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Federal Academic R&D Support Increased Ten Percent in FY 1989

Obligations¹ from federal agencies reached \$8.5 billion for academic research and development (R&D) in FY 1989, ten percent over the FY 1988 level. Among the agencies providing the greatest support for academic R&D, the National Aeronautics and Space Administration (NASA) and the National Science Foundation (NSF) reported the greatest increases—of 28 percent and 21 percent, respectively. During the years from FY 1979 through FY 1989, R&D obligations from all agencies rose at an average annual rate of 8 percent. Of the largest R&D-supporting agencies, NASA led with an annual increase of 12 percent, followed by the Department of Health and Human Services (HHS) and the Department of Defense (DOD), each increasing its obligations by nearly 9 percent per year.

In FY 1989, as in prior years, Johns Hopkins University was the leading recipient of federal R&D awards, receiving nearly all of its \$412 million from DOD and HHS. The R&D total for Johns Hopkins University included \$197 million for its Applied Physics Laboratory.

The top 20 universities, ranked by federal agencies' R&D obligations in FY 1989, accounted

for nearly two-fifths of all federal academic R&D funds. Historically, the concentration of federal academic R&D awards among the leading universities and colleges has varied little. In FY 1989, for example, 18 of the top 20 R&D performers had also been among the top 20 in FY 1988.

Field-of-S/E-discipline data are available for all R&D and FTTG (fellowship, traineeship, and training-grant) programs. Over one-half of all R&D programs were focused on the life sciences in FY 1989. Just over two-thirds of the \$341 million total for FTTGs was for the life sciences. In FY 1989, in the life sciences, the National Institutes of Health supplied 78 percent of all federal government-wide R&D funding and 90 percent of federal FTTG funding. Total federal support (all S/E and non-S/E activities combined) reached a new high of \$15.7 billion in FY 1989, an 11-percent increase over the FY 1988 level. Academic S/E activities accounted for 64 percent of total federal obligations in FY 1989.

¹Federal obligations differ from federal expenditures in that funds obligated by an agency in a given fiscal year may be expended by the academic institution in one or more subsequent years.

Federal R&D support to the top 20 academic performers: FY 1989 (\$ millions)

Rank	Institution	Total	HHS	DOD	NSF	Other
1	Johns Hopkins Univ.	411.9	179.5	203.2	9.3	19.9
2	Stanford Univ.	239.8	111.0	39.6	27.1	62.1
3	Mass. Inst. of Technology	207.2	50.7	42.3	41.3	72.9
4	Univ. of Washington	203.7	130.2	27.6	27.0	18.9
5	Univ. of Calif. at Los Angeles	170.8	115.0	10.7	19.1	26.0
6	Univ. of Michigan	167.9	105.9	11.4	20.1	30.5
7	Univ. of Calif. at San Diego	166.6	87.2	29.1	31.4	18.9
8	Univ. of Calif. at San Francisco	159.0	150.2	2.0	1.9	4.9
9	Univ. of Wisc. at Madison	150.5	84.0	8.9	25.7	31.9
10	Columbia Univ. Main Div.	150.3	99.5	11.5	25.8	13.5
11	Yale Univ.	146.2	117.6	8.0	9.9	10.7
12	Harvard Univ.	141.8	99.6	7.4	18.4	16.4
13	Cornell Univ.	140.0	65.8	15.2	38.6	20.4
14	Univ. of Pennsylvania	132.8	100.4	8.1	15.5	8.8
15	Univ. of Calif. at Berkeley	131.1	38.4	12.7	32.5	47.5
16	Univ. of Minnesota	128.7	89.0	5.1	18.8	15.8
17	Pennsylvania State Univ.	119.4	25.9	51.1	13.4	29.0
18	Univ. of Southern California	114.8	61.5	33.9	11.5	7.9
19	Duke University	108.6	86.4	6.0	9.6	6.6
20	Washington University	103.0	91.8	1.6	5.1	4.5
Total, first 20 institutions		3,294.0	1,889.7	535.3	402.1	466.9
Total, all institutions		8,516.8	4,512.0	1,220.6	1,206.6	1,577.6

SOURCE: These data were obtained by the National Science Foundation, SRS, from the 15 federal agencies that provide virtually all academic R&D support and which participated in the FY 1989 Survey of Federal Support to Universities, Colleges, and Nonprofit Institutions.