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NATIONAL SCIENCE FOUNDATION

AAU SUPPORTS \$7.7 BILLION FOR THE NATIONAL SCIENCE FOUNDATION IN FY16

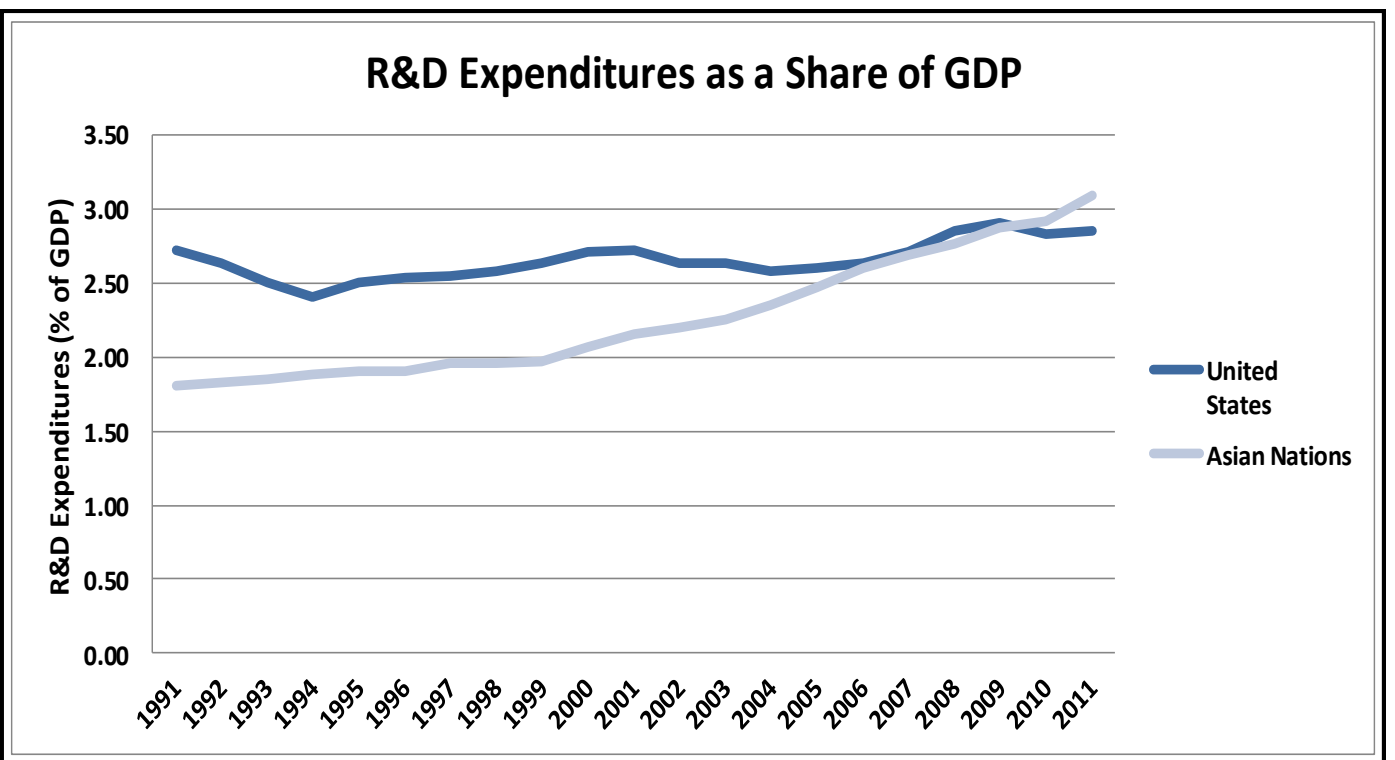
NSF is the cornerstone of America’s basic scientific research enterprise. It is the only federal research agency charged with the promotion of scientific progress across all the scientific and engineering disciplines. Moreover, NSF has been a leader among the other federal agencies in its support and commitment to science, technology, engineering, and mathematics (STEM) education. For these reasons, AAU urges Congress to appropriate \$7.7 billion for NSF in FY16, a 5.2% increase over FY15.

AAU SUPPORTS ROBUST AND SUSTAINED FEDERAL FUNDING FOR NSF

Modern life as we know it—from search engines like Google to medical imaging—depends on basic research that leads to new discoveries, innovation, and new technologies. Innovation is the key ingredient to economic growth. Economists agree that more than half of U.S. economic growth since World War II is a consequence of technological innovation, much of which results from federally funded scientific research. Such groundbreaking research supported by NSF has led to fiber optics, life-saving vaccines, the Internet, nanotechnology, and many other advances that have improved lives, generated economic growth, and created American jobs.

Robust and sustained support for NSF will help to address the backlog of highly rated research proposals that have not been supported due to insufficient funding. This will, in turn, improve grant award success rates, which have declined in recent years.

According to the recently published *National Science Board: Science and Engineering Indicators Report (2014)*, other nations such as China, South Korea, and Japan have significantly increased their spending on scientific research and development, while the U.S. investment has remained stagnant. In order for our nation to remain the global innovation leader, we must recommit to investing in basic scientific research and engineering. Appropriating \$7.7 billion for NSF in FY16 will help to close our nation’s innovation deficit.



Research and Related Activities (R&RA): AAU supports increased funding for NSF’s Research and Related Activities Directorate, which funds merit-reviewed research in a number of fields, including: the biological sciences, mathematical and physical sciences, engineering, and social and behavioral sciences. AAU encourages Congress to make a strong commitment to fund NSF’s Social, Behavioral, and Economic Sciences (SBE) Directorate. This directorate supports long-term research across a broad range of fields of study including economics, psychology, sociology, geography, neuroscience, anthropology, political science, statistics, and linguistics. The SBE Directorate also supports a large number of interdisciplinary programs and research directed at understanding the human issues that lie at the core of many challenges this nation faces in health, national security, education, and the economy.

Education and Human Resources (EHR): AAU strongly supports NSF’s mission of developing a STEM-capable workforce and a STEM-literate citizenry that can successfully compete in the global marketplace. AAU encourages Congress to support vital programs such as Improving Undergraduate STEM Education (IUSE), Graduate Research Fellowships (GRF), NSF Research Traineeships (NRT), and Research Experiences for Undergraduates (REU).

Major Research Equipment and Facilities Construction (MREFC): AAU supports the continued construction of the Large Synoptic Survey Telescope (LSST) and the National Ecological Observatory Network (NEON).

FACTS ABOUT NSF-SUPPORTED BASIC SCIENTIFIC RESEARCH

- NSF is the federal government’s second largest funder of basic research, following the National Institutes of Health. Excluding the life sciences, NSF is the largest funder of basic research, supporting 25% of federally funded basic scientific research.
- In FY16, NSF expects to evaluate more than 51,700 proposals through a competitive merit review process and make more than 12,000 new awards.
- NSF funds a high percentage of the basic scientific research conducted at U.S. colleges and universities:
 - 41% of Engineering
 - 44% of the Physical Sciences
 - 62% of Mathematics
 - 65% of Social Sciences
 - 66% of Biology
 - 87% of Computer Science

Source: NSF’s National Center for Science and Engineering Statistics Survey of Federal Funds for Research and Development (2011)

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Boston University ★ Brandeis University ★ Brown University ★ California Institute of Technology ★ Carnegie Mellon University ★ Case Western Reserve University ★ Columbia University ★ Cornell University ★ Duke University ★ Emory University ★ Georgia Institute of Technology ★ Harvard University ★ Indiana University ★ Iowa State University ★ The Johns Hopkins University ★ Massachusetts Institute of Technology ★ McGill University ★ Michigan State University ★ New York University ★ Northwestern University ★ The Ohio State University ★ The Pennsylvania State University ★ Princeton University ★ Purdue University ★ Rice University ★ Rutgers, The State University of New Jersey ★ Stanford University ★ Stony Brook University – State University of New York ★ Texas A&M University ★ Tulane University ★ The University of Arizona ★ University at Buffalo, The State University of New York ★ University of California, Berkeley ★ University of California, Davis ★ University of California, Irvine ★ University of California, Los Angeles ★ University of California, San Diego ★ University of California, Santa Barbara ★ The University of Chicago ★ University of Colorado, Boulder ★ University of Florida ★ University of Illinois at Urbana-Champaign ★ The University of Iowa ★ The University of Kansas ★ University of Maryland, College Park ★ University of Michigan ★ University of Minnesota, Twin Cities ★ University of Missouri-Columbia ★ The University of North Carolina at Chapel Hill ★ University of Oregon ★ University of Pennsylvania ★ University of Pittsburgh ★ University of Rochester ★ University of Southern California ★ The University of Texas at Austin ★ University of Toronto ★ University of Virginia ★ University of Washington ★ The University of Wisconsin-Madison ★ Vanderbilt University ★ Washington University in St. Louis ★ Yale University