

Personal, Relevant Background, and Future Goals Statement

The Personal, Relevant Background, and Future Goals statement is the first narrative statement that reviewers will see. You have three pages (single-spaced) to paint a portrait of who you are, who you aspire to become, what you've done to begin this quest, and what you'll do in graduate school to fulfill your vision to advance knowledge and benefit society. To top it off you need to place all this information in a compelling narrative that leaves your reviewers rooting for you! It's no easy task, but we will walk you through it.

Let's start by looking at the statement prompt:

*Please outline your educational and professional development **plans** and career **goals**. How do you envision graduate school **preparing you for a career** that allows you to contribute to expanding scientific understanding as well as broadly benefit society?*

Take a look at the words we decided to bold in this prompt... they're all future-oriented words and they are focused on **you**. Reviewers are tasked with deciding which applicants the NSF should invest in – which candidates have a high potential to contribute to NSF's mission of advancing knowledge and benefitting society. As an applicant you want to clearly lay out to your reviewers why you are the right candidate for this fellowship. Take them through your story and tell them how it will end. That is, tell them what **motivated** you to pursue science in the first place, **how** you got to where you are today, **why** you want to pursue a graduate degree, and **what** you'll do with your degree.

Breaking Down the Statement Components

You have a lot of ground to cover in this statement and only three pages to do it in. To stay organized (and follow the NSF GRFP prompt) arrange your statement into the following 4 sections: 1) Personal Statement; 2) Intellectual Merit (Relevant Background); 3) Broader Impacts (Relevant Background); and 4) Future Goals and Action Plan.

****Please note that applications in which Intellectual Merit and Broader Impacts are not addressed separately under separate headings will not be reviewed.**

Let's take a closer look at each section.

Personal Statement (~ ½ page)

Right off the bat you want to illustrate your potential to the reviewers. Remember, this fellowship is an investment in you and your potential to advance knowledge in STEM fields and your potential to benefit society – so paint that picture for the reviewer. Tell them where you are coming from, who you are now, and who you'll become. This story is unique to you! It's worth exploring and trying out different narratives until you find the one that properly conveys you and leaves the reviewers rooting for you.

Intellectual Merit (Relevant Background) (~¾ page)

Intellectual Merit (IM) broadly refers to your ability to advance knowledge in your field. To give the reviewers a sense of your ability walk them through your IM journey. How did you first engage in research? Did you have an “aha” moment where you found your research calling? What skills (both technical and personal) did you develop along the way that have prepared you for graduate school and beyond? Where did you present or publish the results of your research?

As a researcher, presenting your IM may feel more natural – the experiments we conduct, present on, and publish are all part of IM. However, don’t rest on your laurels for how to present these achievements. Rather, use the 4 Pillars framework of Initiative, Leadership, Impact, and Scholarship that we discussed in the previous module. The 4 pillars can greatly elevate your IM achievement and demonstrate to your reviewer why you’re worth investing in (rather than just telling them that you are). Take a look at this example of an applicant’s Intellectual Merit Relevant Background paragraph from Dr. Head’s Primer:

The grant period came to a close, but I recognized that ethnography and conceptual design added a critical perspective to my engineering education and helped me to master the psychosocial aspects of design. I also felt extremely rewarded by working to extend the abilities of people with visual impairments. The Principal Investigator, Professor John Carroll, invited me to remain in the lab as a Research Assistant, and I have continued contributing to Third Eye and joined a second project with similar aims, Conversations for Vision [Initiative]. Over the last three years, I have assisted in conducting three ethnographic end-user studies; analyzed qualitative data; helped to design and prototype two assistive technologies, including co-designing with people with visual impairments; worked with an industry partner to augment their assistive services [Leadership]; and mentored new undergraduates joining the lab. Our findings reveal the latent needs and unseen strengths of people with visual impairments as well as how those factors can be translated into valuable new assistive tools [Impact]. I had the opportunity to share those findings by co-authoring two peer-reviewed publications (with two more currently under review) and presenting at the 2018 NASA Space Grant Research Symposium and the 2019 Penn State College of Engineering Research Symposium. Disseminating our work and insights to inspire further research and improve assistive technology design practice has demonstrated to me the power of research and motivated me to pursue other research opportunities [Scholarship].

This is a much stronger and illustrative paragraph than saying:

I worked as a lab assistant in the lab of Dr. John Carroll. In this position I contributed to several research projects, including: Third Eye and Conversations for Vision. While working on this project I developed important research skills and collaborated with different stakeholders. I also mentored undergraduate students that were new to the lab.

It's important to remember that while this application is due mid-October, you still have a whole academic year until the fellowship will actually begin. You don't want to lose out on sharing the exciting research, conference presentations, and/ or publications you'll be pursuing in that time, so make sure to include that here! It might feel odd putting it in the Relevant Background section since it hasn't happened yet, but relative to the application start date this will be a part of your "relevant background."

Broader Impacts (Relevant Background) (~¾ page)

The Broader Impacts (BI) criterion refers to your endeavors that work to benefit society or advance desired societal outcomes (see page 1 of Dr. Head's [Primer](#) or the [NSF GRFP solicitation](#) for what these outcomes include). In other words, BIs refer to what you're doing to share your science on a broader scale and to meet a GRFP goal of "broadening participation in STEM."

Again, the 4 Pillars Framework is important here. There will be a lot of other applicants who "mentored students" or "participated in K-12 outreach." Instead of listing these as activities, think about how you can convey the initiative, leadership, impact, and scholarship products that came out of these endeavors such as, developing tutoring or mentoring materials, revising/developing course curriculum or lab modules, or improving STEM K-12 outreach materials. You spend a lot of time on these endeavors and it's important to make them stand out!

Here's an example from an applicant's Broader Impacts (Relevant Background) section:

At UW-Madison, I sought to share my passion for maps and science through story maps. Working with the Wisconsin Sea Grant [Initiative], I developed a story map that informs coastal decision makers about the deleterious effects of coastal structures. I spearheaded the map design by translating a team of coastal engineers' and planners' expertise into a coherent narrative centered around a set of dynamic maps that visualize how coastal structures have incited shoreline erosion [Leadership]. Throughout the design process, I established and documented design conventions for future Wisconsin Sea Grant story maps [Impact]. The story map is now a staple of the Wisconsin Sea Grant's outreach, and it received honorable mention for the 2020 Cartography and Geographic Information Society David Woodward Digital Map Award [Scholarship].

This gives the reviewer so much more insight into the applicant's endeavor than if they wrote:

While at UW-Madison I worked with Wisconsin Sea Grant to create maps that would inform important coastal decisions by visualizing how coastal structures have incited shoreline erosion. My award-winning map is still used for outreach.

In this section you'll want to cover 2-3 different BI achievements. It's important, and helpful to your narrative arc, if you connect your BI achievements to a theme of what

motivates you to engage in these BI endeavors.

Like in the IM Relevant Background section, you'll want to cover any BI endeavors you'll pursue between the time you submit your application to the time the fellowship begins. This also includes any BI training or professional development.

Future Goals and Action Plan (~ 1 page)

Think back to the prompt and the words we bolded – it emphasized the future. This section gets to the heart of the prompt and requires a significant amount of page space. You'll want to provide a holistic overview of what you envision your future to be, everything from why your (proposed) graduate program and advisor are a good fit to what your ultimate career goal is.

Given the range of topics that need to be covered, this section should be broken down into 5 subsections:

1. Why your (proposed) graduate program and advisor?
 - a. What qualifications does the program and your (proposed) advisor have that will help you achieve your goals?
 - b. What resources are available that will help you complete your dissertation?
 - c. What skill sets will you develop during your dissertation?
2. What are your career goals?
 - a. What training and professional development programs are available to help you reach your goals?
 - i. E.g., pedagogy training, industry internships, government sector internships.
 - ii. When discussing these trainings don't just say you'll "participate" in them. Dig deeper! Think about who you want to work with, what you'll pursue, the type of knowledge you'll gain, and what all this means for your career.
3. BI Proposal
 - a. Outline the BI endeavor(s) you plan to pursue as a graduate student at your institution. Ensure that your plan(s) address the five NSF Merit Review Criteria (see the [GRFP Solicitation](#)).
 - b. When developing your plan(s) look into the existing infrastructure at your (proposed) institution that you can plug into. There's no need to reinvent the wheel – identifying established programs you'll connect with demonstrates to the reviewers that you put a lot of thought into your plan.
 - c. If your BI requires starting from scratch you'll need to convince the reviewers that this is achievable and that the impact of the BI will make it worth pursuing.
 - i. Utilize the information you presented in your Relevant Background section to demonstrate your qualifications.
 - d. Discuss how you will measure the success of your BI Proposal.
4. Discuss your plans of pursuing a postdoctoral position (if appropriate).
 - a. If your career goal is to stay in academia, it's important to discuss your

- postdoctoral plan and how it will prepare you for your career.
 - b. Again, demonstrate to the reviewers that you thought this through. Be specific on who you want to work with and why.
5. Career Vision
- a. Wrap up this section (and statement) in a nice bow sharing what your ultimate career goal is.
 - b. Pulling from the themes in your IM and BI, give insights into what these endeavors will look like in your dream career.
 - c. End on a strong note that reminds the reader of your passion and dedication to making all of what you proposed happen!

There are a lot of directions you can go in the future, so for more guiding questions in the Future Goals and Action Plan section see pages 11-14 of Dr. Head's [Primer](#).

Try it yourself!

We just covered a lot of information and you might be staring wide-eyed at the screen right now. Don't worry! We have some easy steps to guide you through developing this statement.

A brainstorming session is a great way to clear your head of all the ideas that might be whirling around. To get started look at the questions that we have outlined above for each of the sections and think how you might answer them. Do you have an idea of what story you want to tell in the Personal Statement portion that you might be able to weave throughout the statement? Or are you stuck with how to start but have an idea on your Future Goals and Action Plan section. There's no order in which you need to work through the sections nor do any of your ideas need to be fully developed or refined. You're just exploring and experimenting with ideas at this point. Give yourself a break after your brainstorming session. Let the ideas marinate out in the open and come back to these thoughts with a fresh mind.

Coming back to your brainstormed ideas, start to look at your notes through the lens of the 4 Pillars. Do your endeavors clearly demonstrate the 4 Pillars? If so, start fleshing those out - what was the Initiative, Impact, Leadership, and Scholarship you showed? If not, think about what you would need to take with those endeavors to demonstrate the 4 Pillars. Write those steps out, we will explore them more in the next module on [Crafting Your CV and Creating a Gap CV](#). While refining these ideas, look for overarching themes that might be present and could help in crafting your narrative arc.

Finally, start discussing your ideas with your mentor(s). Having a support network in place from the start is extremely valuable in staying on track and ensuring you're clearly communicating your ideas.