NSF GRFP

Advice from the review panel’s perspective and how applicants are rated
ABOUT NSF GRFP

SINCE 1952

60,000+ GRFPs AWARDED

40+ FELLOWS HAVE GONE ON TO BECOME NOBEL LAUREATES

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

$34,000 ANNUAL STIPEND

3 YEARS FINANCIAL SUPPORT

NO POST-GRADUATE STUDY SERVICE REQUIREMENT

$12,000 COST OF EDUCATION ALLOWANCE

2020 COMPETITION

12,000+ APPLICANTS

2,000+ OFFERS

500+ ACADEMIC INSTITUTIONS REPRESENTED

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

ELIGIBLE MAJORS FIELDS OF STUDY

CHEMISTRY
COMPUTER AND INFORMATION SCIENCES & ENGINEERING
ENGINEERING
GEO SCIENCES
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
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

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


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

<table>
<thead>
<tr>
<th>Increase</th>
<th>Increase awareness of how unconscious assumptions might impact your evaluations</th>
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<td>Decrease</td>
<td>Decrease time pressure and distractions during the reviewing process</td>
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<td>Rate</td>
<td>Rate on explicit criteria rather than global judgments</td>
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<td>Point</td>
<td>Point to specific evidence to support comments in the reviews</td>
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National Science Foundation

Preparing the Personal Goals and Research Statements

Graduate Research Fellowship Program (GRFP)
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?