

## **House Awards Increase to NSF, But Falls Far Short of Request**

(This analysis is part of a series of AAAS R&D Funding Updates on the FY 2001 congressional appropriations process. This analysis includes information on R&D in House appropriations for NSF. The complete series of AAAS R&D Funding Updates, including continually updated analyses of R&D by agency in FY 2001 appropriations, is available on the AAAS R&D Web Site (<http://www.aaas.org/spp/R&D>) in the “FY 2001 R&D” or the “What’s New” sections.)

On June 7, the House Appropriations Committee drafted an FY 2001 VA-HUD appropriations bill that would provide mostly level funding for R&D programs in the National Science Foundation (NSF), the National Aeronautics and Space Administration (NASA), and the Environmental Protection Agency (EPA). Although the Clinton Administration requested a \$675 million or 17.3 percent increase to the total NSF budget, the House would provide [\$526 million less than the request for a total NSF budget of \$4.0 billion, which would still be \$149 million or 3.8 percent more than FY 2000. **NSF’s R&D would be cut well below the request, and would total \$3.0 billion, up 3.9 percent over FY 2000] in sharp contrast to a 19.8 percent requested increase** (see Table). Most of the research directorates, especially computer sciences, would receive large increases though smaller ones than requested.

[On June 21, the full House approved the bill after making several amendments, including one that reduced NSF’s polar research programs by \$18 million to pay for an increase in housing programs.]

The House FY 2001 VA-HUD bill would provide \$76 billion for discretionary programs, an increase over the \$72 billion FY 2000 total, but the increase would go mostly to the bill’s veterans and housing programs, leaving flat funding for most R&D programs. The President requested a far higher \$85 billion for the bill’s programs, including substantial increases for NSF and a smaller one for NASA, but because Congress chose to allocate only \$605 billion for total discretionary spending compared to the President’s \$622 billion, while at the same time increasing defense spending more than the President, Congress has far less money than the President to allocate for domestic programs such as the ones in the VA-HUD bill.

When introducing his budget request in February, President Clinton made NSF the centerpiece of his budget for R&D, which placed a strong emphasis on achieving a better balance among science and engineering disciplines. Although a series of large increases for the National Institutes of Health (NIH) has resulted in an emphasis on biomedical and life sciences research in recent years within the federal research portfolio, the FY 2001 budget proposed large increases for R&D programs in non-life sciences disciplines. Because NSF is the only R&D funding agency responsible for the entire range of science and engineering disciplines, with a particular emphasis on fundamental research and non-life sciences disciplines, the budget request singled out NSF for an unprecedented \$675 million or 17.3 percent increase in its total budget to \$4.6 billion. The requested increase was spread across the breadth of NSF’s research portfolio, with special attention to the agency’s leading role in several multi-agency initiatives.

[The House VA-HUD bill would award \$4.0 billion to NSF, an increase of \$149 million or 3.8 percent that would have been considered generous in other years. But the proposed appropriation falls far short of the request. **NSF’s R&D funding, which excludes NSF’s education and training activities and overhead costs, would total \$3.0 billion, an increase of 3.9 percent or \$111 million (see Table).**]

The **Research and Related Activities (R&RA)** account, which funds most of NSF’s R&D, would receive \$3.1 billion, [5.4 percent or \$159 million more than FY 2000.] Although the appropriation would be [\$423

---

million] less than the request, the House bill would generally follow NSF's stated priorities on how to distribute the funds among the research directorates. The big winner would be the **Computer and Information Science and Engineering (CISE)** Directorate, which would receive \$439 million for an increase of 13.1 percent. While this would be far less than the requested 36.2 percent increase to \$529 million, the House appropriation should allow CISE to expand its investments in the multi-agency **Information Technology R&D** initiative, currently funded at \$1.7 billion, though not at the 34.5 percent rate as requested. Because the House has not yet acted on appropriations for the Department of Energy (DOE), it is unclear how much money the House would provide for the complete initiative.

Other research directorates would receive substantial increases, though once again less than requested. The Biological Sciences (BIO) directorate would receive \$450 million, an increase of 8.6 percent, while programs in the mathematical and physical sciences, engineering, earth sciences, and social sciences would receive increases between 6 and 8 percent. As a result, NSF should be able to boost significantly its investments as the leading agency in the **Nanotechnology Initiative**. NSF's portion of the multi-agency initiative is planned to go from \$97 million in FY 2000 to a requested \$217 million. Though the House plan would not allow for the full request, it should still allow NSF to nearly double its current investment.

The only program within R&RA to decline would be Integrative Activities, which would fall 32.5 percent from \$129 million to \$87 million. The request was for a smaller cut to \$119 million. The House would grant most of the request but would zero out the \$32 million request for the Opportunity Fund, which supports innovative cross-disciplinary research and education, because of budget constraints.

The **Major Research Equipment** account, which funds construction of large-scale scientific facilities, would receive \$77 million, far less than the \$139 million request. The House would provide no funds for the Terascale Computing Systems project (request: \$45 million), part of the Information Technology Research initiative. The FY 2000 budget of \$36 million provides funds to build an initial terascale (trillions of operations per second) computing site. The bill states that the FY 2001 request for a second site should wait until the first site is operational. The House would provide the full requested amounts for the Millimeter Array, the Large Hadron Collider, the South Pole Station, and the Network for Earthquake Engineering Simulation, but would save money by providing no funds for the requested new starts of the USArray and SAFOD, and the National Ecological Observatory Network.

NSF's **Education and Human Resources** programs would receive \$694 million, slightly below FY 2000 and well below the \$729 million request. Although the House would provide the full requested amounts for Educational System Reform, the Experimental Program to Stimulate Competitive Research (EPSCoR), and most other EHR programs, the House bill would find savings by reducing the requests for Undergraduate Education and Graduate Education. Because these programs requested substantial increases, the House appropriations would still represent increases over FY 2000.

[The VA-HUD bill was approved by the full House on June 21 after long, contentious debates between Democrats and Republicans. Most proposed Democratic amendments to boost funding levels failed. A few amendments to shift funding between programs were approved, including one to reduce NSF polar research by \$18 million in order to boost funding for housing programs.] The Senate has not drafted its version yet. The House bill is likely to draw a veto threat because its funding levels fall far short of the request, and because it would eliminate the Corporation for National and Community Service, one of the Clinton Administration's high-priority programs. Because of the unusually strong leverage the President has in this election year, it is likely that final funding levels for VA-HUD bill programs will be far higher than House-proposed levels before the appropriations process is over. Although it is likely that additional funds will be found for NSF programs, especially if the Senate VA-HUD bill proposes higher funding levels, it appears unlikely that Congress will agree to the full requested increase.

- June 8, 2000 (revised June 22)

AAAS R&D Budget and Policy Program

---

1200 New York Ave, NW  
Washington, DC 20005  
(202) 326-6607; -6600  
fax (202) 289 4950  
science\_policy@aaas.org  
www.aaas.org/spp/R&D

**Table. National Science Foundation  
House Action on R&D in the FY 2001 Budget  
(budget authority in millions of dollars)**

	FY 2000 Estimate	FY 2001 Request	Action by House				
			FY 2001 House	Chg. from Request		Chg. from FY 2000	
				Amount	Percent	Amount	Percent
Research and Related Activities <sup>1</sup> :							
Mathematical and Physical Sciences	758	881	<b>802</b>	-79	-9.0%	45	5.9%
Engineering	382	457	<b>411</b>	-45	-10.0%	29	7.6%
Biological Sciences	414	511	<b>450</b>	-61	-12.0%	35	8.6%
Geosciences	488	583	<b>524</b>	-59	-10.2%	36	7.4%
Computer and Info. Science and Eng.	388	529	<b>439</b>	-90	-16.9%	51	13.1%
Social, Behavioral and Econ. Scis.	146	175	<b>158</b>	-18	-10.0%	11	7.9%
US Polar Programs	253	285	<b>247</b>	-39	-13.6%	-7	-2.6%
Integrative Activities	129	119	<b>87</b>	-32	-26.8%	-42	-32.5%
<b>Total Research and Related Activities <sup>1</sup></b>	<b>2,958</b>	<b>3,541</b>	<b>3,118</b>	<b>-423</b>	<b>-11.9%</b>	<b>159</b>	<b>5.4%</b>
Major Research Equipment	94	139	<b>77</b>	-62	-44.7%	-17	-18.1%
Education and Human Resources R&D	121	110	<b>105</b>	-5	-4.8%	-16	-13.3%
Less Non-R&D in R&RA <sup>1</sup>	-309	-358	<b>-325</b>	34	-9.4%	-15	4.9%
<b>Total NSF R&amp;D</b>	<b>2,863</b>	<b>3,431</b>	<b>2,974</b>	<b>-457</b>	<b>-13.3%</b>	<b>111</b>	<b>3.9%</b>
Non-R&D Programs and Activities:							
Non-R&D in R&RA <sup>1</sup>	309	358	<b>325</b>	-34	-9.4%	15	4.9%
Other Education and Human Res.	570	619	<b>590</b>	-29	-4.8%	20	3.4%
Salaries and Expenses	149	158	<b>152</b>	-6	-3.7%	3	2.1%
Inspector General	5	6	<b>6</b>	-1	-9.2%	0	4.6%
<b>Total NSF Non-R&amp;D Activities</b>	<b>1,034</b>	<b>1,142</b>	<b>1,072</b>	<b>-70</b>	<b>-6.1%</b>	<b>38</b>	<b>3.7%</b>
<b>Total NSF Budget</b>	<b>3,897</b>	<b>4,572</b>	<b>4,046</b>	<b>-526</b>	<b>-11.5%</b>	<b>149</b>	<b>3.8%</b>

AAAS estimates based on FY 2001 appropriations bills. Includes conduct of R&D and R&D facilities.

FY 2000 and FY 2001 request figures based on OMB R&D data and supplemental agency budget data.

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

<sup>1</sup> R&RA funds are not appropriated by directorate. The FY 2001 House directorate figures are AAAS estimates based on language in the FY 2001 appropriations bill.

**June 8, 2000 (revised June 22) - House-approved appropriations.  
These appropriations reflect amendments approved on the House floor.**