

Federal R&D Funding in the 2009 Budget

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for the Vanderbilt Federal Forum

AAAS R&D Budget and Policy Program

<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.

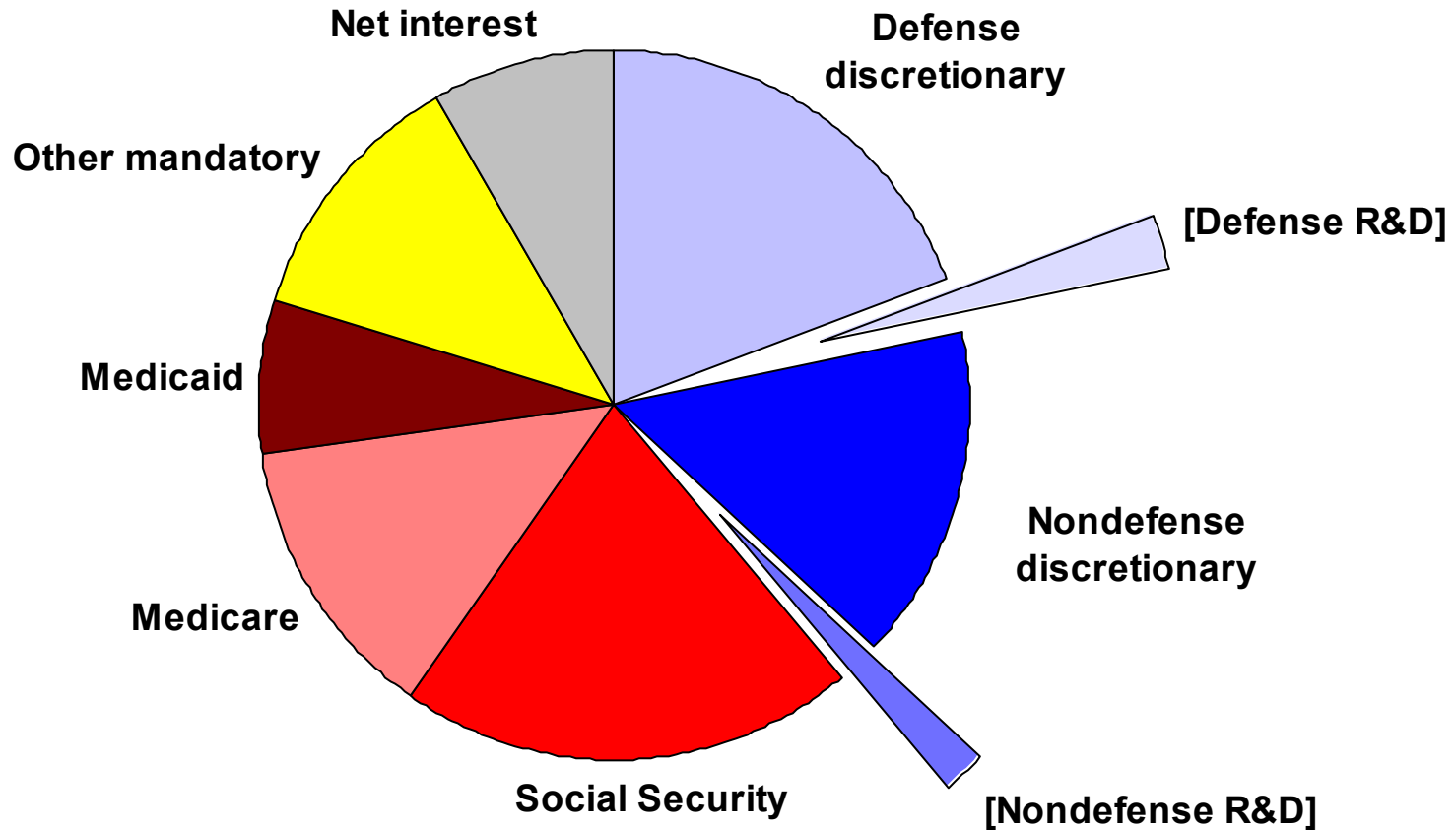


THE 2009 FEDERAL BUDGET

- The President has proposed a \$3.1 trillion budget for FY 2009.
- To help control the deficit, the President proposes to keep domestic appropriations flat, and leaves most 2009 war funding out of the budget.
- Most federal support to universities comes from domestic appropriations.

Composition of the Proposed FY 2009 Budget

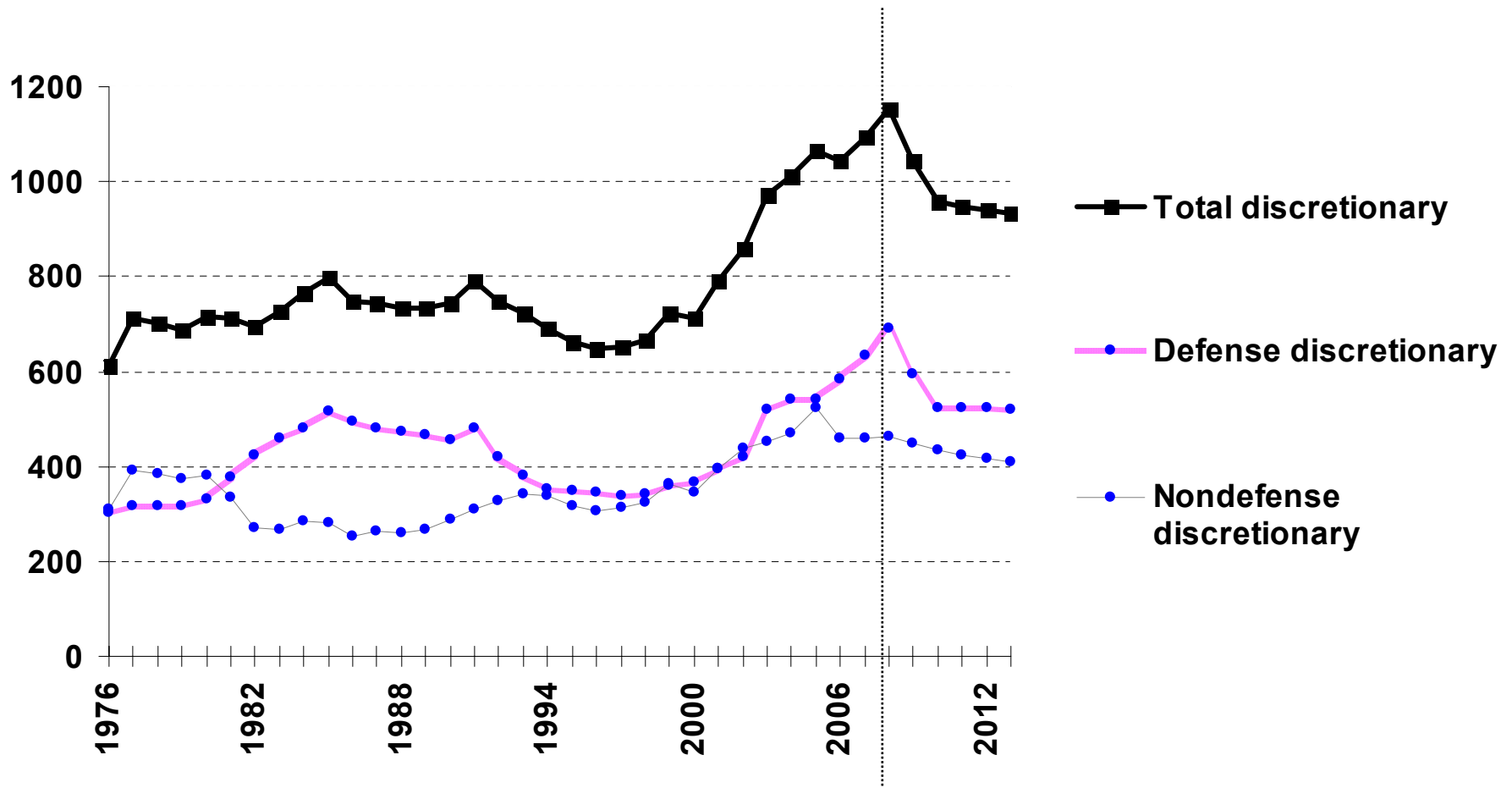
Total Outlays = \$3.1 trillion



Note: Projected Unified deficit is \$407 billion.
Figures exclude most Iraq and Afghanistan military costs.
Source: AAAS, based on *Budget of the United States Government FY 2009*.
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Trends in Discretionary Spending, FY 1976-2013

in billions of constant FY 2008 dollars



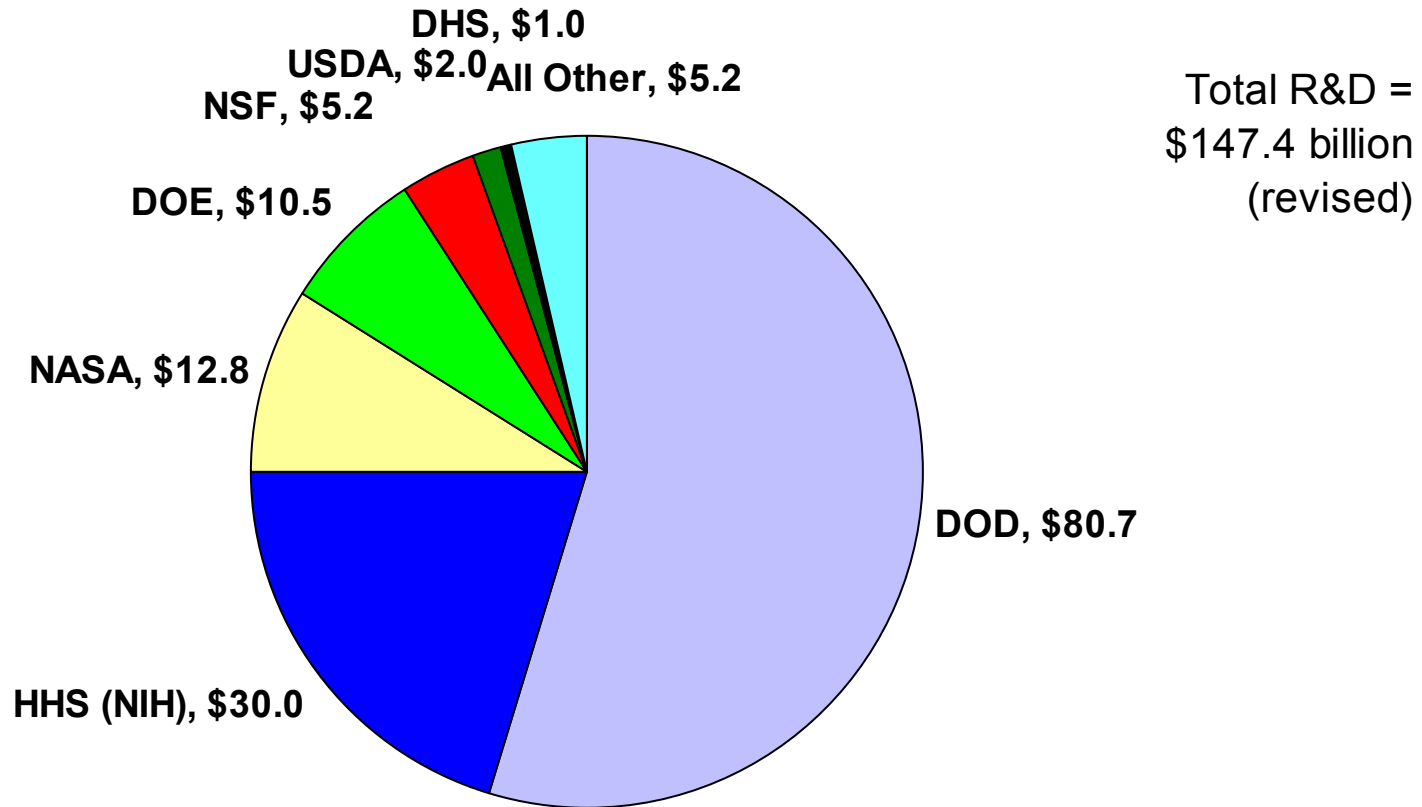
Data in fiscal years. Source: *Budget of the United States Government, FY 2009*.
FY 2008 data are estimates. FY 2009-2013 data are budget projections. FY 2009-2013 figures exclude Iraq and Afghanistan military costs.
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THE 2009 BUDGET FOR R&D

- The American Competitiveness Initiative (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.
- There would be large increases for DOD weapons and NASA spacecraft development, but also increases for most R&D programs.
- But the NIH budget would be flat, agricultural and environmental R&D agencies would decline.

Total R&D by Agency: FY 2009 Proposed

Budget Authority in billions of dollars



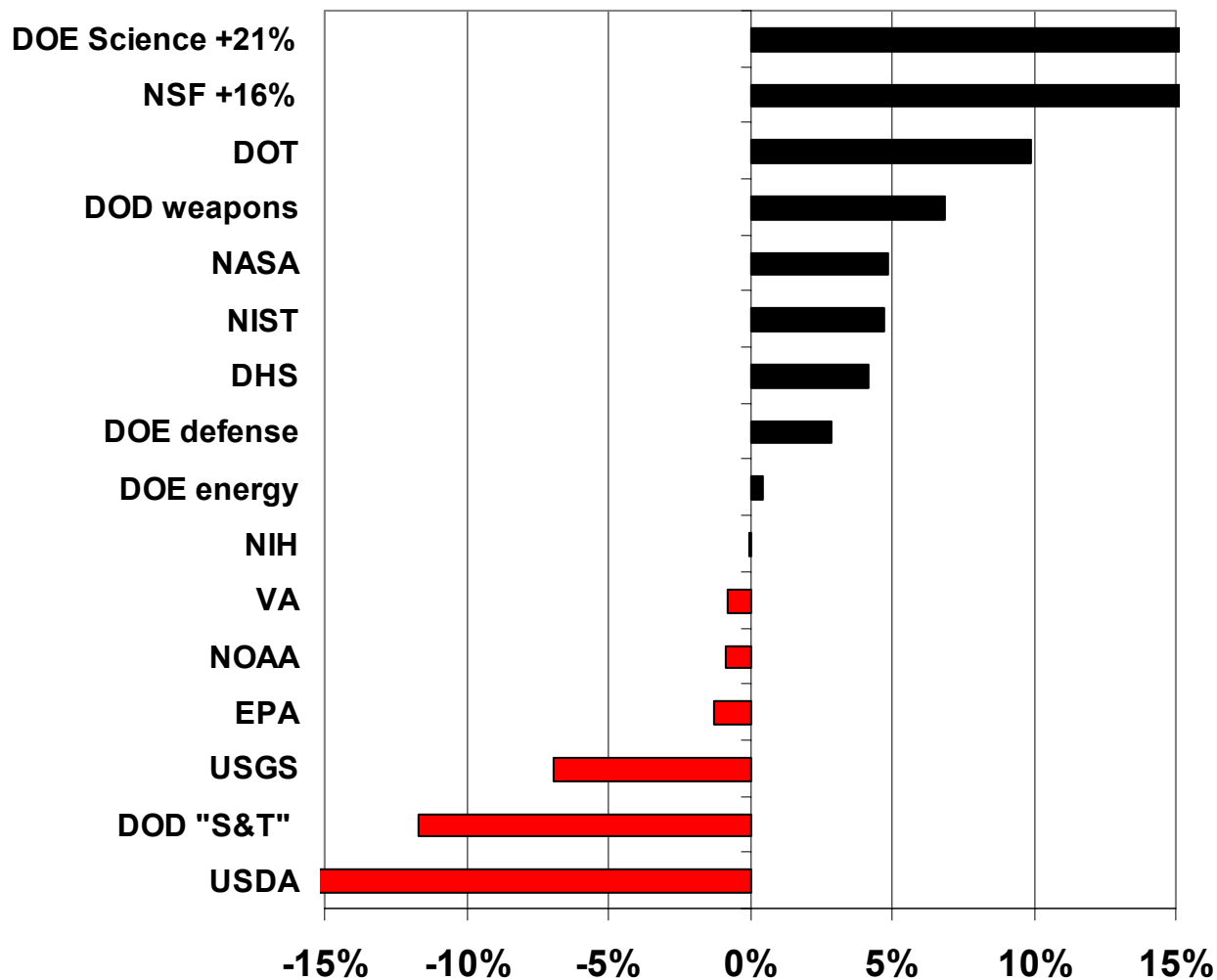
Source: AAAS, based on OMB R&D Budget Data and agency estimates for FY 2009.

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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.

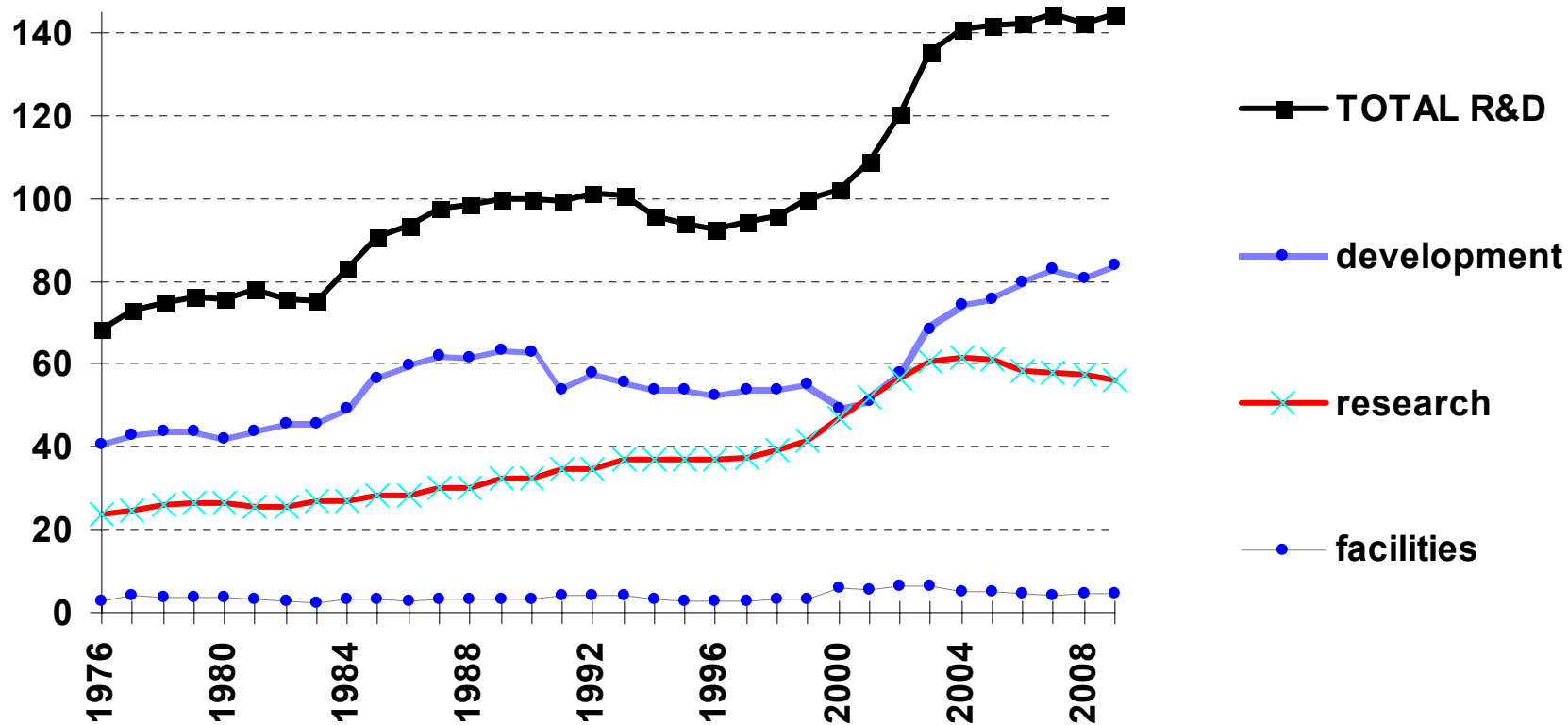
DOD weapons = DOD R&D in "6.4" and higher categories.

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Trends in Federal R&D, FY 1976-2009 *

in billions of constant FY 2008 dollars



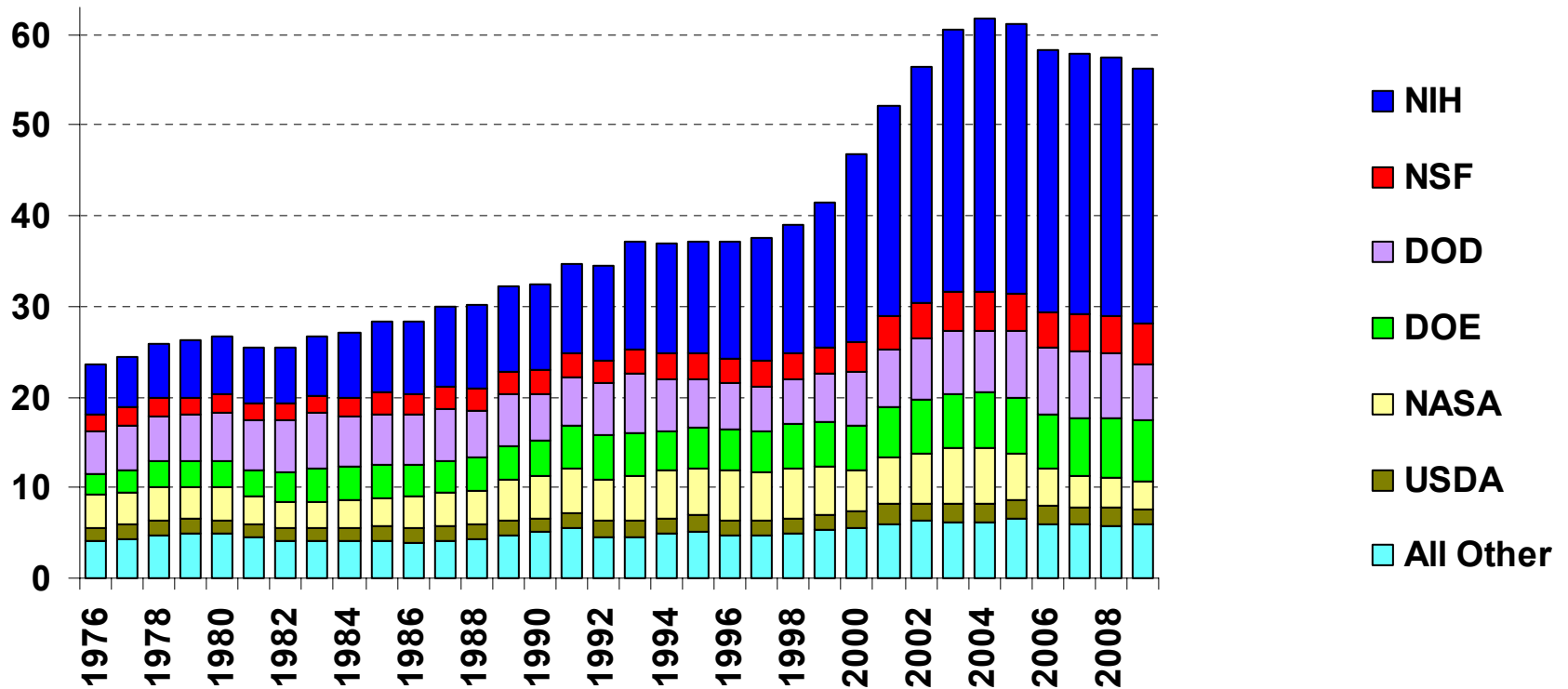
Source: AAAS analyses of R&D in annual AAAS R&D reports. * FY 2009 figures are latest AAAS estimates of FY 2009 request. R&D includes conduct of R&D and R&D facilities. Data to 1984 are obligations from the NSF Federal Funds survey. GDP figures are from OMB, Budget of the U.S. Government FY 2009.

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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.

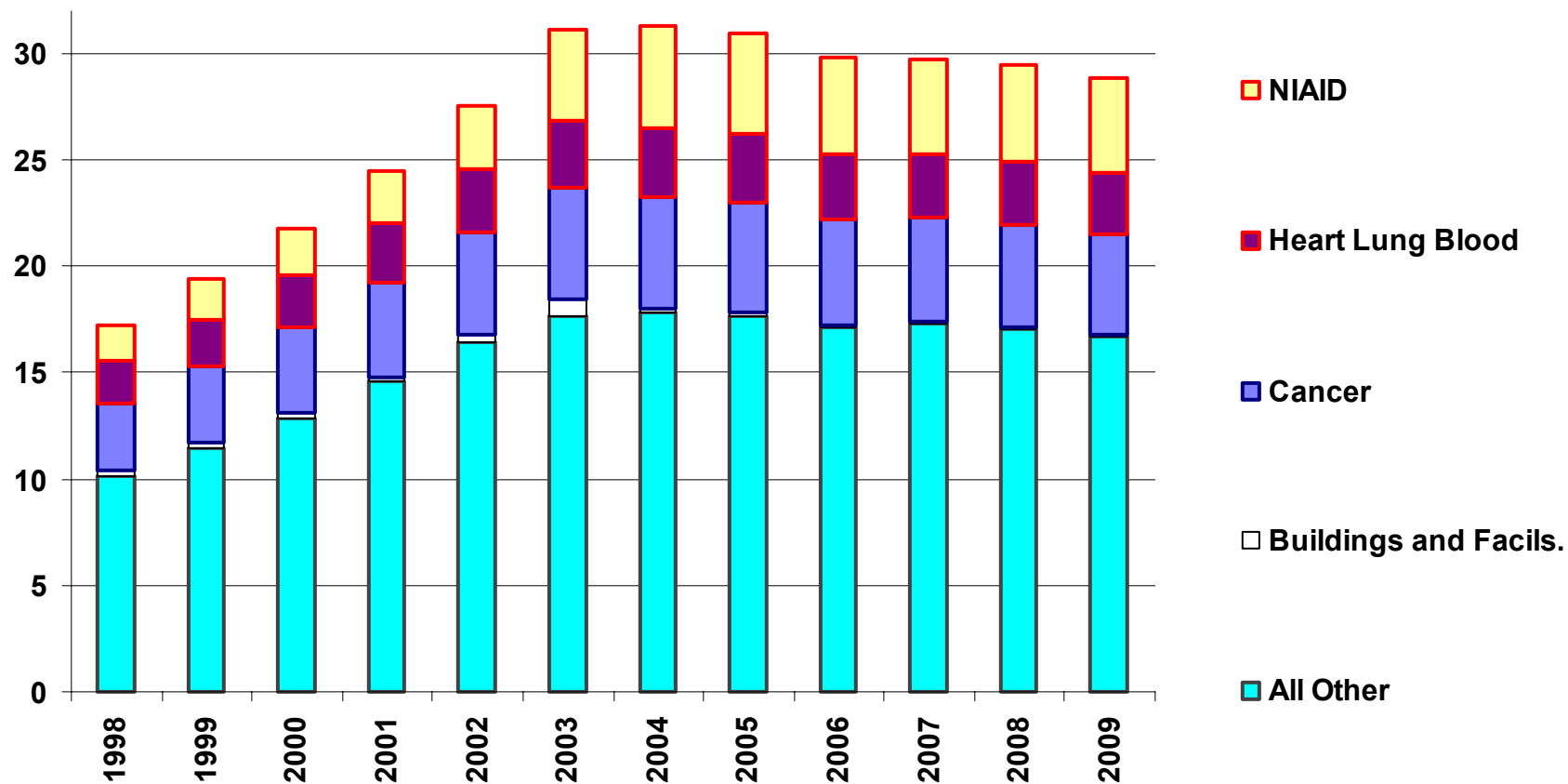
* FY 2009 figures are latest AAAS estimates of FY 2009 request. Research includes basic research and applied research. 1976-1994 figures are NSF data on obligations in the Federal Funds survey.

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National Institutes of Health Budget by Institute, 1998-2009 *

(budget authority in billions of constant FY 2008 dollars)

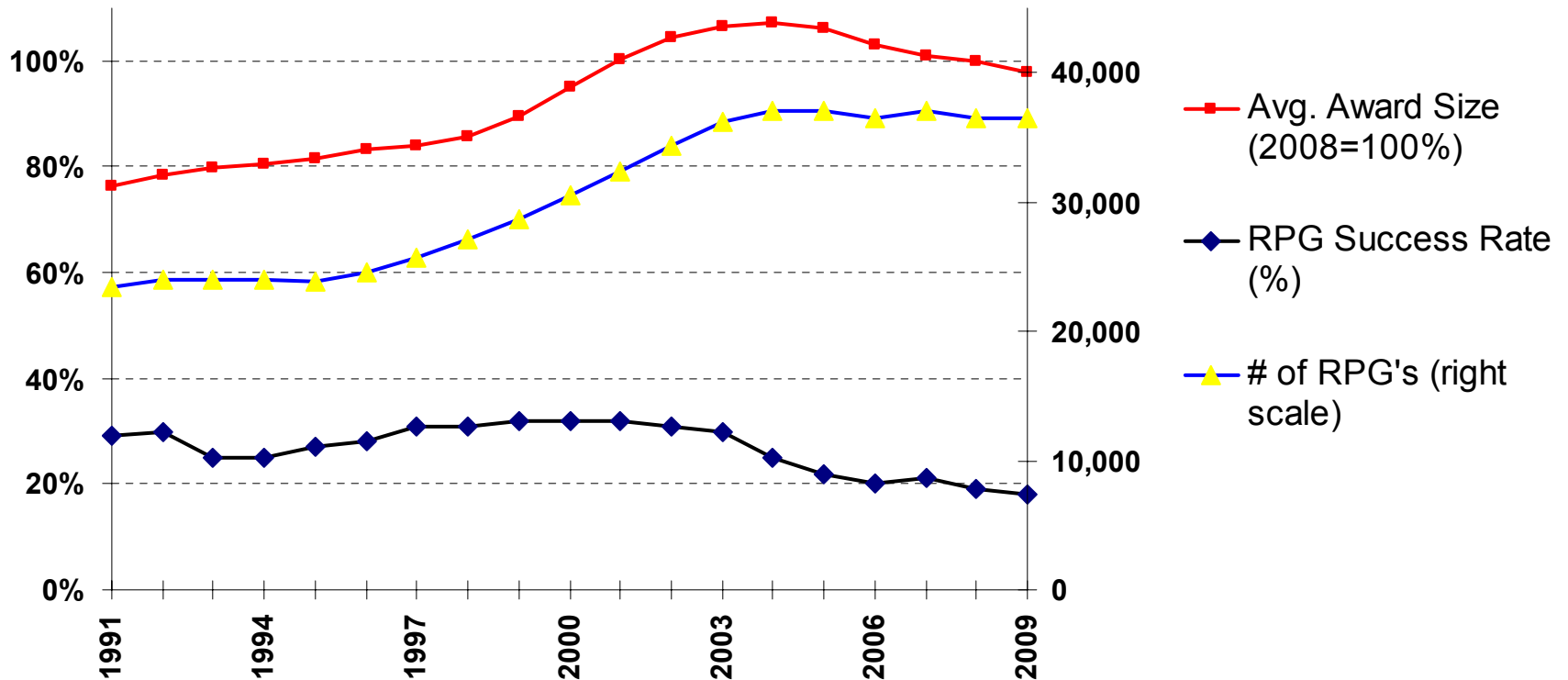


Source: AAAS R&D reports from NIH budget documents 1998-2009. * 2009 is latest AAAS estimates of FY 2009 request. Adjusted for inflation using OMB's GDP deflators.

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National Institutes of Health Research Project Grants



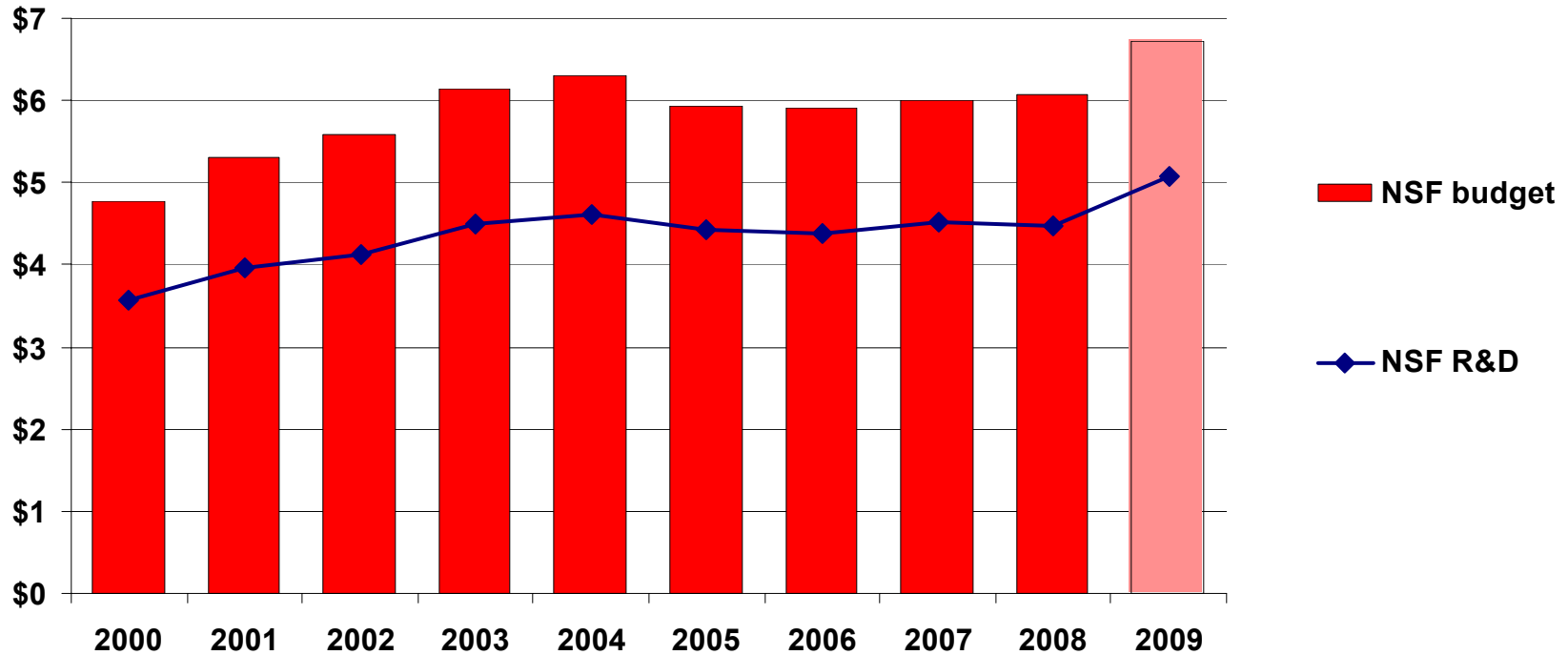
Source: NIH agency budget justification for FY 2009. Average proposed award size \$408,800 in FY 2008. Other years adjusted for inflation.

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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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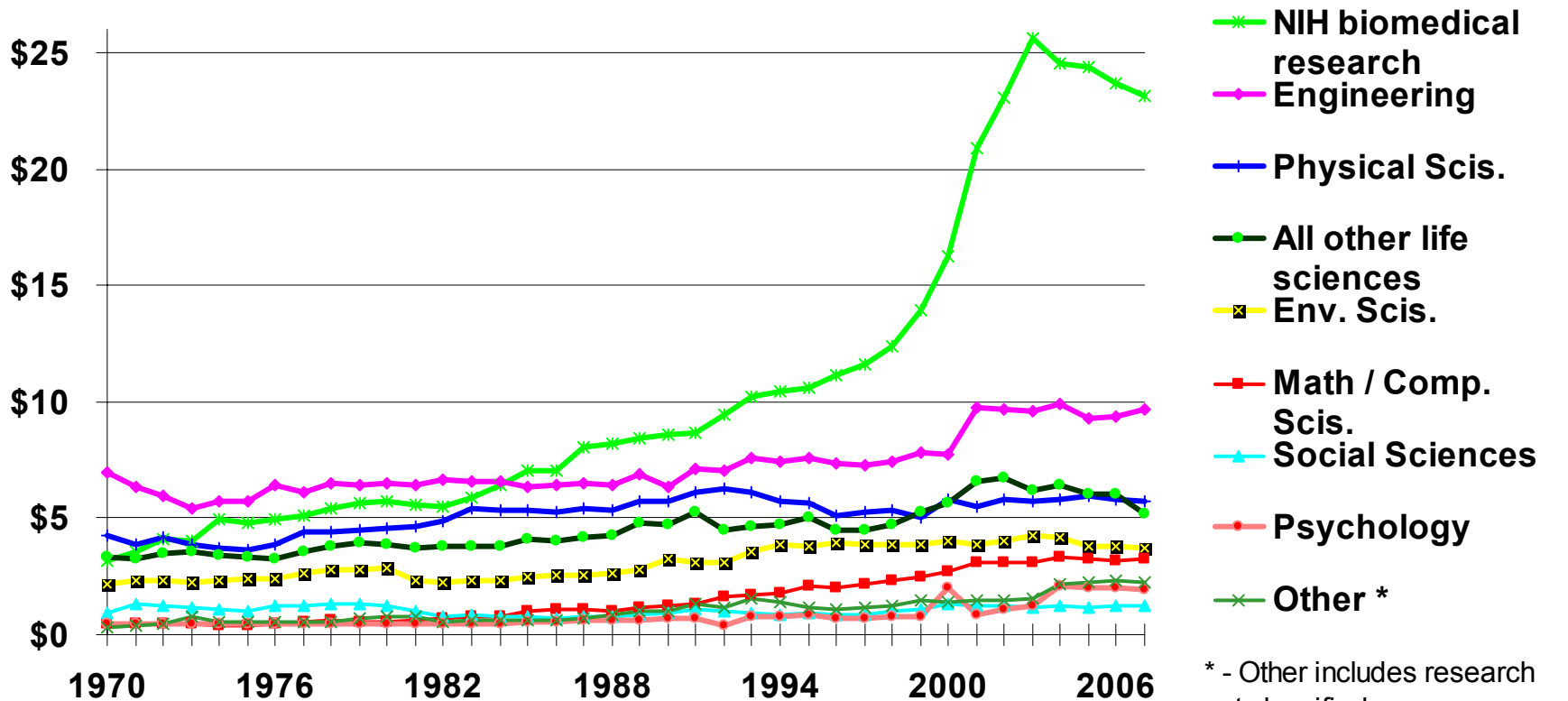


THE FY 2009 BUDGET AND VANDERBILT

- The 2009 proposed increases do not change the overall trends of declining federal support for research, especially health research.
- Vanderbilt ranks #23 in federal R&D to universities (\$281 million in '05).
- Vanderbilt is especially dependent on federal funds: 80% of Vanderbilt R&D is funded by the federal government, compared to 63% nationally.
- 90% of Vanderbilt's federal R&D comes from NIH; 5% from NSF, so Vanderbilt is especially vulnerable to NIH funding trends.

Trends in Federal Research by Discipline, FY 1970-2007

obligations in billions of constant FY 2008 dollars



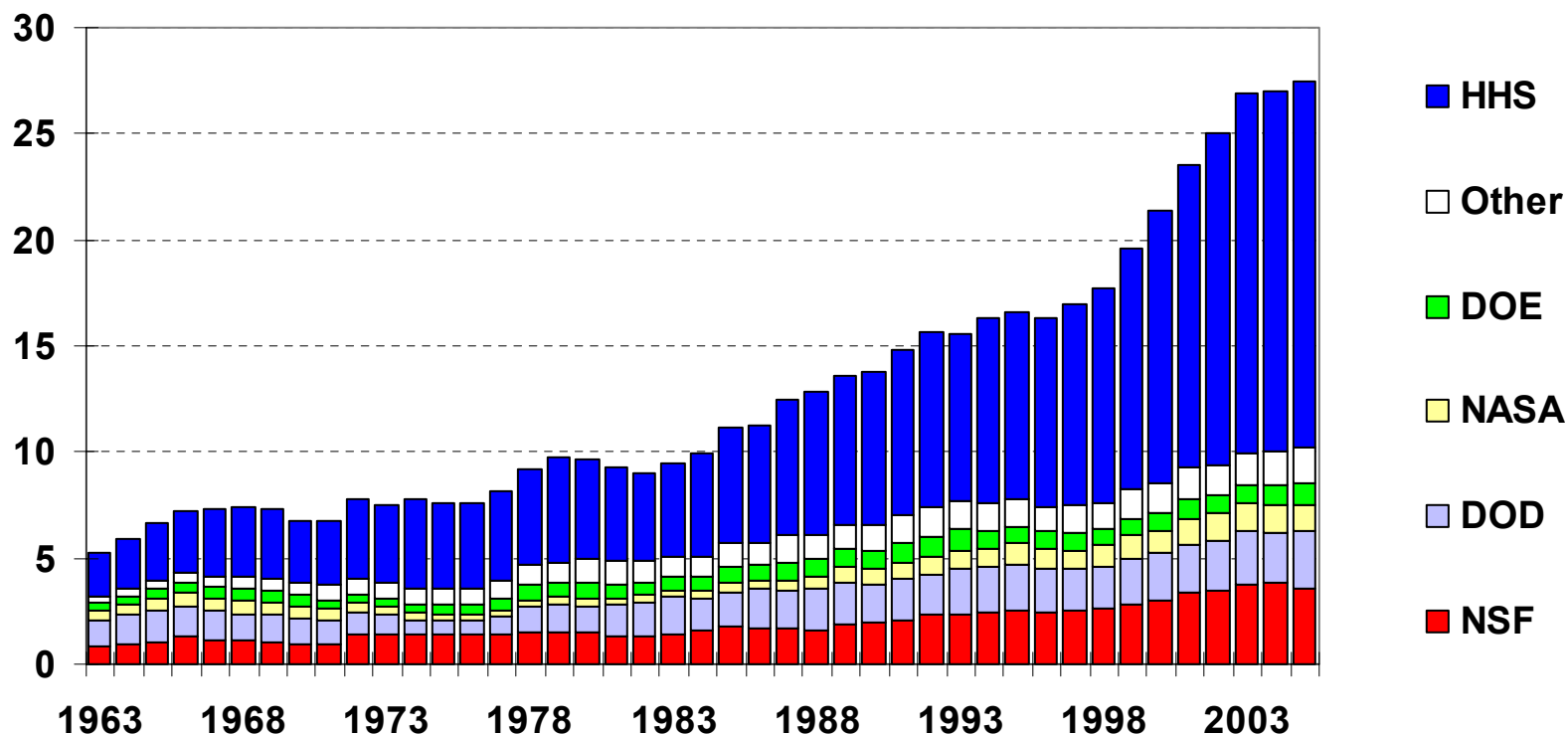
* - Other includes research not classified (includes basic research and applied research; excludes development and R&D facilities)

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



Federal R&D Funding to Colleges and Universities FY 1963-2005

Obligations by agency in billions of constant FY 2008 \$



Source: AAAS, based on NSF, *Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions, FY 2005, 2007.*

R&D includes research, development, and R&D facilities support. Constant-dollar conversions based on OMB's GDP deflators.

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WHAT'S NEXT?

- Congress is considering the FY 2009 budget resolution, which could boost domestic appropriations by up to \$24 billion over the President's request. But the President has threatened to veto any appropriations that exceed his request.
- If Congress is forced to stay with the President's total, then ACI and other increases will be trimmed to shore up funding for other domestic programs, as in 2008.
- Many of these proposed R&D increases are authorized in the America COMPETES Act and other legislation, but the problem is in finding the resources.
- The Appropriations Committees will try to write and pass 12 2009 appropriations bills. But Congress is already considering delaying appropriations until the next President is in office.

FOR MORE INFORMATION...

The AAAS R&D web site is
www.aaas.org/spp/rd

The AAAS Forum on
Science and Technology
Policy is 8-9 May 2008
in Washington, DC

AAAS REPORT XXXIII

Research & Development FY 2009

Intersociety Working Group

