

Highlights

Against a backdrop of record-breaking federal budget deficits, a continuing and costly war in Iraq, an expansion of Medicare to pay for prescription drugs, and expensive proposals to introduce private accounts for Social Security in the future, the federal investment in research and development (R&D) would barely grow in the FY 2006 budget, with cuts to R&D programs outnumbering increases.

- The proposed federal R&D portfolio in FY 2006 is \$132.3 billion, just barely an increase of 0.1 percent or \$84 million above this year, and far short of the 2.0 percent increase needed to keep pace with expected inflation (see Chapter 1 and Table II-1). In real terms, the total federal R&D portfolio would decline for the first time since 1996. Increases for space exploration R&D in the National Aeronautics and Space Administration (NASA; up \$508 million) would far exceed the \$84 million increase, leaving all other R&D programs (including defense) with less money next year.

- The National Science Foundation (NSF), after a cut in its budget in 2005, would see a modest increase of 2.8 percent to \$4.2 billion for its R&D portfolio, but most of the increase would go to R&D facilities (see Chapter 7 and Table II-7). The National Institutes of Health (NIH) budget, after doubling in the five years between 1998 and 2003, would see an increase of just 0.5 percent in FY 2006 to \$28.7 billion (see Chapter 8 and Table II-9).

- Other agencies in the federal R&D portfolio would see cuts in 2006. The Department of Energy's (DOE) Office of Science would see its R&D funding fall 4.5 percent to \$3.2 billion (see Chapter 9). The U.S. Department of Agriculture (USDA), enjoying a record R&D portfolio in 2005, would see its R&D funding decline 14.6 percent to \$2.1 billion (see Table II-13 and Chapter 11).

- There would be tough budgetary choices even in agencies with increasing budgets. At NASA, a 4.6 percent boost in R&D funding to \$11.5 billion would still require steep cuts in aeronautics and earth sciences research and the cancellation of a Hubble servicing mission to pay for NASA's ambitious space exploration plans and resumed construction of the Space Station (see Chapter 10 and Table II-12).

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Although DOE's energy R&D portfolio would climb 3.2 percent to \$1.2 billion because of increased investments in hydrogen, nuclear energy, fuel cells, and coal, DOE would reduce funding for the Office of Science (see Chapter 9 and Table II-11).

- **Federal homeland security-related R&D would total \$4.4 billion in FY 2006**, a gain of \$208 million or 4.9 percent (see Chapter 1 and Table I-6). After annual increases greater than 20 percent in the first few years of its existence, growth in the Department of Homeland Security (DHS) R&D portfolio would level off with an FY 2006 request of \$1.3 billion, up \$44 million or 3.6 percent (see Table II-6 and Chapter 12).

- **Congress will tackle the FY 2006 appropriations process in a newly reorganized committee structure** (see Chapter 3 and Table I-8). The result could be an appropriations process more protracted and confusing than normal.

- R&D funding by U.S. industry grew at a rate slightly above inflation for the first time in three years in 2004, but would fall in line with expected inflation in 2005. Other countries and regional governments continue to plan for, invest in, and build innovation capacity as a driver for economic growth and competitiveness (see Chapter 4).

- The FY 2006 budget would make significant cuts to education programs. The President has requested \$56 billion for the Department of Education (ED), a reduction of \$530 million from FY 2005 and the first proposed decrease (1 percent) this decade (see Chapter 5).

- **Funding for all three multi-agency R&D initiatives would decline in FY 2006** (see Table I-9). After a nearly \$100 million increase this year, **National Nanotechnology Initiative (NNI)** funding would fall 2.5 percent to \$1.1 billion, well short of amounts authorized in the Nanotechnology R&D Act signed into law in December 2003 (see Chapter 24). Funding for the **Networking and Information Technology R&D (NITRD)** initiative would decline 4.5 percent to \$2.2 billion amid increasing concerns about U.S. leadership in high-performance computing (see Chapter 23). The **Climate Change Science Program (CCSP)** would see its funding fall 1.4 percent to \$1.9 billion, primarily because of steep cuts in NASA's contributions in space-based observations of the environment (see Chapter 16).