What does the NSF fund?

The National Science Foundation (NSF) primarily funds basic research and education across all fields of science and engineering, except for medical sciences. Broadly, they fund:

- Basic research and education across all fields of fundamental science and engineering, except the medical sciences.
- **Use-inspired research** with the potential to create products and solutions that improve people's lives.
- **Research partnerships** between colleges and universities, industry, nonprofits, government and other organizations within the U.S. and across the globe.
- **Education and training programs** in science and engineering that attract individuals from diverse backgrounds and from every sector from pre-K through graduate school and beyond.
- **Infrastructure and state-of-the-art tools** for research, including supercomputers, ground-based telescopes, research stations in the Arctic and Antarctic, long-term ecological sites and engineering centers.

Mission of the NSF

"NSF promotes the progress of science by investing in research to expand knowledge in science, engineering and education. NSF also invests in actions that increase the capacity of the U.S. to conduct and exploit such research."

The NSF's core values include:

- Scientific leadership
- Diversity and inclusion
- Integrity and excellence
- Public service
- Innovation and collaboration

More about the NSF

NSF Homepage: https://www.nsf.gov/

NSF Submission Site: https://www.research.gov/research-web/

NSF Grant Policies: The NSF Policy Office has links to resources for proposals and awards at https://www.nsf.gov/bfa/dias/policy

2025 Updates: As of April 18, 2025, the NSF maintains that broadening participation activities, including those undertaken in fulfillment of the Broader Impacts criterion, and research on broadening participation, must aim to create opportunities for Americans everywhere. Thus, efforts must not "preference some groups at the expense of others, or directly/indirectly exclude individuals or groups". A core goal of the NSF is still to create opportunities for Americans everywhere. Merit review still includes broader impacts and intellectual merit.

Organization of the NSF

The NSF is organized into directorates rather than institutions (like the NIH). Within each directorate, there may be several additional divisions to further differentiate research areas. The directorates, and the divisions that comprise them, are listed below.

- Biological Sciences (BIO)
- Computer and Information Science and Engineering (CISE)
- Engineering (ENG)
- Geosciences (GEO)
- Mathematical and Physical Sciences (MPS)
- Social, Behavioral and Economic Sciences (SBE)
- STEM Education (EDU)
- Technology, Innovation and Partnership (TIP)

The NSF also supports the Office of the Director (OD), which include several more offices:

- Executive Office of the Director (EOD)
- Office of Civil Rights (OCR)
- Office of the General Counsel (OGC)
- Integrative Activities (OIA)
- International Science and Engineering (OISE)
- Office of Legislative and Public Affairs (OLPA):

Please note that the NSF is currently undergoing reorganization and eliminating divisions and reorganizing them into clusters. This will likely be reflected in the future.

Grants process

To apply for an NSF grant:

- To begin, you'll need to have a research project in mind. Think about about resources needed, timeline, feasibility, and your research concept.
- Once you've got an idea in mind, review the directorates that are most appropriate for your discipline and select a funding mechanism. You can find more information about finding a funding source here.

- You then need to prepare your proposal. For specific instructions, you can review the NSF's Preparing a Proposal document, as well as refer to the specific RFP that you're submitting to.
- You can submit your proposal through either Grants.gov or Research.gov. Specific instructions can be found here.

All NSF proposals are reviewed using two merit review criteria:

- Intellectual merit: The potential for the proposed project to advance knowledge and understanding within its own field or across different fields.
- Broader impacts: The potential for the proposed project to benefit society and contribute to the achievement of specific, desired societal outcomes.

Proposals that involve high-risk, high pay-off science and engineering are also encouraged.

General Tips and Helpful Information

- PIs are encouraged to send a one-page summary and request an appointment to discuss project objectives and program fit.
- Make sure all key personnel are registered in Research.gov, including any external partners with community organizations
- Must use SciENcv to create Biosketches and Current & Pending.
 - Any changes to the biosketch or C&P after it has been certified will not be accepted. You
 must make edits in SciENcv and certify the new version.
- You must download documents from SciENcv to certify them.
- There is a proposal demo site in Research.gov where you can practice preparing applications.

Common funding opportunities for faculty

Faculty Early Career Development Program (CAREER)

- Who it's for: Junior faculty (tenure-track assistant professors).
- Purpose: It's designed to help recipients build a foundation for a lifetime of contributions to research and education.

Research Experiences for Undergraduates (REU)

- Who it's for: Faculty hosting undergraduate researchers
- Purpose: Provides funding to involve undergraduates in active research projects

Established Program to Stimulate Competitive Research (EPSCoR)

- Who it's for: Researchers in underfunded states
- Purpose: It aims to boost the research capacity and competitiveness of states that traditionally receive less funding for federal research and development. Missouri qualifies.

Mid-Career Advancement (MCA)

• Who it's for: Mid-career faculty (Associate Professors)

• Purpose: Provides time and resources for faculty to advance research in new directions.

Where to find previously funded NSF grants.

You can find previously funded NSF grants using the awards search feature on NSF's website: https://www.nsf.gov/awardsearch/.