Federal R&D Investments in the 2009 Budget and Beyond

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http://www.aaas.org/spp/rd

See the “What’s New” section for the latest updates; see the “Seminars and Presentations” section for copies of this presentation.
THE FY 2009 BUDGET SITUATION

- Friday night, Congress approved a $790 billion economic recovery bill. The bill could provide an enormous one-time boost in domestic spending. President Obama will sign it shortly.
- Domestic appropriations have barely kept pace with inflation since 2004, and most agencies’ regular 2009 budgets are unfinished.
- There could be an omnibus 2009 appropriations bill at the end of February to wrap up 2009 appropriations.
- Historically, federal R&D investments have closely tracked trends in discretionary spending.
- The federal deficit will exceed $1 trillion in 2009.
Trends in Discretionary Spending, FY 1976-2013
in billions of constant FY 2008 dollars

FY 2008 data are estimates. FY 2009-2013 data are budget projections. FY 2009-
2013 figures exclude Iraq and Afghanistan military costs.

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THE FY 2009 BUDGET

FY 2009 has started, but only 3 departments (DOD, DHS, VA) have their final 2009 budgets.

The remaining federal agencies are operating under a CR (continuing resolution) at or below 2008 levels through March 6.

Congress plans to send the remaining 9 (of 12) 2009 appropriations bills to President Obama later this month or early March in an omnibus bill.

The final economic stimulus bill contains $21.5 billion for R&D spending, $18.0 billion for conduct of R&D and $3.5 billion for R&D facilities construction and large research equipment, which will be added to agencies’ regular 2009 budgets.
2009 Supplemental Recovery Funding for R&D
(House, Senate, and Final bills)
(budget authority in billions of dollars)

Source: AAAS analysis of R&D in House and Senate stimulus appropriations bills.
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MORE ON THE ECONOMIC RECOVERY / STIMULUS

- Four major R&D priorities receive funds in the recovery bill: innovation or competitiveness-related basic research, biomedical research, energy R&D, and climate change.

- Basic competitiveness research: the stimulus would put NSF, DOE Office of Science, and NIST on track to double their budgets over 7 to 10 years, as promised in the Obama campaign and in the America COMPETES Act of 2007.

- Energy and climate are also high priorities: $3.5 billion for DOE energy R&D, $400 million for climate programs in NASA, and $830 million for NOAA.

- Agencies get FY 2009 money, and can obligate the funds through Sept. 2010, though the goal is to spend the money quickly.
Trends in Federal R&D, FY 1976-2009 *

in billions of constant FY 2008 dollars

Source: AAAS analyses of R&D in AAAS Reports VIII-XXXIII. * FY 2009 figures are latest AAAS estimates of FY 2009 request.
R&D includes conduct of R&D and R&D facilities.
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Trends in Research by Agency, FY 1976-2009 *

in billions of constant FY 2008 dollars

Source: AAAS analyses of R&D in annual AAAS R&D reports.
* FY 2009 figures are latest AAAS estimates of FY 2009 request. Research
includes basic research and applied research. 1976-1994 figures are NSF
data on obligations in the Federal Funds survey.
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POTENTIAL IMPACTS

- Federal funding for research could see real increases in 2009 (sustained into 2010) after four years of real cuts.
- The stimulus bill would provide unprecedented federal support for academic facilities and instrumentation, and federal labs.
- NSF and NIH success rates could improve dramatically in FY 2009.
- So far, ideas for federal support for graduate research, training, postdocs, and starting faculty are missing from the economic recovery bill.
National Institutes of Health Budget by Institute, 1998-2009 *

(budget authority in billions of constant FY 2008 dollars)


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National Institutes of Health
Research Project Grants

Source: NIH agency budget justification for FY 2009. Average proposed award size $408,800 in FY 2008. Other years adjusted for inflation.
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National Science Foundation Budget, FY 2000-2009
(budget authority in billions of constant FY 2008 dollars)

Source: National Science Foundation, and latest AAAS estimates of FY 2009 budget. FY 2009 is budget request.
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obligations in billions of constant FY 2008 dollars

Life sciences - split into NIH support for biomedical research and all other agencies' support for life sciences.
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WHERE IS FEDERAL R&D FUNDING HEADED?

- Congress and President Obama could finish FY 2009 appropriations soon with increased funding for key R&D programs.
- The outline of the FY 2010 budget will be released after Feb. 24, and the full FY 2010 budget will be released in April; it will be the first Obama administration budget, and the first to be formulated under current economic conditions.
- There are big questions to be answered about how permanent some of the stimulus spending will be, and how quickly R&D stimulus funding will be spent.
- In the short term, the outlook is good for sustained growth for research funding, especially for innovation/competitiveness, energy, biomedical, and climate change research.
FOR MORE INFORMATION…

The AAAS R&D web site is

www.aaas.org/spp/rd

The AAAS Forum on Science and Technology Policy is 30 April – 1 May 2009 in Washington, DC