



AMERICAN ASSOCIATION FOR THE
ADVANCEMENT OF SCIENCE

Federal Funding for Engineering Research

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May 2, 2003

U.S. National Committee on Theoretical and Applied
Mechanics

See <http://www.aaas.org/spp/rd> for more

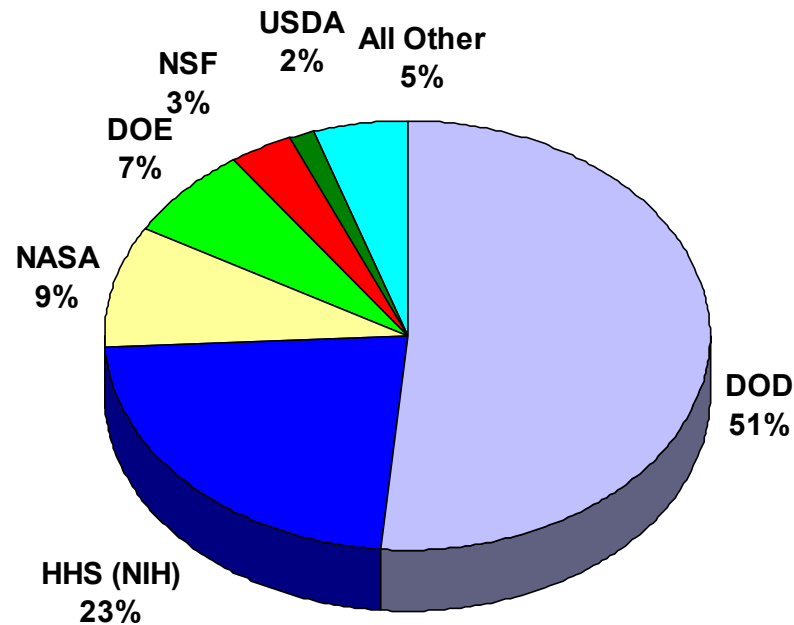
(see the “What’s New” section for the latest AAAS R&D analyses; see “Seminars and Presentations”
section for copies of these charts)

Science & Policy Programs



Total R&D by Agency: FY 2004 Proposed

Budget Authority in billions of dollars



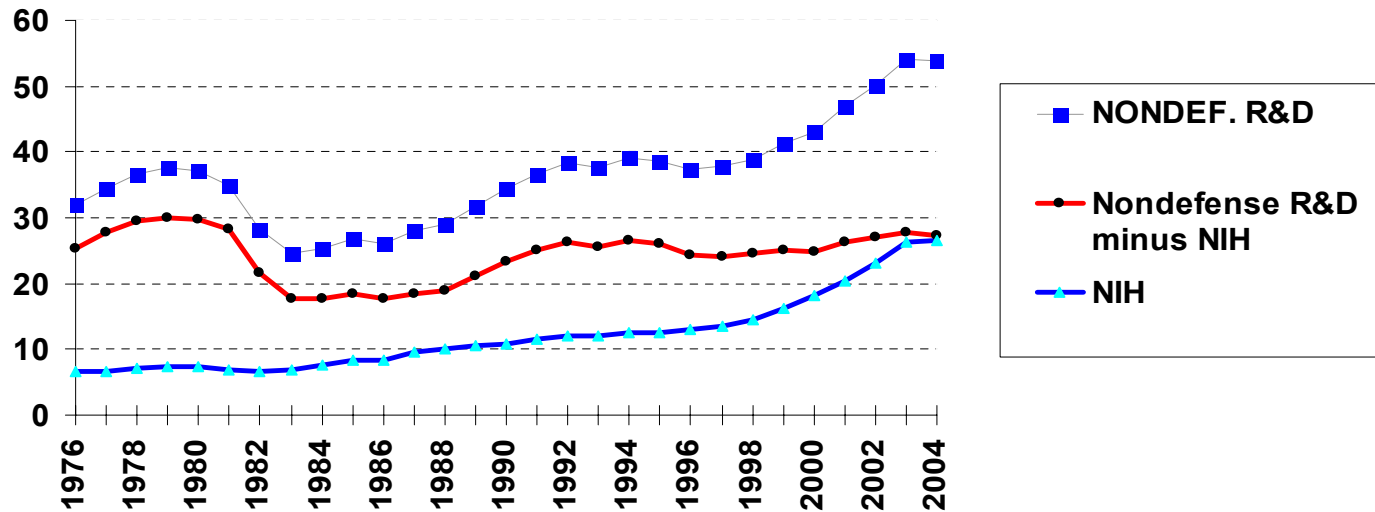
Source: AAAS, based on OMB R&D Budget Data and agency estimates





Selected Trends in Nondefense R&D, FY 1976-2004

in billions of constant FY 2003 dollars



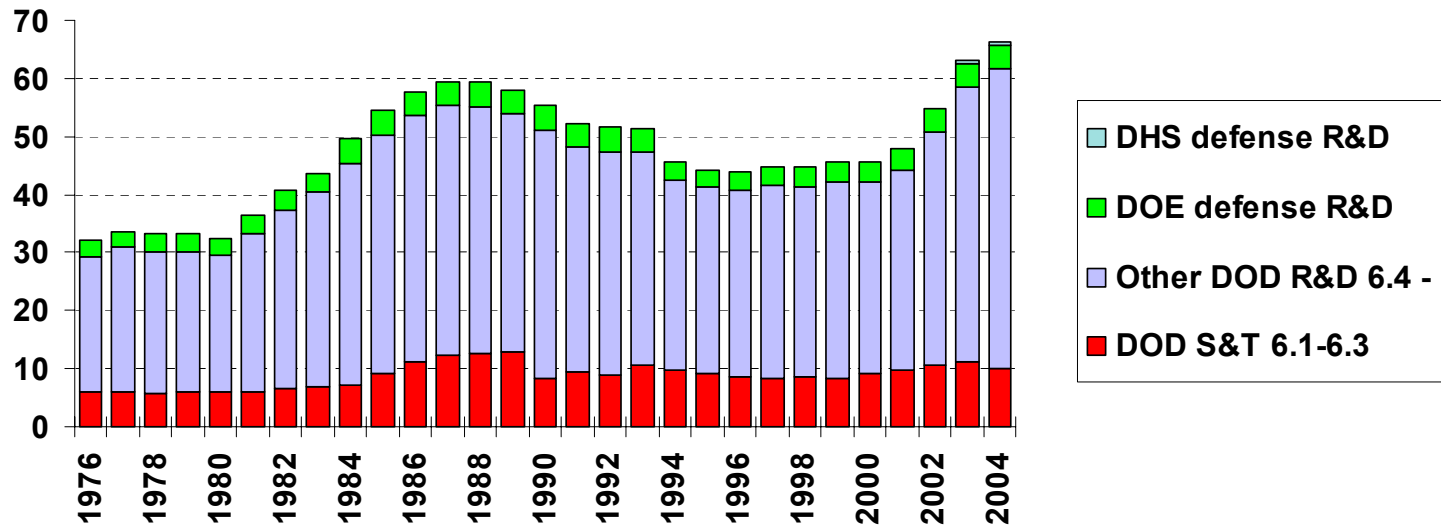
Source: AAAS analyses of R&D in AAAS Reports VIII-XXVIII. FY 2004 figures are President's request; FY 2003 figures are AAAS estimates of final FY 2003 appropriations. FEB. '03 REVISED © 2003 AAAS





Trends in Defense R&D, FY 1976-2004

in billions of constant FY 2003 dollars



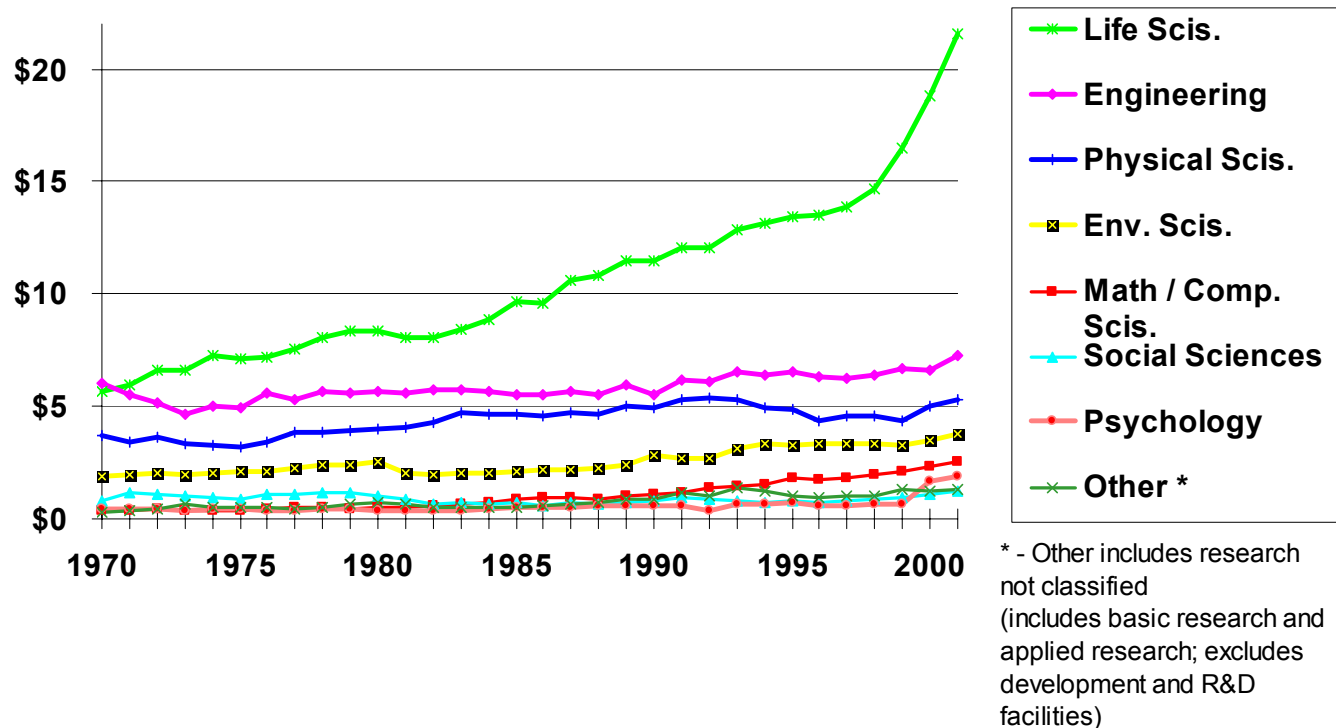
Source: AAAS analyses of R&D in *AAAS Reports I-XXVIII*. FY 2004 figures are President's request; FY 2003 figures are latest estimates. DOD S&T figures are not strictly comparable for all years because of changing definitions. Includes conduct of R&D and R&D facilities.
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Trends in Federal Research by Discipline, FY 1970-2001

obligations in billions of constant FY 2002 dollars



Source: National Science Foundation, *Federal Funds for Research and Development FY 2000, 2001, and 2002, 2002*. FY 2001 data are preliminary. Constant-dollar conversions based on OMB's GDP deflators.
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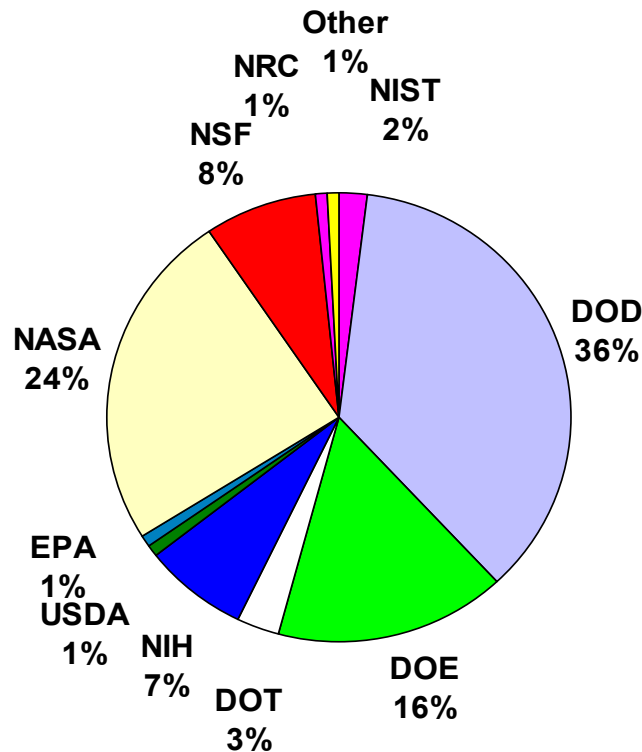


Federal support of engineering research

- \$7.0 billion investment in FY '02, small increases in '03 and '04
- DOD, DOE, NASA, and NSF are major sponsors
- For universities, NIH is also a major funding source
- Data come from NSF surveys



Engineering Research in the FY 2002 Budget (preliminary obligations)



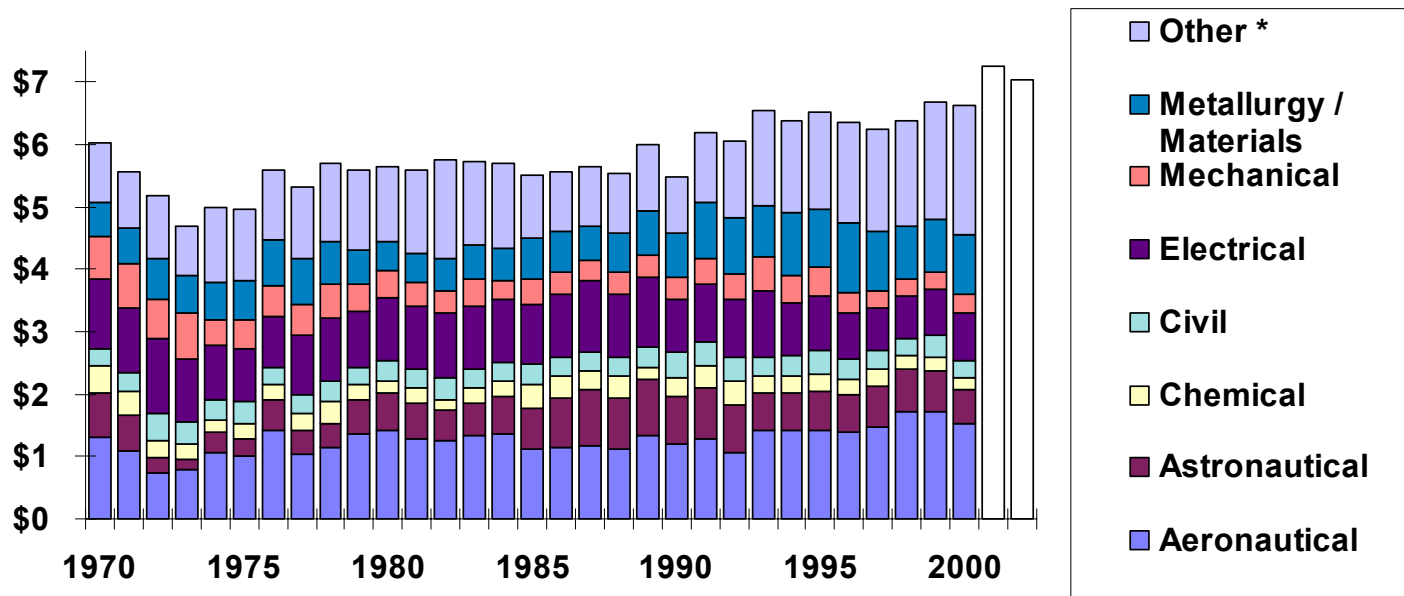
Total Engineering
Research :
\$7.0 billion
(includes basic
research and
applied research)

Army = 6% of total
Navy = 8%
Air Force = 10%
Defense Agencies = 13%



Federal Support of Engineering Research, 1970-2002 :

obligations in billions of constant FY 2002 \$



Source: National Science Foundation, *Federal Funds for Research and Development FY 2000, 2001, and 2002, 2002.*

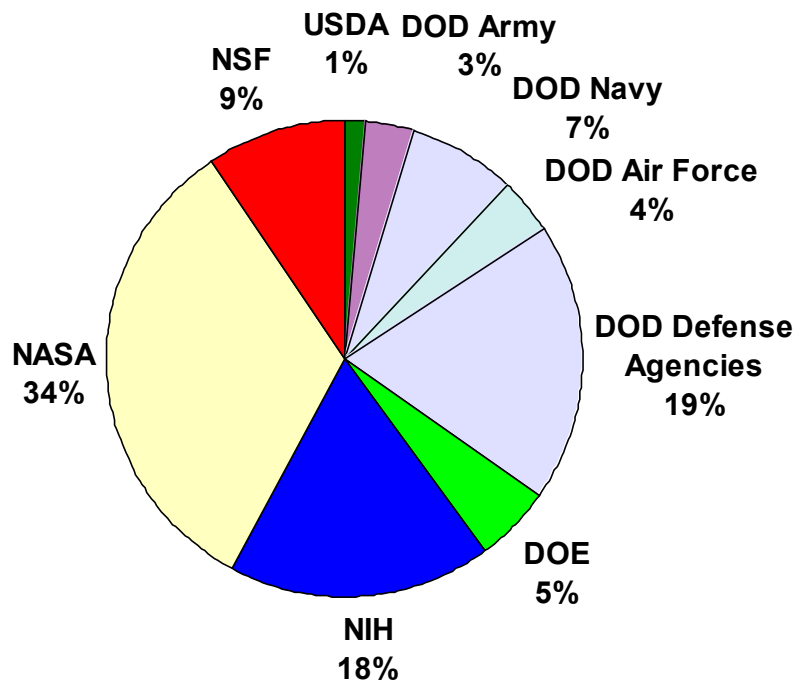
* Other includes engineering research not elsewhere classified.

Excludes engineering work classified as development and R&D facilities.





ACADEMIC Engineering Research in the FY 2002 Budget (preliminary obligations)



Total Engineering
Research :
\$1.3 billion.

Data are for
USDA, DOD,
DOE, HHS, NASA,
and NSF only.

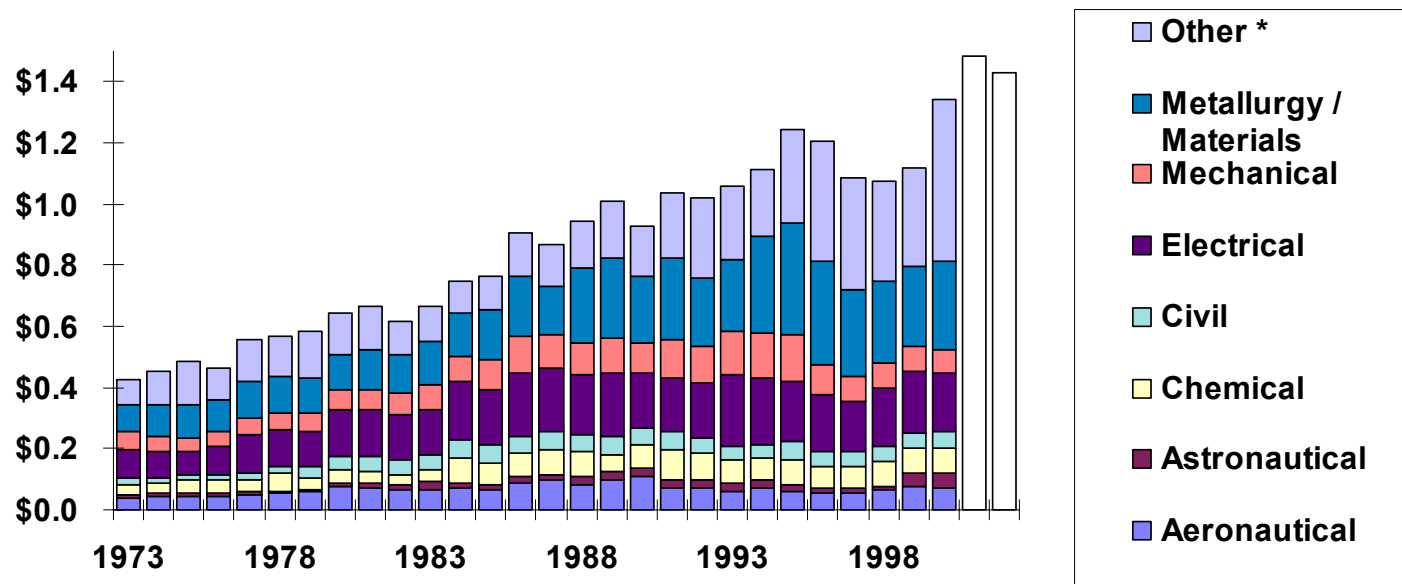
Source: National Science Foundation, *Federal Funds for Research and Development FY 2000, 2001, and 2002, 2002.*

Data exclude development and R&D facilities.

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Federal Support of ACADEMIC Engineering Research, 1973-2002 : obligations in billions of constant FY 2002 \$



Source: National Science Foundation, *Federal Funds for Research and Development FY 2000, 2001, and 2002, 2002*. Data are for USDA, DOD, DOE, HHS, NASA, and NSF only.

* Other includes engineering research not elsewhere classified.

Excludes engineering work classified as development and R&D facilities.





Dept. of Homeland Security

- DHS began operations last month, but will take years to become fully operational
- \$669 million in R&D in FY '03, proposed to climb 50 percent to \$1.0 billion in FY '04
- In '03, mostly transfers of existing DOD, DOE, DOT, and USDA programs
- Bioterrorism R&D portfolio stays in NIH; DHS will have priority-setting role
- New Homeland Security Advanced Research Projects Agency (HSARPA) will be created in DHS on the DARPA model; funding priorities and levels unclear