

National Science Foundation Graduate Research Fellowship Program Personal Statement, Relevant Background, and Future Goals Essay Tips

This essay will work to demonstrate your ability to successfully undertake your proposed project and your potential to be a leader in science and/or education.

Like your research proposal, it must address the intellectual merit and broader impact criteria. It should be an integrated narrative that motivates, both personally and professionally, your choice of graduate study, and indicates how your future goals stem from your past experience.

This essay should show readers how well prepared you are to conduct research and how likely you are to complete your proposed project. You should give concrete examples of experiences in which you demonstrated characteristics like ingenuity, resourcefulness, determination, flexibility, reliability, etc.

Possible topics:

- Experience on faculty-led research projects, research assistantships, leadership on student research teams
- Experience during internships, field research, study abroad, or employment
- Experience in coursework, lab work, or scholarship.

For each experience describe your role, your contribution, the outcomes, *what you learned*, and *skills you gained*.

- Describe how the experience will be useful to your future research, and how it has influenced your perspective and/or determination.
- Describe how the experience helped you improve your analytical skills, self-direction, time management, creativity, resourcefulness, etc.
- Describe the methods or technical skills acquired: research design, data collection, field research, data analysis, data protection, responsible conduct of research, grant proposal writing, presentation skills, etc.

Remember that reviewers are looking for students who are highly engaged, will encourage diversity, and will advance scientific knowledge that benefits society. You should demonstrate cultural competence, respect for other disciplines and other people, global awareness, and a willingness to integrate science and education.

Possible topics:

- Research with international faculty and/or on interdisciplinary research projects.
- Reaching diverse audiences through teaching, scholarship, presentations, public outreach, media, etc.
- Leadership in field organizations, membership in professional societies, attendance at conferences.

If appears that your proposed research plan would be a challenge given your current ability, you should demonstrate your eagerness to learn the skills necessary to complete it. Give examples of your willingness to seek out and accept feedback and explain your plans to gain the necessary training.

This essay should also demonstrate your potential in a more personal manner: your motivations, your goals, your abilities, your character.

Ideas to address:

Intellectual Merit:

- How motivated are you to pursue your studies, and this project? What motivates you?
- What efforts have you undertaken to improve your skills and knowledge, inside and outside the classroom?
- Can you demonstrate a willingness to challenge assumptions, test new ideas, learn from mistakes, overcome barriers, think creatively, find resources, act independently, etc.?
- What qualities do you possess that will make you a leader in your field?

Broader Impact:

- Do you demonstrate an understanding of local and global challenges, and a passion to make a difference in the lives of people in the US and abroad?
- What are your career aspirations, and how will you contribute to your field?
- Do you demonstrate leadership qualities as well as the ability to be a collaborative team member?
- What are/will be your personal contributions to society?

General:

- What key experiences made you who you are today?
- What are you passionate about? Why is your research important to you?
- How have you helped others?
- How will you adapt to advances in the future?

Steps to writing your essay:

- 1) Brainstorm notes about experiences that best demonstrate your research qualifications, your personal strengths, and the motivation for your professional goals.
- 2) Reflect on these experiences and decide which best demonstrate your knowledge, skills, and the characteristics that demonstrate potential. Reflect on which experiences best reflect the intellectual merit and broader impact criteria.
- 3) Select concrete examples that make your skills, strengths, and motivations clear to your audience.
- 4) Choose a writing structure. You might describe your experiences chronologically, or write about your most meaningful experiences first. You might also list skills you have acquired, and give a concrete example of how you applied that skill.
- 5) Write a draft of your essay. Don't be initially concerned if you go over the 3-page limit – it is generally easier and more effective to cut material than to add it. After you've included all your

relevant experiences, try to identify an overall theme and use this to create a compelling introductory paragraph.

- 6) Create a compelling introduction and conclusion that bring your ideas full circle.
- 7) Share your essay with the fellowships advisor, writing tutors, family, friends, etc. to get feedback.
- 8) Set aside your essay for a few days, and then revise with fresh eyes.

Questions to ask of your draft:

- Did you provide evidence of your intellectual merit and broader impact with concrete examples?
- Have you accurately represented your research experiences?
- Is your past experience connected with your future research and professional goals?
- Will a reader believe that you have the necessary skills and drive to undertake your proposed research?
- Does this essay reflect the real you? Does it feel sincere?
- Is the writing clear, compelling, and detailed?
- What sets your essay apart from other applications?