Law 112-81 (SBIR/STTR Reauthorization Act of 2011). Small businesses are expected to submit proposals in accordance with NSF guidelines governing that particular program. These guidelines contain NSF standard proposal formats, with the addition of specific information required by Federal regulations.

6. Consequences of Less Frequent Collection

Except where specified in an NSF funding opportunity, proposers may submit as many proposals as they deem appropriate. Since each proposal is evaluated on its own merits by selected reviewers, proposers are required to furnish separate proposals; each developed in accordance with standardized electronic formats.

Most multi-year continuation proposals do not require external review. The reviews submitted at the time of the initial proposal submission, along with annual project performance reports are used as the basis for making awards. The major part of the review process consists of the review of new proposals submitted to the agency. No information is available for new proposals.

7. Collection Inconsistent with Guidelines in 5 CFR 1320.6

Evaluators of NSF proposals are given a pledge of confidentiality that their names will not be released in connection with their comments (see paragraph “10” below).

8. Federal Register Notice

The agency’s notice for public comment was published in the Federal Register, April 13, 2022, at 87 FR 21928.

159 responses were received from 45 different organizations/institutions/individuals in response to the draft PAPPG. **Exhibit 2** contains the full text of the comments received in response to the Federal Register Notice and the associated NSF response. All comments have been considered in the development of the proposed PAPPG. A summary of the significant changes and clarifications to the PAPPG has been incorporated into the proposed document.

Outside Consultation.

The process for announcing the availability of support and the process for receiving proposals and making awards has been developed over the course of the Foundation’s history, with assistance from many external sources. These sources include other Federal agencies as well as from proposing organizations. The Foundation also has participated in the Federal Demonstration Partnership (FDP) since its inception.

The Federal Demonstration Partnership is a cooperative initiative among ten federal agencies and over 150 institutional recipients of federal funds; its purpose is to reduce the administrative burdens associated with research grants and contracts. The interaction between FDP’s 300 or so university and federal members takes place in FDP’s three annual meetings and, more extensively, in the many collaborative working groups and task forces that meet often by conference calls in order to develop specific work products. The FDP is a unique forum for individuals from universities and nonprofits to work collaboratively with federal agency officials to improve the national research enterprise. At its regular meetings, FDP members hold spirited, frank discussions, identify problems, and develop action plans for change. Then these new ways of doing business are tested in the real world before putting them into effect. Since its inception, the FDP has served as an important mechanism to solicit input and suggestions for improving the NSF proposal and award process.

Additionally, a large percentage of NSF program officers, who are responsible for making funding recommendations, are from the research community. These individuals are well aware of the burden associated with the submission of a competitive proposal to NSF and have provided significant input on how the process can be streamlined and improved.

9. **Gifts or Remuneration.** Not applicable.

10./11. Confidentiality/Sensitive Questions.

The Foundation is committed to monitor and identify any real or apparent inequities based on gender, race, ethnicity, or handicap of the proposed principal investigator(s) (PIs) or the co-principal investigator(s) (co-PIs). Although submission of these data is voluntary, we strongly urge all proposers to provide it so that the quality of the database can be improved. NSF retains these as an integral part of its Privacy Act System of Records, NSF 50, "Principal Investigator/Proposal File and Associated Records." Demographic information regarding PIs is not released to proposal reviewers. Information from this system will be made available only to a person conducting official business for NSF and will be treated as confidential to the extent permitted by law.

Information concerning reviewers/panelists is maintained in accordance with the requirements of the Privacy Act of 1974 as described in the System of Records, NSF-51, "Reviewer/Proposal File." While generally reviewers' identities are treated as confidential, information about reviewers may be released for specified purposes that are consistent with the "routine uses" published in the applicable Privacy Act system of records or as otherwise required by law. In addition, a list of all NSF panelists is released annually as part of NSF's Federal Advisory Committee Act reporting, although the names of individual reviewers associated with individual proposals and panel meetings, are not released.

12. Burden on the Public

It has been estimated that the public expends an average of approximately 120 burden hours for each proposal submitted. Since the Foundation expects to receive approximately 47,900 proposals in FY 2022, an estimated 5,748,000 burden hours will be placed on the public.

The Foundation has based its reporting burden on the review of approximately 47,900 new proposals expected during FY 2022. It has been estimated that anywhere from one hour to 20 hours may be required to review a proposal. We have estimated that approximately 5 hours are required to review an average proposal. Each proposal receives an average of 3 reviews, resulting in approximately 718,500 burden hours each year.

The information collected on the reviewer background questionnaire (NSF 428A) is used by managers to maintain an automated database of reviewers for the many disciplines represented by the proposals submitted to the Foundation. Information collected on gender, race, and ethnicity 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 various groups in science, engineering, and education. The estimated burden for the Reviewer Background Information (NSF 428A) is estimated at 5 minutes per respondent with up to 10,000 potential new reviewers for a total of 833 hours.

The aggregate number of burden hours is estimated to be 6,467,333. The actual burden on respondents has not changed.

13. Annualized Cost to Respondents

There is no cost to respondents reviewing proposals electronically or by mail. Those respondents who review proposals by panel are reimbursed for their expenses.

14. Annualized Cost to the Federal Government

The cost estimate for development of the new NSF PAPPG is \$207,858. The main method of accessing and printing this new Guide will continue to be via download from the NSF website. The cost of printing a copy of the PAPPG at our in-house printing facility is \$54.25. The following supporting documentation is the basis used to develop the estimate of the cost to gather information, develop, coordinate, and review the Guide. In FY 2021, NSF expended approximately \$7,784,920 for panel-related costs. This amount indicates travel costs and reimbursements for expenses for panelists.

Office of Budget, Finance & Award Management (BFA)

Policy Office Head	3 months x AD-5 = \$46,827
1 Senior Policy Specialist	3 months x GS-14 = \$36,291
2 Senior Policy Office Specialists	1 month x GS-14 = \$12,097
1 Senior Policy Analyst	1 week x GS-14 = \$3,024
1 Policy Analyst	1 week x GS-13 = \$2,559
Other BFA Staff Members	1 month x GS-15 (avg.) = \$13,920

Office of the Director

Chief Operating Officer	1 week x Executive Level 1 = \$4,715
Chief of Research Security, Strategy and Policy	3 weeks x SES Pay Band C = \$11,778
Other OD Staff Members	1 week x SES Pay Band C (avg.) = \$3,926

Office of the General Counsel

General Counsel and Assistant General Counsels	3 weeks x Executive Level 2 & 4 and SES Pay Band C (avg.) = \$11,844
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Office of Equity and Civil Rights

Office Head and Staff Members	2 weeks x SES Pay Band A and GS-15 (avg.) = \$7,458
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Division of Administrative Services

Staff Members	1 day x GS-14 (avg.) = \$605
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Division of Information Systems

Division Director and Staff Members	2 months x Executive Level 3 and GS-14 (avg.) = \$24,974
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Other NSF Directorates/Offices/Divisions

NSF Staff Members

2 months x GS-15 (avg.) = \$27,840

Total Salaries: \$207,858

Estimated printing cost

\$0.28 per black and white page x 190 pages = \$53.20

\$0.35 cost per color page x 3 color pages = \$1.05

Total cost of printing a single PAPPG: \$54.25

15. Changes in Burden

Since the burden hours reported are based on the number of proposals expected in any given year, this estimate is considered to be uncontrollable. The burden is expected to increase proportionately for both the proposal and review processes as the receipt of proposals increases.

16. Publication of Collection. Not applicable.

17. OMB Expiration Date. Not applicable.

18. Exceptions for Certifications. Not applicable.

B. STATISTICAL METHODS. Not applicable.

DATA COLLECTION INSTRUMENT, INCLUDING CORRESPONDING INSTRUCTIONS

See Exhibit 1

ATTACHMENTS:

National Science Foundation Act of 1950 (Public Law 81-507)

NSF Form 1

NSF Form 428A

EXHIBIT 1:

Proposed version of the *NSF Proposal and Award Policies and Procedures Guide*