

I. ABOUT NSF

Who we are

On May 10, 1950, President Harry S. Truman signed Public Law 810-507, creating NSF and setting forth our mission:

"To promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense; and for other purposes."

Our authorizing legislation directs us to initiate and support basic scientific and engineering research; to support programs to strengthen scientific and engineering research potential; to support education programs at all levels in all fields of science and engineering research and education, and to establish an information base for science and engineering appropriate for development of national and international policy. Since the passage of that legislation 50 years ago, we have endeavored to maintain American leadership in scientific and engineering discovery, learning and innovation.

In contrast to other federal agencies that have research objectives such as energy, biomedicine, or space, we stand alone as the only federal agency charged with supporting and strengthening all disciplines across the science and engineering frontier. The Internet, plant genomics, nanotechnology and biocomplexity are but a handful of examples of NSF-supported research outcomes that have revolutionized, or have promise to revolutionize, how we live, work, and play.

America's science and engineering enterprise is unparalleled in scope and quality and has enabled the United States to

become one of the most productive nations in the world. The return on investments in science and engineering has been enormous and has directly contributed to the nation's economic growth and to the health and welfare of its people. It is estimated that as much as one-half of the nation's economic productivity can be attributed to technological innovation and the science and engineering that supports it. Science and technology have contributed to an increased standard of living in most of the world's modern industrial societies, and have had enormous impact on health care, agriculture, environmental protection and national defense.

What we do

Our role is to fund the best ideas and most capable people exploring science, mathematics, and engineering research and education. We award grants, contracts and cooperative agreements to approximately 2,000 colleges, universities, schools, academic consortia, nonprofit institutions and small businesses throughout the United States. We also maintain partnerships with international organizations around the world. Investments promote the emergence of new disciplines, fields, and technologies that enable and enhance our nation's capacity for sustained growth and prosperity.

While our budget accounts for only about four percent of the total federal expenditure on research, we provide about one-fifth of the federal support to academic institutions for basic research. Each year our programs involve nearly 200,000 scientists, engineers, mathematicians, teachers and students.

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How we do it

We receive about 30,000 proposals a year from the science and engineering community. In determining which of these proposals to invest in, we use external experts to advise us on the merit of the proposed activities, and how they compare to other proposals. Only about one in three proposals is selected for award. We consider the merit review process critical to our efforts to foster the highest standards of excellence and accountability. Each year, thousands of experts volunteer their time to evaluate proposals sent to NSF. We ask them to use two criteria in evaluating proposals—the intellectual merit of the proposed activity *and* its broader impacts.

NUMBER OF PEOPLE INVOLVED IN NSF ACTIVITIES	
	FY 2001
Senior Researchers	27,601
Other Professionals	9,904
Postdoctoral Associates	5,608
Graduate Students	25,461
Undergraduate Students	31,044
K-12 Students	11,335
K-12 Teachers	83,401
Total Number of People	194,354

What we fund

We play a unique role in the federal investment portfolio in that in our funded activities we integrate research and education activities. We support individual investigators and small groups engaged in research and education in traditional fields at about 2,000 colleges and universities, K-12 school districts, academic consortia, nonprofit institutions, small businesses and other research and education institutions throughout the nation. We provide support for U.S. participation in international

state-of-the art research facilities such as the National Astronomy Centers, oceanographic research ships, and Antarctic research stations. Research facilities provide scientists, mathematicians and engineers access to state-of-the-art capabilities that enable research and education at the cutting-edge. We support research centers that address complex scientific and engineering questions through multi-disciplinary, long-term, coordinated efforts of many researchers and educators.

Our education and training investments support work at all levels, from pre-kindergarten through career development, across the U.S. These activities promote public science literacy and help to ensure that our nation maintains world-class scientists, engineers and mathematicians.

We focus on programs that encourage the participation and achievement of groups underrepresented in science and engineering. We emphasize K-12 education through the support of partnerships that unite local school districts, colleges and universities and other stakeholders such as state and tribal entities. We believe that treating whole systems is the most effective way to make improvements in science and mathematics education.

How we are organized

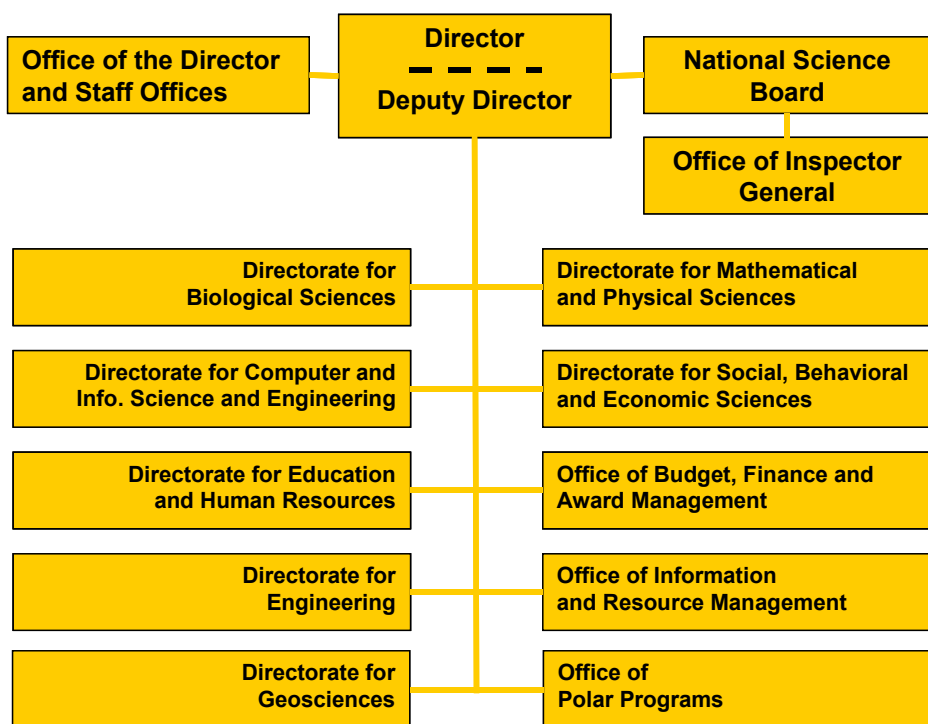
The President appoints, with the consent of the U.S. Senate, the NSF Director to serve a six-year term. Our current director, Dr. Rita R. Colwell, became NSF's eleventh director in 1998.

The National Science Board (NSB) establishes our policies. The Board consists of 24 members representing a cross-section of American leadership in science and engineering research and education. Presidentially-appointed NSB members are selected solely on the basis of established records of distinguished accomplishments. They serve six-year terms, with one-third of

disciplines and fields of science and engineering, and for science, mathematics, engineering, and technology education. We have seven directorates, an Office of Polar Programs and two management offices.

Some statistics

In FY 2001, approximately 93% of our \$4.5 billion budget supported research and education activities carried out by awardees. These programs and activities directly engaged nearly 200,000 people¹, including researchers, educators, students, and other professionals. Approximately three percent (\$119 million) of the budget was devoted to major research equipment



the Board's membership appointed and approved every two years. The NSF Director is a member *ex officio* of the Board. The NSB also serves the President and the Congress as an independent advisory body on policies affecting the health of U.S. science and engineering research and education.

NSF is structured much like an academic institution, with divisions organized by

and construction. The remaining five percent was devoted to conducting the administrative work of the agency. We employ a scientific and engineering staff of approximately 600 permanent and visiting scientists and engineers (approximately 65% of the agency's scientists and

¹ Source: NSF FY 2003 Budget Request to Congress, p. 43.

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engineers are permanent government employees), 450 business and operations personnel, and 350 program support personnel. Our staff manage our investment portfolio: they do not conduct research nor do they operate laboratories supported by NSF awards. In FY 2001 staff processed more than 200,000 merit-based reviews

and made funding decisions on nearly 32,000 competitive proposals. About 10,000 new awards were made. During 2001, about 45,000 reviewers were sent one or more proposals for mail review and about 10,000 reviewers served as panelists. About 9,000 of these reviewers had never reviewed an NSF proposal before.

FY 2001 BUDGET / PERFORMANCE ALIGNMENT (Millions of Dollars)

Account	STRATEGIC OUTCOMES			A&M	TOTAL
	PEOPLE	IDEAS	TOOLS		
R&RA*	283	2,153	911	26	3,372
EHR	612	144	25	15	795
MRE	0	0	119	0	119
S&E	0	0	0	166	166
OIG	0	0	0	7	7
Total	\$894	\$2,297	\$1,055	\$214	\$4,460

*R&RA = Research and Related Activities
EHR = Education and Human Resources
MRE = Major Research Equipment
S&E = Salaries and Expenses
OIG = Office of Inspector General