We offer some advice for preparing a successful application, including tips from former and current NSF Fellows. And below are some helpful resources and sample NSF essays that include reviewers’ feedback.

1. Apply. If you meet the eligibility requirements, apply. And apply as soon as you are eligible. Seniors compete only against seniors; first-year graduate students compete only against other first-years, etc. Apply all three years if you need to, using the reviewers’ comments to improve your application each time. The reviewers do not know if you have applied before, so previous unsuccessful applications don’t work against you. (If you don’t meet the NSF citizenship eligibility requirements, you might be eligible for the three-year HHMI International Student Research Fellowship.)

2. The NSF GRF funds students early in their graduate study. It’s not expected that your research ideas are fully developed or refined. Focus on your accomplishments and previous research experiences. Don’t just tell reviewers what you will do; demonstrate your potential and abilities to do so through your experiences to this point in your academic and research career. Your application must persuade reviewers that you will make significant contributions in science or engineering. Again, don’t tell them, show them.

3. Most schools will host an NSF GRF information session. Attend and ask your questions, get tips from current NSF Fellows, and find out about the selection process from faculty on your campus who have served on NSF review panels.

4. Read the program announcement and related materials for the current year competition. A surprising number of applications are deemed ineligible from the start because students failed to prepare the application according to instructions.

5. Study fellowship essays written by applicants in previous years. See examples with reviewers’ comments below.

6. Start early. Both for your own writing and revising purposes and the needs of your faculty who will write letters of reference for you, give yourself at least three to six months to prepare your first application.

7. Create your account in FastLane to be sure you are familiar with the submission process and to have access to more information about applying and submitting your application.

8. Read the NSF review criteria. Both of your essays will be evaluated, from excellent to poor, on both these criteria:

9. You must understand and address the two review criteria of intellectual merit and broader impacts. The latter is the weaker in many applications. Read this description and list of representative activities that can demonstrate the broader impacts of your proposed research. This 2007 document on transformative research is also helpful for thinking and writing about your research. Read these suggestions for writing your plan of research, your personal statement, and your previous research essay.

10. We emphasize: Make sure you explicitly address both review criteria in all three essays. Demonstrate that you know about the NSF mission and research priorities. Describe how your research helps to fulfill NSF’s goals and priorities.

11. Your writing must capture reviewers’ attention, your project must be exciting and feasible, and your application must be memorable. It also must be easy to understand with a rapid review. Why? Panelists don’t receive applications in advance. They meet with three 8-hour days to read applications. That’s about 20 minutes to read and write review comments.
for each application. There’s no time for reviewers to re-read essays that are too dense or full of jargon. Make it easy for your reviewers to read (and like) your application.

12. Critique your essays with this self-scoring rubric. Then give your essays to faculty, peers, and friends to get feedback for revising your application. Peers and friends who are not specialists in your subfield can let you know if your writing is clear and without mistakes in grammar, spelling, etc.

13. Once you have a draft of your essays, give them to your letter writers. Provide additional information about your research experiences and your academic abilities. Offer copies of papers you’ve written. Good reference letters also address the intellectual merit and broader impacts criteria, especially to show how you integrate research and education as well as the potential of your research to reach diverse audiences. Help your faculty to write very strong, detailed letters of support. Include specific instructions on submitting the letter, and send them reminders before their deadline. (Remember to thank them for their efforts.)

14. Submit your application ahead of the deadline. FastLane may not be so fast when thousands of students are uploading their materials. Although federal agencies have been known to extend deadlines in regions experiencing natural disasters that include power outages, they definitely will not do so when it’s your computer experiencing glitches. Don’t miss the deadline. Submit your application one to three days before the deadline.