

# National Science Foundation Graduate Research Fellowship Program



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Center for Careers, Life, and Service

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[career.grinnell.edu/resources/nsf-grfp/](https://career.grinnell.edu/resources/nsf-grfp/)

# National Science Foundation Graduate Research Fellowship Program

- A fellowship supporting research-based (master's or doctoral) graduate study in natural, social, and engineering sciences
  - Five year fellowship with three years of financial support
  - Current stipend = \$37,000/year
  - US citizens, nationals, or permanent residents only
- NSF's goal: Identify students with strong potential to shape the future of STEM
- Can apply before beginning graduate study (even if you haven't applied to grad school yet), as long as you *plan to be* enrolled the following fall (e.g., fall 2024)

# 2023 deadlines by field

October 16:

- Life Sciences

[nsf.gov/pubs/2023/nsf23605/nsf23605.htm](https://www.nsf.gov/pubs/2023/nsf23605/nsf23605.htm)

October 17:

- Computer & Information Science
- Materials Research
- Psychology, Social Sciences, STEM Education

October 19:

- Engineering

October 20:

- Chemistry, Geosciences, Mathematical Sciences, Physics & Astronomy

# Application

1. Personal information (education, work/research/volunteer experience, proposed major field of study, honors & awards, publications)
  - Looking for all the info you would usually have on a résumé/CV
2. Personal statement with relevant background & future goals (3 pp.)
3. Research statement (2 pp.)
4. Transcript(s)
5. Reference letters (3)

# Application

**Personal statement** with relevant background & future goals:  
Demonstrate your potential for research.

- Career aspirations & goals:
  - How have your experiences shaped your goals?
- Research & professional experience:
  - What was the project, and what was your role? How did your contribution fit into the whole?
  - How did you get involved?
  - Why was the project worth doing? What did you learn?

# Application

**Personal statement** with relevant background & future goals:  
Demonstrate your potential for research.

## Tips from alumni:

- Show, don't tell:
  - Be clear about why you're including each experience and how it makes you a stronger applicant.
  - Provide evidence that you *have* done what you say you *will* do.
- Capitalize on existing resources at your target institution.

# Application

## Research statement on a proposed study:

- Communicate your research ideas and approach
- Explain your hypothesis, research plan, and methods
- What do you expect to learn? How will you know if the project is successful?
- What would you do next?

Remember: NSF awards **the applicant**, not the research! Per [nsf.gov](https://www.nsf.gov), the research statement is not considered to be a proposal that you are obliged to carry out, and you are not obligated to attend the proposed institution listed in your application.

# Application

**Research statement** on a proposed study:

## **Tips from alumni:**

- Identify the gap in knowledge you are trying to address:
  - What do we know (1 – 2 sentences) and what do we not know (1 – 2 sentences)?
  - What is the objective of your proposal? (1 sentence on how you'll fill that gap)
- Your project should be big enough to merit 3 years of funding, but reasonable to complete in those 3 years
- Think about how your plans might have to change based on results



# Criteria

## 1. Intellectual merit

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

## 2. Broader impacts

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

Looking for potential **in the applicant** to contribute to science.

# Criteria

## 1. Intellectual merit: your potential to advance knowledge

- Academic performance: grades, awards, publications, etc.
- Ability and potential to conduct research
- Collaboration + independent work
- Initiative, persistence, problem-solving
- Your approach to your field and your research plan

# Criteria

## 2. Broader impacts: potential impact of you/your research on society

*Why is this important?*

- Increase participation of underrepresented groups
- Advance diversity across science
- Increase public scientific literacy & STEM engagement
- Contribute to outreach, mentoring, education
- Foster collaboration outside academia

# More tips from alumni

- Even if you aren't awarded a fellowship on your first application, applying as an undergraduate gives you an opportunity to get reviews and improve a re-application.
- Start early and get lots of feedback. Share your drafts with...
  - An expert in your field who is not involved in your project who can assess your proposal's accuracy and scientific merit
  - A smart person who doesn't know much about your field who can assess your proposal's clarity and persuasiveness
  - A friend or family member who knows you well and can help you brag about yourself

# Recent alumni recipients

## **Daphne Bloom '19**

- biology, University of Pennsylvania

## **Courtney Carter '21**

- astronomy, Columbia University

## **Nicole Carver '19**

- psychology, University of Cincinnati

## **Cassandra Miller '16**

- ecology & evolutionary biology, University of New Mexico

## **Katherine Parrish '18**

- chemistry, University of Wisconsin – Madison

## **Debosmita Pathak '22**

- astronomy, Ohio State University

## **Cinthia Romo Alba '21**

- sociology, Washington University in St. Louis

## **Jasper Yang '22**

- biostatistics (program deferred)

# Next steps

[www.NSFGRFP.org](http://www.NSFGRFP.org)

- Talk to faculty and other research mentors about a good project
- Talk to Grinnell alumni fellowship recipients
- Review funded proposals and other resources
- Identify appropriate references
- Work with the CLS and/or the Writing Center on your application materials
- Submit early!