



Reports on Meeting Grant Officers in Washington D.C.

Social Science and Research Community

Drexel University

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Questions 1: For people who think of submitting a grant proposal, what are the top 3 pitfalls for the grant application? And what are your suggestions?

Major Pitfalls

(1) No Theoretical Connection.

- a. Check whether there are enough theoretical connections to existing literature.
- b. Think beyond and think about what your hypotheses (hps) really mean.
- c. Nice theoretical linkages are needed – not too tight, not too loose.

(2) Lack of Details.

- a. Specify how you are going to do the experiment and analysis, no matter how many times you have published, what the power is, how you exactly want to do it.
- b. The proposal needs to show that you do know the domain.
 - ✓ But do not ask for funding on research that is already done.
 - ✓ The approach is more important in the social sciences.

(3) Lack of Importance Justification.

- a. Specify what matters clearly and don't fall short on the significance.
- b. It should be something that has scientific significance. Ask yourself, is it going to change the world?
 - ✓ If your experiments are just what you do, why should we care?

(4) Inappropriate Formatting.

- a. Pay attention to fonts, spelling, formatting, etc.

Advice

(1) Advice on the Proposal.

- a. The conceptual/ theoretical framework matters.
- b. Appropriate context.
 - ✓ A situated research question is vital
 - ✓ Describe how your study fit the context of the grant your applied
 - ✓ A specific description of research aims is important
- c. Reg Flags.
 - ✓ No specified promising results, no clear theoretical framework, nor no justification on how the research aligns with the needs of the community are reg flags for an application.
 - Specific areas of ignorance (i.e. research gaps) should be highlighted.
 - Descriptions on access to resources (e.g. labs) are important.
 - Show that the research is well-grounded within existing research, and that it will go further beyond the boundaries.
 - ✓ The best applications can be turned down because of these bigger considerations.
- d. Check what has been funded on the NSF/ NIH websites.

- ✓ A great button, in the end, shows the last funded 10 years of research
- ✓ Don't submit something similar.

(2) Communication with Peers.

- a. Before submission, talk to your peers to make sure your ideas are well developed.
- b. Those who are of conflicting interests, they cannot review your proposal, but they can give you advice before submission.

(3) Catch the Attention.

- a. Highlight the significant impact in the very first paragraph, so that the reviews get the point.
- b. Funding money is limited, and only the most important scientific research got funded.

(4) Communication with Grant Offices.

- a. Most Important – find the right granting institution.
- b. Communicate with the grant-officers/ program-directors before you apply for the grant.
 - ✓ Submitting without identifying or prior contact with grant-officers is a deal killer
 - ✓ The grant-officers review your proposal(s) – they would have better spent their time if they have prior knowledge of your proposal(s).
- c. You can start with an email, and maybe follow up with phone calls.
 - ✓ Don't call the officers to start with – email them.
 - ✓ For emails, you can cc everyone if you are interested in more than one program.
 - We (the grant officers) talk to each other and if something is more suitable somewhere else, we will refer you back there to talk.
- d. If you didn't get a response in weeks, send another email – we don't get bothered.
 - ✓ Don't be shy. Your email might be buried with a lot of emails we received. But a few days of wait should be enough, not a few weeks.

(5) On Novelty and Innovation.

- a. Innovation
 - ✓ We look for things that you don't know but the fields need to know.
 - ✓ Show us how your research helps science and how it helps the world.
- b. Balance conservation and innovation.
 - ✓ Conservation refers to the firmness of your research, and innovation refers to going beyond and thinking forward what we already know.
- c. Research and Resources
 - ✓ Show us that you have access to resources for the research you propose.
- d. Think through your project.
 - ✓ For example, if the proposed way does not work out, what will you do? What are the alternatives?

(6) Justify the Novelty.

- a. Often time the researchers present a research problem and claim that nobody has ever done it. But this is not true because some aspects of it might have been touched on.

- b. Explicitly show what existing research your research builds on.
- c. Generalizability.
 - ✓ The goal of your research should be feasible to benefit people (e.g. cure a disease or solve a practical problem)
 - ✓ Show how your research can be generalized in other settings – this is not clear in many grant applications.
- d. The applications are confidential, but we (grant officers from different institutions such as NSF, NIH) talk to each other. We don't fund similar projects.

(7) Intellectual Merit and Broader Impact.

- a. Intellectual Merit focuses on the new theory, new methods, and/or new approaches.
- b. Broader Impact focuses on the following.
 - ✓ PPT of John Parker's Slides.
 - ✓ How it helps the under-represented groups – women, minority, etc.
 - ✓ How it can influence policymaking.

(8) Learn from Successful Applicants.

- a. Find exemplars who have been funded and contact the PIs/co-PIs.
 - ✓ We don't put them on the website as examples.
 - ✓ Most PIs/co-PIs are willing to share their proposal. It is useful to learn from them.

(9) Suggest your reviewer.

- a. 80% of proposals don't suggest external/ ad hoc reviewers. Why not?
- b. When the topic is new and we don't know who to contact for a review, we need a hint.
 - ✓ In NSF you can put us in the right direction on finding external reviewers.
 - ✓ People with conflicting interests (e.g. co-authors, advisor) cannot review your proposal.

(10) Interpreting Feedbacks.

- a. If you get a lot of high-level concerns on your proposal, there is a problem.
- b. Don't take the feedback too personally.
 - ✓ Build thick skin and resubmit.
 - ✓ It is not about you; it is about what you write.
 - ✓ Women resubmit less than men.
 - ✓ If you don't resubmit, your chance of getting funded is zero.
- c. Take the feedback very seriously.
 - ✓ The details provided by the grant officer(s) are important – you will know where and how to improve.
- d. View the process as a game.
 - ✓ It is an emotional and re-motivational game.
 - ✓ You need to be willing to accept some reject, and you need to keep going.
 - ✓ Learn the game and keep your spirit up.
- e. The reviews can be helpful.
 - ✓ Try to make sense of the reviews.

- ✓ I (the grant-officers) am happy to discuss with you after maybe 2 weeks you read them.
- ✓ You don't get the identity of reviewers, but you get the summary of the review.
- f. Signals from the decision.
 - ✓ We can smell the challenge in your proposal, so don't try to hide it.
 - ✓ You typically don't get funded the 1st time, but maybe the 2nd time.
 - ✓ If you get rejected 3 or 4 times, you probably are barking on the wrong tree. You might want to change your idea or try another program.

Questions 2: How the funding institutions and their panels (including external/ ad hoc reviewers) work?

(1) Panels of the NIH and the NSF

- a. The panels in different institutions vary.
- b. E.g., the panel of the NIH is public information, and the panel of the NSF is confidential.

(2) Search for the best research

- a. You don't want to be incremental.
- b. Check what has been funded in the past (by the NSF).
 - ✓ If we just fund something similar earlier, we will not fund the project because it does not add new knowledge.

(3) Represent all institutions and all geographic areas.

- a. It is the eco-system we deal with, and it is not really proposal-proposal funding.
 - ✓ E.g., if certain areas have low funding opportunities, we might try to balance that.
 - ✓ We try to represent all schools around the country. Some states have submitted a lot of proposals and we have to allocate funding to the states that have gotten less funding even if the proposals might be less ideal. There are all sorts of considerations.

(4) The program director makes the final decisions.

- a. It might be that the NSF reached out for external reviewers for every proposal if not suggested by the PIs/co-PIs
 - ✓ Ad-hoc reviewers (3 reviews) will review your work, they are usually external people that you can suggest.
 - ✓ If the ad hoc reviews for the proposal is not good, the proposal very likely is not going to the panel.
- b. The panels don't make the final decision. The program directors do.
 - ✓ The panel turns to be more conservative on the project.
 - ✓ Sometimes panels miss a very important point and the grant-officers are the absolute decision – they consider bigger considerations.

(5) We try to fund you.

- a. We sometimes reach out to applicants, and the offer can be really helpful.
- b. The program officers are willing to fund research that is high risk and high return.
 - ✓ i.e., we sometimes pull out projects that are rated low competitive or not competitive by the panel and fund them if we see the potentials.
- c. We might change your title and/or abstract to avoid political sensitive information so to help you get funded.

(6) Funding rate

- a. We are not supposed to say our funding rates, but 25% is quite high.

Questions 3: How do you decide the potential for projects, especially for the high-risk ones?**(1) Put things in context that has not being done.**

- a. We are looking for research that opens up things. Mostly, science develops in boxes, but we are looking for proposals that open the box.
- b. You definitely don't want your whole research profiles to be high-risk and high-return ones. We want a good mix.

(2) It is a good idea to always ask the grant program officer.

- a. If you feel your project is high-risk, communicate with the program director. You can email the grant office a one-page write-up and get their feedback.

(3) Some projects won't be funded unless there are some preliminary data.

- a. We need to see some based line results (NIH).
- b. If you have data, include that in the proposal.
 - ✓ But only if your results predict what you hypothesized.
- c. If public data go the different directions from your data, you need to explain/ justify the differences.

(4) We (NSF) don't require data/ results, but sometimes it is great.

- a. If you use a new method, it is good to show some data.
- b. If you research interact with institutions that have not been explored before, it is good to have some data.
- c. If your project is risky, it is great to have some data.

Questions 4: How do you handle topics that are controversial? A certain group of researchers may not like the ideas. (Credibility or the people who go beyond)

(1) It depends on the program you apply to.

- a. Find the right program and the right division of the field.
- b. The controversial topics might be cutting-edge ones.

(2) Grant officers listen to ideas.

- a. After you submit the proposal, we own your title.
- b. We find ways to fund your project if we find it important.

(3) Waste Book Procedure.

- a. You find the best thing you can and defend your ideas.
- b. Novelty perspectives are challenging and risky but show your potential.
 - ✓ e.g. the caveat is missing data from previous work, your proposal can provide pilot data

(4) Communicate with the grant-officers.

- a. For eager proposals, they are high-risk with high reward. Send a one-page summary to the program officer and see how it goes.
- b. If you are around (the DC areas), you can schedule and meet with the grant-officers. But before that, make sure you emailed them your one-pager.
- c. You can also meet NIH and NSF officers at major meetings and conferences.

(5) NSF and NIH.

- a. Feasibility in NIH researchers is something of high-risk high reward. Clinical trial.
- b. NIH and NSF co-funding proposals on overlapping areas, but the proposals should be submitted separately.

Questions 5: What about the team-based proposals (e.g. researchers from different institutions)? What about interdisciplinary research? And do you co-fund projects?

(1) A project management plan is needed.

- a. The dynamics of the group is important.
 - ✓ When people from different institutions submit a grant, there should be something about their leadership and how they want to manage the project.
- b. There is a tool kit available on the website by the Nation Academics Press "*Enhancing the Effectiveness of Team Science*".
 - ✓ It is a report free for download that tells how you want to manage the group
 - ✓ Leadership skills can also be found in the report

(2) The bigger project turns to have a higher budget.

- a. We have some leeway to fund, and we can fund year by year.
- b. Split the project.
 - ✓ We don't co-fund between NIH and NSF.
 - ✓ You can split your project to different scope and then submit separate proposals to different programs.
 - ✓ We do a lot of co-review with each other and we fund collectively.

(3) The interdisciplinary fields are hard to get funded

- a. Be honest with the grant-officers and the funding institutions.
 - ✓ Describe the challenges in the proposal.
- b. Split the project.
 - ✓ You can break split the project and submit them for multiple grants in different funding institutions separately.
 - ✓ (Split project and submit separate proposals) can be initiated by you or by us.
 - We seek opportunities for you.
- c. Framing the research.
 - ✓ You can draw theories and/or methods from different disciplines.
 - ✓ Make sure there is one major disciplinary your research builds on, and then you can elaborate materials from other disciplines.
- d. Be clear with the funding institutions
 - ✓ Make sure it is a good fit.

Questions 6: What is the data sharing policy for funding institutions?**(1) Data sharing is expected**

- a. You basically are funded by tax-payers money.
- b. There is a policy of data sharing (in the NSF) if asked.
 - ✓ For smaller projects, it depends.
- c. Data sharing expectation of NIH is very high.
- d. Procedures to share the data.
 - ✓ Regarding how to share data, especially involving sensitive information such as human subject identifiers, check with grant officers.

Questions 7: What are the red flags on the budgeting?**(1) Don't try to hide things.**

- a. Try to specify how you will spend
 - ✓ Don't have unspecified expenses.

- b. Cut the spending into small chunks.
- c. It is easy to fund projects with appropriate budgeting.

(2) Sometimes researchers are not asking money for the project

- a. They want money for their lab or ask too much for the PI stipend.

Questions 8: How can I minimize my failure chances when I am working on a grant which is quite new in the field and been less funded?

- (1) Admit that this is a new area of research
- (2) Suggest reviewers whom you don't have a conflict of interest with
- (3) Submit exploratory grant such as R21
- (4) Use pilot data to justify its credibility of your research