

## USDA R&D Falls in 2008 Budget

### AAAS R&D Funding Update on R&D in the FY 2008 USDA Budget

(This analysis is a preview of the USDA chapter in the forthcoming *AAAS Report XXXII: Research and Development FY 2008*, a comprehensive look at the President's budget for R&D in FY 2008. This analysis contains revised AAAS estimates of USDA R&D, different from figures originally presented in the President's budget. More tables and continually updated supplemental materials on R&D in the FY 2008 budget can be found on the AAAS R&D Web site at <http://www.aaas.org/spp/rd>.)

#### Highlights

- **R&D in the U.S. Department of Agriculture (USDA) would fall 10.8 percent from the final 2007 appropriation to \$2.0 billion in 2008** (see Table II-13).

- On the extramural side, the **National Research Initiative (NRI) of competitively awarded research grants would increase \$66 million to a record \$257 million, although similar proposed increases in past years have not made it through Congress.** Hatch Act funding falls from an unexpectedly large \$323 million 2007 appropriation down below historical levels to \$164 million; although funding is traditionally distributed by formula, a quarter of the 2008 funds could be awarded competitively. Total extramural agricultural R&D would fall 18 percent to \$534 million.

#### USDA R&D in the FY 2008 Budget

In a reprise of past budget requests, the Bush Administration once again proposes to reduce the USDA R&D budget in its latest request, but in a change from past budgets the cuts are due to reductions in core R&D programs rather than proposed eliminations of earmarks. Most years, Congress inserts hundreds of millions of dollars in R&D funding for congressionally designated, performer specific R&D projects which USDA proposes to cancel in the following year, but in the recently finalized 2007 budget Congress chose not to earmark, so the 2008 budget's proposed cuts are cuts to non-earmarked funding, a 10.8 percent or \$245 million decline in USDA R&D down to \$2.0 billion (see Table II-13). The AAAS analysis of the final FY 2006 budget counted \$331 million in USDA R&D earmarks in FY 2006, a total which drops to \$0 in 2007 and which is responsible for the decline in USDA R&D between 2006 and 2007. The 2008 cuts come from reductions in both intramural R&D and USDA's extramural R&D funds distributed competitively or by formula.

**In USDA's external portfolio, a sharp reduction in formula funding would allow for a boost to competitively awarded research funds.** USDA's extramural research grants, nearly entirely to colleges and universities, are administered by the Cooperative State Research, Education and Extension Service (CSREES). Total CSREES R&D would fall \$120 million or 18.3 percent to \$534 million in FY 2008. Within the declining total, the **National Research Initiative, USDA's main competitive research grants program, would see its funding jump 35 percent or \$66 million to an all-time high of \$257 million in FY 2008 after several years of being stalled at the \$180 million level.** Included in the increase is a \$19 million start for a bioenergy and biobased fuels initiative. But similar increases in the past several budgets have been rejected by Congress, because they would have been offset by cuts in formula or earmarked funding.

Indeed, **funding for formula programs would decline sharply in the 2008 proposal**, but there would be further cuts under the surface. The Hatch Act, the largest funding source for formula-distributed research

funds to the nation's land-grant universities, received a surprising boost to an unprecedented funding level of \$323 million in the recently finalized 2007 appropriation, nearly double the funding levels of 2006 and earlier years. The 2008 request, prepared before the 2007 congressional windfall was announced, would bring funding back down to \$164 million (down 49 percent) and just last week USDA proposed to rescind (cancel) \$130 million of the just-appropriated 2007 funds. But below the surface, it appears that USDA would greatly expand the portion of Hatch Act funding going to competitively awarded grants. Currently, 25 percent of Hatch Act funding goes to multi-state research projects; USDA proposes to expand that share to 60 percent, of which 38 percent would be competitively awarded. It is unclear whether USDA will fully phase in this expansion in 2007, or wait until 2008. But in either case, it means that the traditional individual state formula research funds that have traditionally been at the heart of the Hatch Act could fall from \$133 million last year down to \$66 million next year. The USDA proposes a similar move for the Cooperative Forestry program (\$20 million), converting a majority of funding from formula to competitive. Congress is likely to oppose these formula funding cuts, but it is unclear whether they will fully reverse the proposed shift toward competitively awarded research.

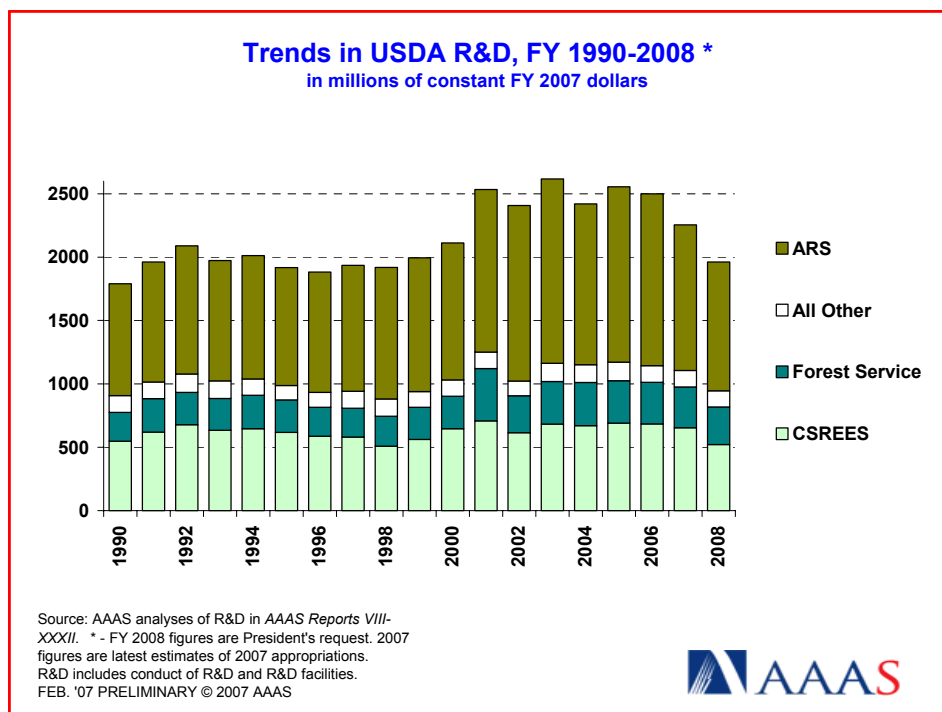


Figure 1. (click on the image for PDF)

Most of USDA's intramural research is performed in the Agricultural Research Service (ARS). **ARS R&D would fall 9.3 percent or \$107 million to \$1.0 billion.** Unlike in most years when the proposed eliminations of earmarks would account for the drop, the 2008 cuts would be from a non-earmarked 2007 base budget.

The other major USDA R&D agency is the Forest Service, whose R&D budget would fall \$17 million or 5.3 percent down to \$305 million. Although the primary focus of its R&D portfolio is forestry and ecosystems research, in recent years the Forest Service has emphasized its fire science and wildfire management research portfolio as well. Most of this research is performed in intramural laboratories.

**The falling FY 2008 USDA R&D portfolio would be a dramatic reduction from recent years in which the department's R&D funding hit record highs** in inflation-adjusted dollars (see Figure 1). Since hitting a low in FY 1996, the funding trend had been generally upward, first because the federal budget surplus made more discretionary funds available to congressional appropriators, then in FY 2000 and FY 2001 from the release of mandatory competitive research funds, and since FY 2002 because heightened

concern about agricultural terrorism and the security of USDA laboratories resulted in millions for security upgrades and other homeland security-related investments. Those needs have waned, and thus funding has fallen. There had been a steady increase in congressionally earmarked projects, but the lack of earmarks brings 2007 R&D funding down dramatically. The 2008 budget would reduce funding even further below that amount.

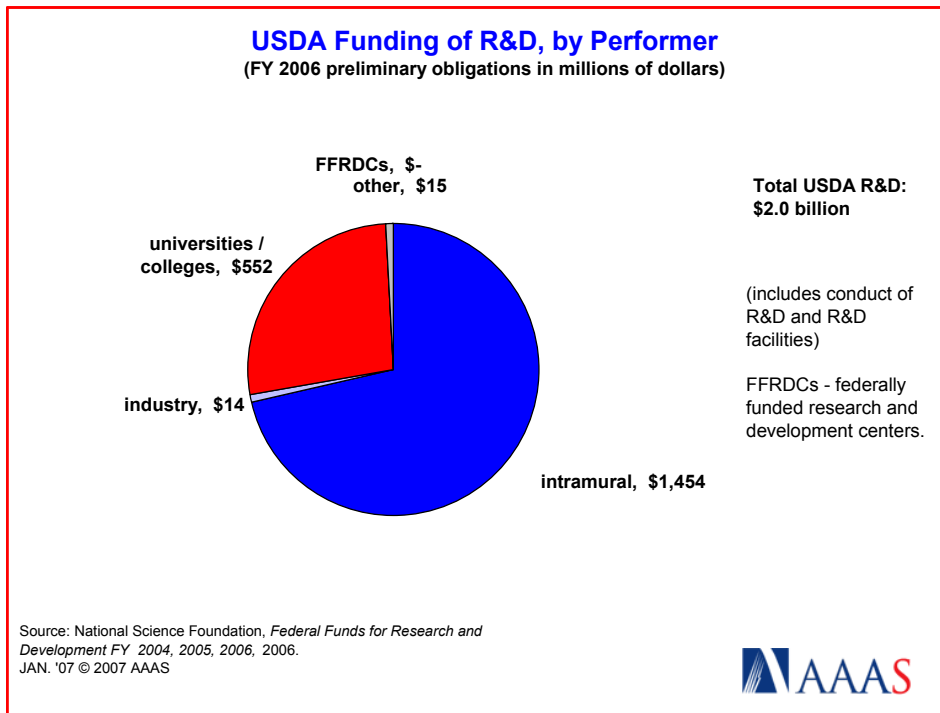


Figure 2. (click on the image for PDF)

USDA is the sixth-largest supporter of R&D in the federal government, and its support is especially important for key disciplines. USDA is responsible for just 5 percent of all research support in the broad area of the life sciences, but dominates funding for two disciplines within life sciences, agricultural sciences and environmental biology. USDA funds more than 90 percent of all federal support for the agricultural sciences, with the remainder supported by the Agency for International Development (for international agriculture R&D) and the National Oceanic and Atmospheric Administration (for aquaculture and other marine-related R&D). USDA is also an important supporter of chemistry and biology, and represents a majority of federal support for economics through the Economic Research Service (ERS).

Nearly two thirds of USDA R&D is performed in USDA's own laboratories (see Figure 2). ARS, Forest Service, and ERS funding goes almost exclusively to intramural laboratories, while the slightly greater than one quarter of USDA R&D funding going to universities and colleges comes from CSREES. These proportions have been stable in recent years because of the division of labor between ARS and CSREES in funding external and internal research, but this stability could change. As part of the reauthorization of the farm bill that Congress will undertake later this year, there could be significant restructurings in the USDA agricultural R&D portfolio. Congress is considering various proposals which could combine ARS and CSREES in a single unit, create a new National Institute for Food and Agriculture (NIFA) that would be a separate unit to fund competitively awarded extramural research, or create new structures and programs that would boost competitive funding within the existing structure. These proposals, plus other proposals to boost significantly competitive research in general and research on crops as biofuels in particular, could lead to an expansion in USDA R&D going to universities. But many of these ideas have been proposed in the past and have generally gone nowhere, so it remains too soon to tell whether next year's USDA R&D enterprise will look dramatically different from this year's.

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(More materials on R&D in the FY 2008 budget, historical data and charts, and more information on *AAAS Report XXXII: Research and Development FY 2008*, can be found on the AAAS R&D Web site at <http://www.aaas.org/spp/rd>.)

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Table II-13. U.S. Department of Agriculture R&amp;D

**Table II-13.** R&D in the U.S. Department of Agriculture  
(budget authority in millions of dollars)

	FY 2006 Actual	FY 2007 Estimate	FY 2008 Budget	Change FY 07-08	
				Amount	Percent
<b>Agricultural Research Service (ARS)</b>					
Salaries and Expenses	1,147	1,131	<b>1,024</b>	-107	-9.5%
Trust Funds	17	18	<b>18</b>	0	0.0%
Buildings and Facilities	159	0	<b>0</b>	0	--
<b>Total ARS R&amp;D</b>	<b>1,323</b>	<b>1,149</b>	<b>1,042</b>	<b>-107</b>	<b>-9.3%</b>
<b>Cooperative State Research, Education, and Extension Service (CSREES)</b>					
National Research Initiative	181	190	<b>257</b>	66	34.8%
Hatch Act (Ag. Experiment)	177	323	<b>164</b>	-158	-49.0%
Cooperative Forestry	22	30	<b>20</b>	-10	-31.7%
1890 Colleges	37	41	<b>38</b>	-2	-5.8%
Special Research Grants	127	0	<b>3</b>	3	--
Integrated Grants	26	26	<b>6</b>	-20	-76.9%
All Other CSREES R&D	97	44	<b>45</b>	1	1.9%
<b>Total CSREES R&amp;D</b>	<b>667</b>	<b>654</b>	<b>534</b>	<b>-120</b>	<b>-18.3%</b>
Forest Service	320	322	<b>305</b>	-17	-5.3%
Economic Research Service	75	75	<b>83</b>	8	10.9%
Agricultural Marketing Service	3	4	<b>4</b>	0	0.0%
Foreign Agricultural Service	1	1	<b>1</b>	0	0.0%
Nat'l Agricultural Statistics Service	5	5	<b>7</b>	2	40.0%
Federal Grain Inspection	7	7	<b>8</b>	1	14.3%
Natural Resources Conservation	12	12	<b>0</b>	-12	-100.0%
Animal & Plant Inspection Service	25	27	<b>27</b>	0	0.0%
<b>Total USDA R&amp;D</b>	<b>2,438</b>	<b>2,256</b>	<b>2,011</b>	<b>-245</b>	<b>-10.8%</b>

Source: OMB data for R&D for FY 2008, USDA budget documents, and USDA budget office. All figures are rounded to the nearest million. Changes calculated from unrounded figures.

**April 3, 2007 - revised**

**Please see Chapter 10 for information on USDA R&D.**

**\* FY 2007 figures reflect latest estimates of final 2007 appropriations (P.L. 110-5).**