



Overview

NSF Graduate Research Fellowship Application

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Outline

- Why Fellowships?
- NSF Graduate Fellowship Application
 - A little bit of history
 - How to prepare the application
 - Intellectual Merit and Broader Impacts

Why Fellowships

- **Obvious Benefits**
 - Flexibility and more independence
 - Guaranteed funding for several years
 - Competitive stipend
 - Contribute to the lab
- **Prestige**
 - Highly selective
 - National competition
 - Long term benefits
- **Great Experience**
 - Application process is rigorous
 - Valuable training in proposal writing
 - Help to identify career goals

A little bit of History

- **National Science Foundation (NSF) Graduate Research Fellowship Program (GRFP)**
 - Oldest graduate fellowship program supporting students in STEM (Science, Technology, Engineering and Mathematics) fields
 - Since 1952, over 50,000 fellows
 - >30 fellows have become Nobel laureates
 - >440 fellows have become members of the National Academy of Sciences
 - Higher rate for graduating with doctorate (70% within 11 years)

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HOME • APPLICANTS • REFERENCE WRITERS • PANELIST INFO • FELLOWS • GENERAL RESOURCES

2016 Program Solicitation

The 2016 NSF Graduate Research Fellowship Program Solicitation has been published. All prospective applicants should review the 2015 Solicitation for important information about eligibility and supported fields of study, application preparation and submission instructions, and the merit review criteria.

[Read More](#)

[Read More](#)

[Read More](#)

www.nsfgrfp.org

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Graduate Research Fellowship

- *Fellows must demonstrate potential for significant achievement in sciences and engineering*
- Comprehensive “holistic” education plan
- **5-year award: \$138,000**
- **Review Criteria**
 - Intellectual Merit & Broader Impacts

Application Process - Fastlane

FastLane is an interactive real-time system used to conduct NSF business over the Internet. FastLane is for official NSF use only. www.fastlane.nsf.gov

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FastLane User Support: 1-800-673-6188 (FastLane Availability: weekdays) 1-888-437-7468

Proposals, Awards and Status | Proposal Review | Panelist Functions | Research Administration | Financial Functions

Necessary Awards | Graduate Research Fellowship Program | Postdoctoral Fellowships and Other Programs

Graduate Research Fellowship Program

Welcome to the FastLane Graduate Research Fellowship Program (GRFP).

GRFP Award Recipients
 • [Award Officers and Honorable Mentions List](#)

Applicant Deadlines
 Applications Must Be Received by 8:00 pm Eastern Time
 October 26, 2015 (Monday): Geosciences
 October 26, 2015 (Monday): Life Sciences
 October 27, 2015 (Tuesday): Computer and Information Science and Engineering
 October 27, 2015 (Tuesday): Engineering
 October 27, 2015 (Tuesday): Materials Research
 October 29, 2015 (Thursday): Psychology
 October 29, 2015 (Thursday): Social Sciences
 October 29, 2015 (Thursday): STEM Education and Learning
 October 30, 2015 (Friday): Chemistry
 October 30, 2015 (Friday): Mathematical Sciences
 October 30, 2015 (Friday): Physics and Astronomy

Reference Submission Deadline
 Reference Letters Must Be Submitted by 8:00 pm (ET) on November 5, 2015 (Thursday)
 Reference Writers, please note: You will be provided a new login in order to submit a reference letter
 November 5, 2015 (Thursday): [Submit Reference Letter](#)

Applicant and Reference Writer Assistance
 Questions about the Application and Reference Writer Process for the Graduate Research Fellowship Program should be directed to: grfp@fastlane.nsf.gov

Log In Applicants and Fellows
 User Name:
 Password:
 Log In

Log In GRFP Officials
 Last Name:
 NSF ID:
 Password:
 Log In

NSF-GRFP Award

- **Deadline (8pm, EST) –**
 - **October 26, 2015**
 - *Life sciences, Geosciences*
 - **October 27, 2015**
 - *Engineering, Materials Research, Computer and Information Sciences/Engineering*
 - **October 29, 2015**
 - *Social Sciences, Psychology, STEM Education and Learning*
 - **October 30, 2015**
 - *Mathematical Sciences, Chemistry, Physics and Astronomy*



What is the NSF Fellow Program

- **Purpose:** “to ensure the vitality and diversity of the scientific and engineering workforce in the United States”
- “Recognizes and supports outstanding graduate students who are pursuing **research-based master’s and doctoral degrees**”
- “..Individuals selected **early in their graduate careers** based on their **demonstrated potential** for significant achievements in science and engineering”
- “Overall strategy is to develop the **globally-engaged workforce** necessary to ensure the nation’s leadership in advancing science and engineering **research and innovation**”



Fellowship Funding

- Funded 1236 for FY2009
 - Funded 2000/yr for FY2010-13 (17% success rate)
 - Expected to fund 2000 fellows for FY2016
-
- \$34,000/yr stipend for 3 years
 - \$12,000/yr tuition for 3 years
 - Can be used during 5 years of study
 - International fellowship/research funding opportunities via Global Research Opportunities Worldwide (GROW)
 - Access to XSEDE cyber-infrastructure resources
-
- **Total Funding = \$138,000**

Who Should Apply

- **Eligibility**
 - US citizen, national or permanent resident
 - *Early career students* - “Applicants must have completed **no more than twelve (12) months** of full-time graduate study or its equivalent as of August 1, 2015”
 - Does not already have a professional/graduate degree (e.g. Masters, except for BS/MS joint program)
- **Applicant Pool**
 - Collage Seniors
 - 1st year graduate student
 - 2nd year PhD student (3rd semester, No MS degree)
 - Applicants with “Extenuating Circumstances”
 - Interruption of graduate studies for at least 2 consecutive years before 11/15

Getting Started

- **Announcement** – read it carefully!!
http://www.nsf.gov/publications/pub_summ.jsp?WT.z_pims_id=6201&ods_key=nsf15597
- **Start Early!!!!**
 - 1-6 months lead time
 - Update Resume
 - Outline for application
 - Identify/Brief letter writers
 - Familiarize with the submission site (Field of study)
 - Follow all guidelines
- **Get Copies of successful proposals**
- **Prepare drafts of application**
- **Feedback from friends and mentors**



FastLane GRFP Application Module

- **Personal Information**
 - Education
 - Work and Other Experience
 - Electronic Transcripts
 - Proposed Field(s) of Study
 - Proposed Graduate Study and Graduate School Information
 - Names and email addresses of reference letter writers
- **Personal, Relevant Background and Future Goals Statement**
- **Graduate Research Plan Statement**



Text Requirements

- Standard 8.5" x 11" page size
- 12-point, Times New Roman font or Computer Modern (LaTeX) font
- 10-point font may be used for references, footnotes, figure captions and text within figures
- 1" margins on all sides
- single spaced or greater line spacing

Evaluation Criterion 1 Intellectual Merit

- What is the **Intellectual Merit** of the proposed activity?
 - How important is the proposed activity to **advancing knowledge and understanding** within its own field or across different fields?
 - How well qualified is the candidate to conduct the project?
 - Quality of prior work (research experience)?
 - To what extent does the proposed activity suggest and explore **creative, original, or potentially transformative concepts**?
 - How **well conceived and organized** is the proposed activity?
 - Is there sufficient resources (where do you choose to study)?
- Reviewers will consider – “holistic analysis”
 - Strength of the academic record
 - Proposed plan of research
 - Personal/Career goals and previous research experience
 - Previous publications/presentations
 - Recommendation Letters

Evaluation Criterion 2 Broader Impacts

- What are the **broader impacts** of the proposed activity?
 - How well does the activity **advance discovery** and understanding while **benefiting society** or advance desired societal outcomes?
 - How well does the proposed activity **broaden the participation of underrepresented groups** (e.g., gender, ethnicity, disability, geographic, etc.)?
 - To what extent will it enhance the infrastructure for research and education, such as facilities, instrumentation, networks, and partnerships?
 - Will the results be **disseminated broadly** to enhance scientific and technological understanding?
 - What may be the **benefits to society**?
 - **Integrate Research with Education**
- For **Broader Impacts** criterion
 - “Potential of the applicant for future broader impact as indicated by personal, professional, and educational experiences and **future plans**”
 - What were your past experiences in fulfilling the broader impact criterion
 - Personal Statement
- **BOTH CRITERIA ARE IMPORTANT!!**

Case Study 1: Candidate 1

- Undergraduate and graduate studies at top universities or programs
- Academic excellence
- Research experience and publications
- Good research proposal
- No integration of research with education
- No community service or leadership activities

Will not be funded

Need to demonstrate Broader Impact

Elements of the Application

Personal, Relevant Background and Future Goals (3 pages)

- Who are you and what are your experiences?
- What makes you uniquely qualified for this fellowship?
- Which life experiences have shaped you and are instrumental for you being where you are today?
- Why are you interested in your major or grad school?
- Where do you see yourself in 10 years?
- What are your career aspirations? – **Faculty??**
- How will the fellowship help you achieve these goals?
- Great place to talk about your past and future broader impact-related activities
 - (community service, **leadership** experiences)
- **Be enthusiastic and highlight your creativity**
- **Story!**

Elements of the Application

- **Relevant Research Background**
 - Not a laundry list of your research experiences
 - Develop a cohesive theme through the description of your research activities
 - What did you do *SPECIFICALLY*, i.e. your role?
 - What are the skills you have learned from these experiences and how are they relevant to the proposed research?
 - How did these activities shape you as an engineer/scientist?
 - Relate **RELEVANT** research experience to each other based on proposed project and tie them back to personal goals and career aspirations
 - Include all publications, awards and presentations at conferences related to each experience

Case Study 2: Candidate 2

- Undergraduate and graduate studies at top universities or programs
- Academic excellence
- Lots of leadership activities, Peace Corp
- Average research proposal
- None or little research experience
- Lack of integrating research with education, i.e. NO
 - Publications
 - Presentation at conferences

Not likely to be funded

Need to demonstrate research potential

Elements of the Application

- **Research Plan (2 pages)**
 - Talk it over carefully with your advisor
 - Should be written by YOU!!
 - Include Specific Aims or Objectives/Hypotheses
 - Include the expected outcomes/alternative methods
 - Include schematics if possible
 - Include a timeline
 - Relating *Intellectual Merit* with *Broader Impact*
 - Discuss the significance and anticipated impact of your work (benefits to society)
 - Discuss how the research will be disseminated

Elements of the Application

- **Recommendations (3 letters, 11/05/15, 8pm)**
 - Choose someone who **knows your WELL!!**
 - Academic advisor/Course Instructor
 - Research advisor(s) – UGrad and Grad
 - Summer internship supervisor
 - *Initial email* to inform and check on their availability
 - *Follow-up email* with application material (resume)
 - More specific the letter the better
 - *Reminder email* (1 or 2 weeks before deadline)
 - Get their advice and feedback
 - Thank you note and follow-up with results

Helpful Tips for Writing

- Both **essays should be connected** by the ongoing story of reaching your research and education goals
 - Personal, Relevant Background and Future Goals
 - what inspired you, shaped you and helped you to set research and education goals
 - Research Plan
 - What you are doing to reach research goals & ensure broader impact
 - **Selectively emphasize** skills that will help you to reach research goals
- Address **both** intellectual merit and broader impacts in both essays, integrate research with education
- Give concrete examples of your academic and non-academic experiences and be specific about what you have learned from each
- Know your audience
 - Write clearly and succinctly

NSF Graduate Research Fellowship

- Contacts - info@nsfgrfp.org (866) 673-4737
 - Dr. Gisele Muller-Parker
- Graduate Research Fellowship (GRF) Operations Center
 - Phone: 866-673-4737
 - email: info@nsfgrfp.org
 - <http://www.nsf.gov/pubs/2015/nsf15597/nsf15597.htm>

Summary

- Apply for fellowships: **win-win** situation
- Start Early and know your audience
- Show your excitement and enthusiasm!!
- Follow Instructions and Review Criteria
- Get help from others (Research Advisor)
- *If not successful, RE-APPLY!!*
 - 3 chances if you are a senior
 - Address feedback from reviewers
 - Advice from mentors/letter writers
- Enjoy the experience!!!