



Applying to the NSF Graduate Research Fellowship Program



www.nsfgrfp.org

grfp@nsf.gov



PART 1:

Program Information



National Science Foundation

- Independent federal agency created in 1950
- Mission
 - To promote the progress of science
 - To advance the national health, prosperity, and welfare
 - To secure the national defense
- Funds ~20% of all federally supported basic research conducted by America's colleges and universities



GRFP Goals

- To select, recognize, and financially support individuals who have demonstrated the potential to be high achieving scientists and engineers, early in their careers.
- To broaden participation in science and engineering of underrepresented groups, including women, minorities, persons with disabilities and veterans.





GRFP Key Elements

Five Year Award – \$138,000

- Three years of support
 - \$34,000 Stipend per year
 - \$12,000 Educational allowance to institution
- Professional Development Opportunities:
 - GROW: International Research
 - GRIP: Federal Internships
- Supercomputer access: XSEDE
- Career Life Balance (family leave)





GRFP Unique Features

- Awarded to individual
- **Flexible:** choice of project, advisor & program
- **Unrestrictive:** No service requirement
- **Portable:** Any accredited U.S. institution
 - MS, MS and PhD, PhD
- **2010 - 2016:** 2,000 fellowships/year

2016: ~16,800 Applications

~12 % success rate



GRFP Solicitation

Provides the following information:

- Deadlines
- Program description
- Award information
- Eligibility requirements
- Application preparation
- Submission instructions
- Application review criteria





PART 2:

Eligibility



GRFP Eligibility

- U.S. citizens, nationals, and permanent residents
- Early-career: undergraduate & graduate students
- Pursuing research-based MS or PhD
- Science and Engineering
- Enrolled in accredited institution in US by Fall





GRFP Eligibility

Academic Levels

- **1:** Seniors or baccalaureates with no graduate study yet
- **2:** First-year graduate students
- **3:** Second-year graduate students
(≤ 12 months of graduate study by August)
- **4:** >12 months graduate study, with interruption in graduate study of 2+ years (*can have MS degree*)



How often can you apply?

**Dear Colleague Letter (NSF 16-50), FAQ (NSF 16-051)*

Academic Levels

- **1:** Seniors or baccalaureates with no graduate study yet
- **2:** First-year graduate students
- **3:** Second-year graduate students (≤ 12 months of graduate study by August)

No restriction

***Only 1 time in
graduate
School, in 1st or
2nd year***



GRFP Fields of Study

- Chemistry
- Computer & Information Science/Engineering
- Engineering
- Geosciences
- Life Sciences
- Materials Research
- Mathematical Sciences
- Physics and Astronomy
- Psychology
- Social Sciences
- STEM Education



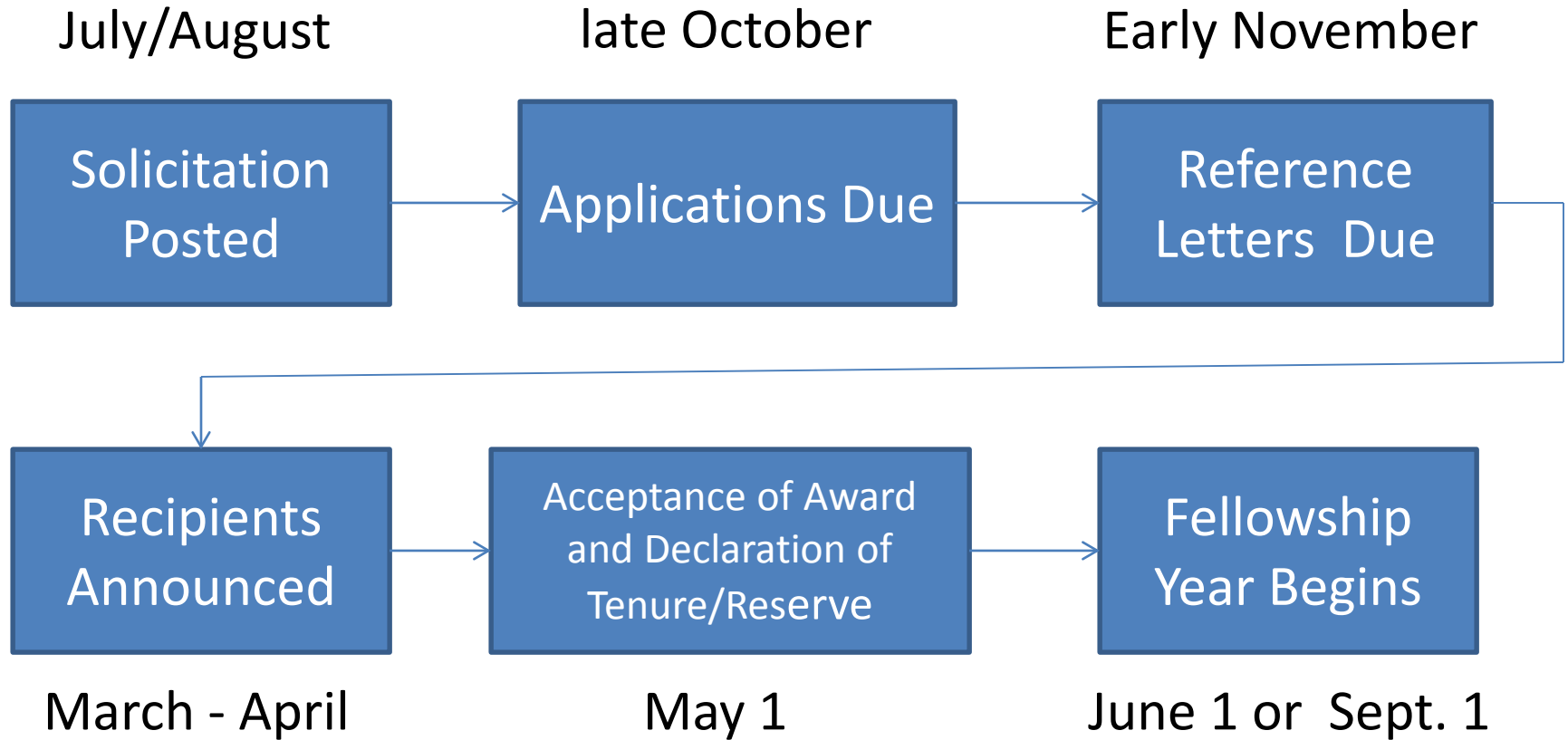
NOT SUPPORTED



- Joint science-professional degree pgms
 - e.g. **MD/PhD, JD/PhD**
- Business administration or management
- Counseling, Social work
- Education (except in science and engineering education)
- History (except in history of science)
- **Biomedical research for which goals are directly health- or disease-related**
- **Research focused on clinical practice**
 - Patient-oriented research
 - Epidemiological studies
 - Medical behavioral studies
 - Outcomes research
 - Health services research



GRFP Application Timeline





PART 3:

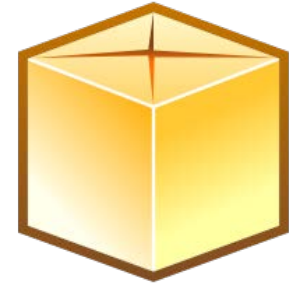
The GRFP Application



GRFP Complete Application

Complete Application Package:

1) Personal information, education & work experience, proposed field of study, academic honors, publications



See the new Solicitation for details.

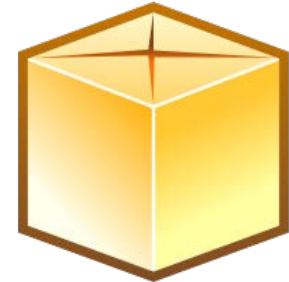


GRFP Complete Application

Complete Application Package:

1) Personal information, education & work experience, proposed field of study, academic honors, publications

2) Personal, Relevant Background, & Future Goals Statement (3 pages)



See the new Solicitation for details.



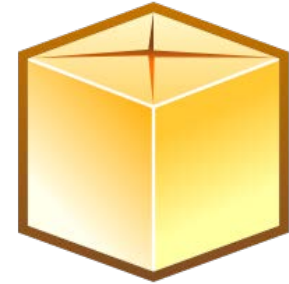
GRFP Complete Application

Complete Application Package:

1) Personal information, education & work experience, proposed field of study, academic honors, publications

2) Personal, Relevant Background, & Future Goals Statement (3 pages)

3) Graduate Research Statement
(2 pages)



See the new Solicitation for details.



GRFP Complete Application

Complete Application Package:

1) Personal information, education & work experience, proposed field of study, academic honors, publications

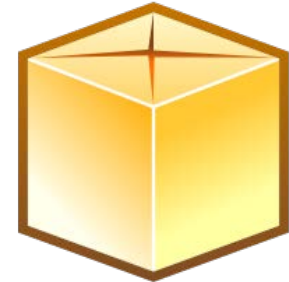
2) Personal, Relevant Background, & Future Goals Statement (3 pages)

3) Graduate Research Statement
(2 pages)

4) **Transcripts** (uploaded electronically)

All application deadlines are in late October

See the new Solicitation for details.



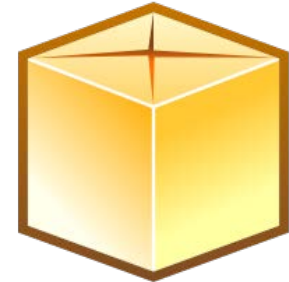


GRFP Complete Application

Complete Application Package:

- 1) Personal information, education & work experience, proposed field of study, academic honors, publications
- 2) Personal, Relevant Background, & Future Goals Statement (3 pages)
- 3) Graduate Research Statement (2 pages)
- 4) Transcripts (uploaded electronically)
- 5) Three letters of reference, **due the first Thursday in November, 5 pm ET**

See the new Solicitation for details.





Preparing a GRFP Application

Personal Statement

Demonstrate potential for STEM research

- Experiences, personal and professional, that contributed to your motivation to pursue a STEM career and your preparation for it.



- *How have your experiences shaped your goals?*
- *What use have you made of the resources available to you?*



Preparing a GRFP Application

Personal Statement

Demonstrate potential for STEM research

- Previous research experiences

- *What was the project?*
- *Where was this research done?*
- *Why was this project worth doing?*
- *What was your part of the project?*
- *How did your part of the project fit into the whole?*
- *What have you learned?*
- *Any advanced course work?*





Preparing a GRFP Application

Personal Statement

Demonstrate potential for STEM research

- Career aspirations and goals



Be sure to address both intellectual merit and broader impacts.



Preparing a GRFP Application

Research Statement

Describe your Research Plan

- Motivate research question(s)
- Demonstrate understanding of the research question(s) and methods for addressing them
- Communicate original research idea and approach

Be sure to include sections explaining both intellectual merit and broader impacts.



PART 4:

Merit Review Criteria



NSF Review Criteria

National Science Board-approved review criteria:

- **Intellectual Merit**
- **Broader Impacts**



Intellectual Merit and Broader Impacts

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

AND

- How well does the proposed activity benefit society or advance desired societal outcomes?

*** Separate sections for Intellectual Merit and Broader Impacts**



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



Broader Impacts

Societal benefits include, but not limited to:



- Impact of project or individual student on society
- Increased participation of underrepresented groups, women/minority, students with disabilities, veterans
- Improved STEM education in schools and teacher development
- Impact on society : Increased public scientific literacy; increased public engagement with science and technology
- Community outreach: science clubs, radio, TV, newspaper
- Potential to impact diverse, globally competitive workforce
- Increased partnerships between academia, industry and others
- Leadership potential



PART 5:

Submitting a Competitive Application



Assessment

Intellectual Merit

- Academic performance; grades, curricula, awards, etc.
- Graduate Research plan
- Research/professional experience
- Reference letters

Broader Impacts

- Prior accomplishments, future plans
- Individual experiences
- Potential benefit(s) to society
- Community outreach
- Reference letters



Reference Letters

- Three reference letters are requested
- Applicant can upload contact information of up to 5 reference letter writers
- Select reference letter writers carefully (familiarity with you as a person is important)

Reference letter writers should keep in mind:

- **Intellectual Merit and Broader Impacts**
(give specific examples)
- **Deadline: 1st Thursday in Nov (5 p.m. ET)**



Application Review Process

- Applications are reviewed by panels of disciplinary and interdisciplinary scientists and engineers.
- Applications are assigned to panels based on the chosen Primary Field of study.
- Applicants are advised to select the Primary Field of Study that is most closely aligned with the proposed graduate program of study.
- Holistic evaluation.



Holistic Review in GRFP

Application Component	Intellectual Merit	Broader Impacts
Personal Statement	Yes	Yes
Research Statement	Yes	Yes
Transcripts	Yes	Yes
Reference Letters	Yes	Yes
Overall Rating	E/V/G/F/P	E/V/G/F/P

Rating Key	
E	Excellent
V	Very Good
G	Good
F	Fair
P	Poor

An applicant receives **Ratings** and **Comments** for both Intellectual Merit and Broader Impacts.



Before you begin your application, ask yourself:

- What's special, unique, distinctive, and/or impressive about you or your life story?
- What details of your life might help the reviewers better understand you or set you apart from other applicants?
- When did you become interested in this field, and what have you learned about it (and about yourself) that has convinced you that you are well suited to this field?
- How have you learned about this field—through classes, readings, seminars, work or other experiences, or conversations with people already in the field?
- What reasons can you give for reviewers to be interested in you?





Advice for Applicants

- Start early
- Read Solicitation, and read it again
- Read NSF GRFP websites
- Make your list of honors, experiences, presentations, and any publications clear for the reviewers
- Pay attention to Merit Review criteria
- Ask several colleagues to comment on multiple statement drafts
- Select and confirm your reference letter writers early
- Share your application materials and the merit review criteria with your reference writers
- Monitor receipt of reference letters



GRFP Resources

- NSF GRFP Website: www.nsf.gov/grfp
(Solicitation and links)
- GRFP Website: www.nsfgrfp.org
(includes tips for applying and FAQs)
- To apply on FastLane: www.fastlane.nsf.gov/grfp
- Graduate Research Opportunities Worldwide (GROW): www.nsf.gov/grow
- Graduate Research Internship Program (GRIP):
www.nsf.gov/grip
- Phone & e-mail
 - 866-NSF-GRFP (673-4737)
 - info@nsfgrfp.org



Good luck!