

Faculty Early Career Development (CAREER) Program

Program Solicitation – NSF 14-532



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<http://www.nsf.gov/career>

Support for New Investigators

- All NSF programs support new investigators as part of the regular (“core”) research competitions.
- About 2/3^{rds} of new investigators are supported by the “core” research programs.
- 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

- **Provide stable support for five years (\geq \$400K in most Directorates – ENG, BIO and GEO/PLR are \geq \$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.**
- **Provide incentives to Universities to value the integration of research and education.**
- **Increase participation of those traditionally underrepresented in science and engineering.**



CAREER is NSF wide

- **The program started in 1996**
- **All Directorates/Offices participate in the program**
- **Proposals are submitted to program of interest**
- **More than 9,000 CAREER awards have been made over the years**
- **NSF Presidential Early-Career Awards in Science and Engineering (PECASE) are selected out of the pool of recent CAREER awardees**



Investigator Eligibility Criteria

- **Hold a doctoral degree in a field supported by NSF by proposal deadline**
- **Be untenured up until Oct 1st following proposal deadline**
- **Be employed in a tenure-track (or equivalent) position at an eligible institution as an Assistant Professor (until 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 different institutional types, including Minority Serving and Undergraduate Institutions**

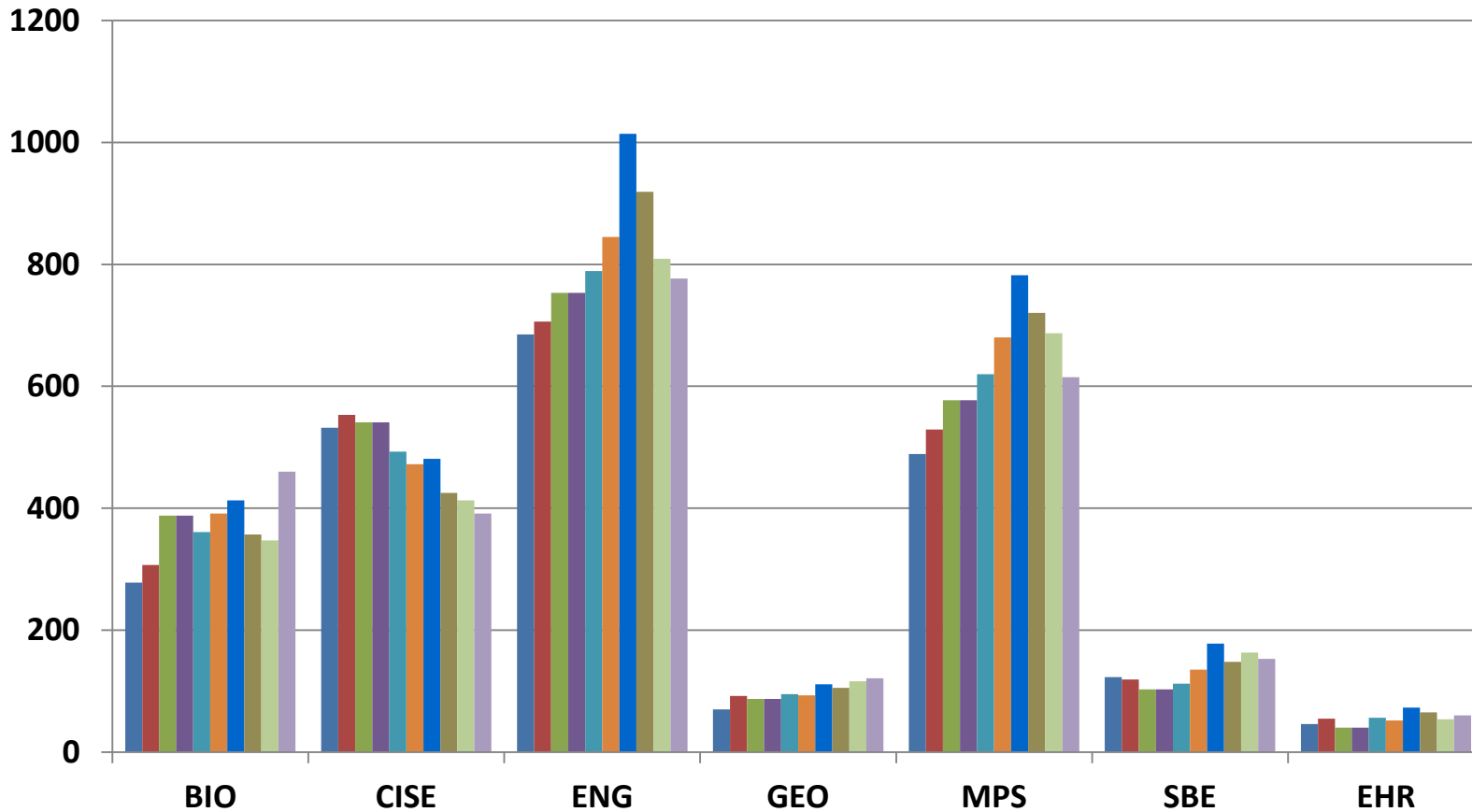
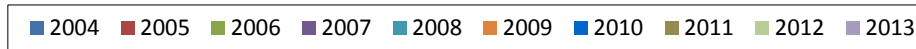


CAREER varies across NSF

- **Number of submitted CAREER proposals vary widely across NSF**
- **Review and Funding methods vary according to Directorate and Division practices**
- **Many CAREER proposals compete with other research proposals in the most appropriate research program**
- **CAREER Coordinating Committee is made up of members from the different Directorates/Offices – We are the liaison between the programs and the senior management at NSF**



Proposals Submitted



Merit Review of CAREERs

- Ad hoc + Panel (with other proposals in the Program – most of GEO (AGS uses ad hoc only), BIO, and SBE
- Mostly dedicated CAREER Panels – ENG, CISE, EHR, MPS varies by Division:
 - AST – Panel only
 - CHE, DMR – Mix of ad hoc and panels (check your program)
 - DMS – mostly panels (2 programs use ad hoc only)

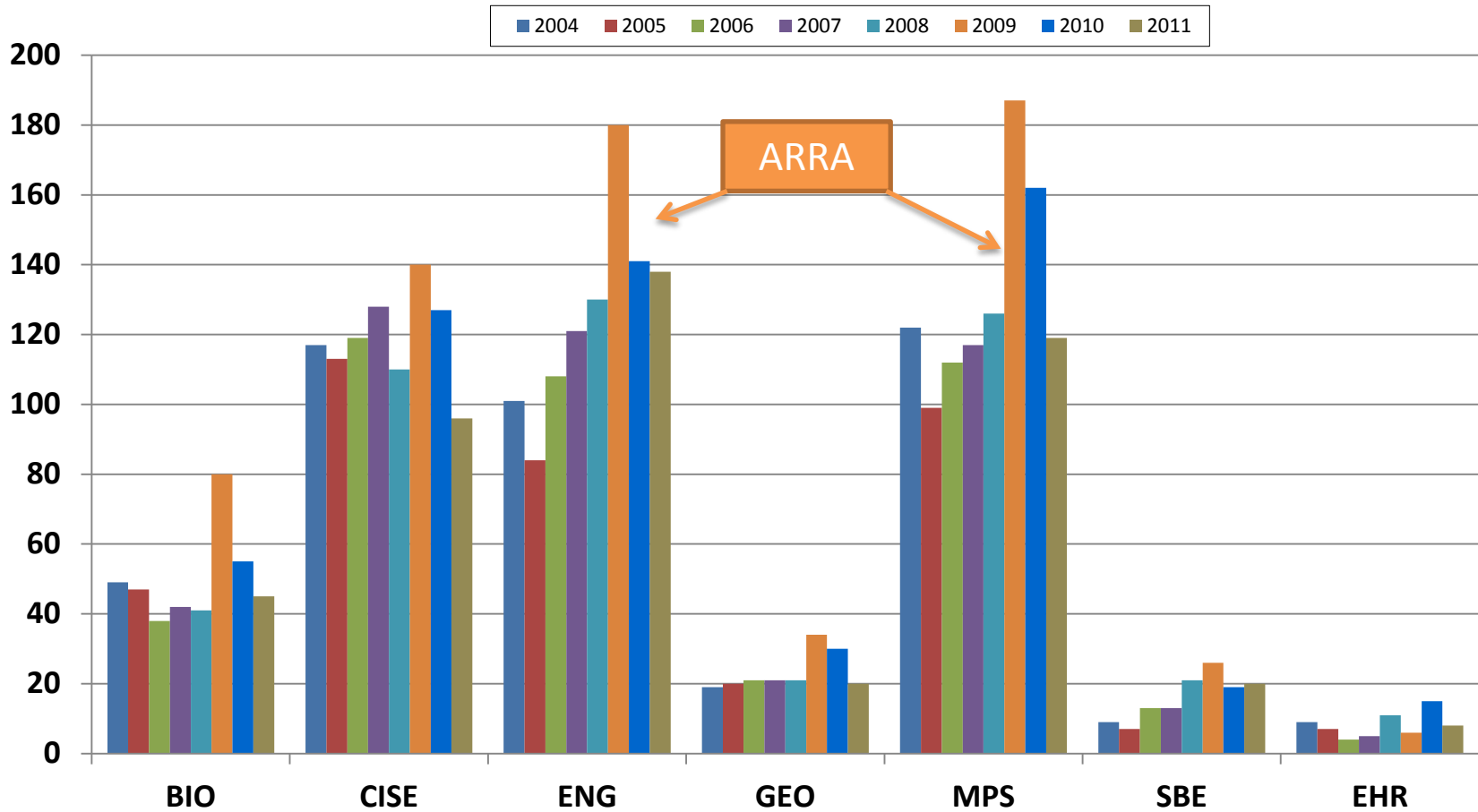


Success Rates and Expectations

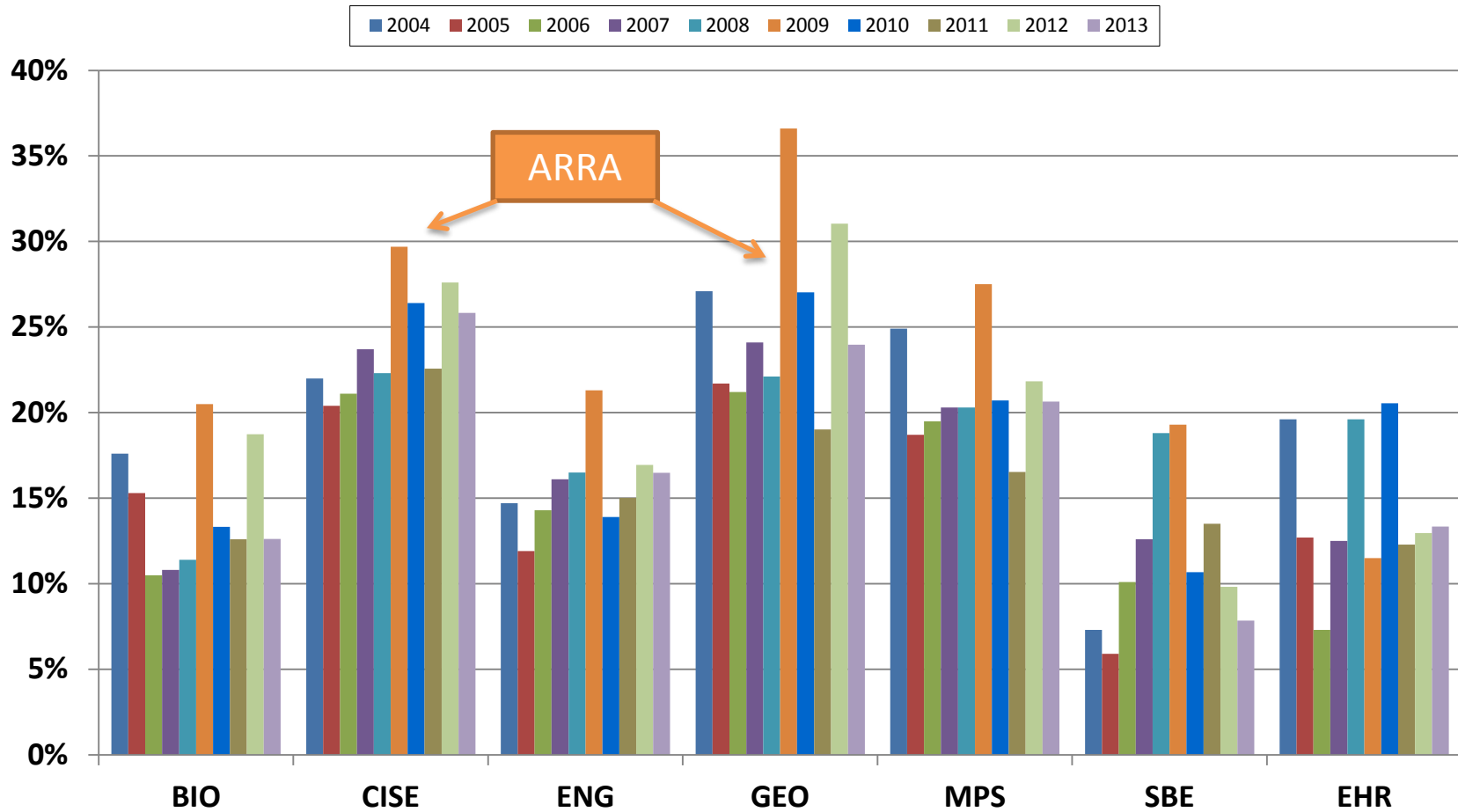
- CAREER proposals are submitted to a disciplinary unit or program
- They are reviewed according to the relevant Program guidelines - Talk to Program Officer or Division Contact for more information (<http://www.nsf.gov/crssprgm/career/contacts.jsp>)
- Make sure to check on typical award sizes in your program
- Ask about expectations for scope of research and education plans
- Assessment of Departmental Letter (2 pages) is part of the review criteria for CAREER
- Funding rates follows trend for regular proposals in the program of interest



Proposals Awarded



Success Rate



Is CAREER the right program for you?

- **Can you think of a proposal that is appropriate for NSF with research and education activities that are innovative and ambitious?**
- **Is your Department/Organization supportive?**
- **Are you seriously committed to the goals of CAREER?**
- **Are you at the right stage in your career?**
- **Would you like to be considered for the Presidential Early Career Awards for Scientists and Engineers (PECASE), if eligible?**
- **Have you discussed your ideas with mentors, fellows, program officers?**



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 big 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 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 success of the education program**
- **Check with your Program Officer or search the abstracts on the web**



Integration of Research and Education

How will your research impact your education goals and how will your education activities feed back into your 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**
- **Using the broader community to gather data for your scientific pursuits (“citizen science”)**



CAREER personnel and budgets

- **No co-principal investigators or other senior personnel are allowed**
- **Consultants, sub-awards are allowed (but no senior personnel costs in sub-awards)**
- **Some programs will support buy out of academic year time for teaching intensive institutions (check with your Program Officer)**
- **International activities are encouraged and may be supported by the Office of International Science and Engineering (OISE)**
- **Some Directorates prefer making more awards but closer to the 400 K minimum (or 500K in BIO and OPP).**



Departmental Letter (2 pages)

- 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
- Statement that indicates the PI is eligible for the CAREER program
- Should not serve as a letter of recommendation or endorsement of the PI or the research project



Traits of Successful CAREER proposals

- CAREER proposals should match the expectations in the disciplinary programs in terms of research and education - This is a highly competitive program!
- Written with peer reviewers (Ad Hoc and/or 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
- Strikes a balance between doable research activities and more risky pursuits



CAREER Urban Myths

- **“You cannot apply because you have another award from NSF”**
- **“It is an entry program, so apply to CAREER first”**
- **“I need to see a successful proposal to write a successful proposal”**
- **“I read on the web that to succeed, I have to....”**
- **“CAREER proposals are more portable”**
- **“The education component does not matter”**
- **“You have no chance, if you are not from a research-intensive institution”**



PECASE: Presidential Early-Career Awards for Science and Engineers

- **PECASE Eligibility** - Be a US Citizen or US Permanent Resident by the time of nomination to the White House's Office of Science and Technology Policy
- **20 Nominees for NSF PECASE every year from the pool of recent CAREER awardees**
- **Number of nominees from each Directorate is a function of the number of proposals submitted to the programs in the Directorate**



The CAREER website – www.nsf.gov/career

- Latest Program Solicitation - NSF 14-532
- Frequently Asked Questions - NSF 11-038
- CAREER Directorate/Division Contacts
- Link to recent awards
- Link to PECASE awards
- Deadlines for the current solicitation
 - July 21, 2014 - BIO, CISE, EHR, OCI
 - July 22, 2014 - ENG
 - July 23, 2014 - GEO, MPS, SBE, OPP



PECASE: Presidential Early-Career Awards for Science and Engineers (Dec. 2010)

