Faculty Early Career Development (CAREER) Program

Program Solicitation NSF 08-557

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Support for New Investigators

• All NSF programs support new investigators as part of the regular ("core") research programs.

• About 2/3rds of new investigators are supported by the “core” programs.

• Some Directorates have special programs for young investigators (e.g., BIO Research Initiation Awards)

• Faculty Early-Career Development (CAREER) Program
  – Most prestigious awards to help a junior faculty member develop activities that can effectively integrate research and education within the context of his/her organization.
Goals of the CAREER Program
(Program Solicitation NSF 08-557)

- Provide stable support for five years (≥400K in most Directorates, BIO is ≥500K) to allow the career development of outstanding new teacher-scholars in the context of the mission of their organization.

- Build a foundation for a lifetime of integrated contributions to research and education.

- Increase participation of those traditionally underrepresented in science and engineering.

- Provide incentives to Universities to value the integration of research and education.
CAREER is NSF wide

• The program is more than 10 years old
• All Directorates participate in the program
• More than 200 Programs across these Directorates review CAREER proposals
• More than 4,500 CAREER awards have been made over the years
• More than 200 NSF Presidential Early-Career Awards in Science and Engineering (PECASE) have been awarded out of the pool of CAREER awardees
CAREER proposals (submitted in 2008)

- ENG 788
- MPS 624
- CISE 478
- BIO 365
- GEO 96
- EHR 58
- SBE 111
- OPP 3

- Number of submitted CAREER proposals vary widely across NSF
- Review and Funding methods vary according to Directorate and Division practices
- CAREER Coordinating Committee members serve as liaison between the program and the Directorates
Investigator Eligibility Criteria

• Hold a doctoral degree in a field supported by NSF by proposal deadline
• Be untenured by Oct 1st following proposal deadline
• Be employed in a tenure-track (or equivalent) position at an eligible institution as an Assistant Professor (by Oct 1st following deadline)
• Have not previously received a CAREER award
• Have not had more than two CAREER proposals reviewed
• Untenured Associate Professors are NOT eligible
Institutional Eligibility

• Academic institutions in the U.S., its territories or possessions, and the Commonwealth of Puerto Rico that award degrees in fields supported by NSF.

• Non-profit, non-degree-granting organizations such as museums, observatories or research labs may also be eligible to submit proposals, if the eligibility requirements of the PI's position are satisfied

• NSF encourages proposals from Community College, Minority Serving and Undergraduate Institutions
Should you consider the CAREER program?

• Is your Department/Organization supportive?
• Are you seriously committed to the goals of CAREER?
• Need long term independence to develop your activities in research and education?
• Would like to be considered for the Presidential Early Career Awards for Scientists and Engineers (PECASE), if eligible?
• Have discussed your ideas with mentors, fellows, program officers?
Success Rates and Expectations

• CAREER proposals are submitted to a disciplinary unit or program
• They are reviewed according to the relevant Program guidelines - Talk to Program Officer or Division Contact for more information (http://www.nsf.gov/crssprgm/career/contacts.jsp)
• Make sure to check on typical award sizes in your program
• Ask about expectations for scope of research and education plans
• Assessment of Departmental endorsement letter is part of the review criteria for CAREER
• Funding rates follows trend for regular proposals in the program of interest
Success Rates (CAREER vs. New PI) in 2006

Box = 2008 success rate
What should be in a CAREER proposal?

• A compelling research plan
• Innovative but doable education plan
• A plan for the effective integration of both sets of activities (evaluation plan is a plus)

Education activities – curriculum, pedagogy, outreach, mentoring at any level, majors and non-majors, teacher preparation or enhancement, K-12 students, and/or the general public.
CAREER Proposals should include:

• A description of the proposed research, including preliminary data where appropriate, specific objectives, methods and procedures, expected significance of the results,
• A review of relevant literature,
• A description of the proposed educational activities,
• A description of how the research and educational activities are integrated,
• Results of prior NSF work if applicable,
• Letter from Department Chair supporting the PI.
CAREER Education Plan

• Activities should go beyond what is expected from any Assistant Professor in your field
• Workload should not be unreasonable
• Should be informed by what has been successful in the past - intellectual merit of the education component
• Should have a plan for assessing the ultimate success of the plan
• Check with your Program Officer or search the abstracts on the web
What is Integration of Education and Research?

• Involving others (graduate, undergraduates, K-12, high school teachers, public) in your research using new tools, laboratory methods, field components, web outreach, cyber networks, etc...

• Partnering with those in other communities, especially those traditionally underrepresented in Sciences and Engineering

• Bringing the excitement of your research topics to help in the education of others

• Searching for new methods to deliver your research results to a broader audience than those in the immediate research community.
CAREER personnel and budgets

• No co-principal investigators or other senior staff are allowed
• Consultants, sub-awards are allowed
• Some programs will support buy out of academic year time (check)
• International activities are encouraged and may be supported by the Office of International Science and Engineering (OISE)
• Some Directorates prefer making more awards but at the 400 K minimum.
Letter from the Chair

• Support for the PIs proposed Career research and education activities

• Description of how the PIs career goals and responsibilities mesh with that of the organization and department

• Commitment to the professional development of the PI with mentoring and whatever is needed to forward the PIs efforts to integrate research and education

• Verification that the PI is eligible for the CAREER program
 Traits of Successful CAREER proposals

• CAREER proposals often need to match or exceed expectations in the disciplinary programs - This is a highly competitive program!
• Written with peer reviewers (Ad Hoc and Panel) in mind - Ask your Program Officer who will be assessing your proposal
• Appropriate scope of education and research activities. It is a 5-year plan, not your whole life
• Goes outside the education box of regular research proposals in your field
• Strike a balance between doable research activities and more risky pursuits
PECASE: Presidential Early-Career Awards for Science and Engineers

• **PECASE Eligibility** - Be a US Citizen or US Permanent Resident by the application deadline (currently more than 30% of applicants are not eligible)

• 20 Nominees for NSF PECASE every year from the pool of CAREER awardees

• Number of nominees per Directorate are based on number of PECASE-eligible proposals submitted that year
FAQs About the Faculty Early Career Development (CAREER) Program

Available Formats: HTML | PDF | TXT
Document Type: Program Announcements & Information
Document Number: nsf08051

Public Comment: CAREER program solicitation: NSF 08-557


For more information about file formats used on the NSF site, please see the Plug-ins and Viewers page.
CAREER Due Dates (2009)

• July 21, 2009
  – BIO, CISE and EHR

• July 22, 2009
  – Engineering

• July 23, 2009
  – GEO, MPS, SBE and OPP