

# Federal Support for Research in the 2009 Budget

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AAAS R&D Budget and Policy Program  
[www.aaas.org/spp/rd](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.



## THIS MONTH IN WASHINGTON...

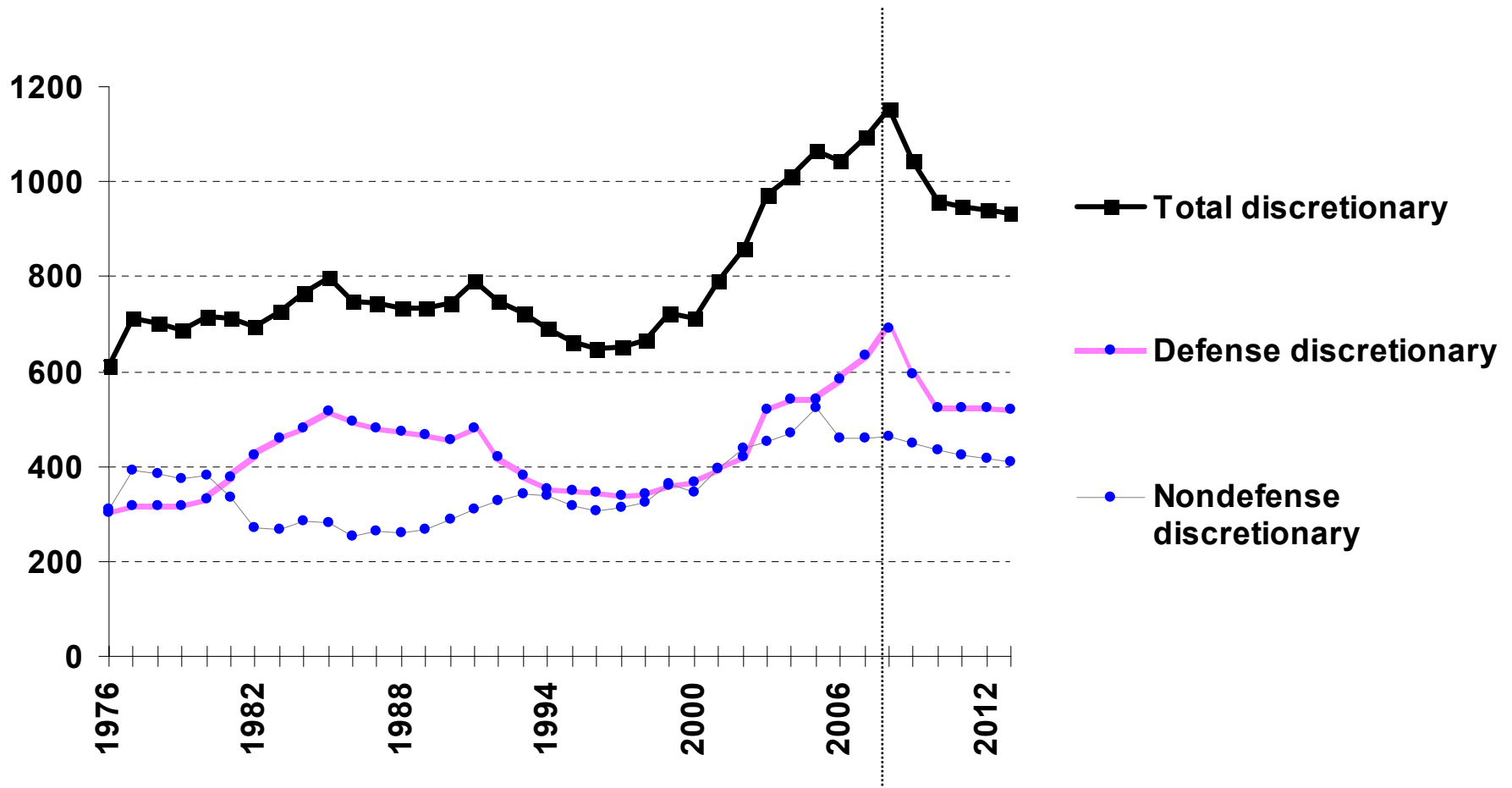
- It's an election year, but Congress and the President still have to agree on a 2009 budget.
- Congress is working on 12 appropriations bills that fund the government's discretionary programs, but Congress and the President are \$21 billion apart on domestic spending.
- A 5-year farm bill and a war supplemental bill are done.

## THE FY 2009 BUDGET

- In February, President Bush proposed a \$3.1 trillion budget for FY 2009.
- To help control the deficit, the President proposes to keep domestic appropriations flat.
- Domestic appropriations barely kept pace with inflation in 2006, 2007, and 2008. Congress would like domestic spending to at least keep pace with inflation in 2009.
- Federal R&D investments come from the discretionary (appropriated) budget.
- The President's budget proposes steep cuts in many domestic programs and several program eliminations; in comparison, R&D programs do very well.

# Trends in Discretionary Spending, FY 1976-2013

in billions of constant FY 2008 dollars



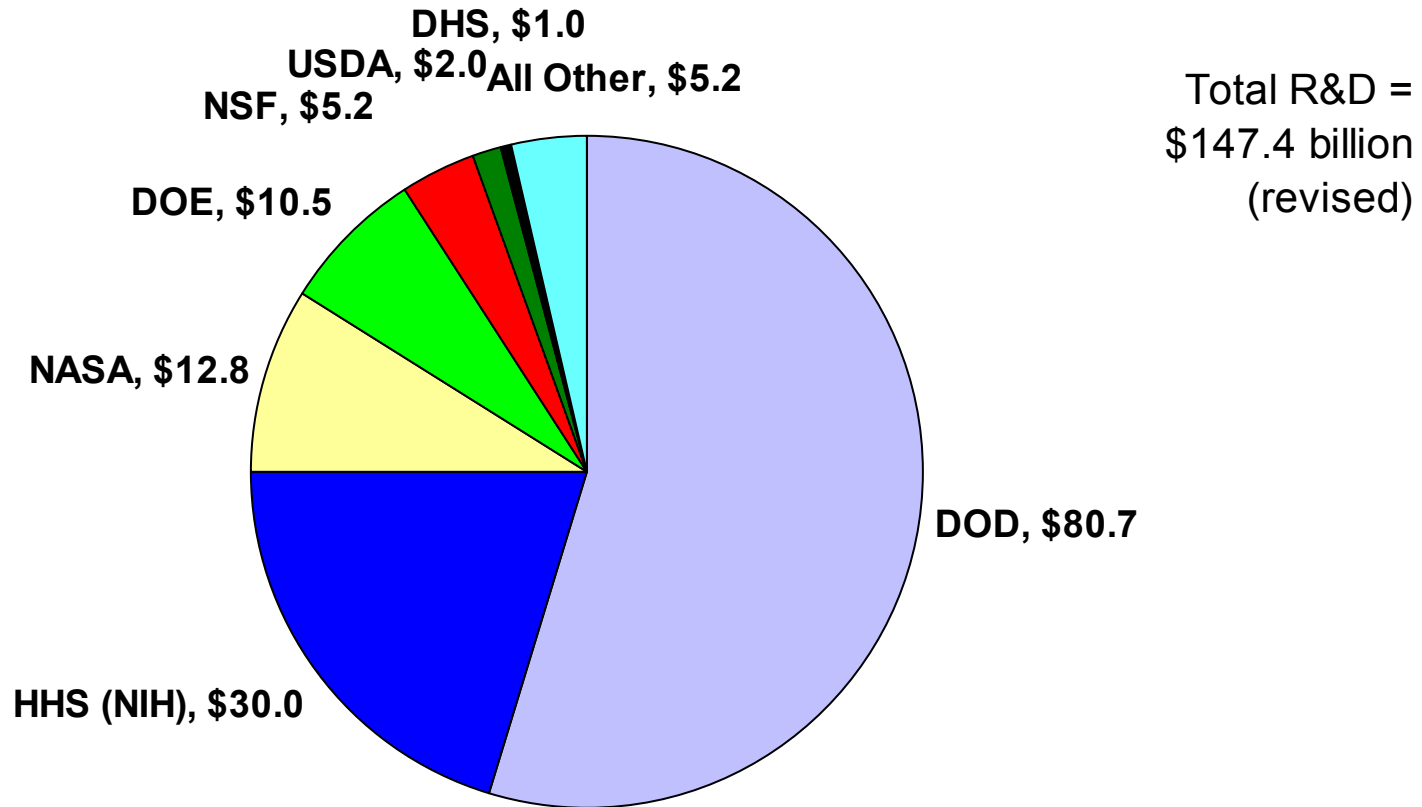
Data in fiscal years. Source: *Budget of the United States Government, FY 2009*.  
FY 2008 data are estimates. FY 2009-2013 data are budget projections. FY 2009-2013 figures exclude Iraq and Afghanistan military costs.  
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## THEMES IN THE BUDGET: INNOVATION AND COMPETITIVENESS

- In response to the “Gathering Storm” report and others, President Bush announced the American Competitiveness Initiative (ACI) in his 2006 State of the Union address.
- There are also several congressional responses, culminating in the America COMPETES Act of August 2007.
- For R&D investments, the theme is boosting federal support for basic research in the physical sciences (broadly defined).
- The plan: Doubling the budgets of NSF, DOE Office of Science, and the NIST laboratories over 7 to 10 years. But 2007 and 2008 appropriations leave the plan off track.

# Total R&D by Agency: FY 2009 Proposed

Budget Authority in billions of dollars



Source: AAAS, based on OMB R&D Budget Data and agency estimates for FY 2009.

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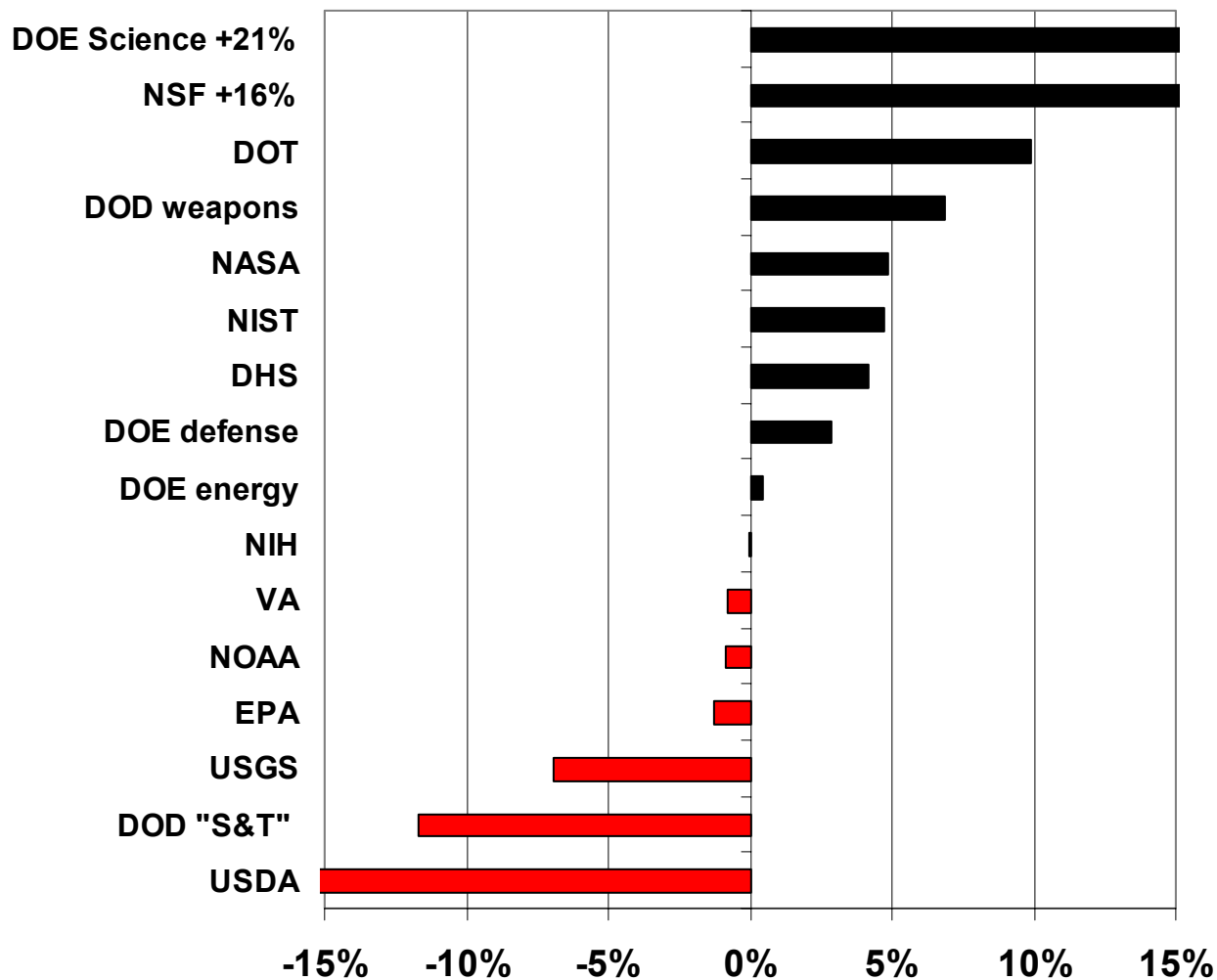


## THE 2009 BUDGET FOR R&D

- The ACI continues for a third year, with large increases for NSF, DOE Science, and the NIST labs to catch up to a 10-year doubling track.
- Again, there would be large increases for DOD weapons and NASA spacecraft development, but also increases for most R&D programs.
- The NIH budget would be flat, and funding for agricultural and environmental R&D agencies would decline.

# FY 2009 R&D Request

## Percent Change from FY 2008



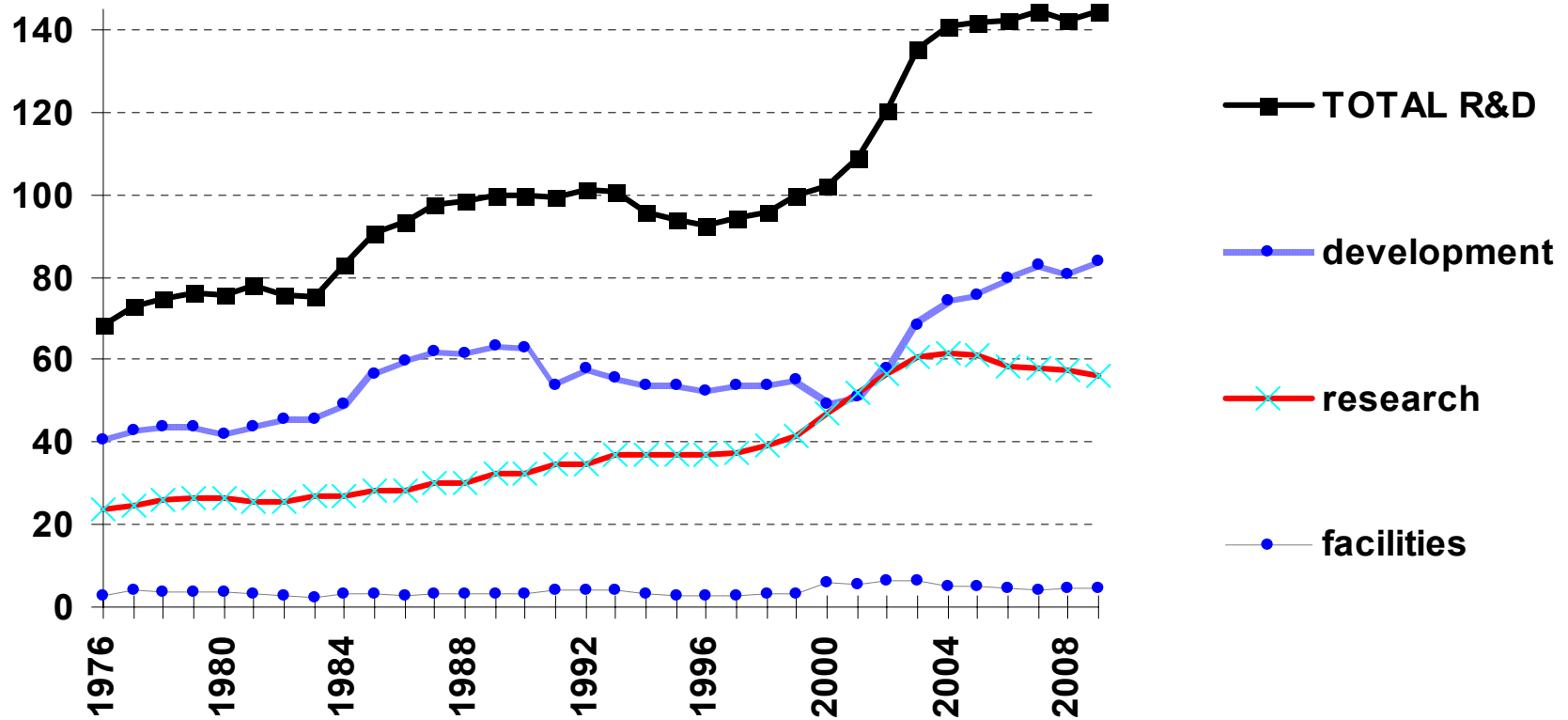
Source: AAAS, based on OMB R&D data and agency estimates for FY 2009.  
 DOD "S&T" = DOD R&D in "6.1" through "6.3" categories plus medical research.  
 DOD weapons = DOD R&D in "6.4" and higher categories.  
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# Trends in Federal R&D, FY 1976-2009 \*

in billions of constant FY 2008 dollars

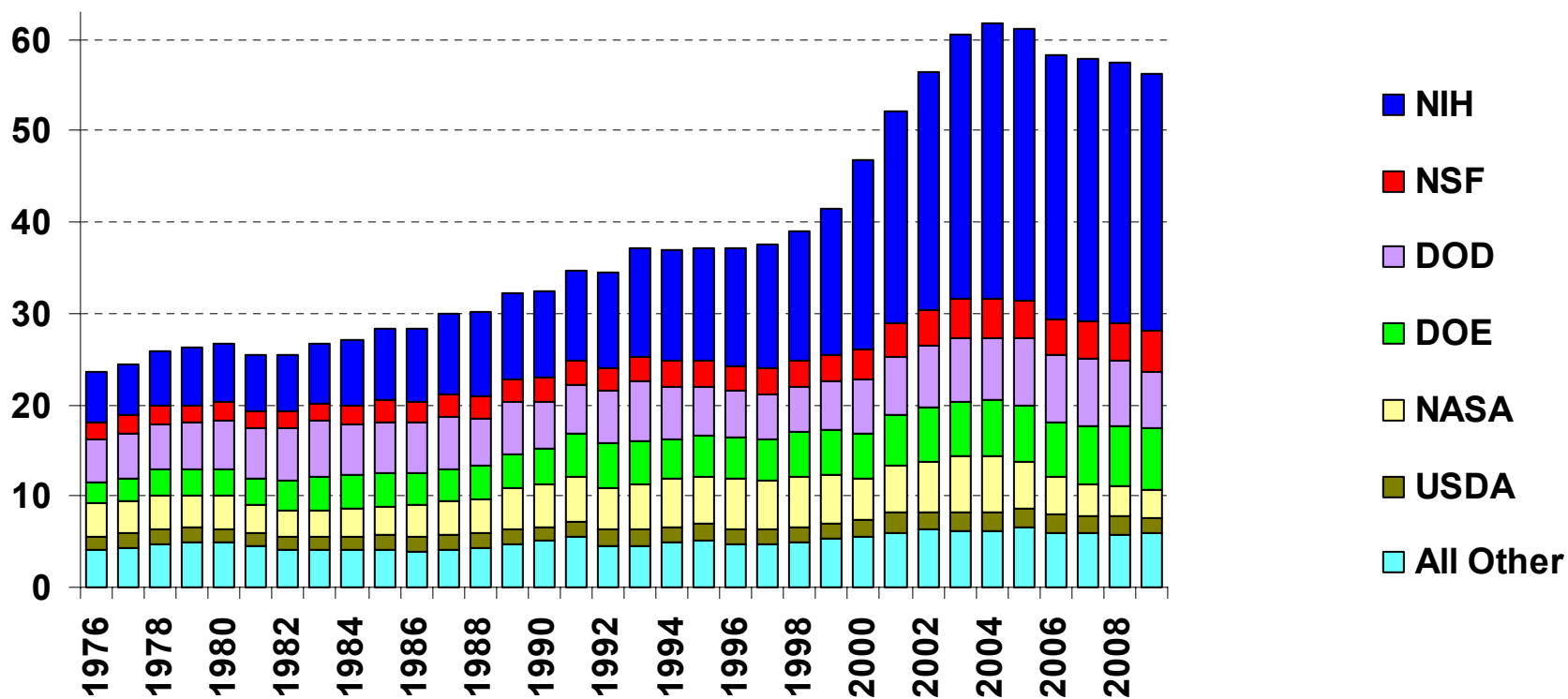


Source: AAAS analyses of R&D in annual AAAS R&D reports. \* FY 2009 figures are latest AAAS estimates of FY 2009 request. R&D includes conduct of R&D and R&D facilities. Data to 1984 are obligations from the NSF Federal Funds survey. GDP figures are from OMB, Budget of the U.S. Government FY 2009.  
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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.

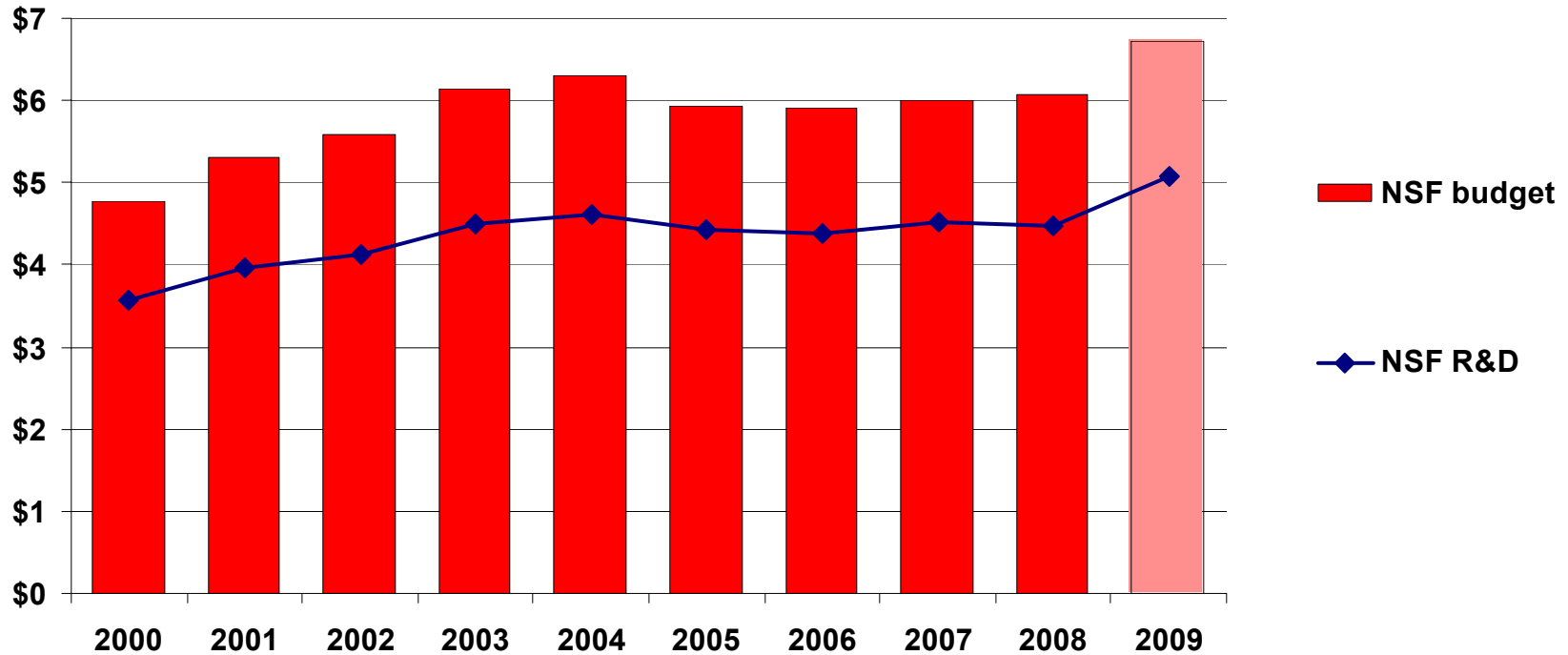
\* FY 2009 figures are latest AAAS estimates of FY 2009 request. Research includes basic research and applied research. 1976-1994 figures are NSF data on obligations in the Federal Funds survey.

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# National Science Foundation Budget, FY 2000-2009

(budget authority in billions of constant FY 2008 dollars)

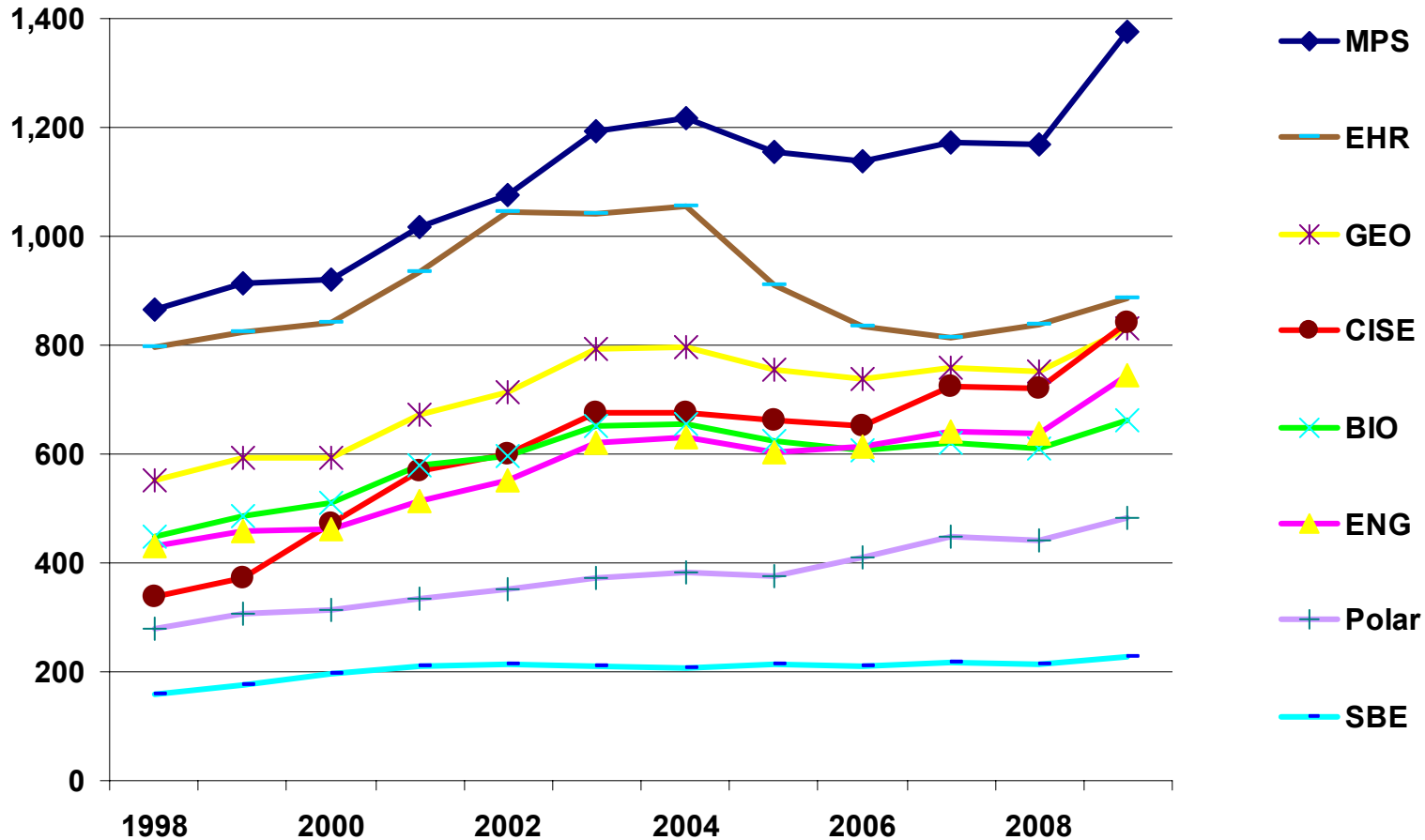


Source: National Science Foundation, and latest AAAS estimates of FY 2009 budget. FY 2009 is budget request.  
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# NSF Budget by Directorate, FY 1998-2009

(budget authority in millions of constant FY 2008 dollars)



Source: National Science Foundation data. FY 2009 figures are President's request.

CISE includes new Office of Cyberinfrastructure.

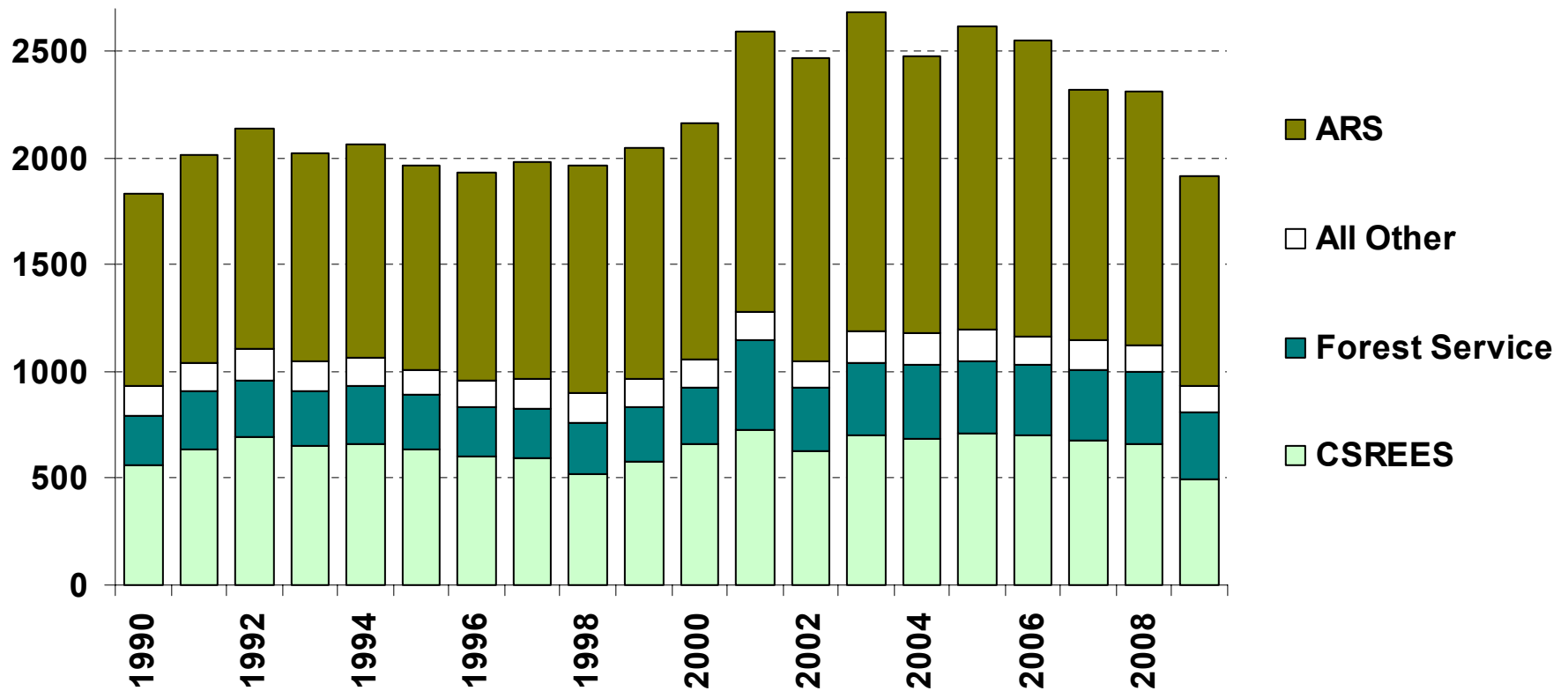
R&D and non-R&D components included in directorate budgets.

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# Trends in USDA R&D, FY 1990-2009 \*

in millions 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.

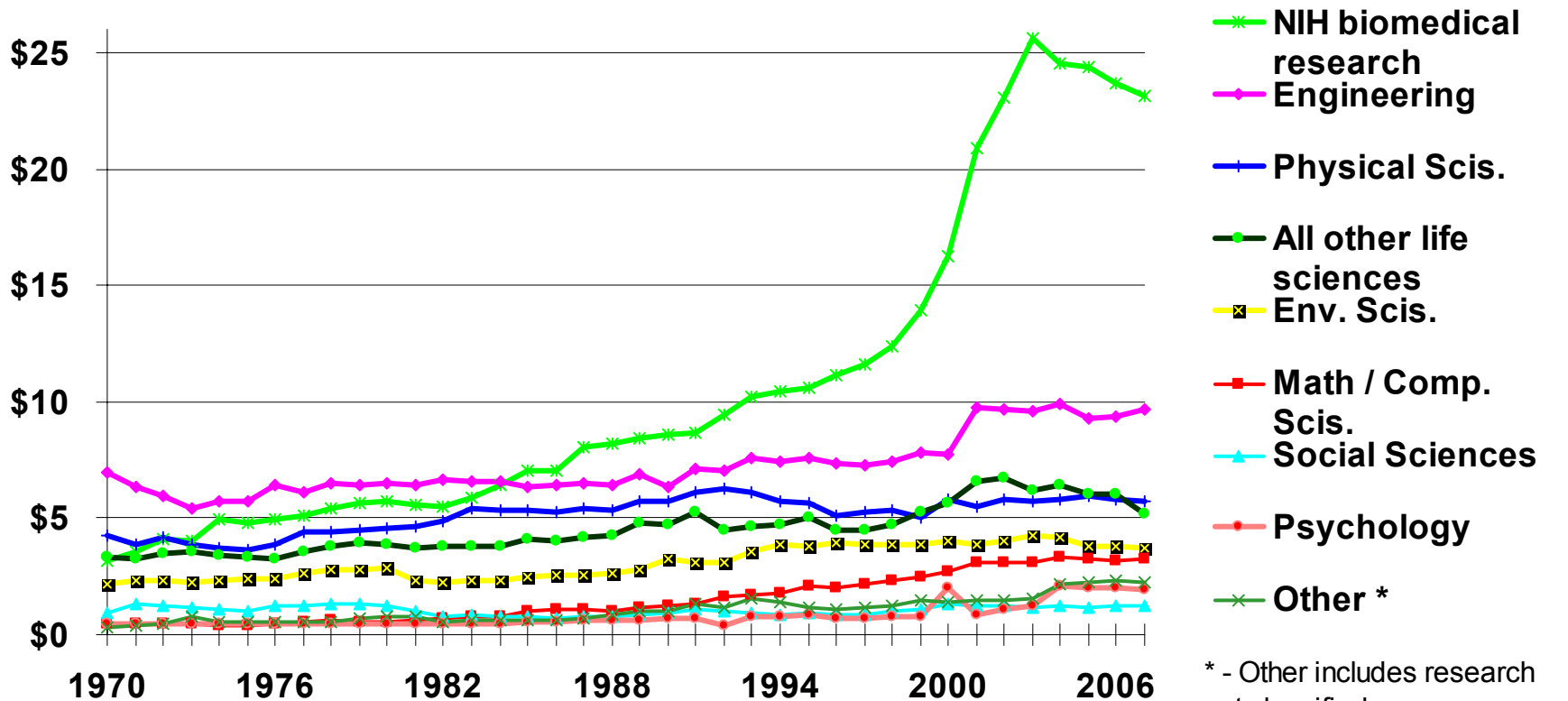
R&D includes conduct of R&D and R&D facilities.

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# Trends in Federal Research by Discipline, FY 1970-2007

obligations in billions of constant FY 2008 dollars



\* - Other includes research not classified (includes basic research and applied research; excludes development and R&D facilities)

Life sciences - split into NIH support for biomedical research and all other agencies' support for life sciences.  
 Source: National Science Foundation, *Federal Funds for Research and Development FY 2005, 2006, 2007, 2008*. FY 2006 and 2007 data are preliminary. Constant-dollar conversions based on OMB's GDP deflators. FEB. '08 © 2008 AAAS



## 2009 APPROPRIATIONS IN CONGRESS

- This month, Congress is making progress on 2009 appropriations bills providing annual program-by-program funding levels for domestic and defense programs.
- Congress is working from a budget plan providing \$1.013 trillion for appropriations - \$21 billion more than the President's request.
- Policymakers of both parties support increased research spending, but the problem is finding the resources.
- The goal is to complete all appropriations by October 1, but lawmakers are openly admitting it won't happen. President Bush has threatened to veto any bills that exceed his request. Progress will grind to a halt in September.
- 2009 appropriations may not be done until after the November elections, or after the inauguration.

## FOR MORE INFORMATION...

The AAAS R&D web site is  
[www.aaas.org/spp/rd](http://www.aaas.org/spp/rd)

# AAAS REPORT XXXIII

Research & Development FY 2009

Intersociety Working Group

