NSF Graduate Research Fellowship Program

Tips for Preparing a Successful Application
and
How to Submit an Application
Program Goals

- To select, recognize and financially support individuals early in their careers with the demonstrated potential to be high achieving scientists and engineers.

- To broaden participation in science and engineering of underrepresented groups, including women, minorities, persons with disabilities, and veterans.

Overview of the GRFP

- Prestigious, competitive NSF Fellowship
- Objective is to fund **students** training to be innovative researchers
- 3 years of funding: $32K per year stipend plus $12K annual cost of education allowance
- Must apply *prior* to competing Fall semester of 2nd year of graduate school
- Field of study must fall within NSF definition for STEM
- ~2,700 awards nationally (depending on availability)
Eligibility

- US citizen, national, or a permanent US resident
- May apply either (1) during senior year of college, (2) after undergrad and prior to entering grad school, (3) prior to completing the fall term of second year of graduate school.
- Must be in one of NSF’s defined fields of study – professional practice degrees not eligible (see NSF solicitation)

[biological sciences, computer sciences, chemistry, all engineering, geosciences, information science, social sciences, life sciences, mathematics, materials research, psychology (not clinical), physics and astronomy, or STEM education]
Award Cycle

• Annual

• 2013 Deadlines (for 2014 study):
  Nov 04: Engineering, Computer & Information Sciences, Material Research
  Nov 05: Mathematical Sciences, Chemistry, Physics, Astronomy
  Nov 07: Social Sciences; Psychology; STEM Education
  Nov 08: Life Sciences; Geosciences

• All applications must be submitted through NSF Fastlane
Reasons To Apply

- Prestigious Award
- Excellent Stipend
- Support for your Research
- Experience Writing Grants
- May Improve Time to Degree
- Benefits University and Your Mentor’s Research Lab
How to Apply

- Apply through NSF Fastlane – [www.fastlane.nsf.gov/grfp/Login.do]
- Read GRFP solicitation and instructions carefully
- Complete all sections of the application form, including “Other Experience” section (list publications and presentations)
- Add 3-5 reference letter writers
- Upload your academic transcript into the Education section
- Upload your final “Personal, Relevant Background and Future Goals” and “Graduate Research” statements
Essential Elements of a GRFP Application

- 2 Essays
  - *Personal, Relevant Background and Future Goals* Statement
  - *Graduate Research* Statement

- Personal Profile

- Education and Other Experiences

- Transcripts and GRE scores

- Graduate School Information

- 3 Reference Letters
The Two Essays

Personal, Relevant Background and Future Goals Statement

3 pages
Motivation for graduate study
Previous experience
Career goals

Graduate Research Statement

2 pages
Demonstrate your potential for planning and conducting original research
Review Criteria

Intellectual Merit: Your potential to advance knowledge

“How important is the proposed activity to advancing knowledge within its own field or across different fields?”

“How well qualified is the proposer to conduct the project?”

“How well conceived and organized is the proposed activity?”

“To what extent does the proposed activity suggest and explore creative, original or potentially transformative concepts?”

Broader Impacts: Potential to benefit society or advance desired outcomes

“How well does the activity advance discovery … while promoting teaching, training, and learning?”

“How well does [it] broaden the participation of underrepresented groups?”

Impacts not only of the research, but of the funding on the individual’s career.
Objective: provide reviewers with compelling evidence that you will be able to advance knowledge and benefit society

- What is the motivation for your graduate studies?
- What knowledge and skills have you acquired?
- Demonstrate ability to work both independently and as part of a team
- What are your career goals?

Emphasize your previous research here – mention publications, presentations, etc.
Personal, Relevant Background & Future Goals Statement

- **Intellectual Merit:**
  Are you prepared to undertake graduate study? Can you plan and conduct scientific research?
  What KSAOs do you have?
  What is your potential for innovation and scientific discovery?
  Can you analyze and solve problems; deal with setbacks?

- **Broader Impacts**
  Have you mentored or taught others?
  Have you worked with people from underrepresented groups?
  Can you learn from people from different backgrounds?
  Are you likely to be a leader and make a difference in people’s lives?
  What audiences have you reached with your previous research?
Graduate Research Statement

“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 goal…..”

Suggestions

• Make sure the topic relates to your stated career goals
• Make sure it is doable (as a graduate student)
• Identify resources you will need (and how expenses might be covered)
• Describe in detail your research design, data collection methods, and planned analyses
Graduate Research Statement

• Intellectual Merit:
  Is your research methodology rigorous?
  Have you provided a rationale for this topic? Why is this research needed?
  Are you prepared to conduct this research?
  Will the study expand or transform knowledge?

• Broader Impacts
  Does the topic address, or have implications for, a significant global problem?
  How will society benefit (directly or indirectly) from your research?
  Does the project broaden participation from underrepresented groups?
  Does it have implications for underrepresented groups?
  Does your work advance NSF’s goals?
Advice from Reviewers

- Connect the essays in a way that tells your story (i.e., who you are, what you have accomplished, and what your plans are beyond school).

- Explain how you became excited about the research

- Explain how your interests and experiences prepare you to contribute to a diverse and global society

- Why should NSF fund you specifically, and not just the research question?
What makes an application competitive

- Previous research (typically two or more studies or experiences)
- Applicant has shown initiative in seeking out research
- Research that has resulted in a conference presentation or publication*
- Research plan that is clear and easy to follow; informs the unfamiliar but also connects with experts in your field
- Research that has an impact on society; helps other people
Applying for the GRFP at UAlbany

- Although you must apply as an individual through NSF Fastlane, it is helpful to notify and work with Office of Sponsored Programs in the Division of Research
  - So we know you are applying!

- Beth Large (blarge@albany.edu) is contact person for NSF GRFP
  - General advice, NSF procedures & policies, submission tips
Resources

- Essays are new for 2014 – but can get some ideas from previous essays. There are many samples of successful NSF GRFP applications available – Look at them!
  - Erika Mesh
  - Alex Lang's website

- Excellent comprehensive site – Robin Walker, U of Missouri
  [http://grfpessayinsights.missouri.edu/index.php](http://grfpessayinsights.missouri.edu/index.php)

- There are also very specific instructions for each essay – you must read and follow them precisely!

- Worksheets