







DIVISION OF EARTH SCIENCES

- 1. Start with a compelling idea. Your proposal should attempt to change how we think about a given topic and excite the reader. Consider the relevant prior research and show the reviewers that you've done your homework by including appropriate citations in your proposal.
- **2.** Lay out a clear work plan + timeline. The reviewers should be able to easily understand what your plan is, why each piece is important, and who on your team will do what work, when.
- **3. Start early and schedule adequate time.** Give yourself enough time to check and recheck your proposal. Build in time for others to review it before submission and remember that a rate-limiting step may be your Sponsored Research Office.
- **4. Develop a checklist of all needed NSF criteria.** Thoroughly read NSF's most current Proposal and Award Policies and Procedures Guide (PAPPG) and the program announcement or solicitation. Follow the instructions, which are periodically updated. Before submission, ensure all required components are included.
- **5. Know when things are due.** Is there a deadline, a target date, or is there no deadline? If you do not understand the difference, read the PAPPG or email your program director.
- **6. Request necessary components early.** Ask for letters of collaboration, biosketches, etc. from collaborators as soon as possible. Send them instructions or templates to save yourself formatting work at the end of the process.
- 7. Consider the reviewers. Be clear and concise. Include figures that will strengthen your case. Know whether your proposal will be evaluated by ad hoc review, a panel, or both it may affect the way you pitch your proposal.
- **8. Proofread your text and figures.** Typos and grammatical errors can be distracting for reviewers. Ensure maps and other figures add value and are easy to read.
- **9. Find a proposal-writing mentor**, perhaps a previous advisor or colleague who has been successful at NSF. Their outside perspective may strengthen your proposal, and they may spot mistakes that you miss.
- 10. There is no standard Broader Impact. Different PIs, institutions, and projects will have different strengths in Broader Impacts. They could a) relate to teaching and training; b) broaden the participation of underrepresented groups; c) build or enhance partnerships across institutions, or internationally; d) broadly disseminate science to the public; e) enhance infrastructure in your institution or a developing country; f) impact local policies; or g) do something we didn't list here. And remember that it's better to do one or two of these activities well than to try to cover several superficially.
- 11. Craft a reasonable budget. Think carefully about what you need to do the work you propose, and ask for what you need. Ensure that the work that undergrads, grad students, and postdocs are doing is appropriate for their level. Justify each expense appropriately, and don't forget to ask for funds to support your Broader Impact activities.
- **12. Get to know your NSF program director.** Email your program director and ask any questions you have about the process or set up a phone call. If you're new to the NSF system, attach your CV as a way of introduction.
- **13. Don't get discouraged.** The only PIs who don't get declined are those who don't submit. NSF Program Directors want you to succeed, and are here to support you along the way.