The National Science Foundation (NSF) is an independent federal agency created by Congress in 1950 with the mission to “...promote the progress of science, to advance the national health, prosperity, and welfare, and to secure the national defense.” Today the NSF supports fundamental research in STEM disciplines—Science, Technology, Engineering, and Mathematics.

The NSF is organized much like an institution of higher education, with the Office of the Director acting much like a university’s Presidential Office and a National Science Board, acting much like a Board of Directors/Governors. Additionally, the NSF is organized into Directorates each housing Divisions, much like our Colleges house Departments. Currently the NSF is organized into 7 Directorates:

- Biological Sciences (BIO)
- Computer & Information Science & Engineering (CISE)
- Education & Human Resources (EHR)
- Engineering (ENG)
- Geosciences (GEO)
- Mathematical & Physical Sciences (MPS)
- Social, Behavioral, & Economic Sciences (SBE)

Each scientific directorate also has its own page on the NSF website, with descriptions of all programs and competitions within its portfolio. Cognizant program officers and program management staff are usually listed as well. Prospective applicants are encouraged to contact program officers prior to submission to discuss their research and its suitability for NSF funding.

Grant types (or Mechanisms):
The NSF supports research through a variety of mechanisms including grants, cooperative agreements, fellowships, and contracts. In addition to supporting basic research, the NSF also supports career development, centers, major equipment purchases, interdisciplinary projects, collaborations with industry, idea/project development, and education projects.

Finding Funding Opportunities
NSF provides a list of all active funding opportunities, searchable by keyword, research area, due date, or funding type. NSF opportunities are also searchable in Grants.gov.

Finding NSF Awards and Program Officers
NSF’s awards search makes it easy to find current and expired awards. Searching NSF’s database can help researchers identify if funding has been made in relevant research areas or if similar projects have been funded. The awards search will also identify program officers in charge of the awards.
NSF Wide Funding Opportunities   (not tied to a particular Directorate)

NSF Centers and Institutes Grants
  o Science and Technology Center: Integrated Partnerships (STCs)
    o Engineering Research Centers (ERCs)
    o Gen-4 Engineering Research Centers (ERC)
  o Planning Grants for Engineering Research Centers (ERC)
  o Materials Research Science and Engineering Centers (MRSECs)
  o Industry-University Cooperative Research Centers Program (IUCRC)
  o National Artificial Intelligence (AI) Research Institutes
  o Harnessing the Data Revolution (HDR): Institutes for Data-Intensive Research in Science and Engineering - Frameworks (I-DIRSE-FW)
  o National Nanotechnology Coordinated Infrastructure (NNCI)
  o Quantum Leap Challenge Institutes (QLCI)
  o Science and Technology Centers: Integrative Partnerships
  o Sustainable Regional Systems Research Networks (SRS RNs)

Major Equipment Purchases
  o NSF Major Research Instrumentation (MRI) Program
  o Mid-scale Research Infrastructure-1 (Mid-scale RI-1)
  o Mid-scale Research Infrastructure-2 (Mid-scale RI-2)

Partnerships and Collaborations
  o Partnerships for Innovation (PFI)
  o Partnerships for Enhanced Engagement in Research (PEER)
  o Partnerships for International Research and Education (PIRE)
  o Accelerating Research through International Network-to-Network Collaborations (AccelNet)
  o GROWING CONVERGENCE RESEARCH (GCR)

Collaborations with Industry
  o NSF Grant Opportunities for Academic Liaison with Industry (GOALI)
  o NSF Innovation Corps Hubs Program (I-CorpsTM Hubs)
  o Innovation Corps Teams (I-CorpsTM* Teams) Program

Student Support/Fellowships
  o NSF Research Experiences for Undergraduates (REU) Program
    International Research Experiences for Students (IRES)
  o National Science Foundation Research Traineeship (NRT) Program
  o NSF Graduate Research Fellowship Program (GRFP)

Faculty Career Development
  o Mid-Career Advancement (MCA)
  o Faculty Early Career Development Program (CAREER)