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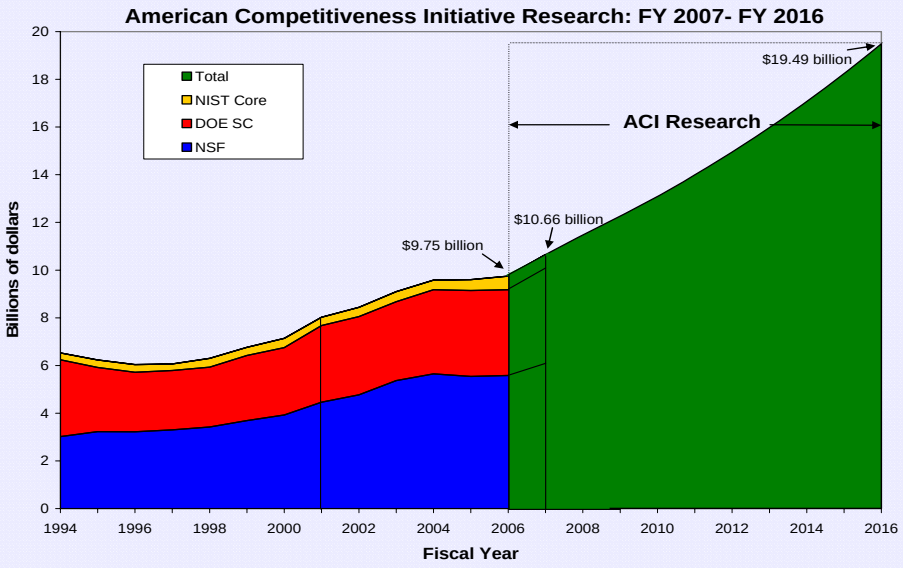
AMERICAN COMPETITIVENESS INITIATIVE

Research and Development Funding in the President's 2007 Budget

American economic strength and national security depend on our Nation's rich tradition of innovation. To ensure continued technological leadership in the world and build on the Administration's record of results, President Bush announced the *American Competitiveness Initiative* (ACI) in his State of the Union address. The ACI commits $5.9 billion in FY 2007, and more than $136 billion over 10 years, to increase investments in R&D, strengthen education, and encourage entrepreneurship and innovation.

The centerpiece of the *American Competitiveness Initiative* is the President's proposal to double, over ten years, priority basic research in the physical sciences and engineering. Physical sciences research develops and advances knowledge and technologies that are used by scientists in nearly every other field. President Bush seeks to strengthen Federal investments in this area by providing three key, innovation-enabling research agencies with landmark initial investments in 2007: the National Science Foundation (NSF) $6 billion; the Department of Energy's Office of Science (DoE SC) $4.1 billion; and the Department of Commerce's National Institute of Standards and Technology (NIST) core programs $535 million. In addition to the collective doubling effort at these agencies, the President's Budget also prioritizes the similarly high-leverage basic and applied research at the Department of Defense in 2007 by requesting $5.9 billion, $440 million (8 percent) more than last year's request.

In 2007, the ACI proposes overall funding increases for NSF, DoE SC and NIST core of $910 million, or 9.3 percent. To achieve ten-year doubling, overall annual increases for these agencies will average roughly 7 percent. This amounts to a total of $50 billion in new investments in high-leverage, innovation-enabling research that will underpin and complement shorter-term R&D performed by the private sector. To encourage private investment in innovation to be equally bold, President Bush continues to propose making the R&D tax credit permanent and supports modernizing it to make it even more effective.



	FY06 Funding	ACI Research FY 2007		ACI Research FY 2016	
	$ (billions)	$ (billions)	% increase	$ (billions)	% inc. over FY06
NSF	$5.58	$6.02	7.8	$11.16[1]	100.0
DoE SC	$3.60	$4.10	14.0	$7.19[1]	100.0
NIST Core[2]	$0.57[3]	$0.54	-5.8[4]	$1.14[1]	100.0
TOTAL	$9.75	$10.66	9.3	$19.49	100.0

[1] ACI doubles total research fund; individual agency allocations remain to be determined.

[2] NIST core consists of NIST lab research and construction accounts.

[3] The 2006 enacted level for NIST core includes $137 million in earmarks.

[4] Represents a 24 percent increase after accounting for earmarks.

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EARMARKS

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The Administration strongly supports awarding research funds based on merit review through a competitive process. Such a system generally ensures that the best research is supported. Research earmarks—the assignment of money during the legislative process for use only by a specific organization or project—are counter to a merit-based competitive selection process. Earmarks signal to potential investigators that there is an acceptable alternative to creating quality research proposals for merit-based consideration, including the use of political influence or appeals to parochial interests. Such an alternative is seldom the most effective use of taxpayer funds.

Unfortunately, the practice of earmarking to colleges, universities and other entities for specific research projects has expanded dramatically in recent years. The American Association for the Advancement of Science (AAAS) recently estimated that R&D earmarks total $2.4 billion in FY 2006, an increase of $275 million, or 13 percent, over the Association's FY 2005 estimate. This figure has increased by 63 percent since FY 2003.

Some argue that earmarks help spread the research money to states or institutions that would receive less research funding through other means. *The Chronicle of Higher Education* has reported that this is not the main role earmarks play. Often only a minor portion of academic earmark funding goes to the states with the smallest shares of Federal research funds.

Some proponents of earmarking assert that earmarks provide a means of funding unique projects that would not be recognized by the conventional peer-review process. To address this concern, a number of research agencies have procedures and programs to reward ''out-of-the-box'' thinking. For example, within the Department of Defense (DoD), the Defense Advanced Research Projects Agency seeks out high-risk, high-payoff scientific proposals, and program managers at the National Science Foundation (NSF) set aside a share of funding for higher-risk projects in which they see exciting potential.

The rapidly growing level of legislatively directed research funds undermines America's research productivity. The Administration commends Congress for taking measures to protect the National Science Foundation and National Institutes of Health from this practice. However, in FY 2006, DoD basic and applied research earmarks total about $1 billion; $135 million of the DoE Office of Science is earmarked; and $137 million in earmarks seriously dilute the core research proposed at the National Institute of Standards and Technology. To maximize the effectiveness of federally-funded research, the President calls upon Congress and the academic community to withhold securing research and facilities funding through earmarks, particularly in the *American Competitiveness Initiative* agencies.