

AAAS R&D Funding Update July 13, 2006 -
R&D Earmarks in FY 2007 House Appropriations

House Earmarks \$1.1 Billion for R&D in Appropriations

(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 FY 2007 appropriations bills. The data in this analysis highlight AAAS interpretations of R&D earmarks in House-approved appropriations. The complete series of AAAS R&D Funding Updates, including continually updated analyses of R&D in FY 2007 appropriations, is available on the AAAS R&D Web Site (<http://www.aaas.org/spp/rd>) in the “FY 2007 R&D” or the “What’s New” sections.)

- **So far, the House has shown relative restraint in R&D earmarks in FY 2007 appropriations.** The House would designate \$1.1 billion for congressionally designated, performer-specific R&D projects in FY 2007 (see Table A and Figure 1), roughly half the record-breaking earmark total in the final FY 2006 budget.
- But if past patterns hold, the Senate’s earmarks will be mostly different and the final earmark total could be the House and Senate totals combined rather than the average of the two.
- Although earmarking would continue unabated in agencies such as the Department of Energy (DOE; \$116 million), the U.S. Department of Agriculture (USDA; \$306 million), and the Environmental Protection Agency (EPA; \$30 million), the House chose not to insert earmarked R&D projects into the National Aeronautics and Space Administration (NASA) and National Oceanic and Atmospheric Administration (NOAA) budgets, and in DOE chose to add earmarks to the request rather than cutting the request to make room for earmarks.
- Just three agencies (DOD, DOE, and USDA) receive 90 percent of the House’s total R&D earmarks, while NIH, NSF, and DHS remain earmark-free.
- These earmarked projects amount to only 0.8 percent of the House’s total appropriations for R&D, but because they are heavily concentrated they can have big impacts on key programs. Earmarks make up 1 out of every 5 R&D dollars for USDA’s extramural research programs.

FY 2007 R&D Earmarks in House Appropriations

By the end of June, the House of Representatives had made considerable progress in FY 2007 appropriations for federal R&D, drafting all 11 of its versions of the FY 2007 appropriations bills and approving 10 of them. The Senate has drafted 6 of its bills and will try to finish the remaining ones in July. (For full details of federal R&D so far in 2007 appropriations, please see the July 5 AAAS R&D Funding Summary Update, available on the AAAS R&D Web site). The House versions of the 11 FY 2007 appropriations bills contain \$1.1 billion in R&D earmarks, down nearly half from the \$2.4 billion total for R&D earmarks in FY 2006, but past patterns indicate that the final FY 2007 total could equal or exceed FY 2006 when budgets are finalized. Last year, the 2006 House appropriations bills contained \$1.2 billion in earmarks while the Senate versions contained \$1.5 billion, but the final total was \$2.4 billion, almost as much as the two chambers’ totals combined (see Table A).

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.

- **R&D earmarks total \$1.1 billion in the House's FY 2007 appropriations bills.** Although these projects amount to only 0.8 percent of total R&D, they are concentrated in a few key agencies and programs (see Table A). Three agencies (the U.S. Department of Agriculture (USDA; \$306 million), the Department of Energy (DOE; \$116 million); and the Department of Defense (DOD; \$609 million) receive 90 percent of the total R&D earmarks.

- **The House's 2007 earmarks are down from the combined total for 2006, but only slightly down from the House's \$1.2 billion in earmarks in its 2006 appropriations bills (see Figure 1).**

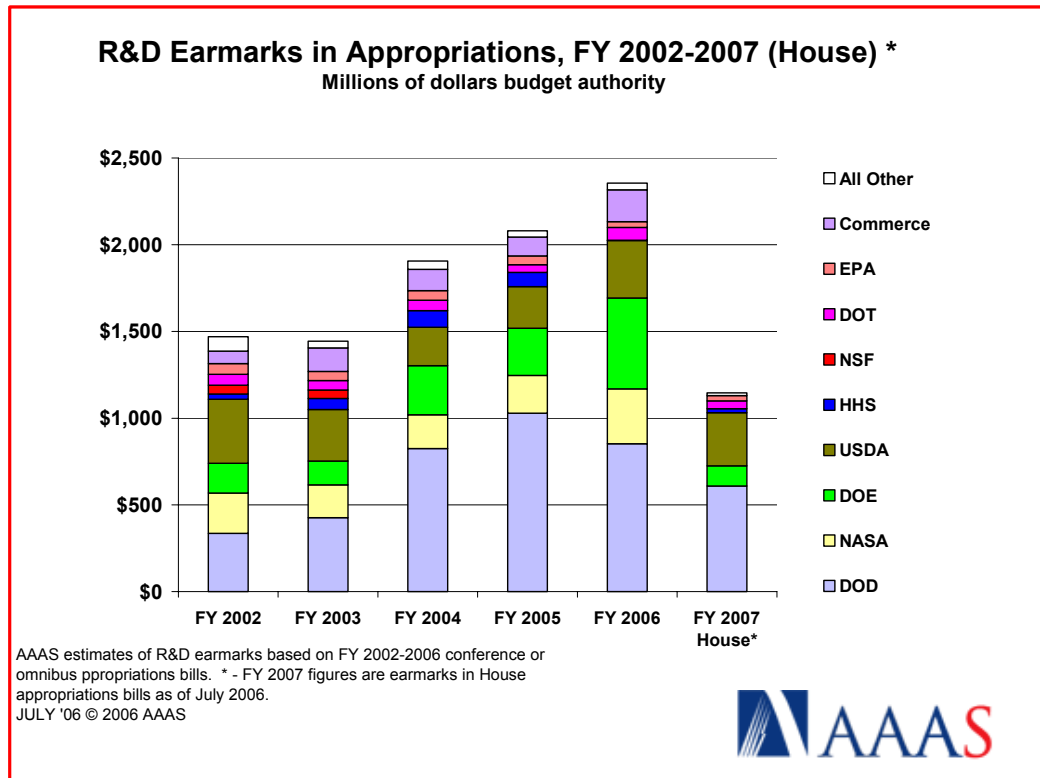


Figure 1. (click on image for PDF)

- **Compared to recent years, the House has shown relative restraint in earmarking.** House appropriations contain no earmarks in the NOAA and NASA budget, and are smaller percentages of DOE's energy and science R&D portfolios than in recent years.

- The **USDA** earmarks total \$306 million, down only slightly from last year even before the Senate adds its own earmarks. These include \$128 million for 163 itemized extramural research projects, mostly in the Special Research Grants program, with another \$102 million allocated in the Agricultural Research Service (ARS) for intramural research projects. The House would earmark \$75 million for intramural R&D facilities construction in FY 2007 for projects not in the agency budget request, and sets aside additional funds for projects to be designated later. R&D earmarks total 20 percent of all extramural R&D in the Cooperative State Research, Education, and Extension Service (CSREES), making these a significant drain on resources that might have gone to competitively awarded research grants or formula-based research funding.

- The **DOD** budget contains \$609 million in House R&D earmarks, down from the totals of recent years. 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. Earmarks for "6.1" (basic research) programs total \$67 million, or 4 percent of the total; "6.2" (applied research) earmarks are \$180 million, or 3 percent of the total because of a large number of medical research projects; and "6.3" earmarks are \$257 million or 5 percent of the total. But earmarks in the "6.4" or higher categories of DOD R&D are \$107 million, and are only 0.2 percent of that portfolio.

- **DOE R&D earmarks** decline in House appropriations to \$116 million, the lowest level this decade. The Office of Science (OS) budget, for example, contains just \$30 million in House 2007 earmarks, compared to \$130 million in 2006. All of these earmarks, as usual, are in the Biological and Environmental Research (BER) program; earmarks account for just 6 percent of the BER House appropriation instead of 22 percent in 2006; as a result, core BER R&D funding would jump 13 percent even though the total BER budget appears to fall 7 percent. Although DOE energy R&D earmarks hit a new high of \$266 million in 2006, the House would earmark only \$61 million for energy R&D in 2007 and would keep the earmarks in a separate account from core, non-earmarked funding. The House action would have big impacts on key programs such as biomass R&D where earmarks make up 50 percent of total program funds in 2006. The biomass program not only receives a 65 percent increase, but because 2007 biomass earmarks would be in a separate account core biomass funding would more than double. Solar, hydrogen, and other renewable energy programs also benefit from this House action of substantial increases in non-earmarked 2007 funding compared to a heavily earmarked 2006 base.

- **Some agencies remain earmark-free.** The **National Science Foundation (NSF)**, the **National Institutes of Health (NIH)**, and the **Department of Homeland Security (DHS)** all remain earmark-free in FY 2006. Traditionally, NIH and NSF's research accounts have been free of earmarks, although in some years NSF construction projects are earmarked. FY 2007 is the fourth year of appropriations for DHS; so far, Congress has not earmarked R&D projects in DHS. And the House has so far not earmarked funds in NASA and NOAA.

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. Some of these earmarks may come from the same budget accounts that fund R&D earmarks. 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 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 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

The appropriations process for FY 2007 is still in its early stages. If past patterns hold, Senate earmarks will be greater than the House earmarks, and the final earmarks total will be close to the House and Senate totals combined. If the pattern holds true, then the FY 2007 R&D earmarks total could once again exceed \$2 billion as in the past two years, and may even set a new record. Although the FY 2007 appropriations process promises to be a difficult one because of extremely restrictive budget targets, the last few years have demonstrated that the tighter the budget, the more congressional appropriators turn to earmarking to ensure that at least some funds go to their states or districts.

- July 13, 2006

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Table A. Earmarks for FY 2007 R&D by Agency (House as of 7/06)

Table A. Congressional Earmarks for R&D by Agency and Program
House Action on R&D in the FY 2007 Budget (as of July 5, 2006)
(budget authority in millions of dollars)

	FY 2002 Earmarks	FY 2003 Earmarks	FY 2004 Earmarks	FY 2005 Earmarks	FY 2006 Earmarks	FY 2007 HOUSE		Earmarks % of R&D
						FY 2007 Earmarks	FY 2007 R&D	
Defense (military)	336	426	825	1,029	852	609	76,208	0.8%
<i>(Army)</i>	120	152	318	322	309	245	11,778	2.1%
<i>(Navy)</i>	68	111	178	247	225	132	17,570	0.8%
<i>(Air Force)</i>	43	41	134	142	125	104	24,340	0.4%
<i>(Defense Agencies)</i>	90	71	127	246	160	108	21,107	0.5%
<i>(Other)</i>	13	52	69	72	34	20	1,414	1.4%
National Aeron. & Space Admin.	233	190	194	217	317	0	12,153	0.0%
Energy	171	138	284	274	524	116	9,326	1.2%
<i>(Science programs)</i>	72	50	95	78	129	30	3,828	0.8%
<i>(Energy programs)</i>	65	36	114	122	266	61	1,442	4.2%
<i>(Defense programs)</i>	35	52	74	73	129	25	4,057	0.6%
Health and Human Services	31	62	97	82	1	24	28,997	0.1%
<i>(National Institutes of Health)</i>	0	0	0	0	0	0	27,714	0.0%
National Science Foundation	50	50	0	0	0	0	4,522	0.0%
<i>(Major Research Equipment)</i>	50	50	0	0	0	0	237	0.0%
Agriculture	369	297	220	239	331	306	2,312	13.2%
<i>(Agricultural Res. Service)</i>	257	166	86	76	158	177	1,216	14.5%
<i>(CSREES)</i>	107	129	125	148	165	128	635	20.1%
<i>(Forest Service)</i>	5	3	8	12	7	0	321	0.1%
Interior	14	18	23	12	18	5	633	0.8%
<i>(U.S. Geological Survey)</i>	14	11	20	10	10	3	568	0.4%
Transportation	63	54	59	45	75	45	807	5.6%
<i>(U.S. Department of Transportation)</i>	62	53	56	51	33	30	608	4.9%
Commerce	72	136	122	109	184	0	990	0.0%
<i>(NOAA)</i>	31	107	97	109	184	0	509	0.0%
<i>(NIST)</i>	42	29	26	0	0	0	445	0.0%
Homeland Security	0	0	0	0	0	0	974	0.0%
Education	0	1	0	3	0	0	301	0.0%
Agency for Int'l Development	4	4	4	4	5	0	225	0.0%
Department of Veterans Affairs	0	0	0	0	0	0	790	0.0%
Housing and Urban Development	30	11	15	5	1	5	55	9.1%
Department of Justice	29	3	0	0	6	6	103	5.6%
All Other	5	2	5	11	9	0	381	0.0%
Total	1,470	1,444	1,906	2,080	2,355	1,146	139,385	0.8%

AAAS estimates of R&D in FY 2007 House 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.

FY 2007 columns represent earmarks in House versions of appropriations bills. All other years are earmarks in final appropriations.

July 5, 2006 - AAAS estimates of House FY 2007 appropriations bills.