

## **R&D Earmarks Total \$1.9 Billion in FY 2004, 32 Percent More than Last Year**

(This analysis is part of a AAAS effort to enumerate congressionally designated, performer-specific R&D projects not appearing in agency budget requests (earmarks) in the FY 2004 appropriations process. The data in this analysis highlight AAAS interpretations of R&D earmarks in the final FY 2004 appropriations bills. The complete series of AAAS R&D Funding Updates, including continually updated analyses of R&D by agency in FY 2004 appropriations, is available on the AAAS R&D Web Site (<http://www.aaas.org/spp/rd>) in the “FY 2004 R&D” or the “What’s New” sections.)

- **R&D earmarks total \$1.9 billion in FY 2004**, up sharply from last year, according to the AAAS analysis of congressionally designated, performer-specific R&D projects in the FY 2004 appropriations bills (see Table A and Figure 1).

- Although these projects amount to only 1.5 percent of total R&D, they are concentrated in a few key agencies and programs. Four agencies (USDA, \$220 million; NASA, \$194 million; DOE, \$284 million; and DOD, \$825 million) receive 80 percent of the total R&D earmarks, while NIH and NSF remain earmark-free. In some programs, earmarks make up 1 out of every 5 program dollars.

- FY 2004 earmarks are up 32 percent from \$1.4 billion in FY 2003, after a small decline from the previous year.

### **FY 2004 R&D Earmarks in FY 2004 Appropriations: Earmarks Up Substantially**

In late November, President Bush and the 108<sup>th</sup> Congress reached agreement on the final outline of FY 2004 appropriations. The FY 2004 omnibus appropriations bill (HR 2673) bundles together the 7 unfinished appropriations bills (to add to the 6 appropriations bills already signed into law). The House approved the bill on December 8, and the Senate gave final approval on January 22. The 1185-page omnibus bill throws together nearly \$328 billion in federal discretionary spending for FY 2004 and is filled with budgetary maneuvers to fit under congressional budget targets, including a 0.59 percent across-the-board cut for all non-DOD appropriations, even for agencies whose budgets have already been signed into law. Hidden in the omnibus bill and already-enacted FY 2004 appropriations bills are numerous congressionally designated, performer-specific R&D projects (R&D earmarks). It appears that earmarked projects in all areas, including non-R&D areas such as transportation, health care facilities, and local environmental grants, would increase sharply in FY 2004. For R&D earmarks, the FY 2004 total sees a sharp increase after a leveling off in FY 2003. (For full details of total federal R&D in FY 2004, please see *Congressional Action on R&D in the FY 2004 Budget* and its accompanying preview, available on the AAAS R&D Web site).

Within federal appropriations for R&D are R&D earmarks of unrequested, congressionally designated performer-specific R&D projects contained in legislative language or committee report language attached to appropriations bills. These projects have been added to agencies’ requested budgets as part of the annual give-and-take between Congress and the Executive Branch over the size and shape of agencies’ budgets. As Table A and Figure 1 show, R&D earmarks total \$1.9 billion in FY 2004, mostly in the FY 2004 omnibus appropriations bills and the FY 2004 Defense appropriations bills.

- **R&D earmarks total \$1.9 billion in FY 2004.** Although these projects amount to only 1.5 percent of total R&D, they are concentrated in a few key agencies and programs (see Table A). Four agencies (the U.S. Department of Agriculture (USDA; \$220 million), the National Aeronautics and Space Administration (NASA; \$194 million), the Department of Energy (DOE; \$284 million) and the Department of Defense (DOD; \$825 million) receive 80 percent of the total R&D earmarks.

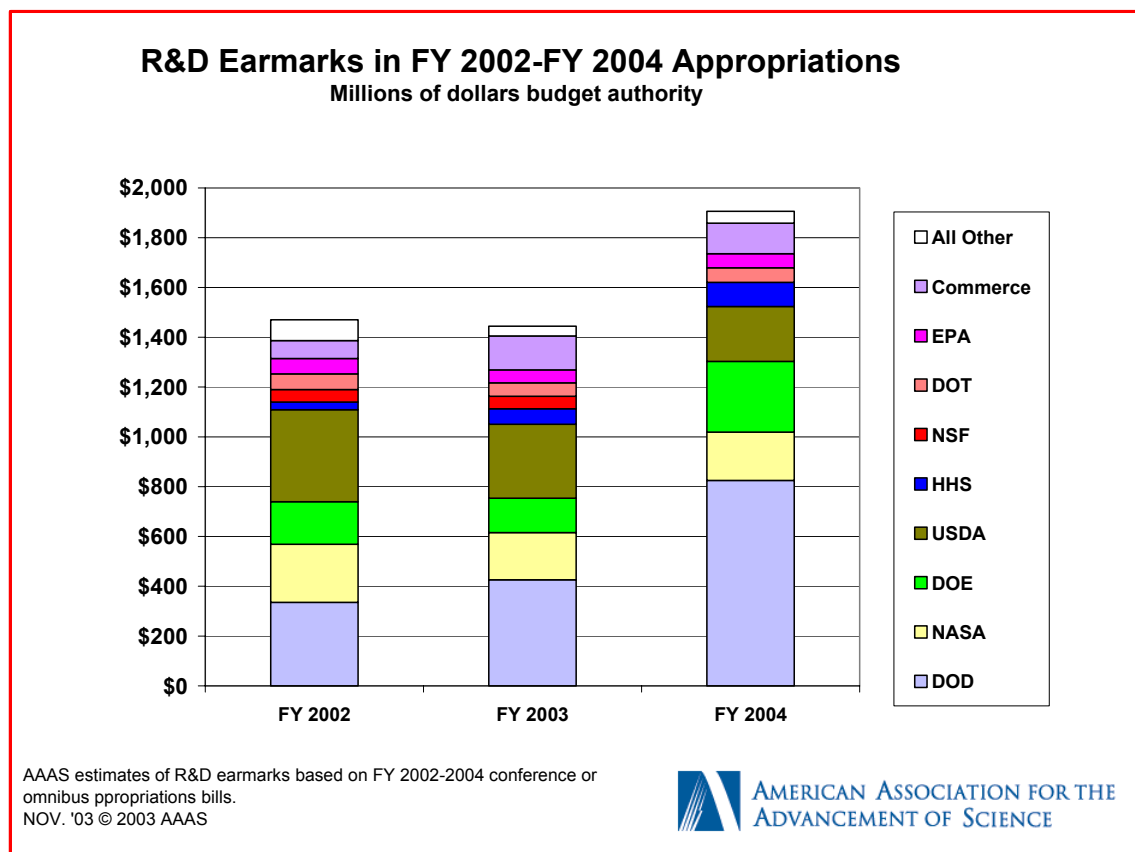


Figure 1. (click on image to view or download a full-size color PDF version of this chart)

- **FY 2004 earmarks are up sharply by 32 percent from the \$1.4 billion in R&D earmarks in FY 2003, in contrast to last year when they declined slightly from \$1.5 billion in FY 2002 (see Table A and Figure 1).** Within a record R&D investment of \$127 billion in FY 2004, up 8.1 percent, R&D earmarks grew far faster than R&D spending as a whole. Nearly all of the increase is due to an explosion in R&D earmarks in the Department of Defense (DOD), which sees its earmarked projects nearly double from \$426 million last year to \$825 million in FY 2004. Earmarks in DOE R&D also double, to \$284 million in FY 2004.
- **The share of the R&D portfolio that is earmarked rises to 1.5 percent** after dipping to 1.2 percent in FY 2003 from 1.4 percent in FY 2002. But because these earmarks are highly concentrated, earmarks make up 1 out of every 5 program dollars in some R&D programs.
- **The USDA earmarks include \$125 million for more than 200 itemized extramural research projects,** mostly in the Special Research Grants program, with another \$34 million allocated in the Agricultural Research Service (ARS) for intramural research projects. Congress earmarks \$52 million for intramural R&D facilities construction in FY 2004 for projects not in the agency budget request, down from last year because the FY 2003 earmarks included emergency counter-terrorism funds to boost laboratory security and to upgrade capabilities to handle potential bioterrorism agents. All of these categories of USDA earmarks are down for the second year in a row, perhaps because the overall USDA R&D budget declines by 5 percent in FY 2004. R&D earmarks total 21 percent of all extramural R&D in the Cooperative State Research, Education, and Extension Service (CSREES),

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making these a significant drain on resources that might have gone to competitively awarded research grants; spending on USDA competitive grants declines in FY 2004.

- The **NASA** projects totaling \$194 million are up slightly from last year, and are found in five programs within the agency's Science, Aeronautics and Exploration (SAE) account: Space Science, Earth Science, Biological and Physical Research, Aero-Space Technology, and Academic Programs. Earmarks make up 24 percent of total R&D in Academic Programs, and smaller percentages in the other four programs. The final NASA bill includes 46 projects in Academic Programs totaling \$55 million. Although all programs in this account are classified as R&D, the congressionally designated projects include funds for education centers, community science and math education initiatives, science museums, and planetariums. Meanwhile, R&D earmarks in other NASA accounts often exceed funding increases above the request, meaning NASA will have to trim some FY 2004 program plans in order to fund earmarks.
- The **DOD** budget contains \$825 million in R&D earmarks, an enormous increase over last year, but only 1.2 percent of the total R&D budget because of the size of the DOD R&D investment. The FY 2004 R&D earmarks continue the trend of increasing earmarks within an increasing R&D budget, itself within a record-breaking DOD budget. The earmarks are mostly small (\$10 million or less) projects, but significantly most are for research rather than development or R&D facilities construction, squeezing basic research and applied research budgets. In the case of basic research ("6.1"), the R&D earmarks will be funded out of a total "6.1" budget that will decline by 1 percent in FY 2004.
- The **DOE** R&D budget also contains a large increase in R&D earmarks, more than doubling from \$138 million last year to \$284 million in FY 2004. The Office of Science budget contains \$95 million in R&D earmarks in FY 2004, nearly double the FY 2003 level. Nearly all of these earmarks are in the Biological and Environmental Research (BER) program. Although the BER budget increases by 12 percent over last year, the jump in BER earmarks from \$50 million to \$93 million eats up the majority of the increase, leaving core BER R&D programs with little to no increase in FY 2004. R&D earmarks make up 16 percent of the BER budget. In DOE's energy R&D, there is an even larger jump from \$36 million to \$114 million in FY 2004; many of these R&D earmarks are last-minute additions to the FY 2004 omnibus bill and migrated over from the FY 2004 energy policy bill when it became clear the energy bill would not be signed into law in 2003. Not included in the R&D earmarks total is an additional \$50 million in the omnibus bill for the Office of Science to build a non-R&D environmental education and ecosystems center in Iowa.
- This year, Congress declined to earmark funds in the **National Science Foundation's** Major Research Equipment and Facilities Construction (MREFC) account, in contrast to the last two years. Similarly, the **National Institutes of Health** (NIH) budget remains free of performer-specific R&D earmarks. Instead, the Health Resources and Services Administration (HRSA), NIH's sister agency within the Department of Health and Human Services (HHS), has \$97 million in R&D earmarks, up substantially from last year. These R&D earmarks are mostly for construction of laboratory facilities at hospitals and university medical schools, and are mixed in with a larger pool of earmarked funds for health care facilities renovation and construction.
- Congress added R&D earmarks to other R&D funding agencies, including the **Environmental Protection Agency** (EPA; \$56 million for 54 congressionally designated research projects), the **Department of Transportation** (\$59 million, mostly for projects in DOT's smaller bureaus), the **Department of the Interior** (\$23 million, mostly for projects in the U.S. Geological Survey), the **National Institute of Standards and Technology** in the Department of Commerce (\$26 million in Construction of Research Facilities account for several projects), and the **Department of Housing and Urban Development** (HUD; \$15 million for nine small R&D projects not related to housing in a community development fund that is home to hundreds of other earmarks).

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## **Definitions: What is an R&D Earmark?**

For the purposes of this analysis, R&D earmarks are defined as “congressionally designated performer-specific R&D projects not included in agency budget requests.” The earmarks appear in either legislative language contained in appropriations bills, in which case they have the force of law, or appear in committee report language accompanying appropriations bills, in which case they are technically advisory. For all practical purposes, however, agencies usually follow the instructions from Congress contained in committee report language, including earmarks. When Congress designates a specific performer or performers for a particular R&D project, these are counted as earmarks; because AAAS definitions of R&D include investments in R&D facilities construction, the earmarks in this analysis also include funds provided to specific institutions for investments in R&D major capital equipment, and also construction funds for specific R&D facilities.

R&D earmarks do not appear in federal agencies’ budget requests, which are released at the beginning of the budget process in February and reflect agency priorities. These budget requests contain detailed proposed distributions of agency funds by mission, allocation mechanism, and often by performer. Earmarks do not appear in agencies’ own budget requests but are added to agencies’ budgets by Congress during the appropriations process. Some projects not originally included in agency requests may be initiated by congressional action in earlier appropriations cycles and may be renewed at reduced funding levels in agencies’ requests; funds added to specific performers by Congress above the amounts requested by the agency are counted as earmarks.

These figures include earmarks to all categories of R&D performers. While discussion of the earmarks issue tends to center on earmarks to academic institutions, this analysis also includes R&D earmarks to other categories of performers, most prominently federal laboratories. While academic institutions receive the bulk of the earmarks in Table A, federal laboratories, sometimes located on university campuses, also receive earmarks as well as some nonprofits and industrial firms.

The earmarks counted in this analysis are a subset of R&D in the federal budget as tracked by AAAS. Thus, the earmarks in this analysis do not include non-R&D projects that may go to R&D performers, for example educational or extension projects awarded to universities and colleges. They also do not include construction funds for non-R&D facilities, except when they are provided in R&D accounts.

## **Purpose of the AAAS Analysis**

The analysis is intended to provide timely and unbiased information for further analysis and debate on the allocation of R&D resources in the federal budget process, and the R&D Budget and Policy Program undertakes this analysis to provide timely and relevant information for policymakers and members of the science and engineering community who are concerned about methods of allocating R&D resources. It attempts to provide additional information to supplement existing AAAS coverage of R&D in the appropriations process. The analysis is not a comprehensive inventory of earmarks; nor can the analysis break out earmarks by recipient or by state because of the difficulty in identifying and assigning locations to multi-performer research consortia or earmarks in which the actual performer is left intentionally vague. Also, because earmarks are somewhat in the eye of the beholder and are ill-defined (unlike the standardized, longstanding definitions for R&D used by AAAS and federal agencies) this analysis necessarily relies on AAAS interpretations and judgment calls on a project-by-project basis of what is or is not an R&D earmark.

This analysis does not take a position on the relative merits of agency requests vs. congressional earmarks, or of competitively awarded funds vs. earmarked funds.

## **Conclusions**

Although Mitch Daniels, the former Director of the Office of Management and Budget (OMB), as well as the Bush Administration in general, made restraining congressional earmarks a high priority of the Administration early on in the Bush Administration, this earmark-fighting zeal has waned considerably recently and dwindled to zero, especially with the departure of Daniels. President Bush has never used his

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veto power, and has signaled his willingness to accept whatever appropriations bills come his way as long as they meet his overall budget targets. And his budget targets have left plenty of room for earmarks. The President and the last two Congresses have also presided over some of the largest increases in discretionary spending in history; for the last three years, discretionary spending has increased by more than 10 percent a year. By most accounts, total earmarks have surged dramatically during this time, though R&D earmarks dipped last year. Ironically, in FY 2004 discretionary spending may rise by only 3 percent to \$874 billion, yet there will be record totals for R&D earmarks; it is still unclear what the trends will be for total earmarks in non-R&D areas, though at first glance both the number of earmarked projects and dollar amounts appear to climb in FY 2004. In the FY 2004 omnibus bill, there are pages and pages of earmarks for community development grants (950 projects in one Housing and Urban Development program), EPA water grants (more than 500 projects in just one EPA account), and health care facilities (more than 600 projects in one HRSA account), all in greater numbers than last year. With 2004 as an important election year, Congress is sure to face enormous pressure in the FY 2005 budget process to fund more and more politically popular earmarks. In all likelihood, R&D earmarks will only increase next year, even above the increased levels of FY 2004.

(Other AAAS R&D Funding Updates on the AAAS R&D Web site provide detailed information on R&D in final FY 2004 appropriations.)

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Table A. Congressional Earmarks for FY 2004 R&amp;D by Agency

**Table A. Congressional Earmarks for R&D by Agency and Program**  
**Congressional Action on R&D in the FY 2004 Budget**  
**(budget authority in millions of dollars)**

	FY 2002 Earmarks	FY 2003 Earmarks	FY 2004		
			FY 2004 Earmarks	FY 2004 R&D	Earmarks % of R&D
Defense (military)	336	426	<b>825</b>	66,323	1.2%
<i>(Army)</i>	120	152	<b>318</b>	10,310	3.1%
<i>(Navy)</i>	68	111	<b>178</b>	14,969	1.2%
<i>(Air Force)</i>	43	41	<b>134</b>	20,366	0.7%
<i>(Defense Agencies)</i>	90	71	<b>127</b>	18,961	0.7%
<i>(Other)</i>	13	52	<b>69</b>	1,718	4.0%
National Aeronautics & Space Admin.	233	190	<b>194</b>	10,958	1.8%
<i>(Space Science)</i>	30	8	<b>25</b>	3,973	0.6%
<i>(Earth Science)</i>	38	49	<b>39</b>	1,607	2.4%
<i>(Bio. And Phys. Res.)</i>	15	25	<b>25</b>	990	2.5%
<i>(Aero-Space Technology)</i>	83	60	<b>50</b>	1,085	4.6%
<i>(Academic Programs)</i>	67	47	<b>55</b>	227	24.0%
Energy	171	138	<b>284</b>	8,731	3.2%
<i>(Science programs)</i>	72	50	<b>95</b>	3,190	3.0%
<i>(Energy programs)</i>	65	36	<b>114</b>	1,414	8.1%
<i>(Defense programs)</i>	35	52	<b>74</b>	4,127	1.8%
Health and Human Services	31	62	<b>97</b>	28,473	0.3%
<i>(National Institutes of Health)</i>	0	0	<b>0</b>	27,093	0.0%
National Science Foundation	50	50	<b>0</b>	4,113	0.0%
<i>(Major Research Equipment)</i>	50	50	<b>0</b>	155	0.0%
Agriculture	369	297	<b>220</b>	2,166	10.2%
<i>(Agricultural Res. Service)</i>	257	166	<b>86</b>	1,169	7.3%
<i>(CSREES)</i>	107	129	<b>125</b>	604	20.7%
<i>(Forest Service)</i>	5	3	<b>8</b>	281	2.7%
Interior	14	18	<b>23</b>	676	3.5%
<i>(U.S. Geological Survey)</i>	14	11	<b>20</b>	579	3.4%
Transportation	63	54	<b>59</b>	644	9.1%
Environmental Protection Agency	62	53	<b>56</b>	654	8.6%
Commerce	72	136	<b>122</b>	1,260	9.7%
<i>(NOAA)</i>	31	107	<b>97</b>	724	13.4%
<i>(NIST)</i>	42	29	<b>26</b>	506	5.1%
Homeland Security	0	0	<b>0</b>	1,044	0.0%
Education	0	1	<b>0</b>	310	0.0%
Agency for Int'l Development	4	4	<b>4</b>	285	1.4%
Department of Veterans Affairs	0	0	<b>0</b>	820	0.0%
Housing and Urban Development	30	11	<b>15</b>	55	28.0%
Department of Justice	29	3	<b>0</b>	90	0.0%
All Other	5	2	<b>5</b>	368	1.4%
<b>Total</b>	<b>1,470</b>	<b>1,444</b>	<b>1,906</b>	<b>126,968</b>	<b>1.5%</b>

AAAS estimates of R&D in FY 2004 appropriations bills. Includes conduct of R&D and R&D facilities.

All figures are rounded to the nearest million. Changes calculated from unrounded figures.

**"Earmarks" are AAAS interpretations of unrequested, congressionally designated, performer-specific R&D projects contained in legislative language or committee report language in appropriations bills.**

Earmarks do not include non-R&D congressionally designated projects.

**January 25, 2004 - AAAS estimates of final FY 2004 funding levels.**