Finally, program officers have the ability to be much more flexible in the nature of what they recommend than is generally recognized. If you believe you have an imaginative approach to supporting your research program, discuss it with the appropriate program officer.

SOME FINAL THOUGHTS

Lastly, but perhaps most importantly, you should never invest too much of your self-esteem as a researcher in the outcome of the proposal process. For the funding agencies, it is not the individual that is being supported, it is the research activity proposed as it fits in the context of the overall program. If your sense of your worth as a researcher rises or falls on the basis of the success of your proposal, you are likely to be doing yourself a disservice.

Declinations can be devastating, particularly when they come for the first time. It may seem like more of a rejection of your research and your ability as a researcher than is the case. Frequently the reviews of your proposal will be very positive, and it is important to take the positive comments and build on them, rather than becoming discouraged. Negative comments should be carefully evaluated for the information they can provide to your future work. Take those making valid points and address them as appropriate in planning the future directions of your research. It is important to remember that a broad range of what program officers would term fundable work is declined. Generally such work is roughly on a par with some of what is funded.

Receiving a declination does not mean that your work will never be supported, rather that it is not being supported at this time. Likewise, receiving an award does not guarantee that your work will always be supported. Independent of the outcome, it is a good idea to discuss with the program officer the positive and negative factors in the decision and how you can improve your position the next time you submit a proposal. Sometimes you will get good ideas for modifying your methods or adapting your line of research to broader questions.

By recognizing that you can and should participate in competition for research support funds in the future, regardless of the disposition of any individual proposal, you help ensure that the process of competing for funds has some positive feedback to your research program and that research in the mathematical sciences remains vital. By approaching the process with imagination and creativity, you help us in the funding agencies remain flexible and responsive to your requirements for research support.

Comment

Edward J. Wegman

Bruce Trumbo's discussion gives an excellent overview of the grant process at the National Science Foundation and with it, some excellent advice on strategies for winning grants. Obviously the processes are different at the Department of Defense (DoD) agencies, so perhaps a few remarks in these directions would also be useful. My remarks, of course, no longer reflect any official view or policy and should not be interpreted to do so. My direct experience relates to the Office of Naval Research (ONR), but by extension also reflects frequent contact with the other DoD agencies, the Air Force Office of Scientific Research (AFOSR), the Army Research Office (ARO), the Defense Advanced Research Projects Agency (DARPA), the Strategic Defense Initiative Organization (SDIO) and, most recently, the National Security Agency (NSA). These agencies along with the Department of Energy (DoE) are sometimes referred to as the mission agencies. This is, I have often thought, a somewhat unfortunate label because it tends to color the attitude investigators, particularly young investigators, have of the agency. The tendency is to understand "mission" as a synonym for "applied," and, hence, to turn off theoretically minded young investigators. In fact, certainly during my tenure at ONR, the type of research funded was quite theoretical, but chosen with a view to its relevance to the mission of the United States Navy and the United States Marine Corps. Because antisubmarine warfare was a clear naval mission, for example, ONR tends to have a strong focus on topics related to sonar and nonacoustic signal processing. Thus, proposals related to time series analysis and stochastic processes tend to be more

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