Office of Science and Technology Policy
Executive Office of the President
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PHYSICAL SCIENCES AND ENGINEERING

Research and Development Funding in the President's 2005 Budget

Research in the physical sciences and engineering is at the heart of technological innovation for priority areas of space exploration, nanotechnology, networking and information technologies, and defense technologies. Physical science research leads to a better understanding of nature and, indeed, our universe. Research in this area complements a number of critical investments such as those being made in the life sciences. The President's 2005 Budget strengthens the nation's investment in the physical sciences and engineering by making significant investments in these, and other, priority areas.

National Aeronautics and Space Administration (NASA). A new vision for NASA programs focused on human and robotic exploration of the solar system and beyond is a top priority for the President's 2005 Budget. The President's Budget provides $16.2 billion for NASA in FY 2005, an increase of 5.6%. The President's Budget provides $4.1 billion for Space Science (+$167 million) over 2004. This increase augments the Mars exploration program and supports on-schedule development of the James Webb Space Telescope. The Budget also provides $1.9 billion for NASA's new Exploration Systems Enterprise, including a new start for a vehicle to support human travel beyond low Earth orbit and initiation of a new program of lunar exploration. The Exploration Systems budget also supports a program of technology development to support human and robotic space exploration, which includes $438 million in Project Prometheus nuclear power and propulsion technology work transferred from Space Science.

National Science Foundation (NSF). The President's Budget provides $5.75 billion for NSF, an increase of 3% over FY 2004. Included within this level is $1.1 billion for the Mathematical and Physical Sciences. The Budget proposes significant increases in funding for in the priority areas of nanotechnology (up 20% to $305 million) and cyberinfrastructure (up 12% to $399 million).

Department of Energy (DOE). The President's Budget provides $3.4 billion for DOE's Office of Science, a $52 million decrease from FY 2004. However, this is actually an *increase* of $88 million (+2.6%) above FY 2004, after excluding $141 million in Congressionally-directed projects that the President is not proposing to continue. The Budget includes increases in priority areas such as nanotechnology (up 4% to $211 million), targeted hydrogen and fuel cell research (+$21 million), national scientific user facility operations (+$46 million), and initial funding for the development of a revolutionary new x-ray laser light source that will open entirely new realms of discovery in materials, chemistry, and biology.

Department of Commerce (DOC). The President's Budget provides $482 million for the National Institute of Standards and Technology laboratory programs, a 20% increase over FY 2004 enacted. This includes $53 million in nanometrology research at NIST.

Selected Civilian Physical Science-Related Programs ($ in millions)

Department/Agency	2001 Actual	2005 Request	Dollar Change: 2001 to 2005	Percent Change: 2001 to 2005
NASA Space Science	2,609	4,068	1,459	56%
NSF (MPS, GEO, CISE, ENG)	2,322	3,039	717	31%
DOE Office of Science	3,218	3,432	214	7%
NIST "core" (not including ITS)	347	482	135	37%
NOAA Oceanic & Atmospheric Research	315	350	35	11%
TOTAL	**8,811**	**11,371**	**2,560**	**29%**