



2010 FEDERAL RESEARCH & DEVELOPMENT BUDGET ROLLOUT *Overview of the U.S. 2010 Science and Technology R&D Budget*

John Holdren, OSTP Director and Presidential Science Advisor, hosted a session on May 7th at the headquarters of AAAS to present highlights of the president's FY2010 budget in the area of science and technology (S & T). He reported that the total federal budget will be \$3.6 trillion, which includes approximately 33% discretionary spending; only about half of that amount is non-defense discretionary spending. He summarized that S&T has done better than just about any other constituency, using the phrase "the president gets it" to indicate President Obama's realization of the value of S & T for the economic success of the country.

He noted that the American Recovery and Reinvestment Act (ARRA, the "stimulus") included \$20 billion of research and development (R&D), with most of that in R. The FY2010 R & D amount, \$147.6 billion, is a slight increase from the enacted FY2009 budget before ARRA, so the overall change is significantly positive. Research funding of \$59 billion in FY2010 is the second increase after four years of decline. Department of Defense R & D spending (\$80 billion) represents about half of the overall federal R & D with HHS (\$31 billion) and NASA and DOE (each about \$11 billion) next highest in support levels.

The administration is restating its commitment to doubling funding in ten years for the key S&T agencies of NSF, NIST and DOE Office of Science. FY2010 has a 6.1% overall increase in these three areas with completion of the doubling planned for in 2016.

Holdren also announced that Norm Augustine, retired Lockheed executive and lead author of various reports, including *Rising Above the Gathering Storm*, has been appointed to head a group which will review aspects of the country's human space flight activities (http://www.ostp.gov/galleries/press_release_files/NASA%20Review.pdf).

Chris Scolese, NASA Acting Administrator, summarized the budget situation for that agency. The overall increase in FY2010 for NASA was 5.1%, but the R & D increase will be 10%. The Agency plans to complete the shuttle mission with 3 scheduled flights in the present fiscal year and the final 6 flights in the next year. The budget documents indicate that total funding for the Climate Change Science Program (CCSP) will be approximately \$2 billion, an increase of 2.3%. About half of the total will be expended at NASA. ARRA funds, which included \$461 million for CCSP across all agencies, bring the NASA total to \$1.3 billion for CCSP. Basic and applied research at NASA will increase by 8%.

Cora Marrett, NSF Acting Deputy Director, gave the report on that agency. The FY2010 budget for NSF is \$7.0 billion, which represents 8.5% above FY2009 not including the significant funding of the Foundation in the ARRA bill. R&D funding at NSF for FY2010 totals, \$5.3 billion, which is a 9.4% increase from FY2009. She noted the continued plan to triple NSF's support of Graduate Research Fellowships to 3,000 students in 2013. She reported increased support for NSF's CAREER program for recently appointed faculty. Other areas for increased support included computer modeling and simulations. She noted the increase in climate sciences

research for which NSF will have \$300 million in CCSP. She highlighted NSF's support for the Ocean's Observatory project, the new Arctic research vessel and cyber-enabled research to assist in discerning patterns in data. NSF will be establishing a Climate Change Education program aimed at all educational levels from K through graduate. It aims to improve the public's understanding of climate change. NSF will be joining DOE in a Clean Energy initiative which will include the goal of increasing awareness of clean energy and its benefits. She restated the Foundation's commitment to broadening the base of participation to a wide range of Americans.

Jane Lubchenco, NOAA Administrator, spoke for her agency on the budget. The total for NOAA will be \$4.5 billion, of which \$644 million is R&D. NOAA funding for climate R & D will be \$177 million not counting satellites and IT support.

Although not explicitly reported in the session, budget documents indicated that STEM education initiatives will total \$3.7 billion in over 100 programs across federal agencies as identify by the Academic Competitiveness Council. This represents an increase of 2.7% In addition, ARRA included \$276 million in these programs.

When asked about President Obama's goal of 3 % of GDP for R&D, Holdren stated that present levels for government and private spending are about 2.6% of GDP. An increase of approximately \$50 billion will be needed to meet this goal. He did note that recent commitments for energy research will make a major contribution to meeting this goal. He was also asked if S & T programs were in the list of those that the president announced earlier that day for proposed cuts. He answered that his first review indicated that there was nothing on the list which was significantly S & T.

Budget details can be found at: <http://www.ostp.gov/galleries/budget/FY2010RD.pdf>

Andy Jorgensen, Senior Fellow, NCSE