

# NSF GRFP

Advice from the review panel's perspective and  
how applicants are rated

[www.nsf.gov/grfp](http://www.nsf.gov/grfp)

[info@nsfgrfp.org](mailto:info@nsfgrfp.org)

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# ABOUT NSF GRFP

SINCE 1952



**40+ FELLOWS**  
HAVE GONE ON TO BECOME  
NOBEL LAUREATES

Fellows from every state

**450+ FELLOWS**  
HAVE BECOME MEMBERS OF THE  
NATIONAL ACADEMY OF SCIENCES



ANNUAL STIPEND



COST OF EDUCATION ALLOWANCE

**5-YEAR**  
FELLOWSHIP  
PERIOD

**3 YEARS**  
FINANCIAL  
SUPPORT

NO POST-GRADUATE  
STUDY SERVICE  
REQUIREMENT

2020 COMPETITION

**12,000+** APPLICANTS  
**2,000+** OFFERS

ACADEMIC INSTITUTIONS REPRESENTED

**500+**  
2020 COMPETITION

## OPEN TO:

GRADUATE STUDENTS WHO  
ARE OR WILL BE PURSUING  
RESEARCH-BASED MASTER'S  
AND DOCTORAL DEGREES  
In Eligible Fields of Study

### ELIGIBLE MAJOR FIELDS OF STUDY



CHEMISTRY



COMPUTER AND  
INFORMATION  
SCIENCES &  
ENGINEERING



ENGINEERING



GEOSCIENCES



LIFE  
SCIENCES



MATERIALS  
RESEARCH



MATHEMATICAL  
SCIENCES



PHYSICS &  
ASTRONOMY



PSYCHOLOGY



SOCIAL  
SCIENCES



STEM EDUCATION & LEARNING RESEARCH

Each major field has numerous sub-fields



Graduate Research Fellowship Program (GRFP)

[nsfgrfp.org](http://nsfgrfp.org)

# National Science Board-Approved Merit Review Criteria

## Intellectual Merit

- How important is the proposed activity to advancing knowledge within its own field or across different fields?

## Broader Impacts

- How well does the proposed activity benefit society or advance desired societal outcomes?







# NSF Reviewers for GRFP

**Help NSF identify  
students with strong  
potential to shape the  
future of STEM**

Review applications  
from individuals (not  
research proposals)



# Application NOT Grant Proposal

- Applicants are judged on their merits as individuals. The GRFP reviewers are not reviewing a grant proposal! Pay attention to Broader Impacts with Intellectual Merit.



# Comprehensive Review

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Applicants are reviewed based on:

- Demonstrated potential for significant achievement in STEM
- Using a comprehensive, holistic approach
- A balanced consideration to all components of the application





# Assessing Intellectual Merit & Broader Impacts



Use a holistic, comprehensive approach to consider all components of the application, using evidence to support the review:

- Educational and research record
- Leadership, outreach, service activities
- Individual competencies, experiences
- Future plans and other attributes

What use has the applicant made of the available opportunities?

- E.g. applicants may have created opportunities for themselves





# GRFP Application

- 1) Personal Information, Education, Work/Research Experience, Proposed Major Field of Study, Honors, Awards, Publications
- 2) Personal, Relevant Background and Future Goals Statement (3-page PDF)
- 3) Graduate Research Statement (2-page PDF)
- 4) Transcripts (PDFs; mandatory)
- 5) Letters of reference (may provide up to five names of reference letter writers)
  - 3 reference letter writer names are mandatory and 2 reference letters are mandatory for your application to be reviewed





# Intellectual Merit

## Potential to advance knowledge

### Evidence of potential, such as ability to:

- Demonstrated intellectual ability (grades, curricula, awards, publications, presentations, etc.)
- Plan and conduct research
- Work as a member of a team as well as independently
- Interpret and communicate research
- Take initiative, solve problems, persist
- The potential of your approach to your major field of study and your Research Plan to advance knowledge

Evidence of Intellectual Merit can be found in all parts of the application: Personal Statement, Research Plan, letters, experiences, awards, achievements, and transcripts







# Assessing Intellectual Merit & Broader Impacts

## Intellectual Merit

- Look for evidence in:
  - Previous research/professional experiences, described in the Personal Statement
  - Graduate Research Plan
  - Academic performance; grades, curricula, awards, listed achievements, etc.
  - Reference letters

## Broader Impacts

- Look for evidence in:
- Plans, contributions, achievements
  - Personal experiences, resilience, motivation
  - Prior accomplishments, current activities, goals, and next steps
  - Initiative; engagement; awareness of where they can have impact
  - Explanation of research importance
  - Awards or honors for impact
  - Reference letters





# Reviewer Training: Strategies

Increase	Increase awareness of how unconscious assumptions might impact your evaluations
Decrease	Decrease time pressure and distractions during the reviewing process
Rate	Rate on explicit criteria rather than global judgments
Point	Point to specific evidence to support comments in the reviews



National  
Science  
Foundation



# Preparing the Personal Goals and Research Statements

## Graduate Research Fellowship Program (GRFP)



## Two Statements:

*Personal, Relevant  
Background & Goals  
(3-page PDF)*

Research Statement  
(2-page PDF)

### Personal, Relevant Background & Goals

Tell your story; demonstrate your potential for STEM research  
Experiences (professional and personal) that contributed to  
your motivation and preparation for pursuing a STEM career

#### **Career aspirations and future goals**

- How have your experiences shaped your goals?

#### **Research, industrial, professional experience**

- What was the project, what was your role?
- How did you become involved? Where was it done?
- Why was this project worth doing? What have you learned? Any advanced course work?
- What was your contribution to the project and how did it fit into the whole?





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Graduate Research Fellowship Program  
Division of Graduate Education (DGE)

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