NSF Faculty Early Career Development (NSF CAREER) Program

Program Solicitation – NSF 22-586
https://beta.nsf.gov/funding/opportunities/faculty-early-career-development-program-career
FAQ – NSF 22-100
https://www.nsf.gov/pubs/2022/nsf22100/nsf22100.jsp

PROPOSALS DUE July 23, 2025
Fourth Wednesday in July, thereafter

CISE Organization & NSF CAREER Programs

Greg Hager
Assistant Director

Joydip Kundu
Deputy Assistant Director

Katie Antypas
Office Director

Office of Advanced Cyberinfrastructure (OAC)

- OAC core
- Data/Software
- Leadership and Advanced Computing
- Networking/Cybersecurity
- Learning and Workforce
- OAC – CAREER: Faculty Early CAR DEV (104500)

Amy Walton
Deputy Office Director

Dilma Da Silva
Division Director

Computing and Communication Foundations (CCF)

- Algorithmic Foundations (779600)
- Communications and Information Foundations (779700)
- Software and Hardware Foundations (779800)
- Foundations of Emerging Technologies (089Y00)
- Education and Workforce Development (055Y00)
- Foundationl Rsrch Robotics (144Y00)

Irina Dolinskaya
Deputy Division Director

Ellen Zegura
Division Director

Computer and Network Systems (CNS)

- Computer Systems Research (735400)
- Networking Technology and Systems (736300)
- Cyber-Physical Systems (791800)
- Secure&Trustworthy Cyberspace (806000)
- Foundationl Rsrch Robotics (144Y00)

Behrooz Shirazi Deputy Division Director

Michael Littman
Division Director

Information and Intelligent Systems (IIS)

- Human-Centered Computing (736700)
- Information Integration and Informatics (736400)
- Robust Intelligence (749500)
- Foundationl Rsrch Robotics (144Y00)

Wendy Nilsen
Deputy Division Director

NSF Faculty Early-Career Development (NSF CAREER) Program

NSF's most prestigious award to help junior faculty members develop activities that can effectively integrate research and education within the context of his/her organization.

Goals of the NSF CAREER Program

- Provide stable support for 5 years (≥ $400K in most directorates, BIO, ENG and PLR are ≥ $500K)
- 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.
- Enhance participation of a wide range of students in science and engineering.

CAREER is NSF-wide

- The program started in 1996.
- All NSF directorates/offices participate in the program (except the NSF TIP Directorate).
- More than 200 programs across NSF have reviewed CAREER proposals over the years.
- Almost 10,000 NSF CAREER awards have been made over the years
- NSF Presidential Early Career Awards for Scientists and Engineers (PECASE) are selected from the pool of NSF CAREER awards.

NSF CAREER Investigator Eligibility

- Hold a doctoral degree in a field supported by NSF by proposal deadline.
- Be employed in a tenure-track (**or equivalent**) position at an eligible institution as an assistant professor (by the submission date).
- Have educational responsibilities at the eligible institution.
- Have not previously received an NSF CAREER award.
- Have not had more than two NSF CAREER proposals reviewed.

Tenure-Track Equivalency

- The employee has a continuing appointment that is expected to last the five years of an NSF CAREER grant.
- The appointment has substantial research *and* educational responsibilities
- The proposed project relates to the employee's career goals and job responsibilities and the mission of the department or organization
- The Departmental Letter must affirm that the investigator's appointment is at an early-career level equivalent to pre-tenure status, and the Departmental Letter must clearly and convincingly demonstrate how the faculty member's appointment satisfies all the above requirements of tenure-track equivalency.

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 highly encourages proposals from various institutions.

CAREER varies across NSF

- Numbers of submitted NSF CAREER proposals vary widely across NSF.
- Review and funding methods vary according to NSF directorate and division practices
- NSF CAREER proposals may compete with other research proposals in the most appropriate research program.

Merit Review of NSF CAREERs

- CISE, EDU, ENG: Mostly dedicated CAREER panels.
- BIO, SBE and most of GEO: Ad hoc + panel.
- MPS: varies by division.

Expectations

- NSF CAREER proposals are submitted to a specific program.
- They are reviewed according to the relevant program guidelines - contact a program officer or division contact for more information: *(http://www.nsf.gov/crssprgm/career/contacts.jsp).*
- Make sure to check typical award sizes in your program.

Are You Ready for NSFCAREER?

- Can you think of a proposal that is appropriate for NSF containing research and education activities that are innovative, ambitious and consistent with a five-year duration?
- Is your department/organization supportive?
- Are you committed to the goals of NSF CAREER?
- Are you at the right stage in your career?
- Have you discussed your ideas with mentors, program officers, and other appropriate individuals?

NSF CAREER Proposal Requirements

- Compelling research plan.
- Innovative but realistic education plan.
- Plan for the effective integration of both sets of activities.

NSF CAREER Education Plan

- Education activities – e.g. curriculum, pedagogy, outreach, mentoring at any level, majors and non-majors, teacher preparation or enhancement, K-12 students, and/or the general public.

  - Activities should **go beyond** what is expected from any assistant professor in your field.

  - 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.

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 various communities.
- 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 and analyze data for your scientific pursuits ("citizen science").

NSF CAREER Personnel and Budgets

- No co-principal investigators are allowed.
- Consultants and senior personnel costs are allowed in sub-awards **commensurate with a limited collaborative role in the project!**
- Some programs will support buy-out of academic year time for teaching-intensive institutions (check with your program officer).
- Support for education plan may be requested.

Letter(s) of Collaboration

- Project description or facilities, equipment and other resources must document the nature of all project collaborations, including as:
  - Intellectual contributions to the project.
  - Permission to access a site, use instrumentation or facility.
  - Offer to furnish samples / materials for research.
  - Logistical support / evaluation services.
  - Mentoring of U.S. students at a foreign site.
- Letter should contain a single-sentence statement of collaboration:
  - "If the proposal submitted by Dr. [name of the PI] entitled [proposal title] is selected for funding by the NSF, it is my intent to collaborate and/or commit resources as detailed in the Project Description."
  - Must NOT recommend or endorse PI or project.

Departmental Letter (2 pages)

- Support for the PI's proposed NSF CAREER research and education activities.
- Relationship between the PI's career goals and job responsibilities and that of the department.
- Commitment to the professional development of the PI with mentoring and support for the PI's efforts to integrate research and education
- Verification that the PI is eligible for the NSF CAREER program.
- Demonstrate how the faculty member's appointment satisfies all the requirements of tenure-track equivalency (if applicable).

Traits of Successful NSF CAREER Proposals

- Proposals should match the expectations in the disciplinary programs in terms of research and education - This is a highly competitive program.
- Write with peer reviewers (ad hoc and/or panel) in mind.
- Appropriate scope of education and research activities. Remember, this is a 5-year plan, not a lifelong commitment.
- Exceeds the educational contributions of regular research proposals in your field.
- Strikes a balance between doable research activities and more risky pursuits.

The NSF CAREER Website – www.nsf.gov/career

- Latest program solicitation – NSF 22-586
- Frequently asked questions – NSF 22-100
- CAREER directorate/division contacts: https://www.nsf.gov/crssprgm/career/contacts.jsp

Thank you!


Danke
Спасибо
감사합니다
Thank you
Dziękuję
Ευχαριστώ
Kiitos
Tak
Dziękuję
Obrigado
谢谢
Hvala
有り難う
Terima kasih
Tack
תודה
Merci
Danke
ขอบคุณ
Gracias
Thank you
Grazie
Спасибі
謝謝
감사합니다
شكرا
ありがとう
Спасибі
Спасибо
Dankon
Mulţumesc
Děkuju
Asante
Благодаря
Хвала
Teşekkür ederim
ありがとう
شكرا لك
謝謝
Köszönöm
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