Science Resources Studies Division DATA BRIEF National Science Foundation

Directorate for Social, Behavioral and Economic Sciences

Vol. 1996, No. 2, May 31, 1996

Academic S&E Support from Federal Agencies Rose by 8 Percent in FY 1994

by Richard J. Bennof

HHS, NSF, and DOD received increases in Federal support for science and engineering activities exceeding inflation rates.

Electronic Dissemination

SRS data are available through the World Wide Web (http:// www.nsf.gov/sbe/srs/stats.htm) and also through STIS, NSF's online Science and Technology Information System, described in NSF flyer 95-64, "Getting NSF Information and Publications." For a paper copy of the flyer, call 703-306-1130. For an electronic copy of the STIS User's Guide, send an e-mail with the phrase "get NSF9410.TXT" to stisserv@nsf.gov. For NSF's Telephonic Device for the Deaf, dial 703-306-0090.

Pederal agencies' obligations for science and engineering (S&E) activities at universities and colleges increased 8 percent (6 percent when adjusted for inflation) in fiscal year (FY) 1994, to a new high of \$13.7 billion. This increase followed last year's slight decline in Federal academic S&E funding but is consistent with the average annual 9-percent current-dollar increase between 1973 and 1992. This information is based on the latest data from the National Science Foundation's (NSF's) Survey of Federal Support to Universities, Colleges, and Nonprofit Institutions.

Categories of Support

There are six academic S&E funding categories: (1) research and development (R&D); (2) fellowships, traineeships, and training grants (FTTG); (3) R&D plant; (4) facilities and equipment for instruction; (5) general support for S&E; and (6) other S&E activities. R&D support (\$11.8 billion in FY 1994) continued to account for \$6 of every \$7 of academic S&E funding and increased nearly 8 percent in FY 1994 (table 1). Over onehalf of all academic R&D obligations (\$6.4 billion) and over nine-tenths of its total increase were from Department of Health and Human Services (HHS) programs, mostly National Institutes of Health (NIH) projects

Table 1. Federal academic S&E support, by Type of activity: Fiscal years 1993-94											
Type of	(millions	of dollars)	(Percent change)								
activity	FY 1993	FY 1994	Current \$	1987 \$							
S&E total	12,731	13,739	7.9	5.9							
R&D	10,923	11,768	7.7	5.7							
R&D plant	259	214	-17.4	-18.9							
Facilities for											
instruction	32	49	52.7	49.7							
FTTG	526	634	20.5	18.2							
Gen Support	66	139	110.3	106.3							
Other S&E	924	934	1.1	-0.8							
SOURCE: NSF/SRS, Survey of Federal Support to											
Universities Colleges and Nonprofit											

Universities, Colleges, and Nonprofit Institutions: FY 1994 in the biological and medical sciences. Four of the other five academic S&E categories showed increased support levels, with three (FTTG, facilities and equipment for instruction, and general support for S&E) increasing at rates higher than inflation. FTTG funds rose by over 20 percent in current dollars to a new high of \$634 million; most of the increase was provided by HHS and the Department of Education (ED). Funds for instructional facilities and equipment grew by 53 percent to a record \$49 million, most of the increase coming from the Department of Defense (DOD). General support for S&E, following a steep decline, more than doubled from FY 1993 levels with NIH and the National Oceanic and Atmospheric Administration (NOAA) of the Department of Commerce responsible for most of the growth.

Agency Sources

HHS, NSF, and DOD collectively accounted for nearly four-fifths of the FY 1994 academic S&E obligations. Each of the three agencies showed increases that when adjusted for inflation were 12 percent, 7 percent, and 1 percent, respectively. The Department of Agriculture (USDA), the National Aeronautics and Space Administration (NASA), and the Department of Energy (DOE) were responsible for nearly four-fifths of the remaining academic S&E funding. Of those three agencies, only NASA reported a current-dollar increase although its support level failed to exceed the 2-percent inflation rate.

University Shares

The Johns Hopkins University (including its Applied Physics Laboratory) continued as the leading recipient of Federal academic S&E support (table 2); four-fifths of its \$764 million total was for R&D programs that were funded largely by DOD and HHS. As in the prior year, the top 20 universities, ranked by Federal S&E obligations, accounted for 36 percent of the academic S&E total. Nineteen of the top 20 university S&E recipients in FY 1994 were also among the top 20 in FY 1993, with the University of Southern California being the new entrant (now 19th). A full 48 percent of DOD's academic S&E support went to these 20 leading university recipients in FY 1994, as did 40 percent of all academic S&E funds from HHS. By contrast, a somewhat smaller 31 percent of NSF's academic S&E funding went to the top 20 recipient universities nationwide.

User Notes

The Federal Support data presented in this Data Brief were obtained from the 15 Federal agencies that provide virtually all academic R&D support and that participated in the FY 1994 Survey of Federal Support to Universities, Colleges, and Nonprofit Institutions. The annual survey also includes statistics on Federal obligations by funding category, type of institution, S&E discipline, institutional ranking, geographic distribution, and type of institutional control.

Selected data items for individual doctorate-granting institutions and schools with S&E departments that grant a master's degree are available on computer-generated Institutional Profiles. Institutional Profiles contain data from this survey and from NSF's other two academic S&E surveys: the Survey of Scientific and Engineering Expenditures at Universities and Colleges and the Survey of Graduate Science and Engineering Students and Postdoctorates.

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Table 2. Federal academic science & engineering (S&E) support to the top 20 universities: FY 1994

(Millions of dollars)

Rank	Institution	Total S&E	USDA	DOD	DOE	HHS	NASA	NSF	Other
	Total, all institutions	13,739.3	939.1	1,889.0	616.1	6,890.1	740.1	2,042.1	622.7
1	Johns Hopkins Univ	764.0	0.3	466.0	6.3	266.1	11.5	11.9	1.9
2	Univ of Washington	309.6	5.2	29.3	14.3	195.7	9.1	42.1	13.8
3	MA Inst of Technology	290.3	0.2	61.1	67.0	65.7	39.3	48.2	8.8
4	Stanford University	282.5	0.0	38.0	6.7	138.8	56.4	38.4	4.2
5	Univ of Michigan	263.2	0.6	23.1	7.1	168.7	10.8	40.4	12.5
6	U WI Madison	238.4	22.6	19.8	18.3	117.6	12.8	44.5	2.8
7	U CA Los Angeles	236.5	0.2	23.1	20.0	163.2	8.5	19.9	1.7
8	U CA San Diego	233.1	0.3	26.8	10.4	130.8	13.7	46.2	4.9
9	Cornell University	221.5	27.1	14.3	5.0	94.2	5.7	73.7	1.6
10	U CA San Francisco	217.5	0.2	2.7	3.2	205.9	1.4	3.3	0.7
11	Harvard University	210.0	0.1	8.5	5.1	161.1	6.5	25.2	3.5
12	University of PA	209.1	0.5	15.5	6.8	162.6	0.3	22.3	1.0
13	Pennsylvania State U	207.4	23.1	88.0	4.2	46.7	12.5	23.3	9.6
14	Univ of Minnesota	205.0	20.7	8.3	6.0	128.7	2.4	30.6	8.1
15	Yale University	200.8	0.7	7.4	10.9	167.1	0.9	13.3	0.4
16	Columbia U City NY	197.6	0.3	11.2	7.8	139.5	6.1	31.9	0.9
17	Univ of Colorado	190.4	0.5	10.5	5.9	101.6	17.3	32.8	21.8
18	U CA Berkeley	180.8	23.7	10.7	4.8	66.9	24.8	47.3	2.6
19	U Southern California	166.2	0.0	40.2	2.2	98.6	4.0	18.2	3.1
20	Duke University	165.5	0.6	7.9	5.3	133.4	0.5	15.3	2.3
	Total,top 20 institutions	4,989.4	127.0	912.5	217.6	2,752.8	244.4	628.9	106.2

SOURCE: NSF/SRS, Survey of Federal Support to Universities, Colleges, and Nonprofit Institutions: FY 1994

Data from these three surveys also are available via the www, STIS (see "Electronic Dissemination," p.1) and the Computer-Aided Science Policy Analysis and Research (CASPAR) database system, a user-friendly tool on CD-ROM for retrieval and analyses of statistical data on academic S&E resources. For more information, please contact Richard J. Bennof, Project Officer, at the following address: Division of Science Resources Studies National Science Foundation 4201 Wilson Boulevard, Suite 965 Arlington, VA. 22230

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