

**NSF Grant writing:
Perspectives of a former NSF
Program Officer**

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**University of Mississippi
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Today's presentation

- **A quick list of information sources with comments about effective use**
- **A focus on the program officer**
- **The review process**
- **A few general do's and don'ts**

Information sources

(1)

nsf.gov

Efforts to increase user friendliness

Overview of the organization

<http://nsf.gov/staff/orglist.jsp>

Sign up for email updates at

<https://public.govdelivery.com/accounts/USNSF/subscriber/new?qsp=823>



Funding



Email Print Share

[NSF-wide](#)

Faculty Early Career Development (CAREER) Program N

[CAREER and PECASE Information](#)

[Dear Colleague Letter: Career-Life Balance \(CLB\) Initiative](#)

[FAQs About the Faculty Early Career Development \(CAREER\) Program for Submission in Years 2011, 2012 and 2013 \(NSF 11-038\)](#)

[PECASE Press Releases, Photos and Award Lists](#)

CONTACTS

CAREER Directorate and Division Contacts:

<http://www.nsf.gov/crssprgm/career/contacts.jsp>

PROGRAM GUIDELINES

Solicitation [14-532](#)

[Find Funding](#)

[A-Z Index of Funding Opportunities](#)

[Recent Funding Opportunities](#)

[Upcoming Due Dates](#)

[Advanced Funding Search](#)

[Interdisciplinary Research](#)

[How to Prepare Your Proposal](#)

How to Prepare Your Proposal

About Funding

Proposals and Awards

Proposal and Award Policies and Procedures Guide

Introduction

Proposal Preparation and Submission

- [Grant Proposal Guide](#)
- [Grants.gov Application Guide](#)

Award and Administration

- [Award and Administration Guide](#)

Award Conditions

Other Types of Proposals

Merit Review

NSF Outreach

Policy Office

Related



Solicitation [14-532](#)

SYNOPSIS

CAREER: The Faculty Early Career Development (CAREER) Program is a Foundation-wide activity that offers the National Science Foundation's most prestigious awards in support of junior faculty who exemplify the role of teacher-scholars through outstanding research, excellent education and the integration of education and research within the context of the mission of their organizations. Such activities should build a firm foundation for a lifetime of leadership in integrating education and research. NSF encourages submission of CAREER proposals from junior faculty members at all CAREER-eligible organizations and especially encourages women, members of underrepresented minority groups, and persons with disabilities to apply.

PECASE: Each year NSF selects nominees for the Presidential Early Career Awards for Scientists and Engineers (PECASE) from among the most meritorious recent CAREER awardees. Selection for this award is based on two important criteria: 1) innovative research at the frontiers of science and technology that is relevant to the mission of the sponsoring organization or agency, and 2) community service demonstrated through scientific leadership, education or community outreach. These awards foster innovative developments in science and technology, increase awareness of careers in science and engineering, give recognition to the scientific missions of the participating agencies, enhance connections between fundamental research and national goals, and highlight the importance of science and technology for the Nation's future. Individuals cannot apply for PECASE. These awards are initiated by the participating federal agencies. At NSF, up to twenty nominees for this award are selected each year from among the PECASE-eligible CAREER awardees who are most likely to become the leaders of academic research and education in the twenty-first century. The White House Office of Science and Technology Policy makes the final selection and announcement of the awardees.

RELATED PUBLICATIONS

[Frequently Asked Questions \(FAQ\) about the Faculty Early Career Development \(CAREER\) Program for Submission in Years 2011, 2012 and 2013 \(nsf11038\)](#)

RELATED URLS

[Dear Colleague Letter on the Career-Life Balance Initiative](#)

[Instructions on how to submit the Supplement requests](#)

THIS PROGRAM IS PART OF

[Career Development](#)

[Education and Special Programs](#)

[Engineering Education](#)

[Opportunities that Highlight International Collaboration](#)

[What Has Been Funded \(Recent Awards Made Through This Program, with Abstracts\)](#)


[Map of Recent Awards Made Through This Program](#)

[News](#)

[Discoveries](#)

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FUNDING

AWARDS

DISCOVERIES

NEWS

PUBLICATIONS

STATISTICS

ABOUT NSF

FASTLANE

Information sources

(2)

- **Colleagues and local resources**
- **Members of “the community”**
- **Agency representative at conferences**
- **The actual program officer**
- **Serving on a panel or as “ad hoc” reviewer**
- **Working at NSF as a “rotator”**

The program officer (1)

VERY BUSY: IMPLICATIONS FOR YOU

- **Inform yourself fully before asking**
- **Be clear about what you are asking**
- **Be concise**

All CAREER proposals must have an integrated research and education plan at their core. NSF recognizes that there is no single approach to an integrated research and education plan, but encourages all applicants to think creatively about how their research will impact their education goals and, conversely, how their education activities will feed back into their research. These plans should reflect both the proposer's own disciplinary and educational interests and goals, as well as the needs and context of his or her organization. Because there may be different expectations within different disciplinary fields and/or different organizations, a wide range of research and education activities may be appropriate for the CAREER program. Proposers are encouraged to communicate with the CAREER contact or cognizant Program Officer in the Division closest to their area of research to discuss the expectations and approaches that are most appropriate for that area (see <http://www.nsf.gov/crssprgm/career/contacts.jsp> for a list of CAREER contacts by division).

Project Summary:

The Project Summary consists of an overview, a statement about the intellectual merit of the proposed activity, and a statement about the broader impacts of the proposed activity. Proposals that do not contain an overview and separate statements on intellectual merit and broader impacts will not be accepted by FastLane or will be returned without review.

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NOTE: on these and following slides, Kramer has added red to highlight certain sections.

The Project Description section should contain a well-argued and specific proposal for activities that will, over a 5-year period, build a firm foundation for a lifetime of contributions to research and education in the context of the PI's organization. The Project Description may not exceed 15 pages.

The Project Description should be developed in consultation with the department head or equivalent organizational official and should include:

- a description of the proposed research project, including preliminary supporting data where appropriate, specific objectives, methods and procedures to be used, and expected significance of the results;
- a description of the proposed educational activities, including plans to evaluate their impact on students and other participants;
- a description of how the research and educational activities are integrated with one another; and
- results of prior NSF support, if applicable.

Field Work in the Polar Regions - For guidance on submitting information about field work proposed in the Arctic or Antarctica, proposers should contact the program officer in Polar Programs (<http://www.nsf.gov/div/index.jsp?div=PLR>) who is associated with the program most closely aligned with the research being proposed.

Education Activities - Proposed education activities may be in **a broad range of areas and may be directed to any level**: K-12 students, undergraduates, graduate students, and/or the general public, but **should be related to the proposed research**. Some **examples** are: designing innovative courses or curricula; supporting teacher preparation and enhancement; conducting outreach and mentoring activities to enhance scientific literacy or involve students from groups that have been traditionally underrepresented in science; researching students' learning and conceptual development in the discipline; incorporating research activities into undergraduate courses; providing mentored international research experiences for U.S. students; linking education activities to industrial, international, or cross-disciplinary work; and implementing innovative methods for evaluation and assessment. **Education activities may also include** designing new or adapting and implementing effective educational materials and practices. **Such activities should be consistent with research and best practices in curriculum, pedagogy, and evaluation**. **Proposers may build on NSF-supported activities or other educational projects ongoing on campus**. The following resources may be helpful in developing the educational activities.

Cross-Disciplinary Perspectives - NSF recognizes that disciplinary boundaries evolve with time and that inter-, multi-, trans-disciplinary approaches are often needed to push the frontiers of research and education. We invite proposals from early-career PIs that want to pursue research and education activities that cross disciplinary boundaries. **Increasingly, CAREER proposals are co-reviewed** between programs within a Division, a Directorate, or across Directorates/Offices. We encourage investigators to **seek research and education collaborations with partners in other areas of academia as well as from other sectors** (for example, partnerships with industry, national laboratories, or schools and school districts, museums). Investigators have the option of including the associated costs in the budget line items of the proposal, or in subawards to another institution for all necessary research and educational activities (for example, hiring an external evaluator, or securing time at a shared research facility). **Because the CAREER program is designed to foster individual career development, partners or collaborators may not be listed as co-principal investigators on the cover page or as senior personnel in the budget of subawards.** Proposals submitted with co-principal investigators will be returned without review.

Successful applicants will propose creative, effective, integrated research and education plans, and indicate how they will assess these components. While excellence in both education and research is expected, activity of an intensity that leads to an unreasonable workload is not. The research and educational activities do not need to be addressed separately if the relationship between the two is such that the presentation of the integrated project is better served by interspersing the two throughout the Project Description.

Proposed research activities may be in any area of science, mathematics, engineering and education normally supported by NSF. To help determine the appropriateness of the project for NSF and identify the disciplinary program to which it should be submitted, proposers are urged to refer to the NSF Guide to Programs. Program information can also be found on Directorate web pages, which can be accessed from the NSF home page (<http://www.nsf.gov/>). Proposers are also encouraged to contact the appropriate NSF Program Director before submitting the proposal.

The program officer (2)

WANTS TO SUPPORT GOOD WORK:

IMPLICATIONS FOR YOU

- **Communicate the promise of your work**
- **Communicate the quality of what you do**
- **Listen carefully, read carefully**

The program officer (3)

**HAS A JOB THAT VARIES AMONG UNITS AT NSF
norms, practices, and extent of discretion**

IMPLICATIONS FOR YOU:

- **take advice of local colleagues, members of disciplinary community *with a grain of salt***
- **double checking – research office at UM, NSF**

The review process (1)

- **Varies by directorate, division, program**
- **Changes over time**
- **Common characteristics**
 - **Reviewers recommend**
 - **Program officers recommend**
 - **Recommendations are important but are not final decisions**

The review process (2)

Reviewers/panelists

- Range of topics – experts on some, not all
- Professional strength – various careers
- Major time contribution

Implications for you

- Write for people outside your very specialized area
- Do not avoid tough decisions
- Do not try to finesse the NSF limits on proposals

The review process (3)

Consider serving as a reviewer (ad hoc or panelist)

http://www.nsf.gov/bfa/dias/policy/merit_review/reviewer.jsp#3

A few do's and don'ts

- **PERSIST**
- **ASK COLLEAGUES TO READ, DISCUSS, SHOW YOU THEIR WORK**
- **APPROACH PROGRAM OFFICER, BEING PREPARED AND THOUGHTFUL**
- **IGNORE STATED REQUIREMENTS (from font size and numbering pages to programmatic emphases)**

QUESTIONS AND COMMENTS

Feel free to email

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