

Highlights

President Bush's proposed budget for fiscal year (FY) 2008 continues the American Competitiveness Initiative (ACI) plan introduced last year to boost federal investments in physical sciences research for three key federal agencies. The budget also continues to highlight weapons development and spacecraft development. But as in previous budgets, increases for the federal research and development (R&D) investment in the above areas would be more than offset by cuts in other research programs, casualties of the Administration's commitment to rein in the federal budget deficit primarily through cuts in domestic spending. The 2008 budget goes to a new Democratic majority in the 110th Congress, fresh from finalizing 2007 appropriations left unfinished by the previous Congress and eager to put its own stamp on federal spending.

- The proposed federal R&D portfolio in FY 2008 is \$143.0 billion, 1.3 percent or \$1.9 billion above this year (see Chapter 1 and Table II-1). In real terms, the total federal R&D portfolio would decline for the first time since 1996. Once again, development funding would see strong gains: increases for space vehicles development in the National Aeronautics and Space Administration (NASA; total R&D up 6.7 percent) and weapons development in the Department of Defense (DOD; up 5.5 percent to \$68.1 billion) would far exceed the overall increase, leaving all other R&D programs with less money.

- The three American Competitiveness Initiative agencies would be the clear winners among domestic programs. There would be significant increases for R&D in the Department of Energy's (DOE) Office of Science (up 15.4 percent to \$4.1 billion; see Table II-11 and Chapter 8), the National Science Foundation (NSF; up 8.3 percent to \$4.9 billion; see Table II-7 and Chapter 6), and the National Institute of Standards and Technology's intramural research (up 12.8 percent to \$420 million; see Table II-14 and Chapter 12).

- But other R&D funding agencies would see flat funding or cuts. The National Institutes of Health (NIH) budget would fall 1.1 percent to \$28.8 billion (see Chapter 7 and Table II-9). The U.S. Department of Agriculture (USDA) would see its R&D funding fall 10.8 percent to \$2.0 billion (see Table II-13 and Chapter 10). Even the Department of

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Homeland Security (DHS), a past favorite, would see its R&D funding slide to \$996 million (see Table II-6 and Chapter 11).

- Defense R&D continues to climb to record levels in wartime, boosted by additional billions for development as part of war-related supplemental requests. Department of Defense (DOD) R&D would reach \$79.0 billion in 2008, up 1.0 percent (see Table II-2 and Chapter 5).

- Total federal support of research (basic and applied) would fall 2.1 percent to \$55.5 billion (see Table II-1). **In real terms, the federal research portfolio would fall for the fourth year in a row**, down 7.4 percent from 2004 (see Chapter 2).

- The 110th Congress will attempt to pass innovation-related legislation this session to tackle the same concerns the President's ACI tries to address, and will also attempt to draft legislation on climate change, energy security, and stem cell research (see Chapter 3).

- The FY 2008 budget would make significant cuts to education, including the proposed termination of 44 Department of Education (ED) programs and a restructuring of others (see Chapter 4).

- Good news would be mixed with bad even for the physical sciences. In FY 2008, the ACI agencies would boost funding for physics (see Chapter 13), astronomy (see Chapter 14), and chemistry (see Chapter 18), but other agencies would reduce their funding. Support for the mathematical sciences (see Chapter 21) would be strong. But funding for other disciplines such as the social and behavioral sciences (see Chapter 19), the non-biomedical life and biological sciences (see Chapter 17), and the earth sciences (see Chapter 16) would mostly decline.

- The federal government continues to invest billions of dollars in multi-agency R&D initiatives (see Table I-9). Funding for the **National Nanotechnology Initiative** (NNI) would increase 3.8 percent to \$1.4 billion (see Chapter 23). **Networking and Information Technology R&D** (NITRD) funding would stall at \$3.1 billion (see Chapter 22). Funding for the **Climate Change Science Program** (CCSP) would continue to slide from a high of \$2.0 billion in 2004 down to \$1.5 billion in 2008 (down 7.4 percent from 2007; see Chapter 15).