



## **AMERICAN COMPETITIVENESS INITIATIVE (ACI)** *Research and Development Funding in the President's 2009 Budget*

For the third straight year, President Bush prioritizes basic research in the physical sciences to advance knowledge and technologies used by scientists in nearly every field. Through the ACI, the President is implementing his plan to double, over 10 years, investment in innovation-enabling research at three key civilian Federal science agencies—the National Science Foundation (NSF), the Department of Energy's Office of Science (DoE SC), and the Department of Commerce's National Institute of Science and Technology laboratory research and facilities (NIST Core).

In FY 2009, year three of the ACI, President Bush proposes \$12.2 billion total for NSF, DOE SC, and NIST Core, a funding increase of \$1.6 billion, or 15 percent, above the 2008 enacted total of \$10.6 billion. Unfortunately, the 2008 omnibus appropriations bill drastically cut proposed ACI research, funding only one-third of the President's requested increase. In addition, Congress directed over half of the enacted increase (\$207 million of a total \$408 million increase) to earmarks and an unrequested new grants program. This is deeply disappointing and significantly impairs and delays the Administration's efforts to strengthen long-term U.S. economic growth and competitiveness. President Bush's call for doubling these basic research levels had been endorsed by Congress, which fully authorized his ACI research increases in the bipartisan America COMPETES Act (Public Law 110-69), and are roundly supported by a broad coalition of business and academic leaders in the "American Innovation Proclamation" (<http://futureofinnovation.org/media/Proclamation-FINAL.pdf>). The President's FY 2009 Budget returns ACI research to a doubling path to ensure this consensus national priority objective is realized.

### **Research Agencies in the American Competitiveness Initiative**

The National Science Foundation is the primary source of support for academic research in the physical sciences, funding basic research in areas such as nanotechnology, advanced networking and information technology, physics, chemistry, materials science, mathematics, and engineering. It is also well regarded for funding nearly all of its research through a competitive, peer-reviewed process. The increase in NSF funding will support many more researchers, students, post-doctoral fellows and technicians contributing to the innovation enterprise.

The Department of Energy's Office of Science supports grants and infrastructure for a wide range of basic research impacting economically significant areas such as nanotechnology, biotechnology, high-end computing, advanced networking, as well as energy production and use. The 2009 Budget increases funding for both research and cutting-edge facilities. Strategic basic research for electrical energy storage and an advanced nuclear fuel cycle will be accelerated, and the radioisotope production and application programs will be reorganized and reformed. The Budget expands supercomputing facilities and related research, and dedicates significant resources to climate change modeling and other scientific simulations. It starts construction of a world-leading next generation light source and upgrades a nuclear physics accelerator. And the Budget meets the United States' contribution to the international fusion energy project known as ITER.

The Department of Commerce's National Institute of Standards and Technology (NIST) invests in technological innovation through research and standards development. These investments will improve NIST's research capabilities by providing high performance laboratory space for diverse research fields and world-class researchers; aid the responsible development of nanotechnology manufacturing; expand NIST's neutron facility to aid in characterizing novel materials in high-growth research fields; and improve our understanding of complex biological systems to accelerate innovations and enable investment in biosciences, including disease diagnosis and treatment.