



# National Science Foundation

## The NSF Graduate Research Fellowship Program



Graduate Research Fellowship Program Operations Center



# NSF Graduate Research Fellowship Program Goals



- To increase the Nation's human capacity in science and engineering by providing fellowships for early-career graduate students who pursue research-based master's and doctoral degrees in NSF-supported disciplines
- To support the development of a diverse and globally engaged US science and engineering workforce



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 Unique Features

- Flexible: choice of project, advisor & program
- Unrestrictive: No service requirement
- Portable: Any accredited U.S. institution  
MS → PhD
- 2,000 Fellowships offered annually, 2010 - 2013  
~17% success rate



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# GRFP Successes



- 48,000 Fellowships since 1952
- 40 Nobel Laureates
- 450 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 – \$132,000
- Three years of financial support
  - \$32,000 Stipend per year
  - \$12,000 Educational allowance to institution per year
- International research opportunity through GROW
- Access to XSEDE cyberinfrastructure resources

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# GRFP General Eligibility



- U.S. citizens, nationals, and permanent residents
- Early-career students
- Pursuing research-based MS or PhD in NSF fields
- Enrolled in accredited U.S. institution by fall 2014
- 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 August
- **Deadlines:** 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, Relevant Background and Future Goals Statement (3 pages)
- Graduate Research Statement (2 pages)
- Transcripts, uploaded into FastLane
- **Three** letters of reference required
- Additional information required for some candidates  
See Solicitation for eligibility requirements (available 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

Two National Science Board-approved Review Criteria:

- **Intellectual Merit:** this criterion encompasses the potential to advance knowledge
- **Broader Impacts:** this criterion encompasses the potential to benefit society and contribute to the achievement of specific, desired societal outcomes

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# The following elements should be considered in the review for both criteria:

1. What is the potential for the proposed activity to
  - A. Advance knowledge and understanding within its own field or across different fields (Intellectual Merit); and
  - B. Benefit society or advance desired societal outcomes (Broader Impacts)?
2. To what extent do the proposed activities suggest and explore creative, original, or potentially transformative concepts?
3. Is the plan for carrying out the proposed activities well-reasoned, well-organized, and based on a sound rationale? Does the plan incorporate a mechanism to assess success?
4. How well qualified is the individual, team, or organization to conduct the proposed activities?
5. Are there adequate resources available to the PI (either at the home organization or through collaborations) to carry out the proposed activities?

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# Intellectual Merit and Broader Impacts Assessment

- Personal, Relevant Background and Future Goals Statement
- Graduate Research Statement
- Reference Letters
- Transcripts



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# Intellectual Merit

Panelists may consider the following with respect to the **Intellectual Merit** Criterion:

- the potential of the applicant to advance knowledge based on the totality of the content in the application, including the strength of the academic record, the proposed plan of research, the description of previous research experience or publication/presentations, and references



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# Broader Impacts

Panelists may consider the following with respect to the **Broader Impacts** Criterion:

- the potential for future broader impacts as indicated by personal, professional, and educational experiences



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# Personal, Relevant Background and Future Goals Statement (3 pages)

- **How do you envision graduate school preparing you for a career that allows you to contribute to expanding scientific understanding as well as broadly benefit society?** Describe your personal, educational and/or professional experiences that motivate your decision to pursue advanced study in science, technology, engineering or mathematics (STEM). Include specific examples of any research and/or professional activities in which you have participated. Present a concise description of the activities, highlight the results and discuss how these activities have prepared you to seek a graduate degree. Specify your role in the activity including the extent to which you worked independently and/or as part of a team. Describe the contributions of your activity to advancing knowledge in STEM fields as well as the potential for broader societal impacts (See Solicitation, Section VI, for more information about Broader Impacts)



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# Graduate Research Plan (2 pages)

Present an original research topic that you would like to pursue in graduate school. Describe the research idea, your general approach, as well as any unique resources that may be needed for accomplishing the research goal (i.e., access to national facilities or collections, collaborations, overseas work, etc.) You may choose to include important literature citations. Address the potential of the research to advance knowledge and understanding within science as well as the potential for broader impacts on society. The research discussed must be in a field listed in the Solicitation (Section X, Fields of Study).

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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 NSF Merit Review Criteria (Intellectual Merit and Broader Impacts) in each Statement
3. Check for spelling and grammatical errors
4. Verify statements and transcripts uploads
5. You must certify that this is your own original work
6. You must self-certify your eligibility according to the criteria in the Solicitation
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 2014

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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 receive anonymous copies of the reviews)
- 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

**2013**

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

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