R&D Earmarks Total $1.4 Billion in Final FY 2003 Budget

(This analysis is part of a new AAAS effort to enumerate congressionally designated, performer-specific R&D projects not appearing in agency budget requests (earmarks) in the FY 2003 appropriations process. The data in this analysis highlight AAAS interpretations of R&D earmarks in final FY 2003 appropriations. The complete series of AAAS R&D Funding Updates, including continually updated analyses of R&D by agency in FY 2003 appropriations, is available on the AAAS R&D Web Site (http://www.aaas.org/spp/rd) in the "FY 2003 R&D" or the "What's New" sections.)

FY 2003 R&D Earmarks in Final FY 2003 Appropriations: Earmarks Down This Year

On February 20, President Bush signed the FY 2003 omnibus appropriations bill, finally bringing to a close the FY 2003 budget process four and a half months after the start of the fiscal year. Despite a protracted budget process that concluded with frenzied, last-minute behind-the-scenes negotiations resulting in a 1500-page omnibus bill that few members of Congress had the chance to read before approving it, R&D earmarks declined slightly in the FY 2003 budget to $1.4 billion, down from $1.5 billion in FY 2002. This decline happened despite a record-setting increase in the total R&D budget to $117 billion, meaning that congressionally designated, performer-specific R&D projects (R&D earmarks) are a far smaller percentage of the total R&D portfolio than last year. It appears that earmarked projects in non-R&D areas such as transportation, health care facilities, and local environmental grants increased, but R&D earmarks ran counter to the general trend. (For full details of total federal R&D in FY 2003, please see *Congressional Action on R&D in the FY 2003 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 the Table and Figure 1 show, R&D earmarks totaled $1.4 billion in R&D earmarks in FY 2003, mostly in the FY 2003 omnibus appropriations bill (Public Law 108-7 signed February 20, 2003) and the remainder in the FY 2003 defense appropriations bill (Public Law 107-248 signed October 23, 2002).

- **R&D earmarks total $1.4 billion in FY 2003.** Although these projects amount to only 1.2 percent of total R&D, they are concentrated in a few key agencies and programs (see Table 1). Four agencies (the U.S. Department of Agriculture (USDA; $297 million), the National Aeronautics and Space Administration (NASA; $190 million), the Department of Energy (DOE; $138 million) and the Department of Defense (DOD; $426 million) receive nearly three-quarters of the total R&D earmarks.

- **FY 2003 earmarks are down $26 million from the $1.5 billion in earmarks in FY 2002**, despite a record-breaking increase in federal R&D spending from $103 billion to $117 billion. Thus, the share of R&D earmarks in the total federal R&D portfolio declines from 1.4 percent last year to 1.2 percent in FY 2003 despite, by all accounts, a record number and dollar amount of earmarks in the total appropriated budget of $763 billion (FY 2003).

- The **USDA** earmarks include $129 million for more than 200 itemized extramural research projects, mostly in the Special Research Grants program, with another $53 million allocated in the Agricultural Research Service (ARS) for intramural research projects. Congress earmarks $113 million for intramural R&D facilities construction in FY 2003 for projects not in the agency budget request, down from last year because the FY 2002 earmarks included emergency counter-terrorism funds added in the aftermath of September 11 to boost laboratory security and to upgrade capabilities to handle potential bioterrorism agents. R&D earmarks total 21 percent of all extramural R&D in the Cooperative State Research, Education, and Extension Service (CSREES), and earmarks make up 14

percent of the total ARS budget. Overall, USDA R&D earmarks decline this year because of fewer intramural earmarks, though extramural earmarks increase substantially from $107 million to $129 million.

- The **NASA** projects totaling $190 million, down from $233 million last year, are found in five programs within the agency's Science, Aeronautics and Technology (SAT) account: Space Science, Earth Science, Biological and Physical Research, Aero-Space Technology, and Academic Programs. Earmarks make up 23.3 percent of total R&D in Academic Programs, and smaller percentages in the other four programs. The final NASA bill includes 36 projects in Academic Programs totaling $47 million. Although all programs in this account are classified as R&D, the congressionally designated projects include funds for planetariums, science museums, education centers, and even a dormitory. Meanwhile, earmarking increases in other NASA accounts such as Earth Science and Biological/Physical Research.

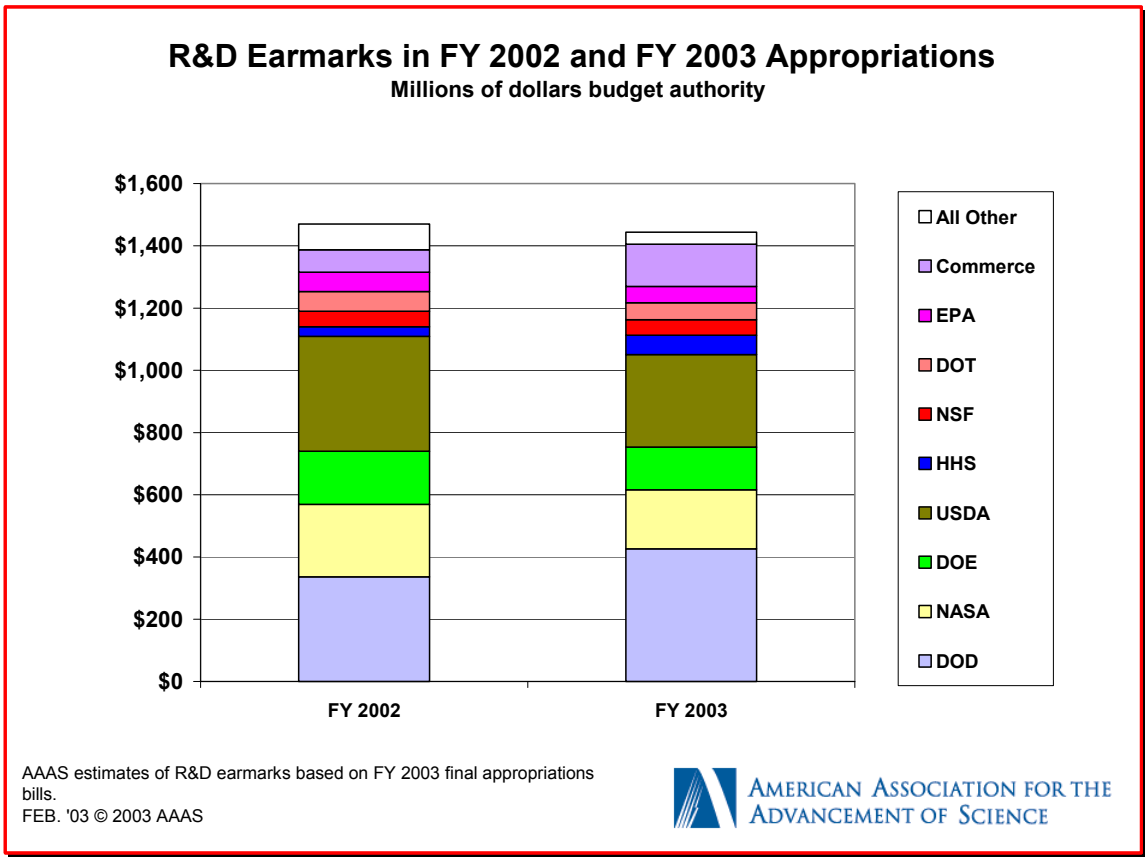

Chart 1. (click on image to view or download a full-size color PDF version of this chart)

- The **DOD** budget contains $426 million in R&D earmarks, a substantial amount but a small 0.7 percent of the total $58.6 billion DOD R&D budget. This represents a substantial increase from the $336 million in earmarks last year, but at the same time DOD R&D grew proportionately, keeping the earmark ratio constant. The earmarks are mostly small ($10 million or less) projects, and most are for research rather than development or R&D facilities construction. The **DOE** R&D budget contains $138 million in R&D earmarks throughout the budget, but there is a large concentration of $50 million for 47 projects in the Biological and Environmental Research (BER) program, making up nearly 10 percent of that program's budget.

- Congress earmarks $50 million in funds for R&D in the **National Science Foundation** in the Major Research Equipment and Facilities Construction (MREFC) account, as it did last year. The earmarks total 34 percent of the $149 million MREFC appropriation. Congress added $25 million for the High-Performance Instrumented Airborne Platform for Environmental Research (HIAPER), an atmospheric

research aircraft, in FY 2003 although NSF proposed no funding, in a repeat of last year. The final NSF budget also contains $24 million for the IceCube Neutrino Detector project, a South Pole facility not yet part of NSF's budget plans, again in a repeat of last year. Although both projects have won approval from the National Science Board as part of a competitive process, they have not appeared in the agency's budget requests. Research funding in the Research and Related Activities (R&RA) account includes no R&D earmarks, as is traditional.

- Congress added R&D earmarks to other R&D funding agencies, including the **Environmental Protection Agency** (EPA; $53 million for 55 congressionally designated research projects), the **Department of Transportation** ($54 million, mostly for projects in DOT's smaller bureaus), the **Department of the Interior** ($18 million for projects in the U.S. Geological Survey), the **National Institute of Standards and Technology** in the Department of Commerce ($29 million in Construction of Research Facilities account for several projects), the **Department of Housing and Urban Development** (HUD; $11 million for nine small projects not related to housing in a community development fund that is home to hundreds of other earmarks), and the Department of Health and Human Services ($62 million, mostly in the **Health Resources and Services Administration (HRSA)** for 34 biomedical research facilities construction projects as part of a much larger pool of earmarked funds for health care facilities renovation and construction projects). Funding earmarked projects in HRSA and some other HHS agencies allows congressional appropriators to keep the National Institutes of Health (NIH) budget free of R&D earmarks.

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 1, 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, 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 in 2001, his powers of persuasion were no match for congressional appropriators' jealously guarded power to determine the allocation of funds, and his earmark-fighting zeal moderated in 2002. Although Daniels argued against earmarks as part of a larger mission to restrain growth in discretionary spending after what he considered excessive spending growth in the Clinton Administration, the Administration and Congress appeared to reach an agreement in the FY 2003 budget process that Congress could allocate funds as it chose as long as the overall budget totals added up to no more than the President's request. So while the FY 2003 discretionary spending total of $763 billion approved by Congress matches the President's request, Congress rewrote the budget request extensively and added, according to preliminary estimates, billions of dollars in earmarked projects in what may turn out to be a new record. But R&D earmarks decline, while it appears that non-R&D earmarked projects in transportation, community development grants (nearly 900 projects in one Housing and Urban Development program), EPA water grants (nearly 500 projects in just one EPA account), and health care facilities (more than 450 projects in one HRSA account) hit new heights. And two of the largest sources of research funding, NIH and the R&RA part of NSF, remained free of performer-specific designations.

(Other AAAS R&D Funding Updates on the AAAS R&D Web site provide detailed information on R&D in final FY 2003 appropriations.)

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Table. Congressional Earmarks for R&D by Agency and Program
Congressional Action on R&D in the FY 2003 Budget
(budget authority in millions of dollars)

		FY 2003		
	FY 2002 Earmarks	**FY 2003 Earmarks**	FY 2003 R&D	Earmarks % of R&D
Defense (military)	336	**426**	58,646	0.7%
(Army)	*120*	***152***	*7,510*	*2.0%*
(Navy)	*68*	***111***	*13,599*	*0.8%*
(Air Force)	*43*	***41***	*18,763*	*0.2%*
(Defense Agencies)	*90*	***71***	*17,377*	*0.4%*
(Other)	*13*	***52***	*1,397*	*3.7%*
National Aeronautics & Space Admin.	233	**190**	10,999	1.7%
(Space Science)	*30*	***8***	*3,501*	*0.2%*
(Earth Science)	*38*	***49***	*1,708*	*2.8%*
(Bio. And Phys. Res.)	*15*	***25***	*863*	*2.9%*
(Aero-Space Technology)	*83*	***60***	*2,873*	*2.1%*
(Academic Programs)	*67*	***47***	*203*	*23.3%*
Energy	171	**138**	8,205	1.7%
(Science programs)	*72*	***50***	*3,075*	*1.6%*
(Energy programs)	*65*	***36***	*1,281*	*2.8%*
(Defense programs)	*35*	***52***	*3,849*	*1.3%*
Health and Human Services	31	**62**	27,550	0.2%
(National Institutes of Health)	*0*	***0***	*26,245*	*0.0%*
National Science Foundation	50	**50**	3,927	1.3%
(Major Research Equipment)	*50*	***50***	*149*	*33.8%*
Agriculture	369	**297**	2,166	13.7%
(Agricultural Res. Service)	*257*	***166***	*1,184*	*14.0%*
(CSREES)	*107*	***129***	*608*	*21.2%*
(Forest Service)	*5*	***3***	*265*	*1.0%*
Interior	14	**18**	627	2.9%
(U.S. Geological Survey)	*14*	***11***	*569*	*1.9%*
Transportation	63	**54**	835	6.5%
Environmental Protection Agency	62	**53**	643	8.2%
Commerce	72	**136**	1,389	9.8%
(NOAA)	*31*	***107***	*825*	*12.9%*
(NIST)	*42*	***29***	*527*	*5.6%*
Education	0	**1**	315	0.3%
Agency for Int'l Development	4	**4**	271	1.5%
Department of Veterans Affairs	0	**0**	800	0.0%
Housing and Urban Development	30	**11**	50	21.1%
Department of Justice	29	**3**	108	2.9%
All Other	5	**2**	905	0.2%
Total	1,470	**1,444**	117,437	1.2%

AAAS estimates of R&D in FY 2003 House and Senate 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.
February 28, 2003 - AAAS estimates of final FY 2003 appropriations.