National Science Foundation
Graduate Research Fellowship Program

Apply at: www.fastlane.nsf.gov/grfp/
What Is the National Science Foundation (NSF)?

- Federal agency created in 1950 to promote scientific discovery, advance national welfare, and secure national defense.
- Manages over $6 billion annual budget for basic research, financial support for students, and science education.
- Annually awards about 10,000 research grants - has funded over 170 Nobel prize winners!
- Career-long presence in most researchers' work.

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NSF Invests in Promising Individuals

Who demonstrate a combination of:

- Intelligence
- Leadership
- Social responsibility
- Broader impacts across all populations
- Foresight
- Determination
- Excitement
- Ability to succeed in an ever-changing, complex environment

NSF Provides Fellowship Support for Graduate Education

- **Three years of support** over five year graduate enrollment period
- **$30,000** annual cost of living stipend
- **$10,500 cost-of-education allowance** paid to institution (tuition typically waived)
- **Globally portable** – award follows fellow to approved graduate institutions (up to $10,500 educational expense reimbursed to fellow attending foreign institution)
- Typically **awarded to about 1,000 students** each year
- **$1,000 one-time travel allowance**
- **Tera-Grid supercomputer access** for both fellows and honorable mentions

Fellowship Benefits

“The GRF has provided me with a tremendous amount of independence not only in terms of the college or university I attend, but the advisor I work with, and my dissertation topic, as I don’t have to rely on anyone else’s funding but my own.”

“Prestige .. is a key advantage of the GRF, particularly with respect to future job prospects.”

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Eligibility

- Typically for seniors, first-year graduate students, or second-year graduate students in first semester (or not more than 24 semester hours of credit for graduate study)
- U.S. Citizen, National or Permanent Resident
- Pursuing research-based Masters or PhD in NSF-Supported Field

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NSF-Supported Fields

- Chemistry
- Computer and Information Science and Engineering
- Engineering
- Geosciences
- Life Sciences
- Mathematical Sciences
- Physics and Astronomy
- Psychology (non-clinical)
- Social Sciences (non-clinical)

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Some Areas NSF Does Not Support

- Research with disease-related goals
- Clinical work
- Counseling
- Business
- Management
- Social work
- Practice-oriented professional degree programs
- Joint science-professional degree programs (MD/PhD and JD/PhD)
- Medical, dental, law, or public health programs

What Are the Chances of Winning?

- About 10% award success rate
- Additional 17% received honorable mention
- Number of awardees proportional to number of applications in each field
- Seniors evaluated alongside seniors, etc.

*Data from 2006-2007 application cycle

Win by Believing in Yourself, Your Community, and Your Talents

Avoid Self-Disqualification

Belief that:
- All other applicants are “more qualified”
- Your research, activities, or contributions are not impressive enough
- You do not have enough experience
- You are not able to express things well enough in the application

NSF studies emperor penguins who are rife with belief in themselves

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Boost Your Chances of Winning by Understanding and Demonstrating the Two NSF Review Criteria

Intellectual Merit

NSF Definition: “Demonstrated intellectual ability and other accepted requisites for scholarly scientific study, such as the ability (1) to plan and conduct research; (2) to work as a member of a team as well as independently; and (3) to interpret and communicate research.”

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**Broader Impacts**

NSF Definition: “Contributions that (1) effectively integrate research and education at all levels, infuse learning with the excitement of discovery, and assure that the findings and methods of research are communicated in a broad context and to a large audience; (2) encourage diversity, broaden opportunities, and enable the participation of all citizens—women and men, underrepresented minorities, and persons with disabilities—in science and research; (3) enhance scientific and technical understanding; and (4) benefit society.”

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The Rating Sheet

This is everything you are rated on - "Intellectual Merit" and "Broader Impacts" criteria!

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Evaluation Process

- Applications evaluated by field-specific panels
  - Panelists are academic and research experts in general field, not necessarily for your research topic

- Panelists complete rating sheet
  - NSF requests panelists to provide constructive comments (applicants may view)
  - Evaluated by **at least** 2 panelists

- Panels recommend to NSF awardees and **honorable mentions**

Application Materials

1) Personal Statement Essay (2 pages*)
2) Previous Research Experience Essay (2 pages*)
3) Proposed Plan of Research Essay (2 pages*)
4) Description of Completed Graduate Study Essay (Optional)
5) Three Letters of Reference
6) Transcripts
7) GRE Scores (Highly Recommended)

*Essays may contain images that count toward page limit

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Constructing a Successful Application: Personal Statement

- Fascination with research area
- Examples of leadership and unique characteristics brought to chosen field
- Personal experiences and individual strengths
- How receiving the award contributes to career goals

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Constructing a Successful Application: Previous Research Experience Essay

- Applicable experiences, relevant to proposed plan of research
- Key questions, methodology, findings, and conclusions
- Team and/or independent work
- How you assisted in results analysis

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Constructing a Successful Application: Proposed Research Plan

- Original inquiry
- Perceived scope of work during graduate study and beyond
- Demonstration of ability to plan and understand research
- Demonstration of research’s societal benefits

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Constructing a Successful Application: Formulating Essays

Understand impact and importance of experiences and proposed research on the real world

Discuss ideas with experts, mentors, family and peers

Construct essays; give to experts, mentors, family and peers to review

Polish to create final draft

Apply at: www.fastlane.nsf.gov/grfp/
Constructing a Successful Application: Reference Letters

- Choose three appropriate references
- Provide them 6-8 weeks
- Share application materials and review criteria
- Ensure letters convey successful relationship with referee
- Follow up with referees and track submission of letters using FastLane

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Constructing a Successful Application: Important Points

1. Start the process early
2. Read the FAQ: https://www.fastlane.nsf.gov/grfp/
3. Demonstrate review criteria in application materials
4. Be clear, concise, confident, and truthful
5. Draw on accomplishments more than promises
6. Submit application to field, based on who you want to review it
7. Ensure essays address all application questions
8. Check for spelling and grammatical errors
9. Verify essays upload correctly AND are in appropriate place
10. Press “Submit” button
11. Regularly check application status

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Program Cycle

Program Solicitation: www.nsf.gov/grfp

Application: Online application available mid-August at www.fastlane.nsf.gov/grfp

Deadlines: Early November (varies by field)

Awards: NSF announces awards late March

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Apply to Win!!!

Always produces a winning result - besides feedback on your ideas from experts, it is great preparation for:

- Other award applications
- Graduate school applications
- Job applications
- Writing publications
- Professional connections

...and you just might win the fellowship too.

GOOD LUCK!

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Additional Information

NSF Graduate Research Fellowship

Program Solicitation, Online Application and Deadlines

- [http://www.nsfgradfellows.org](http://www.nsfgradfellows.org)

Question about Application Process

- Telephone: 866-NSF-GRFP (673-4737)
- Email: help@nsfgradfellows.org

A copy of this presentation can be found at
[http://www.nsfgradfellows.org/downloads](http://www.nsfgradfellows.org/downloads)