FAS RESEARCH DEVELOPMENT
2016 NSF CAREER AWARD GUIDANCE FOR FACULTY

Program Summary

The Faculty Early Career Development (CAREER) Program offers the Foundation’s most prestigious awards in support of junior faculty who exemplify the role of teacher-scholars through outstanding research and excellent education. This competition is open to scholars in all of the fields supported by NSF.

Deadlines

July 20, 2016
Directorates for Biological Sciences (BIO), Computer & Information Science & Engineering (CISE), and Education & Human Resources (EHR)

July 21, 2016
Directorate for Engineering (ENG)

July 22, 2016
Directorates for Geosciences (GEO), Mathematical & Physical Sciences (MPS), and Social, Behavioral & Economic Sciences (SBE)

NOTE: Applications must be submitted to Harvard’s Office for Sponsored Programs for internal review and approval at least 5 business days in advance of the NSF deadline.

Award Information

- 5 year duration
- $400,000 minimum (including indirect costs), except for applications to the Division of Polar Programs, Directorate for Engineering, and Directorate for Biological Sciences which have a minimum of $500,000
- No maximum award size – funding should be requested in accordance with the scope of your project. When determining size of your request, review prior awards made by the Program(s) considering your application and discuss your planned request with your Program Officer(s) (see NSF Organization List and Division CAREER contacts).

Eligibility

- Tenure-track Assistant Professors who will still be non-tenured on October 1st following the July proposal deadline
- CAREER eligibility is not limited by time from degree or years in a tenure-track appointment
- No citizenship restrictions
- You may only receive one CAREER award
- You may participate in three CAREER competitions – you may submit one proposal per competition
You may not submit a proposal for a project that is substantially the same as another currently under review by NSF. You may not submit a proposal that was previously declined by NSF and has not been revised to take into account the major comments from the prior review.

First Steps

1) Carefully review the program solicitation and FAQs.
2) Discuss your plan with your Department Chair, academic mentors and individuals that have been successful obtaining awards from NSF. For a list of NSF CAREER Award winners at Harvard, contact FAS Research Development at research_development@fas.harvard.edu.
3) Determine which program area(s) at NSF is/are most appropriate to review your proposal (i.e. Molecular and Cellular Biosciences, Earth Sciences) and identify a Program Officer in those area(s). For a list of NSF’s program areas, see http://www.nsf.gov/staff/orglist.jsp.
4) Also identify the appropriate contact for the CAREER program in those Division(s), listed at: http://www.nsf.gov/crssprgm/career/contacts.jsp.
5) If your project has an international component, identify the appropriate country representative(s) in the Office of International Science and Engineering.
6) Send an email to the contacts you have identified, including a brief description of your proposed project and a request for feedback. Below are several questions you may want to ask:
   o Is your project a good fit for the program?
   o What are the expectations for the scope of research and education plans in this particular program area?
   o What is the typical award size in this program?

Developing the Education Plan

Your research and education plans can be presented separately within the Project Description, or you may combine the two throughout an integrated narrative. Remember that reviewers who are subject experts in your field will be mostly familiar with your research component. Some programs may also send your proposal for review to education experts in your field, and for that reason, you should make sure that your education component is solid and well-argued. Education activities should be consistent with research and best practices in curriculum, pedagogy and evaluation. Education plans must cite relevant publications (see the solicitation for a selected list), and local curricula and state education standards to be addressed, if applicable.

While NSF expects your education plan to be distinctive, innovative and go beyond what is expected from a typical Assistant Professor in your field, it should also be doable and not require so much time that your other professional activities are compromised. In addition, it is important to choose activities that really matter to you, and that fit well with your Department’s mission and priorities.

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 professional development;
- museum exhibits or programs;
- 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;
- engaging the broader public with your research;
- providing mentored international research experiences for U.S. students;
- linking education activities to industrial, international or cross-disciplinary work;
- implementing innovative methods for evaluation and assessment;
- designing new or adapting and implementing effective educational materials and practices, and plans for disseminating them; and
- using new or existing tools to broadly disseminate your research and education activities.

A competitive proposal will include plans for assessing or evaluating your educational activities, tools or materials. You are encouraged to make connections with appropriate education experts, and to provide the necessary letters of commitment. NSF recommends that applicants leverage existing NSF-supported activities or other educational projects ongoing on campus. For assistance with identifying resources and programs at Harvard that you can leverage, contact FAS Research Development Services at research_development@fas.harvard.edu. Please note the recommended deadlines listed in the table below if you plan to request this type of assistance.

For example, if you are interested in developing new educational activities at the undergraduate or graduate level, FAS Research Development can connect you with the Derek Bok Center for Teaching and Learning. The Bok Center’s specialists are available to help faculty design new courses or revise existing courses to engage students with scientific inquiry and incorporate evidence-based teaching practices. Example activities might include:

- developing active learning exercises to transform the classroom;
- creating exercises or case studies in which students investigate original data;
- developing multimedia materials that allow faculty to share their research with students;
- designing alternative assignments that allow students to explore concepts and data in ways other than traditional problem sets or essays; and
- implementing a blended learning approach that combines out-of-class assignments and videos with in-class activities.

In addition, the Bok Center can provide support for assessment and/or evaluation of the results of these activities, and can also work with you to identify appropriate sources to cite in your Education Plan.
# Application Components

- Cover sheet (completed by administrator)
- Project Summary (4,600 character limit divided into Overview, Intellectual Merit, Broader Impacts)
- Project Description (15 pages, including Results from Prior NSF Support and Broader Impacts sections)
- References Cited (no page limit)
- Budget and budget justification (3 pages)
- PI Biosketch (2 pages)
- Facilities, Equipment and Other Resources (no page limit)
- Departmental letter from Chair committing institutional support for the professional development and mentoring of the PI, support for the proposed activities, and certifying that the PI is eligible to apply (2 pages)
- Letters of collaboration, NOT letters of support or recommendation (1 page each, must use NSF’s single-sentence format)
- Data Management Plan (2 pages)
- Post-doctoral mentoring plan, if applicable (1 page)

## Research Support Services Provided for FAS Faculty by FAS Research Development

<table>
<thead>
<tr>
<th>Application Component</th>
<th>Service</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre-application Research</strong></td>
<td>Assistance with determining the appropriate directorate/program for your proposal</td>
</tr>
<tr>
<td></td>
<td>Provide samples of award-winning Harvard proposals</td>
</tr>
<tr>
<td><strong>Project Narrative</strong></td>
<td>Introduction to the Bok Center for support for your education plan and related assessment/evaluation activities <em>(draft proposal ideally provided at least one month in advance of NSF deadline)</em></td>
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<tr>
<td></td>
<td>Resources for identifying external evaluators</td>
</tr>
<tr>
<td></td>
<td>Recommendations on how to leverage existing resources for your Broader Impacts plan</td>
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<tr>
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<td>Conduct a &quot;responsiveness review&quot; to ensure your narrative addresses NSF’s evaluation/review criteria</td>
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<tr>
<td></td>
<td>Coordinate an internal review panel of FAS faculty members prior to submission <em>(draft proposal ideally provided at least one month in advance of NSF deadline)</em></td>
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<td></td>
<td>General grantsmanship advice and strategy</td>
</tr>
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<td>Resubmission advice - strategies for drafting a successful resubmission if you were declined in a previous round</td>
</tr>
<tr>
<td><strong>Departmental Letter</strong></td>
<td>Template available</td>
</tr>
<tr>
<td><strong>Letters of Collaboration</strong></td>
<td>Obtain detailed information about the support services partner organizations/programs will provide, along with letters of commitment</td>
</tr>
<tr>
<td><strong>Data Management Plan</strong></td>
<td>Template available</td>
</tr>
<tr>
<td><strong>Postdoctoral Mentoring Plan</strong></td>
<td>Template available</td>
</tr>
</tbody>
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For assistance, please contact Jennifer Corby, jcorby@fas.harvard.edu, 617-495-1590, or Susan Gomes, susan_gomes@harvard.edu, 617-496-9448.