



December FY 2007 Appropriations Update:

### Federal Research Funding In Decline As Appropriations Stall

(This report is a summary of AAAS estimates and analyses of **federal R&D appropriations so far in the FY 2007 appropriations process.**)

The outgoing, Republican-majority 109<sup>th</sup> Congress ended on December 9 in a flurry of legislative activity, but left conspicuously unfinished the fiscal year (FY) 2007 appropriations bills funding nearly all domestic programs. Although FY 2007 began on October 1 and appropriations bills are constitutionally the only legislation Congress is required to pass each year, the 109<sup>th</sup> Congress approved a third continuing resolution (CR) providing temporary funding for unfinished appropriations bills through February 15, leaving the incoming Democratic-majority 110<sup>th</sup> Congress to try to finish FY 2007 appropriations. Only the Departments of Defense (DOD) and Homeland Security (DHS) have their final budgets; all other federal agencies are operating at the lower of FY 2006 or FY 2007 House funding levels. This week, Democratic appropriators signaled their intention to wrap up FY 2007 appropriations quickly in the new year with a year-long CR at FY 2006 funding levels for nearly all domestic programs, with increases for only a few as-yet-unannounced programs.

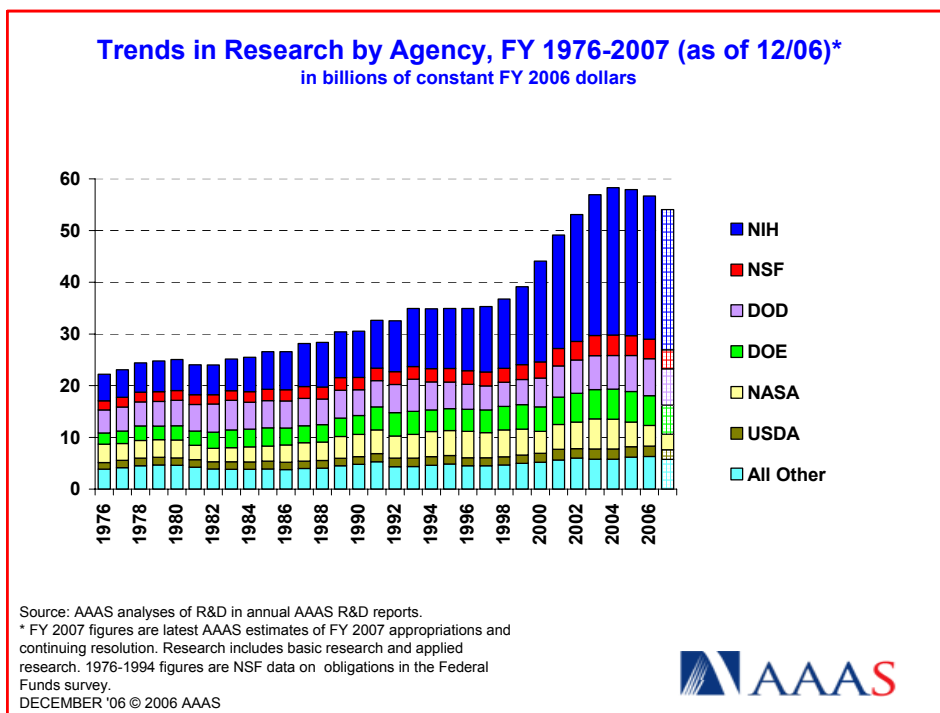


Figure 1. (click on image for PDF)

President Bush’s American Competitiveness Initiative (ACI) proposal to provide large increases for select physical sciences agencies was endorsed by House and Senate appropriators, but these proposals died at the end of the 109<sup>th</sup> Congress. These and other proposed increases for federal research and development (R&D) programs have mostly become flat funding in the current budget environment. A year-long CR could make these flat appropriations final for the entire fiscal year. Although a year-long CR may moderate some of the cuts to selected R&D programs contained in the current CR, the federal investment in basic

and applied research is almost certain to fall in FY 2007 for the first time in at least three decades. After adjusting for inflation, the federal research portfolio in 2007 would fall for the third year in a row to 7 percent below the 2004 peak (see Figure 1). But the total federal research and development (R&D) portfolio is a different matter; because the enacted defense budget allows for substantial increases in Department of Defense (DOD) weapons development, development gains offset research cuts for a net increase in total federal R&D (see Figure 2).

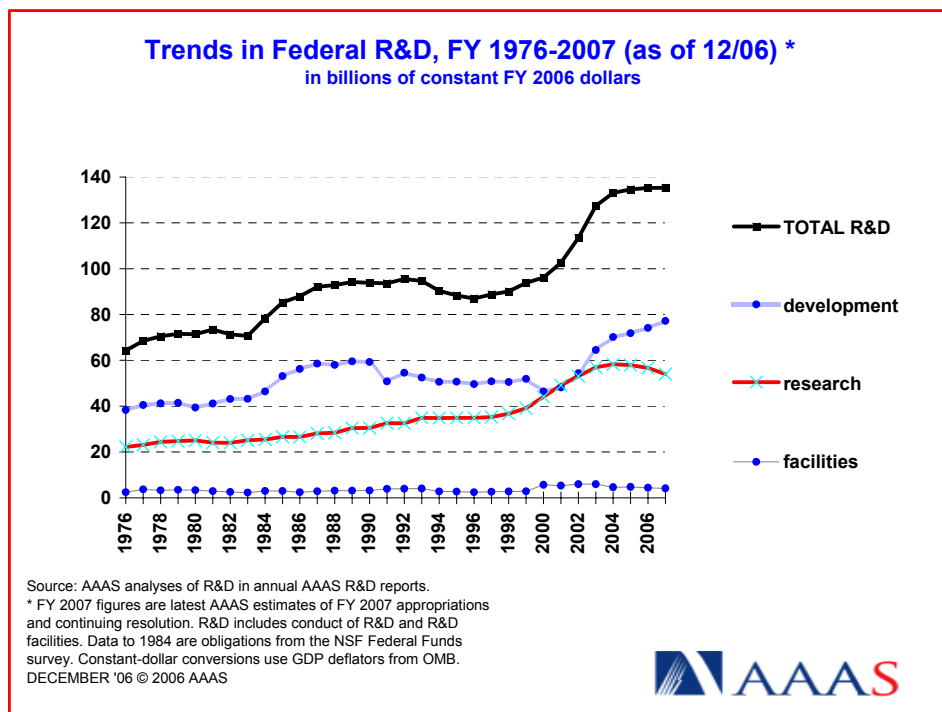


Figure 2. (click on image for PDF)

### Highlights So Far of Federal R&D in FY 2007 Appropriations

The CR signed into law by President Bush on December 9 allows federal programs in unfinished appropriations bills (all agencies except DOD and DHS) to keep spending money in the new fiscal year at the lower of the FY 2006 or FY 2007 House spending levels through February 15. Democratic appropriators preparing for the new 110<sup>th</sup> Congress recently announced they would try to extend the CR through the end of FY 2007 (September 30) so that the new Congress can turn its attention to the President's proposed FY 2008 budget (due in early February) and a large (up to \$160 billion) FY 2007 supplemental request to pay for the ongoing wars in Iraq and Afghanistan. One possible modification to the current CR is to bring funding for all programs to at least FY 2006 funding levels, improving on the steep cuts to many programs in the current CR in cases where FY 2007 House appropriations bills proposed cuts. Another possible modification is to provide funding increases for selected high-priority programs; it is unclear at this time whether any R&D programs would be included. (This analysis assumes funding levels as outlined in the current CR (Public Law 109-383) and the two enacted Defense and Homeland Security appropriations bills. These figures could change in a year-long CR.)

- Although the 109<sup>th</sup> Congress supported **the President's American Competitiveness Initiative (ACI) increases for three key physical sciences agencies, these potential gains evaporated when the 109<sup>th</sup> Congress failed to complete domestic appropriations.** The National Science Foundation (NSF), the Department of Energy's Office of Science (DOE OS), and Commerce's National Institute of Standards and Technology laboratories (NIST) would have received dramatic increases in their R&D funding, but the continuing resolution funds them at 2006 levels, along with most of the other R&D funding agencies (see

Figure 3 and Table 1). Only a special provision for increases in a year-long continuing resolution could resurrect these earlier proposals.

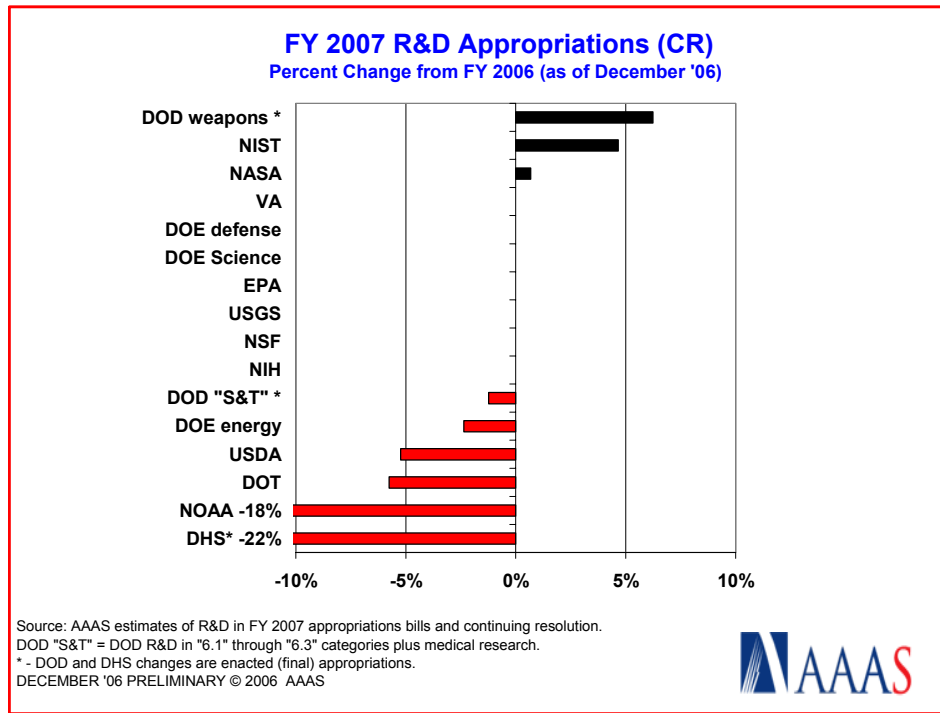


Figure 3. (click on the image for PDF)

- While most R&D funding agencies receive flat funding in the current CR (see Figure 3), falling behind 2.0 percent expected inflation, other R&D programs face steep cuts (see Figure 3). The House's proposed cuts in its appropriations bills to the U.S. Department of Agriculture (USDA), DOE's energy programs, and the National Oceanic and Atmospheric Administration (NOAA) are forcing these agencies to operate at sharply reduced funding levels under the current CR. Steep cuts to Department of Homeland Security (DHS) R&D are already final. Among nondefense agencies, only National Aeronautics and Space Administration (NASA) R&D and National Institute of Standards and Technology (NIST) facilities funding receive increases under the current CR (see Figure 3). On the defense side, big increases for DOD weapons development are final.

- The federal investment in basic and applied research is almost certain to fall in FY 2007. Under the provisions of the current CR, federal research funding would total \$55.2 billion, a 2.6 percent cut that would be the first year-to-year decline in at least three decades (see Table 2 and Figure 1). Adjusted for inflation, the cut would approach 5 percent in real dollars. Federal research funding peaked in real terms in 2004; after declining slightly in 2005 and 2006 the decline would accelerate in 2007. Although a year-long CR could contain increases for select programs such as the ACI agencies and flat funding rather than cuts for some programs, these potential adjustments are unlikely to make up the current \$1.5 billion shortfall compared to 2006.

- The federal investment in development hits an all-time high. Development funding would climb 6.3 percent or \$4.6 billion to \$78.8 billion (see Table 1 and Figure 2), continuing multi-billion dollar increases in each of the last six years. Nearly all development funding comes from the Department of Defense (DOD) for new weapons systems. DOD development funding for missile defense technologies and new aerospace weapons climbs dramatically in the final FY 2007 DOD budget. NASA has flexibility under the continuing resolution to implement its plans to shift funding to increased development efforts for the next generation of human space vehicles, leaving its research funding in steep decline. Development funding could go even higher if a year-long CR boosts funding for NASA above current levels.

- **Cuts in “R” (research) combined with large increases in “D” (development) would help the total federal investment in R&D reach \$138.3 billion in FY 2007, a 2.2 percent increase** that just keeps pace with expected inflation (see Table 1 and Figure 2). Support for R&D facilities and major equipment would drop 3.3 percent to \$4.2 billion. While defense R&D would gain 4.6 percent to exceed \$80 billion for the first time at \$81.2 billion (see Table 1), flat or declining funding in the continuing resolution would result in a 0.9 percent cut in nondefense R&D to \$57.1 billion; if finalized, it would be the first nominal (before inflation) cut in nondefense R&D since 1996. Defense R&D would make up 59 percent of the federal R&D portfolio, a ratio not seen since the height of the Cold War (see Table 3).

- While space-related R&D could gain slightly by 2.8 percent (to \$10.7 billion) in the current budget situation because of increases for NASA’s spacecraft development funding, R&D funding for most other national missions would remain flat or decline under the current CR (see Table 3). Commerce R&D could gain 4.3 percent because of a quirk in the CR allowing increases for NIST facilities funding, but large proposed gains for general science R&D and commerce R&D from the ACI would evaporate. Under the current CR, falling House appropriations for many programs would result in declining funding for energy, natural resources and environment, transportation, and agriculture R&D. Justice R&D would fall sharply because of enacted cuts in the DHS R&D portfolio.

- **The continuing resolution would cancel most of the congressionally designated, performer-specific R&D projects (earmarks)** that were pending in the unfinished FY 2007 appropriations bills. The CR would provide 2007 funds at last year’s funding levels for most programs, but the CR does not contain report language attached to 2007 House or Senate appropriations bills directing spending on specific projects. For several R&D agencies, the elimination of 2007 earmarks enables non-earmarked R&D funding to increase substantially even within a flat budget. DOE’s Office of Science, for example, funded \$129 million in earmarked R&D projects out of its 2006 appropriation; with the same appropriation of \$3.3 billion for R&D under the CR in 2007, the Office can use the \$129 million for other programs. Similarly, the CR frees up \$266 million in energy R&D earmarks, an estimated \$331 million in USDA R&D earmarks, and \$317 million in NASA R&D earmarks from 2006 that can now be used for other programs in 2007. After hitting a record \$2.4 billion in 2006, R&D earmarks could decline to \$1.0 billion in 2007 if the current CR is extended for the entire year. Nearly all of the remaining earmarks are contained in report language accompanying the final 2007 DOD appropriations bill, which became law in October. (See the separate Table A for R&D earmarks in FY 2007 appropriations.)

### **R&D Appropriations for Key Agencies**

- Congress finalized a **Department of Defense (DOD)** budget in October that contains a record-breaking \$76.8 billion for DOD R&D (see Table 1). Nearly the entire \$3.5 billion or 4.8 percent increase goes to weapons development programs. Once again, Congress reversed sharp proposed cuts in DOD’s “Science and Technology” (S&T) investments. Instead of a greater than 20 percent requested cut, DOD S&T spending remains near the 2006 funding level at \$13.6 billion, \$2.4 billion more than the request (see Table 1 and Figure 4). DOD basic research (“6.1”) is one of the few basic research programs to increase in the current budget situation, gaining 4.8 percent to \$1.5 billion (see Table 2), while applied research (“6.2”) increases 0.8 percent to \$5.2 billion. The research-oriented Defense Advanced Research Projects Agency (DARPA) sees its budget increase 1.4 percent to \$3.0 billion.

- In one of its last acts, the 109<sup>th</sup> Congress finalized an authorization bill for the **National Institutes of Health (NIH)** that authorizes a 7 percent increase in FY 2007, but the continuing resolution appropriates only flat funding. The bill formalizes a Common Fund cutting across NIH institute and appropriations lines to fund trans-NIH initiatives such as the Roadmap for Medical Research and calls on this Fund to grow as a share of the NIH budget each year. Under the CR, NIH funding would shrink in real terms for the third year in a row (see Figure 4). Because NIH funds are appropriated by institute, the CR would cancel the proposed 27 percent increase in the Office of the Director and 0 to 1 percent cuts in the other institutes to pay for expanded trans-NIH initiatives, but the NIH Director should have enough authority to transfer funds between accounts to make the proposal a reality. If the CR’s flat funding is extended for a full year,

most institute 2007 budgets will be 5 to 6 percent below 2004 funding levels after adjusting for economy-wide inflation. The 109<sup>th</sup> Congress also finalized a biodefense authorization bill that would create a new Biomedical Advanced Research and Development Authority (BARDA) as NIH's sister agency within the Department of Health and Human Services (HHS). The new BARDA, authorized at up to \$500 million a year but not appropriated any money in FY 2007, would fund biodefense countermeasures development, related research infrastructure and tools, and other R&D that would bridge the gap between NIH's biodefense R&D and Project Bioshield procurement of countermeasures.

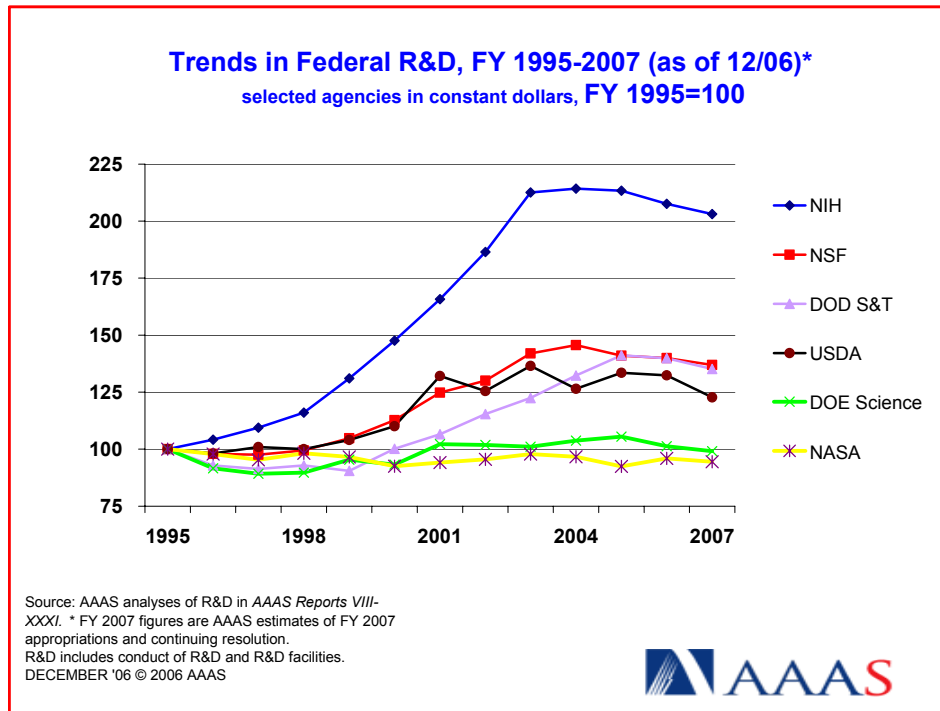


Figure 4. (click on image for PDF)

- The **National Science Foundation (NSF)** was supposed to receive a large increase in FY 2007 as part of the American Competitiveness Initiative (ACI), but is now operating at last year's funding levels and could stay there for the entire year. Earlier in the year, both House and Senate appropriators agreed to the Administration proposal to boost NSF R&D by 8 percent in 2007 but were unable to finalize the appropriation before the end of the 109<sup>th</sup> Congress, so the CR leaves most NSF programs in decline for the third year in a row in real terms (see Figure 4).

- R&D in the **Department of Energy (DOE)** would fall in 2007, in a sharp turnaround from the large increases requested earlier in the year. DOE's Office of Science was in line for a 15 percent increase as part of the American Competitiveness Initiative (ACI), but the 109<sup>th</sup> Congress' inability to finalize DOE's budget leaves DOE Science funding flat under the provisions of the CR. Although the Office of Science may be able to tap \$129 million in earmarked 2006 funds that are available but not earmarked in the 2007 CR, flat funding would jeopardize the Office's big plans for boosting basic physical sciences research and would keep Science funding flat in real terms for the seventh year (see Figure 4). The CR also forces DOE to scramble to secure the planned tripling to \$60 million in 2007 for U.S. involvement in the multi-national International Thermonuclear Experimental Reactor (ITER) fusion project. Cuts included in the House version of the DOE appropriations bill mean that DOE's energy R&D would fall 2.4 percent to \$1.3 billion under the terms of the current CR; a year-long CR might bring funding back to FY 2006 levels. The one consolation is that the CR frees up \$266 million in 2006 R&D earmarks that become unrestricted in 2007, meaning energy R&D programs that were heavily earmarked last year such as biomass R&D and hydrogen R&D would actually receive large increases in core funding.

- The **National Aeronautics and Space Administration (NASA)** may be one of the few R&D funding agencies to receive an increase in 2007, though only for development. Although the CR actually cuts the total NASA budget, the agency should have enough flexibility to move money from non-R&D programs like the Space Shuttle to R&D programs for a slight 0.7 percent increase in R&D funding to \$11.4 billion. NASA R&D will have been flat for more than a decade if the current CR is extended for the full year (see Figure 4). NASA anticipates a dramatic reduction in Space Shuttle costs in 2007 in the aftermath of its recent successful return to flight, but all the savings and more would go to dramatically expand development funding for the Constellation Systems program to build the Shuttle's replacement. Under the CR, NASA could still allocate a \$1 billion increase for development in Constellation Systems but at the cost of steep cuts in nearly all of NASA's basic and applied research programs. Because the CR would give NASA far less than the modest increase it requested, NASA's efforts in space science, aeronautics, environmental sciences, and other research would all fall dramatically in order to keep its big human space flight projects on track. Total NASA research funding could fall by nearly a quarter (see Table 2) unless a year-long CR provides additional funding or unless NASA delays its development projects.

- The **Department of Commerce's** R&D programs are in for steep cuts under the current CR, an 8.3 percent cut to \$985 million at the current rate (see Table 1). Because the current CR locks in House-proposed cuts to the National Oceanic and Atmospheric Administration (NOAA), NOAA R&D is down nearly 20 percent under the current plan, with severe impacts on oceanic and atmospheric research programs offset somewhat by the freeing up of earmarked 2006 funds for core research programs. A quirk in the CR allows the National Institute of Standards and Technology (NIST) to receive an R&D increase of 4.7 percent to \$443 million as earmarked non-R&D 2006 funds become available in 2007 for R&D facilities projects. But the Administration's proposal to boost funding for NIST laboratory research by more than 20 percent as part of the American Competitiveness Initiative (ACI) would be canceled under the CR and become flat funding. It appears that the CR allows the Advanced Technology Program (ATP), slated for elimination, to continue to operate at FY 2006 levels for the time being.

- The **Department of Homeland Security's (DHS)** R&D funding became final in October. DHS R&D falls 22 percent to \$1.0 billion in 2007 even as the total DHS budget keeps increasing. Funding falls for most DHS R&D activities. Only DHS R&D activities in cybersecurity, interoperable communications, and radiological and nuclear countermeasures receive increases in 2007. The radiological and nuclear countermeasures R&D portfolio receives a significant increase as part of its move from the Science and Technology directorate to a separate Domestic Nuclear Detection Office (DNDO) in 2007. Congress boosts DNDO R&D from \$209 million within S&T to \$273 million, a boost of 31 percent.

- The **U.S. Department of Agriculture (USDA)** is in for a 5.2 percent cut in its R&D funding to \$2.3 billion under the current CR (see Table 1), but the removal of FY 2006 earmarks from FY 2007 spending would allow competitively awarded research and intramural research funding to increase. The \$128 million cut in USDA R&D, due to House-approved cuts in appropriations, would be more than offset by \$331 million in earmarked 2006 funds becoming available for non-earmarked projects. As a result, an 8 percent cut in USDA's intramural agricultural research becomes a 4 percent increase when earmarks are excluded. Similarly, the absence of earmarked 2007 extramural funds should allow USDA to boost the competitively awarded National Research Initiative to the requested all-time high of \$248 million and also to increase formula research funding within a falling total extramural budget.

- The U.S. Geological Survey (USGS) within the **Department of the Interior** would see its R&D funding remain flat at \$559 million in the CR, with some room from growth because \$10 million in 2006 R&D earmarks would not be funded. The CR would be an improvement over a requested cut, and would allow USGS to continue mineral resources programs that the Administration proposed to cut.

- The **Department of Transportation (DOT)** would see its R&D funding decline 5.8 percent to \$790 million (see Table 1) because the CR would lock in place House-approved cuts to aviation research in 2007 appropriations. A year-long CR could bring funding back to the FY 2006 level. Some earmarked R&D projects totaling \$38 million would remain in DOT in 2007 because they are contained in the multi-year transportation authorization bill rather than last year's Transportation appropriations bill.

- **Environmental Protection Agency (EPA)** R&D funding would remain at last year's funding level of \$600 million under the latest budget plan, an improvement over a \$43 million requested cut. Core R&D programs could actually see increases because \$33 million in 2006 R&D earmarks could be reallocated to other uses in 2007 under the terms of the CR.

- The **Department of Veterans Affairs (VA)** would see its R&D funding remain flat at \$765 million under the current CR. A year-long CR is likely to contain special provisions for VA medical programs to allow for increases, but the provision is unlikely to extend to research.

### **Budget Outlook: A New Congress Tackles Old Appropriations**

The 110<sup>th</sup> Congress, with a new Democratic majority, is scheduled to convene on January 4. Although the current CR runs through February 15, Democratic appropriators announced on December 11 their plans for a year-long CR to wrap up FY 2007 appropriations, signaling that they would like to complete this unfinished business quickly in order to move on to new legislative initiatives. The appropriators also indicated their desire to dispose of FY 2007 appropriations before the February 6 release of the President's FY 2008 budget request and a large FY 2007 war supplemental request consume appropriators' attention. A year-long CR could be a simple piece of legislation as short as one sentence crossing out "February 15" in the current CR and substituting "September 30," but the Democratic appropriators left open the possibility of making 'limited adjustments' to the current CR to provide increased funding for priority areas, and there is discussion that they will at least remove the provision in the current CR cutting funding for programs that House appropriators tried to cut earlier this year. An omnibus appropriations bill, the usual solution to a delayed appropriations process in recent years, now seems to be out of the question. A year-long CR would at least resolve the budget uncertainty hanging over most federal agencies even though a CR mostly continues last year's policies with no allowance for inflation, policy changes, or program shifts.

For R&D programs, the messy conclusion to the 109<sup>th</sup> Congress and early signals from the 110<sup>th</sup> Congress mean looming cuts in research funding in sharp contrast to the high hopes for most of the year that 'innovation' could be a rallying cry for boosting physical sciences research funding. For the next few weeks, there will be intense lobbying to get R&D programs on the list of adjustments to the current CR, but since Democratic appropriators also announced they would try to stay within restrictive budget targets approved by the 109<sup>th</sup> Congress the adjustments list will have to be short, with only increases for veterans medical care funding a sure thing at this point in time. As FY 2007 appropriations limp toward completion, the future of the ACI is in doubt and most R&D programs are headed toward yet another year of declining funding in real terms.

(This analysis is one of a series of AAAS R&D Funding Updates on FY 2007 congressional 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.)

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Table 1. R&amp;D by Agency in FY 2007 Appropriations (as of 12/06)

**Table 1. Total R&D by Agency**  
**Congressional Action on R&D in the FY 2007 Budget (as of December 2006)**  
**(budget authority in millions of dollars)**

	FY 2006 Estimate	FY 2007 Request	Action by Congress				
			FY 2007 Congress	Chg. from Request Amount	Chg. from Request Percent	Chg. from FY 2006 Amount	Chg. from FY 2006 Percent
Defense (military) *	73,215	74,076	<b>76,752</b>	2,676	3.6%	3,537	4.8%
("S&T" 6.1,6.2,6.3 + Medical) *	13,785	11,214	<b>13,614</b>	2,400	21.4%	-171	-1.2%
(All Other DOD R&D) *	59,430	62,862	<b>63,138</b>	276	0.4%	3,708	6.2%
National Aeronautics & Space Admin.	11,295	12,202	<b>11,372</b>	-830	-6.8%	77	0.7%
Energy	8,721	9,047	<b>8,689</b>	-358	-4.0%	-33	-0.4%
(Office of Science)	3,320	3,798	<b>3,320</b>	-478	-12.6%	0	0.0%
(Energy R&D)	1,339	1,274	<b>1,307</b>	33	2.6%	-32	-2.4%
(Atomic Energy Defense R&D)	4,062	3,975	<b>4,062</b>	87	2.2%	0	0.0%
Health and Human Services	29,132	29,066	<b>29,132</b>	65	0.2%	0	0.0%
(National Institutes of Health)	27,805	27,810	<b>27,805</b>	-5	0.0%	0	0.0%
(All Other HHS R&D)	1,327	1,256	<b>1,327</b>	71	5.6%	0	0.0%
National Science Foundation	4,175	4,523	<b>4,175</b>	-348	-7.7%	0	0.0%
Agriculture	2,450	2,015	<b>2,321</b>	307	15.2%	-128	-5.2%
Homeland Security *	1,281	1,149	<b>1,003</b>	-146	-12.7%	-278	-21.7%
Interior	635	595	<b>635</b>	40	6.6%	0	0.0%
(U.S. Geological Survey)	559	532	<b>559</b>	27	5.0%	0	0.0%
Transportation	838	767	<b>790</b>	23	2.9%	-48	-5.8%
Environmental Protection Agency	600	557	<b>600</b>	43	7.7%	0	0.0%
Commerce	1,074	1,064	<b>985</b>	-79	-7.4%	-89	-8.3%
(NOAA)	617	578	<b>509</b>	-69	-12.0%	-108	-17.6%
(NIST)	423	450	<b>443</b>	-8	-1.7%	20	4.7%
Education	302	299	<b>302</b>	3	1.0%	0	0.0%
Agency for Int'l Development	223	223	<b>223</b>	0	0.0%	0	0.0%
Department of Veterans Affairs	765	765	<b>765</b>	0	0.0%	0	0.0%
Nuclear Regulatory Commission	60	67	<b>60</b>	-7	-10.4%	0	0.0%
Smithsonian	171	174	<b>171</b>	-3	-1.7%	0	0.0%
All Other	319	303	<b>318</b>	15	4.9%	-1	-0.3%
<b>TOTAL R&amp;D</b>	<b>135,255</b>	<b>136,892</b>	<b>138,291</b>	<b>1,399</b>	<b>1.0%</b>	<b>3,037</b>	<b>2.2%</b>
Defense R&D *	77,630	78,388	<b>81,163</b>	2,776	3.5%	3,534	4.6%
Nondefense R&D	57,625	58,505	<b>57,128</b>	-1,377	-2.4%	-497	-0.9%
Nondefense R&D minus NASA	46,330	46,303	<b>45,756</b>	-546	-1.2%	-574	-1.2%
Basic Research	27,834	28,188	<b>27,507</b>	-681	-2.4%	-327	-1.2%
Applied Research	28,845	26,573	<b>27,715</b>	1,143	4.3%	-1,130	-3.9%
Total Research	56,679	54,761	<b>55,222</b>	461	0.8%	-1,457	-2.6%
Development	74,198	77,859	<b>78,837</b>	978	1.3%	4,639	6.3%
R&D Facilities and Capital Equipment	4,378	4,273	<b>4,233</b>	-40	-0.9%	-145	-3.3%
"FS&T"	65,861	65,951	<b>64,778</b>	-1,173	-1.8%	-1,083	-1.6%

AAAS estimates of R&D in FY 2007 appropriations bills. Includes conduct of R&D and R&D facilities.

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

FY 2006 figures have been adjusted to reflect supplementals enacted in Public Law 109-234.

\* - DOD and DHS FY 2007 Congress figures are conference (enacted) appropriations.

All other FY 2007 Congress figures are based on provisions of the third continuing resolution (P.L. 109-383).

December 13, 2006 - AAAS estimates of FY 2007 appropriations bills and continuing resolution.

Table 2. Basic and Applied Research in FY 2007 Appropriations (as of 12/06)

**Table 2. Estimated Research by Agency**  
**Congressional Action on R&D in the FY 2007 Budget (as of December 2006)**  
**(budget authority in millions of dollars)**

	FY 2006 Estimate	FY 2007 Request	Action by Congress				
			FY 2007 Congress	Chg. from Request Amount	Chg. from Request Percent	Chg. from FY 2006 Amount	Chg. from FY 2006 Percent
<b>Basic Research:</b>							
Health and Human Services	15,995	16,026	<b>15,995</b>	-31	-0.2%	0	0.0%
<i>National Institutes of Health</i>	<i>15,992</i>	<i>16,023</i>	<i>15,992</i>	<i>-31</i>	<i>-0.2%</i>	<i>0</i>	<i>0.0%</i>
National Science Foundation	3,462	3,671	<b>3,462</b>	-208	-5.7%	0	0.0%
Department of Defense *	1,470	1,422	<b>1,541</b>	119	8.4%	71	4.8%
Department of Energy	2,907	3,268	<b>2,906</b>	-362	-11.1%	-1	0.0%
<i>Office of Science</i>	<i>2,890</i>	<i>3,245</i>	<i>2,890</i>	<i>-355</i>	<i>-10.9%</i>	<i>0</i>	<i>0.0%</i>
National Aeronautics & Space Admin.	2,318	2,214	<b>2,045</b>	-169	-7.6%	-273	-11.8%
Department of Agriculture	846	771	<b>774</b>	2	0.3%	-72	-8.6%
Department of the Interior	42	38	<b>42</b>	4	11.0%	0	0.0%
Department of Homeland Security *	95	49	<b>42</b>	-7	-14.8%	-53	-56.1%
Smithsonian	128	133	<b>128</b>	-5	-3.8%	0	0.0%
Environmental Protection Agency	102	95	<b>102</b>	7	7.6%	0	0.0%
Department of Commerce (NIST)	56	87	<b>56</b>	-31	-35.8%	0	0.0%
All Other	412	415	<b>415</b>	-1	-0.2%	2	0.6%
<b>Total Est. Basic Research</b>	<b>27,834</b>	<b>28,188</b>	<b>27,507</b>	<b>-681</b>	<b>-2.4%</b>	<b>-327</b>	<b>-1.2%</b>
<b>RESEARCH (basic and applied):</b>							
Health and Human Services	28,939	28,879	<b>28,936</b>	57	0.2%	-3	0.0%
<i>National Institutes of Health</i>	<i>27,686</i>	<i>27,696</i>	<i>27,686</i>	<i>-10</i>	<i>0.0%</i>	<i>0</i>	<i>0.0%</i>
National Science Foundation	3,782	4,049	<b>3,782</b>	-268	-6.6%	0	0.0%
Department of Defense *	7,176	6,031	<b>7,196</b>	1,165	19.3%	20	0.3%
Department of Energy	5,738	5,957	<b>5,729</b>	-228	-3.8%	-9	-0.2%
<i>Office of Science</i>	<i>2,890</i>	<i>3,245</i>	<i>2,890</i>	<i>-355</i>	<i>-10.9%</i>	<i>0</i>	<i>0.0%</i>
National Aeronautics & Space Admin.	3,993	3,336	<b>3,081</b>	-255	-7.6%	-912	-22.8%
Department of Agriculture	2,012	1,747	<b>1,887</b>	140	8.0%	-124	-6.2%
Department of the Interior	585	543	<b>585</b>	42	7.7%	0	0.0%
Department of Homeland Security *	1,126	903	<b>762</b>	-141	-15.6%	-363	-32.3%
Environmental Protection Agency	488	453	<b>488</b>	35	7.7%	0	0.0%
Department of Commerce	834	856	<b>781</b>	-75	-8.8%	-54	-6.4%
NOAA	502	490	<b>450</b>	-40	-8.2%	-52	-10.4%
NIST	318	354	<b>318</b>	-35	-9.9%	0	0.0%
Department of Transportation	526	519	<b>512</b>	-6	-1.2%	-14	-2.6%
Department of Veterans Affairs	720	720	<b>720</b>	0	0.0%	0	0.0%
Department of Education	203	200	<b>203</b>	3	1.5%	0	0.0%
All Other	557	568	<b>559</b>	-9	-1.6%	2	0.4%
<b>TOTAL EST. RESEARCH</b>	<b>56,679</b>	<b>54,761</b>	<b>55,222</b>	<b>461</b>	<b>0.8%</b>	<b>-1,457</b>	<b>-2.6%</b>

AAAS estimates of basic and applied research in FY 2007 appropriations bills.

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

FY 2006 figures have been adjusted to reflect supplementals enacted in Public Law 109-234.

\* - DOD and DHS FY 2007 Congress figures are conference (enacted) appropriations.

All other FY 2007 Congress figures are based on provisions of the third continuing resolution (P.L. 109-383).

December 13, 2006 - AAAS estimates of FY 2007 appropriations bills and continuing resolution.

Table 3. Major Functional Categories of R&amp;D in FY 2007 Appropriations (as of 12/06)

**Table 3. Major Functional Categories of R&D  
Congressional Action on R&D in the FY 2007 Budget (as of December 2006)  
(budget authority in millions of dollars)**

	FY 2006 Estimate	FY 2007 Request	Action by Congress				% of Total ('07 Cong.)	
			<b>FY 2007 Congress</b>	Chg. from Request Amount	Chg. from Request Percent	Chg. from FY 2006 Amount		Chg. from FY 2006 Percent
Defense * <sup>1</sup>	77,630	78,388	<b>81,163</b>	2,776	3.5%	3,534	4.6%	58.7%
Nondefense <sup>2</sup>	57,625	58,505	<b>57,128</b>	-1,377	-2.4%	-497	-0.9%	41.3%
Space	10,411	11,478	<b>10,703</b>	-775	-6.8%	292	2.8%	7.7%
Health	29,850	29,787	<b>29,850</b>	62	0.2%	0	0.0%	21.6%
Energy	1,419	1,363	<b>1,387</b>	24	1.8%	-32	-2.2%	1.0%
General Science	7,495	8,321	<b>7,495</b>	-826	-9.9%	0	0.0%	5.4%
Natural Resources & Environ.	2,210	2,045	<b>2,102</b>	57	2.8%	-108	-4.9%	1.5%
Agriculture	2,128	1,711	<b>2,000</b>	289	16.9%	-128	-6.0%	1.4%
Transportation *	1,741	1,507	<b>1,476</b>	-31	-2.0%	-265	-15.2%	1.1%
Commerce	457	486	<b>477</b>	-10	-2.0%	20	4.3%	0.3%
International	255	255	<b>255</b>	0	0.0%	0	0.0%	0.2%
Administration of Justice *	1,011	895	<b>737</b>	-158	-17.6%	-274	-27.1%	0.5%
All Other	648	657	<b>647</b>	-10	-1.5%	-1	-0.2%	0.5%
<b>Total R&amp;D</b>	<b>135,255</b>	<b>136,892</b>	<b>138,291</b>	<b>1,399</b>	<b>1.0%</b>	<b>3,037</b>	<b>2.2%</b>	<b>100.0%</b>

AAAS estimates of R&D in FY 2007 appropriations bills. Includes conduct of R&D and R&D facilities.

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

Classifications generally follow the government's budget function categories except health (which here includes health R&D in HHS and VA).

<sup>1</sup> Includes DOD R&D, atomic energy defense R&D in DOE, and defense-related R&D in DHS.

<sup>2</sup> Includes all R&D not in defense (domestic and international discretionary programs).

FY 2006 figures have been adjusted to reflect supplementals enacted in Public Law 109-234.

\* - DOD and DHS FY 2007 Congress figures are conference (enacted) appropriations.

All other FY 2007 Congress figures are based on provisions of the third continuing resolution (P.L. 109-383).

December 13, 2006 - AAAS estimates of FY 2007 appropriations bills and continuing resolution.