

Political and Policy Context for the FY 2007 Budget

Joanne P. Carney and Kasey S. White, AAAS

The first three chapters of this book are intended to provide a framework for understanding the detailed budgetary data and analysis that follow. This chapter builds on the previous two to describe the political and policy context within which the FY 2007 budget process will take place. It begins with an overview of the past year's experience and then moves to a brief discussion of the proposed FY 2007 budget. The chapter then turns to a more specific treatment of continuing and emerging R&D policy issues that are likely to shape the R&D policy landscape in the current budget cycle. The chapter concludes with some speculations about what may be in store for R&D for this year and beyond.

R&D IN THE PAST YEAR'S BUDGET PROCESS

The political outlook at the beginning of the fiscal year (FY) 2006 budget process in February 2005 was one driven initially by a mutual desire of the executive and legislative branches of government to reduce the federal deficit that had blossomed to a record level of \$413 billion the year before. So it came as no surprise that the President's overall budget request froze most discretionary spending at FY 2004 levels.

For the FY 2006 R&D budget portion of the discretionary pie, that meant cuts to nondefense, non-homeland security, and to some extent even defense R&D. For the first time in a decade, growth in the federal R&D portfolio would have failed to keep pace with inflation, and most R&D programs would have suffered cuts.

Initially, the objective to reduce the federal deficit appeared to make some progress when the U.S. Treasury reported that the FY 2005 deficit had decreased to \$319 billion. However, much of the decline was due to a one-time surge in tax receipts and by September the FY 2006 budget process soon became engulfed by the need to provide emergency

Carney and White

appropriations for an avian flu pandemic plan, post-Katrina reconstruction, and continued military operations for the war in Iraq.

By far the most profound change to the 109th Congress budgetary process was the shake-up of the 13 “cardinals” that govern the appropriations subcommittees. Former Majority Leader Tom DeLay (R-TX) used the opportunity of term limits to condense the number of appropriations subcommittees and consolidate related agencies and departments. Under the new leadership of appropriations chairman Jerry Lewis (R-CA), the House reduced its structure to 10 new subcommittees, while the Senate, led by incoming chairman Thad Cochran (R-MS), chose 12 subcommittees with jurisdictions similar, but not identical, to the House.

To the surprise of many, the restructuring did prove to stimulate some change in how the appropriations bills were managed. For the first time in years the House passed all ten of its appropriations bills by the beginning of October, the start of the new fiscal year. But meanwhile, the Senate still had managed only to pass eight of its twelve appropriations bills by then. And it was not until December 30, 2005, that the President signed the last two appropriations bills into law.

Because of the billions in dollars in emergency spending that were approved in FY 2006, the 109th Congress was forced to look for cutbacks in other portions of the budget in order to maintain some semblance of fiscal responsibility. Ultimately, the Congress enacted a 1 percent across-the-board cut for all discretionary programs.

In this budget-cutting environment in which only domestic discretionary programs are cut, it came as no surprise that federal R&D programs in FY 2006 were met with both good news and bad news. The good news was that the final discretionary total for R&D in FY 2006 brought federal investments to a new record of \$134.5 billion, a \$3.2 billion increase over FY 2005 (see Table I-1). But nearly all of the increase went to support Department of Defense (DOD) weapons development programs and NASA’s next-generation launch vehicles. For nondefense agencies (excluding NASA) this meant only a 0.5 percent increase, far short of expected inflation. The National Institutes of Health (NIH) budget fell for the first time since 1970.

But on a positive note, by the end of 2005 there finally appeared to be widespread recognition by politicians that U.S. leadership in science and

POLITICAL AND POLICY CONTEXT FOR THE FY 2007 BUDGET

technology innovation is under threat from global competitors. The groundswell of concern grew from two reports: *Innovate America*, by the Council on Competitiveness, and *Rising Above the Gathering Storm*, by the National Academies.

In response, Senators John Ensign (R-NV) and Joseph Lieberman (D-CT) introduced the National Innovation Act of 2005 in mid-December, which would authorize a doubling of the NSF, create programs to stimulate science education efforts, and increase defense basic research, among other provisions. The bipartisan legislation was preceded by a National Summit on Competitiveness sponsored by the U.S. Department of Commerce (DOC) following a request by Reps. Frank Wolf (R-VA), Sherwood Boehlert (R-NY) and Vernon Ehlers (R-MI). The Summit was attended by members of the Administration's Cabinet and academic and industrial luminaries. All sounded a collective call to revitalize fundamental research, expand the innovation talent pool in the United States, and lead the world in the development and deployment of advanced technologies.

THE PROPOSED BUDGET FOR FY 2007

The upsurge in the innovation rhetoric at the close of the FY 2006 process posed both an opportunity and a problem to the Administration as it prepared to unveil its FY 2007 budget. On the one hand, the White House could establish a strong position in an area of domestic policy after years of focusing on foreign policy issues necessitated by the events of September 11th. However, any effort to address the recommendations outlined in the various reports and bills would have to reconcile with a restrictive budget environment primed by tax cuts and declining discretionary spending.

The scientific community was thus cautiously optimistic when the president announced the creation of an American Competitiveness Initiative (ACI) during his State of the Union address. In his speech, President Bush proposed “to double the federal commitment to the most critical basic research programs in the physical sciences over the next 10 years” and “to encourage children to take more math and science.”

The research community anxiously waited to find how the ACI would translate into the proposed budget for FY 2007, and on February 6 the Administration released its budget request that included substantial

increases for key physical sciences and engineering programs. The NSF, DOE Office of Science, and the National Institute of Standards and Technology (NIST) would be the primary beneficiaries of the ACI and each would receive a sizable increase to its R&D portfolio. However, as in FY 2006, the majority of the overall R&D increase would go to DOD weapons development and NASA launch vehicle programs.

Despite the increases for physical sciences and engineering research, the overall federal investment in basic and applied research would decline 3.3 percent in FY 2007. The reality is that the increases in the three agencies as part of the ACI effort would be offset by cuts in other agency R&D programs. Even the agencies slated for increases will require cuts or eliminations of many programs in their portfolio in a constrained budgetary environment.

CONTINUING AND EMERGING R&D POLICY ISSUES

Innovation and competitiveness will continue to be the dominant themes on the R&D policy agenda this year. The ACI has now joined a myriad of innovation initiatives introduced in the House and Senate. Though they vary in how they will advance America's competitiveness, most share common themes of increasing investment in research and strengthening education.

At this stage there are approximately fifteen proposals in Congress and passage of these bills authorizing new and enhanced education programs, increased research funding, and expansion of the R&D tax credit may be difficult. Multiple committees have jurisdiction over the legislation, and a consensus has not yet emerged between the two chambers on common provisions. Though broad support appears for increasing physical sciences funding, the tight budgets likely create a tradeoff between that funding and any new programs proposed in the innovation bills.

In addition, though two Senate packages have broad bipartisan support, the House initiatives are split along party lines—further reducing the chance for passage in an election year.

Energy security now has also become closely linked to the competitiveness movement. President Bush's State of the Union addressed "America[s] addiction to oil" and featured increased funding for alternative energy sources through the Advanced Energy Initiative. A

POLITICAL AND POLICY CONTEXT FOR THE FY 2007 BUDGET

number of the innovation legislative proposals focus on energy security as well, particularly the need for research and new technology. A secondary benefit is that many of the proposals for reducing imports of foreign oil, such as increased energy efficiency, use of renewables, and nuclear power, would also mitigate climate change.

Climate change science, however, will continue to be a heated subject matter both on and off Capitol Hill. Last year, a Sense of the Senate stating the need for a mandatory system for reducing greenhouse gases passed as part of the Energy bill in 2005. There appears to be a growing recognition by Senators that climate change is occurring, yet consensus does not yet exist on how to address it. Though an international issue, states are leading the way, with many of them establishing greenhouse gas cap and trade programs and stringent emissions standards.

The differing attitudes towards climate change are further complicated by accusations from several prominent climate scientists of alleged interference with scientific results by Administration officials, prompting congressional investigation. NASA and NOAA leaders have responded with calls for openness; NASA is creating a new public affairs policy.

Of concern to many in the NIH and life sciences communities is a trend to defund projects that have undergone peer review. During the past several years, Members have inserted language into the House Labor-HHS appropriations bill report that would remove funding for peer-reviewed projects that they find objectionable and indications are that this practice will not end soon. NIH Director Elias Zerhouni described these actions as "unjustified scientific censorship" and noted that "It undermines the historical strength of American science which is based on our world renowned, apolitical and transparent peer review process."

NASA, despite being a major sponsor of physical sciences research, would see its research funding fall to offset a big increase in development of new space vehicles. Though concerned about the declines in funding for science and aeronautics, Congress is on record supporting the President's Vision for Space Exploration to the moon and Mars in the NASA Authorization bill signed into law in December 2005 – making it difficult to argue against the high costs of these programs.

A trend that could affect the politics of science budgets is a backlash against earmarks in the wake of recent lobbying scandals. Various

proposals to limit earmarks, in both authorization and appropriations bills, have been discussed, as has a Presidential line item veto. Though some R&D agencies have stayed free of earmarks, they are becoming more prevalent in others. R&D earmarks set a new record in 2006, climbing to \$2.4 billion. In energy R&D, DOE biological research, extramural agricultural research, and NOAA R&D, earmarks make up more than 1 out of every 5 R&D dollars. If earmarks are curtailed, the spending power of some agencies would increase even with flat budgets.

FORECAST FOR THE FY 2007 BUDGET AND BEYOND

Though there is excitement in the scientific community for the innovation packages, enactment of authorization bills ultimately must turn vision into hard dollars by appropriators. Physical sciences are expected to do well in the coming years, as future projections include money to double funding within NSF, NIST, and DOE Office of Science (see Chapter 4). The President's endorsement of budget increases this year makes the job of supporting R&D in these agencies far easier for congressional appropriators.

Though the emphasis on fundamental scientific research in an era of competitiveness may help some areas of R&D, its benefits to others are not yet apparent. NIH and NASA, for example, may need to wait longer than most agencies to see the benefits of this movement. Many in the scientific community have noted that it is more difficult to find allies in Congress for NIH, as its budget has been doubled in the recent past. Without substantial additional funding, NASA cannot support all of the items in its portfolio, especially aeronautics, space and earth science research. The commitment of both the Administration and Congress to the Moon-Mars expeditions will likely preclude the growth of R&D until those missions are underway.

If the emphasis on competitiveness continues, however, these agencies will likely benefit in later years, as science and technology finally have a place on the national agenda. Even a few months before the budget was released, the outlook for all R&D was poor; having any increases in the portfolio on the heels of a year in which funding was squeezed in the wake of a war and devastating hurricane shows the power of the focus on innovation. These new initiatives, which have broad political support and backing of industry, provide science funding with new opportunities for growth, even in constrained budget environments.