STEERING THE FUTURE

of Fundamental Science



WHAT DOES THE NSF DO?

The National Science Foundation (NSF) is an independent federal agency created by Congress in 1950 to promote the progress of science, advance the country's prosperity, welfare, and health, and secure the national defense. Put simply, the agency's focus is advancing knowledge and unearthing discoveries for the benefit of society – from astronomy to geology to zoology.

As the only federal agency that supports fundamental research in all fields of science and engineering, NSF invests in the research that underpins our economy, including "high-risk, high pay-off" ideas, novel collaborations, and numerous projects that may seem like science fiction today, but will shape our future in meaningful ways.

WHY DOES THE NSF MATTER?

NSF is a unique federal agency in the way it operates – from the bottom up. Officials work closely with the research community to identify cutting edge opportunities and monitor the areas of research most likely to result in progress.

Examples of discoveries as a result of NSF-funded research¹ include:

- Technology discovered in 1992 underlying today's wireless internet and cell phone networks;
- A tool that uses brain waves to predict reading problems like dyslexia in young children; and
- Multi-angle snowflake cameras to make winter driving safer and verify snowfall predictions.

WHAT SCIENCE DOES THE NSF FUND?

BIOLOGICAL SCIENCES

To enable discoveries for

understanding life.

SOCIAL, BEHAVIORAL & ECONOMIC SCIENCES

To understand how social, economic, political, cultural, and environmental forces affect people's lives.

MATHEMATICAL & PHYSICAL SCIENCES

To harness the collective efforts of the math and physical sciences communities to address the most compelling scientific questions, educate the future workforce, and promote discoveries to meet the needs of the nation.

INTERNATIONAL SCIENCE & ENGINEERING

To promote innovation through access to international knowledge, infrastructure, and capabilities.

onomic, nmental es. 1 2 cyberse es. 3 3 7 6 Ri To a educe

SCIENCE & ENGINEERING To investigate computer and information science and engineering, including

science and engineering, including cybersecurity and big data.

COMPUTER & INFORMATION

EDUCATION & HUMAN RESOURCES

To achieve excellence in U.S. science, technology, engineering, and math (STEM) education at all levels.

ENGINEERING

To enrich the understanding of natural systems, enhance electronics, and fortify the nation's infrastructure.

ENVIRONMENTAL RESEARCH & EDUCATION

To advance environmental research, education, and scientific assessment, and to determine the best means of implementing related activities.

INTEGRATIVE ACTIVITIES

To lead and coordinate strategic programs and opportunities across disciplinary boundaries.

GEOSCIENCES

To expand our knowledge about the processes that affect the global environment including the atmospheric, earth, ocean, and polar sciences.

¹ https://www.nsf.gov/about/congress/reports/Transforming_the_World.pdf