

Funding Focus: The NSF's Faculty Early Career Development (CAREER) Program



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Session Overview

- **What is the NSF CAREER Program?**
- **Are you eligible?**
- **When should you submit?**
- **What should the application include?**
- **Info resources**



National Science Foundation



National Science Foundation
WHERE DISCOVERIES BEGIN

NSB | Research Areas | Funding | Awards | Document Libr

- Funding
- About Funding
- Browse Funding Opportunities A-Z
- Due Dates
- Find Funding
- Merit Review
- Policies and Procedures
- Preparing Proposals
- Recent Opportunities
- Small Business
- Transformative Research

Home > Funding

NSF-wide

Faculty Early Career Development

CAREER and PECASE Information

Specific questions about appropriateness of a proposal to the NSF CAREER contacts found on the page <http://www.nsf.gov/crssprgm/career/contact>

Frequently Asked Questions (FAQs) for the Faculty Early Career Development 2025 (NSF 20-025)

PECASE Press Releases, Photos and Award Lists

PECASE Recipients

CONTACTS



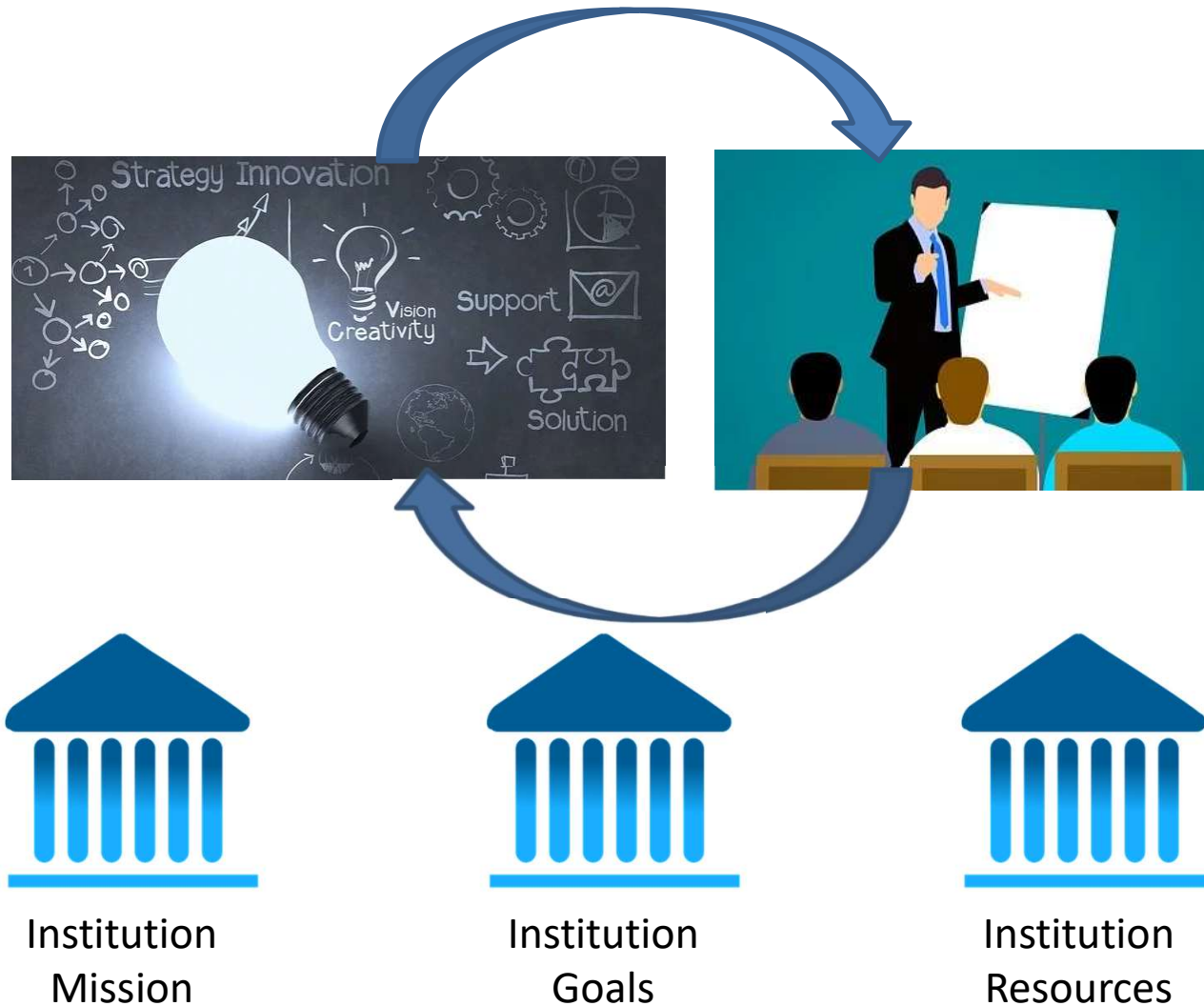
National Science Foundation
WHERE DISCOVERIES BEGIN

- NSB
- Research Areas
- Funding

- Biological Sciences (BIO)
- Computer and Information Science and Engineering (CISE)
- Education and Human Resources (EHR)
- Engineering (ENG)
- Environmental Research and Education (ERE)
- Geosciences (GEO)
- Integrative Activities (OIA)
- International Science and Engineering (OISE)
- Mathematical and Physical Sciences (MPS)
- Social, Behavioral and Economic Sciences (SBE)

w/about/research_areas.jsp

CAREER Program Purpose



CAREER Program Purpose



- Academic career development
- NSF investment in the person, not simply a research project
- Proposal reflects you, your long-term plan, and first five years

Eligibility guidelines

- **ALL of the following are required for eligibility:**
 - Hold a doctoral degree in an NSF-supported field;
 - Be engaged in research in an area of science, engineering, or education supported by NSF;
 - Hold at least a 50% tenure-track (or tenure-track-equivalent) position as an assistant professor (or equivalent title);
 - Be untenured; and
 - Have not previously received a CAREER award.
- **Proposers may only submit one (1) application per year, and cannot submit more than three (3) times overall**

What else is new for 2020?

- Deadline for all directorates is July 27, 2020, and the fourth Monday of July in out years, per [RFP 20-525](#)
- Must use PAPPG 20-1

Solicitation [20-525](#)

! Important Information for Proposers

A revised version of the *NSF Proposal & Award Policies & Procedures Guide* (PAPPG) (NSF 20-1), is effective for proposals submitted, or due, on or after **June 1, 2020**. Please be advised that, depending on the specified due date, the guidelines contained in NSF 20-1 may apply to proposals submitted in response to this funding opportunity.

- Biosketch format (SciENCv or NSF PDF form)
- Current and Pending Support format (SciENCv or NSF PDF form)
- See section “Significant Changes and Clarifications to the PAPPG” for other changes

Required proposal elements

- Cover sheet
 - Project title: CAREER: Rest of the title
 - No RUI designation, Co-PIs are not allowed
- Collaborators and other affiliations (COA)
- Project summary
- Project description
- References cited
- Biosketch
- Budget and justification
- Current and pending support
- Facilities, equipment and other resources
- Supplementary documentation
 - Departmental letter
 - Letters of collaboration
 - Data management plan



Merit Review Criteria*

Intellectual Merit: The Intellectual Merit criterion encompasses the potential to advance knowledge; and

Broader Impacts: The Broader Impacts criterion encompasses the potential to benefit society and contribute to the achievement of specific, desired societal outcomes.

*each of these criteria need to be addressed under a separate heading (Project Summary and Project Description)

Project description

Within the 15-page limit:

- 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;
- description of the proposed educational activities and their intended impact;
- description of how the research and educational activities are integrated or synergistic;
- description of other broader impacts, besides the education activities, that will accrue from the project; and
- results of prior NSF support, if applicable.

Sample outline for the project description

A. Goals and Objectives

B. Research Plan

- 1) Background information
- 2) Preliminary data
- 3) Methods
- 4) Potential pitfalls and alternative approaches
- 5) Evaluation
- 6) Future steps

C. Education Plan

- 1) Overview/background/aims
- 2) Design and methods
- 3) Evaluation
- 4) Integration of research and education

D. Broader Impacts

E. Timeline

F. Results from Prior NSF Support

Research plan

Cross-disciplinary?

- Co-program review

Cross sector?

International?

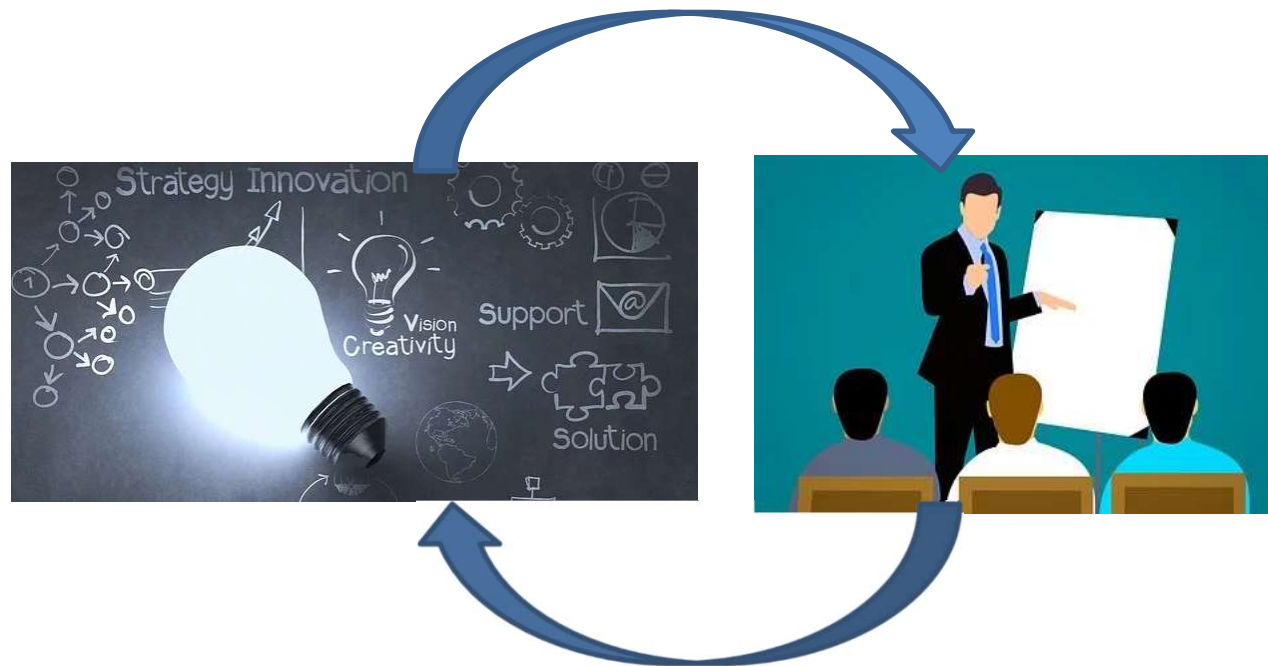
Budget



Education Activities



Integration of research and education



Illustrate the reciprocal relationship between your research and proposed educational activities and how they inform each other.

Budget and justification

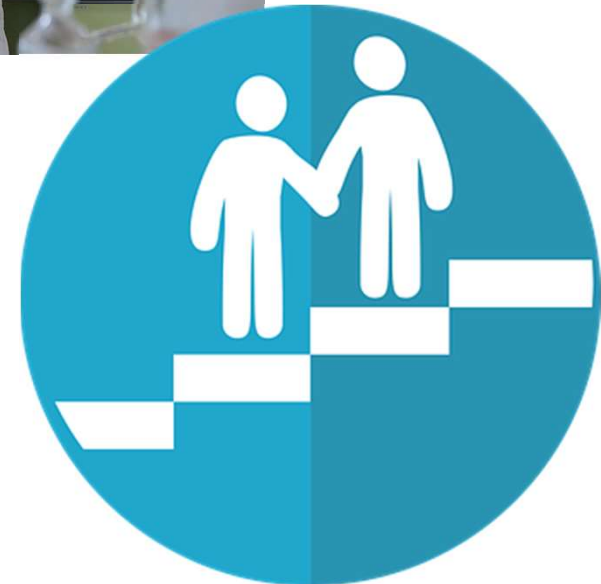
CAREER Program:

- Min \$400,000
- BIO, ENG, OPP? Min \$500,000
- Duration: 5 years
- Heavy teaching load?
Fieldwork?
- Support for educational activities
- Don't forget evaluation

Allowable costs, per PAPPG



Facilities, equipment, and other resources

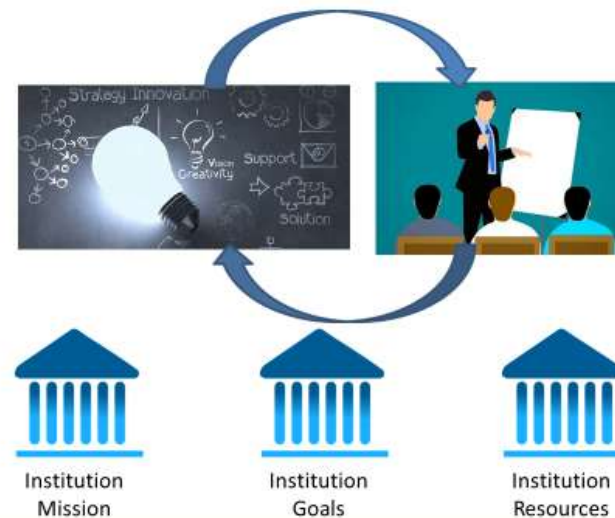


Departmental letter

- Required
- Two (2) page limit
- Signed, on letterhead
- Content elements:



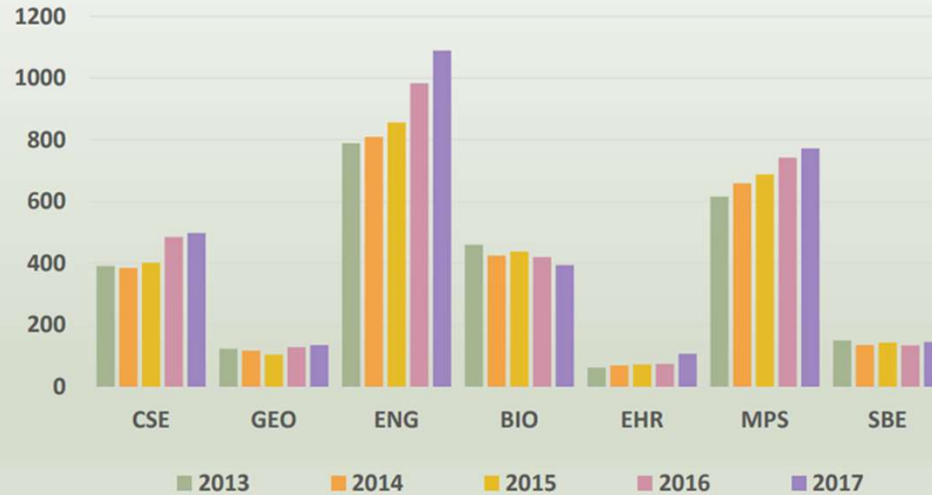
CAREER Program Purpose



WiSys
Inspiring Wisconsin Innovation

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Number of CAREER Proposals



CAREER Funding Rate



Assess you, the field, and your available resources



Yourself

- Career/life goals
- Expertise/interests
- Strategic plan
- Publications
- Presentations
- Training

Your Field

- Current literature
- Who is contributing to the field?
- Future field directions
- Unanswered questions/gaps

Your Environment

- Dept/College
- Facilities, equipment, labs, technology, library
- Institutional support mechanisms

Reaching out

- Reach out to program officer(s)
- Determine next steps

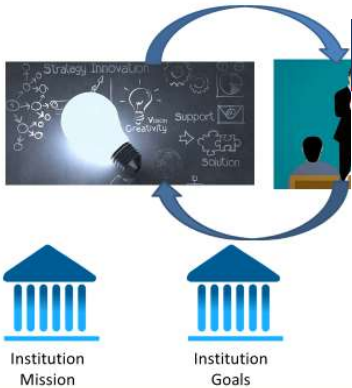


Insights from an awardee

- **Third submission attempt was the charm!**
- **First attempt was made during third year on the tenure-track**
- **Seeking contact with program officers was very helpful**
- **Understanding the competitive nature of grantseeking, and viewing reviewer feedback as constructive criticism fueled the PI to persevere**
- **The PI actively pursued several grant opportunities, which built up writing experience and a library of writing for adaptation**

Presentation takeaways

CAREER Program Purpose



Research activities

- Cross-disciplinary?
 - Co-program review
- Cross sector?
- International?
- Budget



Education activities



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Assess you, the field, and your available resources



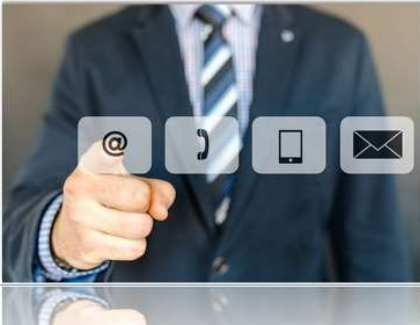
- | | | |
|---|---|--|
| Yourself <ul style="list-style-type: none"> • Career/life goals • Expertise/interests • Strategic plan • Publications • Presentations • Training | Your Field <ul style="list-style-type: none"> • Current literature • Who is contributing to the field? • Future field directions • Unanswered questions/gaps | Your Environment <ul style="list-style-type: none"> • Dept/College • Facilities, equipment, labs, technology, library • Institutional support mechanisms |
|---|---|--|



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Reaching out

- Reach out to program officer(s)
- Determine next steps



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CAREER information resources

- CAREER information page (20-525):
https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=503214&org=NSF&sel_org=NSF&from=fund
- CAREER Frequently Asked Questions page (20-025):
https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf20025
- Current/previously funded CAREER projects:
<https://www.nsf.gov/awardsearch/advancedSearchResult?ProgRefCode=1045&ActiveAwards=true>
- CAREER Program Contacts, arranged by Directorate:
<https://www.nsf.gov/crssprgm/career/contacts.jsp>
- Don't forget the PAPPG!
https://www.nsf.gov/publications/pub_summ.jsp?ods_key=pappg
- NSF guide for proposal writing:
https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf04016&org=NSF

CAREER information resources cont'd

- Presentation from Dr. George Hazelrigg (former NSF Program Officer, among other positions):
[http://www.me.umn.edu/intranet/pdf/CAREER%20Workshop%20Presentation%202016%20MUST\(Hazelrigg\).pdf](http://www.me.umn.edu/intranet/pdf/CAREER%20Workshop%20Presentation%202016%20MUST(Hazelrigg).pdf)
- Twelve Steps to a Winning Research Proposal from Dr. George Hazelrigg:
https://www.k-state.edu/career/2009/Twelve_steps.pdf
- Presentation from Dr. Brian German, Georgia Tech:
http://aries.imse.ksu.edu/nsf/nsfcareer2013/2013%20workshop%20documents%20for%20website/BGerman_CAREER_talk%20original.pdf
- Blog post on crafting the Education Components of a CAREER proposal:
<https://dynamicecology.wordpress.com/2013/04/23/education-components-of-career-proposals/>
- NSF CAREER Proposal Writing Tips (from 16 previous CAREER awardees):
<https://www2.clarku.edu/offices/research/pdfs/NSFProposalWritingTips.pdf>

CAREER information resources cont'd

- Writing a Winning CAREER Proposal, by Lucy Deckard, Academic Research Funding Strategies, LLC: <http://research.utsa.edu/wp-content/uploads/2015/02/CAREER-Workshop-Handouts-April-2015.pdf>
- Five Tips You Need to Know to Obtain an NSF CAREER Award, Michael Thompson, The Broader Impacts Guy: <https://www.linkedin.com/pulse/five-tips-you-need-know-obtain-nsf-career-award-michael-thompson>
- Secrets of Successful NSF CAREER Proposals: A Synopsis of a Dissertation Entitled *Understanding the National Science Foundation's CAREER Proposal Genre: A Rhetorical, Ethnographic, and System Perspective* by David M. Christensen, Deborah Cook: <http://thegrantsciencelab.com/wp-content/uploads/2015/06/Secrets-of-Successful-NSF-Career-Proposals.pdf>

Copies of funded CAREER proposals

- PI-annotated version of his funded 2018 NSF CAREER proposal (Philip J. Guo, faculty at UC San Diego): <http://pgbovine.net/NSF-CAREER-proposal.htm>
- Seven funded CAREER proposals: <https://serc.carleton.edu/NAGTWorkshops/earlycareer/research/NSFgrants.html>
- Two funded CAREER proposals (among a long list of funded/unfunded proposals for other sponsors): <https://www.ogrants.org/programs#nsf-career>

Audience questions?



Webinar Topics for AY 2019-20

- Funding Opportunities for Your Teaching, Research, and Scholarship, October 3
- Funding Focus: The National Science Foundation's Major Research Instrumentation (MRI) Program, October 9
- Budget Building Fundamentals, November 7
- The Timeline From Great Idea to Project Execution, November 13
- Analyzing RFPs for Sponsor Hot Buttons, December 5
- Searching for Non-Federal Grant Funding, February 6
- Funding Focus: The National Science Foundation's Faculty Early Career Development Program (CAREER), February 12
- **Improving Your Odds for Success, Even before Writing Your Application, March 5**
- **Common Grant Writing Pitfalls, March 11**
- **Goals, Objectives and Outcomes: The "GOO" that Holds a Proposal Together, April 2**