



National Science Foundation

# The NSF Graduate Research Fellowship Program



Graduate Research Fellowship Program Operations Center



# NSF Graduate Research Fellowship Program Goals



- Select, recognize, and financially support individuals early in their careers with the demonstrated potential to be high achieving scientists and engineers
- Broaden participation in science and engineering of underrepresented groups, including women, minorities, and persons with disabilities



National Science Foundation Graduate Research Fellowship Program  
Information: [www.nsf.gov/grfp](http://www.nsf.gov/grfp) and [www.nsfgrfp.org](http://www.nsfgrfp.org)  
Apply at: [www.fastlane.nsf.gov/grfp/](http://www.fastlane.nsf.gov/grfp/)



# GRFP Successes



- 46,500 Fellows to date (since 1952)
- 30 Nobel Laureates
- 440 members of the National Academy of Sciences
- Founders of corporations to authors of books
- Higher Ph.D. completion rates
- Enhanced diversity



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# GRFP Key Elements



- Five Year Award – \$121,500
- Three years of support
  - \$30,000 Stipend per year
  - \$10,500 Educational allowance to institution (anticipated to increase to \$12,000 in 2012)
- International research opportunities
- Supercomputer access



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# GRFP General Eligibility



- U.S. citizens, nationals, and permanent residents
- Early-career students
- Pursuing research-based MS and PhD
- Enrolled in accredited U.S. institution by Fall 2012
- Applicants must **self-certify in the application** that they meet the GRFP Eligibility criteria



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# GRFP Supported Disciplines

- Chemistry
- Computer and Information Science and Engineering
- Engineering
- Geosciences
- Life Sciences
- Materials Research
- Mathematical Sciences
- Physics and Astronomy
- Psychology
- Social Sciences
- Science, Technology, Engineering and Mathematics Education (research-focused)



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# Not Supported by NSF GRFP

- Business administration or management
- Social work
- Medical, dental, law, or public health programs
- Joint science-professional degree programs, e.g., MD/PhD, JD/PhD, etc.
- Education (except research-focused STEM Education programs)
- **See Solicitation** ([www.nsfgrfp.org](http://www.nsfgrfp.org))



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# GRFP Cycle



- **Application:** Available online late August
- **Deadlines:** Mid-November (varies by field)
- **Awards:** Announced late March to early April
- Best Time to Start Preparing: **Now**



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# Complete Application

## NSF FastLane

- Personal statement (2 pages)
- Previous research experience (2 pages)
- Proposed plan of research (2 pages)
- Transcripts, uploaded into FastLane
- **Three** letters of reference required
- Additional information required for some candidates  
See Solicitation for eligibility requirements on [www.nsfgrp.org](http://www.nsfgrp.org)



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# Resources

## **NSF GRFP Website ([nsf.gov/grfp](http://nsf.gov/grfp))**

- Solicitation
- FAQ and Guide links

## **[Fastlane.nsf.gov/grfp](http://fastlane.nsf.gov/grfp)**

- Online application, user guides, official announcements

## **Phone and email**

- 866-NSF-GRFP (673-4737)  
[info@nsfgradfellows.org](mailto:info@nsfgradfellows.org)



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# Resources at [nsfgrfp.org](http://nsfgrfp.org)



- Tips for applying
- Frequently asked questions (FAQ)
- Find GRFP contacts
- Important links for the GRFP
- Panelist registration



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# Review Criteria



## National Science Board

GOVERNING BOARD OF THE NATIONAL SCIENCE FOUNDATION & POLICY ADVISORS  
TO THE PRESIDENT AND CONGRESS

### Two National Science Board-approved Review Criteria:

- Intellectual Merit
- Broader Impacts



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# Intellectual Merit



Demonstrated intellectual ability and other accepted requisites for scholarly scientific study, such as the ability to:

- Plan and conduct research
- Work as a member of a team as well as independently
- Interpret and communicate research



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# Intellectual Merit Assessment

- Academic performance
- Awards/honors
- Communication skills
- International experience
- Independence/creativity
- Publication/presentations
- Research plan
- Appropriate choice of institution
- References
- **Research experience**



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# Broader Impacts

## Contributions that:

- Integrate research and education at all levels, infuse learning with discovery, and assure that the findings are communicated in a broad context and to a large audience
- Encourage diversity, broaden opportunities, and enable the participation of all citizens, underrepresented minorities, and persons with disabilities – in science and research
- Enhance scientific and technical understanding
- Benefit society



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# Broader Impacts Assessment

- Prior accomplishments
- Future plans
- Individual experiences
- Integration of research and education
- Potential to reach diverse audiences
- Impact on society
- Community outreach
- Leadership potential



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# Preparing a competitive application

## Personal Statement (limit: 2 Pages)

- Motivation for research topic; address Intellectual Merit criterion
- Examples of leadership and unique characteristics brought to chosen field
- Personal experiences and individual strengths; address Broader Impacts criterion
- Career goals and how the fellowship would contribute to these



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# Preparing a competitive application

## Previous Research Experience Essay (Limit: 2 Pages)

- Applicable experiences, relevant to research
- Key questions, methodology, findings, and conclusions
- Team and/or independent work
- Mention all outcomes: publications, posters, presentations, awards, recognition, etc.



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# Preparing a competitive application

## Proposed Research Plan (Limit: 2 Pages)

- Original inquiry – introduce general theory, importance, and motivation
- How you have prepared
- Perceived scope of work during graduate study and beyond
- Detailed plan, avoiding being overly specific
- Demonstrate research's Broader Impacts



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# Preparing a competitive application

## Reference Letters

- Choose at least **three** reference writers
- Give them ample time to prepare their letters
- They should know you as a scientist and personally
- Share your application materials and the merit review criteria (good letters address Intellectual Merit and Broader Impacts)
- Track letter submission using FastLane; you must have 3 letters for a complete application



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# Preparing a competitive application

1. Read the Solicitation carefully
2. Address the two Merit Review Criteria (Intellectual Merit and Broader Impact)
3. Check for spelling and grammatical errors
4. Verify essays and transcripts uploads
5. You must certify that this is your own original work
6. You must self-certify your eligibility
7. Make sure you Press "Submit" button
8. Regularly check application status for # of reference letters
9. Make sure you are enrolled in graduate school by Fall 2012



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# Evaluation of applications

- Panelists are academic and research experts in general discipline, not necessarily in your research topic
- Panelists rate your application using the two Merit Review Criteria, Intellectual Merit and Broader Impacts
- NSF requests panelists to provide constructive comments (applicants may view)
- Panels make recommendations to NSF
- NSF awards fellowships and honorable mentions



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# You are encouraged to apply

Besides constructive feedback, the application is great preparation for:

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

## 2008

1,000 Awards  
10,000  
Applications  
~ 10% Success

## 2011

2,000 Awards  
12,000  
Applications  
~ 17% Success



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