

# **Academic Research and Development Expenditures: Fiscal Year 2003**

Detailed Statistical Tables

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# GENERAL NOTES

The data presented in this report were compiled from the National Science Foundation (NSF) fiscal year 2003 Survey of Research and Development Expenditures at Universities and Colleges (academic R&D expenditures survey). They refer to science and engineering expenditures for separately budgeted R&D. Terms used in institutional accounting procedures are incorporated throughout the tables and are defined below.

*Separately budgeted R&D expenditures* includes all funds expended for activities that are specifically organized to produce research outcomes. These activities are either commissioned by an agency external to the institution or are separately budgeted by an organizational unit within the institution. *Expenditures* are funds actually spent by an institution during its fiscal year. *Separately budgeted R&D equipment purchased from current funds* includes all research equipment purchased under sponsored research project awards.

*Federally funded research and development centers* (FFRDCs) are R&D-performing organizations that range from traditional contractor-owned/contractor-operated or government-owned/contractor-operated organizational structures to various degrees of contractor/government control and ownership. FFRDCs are formed to achieve particular federal R&D objectives that cannot be met as effectively by existing organizations.

*Imputation and imputed data* refer to the computerized process by which NSF develops estimates of data when institutions do not furnish information upon request. Estimates are based primarily on key data items

reported in prior-year surveys. When these key data items are not available, estimates are derived from data of respondent institutions that have similar characteristics, including highest degree granted and type of institutional control (public or private). In this publication, the letter “i” is used to identify imputed data. The letter “e” is used when institutional respondents indicated that their data were estimated or when data required slight mathematical adjustments.

Data presented in trend tables are from the most recently completed survey cycle. Prior-year data have been reviewed for consistency with current-year responses and, when necessary, were revised in consultation with institutional respondents. Institutions revise prior years’ data when important changes occur in reporting practices and program classifications, and only the latest tables incorporate such changes. To obtain accurate historical data, use only the latest detailed statistical tables for FY 2003 and not data published earlier.

Requests for additional information concerning the survey findings for the current or prior surveys should be directed to

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TABLE 1. R&D expenditures at universities and colleges, by source of funds: FY 1953–2003  
(Dollars in millions)

Fiscal year	All R&D expenditures	Source of funds				
		Federal government	State and local government	Industry	Institutional funds	All other sources
1953	255	138	37	19	35	26
1954	290	160	42	22	38	28
1955	312	169	47	25	41	30
1956	372	213	53	29	43	34
1957	410	229	60	34	49	38
1958	456	254	68	39	53	42
1959	526	306	76	39	58	47
1960	646	405	85	40	64	52
1961	763	500	95	40	70	58
1962	904	613	106	40	79	66
1963	1,081	760	118	41	89	73
1964	1,275	917	132	40	103	83
1965	1,474	1,073	143	41	124	93
1966	1,715	1,261	156	42	148	108
1967	1,921	1,409	164	48	181	119
1968	2,149	1,572	172	55	218	132
1969	2,225	1,600	197	60	223	145
1970	2,335	1,647	219	61	243	165
1971	2,500	1,724	255	70	274	177
1972	2,630	1,795	269	74	305	187
1973	2,884	1,985	295	84	318	202
1974	3,022	2,032	308	95	368	219
1975	3,409	2,288	332	113	417	259
1976	3,729	2,512	364	123	446	285
1977	4,067	2,726	374	139	514	314
1978 <sup>a</sup>	4,625	3,059	414	170	623	359
1979	5,366	3,598	472	193	735	368
1980	6,063	4,098	491	236	835	403
1981	6,847	4,571	546	291	1,004	435
1982	7,324	4,768	616	337	1,111	491
1983	7,882	4,989	626	389	1,302	576
1984	8,620	5,431	690	475	1,411	613
1985	9,687	6,064	752	560	1,617	694
1986	10,928	6,712	915	700	1,869	732
1987	12,153	7,343	1,023	790	2,168	828
1988	13,463	8,193	1,106	872	2,356	935
1989	14,977	8,991	1,224	994	2,698	1,071
1990	16,286	9,638	1,324	1,127	3,006	1,191
1991	17,585	10,234	1,474	1,204	3,367	1,307
1992	18,818	11,093	1,491	1,279	3,547	1,409
1993	19,951	11,957	1,559	1,360	3,589	1,486
1994	21,027	12,649	1,554	1,422	3,827	1,574
1995	22,170	13,332	1,689	1,489	4,047	1,613
1996	23,046	13,840	1,811	1,605	4,170	1,619
1997	24,370	14,314	1,909	1,737	4,698	1,712

TABLE 1. R&D expenditures at universities and colleges, by source of funds: FY 1953–2003  
(Dollars in millions)

Fiscal year	All R&D expenditures	Source of funds				
		Federal government	State and local government	Industry	Institutional funds	All other sources
1998	25,855	15,150	1,944	1,888	5,002	1,870
1999	27,530	16,101	2,021	2,033	5,380	1,994
2000	30,067	17,535	2,200	2,156	5,923	2,254
2001	32,797	19,223	2,321	2,220	6,607	2,426
2002	36,370	21,860	2,506	2,187	7,128	2,689
2003	40,077	24,734	2,653	2,162	7,683	2,845

<sup>a</sup> FY 1978 data are estimated based on data collected from doctorate-granting institutions only.

NOTE: Because of rounding, detail may not add to total.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 2. R&D expenditures at universities and colleges, by character of work: FY 1953–2003  
(Dollars in millions)

Fiscal year	All R&D expenditures	Basic research		Applied research and development	
		Amount	Percent	Amount	Percent
1953	255	110	43.1	145	56.9
1954	290	136	46.9	154	53.1
1955	312	159	51.0	153	49.0
1956	372	200	53.8	172	46.2
1957	410	240	58.5	170	41.5
1958	456	281	61.6	175	38.4
1959	526	343	65.2	183	34.8
1960	646	433	67.0	213	33.0
1961	763	536	70.2	227	29.8
1962	904	659	72.9	245	27.1
1963	1,081	814	75.3	267	24.7
1964	1,275	1,003	78.7	272	21.3
1965	1,474	1,138	77.2	336	22.8
1966	1,715	1,303	76.0	412	24.0
1967	1,921	1,457	75.8	464	24.2
1968	2,149	1,650	76.8	499	23.2
1969	2,225	1,711	76.9	514	23.1
1970	2,335	1,796	76.9	539	23.1
1971	2,500	1,914	76.6	586	23.4
1972	2,630	2,022	76.9	608	23.1
1973	2,884	2,053	71.2	831	28.8
1974	3,022	2,153	71.2	869	28.8
1975	3,409	2,410	70.7	999	29.3
1976	3,729	2,549	68.4	1,180	31.6
1977	4,067	2,800	68.8	1,267	31.2
1978 <sup>a</sup>	4,625	NA	NA	NA	NA
1979	5,366	3,619	67.4	1,747	32.6
1980	6,063	4,036	66.6	2,026	33.4
1981	6,847	4,594	67.1	2,253	32.9
1982	7,324	4,879	66.6	2,445	33.4
1983	7,882	5,303	67.3	2,579	32.7
1984	8,620	5,733	66.5	2,887	33.5
1985	9,687	6,556	67.7	3,131	32.3
1986	10,928	7,492	68.6	3,435	31.4
1987	12,153	8,393	69.1	3,760	30.9
1988	13,463	8,894	66.1	4,569	33.9
1989	14,977	9,792	65.4	5,185	34.6
1990	16,286	10,643	65.4	5,643	34.6
1991	17,585	11,606	66.0	5,979	34.0
1992	18,818	12,516	66.5	6,302	33.5
1993	19,951	13,303	66.7	6,648	33.3
1994	21,027	13,986	66.5	7,041	33.5
1995	22,170	14,809	66.8	7,362	33.2
1996	23,046	15,478	67.2	7,567	32.8
1997	24,370	16,599	68.1	7,771	31.9

TABLE 2. R&D expenditures at universities and colleges, by character of work: FY 1953–2003  
(Dollars in millions)

Fiscal year	All R&D expenditures	Basic research		Applied research and development	
		Amount	Percent	Amount	Percent
1998	25,855	19,040	73.6	6,815	26.4
1999	27,530	20,366	74.0	7,163	26.0
2000	30,067	22,442	74.6	7,625	25.4
2001	32,797	24,385	74.4	8,412	25.6
2002	36,370	27,280	75.0	9,090	25.0
2003	40,077	29,981	74.8	10,097	25.2

NA = not available.

<sup>a</sup> Separate data for basic research and applied R&D were not collected for FY 1978.

NOTES: R&D expenditures by character of work are based on estimates of basic research provided by universities and colleges. Because of rounding, detail may not add to total. The character of work estimation procedure was revised for FY 1998 and later years; hence, these data are not directly comparable with data for 1997 and earlier years.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 3. Federally financed R&D expenditures at universities and colleges, by character of work:  
 FY 1953–2003  
 (Dollars in millions)

Fiscal year	All R&D expenditures	Basic research		Applied research and development	
		Amount	Percent	Amount	Percent
1953	138	NA	NA	NA	NA
1954	160	NA	NA	NA	NA
1955	169	NA	NA	NA	NA
1956	213	NA	NA	NA	NA
1957	229	NA	NA	NA	NA
1958	254	NA	NA	NA	NA
1959	306	NA	NA	NA	NA
1960	405	NA	NA	NA	NA
1961	500	NA	NA	NA	NA
1962	613	NA	NA	NA	NA
1963	760	NA	NA	NA	NA
1964	917	NA	NA	NA	NA
1965	1,073	NA	NA	NA	NA
1966	1,261	NA	NA	NA	NA
1967	1,409	NA	NA	NA	NA
1968	1,572	NA	NA	NA	NA
1969	1,600	NA	NA	NA	NA
1970	1,647	NA	NA	NA	NA
1971	1,724	NA	NA	NA	NA
1972	1,795	1,420	79.1	375	20.9
1973	1,985	1,454	73.2	531	26.8
1974	2,032	1,523	75.0	509	25.0
1975	2,288	1,695	74.1	593	25.9
1976	2,512	1,841	73.3	671	26.7
1977	2,726	2,007	73.6	719	26.4
1978 <sup>a</sup>	3,059	NA	NA	NA	NA
1979	3,598	2,577	71.6	1,022	28.4
1980	4,098	2,861	69.8	1,237	30.2
1981	4,571	3,260	71.3	1,311	28.7
1982	4,768	3,402	71.3	1,367	28.7
1983	4,989	3,547	71.1	1,442	28.9
1984	5,431	3,830	70.5	1,601	29.5
1985	6,064	4,343	71.6	1,722	28.4
1986	6,712	4,868	72.5	1,844	27.5
1987	7,343	5,375	73.2	1,968	26.8
1988	8,193	5,678	69.3	2,515	30.7
1989	8,991	6,195	68.9	2,796	31.1
1990	9,638	6,648	69.0	2,990	31.0
1991	10,234	7,127	69.6	3,107	30.4
1992	11,093	7,718	69.6	3,375	30.4
1993	11,957	8,398	70.2	3,559	29.8
1994	12,649	8,877	70.2	3,772	29.8
1995	13,332	9,398	70.5	3,934	29.5
1996	13,840	9,867	71.3	3,973	28.7
1997	14,314	10,314	72.1	4,000	27.9

TABLE 3. Federally financed R&D expenditures at universities and colleges, by character of work:  
 FY 1953–2003  
 (Dollars in millions)

Fiscal year	All R&D expenditures	Basic research		Applied research and development	
		Amount	Percent	Amount	Percent
1998	15,150	11,846	78.2	3,305	21.8
1999	16,101	12,650	78.6	3,451	21.4
2000	17,535	13,821	78.8	3,714	21.2
2001	19,223	15,038	78.2	4,185	21.8
2002	21,860	17,192	78.6	4,668	21.4
2003	24,734	19,500	78.8	5,234	21.2

NA = not available.

<sup>a</sup> Separate data for basic research and applied R&D were not collected for FY 1978.

NOTES: R&D expenditures by character of work are based on estimates of basic research provided by universities and colleges. Because of rounding, detail may not add to total. The character of work estimation procedure was revised for FY 1998 and later years; hence, these data are not directly comparable with data for 1997 and earlier years.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 4. R&D expenditures at universities and colleges, by source of funds and science and engineering field: FY 1996–2003  
(Dollars in thousands)

Source and field	1996	1997	1998	1999	2000	2001	2002	2003
All R&D expenditures	23,045,577	24,369,598	25,854,724	27,529,522	30,067,188	32,796,894	36,370,421	40,077,399
Source of funds								
Federal government	13,840,177	14,314,241	15,150,456	16,101,053	17,534,849	19,223,035	21,860,110	24,734,033
State and local government	1,811,138	1,909,299	1,943,946	2,021,280	2,199,603	2,320,506	2,505,599	2,652,966
Industry	1,605,356	1,736,769	1,888,277	2,032,706	2,155,722	2,219,941	2,187,236	2,162,215
Institutional funds	4,170,303	4,697,685	5,002,305	5,380,473	5,923,154	6,607,164	7,128,082	7,683,484
All other sources	1,618,603	1,711,604	1,869,740	1,994,010	2,253,860	2,426,248	2,689,394	2,844,701
Field								
Science	19,338,207	20,530,507	21,785,523	23,268,597	25,512,807	27,777,705	30,848,121	34,078,578
Computer sciences	690,055	709,521	746,645	861,057	876,393	956,065	1,125,446	1,304,480
Environmental sciences	1,489,033	1,532,798	1,624,395	1,691,662	1,765,216	1,831,493	2,019,849	2,187,841
Atmospheric sciences	224,465	245,509	269,180	287,860	287,847	301,429	340,963	395,823
Earth sciences	446,231	449,704	513,543	545,435	562,892	555,042	640,423	724,248
Oceanography	533,457	536,706	545,680	604,173	633,022	675,302	720,373	773,572
Environmental sciences, nec	284,880	300,879	295,992	254,194	281,455	299,720	318,090	294,198
Life sciences	12,715,890	13,590,989	14,596,380	15,629,565	17,468,074	19,215,654	21,421,183	23,763,981
Agricultural sciences	1,910,215	1,966,202	1,995,736	2,035,689	2,177,088	2,326,059	2,451,845	2,555,209
Biological sciences	3,911,829	4,183,130	4,584,052	5,038,900	5,618,509	5,945,407	6,580,855	7,391,932
Medical sciences	6,390,804	6,907,861	7,471,743	8,003,045	8,986,427	10,190,951	11,501,449	12,786,774
Life sciences, nec	503,042	533,796	544,849	551,931	686,050	753,237	887,034	1,030,066
Mathematical sciences	288,272	289,491	310,385	313,321	341,268	359,682	388,064	428,893
Physical sciences	2,257,940	2,371,173	2,483,147	2,605,231	2,711,578	2,804,329	3,016,451	3,272,629
Astronomy	275,971	287,601	302,652	384,518	385,566	378,205	402,343	392,067
Chemistry	801,842	820,768	876,265	919,099	961,223	1,007,422	1,131,101	1,220,238
Physics	987,515	1,058,544	1,078,495	1,149,112	1,207,233	1,240,559	1,286,945	1,420,231
Physical sciences, nec	192,612	204,260	225,735	152,502	157,556	178,143	196,062	240,093
Psychology	381,653	396,309	444,454	464,438	516,535	582,831	672,054	768,730
Social sciences	1,096,691	1,125,433	1,131,441	1,251,916	1,298,959	1,441,683	1,585,553	1,661,090
Economics	271,459	260,757	261,098	266,421	255,207	271,929	284,566	314,393
Political sciences	179,787	175,490	175,550	200,320	229,943	253,330	271,965	289,162
Sociology	230,742	257,394	252,878	271,443	301,105	328,506	378,182	371,930
Social sciences, nec	414,703	431,792	441,915	513,732	512,704	587,918	650,840	685,605
Sciences, nec	418,673	514,793	448,676	451,407	534,784	585,968	619,521	690,934
Engineering	3,707,370	3,839,091	4,069,201	4,260,925	4,554,381	5,019,189	5,522,300	5,998,821
Aeronautical/astronautical engineering	233,008	247,054	249,794	260,477	256,627	339,036	342,772	401,849
Bioengineering/biomedical engineering	NA	76,791	101,957	136,564	173,711	212,575	281,857	313,508
Chemical engineering	317,189	316,672	327,080	349,020	375,710	414,500	430,787	453,616
Civil engineering	454,641	471,818	494,843	529,269	600,892	664,303	717,248	776,229
Electrical engineering	887,724	941,932	1,042,303	1,016,626	1,117,801	1,163,357	1,305,516	1,401,869
Mechanical engineering	519,276	517,735	567,878	625,353	632,552	687,403	780,972	822,099
Metallurgical/materials engineering	349,407	388,828	391,397	384,010	399,350	452,797	467,973	534,819
Engineering, nec	946,125	878,261	893,949	959,606	997,738	1,085,218	1,195,175	1,294,832

NA = not available.

nec = not elsewhere classified.

NOTE: Because of rounding, detail may not add to total.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.



TABLE 5. Federally financed R&D expenditures at universities and colleges, by science and engineering field: FY 1996–2003  
(Dollars in thousands)

Field	1996	1997	1998	1999	2000	2001	2002	2003
All federal R&D expenditures	13,840,177	14,314,241	15,150,456	16,101,053	17,534,849	19,223,035	21,860,110	24,734,033
Science	11,607,858	12,058,242	12,796,583	13,654,102	14,955,874	16,372,014	18,630,122	21,126,396
Computer sciences	501,654	506,424	513,546	583,289	583,621	644,280	770,334	936,484
Environmental sciences	1,006,568	1,012,442	1,076,477	1,102,493	1,134,105	1,185,958	1,292,153	1,439,843
Atmospheric sciences	175,954	186,622	209,549	223,164	223,021	232,983	250,029	297,486
Earth sciences	268,005	269,073	312,143	321,182	331,598	329,146	370,026	439,985
Oceanography	371,406	355,498	362,204	405,324	422,512	448,626	486,565	535,945
Environmental sciences, nec	191,203	201,249	192,581	152,823	156,974	175,203	185,533	166,427
Life sciences	7,405,637	7,763,848	8,333,503	8,957,476	10,067,742	11,194,502	12,854,786	14,645,014
Agricultural sciences	559,673	548,427	533,532	545,716	578,747	617,625	687,762	761,825
Biological sciences	2,530,199	2,684,882	2,938,265	3,224,333	3,657,159	3,871,506	4,410,592	5,017,208
Medical sciences	4,023,873	4,226,915	4,559,278	4,865,995	5,441,836	6,259,513	7,227,778	8,249,066
Life sciences, nec	291,892	303,624	302,428	321,432	390,000	445,858	528,654	616,915
Mathematical sciences	208,042	202,052	214,133	210,068	229,871	242,095	268,463	295,219
Physical sciences	1,630,205	1,683,241	1,761,858	1,863,199	1,915,097	1,972,756	2,130,613	2,352,648
Astronomy	182,492	183,154	188,188	272,691	276,744	259,986	277,632	271,505
Chemistry	553,648	551,738	587,023	617,180	630,984	659,758	738,251	816,056
Physics	757,293	803,283	817,951	868,636	901,923	927,024	975,493	1,088,184
Physical sciences, nec	136,772	145,066	168,696	104,692	105,446	125,988	139,237	176,903
Psychology	258,525	271,520	298,811	309,607	350,581	398,528	475,314	552,623
Social sciences	422,864	408,741	425,462	472,067	490,687	546,840	617,257	666,551
Economics	90,659	89,803	92,250	90,158	89,179	90,181	100,694	107,876
Political sciences	62,248	51,768	53,115	54,052	62,817	72,106	76,741	91,744
Sociology	118,997	120,614	118,989	122,006	137,006	148,751	181,035	182,518
Social sciences, nec	150,960	146,556	161,108	205,851	201,685	235,802	258,787	284,413
Sciences, nec	174,363	209,974	172,793	155,903	184,170	187,055	221,202	238,014
Engineering	2,232,319	2,255,999	2,353,873	2,446,951	2,578,975	2,851,021	3,229,988	3,607,637
Aeronautical/astronautical engineering	171,227	183,350	170,794	183,404	181,483	254,717	247,082	305,570
Bioengineering/biomedical engineering	NA	47,517	56,635	72,261	90,788	120,899	167,336	190,498
Chemical engineering	173,770	165,856	169,276	179,939	196,326	214,863	230,159	247,980
Civil engineering	197,741	200,357	197,086	217,064	236,989	264,716	300,435	326,524
Electrical engineering	599,810	624,262	692,549	651,155	700,993	726,365	819,580	924,903
Mechanical engineering	334,913	322,462	350,741	388,553	383,421	416,607	508,346	532,586
Metallurgical/materials engineering	190,455	222,456	221,691	218,231	226,743	240,875	262,898	303,153
Engineering, nec	564,403	489,739	495,101	536,344	562,232	611,979	694,152	776,423

NA = not available.

nec = not elsewhere classified.

NOTE: Because of rounding, detail may not add to total.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 6. Nonfederal R&D expenditures at universities and colleges, by science and engineering field: FY 1996–2003  
(Dollars in thousands)

Field	1996	1997	1998	1999	2000	2001	2002	2003
All nonfederal R&D expenditures	9,205,400	10,055,357	10,704,268	11,428,469	12,532,339	13,573,859	14,510,311	15,343,366
Science	7,730,349	8,472,265	8,988,940	9,614,495	10,556,933	11,405,691	12,217,999	12,952,182
Computer sciences	188,401	203,097	233,099	277,768	292,772	311,785	355,112	367,996
Environmental sciences	482,465	520,356	547,918	589,169	631,111	645,535	727,696	747,998
Atmospheric sciences	48,511	58,887	59,631	64,696	64,826	68,446	90,934	98,337
Earth sciences	178,226	180,631	201,400	224,253	231,294	225,896	270,397	284,263
Oceanography	162,051	181,208	183,476	198,849	210,510	226,676	233,808	237,627
Environmental sciences, nec	93,677	99,630	103,411	101,371	124,481	124,517	132,557	127,771
Life sciences	5,310,253	5,827,141	6,262,877	6,672,089	7,400,332	8,021,152	8,566,397	9,118,967
Agricultural sciences	1,350,542	1,417,775	1,462,204	1,489,973	1,598,341	1,708,434	1,764,083	1,793,384
Biological sciences	1,381,630	1,498,248	1,645,787	1,814,567	1,961,350	2,073,901	2,170,263	2,374,724
Medical sciences	2,366,931	2,680,946	2,912,465	3,137,050	3,544,591	3,931,438	4,273,671	4,537,708
Life sciences, nec	211,150	230,172	242,421	230,499	296,050	307,379	358,380	413,151
Mathematical sciences	80,230	87,439	96,252	103,253	111,397	117,587	119,601	133,674
Physical sciences	627,735	687,932	721,289	742,032	796,481	831,573	885,838	919,981
Astronomy	93,479	104,447	114,464	111,827	108,822	118,219	124,711	120,562
Chemistry	248,194	269,030	289,242	301,919	330,239	347,664	392,850	404,182
Physics	230,222	255,261	260,544	280,476	305,310	313,535	311,452	332,047
Physical sciences, nec	55,840	59,194	57,039	47,810	52,110	52,155	56,825	63,190
Psychology	123,128	124,789	145,643	154,831	165,954	184,303	196,740	216,107
Social sciences	673,827	716,692	705,979	779,849	808,272	894,843	968,296	994,539
Economics	180,800	170,954	168,848	176,263	166,028	181,748	183,872	206,517
Political sciences	117,539	123,722	122,435	146,268	167,126	181,224	195,224	197,418
Sociology	111,745	136,780	133,889	149,437	164,099	179,755	197,147	189,412
Social sciences, nec	263,743	285,236	280,807	307,881	311,019	352,116	392,053	401,192
Sciences, nec	244,310	304,819	275,883	295,504	350,614	398,913	398,319	452,920
Engineering	1,475,051	1,583,092	1,715,328	1,813,974	1,975,406	2,168,168	2,292,312	2,391,184
Aeronautical/astronautical engineering	61,781	63,704	79,000	77,073	75,144	84,319	95,690	96,279
Bioengineering/biomedical engineering	NA	29,274	45,322	64,303	82,923	91,676	114,521	123,010
Chemical engineering	143,419	150,816	157,804	169,081	179,384	199,637	200,628	205,636
Civil engineering	256,900	271,461	297,757	312,205	363,903	399,587	416,813	449,705
Electrical engineering	287,914	317,670	349,754	365,471	416,808	436,992	485,936	476,966
Mechanical engineering	184,363	195,273	217,137	236,800	249,131	270,796	272,626	289,513
Metallurgical/materials engineering	158,952	166,372	169,706	165,779	172,607	211,922	205,075	231,666
Engineering, nec	381,722	388,522	398,848	423,262	435,506	473,239	501,023	518,409

NA = not available.

nec = not elsewhere classified.

NOTE: Because of rounding, detail may not add to total.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 7. R&D expenditures at public universities and colleges, by source of funds and science and engineering field: FY 1996–2003  
(Dollars in thousands)

Source and field	1996	1997	1998	1999	2000	2001	2002	2003
All R&D expenditures	15,587,457	16,424,522	17,478,696	18,659,556	20,512,338	22,406,117	24,874,147	27,355,031
Source of funds								
Federal government	8,466,207	8,570,877	9,072,312	9,716,099	10,653,651	11,719,356	13,392,351	15,295,157
State and local government	1,649,937	1,741,778	1,773,264	1,844,360	2,004,958	2,084,909	2,254,472	2,363,629
Industry	1,076,406	1,175,763	1,279,648	1,339,691	1,439,676	1,478,647	1,470,117	1,459,446
Institutional funds	3,418,439	3,888,182	4,215,200	4,544,478	4,987,925	5,593,243	6,013,971	6,402,377
All other sources	976,468	1,047,922	1,138,272	1,214,928	1,426,128	1,529,962	1,743,236	1,834,422
Field								
Science	12,999,238	13,737,584	14,612,139	15,612,400	17,217,777	18,766,188	20,895,335	23,080,131
Computer sciences	336,211	349,682	398,657	488,767	526,609	572,690	666,045	825,854
Environmental sciences	1,193,776	1,225,620	1,284,009	1,357,833	1,424,307	1,491,026	1,652,421	1,777,855
Atmospheric sciences	192,863	213,054	228,106	236,304	234,125	246,696	286,214	330,530
Earth sciences	331,527	334,796	380,881	421,657	447,624	443,779	518,992	593,568
Oceanography	483,769	487,361	490,213	512,844	543,480	583,823	611,976	655,338
Environmental sciences, nec	185,617	190,409	184,809	187,028	199,078	216,728	235,239	198,419
Life sciences	8,432,354	8,983,666	9,638,543	10,268,407	11,484,713	12,612,941	14,090,755	15,601,505
Agricultural sciences	1,858,203	1,905,748	1,930,706	1,979,307	2,115,751	2,252,328	2,373,100	2,470,974
Biological sciences	2,459,203	2,621,833	2,889,083	3,201,436	3,587,051	3,707,346	4,159,068	4,720,977
Medical sciences	3,815,982	4,138,098	4,494,943	4,767,245	5,351,854	6,154,637	6,956,170	7,696,699
Life sciences, nec	298,966	317,987	323,811	320,419	430,057	498,630	602,417	712,855
Mathematical sciences	174,349	178,214	196,137	195,130	215,046	234,498	259,316	289,039
Physical sciences	1,445,711	1,501,868	1,586,415	1,677,097	1,803,767	1,874,485	2,033,152	2,182,370
Astronomy	187,024	188,049	206,684	230,722	244,294	244,189	267,652	261,423
Chemistry	541,621	557,719	587,930	623,243	673,222	715,317	826,235	886,278
Physics	592,151	628,276	647,426	755,085	809,553	831,957	851,410	933,020
Physical sciences, nec	124,915	127,824	144,375	68,047	76,698	83,022	87,855	101,649
Psychology	280,748	298,747	333,273	344,669	381,672	434,070	498,062	568,145
Social sciences	840,293	854,273	873,359	971,883	1,000,433	1,129,251	1,250,008	1,334,513
Economics	225,592	206,754	208,011	217,311	205,916	229,306	240,428	270,644
Political sciences	113,309	110,892	109,471	122,315	139,216	151,892	152,759	178,536
Sociology	176,058	197,006	194,785	202,841	223,818	249,756	299,062	293,078
Social sciences, nec	325,334	339,621	361,092	429,416	431,483	498,297	557,759	592,255
Sciences, nec	295,796	345,514	301,746	308,614	381,230	417,227	445,576	500,850
Engineering	2,588,219	2,686,938	2,866,557	3,047,156	3,294,561	3,639,929	3,978,812	4,274,900
Aeronautical/astronautical engineering	138,742	154,599	155,112	188,634	179,401	244,810	239,945	283,154
Bioengineering/biomedical engineering	NA	52,227	62,102	79,067	106,507	134,764	184,945	185,513
Chemical engineering	226,818	237,034	245,193	254,752	272,616	300,274	317,451	335,072
Civil engineering	381,681	399,490	425,828	447,661	509,503	563,072	605,049	654,910
Electrical engineering	584,823	626,078	714,152	712,885	785,191	815,664	921,943	991,434
Mechanical engineering	349,516	332,315	368,121	414,864	419,293	453,940	521,920	544,196
Metallurgical/materials engineering	259,650	289,409	281,720	277,709	296,003	345,897	351,944	408,524
Engineering, nec	646,989	595,786	614,329	671,584	726,047	781,508	835,615	872,097

NA = not available.

nec = not elsewhere classified.

NOTE: Because of rounding, detail may not add to total.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 8. Federally financed R&D expenditures at public universities and colleges, by science and engineering field: FY 1996–2003  
(Dollars in thousands)

Field	1996	1997	1998	1999	2000	2001	2002	2003
All federal R&D expenditures	8,466,207	8,570,877	9,072,312	9,716,099	10,653,651	11,719,356	13,392,351	15,295,157
Science	7,081,745	7,198,482	7,630,998	8,193,826	9,019,977	9,888,873	11,338,753	13,018,314
Computer sciences	209,590	209,821	230,433	285,441	306,282	335,448	396,975	547,298
Environmental sciences	764,391	753,513	788,094	824,531	852,972	906,023	991,393	1,112,002
Atmospheric sciences	147,634	156,847	172,048	176,327	174,976	185,260	202,386	240,650
Earth sciences	174,713	172,399	200,834	221,706	242,138	243,334	275,567	338,513
Oceanography	330,735	313,399	313,823	324,574	341,318	365,326	390,907	435,024
Environmental sciences, nec	111,309	110,868	101,389	101,924	94,540	112,103	122,533	97,815
Life sciences	4,441,449	4,562,971	4,873,519	5,241,285	5,860,863	6,496,750	7,531,696	8,674,380
Agricultural sciences	542,587	521,933	508,316	528,466	560,303	595,034	664,085	733,824
Biological sciences	1,461,030	1,531,391	1,672,990	1,857,214	2,138,422	2,197,258	2,552,487	2,969,359
Medical sciences	2,279,699	2,345,951	2,546,439	2,699,819	2,957,029	3,449,475	4,003,350	4,598,677
Life sciences, nec	158,133	163,696	145,774	155,786	205,109	254,983	311,774	372,520
Mathematical sciences	107,783	107,071	115,756	109,975	123,752	135,324	158,755	177,533
Physical sciences	946,477	946,175	1,003,504	1,056,890	1,138,295	1,182,642	1,300,982	1,427,078
Astronomy	108,460	98,611	110,243	128,855	144,684	138,802	155,898	155,415
Chemistry	351,421	349,933	361,584	382,765	411,160	438,960	509,434	563,152
Physics	404,613	416,618	429,547	512,840	547,439	559,937	591,300	653,388
Physical sciences, nec	81,983	81,013	102,130	32,430	35,012	44,943	44,350	55,123
Psychology	188,201	198,733	216,081	219,864	248,366	282,668	338,812	394,175
Social sciences	307,269	294,478	310,748	355,445	365,892	412,884	472,949	525,876
Economics	72,664	64,862	65,795	68,404	68,565	71,734	82,531	87,448
Political sciences	31,905	27,415	28,447	29,585	31,117	36,958	35,986	54,682
Sociology	86,299	87,852	85,646	84,473	97,361	110,520	138,673	138,700
Social sciences, nec	116,401	114,349	130,860	172,983	168,849	193,672	215,759	245,046
Sciences, nec	116,585	125,720	92,863	100,395	123,555	137,134	147,191	159,972
Engineering	1,384,462	1,372,395	1,441,314	1,522,273	1,633,674	1,830,483	2,053,598	2,276,843
Aeronautical/astronautical engineering	91,748	100,864	96,801	121,651	116,136	175,878	159,042	206,856
Bioengineering/biomedical engineering	NA	29,111	26,487	29,590	41,335	63,826	96,985	93,091
Chemical engineering	115,494	113,651	116,970	119,598	130,777	141,520	152,024	167,614
Civil engineering	151,062	155,174	156,426	168,424	180,910	204,736	228,512	249,714
Electrical engineering	362,289	377,082	433,080	416,135	452,438	463,124	525,014	595,812
Mechanical engineering	205,368	178,956	192,166	223,369	218,523	240,350	306,996	318,829
Metallurgical/materials engineering	126,256	148,402	146,223	141,003	152,143	169,057	179,770	212,374
Engineering, nec	332,245	269,155	273,161	302,503	341,412	371,992	405,255	432,553

NA = not available.

nec = not elsewhere classified.

NOTE: Because of rounding, detail may not add to total.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 9. Nonfederal R&D expenditures at public universities and colleges, by science and engineering field: FY 1996–2003  
(Dollars in thousands)

Field	1996	1997	1998	1999	2000	2001	2002	2003
All nonfederal R&D expenditures	7,121,250	7,853,645	8,406,384	8,943,457	9,858,687	10,686,761	11,481,796	12,059,874
Science	5,917,493	6,539,102	6,981,141	7,418,574	8,197,800	8,877,315	9,556,582	10,061,817
Computer sciences	126,621	139,861	168,224	203,326	220,327	237,242	269,070	278,556
Environmental sciences	429,385	472,107	495,915	533,302	571,335	585,003	661,028	665,853
Atmospheric sciences	45,229	56,207	56,058	59,977	59,149	61,436	83,828	89,880
Earth sciences	156,814	162,397	180,047	199,951	205,486	200,445	243,425	255,055
Oceanography	153,034	173,962	176,390	188,270	202,162	218,497	221,069	220,314
Environmental sciences, nec	74,308	79,541	83,420	85,104	104,538	104,625	112,706	100,604
Life sciences	3,990,905	4,420,695	4,765,024	5,027,122	5,623,850	6,116,191	6,559,059	6,927,125
Agricultural sciences	1,315,616	1,383,815	1,422,390	1,450,841	1,555,448	1,657,294	1,709,015	1,737,150
Biological sciences	998,173	1,090,442	1,216,093	1,344,222	1,448,629	1,510,088	1,606,581	1,751,618
Medical sciences	1,536,283	1,792,147	1,948,504	2,067,426	2,394,825	2,705,162	2,952,820	3,098,022
Life sciences, nec	140,833	154,291	178,037	164,633	224,948	243,647	290,643	340,335
Mathematical sciences	66,566	71,143	80,381	85,155	91,294	99,174	100,561	111,506
Physical sciences	499,234	555,693	582,911	620,207	665,472	691,843	732,170	755,292
Astronomy	78,564	89,438	96,441	101,867	99,610	105,387	111,754	106,008
Chemistry	190,200	207,786	226,346	240,478	262,062	276,357	316,801	323,126
Physics	187,538	211,658	217,879	242,245	262,114	272,020	260,110	279,632
Physical sciences, nec	42,932	46,811	42,245	35,617	41,686	38,079	43,505	46,526
Psychology	92,547	100,014	117,192	124,805	133,306	151,402	159,250	173,970
Social sciences	533,024	559,795	562,611	616,438	634,541	716,367	777,059	808,637
Economics	152,928	141,892	142,216	148,907	137,351	157,572	157,897	183,196
Political sciences	81,404	83,477	81,024	92,730	108,099	114,934	116,773	123,854
Sociology	89,759	109,154	109,139	118,368	126,457	139,236	160,389	154,378
Social sciences, nec	208,933	225,272	230,232	256,433	262,634	304,625	342,000	347,209
Sciences, nec	179,211	219,794	208,883	208,219	257,675	280,093	298,385	340,878
Engineering	1,203,757	1,314,543	1,425,243	1,524,883	1,660,887	1,809,446	1,925,214	1,998,057
Aeronautical/astronautical engineering	46,994	53,735	58,311	66,983	63,265	68,932	80,903	76,298
Bioengineering/biomedical engineering	NA	23,116	35,615	49,477	65,172	70,938	87,960	92,422
Chemical engineering	111,324	123,383	128,223	135,154	141,839	158,754	165,427	167,458
Civil engineering	230,619	244,316	269,402	279,237	328,593	358,336	376,537	405,196
Electrical engineering	222,534	248,996	281,072	296,750	332,753	352,540	396,929	395,622
Mechanical engineering	144,148	153,359	175,955	191,495	200,770	213,590	214,924	225,367
Metallurgical/materials engineering	133,394	141,007	135,497	136,706	143,860	176,840	172,174	196,150
Engineering, nec	314,744	326,631	341,168	369,081	384,635	409,516	430,360	439,544

NA = not available.

nec = not elsewhere classified.

NOTE: Because of rounding, detail may not add to total.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 10. R&D expenditures at private universities and colleges, by source of funds and science and engineering field: FY 1996–2003  
(Dollars in thousands)

Source and field	1996	1997	1998	1999	2000	2001	2002	2003
All R&D expenditures	7,458,120	7,945,076	8,376,028	8,869,966	9,554,850	10,390,777	11,496,274	12,722,368
Source of funds								
Federal government	5,373,970	5,743,364	6,078,144	6,384,954	6,881,198	7,503,679	8,467,759	9,438,876
State and local government	161,201	167,521	170,682	176,920	194,645	235,597	251,127	289,337
Industry	528,950	561,006	608,629	693,015	716,046	741,294	717,119	702,769
Institutional funds	751,864	809,503	787,105	835,995	935,229	1,013,921	1,114,111	1,281,107
All other sources	642,135	663,682	731,468	779,082	827,732	896,286	946,158	1,010,279
Field								
Science	6,338,969	6,792,923	7,173,384	7,656,197	8,295,030	9,011,517	9,952,786	10,998,447
Computer sciences	353,844	359,839	347,988	372,290	349,784	383,375	459,401	478,626
Environmental sciences	295,257	307,178	340,386	333,829	340,909	340,467	367,428	409,986
Atmospheric sciences	31,602	32,455	41,074	51,556	53,722	54,733	54,749	65,293
Earth sciences	114,704	114,908	132,662	123,778	115,268	111,263	121,431	130,680
Oceanography	49,688	49,345	55,467	91,329	89,542	91,479	108,397	118,234
Environmental sciences, nec	99,263	110,470	111,183	67,166	82,377	82,992	82,851	95,779
Life sciences	4,283,536	4,607,323	4,957,837	5,361,158	5,983,361	6,602,713	7,330,428	8,162,476
Agricultural sciences	52,012	60,454	65,030	56,382	61,337	73,731	78,745	84,235
Biological sciences	1,452,626	1,561,297	1,694,969	1,837,464	2,031,458	2,238,061	2,421,787	2,670,955
Medical sciences	2,574,822	2,769,763	2,976,800	3,235,800	3,634,573	4,036,314	4,545,279	5,090,075
Life sciences, nec	204,076	215,809	221,038	231,512	255,993	254,607	284,617	317,211
Mathematical sciences	113,923	111,277	114,248	118,191	126,222	125,184	128,748	139,854
Physical sciences	812,229	869,305	896,732	928,134	907,811	929,844	983,299	1,090,259
Astronomy	88,947	99,552	95,968	153,796	141,272	134,016	134,691	130,644
Chemistry	260,221	263,049	288,335	295,856	288,001	292,105	304,866	333,960
Physics	395,364	430,268	431,069	394,027	397,680	408,602	435,535	487,211
Physical sciences, nec	67,697	76,436	81,360	84,455	80,858	95,121	108,207	138,444
Psychology	100,905	97,562	111,181	119,769	134,863	148,761	173,992	200,585
Social sciences	256,398	271,160	258,082	280,033	298,526	312,432	335,545	326,577
Economics	45,867	54,003	53,087	49,110	49,291	42,623	44,138	43,749
Political sciences	66,478	64,598	66,079	78,005	90,727	101,438	119,206	110,626
Sociology	54,684	60,388	58,093	68,602	77,287	78,750	79,120	78,852
Social sciences, nec	89,369	92,171	80,823	84,316	81,221	89,621	93,081	93,350
Sciences, nec	122,877	169,279	146,930	142,793	153,554	168,741	173,945	190,084
Engineering	1,119,151	1,152,153	1,202,644	1,213,769	1,259,820	1,379,260	1,543,488	1,723,921
Aeronautical/astronautical engineering	94,266	92,455	94,682	71,843	77,226	94,226	102,827	118,695
Bioengineering/biomedical engineering	NA	24,564	39,855	57,497	67,204	77,811	96,912	127,995
Chemical engineering	90,371	79,638	81,887	94,268	103,094	114,226	113,336	118,544
Civil engineering	72,960	72,328	69,015	81,608	91,389	101,231	112,199	121,319
Electrical engineering	302,901	315,854	328,151	303,741	332,610	347,693	383,573	410,435
Mechanical engineering	169,760	185,420	199,757	210,489	213,259	233,463	259,052	277,903
Metallurgical/materials engineering	89,757	99,419	109,677	106,301	103,347	106,900	116,029	126,295
Engineering, nec	299,136	282,475	279,620	288,022	271,691	303,710	359,560	422,735

NA = not available.

nec = not elsewhere classified.

NOTE: Because of rounding, detail may not add to total.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 11. Federally financed R&D expenditures at private universities and colleges, by science and engineering field: FY 1996–2003  
(Dollars in thousands)

Field	1996	1997	1998	1999	2000	2001	2002	2003
All federal R&D expenditures	5,373,970	5,743,364	6,078,144	6,384,954	6,881,198	7,503,679	8,467,759	9,438,876
Science	4,526,113	4,859,760	5,165,585	5,460,276	5,935,897	6,483,141	7,291,369	8,108,082
Computer sciences	292,064	296,603	283,113	297,848	277,339	308,832	373,359	389,186
Environmental sciences	242,177	258,929	288,383	277,962	281,133	279,935	300,760	327,841
Atmospheric sciences	28,320	29,775	37,501	46,837	48,045	47,723	47,643	56,836
Earth sciences	93,292	96,674	111,309	99,476	89,460	85,812	94,459	101,472
Oceanography	40,671	42,099	48,381	80,750	81,194	83,300	95,658	100,921
Environmental sciences, nec	79,894	90,381	91,192	50,899	62,434	63,100	63,000	68,612
Life sciences	2,964,188	3,200,877	3,459,984	3,716,191	4,206,879	4,697,752	5,323,090	5,970,634
Agricultural sciences	17,086	26,494	25,216	17,250	18,444	22,591	23,677	28,001
Biological sciences	1,069,169	1,153,491	1,265,275	1,367,119	1,518,737	1,674,248	1,858,105	2,047,849
Medical sciences	1,744,174	1,880,964	2,012,839	2,166,176	2,484,807	2,810,038	3,224,428	3,650,389
Life sciences, nec	133,759	139,928	156,654	165,646	184,891	190,875	216,880	244,395
Mathematical sciences	100,259	94,981	98,377	100,093	106,119	106,771	109,708	117,686
Physical sciences	683,728	737,066	758,354	806,309	776,802	790,114	829,631	925,570
Astronomy	74,032	84,543	77,945	143,836	132,060	121,184	121,734	116,090
Chemistry	202,227	201,805	225,439	234,415	219,824	220,798	228,817	252,904
Physics	352,680	386,665	388,404	355,796	354,484	367,087	384,193	434,796
Physical sciences, nec	54,789	64,053	66,566	72,262	70,434	81,045	94,887	121,780
Psychology	70,324	72,787	82,730	89,743	102,215	115,860	136,502	158,448
Social sciences	115,595	114,263	114,714	116,622	124,795	133,956	144,308	140,675
Economics	17,995	24,941	26,455	21,754	20,614	18,447	18,163	20,428
Political sciences	30,343	24,353	24,668	24,467	31,700	35,148	40,755	37,062
Sociology	32,698	32,762	33,343	37,533	39,645	38,231	42,362	43,818
Social sciences, nec	34,559	32,207	30,248	32,868	32,836	42,130	43,028	39,367
Sciences, nec	57,778	84,254	79,930	55,508	60,615	49,921	74,011	78,042
Engineering	847,857	883,604	912,559	924,678	945,301	1,020,538	1,176,390	1,330,794
Aeronautical/astronautical engineering	79,479	82,486	73,993	61,753	65,347	78,839	88,040	98,714
Bioengineering/biomedical engineering	NA	18,406	30,148	42,671	49,453	57,073	70,351	97,407
Chemical engineering	58,276	52,205	52,306	60,341	65,549	73,343	78,135	80,366
Civil engineering	46,679	45,183	40,660	48,640	56,079	59,980	71,923	76,810
Electrical engineering	237,521	247,180	259,469	235,020	248,555	263,241	294,566	329,091
Mechanical engineering	129,545	143,506	158,575	165,184	164,898	176,257	201,350	213,757
Metallurgical/materials engineering	64,199	74,054	75,468	77,228	74,600	71,818	83,128	90,779
Engineering, nec	232,158	220,584	221,940	233,841	220,820	239,987	288,897	343,870

NA = not available.

nec = not elsewhere classified.

NOTE: Because of rounding, detail may not add to total.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 12. Nonfederal R&D expenditures at private universities and colleges, by science and engineering field: FY 1996–2003  
(Dollars in thousands)

Field	1996	1997	1998	1999	2000	2001	2002	2003
All nonfederal R&D expenditures	2,084,150	2,201,712	2,297,884	2,485,012	2,673,652	2,887,098	3,028,515	3,283,492
Science	1,812,856	1,933,163	2,007,799	2,195,921	2,359,133	2,528,376	2,661,417	2,890,365
Computer sciences	61,780	63,236	64,875	74,442	72,445	74,543	86,042	89,440
Environmental sciences	53,080	48,249	52,003	55,867	59,776	60,532	66,668	82,145
Atmospheric sciences	3,282	2,680	3,573	4,719	5,677	7,010	7,106	8,457
Earth sciences	21,412	18,234	21,353	24,302	25,808	25,451	26,972	29,208
Oceanography	9,017	7,246	7,086	10,579	8,348	8,179	12,739	17,313
Environmental sciences, nec	19,369	20,089	19,991	16,267	19,943	19,892	19,851	27,167
Life sciences	1,319,348	1,406,446	1,497,853	1,644,967	1,776,482	1,904,961	2,007,338	2,191,842
Agricultural sciences	34,926	33,960	39,814	39,132	42,893	51,140	55,068	56,234
Biological sciences	383,457	407,806	429,694	470,345	512,721	563,813	563,682	623,106
Medical sciences	830,648	888,799	963,961	1,069,624	1,149,766	1,226,276	1,320,851	1,439,686
Life sciences, nec	70,317	75,881	64,384	65,866	71,102	63,732	67,737	72,816
Mathematical sciences	13,664	16,296	15,871	18,098	20,103	18,413	19,040	22,168
Physical sciences	128,501	132,239	138,378	121,825	131,009	139,730	153,668	164,689
Astronomy	14,915	15,009	18,023	9,960	9,212	12,832	12,957	14,554
Chemistry	57,994	61,244	62,896	61,441	68,177	71,307	76,049	81,056
Physics	42,684	43,603	42,665	38,231	43,196	41,515	51,342	52,415
Physical sciences, nec	12,908	12,383	14,794	12,193	10,424	14,076	13,320	16,664
Psychology	30,581	24,775	28,451	30,026	32,648	32,901	37,490	42,137
Social sciences	140,803	156,897	143,368	163,411	173,731	178,476	191,237	185,902
Economics	27,872	29,062	26,632	27,356	28,677	24,176	25,975	23,321
Political sciences	36,135	40,245	41,411	53,538	59,027	66,290	78,451	73,564
Sociology	21,986	27,626	24,750	31,069	37,642	40,519	36,758	35,034
Social sciences, nec	54,810	59,964	50,575	51,448	48,385	47,491	50,053	53,983
Sciences, nec	65,099	85,025	67,000	87,285	92,939	118,820	99,934	112,042
Engineering	271,294	268,549	290,085	289,091	314,519	358,722	367,098	393,127
Aeronautical/astronautical engineering	14,787	9,969	20,689	10,090	11,879	15,387	14,787	19,981
Bioengineering/biomedical engineering	NA	6,158	9,707	14,826	17,751	20,738	26,561	30,588
Chemical engineering	32,095	27,433	29,581	33,927	37,545	40,883	35,201	38,178
Civil engineering	26,281	27,145	28,355	32,968	35,310	41,251	40,276	44,509
Electrical engineering	65,380	68,674	68,682	68,721	84,055	84,452	89,007	81,344
Mechanical engineering	40,215	41,914	41,182	45,305	48,361	57,206	57,702	64,146
Metallurgical/materials engineering	25,558	25,365	34,209	29,073	28,747	35,082	32,901	35,516
Engineering, nec	66,978	61,891	57,680	54,181	50,871	63,723	70,663	78,865

NA = not available.

nec = not elsewhere classified.

NOTE: Because of rounding, detail may not add to total.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.



TABLE 13. R&D expenditures at historically black colleges and universities, by source of funds and science and engineering field: FY 1996–2003  
(Dollars in thousands)

Source and field	1996	1997	1998	1999	2000	2001	2002	2003
All R&D expenditures	263,508	290,369	293,190	254,785	263,581	317,531	360,675	392,628
Source of funds								
Federal government	222,344	254,338	248,688	216,510	227,723	271,776	305,783	337,482
State and local government	11,842	11,346	12,908	6,877	10,699	11,602	17,790	17,951
Industry	6,450	5,182	5,030	5,388	6,072	7,134	10,022	9,621
Institutional funds	19,615	13,880	10,641	14,644	13,832	20,147	22,227	22,179
All other sources	3,257	5,623	15,923	11,366	5,255	6,872	4,853	5,395
Field								
Science	220,685	240,630	245,026	222,920	234,250	284,049	327,949	360,410
Computer sciences	16,906	15,738	14,299	15,916	14,556	19,963	13,381	12,628
Environmental sciences	17,218	14,214	14,700	11,327	11,226	13,493	12,165	21,755
Atmospheric sciences	767	1,129	1,810	1,871	4,036	1,726	3,122	10,508
Earth sciences	2,509	1,753	2,958	2,443	2,850	6,013	5,373	5,494
Oceanography	299	185	173	447	940	1,530	2,051	3,966
Environmental sciences, nec	13,643	11,147	9,759	6,566	3,400	4,224	1,619	1,787
Life sciences	121,029	138,353	143,599	124,574	139,308	167,426	202,690	235,352
Agricultural sciences	48,015	58,412	60,086	48,706	51,995	63,355	77,556	96,046
Biological sciences	51,172	54,739	57,852	45,581	48,324	62,964	74,384	78,883
Medical sciences	18,361	21,871	21,009	25,449	30,604	34,994	45,832	45,769
Life sciences, nec	3,481	3,331	4,652	4,838	8,385	6,113	4,918	14,654
Mathematical sciences	6,504	6,358	5,248	5,054	5,675	6,416	7,703	11,554
Physical sciences	40,225	47,801	46,815	48,920	40,540	44,674	44,651	45,921
Astronomy	5,853	7,269	4,384	4,567	4,306	2,403	2,155	2,799
Chemistry	15,169	16,534	21,772	22,985	14,038	14,319	15,822	16,703
Physics	18,935	23,633	20,206	20,800	22,133	26,909	25,516	24,687
Physical sciences, nec	268	365	453	568	63	1,043	1,158	1,732
Psychology	2,019	1,135	1,002	2,275	1,697	4,860	5,704	4,923
Social sciences	9,528	9,666	7,920	8,347	11,033	13,235	10,730	11,990
Economics	1,175	1,426	1,156	1,344	1,432	2,142	2,086	2,150
Political sciences	749	987	464	299	731	544	372	430
Sociology	4,691	2,964	3,033	2,877	4,259	4,180	4,304	4,037
Social sciences, nec	2,913	4,289	3,267	3,827	4,611	6,369	3,968	5,373
Sciences, nec	7,256	7,365	11,443	6,507	10,215	13,982	30,925	16,287
Engineering	42,823	49,739	48,164	31,865	29,331	33,482	32,726	32,218
Aeronautical/astronautical engineering	2,544	2,514	2,673	3,923	3,607	3,583	2,392	3,015
Bioengineering/biomedical engineering	NA	164	183	56	883	919	147	114
Chemical engineering	2,203	5,010	4,660	2,637	2,966	3,293	2,825	2,896
Civil engineering	4,045	5,003	3,963	3,840	3,228	3,990	5,056	4,501
Electrical engineering	11,106	8,749	8,191	6,497	6,069	7,606	9,162	8,233
Mechanical engineering	10,849	16,704	17,899	8,186	6,705	7,374	7,097	6,413
Metallurgical/materials engineering	2,212	3,561	2,518	379	167	0	25	0
Engineering, nec	9,864	8,034	8,077	6,347	5,706	6,717	6,022	7,046

NA = not available.

nec = not elsewhere classified.

NOTE: Because of rounding, detail may not add to total.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 14. Federally financed R&D expenditures at historically black colleges and universities, by science and engineering field: FY 1996–2003  
(Dollars in thousands)

Field	1996	1997	1998	1999	2000	2001	2002	2003
All federal R&D expenditures	222,344	254,338	248,688	216,510	227,723	271,776	305,783	337,482
Science	185,044	209,270	207,549	188,897	202,306	243,308	277,709	311,322
Computer sciences	13,428	13,855	12,445	13,780	12,796	18,581	12,140	12,076
Environmental sciences	12,488	11,134	11,926	8,182	9,318	10,947	9,704	18,979
Atmospheric sciences	434	825	1,766	1,818	3,996	1,550	2,884	10,370
Earth sciences	1,348	721	1,623	1,042	1,798	3,908	3,767	3,595
Oceanography	183	91	79	383	824	1,383	1,877	3,726
Environmental sciences, nec	10,523	9,497	8,458	4,939	2,700	4,106	1,176	1,288
Life sciences	104,836	121,976	123,460	109,349	121,825	145,018	176,836	205,937
Agricultural sciences	41,803	50,303	47,640	40,446	43,684	49,316	62,418	80,080
Biological sciences	44,633	49,229	53,175	42,388	44,890	59,097	71,667	74,385
Medical sciences	16,119	20,730	18,904	22,886	26,848	31,604	39,673	42,365
Life sciences, nec	2,281	1,714	3,741	3,629	6,403	5,001	3,078	9,107
Mathematical sciences	4,261	4,328	2,530	2,747	4,369	4,254	5,056	7,668
Physical sciences	35,277	43,101	41,314	43,851	36,279	40,331	39,063	40,750
Astronomy	5,730	7,246	4,371	4,209	3,874	1,940	1,685	2,148
Chemistry	13,019	14,014	18,752	21,215	12,870	13,305	13,909	15,485
Physics	16,312	21,511	17,979	17,920	19,528	24,181	22,483	21,804
Physical sciences, nec	216	330	212	507	7	905	986	1,313
Psychology	1,729	1,025	979	1,777	1,331	4,529	5,395	4,687
Social sciences	6,475	7,151	5,506	5,270	8,121	9,970	7,823	8,428
Economics	1,014	1,258	1,063	1,171	1,118	1,926	1,675	1,787
Political sciences	425	457	254	134	508	405	117	235
Sociology	3,587	2,177	2,006	1,490	3,379	3,569	3,505	3,213
Social sciences, nec	1,449	3,259	2,183	2,475	3,116	4,070	2,526	3,193
Sciences, nec	6,550	6,700	9,389	3,941	8,267	9,678	21,692	12,797
Engineering	37,300	45,068	41,139	27,613	25,417	28,468	28,074	26,160
Aeronautical/astronautical engineering	2,128	2,433	2,370	3,619	3,530	3,509	2,171	2,760
Bioengineering/biomedical engineering	NA	159	183	56	568	470	139	114
Chemical engineering	1,891	4,511	3,668	2,166	2,753	3,091	2,453	2,505
Civil engineering	2,507	3,781	3,139	2,844	2,246	2,694	4,070	3,666
Electrical engineering	10,302	8,492	7,730	5,553	5,292	6,798	8,122	6,838
Mechanical engineering	9,685	15,077	14,657	7,423	6,189	6,784	6,034	5,020
Metallurgical/materials engineering	1,862	3,269	2,370	302	162	0	25	0
Engineering, nec	8,925	7,346	7,022	5,650	4,677	5,122	5,060	5,257

NA = not available.

nec = not elsewhere classified.

NOTE: Because of rounding, detail may not add to total.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 15. Nonfederal R&D expenditures at historically black colleges and universities, by science and engineering field: FY 1996–2003  
(Dollars in thousands)

Field	1996	1997	1998	1999	2000	2001	2002	2003
All nonfederal R&D expenditures	41,164	36,031	44,502	38,275	35,858	45,755	54,892	55,146
Science	35,641	31,360	37,477	34,023	31,944	40,741	50,240	49,088
Computer sciences	3,478	1,883	1,854	2,136	1,760	1,382	1,241	552
Environmental sciences	4,730	3,080	2,774	3,145	1,908	2,546	2,461	2,776
Atmospheric sciences	333	304	44	53	40	176	238	138
Earth sciences	1,161	1,032	1,335	1,401	1,052	2,105	1,606	1,899
Oceanography	116	94	94	64	116	147	174	240
Environmental sciences, nec	3,120	1,650	1,301	1,627	700	118	443	499
Life sciences	16,193	16,377	20,139	15,225	17,483	22,408	25,854	29,415
Agricultural sciences	6,212	8,109	12,446	8,260	8,311	14,039	15,138	15,966
Biological sciences	6,539	5,510	4,677	3,193	3,434	3,867	2,717	4,498
Medical sciences	2,242	1,141	2,105	2,563	3,756	3,390	6,159	3,404
Life sciences, nec	1,200	1,617	911	1,209	1,982	1,112	1,840	5,547
Mathematical sciences	2,243	2,030	2,718	2,307	1,306	2,162	2,647	3,886
Physical sciences	4,948	4,700	5,501	5,069	4,261	4,343	5,588	5,171
Astronomy	123	23	13	358	432	463	470	651
Chemistry	2,150	2,520	3,020	1,770	1,168	1,014	1,913	1,218
Physics	2,623	2,122	2,227	2,880	2,605	2,728	3,033	2,883
Physical sciences, nec	52	35	241	61	56	138	172	419
Psychology	290	110	23	498	366	331	309	236
Social sciences	3,053	2,515	2,414	3,077	2,912	3,265	2,907	3,562
Economics	161	168	93	173	314	216	411	363
Political sciences	324	530	210	165	223	139	255	195
Sociology	1,104	787	1,027	1,387	880	611	799	824
Social sciences, nec	1,464	1,030	1,084	1,352	1,495	2,299	1,442	2,180
Sciences, nec	706	665	2,054	2,566	1,948	4,304	9,233	3,490
Engineering	5,523	4,671	7,025	4,252	3,914	5,014	4,652	6,058
Aeronautical/astronautical engineering	416	81	303	304	77	74	221	255
Bioengineering/biomedical engineering	NA	5	0	0	315	449	8	0
Chemical engineering	312	499	992	471	213	202	372	391
Civil engineering	1,538	1,222	824	996	982	1,296	986	835
Electrical engineering	804	257	461	944	777	808	1,040	1,395
Mechanical engineering	1,164	1,627	3,242	763	516	590	1,063	1,393
Metallurgical/materials engineering	350	292	148	77	5	0	0	0
Engineering, nec	939	688	1,055	697	1,029	1,595	962	1,789

NA = not available.

nec = not elsewhere classified.

NOTE: Because of rounding, detail may not add to total.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 16. R&D expenditures at universities and colleges, by geographic division, state, and source of funds: FY 2003  
(Dollars in thousands)

Division and state	All R&D expenditures	Federal government	State and local government	Industry	Institutional funds	All other sources
United States	40,077,399	24,734,033	2,652,966	2,162,215	7,683,484	2,844,701
New England	3,037,372	2,200,142	82,517	181,915	297,797	275,001
Connecticut	594,541	418,449	9,279	27,845	71,403	67,565
Maine	75,092	31,293	11,952	3,385	24,896	3,566
Massachusetts	1,821,817	1,379,361	43,373	128,944	98,296	171,843
New Hampshire	252,210	165,497	7,709	11,257	49,139	18,608
Rhode Island	187,131	133,560	6,764	2,995	37,239	6,573
Vermont	106,581	71,982	3,440	7,489	16,824	6,846
Middle Atlantic	5,850,922	3,819,638	322,555	311,098	947,734	449,897
New Jersey	747,481	361,046	67,683	37,225	211,712	69,815
New York	3,089,988	2,014,483	160,855	132,590	523,868	258,192
Pennsylvania	2,013,453	1,444,109	94,017	141,283	212,154	121,890
East North Central	5,877,725	3,330,973	328,802	263,807	1,522,171	431,972
Illinois	1,613,691	963,582	93,468	49,425	399,539	107,677
Indiana	725,752	327,720	51,364	51,182	236,893	58,593
Michigan	1,388,284	792,521	94,111	69,052	346,916	85,684
Ohio	1,268,784	742,798	39,432	73,981	316,664	95,909
Wisconsin	881,214	504,352	50,427	20,167	222,159	84,109
West North Central	2,617,106	1,457,399	212,202	124,369	654,005	169,131
Iowa	498,669	284,091	51,078	35,511	114,738	13,251
Kansas	310,052	155,589	42,116	8,200	87,446	16,701
Minnesota	517,346	297,693	59,826	24,748	72,635	62,444
Missouri	806,907	519,515	33,582	26,561	182,470	44,779
Nebraska	300,540	106,040	12,014	22,024	140,401	20,061
North Dakota	133,615	66,276	3,760	6,636	51,377	5,566
South Dakota	49,977	28,195	9,826	689	4,938	6,329
South Atlantic	7,505,393	4,718,410	492,909	521,206	1,412,302	360,566
Delaware	104,650	73,129	3,745	3,051	19,840	4,885
District of Columbia	263,342	214,574	3,968	10,901	14,229	19,670
Florida	1,204,592	667,688	118,531	68,616	284,656	65,101
Georgia	1,175,852	638,395	85,361	74,235	321,643	56,218
Maryland	2,030,544	1,503,759	62,588	98,780	257,060	108,357
North Carolina	1,394,545	838,312	117,139	183,682	207,365	48,047
South Carolina	435,328	226,288	21,673	22,995	152,311	12,061
Virginia	776,026	482,743	76,661	56,640	116,335	43,647
West Virginia	120,514	73,522	3,243	2,306	38,863	2,580
East South Central	1,859,515	1,172,792	149,259	54,765	385,873	96,826
Alabama	557,859	409,919	6,765	15,019	105,361	20,795
Kentucky	377,635	172,464	50,598	8,491	113,143	32,939
Mississippi	324,298	207,790	37,397	9,595	62,619	6,897
Tennessee	599,723	382,619	54,499	21,660	104,750	36,195
West South Central	3,768,177	1,985,166	539,997	232,134	664,572	346,308
Arkansas	183,183	82,294	55,366	9,516	26,811	9,196
Louisiana	524,262	224,077	105,558	30,981	125,981	37,665
Oklahoma	295,098	127,055	40,582	17,211	94,350	15,900
Texas	2,765,634	1,551,740	338,491	174,426	417,430	283,547
Mountain	2,465,449	1,607,845	158,221	123,271	480,726	95,386
Arizona	617,978	341,715	39,564	40,280	171,749	24,670
Colorado	694,862	534,716	30,808	37,265	71,433	20,640
Idaho	105,039	55,928	18,749	6,152	22,683	1,527
Montana	141,220	84,991	21,506	6,909	26,436	1,378

TABLE 16. R&D expenditures at universities and colleges, by geographic division, state, and source of funds: FY 2003  
(Dollars in thousands)

Division and state	All R&D expenditures	Federal government	State and local government	Industry	Institutional funds	All other sources
Nevada	154,515	103,532	8,024	5,593	33,435	3,931
New Mexico	306,623	199,607	14,900	15,326	68,935	7,855
Utah	385,158	264,170	22,677	9,252	56,685	32,374
Wyoming	60,054	23,186	1,993	2,494	29,370	3,011
Pacific	6,994,579	4,369,405	358,237	344,094	1,305,069	617,774
Alaska	140,641	77,061	5,036	23,093	32,693	2,758
California	5,362,683	3,183,762	283,348	251,388	1,080,137	564,048
Hawaii	184,602	148,662	11,822	6,931	17,171	16
Oregon	436,958	317,704	38,016	10,706	46,523	24,009
Washington	869,695	642,216	20,015	51,976	128,545	26,943
Outlying areas <sup>a</sup>	101,161	72,263	8,267	5,556	13,235	1,840

<sup>a</sup> Outlying areas include Guam, Puerto Rico, and the Virgin Islands.

NOTE: Because of rounding, detail may not add to total.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 17. R&D expenditures at universities and colleges, by geographic division and state: FY 1998–2003  
(Dollars in thousands)

Division and state	1998	1999	2000	2001	2002	2003
United States	25,854,724	27,529,522	30,067,188	32,796,894	36,370,421	40,077,399
New England	2,077,990	2,178,371	2,357,803	2,562,185	2,777,696	3,037,372
Connecticut	406,618	419,289	468,435	498,745	538,070	594,541
Maine	35,265	44,437	57,753	68,034	69,222	75,092
Massachusetts	1,348,220	1,401,851	1,486,174	1,578,924	1,697,102	1,821,817
New Hampshire	117,323	127,135	150,982	196,975	220,061	252,210
Rhode Island	111,979	120,868	129,697	142,625	163,052	187,131
Vermont	58,585	64,791	64,762	76,882	90,189	106,581
Middle Atlantic	3,758,471	3,981,819	4,411,832	4,796,978	5,366,849	5,850,922
New Jersey	484,942	521,304	567,666	628,040	690,642	747,481
New York	1,925,264	2,069,952	2,291,749	2,476,008	2,763,447	3,089,988
Pennsylvania	1,348,265	1,390,563	1,552,417	1,692,930	1,912,760	2,013,453
East North Central	3,685,020	3,910,919	4,266,820	4,697,731	5,247,120	5,877,725
Illinois	1,030,819	1,101,453	1,170,743	1,280,955	1,440,716	1,613,691
Indiana	426,328	460,418	509,141	584,418	650,718	725,752
Michigan	882,141	920,938	1,007,225	1,107,874	1,233,076	1,388,284
Ohio	810,225	831,288	918,241	995,866	1,116,797	1,268,784
Wisconsin	535,507	596,822	661,470	728,618	805,813	881,214
West North Central	1,692,729	1,830,109	2,012,131	2,214,608	2,406,507	2,617,106
Iowa	358,613	375,300	418,263	439,810	485,756	498,669
Kansas	213,096	234,501	258,336	268,800	299,728	310,052
Minnesota	367,779	377,393	418,029	469,086	503,973	517,346
Missouri	484,502	549,876	614,028	678,202	705,593	806,907
Nebraska	186,320	205,495	208,480	241,638	266,930	300,540
North Dakota	56,945	61,695	67,406	84,574	106,078	133,615
South Dakota	25,474	25,849	27,589	32,498	38,449	49,977
South Atlantic	4,860,646	5,166,764	5,571,302	6,115,518	6,849,511	7,505,393
Delaware	72,779	76,286	78,126	79,985	88,319	104,650
District of Columbia	232,922	223,786	245,828	228,110	251,601	263,342
Florida	712,704	788,743	851,932	985,628	1,085,764	1,204,592
Georgia	804,151	840,953	926,749	988,883	1,076,424	1,175,852
Maryland	1,330,170	1,387,262	1,507,549	1,644,467	1,880,122	2,030,544
North Carolina	899,219	1,012,576	1,039,812	1,137,248	1,276,823	1,394,545
South Carolina	248,474	267,881	294,274	361,404	399,982	435,328
Virginia	496,781	504,937	553,612	610,717	693,606	776,026
West Virginia	63,446	64,340	73,420	79,076	96,870	120,514
East South Central	1,182,757	1,238,078	1,327,185	1,435,533	1,618,193	1,859,515
Alabama	442,088	416,594	428,122	448,294	503,470	557,859
Kentucky	241,520	274,927	276,986	298,268	334,208	377,635
Mississippi	152,683	175,118	217,064	260,991	289,521	324,298
Tennessee	346,466	371,439	405,013	427,980	490,994	599,723
West South Central	2,376,256	2,556,882	2,830,249	3,087,748	3,440,367	3,768,177
Arkansas	116,778	111,999	131,438	141,830	140,283	183,183
Louisiana	353,261	376,098	408,711	438,862	482,785	524,262
Oklahoma	208,873	238,799	252,419	255,217	282,062	295,098
Texas	1,697,344	1,829,986	2,037,681	2,251,839	2,535,237	2,765,634
Mountain	1,654,743	1,739,467	1,884,285	2,033,640	2,212,687	2,465,449
Arizona	405,999	439,286	465,777	500,548	531,106	617,978
Colorado	489,419	507,673	544,584	572,950	645,291	694,862
Idaho	72,395	71,674	73,726	82,496	93,323	105,039
Montana	76,655	84,460	99,069	107,744	122,375	141,220
Nevada	83,888	91,485	106,154	115,934	126,713	154,515

TABLE 17. R&D expenditures at universities and colleges, by geographic division and state: FY 1998–2003  
(Dollars in thousands)

Division and state	1998	1999	2000	2001	2002	2003
New Mexico	228,740	224,500	243,822	274,209	292,691	306,623
Utah	249,147	273,192	308,059	338,127	359,556	385,158
Wyoming	48,500	47,197	43,094	41,632	41,632	60,054
Pacific	4,470,873	4,830,431	5,323,612	5,776,801	6,362,653	6,994,579
Alaska	76,358	94,280	108,099	119,199	128,875	140,641
California	3,389,742	3,662,636	4,065,130	4,428,024	4,891,562	5,362,683
Hawaii	148,007	156,810	161,300	156,976	172,664	184,602
Oregon	314,355	327,932	346,149	366,023	386,666	436,958
Washington	542,411	588,773	642,934	706,579	782,886	869,695
Outlying areas <sup>a</sup>	95,239	96,682	81,969	76,152	88,838	101,161

<sup>a</sup> Outlying areas include Guam, Puerto Rico, and the Virgin Islands.

NOTE: Because of rounding, detail may not add to total.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 18. Federally financed R&D expenditures at universities and colleges, by geographic division and state: FY 1998–2003  
(Dollars in thousands)

Division and state	1998	1999	2000	2001	2002	2003
United States	15,150,456	16,101,053	17,534,849	19,223,035	21,860,110	24,734,033
New England	1,447,740	1,508,019	1,619,803	1,761,615	1,974,004	2,200,142
Connecticut	263,236	274,098	304,155	327,983	375,054	418,449
Maine	13,981	20,137	25,309	25,116	25,830	31,293
Massachusetts	989,696	1,018,172	1,065,307	1,141,725	1,261,765	1,379,361
New Hampshire	70,966	77,327	95,290	115,067	138,084	165,497
Rhode Island	77,737	81,512	88,510	101,629	113,841	133,560
Vermont	32,124	36,773	41,232	50,095	59,430	71,982
Middle Atlantic	2,330,924	2,485,786	2,769,208	2,987,448	3,439,215	3,819,638
New Jersey	228,074	240,011	257,445	274,865	316,912	361,046
New York	1,224,156	1,337,196	1,475,694	1,564,816	1,778,260	2,014,483
Pennsylvania	878,694	908,579	1,036,069	1,147,767	1,344,043	1,444,109
East North Central	2,023,218	2,147,361	2,310,825	2,558,516	2,900,168	3,330,973
Illinois	587,841	626,981	681,074	741,603	838,708	963,582
Indiana	214,189	224,035	228,768	247,944	276,401	327,720
Michigan	474,884	508,531	553,478	621,845	699,669	792,521
Ohio	446,119	475,650	498,726	560,683	642,680	742,798
Wisconsin	300,185	312,164	348,779	386,441	442,710	504,352
West North Central	831,831	898,713	1,023,213	1,135,873	1,296,873	1,457,399
Iowa	167,294	177,847	203,437	219,361	257,084	284,091
Kansas	80,443	88,728	105,610	114,732	134,301	155,589
Minnesota	208,041	210,798	233,522	267,741	299,793	297,693
Missouri	278,271	321,115	371,666	409,902	447,795	519,515
Nebraska	62,613	61,268	65,702	76,507	89,322	106,040
North Dakota	23,191	25,923	29,343	30,950	46,418	66,276
South Dakota	11,978	13,034	13,933	16,680	22,160	28,195
South Atlantic	2,893,097	3,038,231	3,218,258	3,573,566	4,147,913	4,718,410
Delaware	36,422	36,683	40,768	44,052	51,002	73,129
District of Columbia	165,715	173,466	186,632	192,314	206,000	214,574
Florida	355,892	396,395	408,826	463,776	559,327	667,688
Georgia	371,274	380,775	417,664	472,593	534,419	638,395
Maryland	1,014,239	1,058,128	1,090,445	1,196,085	1,405,242	1,503,759
North Carolina	516,682	552,310	590,649	655,114	743,236	838,312
South Carolina	113,093	111,506	131,171	169,257	183,701	226,288
Virginia	294,479	302,379	318,131	344,849	405,984	482,743
West Virginia	25,301	26,589	33,972	35,526	59,002	73,522
East South Central	656,980	667,172	731,929	858,725	1,011,885	1,172,792
Alabama	282,113	261,752	275,912	313,644	365,187	409,919
Kentucky	87,273	93,221	98,512	120,529	151,228	172,464
Mississippi	79,772	94,229	117,168	154,848	179,681	207,790
Tennessee	207,822	217,970	240,337	269,704	315,789	382,619
West South Central	1,177,802	1,264,188	1,424,940	1,576,813	1,784,952	1,985,166
Arkansas	41,204	45,587	58,145	63,715	61,765	82,294
Louisiana	144,762	154,341	171,899	183,180	200,891	224,077
Oklahoma	83,785	88,507	93,434	96,349	112,438	127,055
Texas	908,051	975,753	1,101,462	1,233,569	1,409,858	1,551,740
Mountain	987,592	1,076,005	1,191,855	1,283,393	1,415,168	1,607,845
Arizona	210,170	239,142	244,938	265,716	287,052	341,715
Colorado	332,402	361,598	427,768	438,664	484,762	534,716
Idaho	25,444	28,116	28,888	34,347	42,376	55,928
Montana	38,497	43,872	51,686	56,668	65,575	84,991
Nevada	45,496	51,387	60,005	69,085	85,085	103,532



TABLE 18. Federally financed R&D expenditures at universities and colleges, by geographic division and state: FY 1998–2003  
(Dollars in thousands)

Division and state	1998	1999	2000	2001	2002	2003
New Mexico	152,458	155,218	169,914	185,733	195,383	199,607
Utah	165,319	177,563	192,100	213,163	234,918	264,170
Wyoming	17,806	19,109	16,556	20,017	20,017	23,186
Pacific	2,751,363	2,960,569	3,196,893	3,432,535	3,827,118	4,369,405
Alaska	32,006	37,689	49,763	59,273	71,129	77,061
California	2,026,810	2,181,345	2,361,804	2,531,345	2,809,753	3,183,762
Hawaii	86,886	93,418	95,419	97,716	119,381	148,662
Oregon	214,526	230,289	246,684	255,324	273,901	317,704
Washington	391,135	417,828	443,223	488,877	552,954	642,216
Outlying areas <sup>a</sup>	49,909	55,009	47,925	54,551	62,814	72,263

<sup>a</sup> Outlying areas include Guam, Puerto Rico, and the Virgin Islands.

NOTE: Because of rounding, detail may not add to total.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 19. State and local government-financed R&D expenditures at universities and colleges, by geographic division and state: FY 1998–2003

(Dollars in thousands)

Division and state	1998	1999	2000	2001	2002	2003
United States	1,943,946	2,021,280	2,199,603	2,320,506	2,505,599	2,652,966
New England	60,966	62,888	79,755	83,644	85,160	82,517
Connecticut	13,647	10,953	15,539	15,167	8,969	9,279
Maine	1,809	1,964	6,445	8,536	11,151	11,952
Massachusetts	31,704	33,807	40,198	38,184	46,514	43,373
New Hampshire	8,300	8,961	9,747	12,194	7,870	7,709
Rhode Island	2,857	4,485	4,564	5,511	6,293	6,764
Vermont	2,649	2,718	3,262	4,052	4,363	3,440
Middle Atlantic	165,693	182,010	193,280	233,414	277,468	322,555
New Jersey	39,779	45,020	46,071	54,230	62,789	67,683
New York	82,308	84,453	102,753	127,736	136,155	160,855
Pennsylvania	43,606	52,537	44,456	51,448	78,524	94,017
East North Central	253,200	259,369	299,806	315,687	345,381	328,802
Illinois	52,645	62,687	73,042	82,742	92,536	93,468
Indiana	25,751	27,877	34,377	45,456	54,494	51,364
Michigan	56,317	57,785	63,291	66,798	69,484	94,111
Ohio	74,459	68,051	83,520	80,268	78,725	39,432
Wisconsin	44,028	42,969	45,576	40,423	50,142	50,427
West North Central	229,128	199,975	195,950	205,958	211,355	212,202
Iowa	52,947	53,415	56,351	59,668	56,410	51,078
Kansas	47,744	51,101	44,396	45,153	44,698	42,116
Minnesota	47,738	49,452	52,631	58,483	61,380	59,826
Missouri	24,619	25,591	26,387	25,166	27,322	33,582
Nebraska	46,602	10,653	7,243	7,007	9,936	12,014
North Dakota	1,123	1,965	2,417	1,440	2,569	3,760
South Dakota	8,355	7,798	6,525	9,041	9,040	9,826
South Atlantic	429,506	453,522	483,471	479,811	490,975	492,909
Delaware	4,701	5,401	4,142	4,712	4,270	3,745
District of Columbia	2,042	3,117	3,826	3,193	4,166	3,968
Florida	80,720	91,371	103,167	110,244	118,480	118,531
Georgia	70,419	74,523	76,857	78,760	79,163	85,361
Maryland	62,950	76,138	82,069	59,552	58,320	62,588
North Carolina	129,033	123,045	114,283	120,663	117,024	117,139
South Carolina	27,166	26,670	31,705	30,135	26,270	21,673
Virginia	49,422	50,053	64,459	70,081	81,259	76,661
West Virginia	3,053	3,204	2,963	2,471	2,023	3,243
East South Central	99,111	121,296	106,272	132,059	144,142	149,259
Alabama	7,242	8,923	6,052	5,485	7,582	6,765
Kentucky	25,799	42,173	22,129	41,257	45,257	50,598
Mississippi	29,455	31,155	38,833	41,505	41,966	37,397
Tennessee	36,615	39,045	39,258	43,812	49,337	54,499
West South Central	328,413	337,262	382,198	391,673	437,233	539,997
Arkansas	33,154	32,543	35,076	38,437	39,777	55,366
Louisiana	78,349	79,834	77,281	84,548	96,998	105,558
Oklahoma	37,415	41,736	42,396	40,615	40,462	40,582
Texas	179,495	183,149	227,445	228,073	259,996	338,491
Mountain	114,349	107,428	116,483	119,967	127,865	158,221
Arizona	11,812	11,753	15,221	14,269	14,553	39,564
Colorado	26,136	24,992	24,012	21,934	24,385	30,808
Idaho	21,760	15,718	18,545	18,389	21,328	18,749
Montana	14,573	14,639	17,873	19,745	23,118	21,506

TABLE 19. State and local government-financed R&D expenditures at universities and colleges, by geographic division and state: FY 1998–2003

(Dollars in thousands)

Division and state	1998	1999	2000	2001	2002	2003
Nevada	4,533	5,442	7,032	10,275	5,925	8,024
New Mexico	12,613	12,302	11,965	11,872	13,803	14,900
Utah	17,556	19,852	20,365	21,445	22,715	22,677
Wyoming	5,366	2,730	1,470	2,038	2,038	1,993
Pacific	239,244	272,340	326,059	352,796	379,297	358,237
Alaska	3,765	4,187	3,551	3,488	3,758	5,036
California	155,383	186,066	236,283	256,090	284,101	283,348
Hawaii	37,002	35,111	35,474	33,125	31,062	11,822
Oregon	29,786	30,636	35,485	41,449	42,027	38,016
Washington	13,308	16,340	15,266	18,644	18,349	20,015
Outlying areas <sup>a</sup>	24,336	25,190	16,329	5,497	6,723	8,267

<sup>a</sup> Outlying areas include Guam, Puerto Rico, and the Virgin Islands.

NOTE: Because of rounding, detail may not add to total.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 20. Industry-financed R&D expenditures at universities and colleges, by geographic division and state: FY 1998–2003  
(Dollars in thousands)

Division and state	1998	1999	2000	2001	2002	2003
United States	1,888,277	2,032,706	2,155,722	2,219,941	2,187,236	2,162,215
New England	155,238	173,363	187,617	205,188	186,663	181,915
Connecticut	26,556	26,378	28,327	24,282	23,332	27,845
Maine	7,252	2,476	2,994	3,769	4,075	3,385
Massachusetts	107,634	125,557	138,651	156,335	139,160	128,944
New Hampshire	6,209	8,939	9,197	12,140	10,389	11,257
Rhode Island	2,074	2,901	2,735	2,228	2,538	2,995
Vermont	5,513	7,112	5,713	6,434	7,169	7,489
Middle Atlantic	280,459	286,404	295,654	331,545	325,210	311,098
New Jersey	27,236	30,402	29,817	39,539	38,275	37,225
New York	96,305	101,760	106,136	129,384	128,210	132,590
Pennsylvania	156,918	154,242	159,701	162,622	158,725	141,283
East North Central	266,617	260,880	274,510	275,116	263,190	263,807
Illinois	57,510	56,765	56,088	59,183	54,937	49,425
Indiana	40,494	41,727	42,343	41,625	43,339	51,182
Michigan	60,061	61,927	66,955	65,453	63,724	69,052
Ohio	88,343	80,705	87,570	86,186	80,152	73,981
Wisconsin	20,209	19,756	21,554	22,669	21,038	20,167
West North Central	119,417	131,314	138,704	136,544	134,751	124,369
Iowa	31,111	35,940	32,473	34,716	35,462	35,511
Kansas	12,385	19,525	23,410	12,484	13,741	8,200
Minnesota	25,258	24,323	26,889	26,987	27,200	24,748
Missouri	29,611	30,380	33,535	37,930	30,459	26,561
Nebraska	16,751	17,232	17,636	17,782	21,104	22,024
North Dakota	3,806	3,608	4,400	6,242	6,505	6,636
South Dakota	495	306	361	403	280	689
South Atlantic	386,426	449,416	482,459	506,131	507,650	521,206
Delaware	3,867	4,246	3,878	5,041	5,667	3,051
District of Columbia	19,481	14,349	16,286	12,789	12,423	10,901
Florida	51,772	63,637	78,906	72,561	67,194	68,616
Georgia	86,092	90,792	94,341	96,843	95,964	74,235
Maryland	41,752	33,777	50,154	71,874	82,214	98,780
North Carolina	121,307	182,766	172,838	167,883	158,753	183,682
South Carolina	11,407	12,826	15,478	23,006	27,051	22,995
Virginia	46,201	41,491	43,068	49,608	51,573	56,640
West Virginia	4,547	5,532	7,510	6,526	6,811	2,306
East South Central	79,854	76,662	67,011	67,083	59,295	54,765
Alabama	30,279	22,287	19,581	21,738	18,856	15,019
Kentucky	19,181	21,719	17,937	13,999	9,090	8,491
Mississippi	10,399	11,126	10,973	9,843	10,822	9,595
Tennessee	19,995	21,530	18,520	21,503	20,527	21,660
West South Central	191,490	210,721	215,889	225,064	237,314	232,134
Arkansas	8,246	10,286	8,121	7,484	9,106	9,516
Louisiana	29,667	25,601	25,828	25,750	30,503	30,981
Oklahoma	13,320	14,802	16,789	17,382	19,530	17,211
Texas	140,257	160,032	165,151	174,448	178,175	174,426
Mountain	100,202	99,395	106,269	110,146	109,159	123,271
Arizona	22,125	22,242	28,519	29,924	31,455	40,280
Colorado	26,818	27,226	24,096	29,497	33,640	37,265
Idaho	8,059	3,962	5,338	6,683	7,469	6,152
Montana	8,670	8,967	10,298	9,084	7,712	6,909
Nevada	5,355	5,196	5,532	5,078	4,120	5,593

TABLE 20. Industry-financed R&D expenditures at universities and colleges, by geographic division and state: FY 1998–2003  
(Dollars in thousands)

Division and state	1998	1999	2000	2001	2002	2003
New Mexico	12,559	12,866	11,692	12,297	10,936	15,326
Utah	13,502	15,730	17,853	15,002	11,246	9,252
Wyoming	3,114	3,206	2,941	2,581	2,581	2,494
Pacific	303,085	341,074	382,588	360,672	360,043	344,094
Alaska	16,126	19,732	20,087	29,176	24,002	23,093
California	229,780	249,447	274,481	261,858	263,515	251,388
Hawaii	10,949	13,021	11,158	7,232	9,971	6,931
Oregon	4,278	4,218	14,775	14,489	11,720	10,706
Washington	41,952	54,656	62,087	47,917	50,835	51,976
Outlying areas <sup>a</sup>	5,489	3,477	5,021	2,452	3,961	5,556

<sup>a</sup> Outlying areas include Guam, Puerto Rico, and the Virgin Islands.

NOTE: Because of rounding, detail may not add to total.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 21. Institutionally financed R&D expenditures at universities and colleges, by geographic division and state: FY 1998–2003  
(Dollars in thousands)

Division and state	1998	1999	2000	2001	2002	2003
United States	5,002,305	5,380,473	5,923,154	6,607,164	7,128,082	7,683,484
New England	236,232	228,201	252,686	267,124	272,257	297,797
Connecticut	67,910	67,375	74,534	76,044	68,711	71,403
Maine	11,194	17,293	20,555	25,536	22,182	24,896
Massachusetts	101,602	85,061	94,145	80,566	89,124	98,296
New Hampshire	17,439	18,102	22,924	43,031	42,231	49,139
Rhode Island	26,130	28,474	30,289	29,609	35,622	37,239
Vermont	11,957	11,896	10,239	12,338	14,387	16,824
Middle Atlantic	636,950	675,166	736,769	815,293	865,653	947,734
New Jersey	150,633	162,648	160,412	190,380	205,134	211,712
New York	286,619	323,115	373,726	413,649	453,223	523,868
Pennsylvania	199,698	189,403	202,631	211,264	207,296	212,154
East North Central	862,805	960,737	1,067,819	1,193,817	1,336,974	1,522,171
Illinois	252,329	272,226	279,787	311,891	357,341	399,539
Indiana	126,410	149,209	178,613	203,717	225,350	236,893
Michigan	221,769	229,825	253,248	278,392	307,237	346,916
Ohio	151,809	149,014	179,704	193,146	229,222	316,664
Wisconsin	110,488	160,463	176,467	206,671	217,824	222,159
West North Central	395,087	473,664	510,534	597,467	624,745	654,005
Iowa	88,765	91,684	104,472	103,688	114,077	114,738
Kansas	56,215	58,212	69,872	74,134	91,401	87,446
Minnesota	56,738	63,144	72,247	81,824	77,348	72,635
Missouri	109,481	127,617	130,262	163,916	161,444	182,470
Nebraska	55,092	102,776	101,159	127,825	129,790	140,401
North Dakota	26,091	27,782	28,651	42,409	46,964	51,377
South Dakota	2,705	2,449	3,871	3,671	3,721	4,938
South Atlantic	904,262	979,688	1,091,574	1,243,893	1,351,271	1,412,302
Delaware	19,244	19,715	19,562	16,486	18,239	19,840
District of Columbia	26,442	13,110	15,480	4,291	9,777	14,229
Florida	184,475	198,479	220,827	291,649	276,617	284,656
Georgia	246,264	258,563	299,214	297,178	312,922	321,643
Maryland	142,710	151,053	181,039	210,933	237,730	257,060
North Carolina	96,323	126,591	130,577	152,944	209,552	207,365
South Carolina	85,337	101,808	102,793	131,435	144,576	152,311
Virginia	76,942	85,617	97,783	109,548	113,265	116,335
West Virginia	26,525	24,752	24,299	29,429	28,593	38,863
East South Central	264,105	283,726	324,296	296,543	323,106	385,873
Alabama	82,200	79,251	88,167	86,537	91,942	105,361
Kentucky	96,713	108,830	121,470	101,779	98,940	113,143
Mississippi	31,126	36,156	47,025	51,339	53,207	62,619
Tennessee	54,066	59,489	67,634	56,888	79,017	104,750
West South Central	457,559	490,352	534,354	591,453	639,047	664,572
Arkansas	26,994	16,437	22,797	23,291	21,985	26,811
Louisiana	80,805	96,378	101,321	106,060	108,677	125,981
Oklahoma	59,574	76,192	88,152	88,219	93,459	94,350
Texas	290,186	301,345	322,084	373,883	414,926	417,430
Mountain	378,889	375,164	380,415	424,179	457,968	480,726
Arizona	146,586	150,366	158,810	169,472	171,237	171,749
Colorado	68,164	60,743	53,741	57,315	77,073	71,433
Idaho	16,334	16,877	17,505	21,948	21,077	22,683
Montana	13,875	15,566	15,658	20,919	24,212	26,436
Nevada	24,314	25,484	29,040	27,681	28,370	33,435

TABLE 21. Institutionally financed R&D expenditures at universities and colleges, by geographic division and state: FY 1998–2003  
(Dollars in thousands)

Division and state	1998	1999	2000	2001	2002	2003
New Mexico	45,780	39,260	41,740	55,841	64,449	68,935
Utah	42,561	46,220	43,818	54,787	55,334	56,685
Wyoming	21,275	20,648	20,103	16,216	16,216	29,370
Pacific	853,579	902,186	1,012,593	1,164,868	1,243,449	1,305,069
Alaska	24,427	32,353	34,391	26,612	28,132	32,693
California	700,763	729,709	824,940	954,890	1,029,684	1,080,137
Hawaii	13,170	15,260	19,249	18,903	12,232	17,171
Oregon	38,116	45,962	32,568	35,864	36,531	46,523
Washington	77,103	78,902	101,445	128,599	136,870	128,545
Outlying areas <sup>a</sup>	12,837	11,589	12,114	12,527	13,612	13,235

<sup>a</sup> Outlying areas include Guam, Puerto Rico, and the Virgin Islands.

NOTE: Because of rounding, detail may not add to total.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 22. All other sources of financing for R&D expenditures at universities and colleges, by geographic division and state: FY 1998–2003  
(Dollars in thousands)

Division and state	1998	1999	2000	2001	2002	2003
United States	1,869,740	1,994,010	2,253,860	2,426,248	2,689,394	2,844,701
New England	177,814	205,900	217,942	244,614	259,612	275,001
Connecticut	35,269	40,485	45,880	55,269	62,004	67,565
Maine	1,029	2,567	2,450	5,077	5,984	3,566
Massachusetts	117,584	139,254	147,873	162,114	160,539	171,843
New Hampshire	14,409	13,806	13,824	14,543	21,487	18,608
Rhode Island	3,181	3,496	3,599	3,648	4,758	6,573
Vermont	6,342	6,292	4,316	3,963	4,840	6,846
Middle Atlantic	344,445	352,453	416,921	429,278	459,303	449,897
New Jersey	39,220	43,223	73,921	69,026	67,532	69,815
New York	235,876	223,428	233,440	240,423	267,599	258,192
Pennsylvania	69,349	85,802	109,560	119,829	124,172	121,890
East North Central	279,180	282,572	313,860	354,595	401,407	431,972
Illinois	80,494	82,794	80,752	85,536	97,194	107,677
Indiana	19,484	17,570	25,040	45,676	51,134	58,593
Michigan	69,110	62,870	70,253	75,386	92,962	85,684
Ohio	49,495	57,868	68,721	75,583	86,018	95,909
Wisconsin	60,597	61,470	69,094	72,414	74,099	84,109
West North Central	117,266	126,443	143,730	138,766	138,783	169,131
Iowa	18,496	16,414	21,530	22,377	22,723	13,251
Kansas	16,309	16,935	15,048	22,297	15,587	16,701
Minnesota	30,004	29,676	32,740	34,051	38,252	62,444
Missouri	42,520	45,173	52,178	41,288	38,573	44,779
Nebraska	5,262	13,566	16,740	12,517	16,778	20,061
North Dakota	2,734	2,417	2,595	3,533	3,622	5,566
South Dakota	1,941	2,262	2,899	2,703	3,248	6,329
South Atlantic	247,355	245,907	295,540	312,117	351,702	360,566
Delaware	8,545	10,241	9,776	9,694	9,141	4,885
District of Columbia	19,242	19,744	23,604	15,523	19,235	19,670
Florida	39,845	38,861	40,206	47,398	64,146	65,101
Georgia	30,102	36,300	38,673	43,509	53,956	56,218
Maryland	68,519	68,166	103,842	106,023	96,616	108,357
North Carolina	35,874	27,864	31,465	40,644	48,258	48,047
South Carolina	11,471	15,071	13,127	7,571	18,384	12,061
Virginia	29,737	25,397	30,171	36,631	41,525	43,647
West Virginia	4,020	4,263	4,676	5,124	441	2,580
East South Central	82,707	89,222	97,677	81,123	79,765	96,826
Alabama	40,254	44,381	38,410	20,890	19,903	20,795
Kentucky	12,554	8,984	16,938	20,704	29,693	32,939
Mississippi	1,931	2,452	3,065	3,456	3,845	6,897
Tennessee	27,968	33,405	39,264	36,073	26,324	36,195
West South Central	220,992	254,359	272,868	302,745	341,821	346,308
Arkansas	7,180	7,146	7,299	8,903	7,650	9,196
Louisiana	19,678	19,944	32,382	39,324	45,716	37,665
Oklahoma	14,779	17,562	11,648	12,652	16,173	15,900
Texas	179,355	209,707	221,539	241,866	272,282	283,547
Mountain	73,711	81,475	89,263	95,955	102,527	95,386
Arizona	15,306	15,783	18,289	21,167	26,809	24,670
Colorado	35,899	33,114	14,967	25,540	25,431	20,640
Idaho	798	7,001	3,450	1,129	1,073	1,527
Montana	1,040	1,416	3,554	1,328	1,758	1,378
Nevada	4,190	3,976	4,545	3,815	3,213	3,931



TABLE 22. All other sources of financing for R&D expenditures at universities and colleges, by geographic division and state: FY 1998–2003  
(Dollars in thousands)

Division and state	1998	1999	2000	2001	2002	2003
New Mexico	5,330	4,854	8,511	8,466	8,120	7,855
Utah	10,209	13,827	33,923	33,730	35,343	32,374
Wyoming	939	1,504	2,024	780	780	3,011
Pacific	323,602	354,262	405,479	465,930	552,746	617,774
Alaska	34	319	307	650	1,854	2,758
California	277,006	316,069	367,622	423,841	504,509	564,048
Hawaii	0	0	0	0	18	16
Oregon	27,649	16,827	16,637	18,897	22,487	24,009
Washington	18,913	21,047	20,913	22,542	23,878	26,943
Outlying areas <sup>a</sup>	2,668	1,417	580	1,125	1,728	1,840

<sup>a</sup> Outlying areas include Guam, Puerto Rico, and the Virgin Islands.

NOTES: Includes R&D expenditures financed by sources other than government (federal, state, local), industry, or institutional funds. Because of rounding, detail may not add to total.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 23. R&D expenditures at universities and colleges, by state, control, and source of funds: FY 2003  
(Dollars in thousands)

State, control, and institution	All R&D expenditures	Federal government	State and local government	Industry	Institutional funds	All other sources
United States	40,077,399	24,734,033	2,652,966	2,162,215	7,683,484	2,844,701
Public	27,355,031	15,295,157	2,363,629	1,459,446	6,402,377	1,834,422
Private	12,722,368	9,438,876	289,337	702,769	1,281,107	1,010,279
Alabama	557,859	409,919	6,765	15,019	105,361	20,795
Public	547,242	401,820	6,765	15,019	105,283	18,355
AL A&M U.	36,856	30,343	3,098	1,140	2,275	0
AL State U.	1,633	1,449	0	0	184	0
Auburn U. all campuses	124,103	45,374	1,032	3,849	69,112	4,736
U. AL Birmingham, The	284,497	245,217	99	6,255	19,307	13,619
U. AL Huntsville, The	46,595	35,558	446	1,186	9,405	0
U. AL, The	34,187	26,241	1,796	1,150	5,000	0
U. South AL	19,371	17,638	294	1,439	0	0
Private	10,617	8,099	0	0	78	2,440
Miles C.	0	0	0	0	0	0
Oakwood C.	479 i	368 i	0 i	0 i	78 i	33 i
Selma U.	0	0	0	0	0	0
Talladega C.	71	71	0	0	0	0
Tuskegee U.	10,067	7,660	0	0	0	2,407
Alaska	140,641	77,061	5,036	23,093	32,693	2,758
Public	140,641	77,061	5,036	23,093	32,693	2,758
U. AK Anchorage all campuses	10,816	3,929	1,918	0	2,244	2,725
U. AK Fairbanks all campuses	128,916	72,607	2,817	23,093	30,399	0
U. AK Southeast all campuses	909	525	301	0	50	33
Arizona	617,978	341,715	39,564	40,280	171,749	24,670
Public	617,978	341,715	39,564	40,280	171,749	24,670
AZ State U. main campus	145,591	71,741	18,141	8,103	44,167	3,439
Northern AZ U.	17,446	10,900	3,755	1,098	1,553	140
U. AZ	454,941	259,074	17,668	31,079	126,029	21,091
Arkansas	183,183	82,294	55,366	9,516	26,811	9,196
Public	183,183	82,294	55,366	9,516	26,811	9,196
AR State U. main campus	2,634	385	1,895	0	174	180
AR Tech U.	539 i	140 i	81 i	33 i	285 i	0 i
U. AR for Medical Sciences	63,677	41,681	6,279	3,519	9,460	2,738
U. AR Little Rock	24,284	7,757	13,133	244	40	3,110
U. AR main campus	82,277	27,071	33,438	5,470	13,601	2,697
U. AR Pine Bluff	6,543	3,470	392	0	2,679	2
U. Central AR	3,229	1,790	148	250	572	469
Private	0	0	0	0	0	0
Philander Smith C.	0	0	0	0	0	0
California	5,362,683	3,183,762	283,348	251,388	1,080,137	564,048
Public	4,002,320	2,108,105	256,196	182,447	945,407	510,165
CA State Polytechnic U. Pomona	3,922	3,922	0	0	0	0
CA State Polytechnic U. San Luis Obispo	13,598	3,820	4,827	1,929	1,346	1,676
CA State U. Bakersfield	4,464 i	554 i	962 i	480 i	679 i	1,789 i
CA State U. Chico	4,427	1,356	1,998	1,073	0	0
CA State U. Dominguez Hills	4,503	3,471	384	0	540	108
CA State U. Fresno	13,558	2,579	10,091	296	400	192
CA State U. Fullerton	5,318	3,140	441 i	259 i	542 i	936 i
CA State U. Hayward	1,559	1,088	194	8	183	86
CA State U. Long Beach	13,732	12,126	628	268	390	320
CA State U. Los Angeles	7,073	6,882	44	36	0	111

TABLE 23. R&D expenditures at universities and colleges, by state, control, and source of funds: FY 2003  
(Dollars in thousands)

State, control, and institution	All R&D expenditures	Federal government	State and local government	Industry	Institutional funds	All other sources
CA State U. Monterey Bay	2,644	2,091	521	0	0	32
CA State U. Northridge	11,638	6,460	3,041	282	1,716	139
CA State U. Sacramento	0 i	0 i	0 i	0 i	0 i	0 i
CA State U. San Bernardino	7,576	4,858	1,539	101	1,078	0
Humboldt State U.	7,573 i	3,553 i	1,162 i	1,191 i	613 i	1,054 i
Naval Postgraduate School	61,025	58,463	193	119	409	1,841
San Diego State U.	67,053	28,084	9,169	1,249	21,488	7,063
San Francisco State U.	12,500	6,089	0 i	1,391 i	0 i	5,020 i
San Jose State U.	28,323	18,935	5,434	590	1,038	2,326
Sonoma State U.	493	213	221	0	27	32
U. CA, Berkeley	507,186	238,206	34,976	22,460	141,929	69,615
U. CA, Davis	482,145	208,327	40,059	22,688	163,540	47,531
U. CA, Irvine	234,656	133,873	11,062	11,101	49,316	29,304
U. CA, Los Angeles	849,357	421,174	67,483	30,425	207,588	122,687
U. CA, Riverside	112,468	40,409	6,916	5,004	49,276	10,863
U. CA, San Diego	646,508	400,100	23,781	28,868	122,556	71,203
U. CA, San Francisco	671,443	371,697	26,668	37,396	127,704	107,978
U. CA, Santa Barbara	149,130	88,422	2,834	13,550	26,766	17,558
U. CA, Santa Cruz	78,448	38,213	1,568	1,683	26,283	10,701
Private	1,360,363	1,075,657	27,152	68,941	134,730	53,883
Alliant International U.	76	5	12	0	19	40
Azusa Pacific U.	0	0	0	0	0	0
Biola U.	6	0	0	0	6	0
CA Institute of Integral Studies	0	0	0	0	0	0
CA Institute of Technology	240,664	219,097	3,554	4,825	10,717	2,471
Chapman U.	1,016	340	0	0	323	353
Charles R. Drew U. of Medicine and Science	49,888	39,407	7,267	3,201	13	0
Claremont Graduate U.	1,652	859	108	90	171	424
Golden Gate U.	0	0	0	0	0	0
Harvey Mudd C.	7,997 i	1,223 i	117 i	581 i	719 i	5,357 i
Loma Linda U.	26,296	22,675	388	140	717	2,376
Loyola Marymount U.	674	538	3 i	67 i	43 i	23 i
Occidental C.	2,633	1,319	214	1,063	37	0
Pepperdine U.	0	0	0	0	0	0
Pitzer C.	343	266	0	0	56	21
Pomona C.	1,962	1,219	0	556	123	64
Santa Clara U.	3,364 i	791 i	0 i	834 i	1,646 i	93 i
Stanford U.	603,227	483,540	4,366	31,176	41,718	42,427
U. Redlands	1,848	1,810	0	0	0	38
U. San Diego	1,046	622	7	239	0	178
U. San Francisco	690	462	37	10	168	13
U. Southern CA	414,099	300,195	11,022	25,406	77,476	0
U. of the Pacific	1,877	1,160	57	660	0	0
Western U. of Health Sciences	1,005	129	0	93	778	5
Colorado	694,862	534,716	30,808	37,265	71,433	20,640
Public	683,595	526,374	30,543	36,531	69,871	20,276
CO School of Mines	29,162	16,314	1,382	11,327	139	0
CO State U.	187,054	117,151	21,066	14,736	32,395	1,706
Ft. Lewis C.	231	191	5	35	0	0
U.S. Air Force Academy	27,198	12,599	0	160	14,439	0
U. CO Boulder	212,517	191,385	1,950	3,289	10,616	5,277
U. CO Colorado Springs	1,754	1,026	60	158	428	82
U. CO Denver	6,426	2,815	623	42	2,544	402
U. CO Health Sciences Ctr.	216,064	182,715	5,132	6,750	8,757	12,710

TABLE 23. R&D expenditures at universities and colleges, by state, control, and source of funds: FY 2003  
(Dollars in thousands)

State, control, and institution	All R&D expenditures	Federal government	State and local government	Industry	Institutional funds	All other sources
U. Northern CO	2,240	1,581	76	7	477	99
U. Southern CO	628	580	8	27	13	0
Western State C. CO	321 e	17 e	241 e	0 e	63 e	0 e
Private	11,267	8,342	265	734	1,562	364
CO C.	1,318	74	0	306	938	0
U. Denver	9,949	8,268	265	428	624	364
Connecticut	594,541	418,449	9,279	27,845	71,403	67,565
Public	194,773	114,587	7,955	12,230	43,636	16,365
Central CT State U.	355	282	1	0	72	0
Southern CT State U.	2,911	1,485	1,339	87	0	0
U.S. Coast Guard Academy	1,166	1,166	0	0	0	0
U. CT all campuses	190,341	111,654	6,615	12,143	43,564	16,365
Private	399,768	303,862	1,324	15,615	27,767	51,200
CT C.	593 i	0 i	1 i	12 i	19 i	561 i
Fairfield U.	1,024	246	0	62	496	220
Trinity C. (Hartford, CT)	856	426	0	27	288	115
U. Hartford	1,336	667	415	92	161	1
U. New Haven	1,633 i	1,386 i	0 i	0 i	0 i	247 i
Wesleyan U.	6,682	4,424	38	5	1,575	640
Yale U.	387,644	296,713	870	15,417	25,228	49,416
Delaware	104,650	73,129	3,745	3,051	19,840	4,885
Public	104,650	73,129	3,745	3,051	19,840	4,885
DE State U.	3,944	3,636	239	69	0	0
U. DE	100,706	69,493	3,506	2,982	19,840	4,885
District of Columbia	263,342	214,574	3,968	10,901	14,229	19,670
Public	4,125	2,769	734	0	555	67
U. DC	4,125	2,769	734	0	555	67
Private	259,217	211,805	3,234	10,901	13,674	19,603
American U.	2,517	2,141	0	72	265	39
Catholic U. America, The	24,475	18,864	84	138	4,804	585
Gallaudet U.	2,013	1,959	54	0	0	0
George Washington U.	92,454	68,959	1,379	1,863	1,708	18,545
Georgetown U.	100,181	83,745	1,504	7,601	6,897	434
Howard U.	37,577	36,137	213	1,227	0	0
Florida	1,204,592	667,688	118,531	68,616	284,656	65,101
Public	1,006,745	525,594	110,501	48,621	275,201	46,828
FL A&M U.	23,503	18,273	2,784	2,446	0	0
FL Atlantic U.	25,946	17,517	2,016	6,386	27	0
FL International U.	52,175	40,860	5,479	4,697	601	538
FL State U.	152,277	87,985	9,508	1,329	48,109	5,346
New C. FL	206	130	0	0	69	7
U. Central FL	89,880	47,749	4,822	6,128	28,610	2,571
U. FL	429,734	194,958	70,977	23,893	124,070	15,836
U. North FL	4,421	2,915	707	799	0	0
U. South FL	213,249	106,102	10,098	2,115	72,405	22,529
U. West FL	15,354	9,105	4,110	828	1,310	1
Private	197,847	142,094	8,030	19,995	9,455	18,273
Bethune Cookman C.	741	741	0	0	0	0
Embry-Riddle Aeronautical U.	6,641	3,323	1,000	1,898	420	0
FL Institute of Technology	8,004	5,204	640	980	170	1,010
Nova Southeastern U.	4,752	1,963	1,097	0	248	1,444

TABLE 23. R&D expenditures at universities and colleges, by state, control, and source of funds: FY 2003  
(Dollars in thousands)

State, control, and institution	All R&D expenditures	Federal government	State and local government	Industry	Institutional funds	All other sources
U. Miami	177,709	130,863	5,293	17,117	8,617	15,819
Georgia	1,175,852	638,395	85,361	74,235	321,643	56,218
Public	777,226	358,085	73,848	54,222	283,054	8,017
Albany State U.	2,178	2,056	32	90	0	0
Ft. Valley State U.	2,892	2,798	33	0	0	61
GA Institute of Technology all campuses	364,190	203,582	8,054	32,839	115,672	4,043
GA Southern U.	2,488	2,074	52	362	0	0
GA State U.	45,653	22,218	5,641	2,392	14,079	1,323
Kennesaw State U.	300	300	0	0	0	0
Medical C. GA	56,398	28,280	2,929	2,687	20,827	1,675
Savannah State U.	2,345 i	2,337 i	0 i	0 i	0 i	8 i
State U. West GA	1,034	556	301	75	102	0
U. GA	299,748	93,884	56,806	15,777	132,374	907
Private	398,626	280,310	11,513	20,013	38,589	48,201
Clark Atlanta U.	12,760	12,367	0	0	234	159
Emory U.	323,224	228,255	8,390	6,416	32,617	47,546
Institute of Paper Science and Technology	15,494 i	3,303 i	919 i	7,595 i	3,216 i	461 i
Mercer U. all campuses	14,996	8,018	233	5,099	1,646	0
Morehouse C.	2,410 i	1,517 i	0 i	710 i	156 i	27 i
Morehouse School of Medicine	27,154	24,382	1,971	150	651	0
Morris Brown C.	290 i	282 i	0 i	0 i	0 i	8 i
Spelman C.	2,298	2,186	0	43	69	0
Hawaii	184,602	148,662	11,822	6,931	17,171	16
Public	184,602	148,662	11,822	6,931	17,171	16
U. HI Hilo	5,317	5,082	30	102	87	16
U. HI Manoa	179,285	143,580	11,792	6,829	17,084	0
Idaho	105,039	55,928	18,749	6,152	22,683	1,527
Public	105,039	55,928	18,749	6,152	22,683	1,527
Boise State U.	7,583	6,321	175	497	590	0
ID State U.	12,243	6,746	166	2,544	2,554	233
U. ID	85,213	42,861	18,408	3,111	19,539	1,294
Illinois	1,613,691	963,582	93,468	49,425	399,539	107,677
Public	875,534	458,662	76,663	25,908	269,209	45,092
Chicago State U.	1,155	1,107	0	0	48	0
IL State U.	3,963	1,928	709	482	844	0
Northeastern IL U.	168	26	23	65	44	10
Northern IL U.	12,368	6,892	344	1,483	3,649	0
Southern IL U. Carbondale	53,018	12,078	11,936	3,281	21,956	3,767
Southern IL U. Edwardsville	17,100	1,340	672	314	14,719	55
U. IL Chicago	291,507	168,063	9,235	7,014	86,372	20,823
U. IL Springfield	1,324	362	204	0	589	169
U. IL Urbana-Champaign	493,581	266,487	52,725	13,253	140,859	20,257
Western IL U.	1,350	379	815	16	129	11
Private	738,157	504,920	16,805	23,517	130,330	62,585
Augustana C. (Rock Island, IL)	212	108	0	0	104	0
Bradley U.	1,755	973	55	360	367	0
DePaul U.	3,086	2,747	34	237	68	0
Finch U. of Health Sciences/Chicago Medical School	9,923	6,783	0	44	2,264	832
IL Institute of Technology	25,744	13,900	6,676	0	1,905	3,263
Lake Forest C.	271	132	0	0	139	0
Loyola U. Chicago	37,581	28,107	677	1,017	4,314	3,466
Midwestern U. (Chicago, IL)	2,725	529	0	422	1,544	230

TABLE 23. R&D expenditures at universities and colleges, by state, control, and source of funds: FY 2003  
(Dollars in thousands)

State, control, and institution	All R&D expenditures	Federal government	State and local government	Industry	Institutional funds	All other sources
National U. of Health Sciences	620	362	0	0	0	258
Northwestern U.	319,722	200,316	2,833	8,927	76,431	31,215
Rush U.	89,196	49,834	15	9,321	26,975	3,051
U. Chicago	247,322	201,129	6,515	3,189	16,219	20,270
Indiana	725,752	327,720	51,364	51,182	236,893	58,593
Public	652,392	285,341	48,903	43,909	227,567	46,672
Ball State U.	3,878	1,944	9	341	1,584	0
IN State U. all campuses	1,369	573	27	769	0	0
IN U. all campuses	337,669	153,625	5,061	8,079	124,546	46,358
Purdue U. all campuses	309,476	129,199	43,806	34,720	101,437	314
Private	73,360	42,379	2,461	7,273	9,326	11,921
Rose-Hulman Institute of Technology	13,201	892	86	302	0	11,921
U. of Notre Dame	59,803	41,220	2,370	6,971	9,242	0
Valparaiso U.	356	267	5	0	84	0
Iowa	498,669	284,091	51,078	35,511	114,738	13,251
Public	493,422	280,455	51,072	35,343	113,584	12,968
IA State U.	199,566	82,297	42,204	14,384	58,012	2,669
U. IA	292,035	197,260	8,505	20,954	55,067	10,249
U. Northern IA	1,821	898	363	5	505	50
Private	5,247	3,636	6	168	1,154	283
Des Moines U. Osteopathic Medical Ctr.	676	78	0	35	550	13
Drake U.	1,053 e	692 e	6 e	133 e	95 e	127 e
Grinnell C.	977	325	0	0	509	143
Maharishi U. of Management	2,541	2,541	0	0	0	0
Kansas	310,052	155,589	42,116	8,200	87,446	16,701
Public	310,052	155,589	42,116	8,200	87,446	16,701
KS State U.	112,733	53,313	33,720	2,751	17,501	5,448
Pittsburg State U.	1,894	781	645	306	6	156
U. KS all campuses	173,024	90,876	6,444	2,821	61,976	10,907
Wichita State U.	22,401	10,619	1,307	2,322	7,963	190
Kentucky	377,635	172,464	50,598	8,491	113,143	32,939
Public	376,447	172,105	50,598	8,491	113,143	32,110
Eastern KY U.	506	297	150	15	44	0
KY State U.	6,395	6,395	0	0	0	0
Morehead State U.	1,487	1,046	13	12	393	23
Murray State U.	2,778	1,075	712	14	977	0
Northern KY U.	434	240	0	7	159	28
U. KY all campuses	272,062	120,003	42,067	6,693	85,034	18,265
U. Louisville	88,522	39,924	7,355	1,442	26,007	13,794
Western KY U.	4,263	3,125	301	308	529	0
Private	1,188	359	0	0	0	829
Spalding U.	1,188 e	359 e	0 e	0 e	0 e	829 e
Louisiana	524,262	224,077	105,558	30,981	125,981	37,665
Public	400,370	136,482	97,563	16,467	114,631	35,227
Grambling State U.	2,218	1,880	338	0	0	0
LA State U. and A&M C.	206,677	48,656	73,268	8,276	62,606	13,871
LA State U. Health Sciences Ctr.	81,807	35,908	9,964	4,106	22,825	9,004
LA State U. Shreveport	183	137	11	15	0	20
LA Tech U.	15,055	6,113	1,213	111	7,411	207
McNeese State U.	743	430	73	0	232	8

TABLE 23. R&D expenditures at universities and colleges, by state, control, and source of funds: FY 2003  
(Dollars in thousands)

State, control, and institution	All R&D expenditures	Federal government	State and local government	Industry	Institutional funds	All other sources
Nicholls State U.	690	57	147	0	257	229
Southeastern LA U.	900	556	200	9	135	0
Southern U. and A&M C. all campuses	10,997 i	9,029 i	298 i	135 i	1,535 i	0 i
Southern U. New Orleans	556	556	0	0	0	0
U. LA Lafayette	43,769	14,455	5,885	0	11,773	11,656
U. LA Monroe	10,777 i	4,044 i	1,772 i	0 i	4,961 i	0 i
U. New Orleans	25,998	14,661	4,394	3,815	2,896	232
Private	123,892	87,595	7,995	14,514	11,350	2,438
Dillard U.	668	441	202	0	25	0
Tulane U.	117,709	82,118	7,374	14,454	11,325	2,438
Xavier U. LA	5,515	5,036	419	60	0	0
Maine	75,092	31,293	11,952	3,385	24,896	3,566
Public	70,785	29,067	11,801	3,323	24,329	2,265
U. ME	68,923	28,901	11,017	3,323	23,545	2,137
U. Southern ME	1,862 i	166 i	784 i	0 i	784 i	128 i
Private	4,307	2,226	151	62	567	1,301
Bates C.	1,340	964	151	3	167	55
Bowdoin C.	1,673	1,070	0	59	190	354
Colby C.	1,294	192	0	0	210	892
Maryland	2,030,544	1,503,759	62,588	98,780	257,060	108,357
Public	785,958	396,458	58,390	79,262	198,373	53,475
Bowie State U.	2,206	2,206	0	0	0	0
Coppin State C.	0	0	0	0	0	0
Morgan State U.	7,493	6,232	230	233	744	54
St. Mary's C. MD	335	318	0	0	17	0
Towson U.	1,660	904	46	95	615	0
Uniformed Services U. of the Health Sciences	30,604	9,527	0	0	21,077	0
U.S. Naval Academy	3,451	3,169	0	282	0	0
U. MD Baltimore	297,271	126,156	28,163	65,473	40,737	36,742
U. MD Baltimore County	42,906	34,164	1,943	1,953	2,290	2,556
U. MD Biotechnology Institute	39,789	17,922	3,645	3,087	15,135	0
U. MD Ctr. for Environmental Science	38,344	12,654	4,885	79	17,041	3,685
U. MD College Park	321,899	183,206	19,478	8,060	100,717	10,438
U. MD Eastern Shore	0	0	0	0	0	0
Private	1,244,586	1,107,301	4,198	19,518	58,687	54,882
Johns Hopkins U., The <sup>a</sup>	1,244,132	1,106,971	4,186	19,477	58,616	54,882
Loyola C.	454	330	12	41	71	0
Massachusetts	1,821,817	1,379,361	43,373	128,944	98,296	171,843
Public	317,806	200,213	37,060	13,155	46,407	20,971
Bridgewater State C.	419	174	46	0	152	47
U. MA Amherst	113,512	60,839	3,842	3,838	36,490	8,503
U. MA Boston	15,793	5,579	1,291	0	5,815	3,108
U. MA Dartmouth	16,476	8,718	4,228	0	2,585	945
U. MA Lowell	22,783	15,821	677	4,920	1,365	0
U. MA Worcester	148,823	109,082	26,976	4,397	0	8,368
Private	1,504,011	1,179,148	6,313	115,789	51,889	150,872
Amherst C.	2,115 e	955 e	0 e	147 e	1,013 e	0 e
Boston C.	32,158	22,907	50	1,251	4,175	3,775
Boston U.	224,841	203,947	394	8,084	0	12,416
Brandeis U.	50,841	33,722	77	0	6,622	10,420
Clark U.	5,638	4,475	115	31	829	188

TABLE 23. R&D expenditures at universities and colleges, by state, control, and source of funds: FY 2003  
(Dollars in thousands)

State, control, and institution	All R&D expenditures	Federal government	State and local government	Industry	Institutional funds	All other sources
C. of the Holy Cross	490	272	0	64	0	154
Hampshire C.	2,754	1,112	18	29	5	1,590
Harvard U.	408,707	348,620	1,561	5,929	0	52,597
MA C. of Pharmacy and Health Sciences	1,043	562	267	88	86	40
MA Institute of Technology	485,764	356,206	398	80,664	12,580	35,916
Mt. Holyoke C.	3,174	1,639	18	0	394	1,123
New England C. of Optometry	2,166	1,900	0	0	211	55
Northeastern U.	42,931	26,895	1,276	8,179	6,581	0
Simmons C.	978	302	0	3	128	545
Smith C.	2,194	866	3	315	22	988
Tufts U.	112,609	78,942	1,232	8,756	12,072	11,607
Wellesley C.	5,733	3,996	14	14	0	1,709
Williams C.	3,295	1,454	0	0	1,001	840
Woods Hole Oceanographic Institution	104,223	84,410	775	167	3,051	15,820
Worcester Polytechnic Institute	12,357	5,966	115	2,068	3,119	1,089
Michigan	1,388,284	792,521	94,111	69,052	346,916	85,684
Public	1,382,330	790,403	93,773	68,190	345,486	84,478
Central MI U.	2,339	318	184	75	1,718	44
Eastern MI U.	4,051	1,849	792	688	710	12
Ferris State U.	70 i	70 i	0 i	0 i	0 i	0 i
Grand Valley State U.	2,237	278	297	0	1,102	560
MI State U.	321,410	133,820	56,953	11,307	106,639	12,691
MI Technological U.	30,264	17,667	1,287	3,369	7,628	313
Oakland U.	6,175	4,470	142	1,334	0	229
Saginaw Valley State U.	442	19	2	0	174	247
U. MI all campuses	780,054	516,818	16,532	36,087	157,565	53,052
Wayne State U.	213,717	102,963	17,254	13,566	64,519	15,415
Western MI U.	21,571	12,131	330	1,764	5,431	1,915
Private	5,954	2,118	338	862	1,430	1,206
Andrews U.	469	82	0	20	105	262
Calvin C.	1,714	522	42	85	729	336
Hope C.	1,457	635	0	0	313	509
Kettering U.	1,295	562	67	519	147	0
Lawrence Technological U.	471	159	229	73	10	0
U. Detroit Mercy	548	158	0	165	126	99
Minnesota	517,346	297,693	59,826	24,748	72,635	62,444
Public	511,654	294,061	59,826	24,720	71,177	61,870
MN State U. Mankato	768	95	289	232	152	0
St. Cloud State U.	2,329	700	244 i	336 i	579 i	470 i
U. MN all campuses	508,557	293,266	59,293	24,152	70,446	61,400
Private	5,692	3,632	0	28	1,458	574
Augsburg C.	734	734	0	0	0	0
Carleton C.	1,965	1,417	0	0	261	287
Macalester C.	2,091	755	0	18	1,181	137
St. Olaf C.	710	575	0	0	0	135
U. of St. Thomas (St. Paul, MN)	192	151	0	10	16	15
Mississippi	324,298	207,790	37,397	9,595	62,619	6,897
Public	323,447	207,455	37,397	9,595	62,104	6,896
Alcorn State U.	7,619	7,582	0	0	37	0
Jackson State U.	28,843	25,607	7	318	2,911	0
MS State U.	165,922	79,837	31,931	6,246	47,908	0
MS Valley State U.	636	636	0	0	0	0
U. MS all campuses	85,378	62,140	4,624	964	10,754	6,896



TABLE 23. R&D expenditures at universities and colleges, by state, control, and source of funds: FY 2003  
(Dollars in thousands)

State, control, and institution	All R&D expenditures	Federal government	State and local government	Industry	Institutional funds	All other sources
U. Southern MS	35,049	31,653	835	2,067	494	0
Private	851	335	0	0	515	1
Rust C.	0	0	0	0	0	0
Tougaloo C.	851 i	335 i	0 i	0 i	515 i	1 i
Missouri	806,907	519,515	33,582	26,561	182,470	44,779
Public	289,679	124,239	23,229	9,902	122,797	9,512
Lincoln U. (Jefferson City, MO)	2,601	2,149	452	0	0	0
Southwest MO State U.	1,423	371	584	32	287	149
Truman State U.	521	156	0	10	355	0
U. MO-Columbia	205,212	84,211	21,885	4,802	89,127	5,187
U. MO-Kansas City	31,104	14,232	0	1,214	14,092	1,566
U. MO-Rolla	35,999	18,142	239	3,540	12,312	1,766
U. MO-St. Louis	12,819	4,978	69	304	6,624	844
U. MO system administration	0	0	0	0	0	0
Private	517,228	395,276	10,353	16,659	59,673	35,267
Forest Institute of Professional Psychology	0	0	0	0	0	0
Kirksville C. of Osteopathic Medicine	691	494	0	0	120	77
St. Louis U. all campuses	41,189	36,989	276	3,605	75	244
U. of Health Sciences	1,020	429	0	0	591	0
Washington U. St. Louis	474,328	357,364	10,077	13,054	58,887	34,946
Montana	141,220	84,991	21,506	6,909	26,436	1,378
Public	141,220	84,991	21,506	6,909	26,436	1,378
MT State U. Bozeman	91,503	53,283	19,005	5,601	13,614	0
MT Tech of the U. MT	6,155	4,488	1,234	433	0	0
U. MT, The	43,562	27,220	1,267	875	12,822	1,378
Nebraska	300,540	106,040	12,014	22,024	140,401	20,061
Public	276,424	96,627	8,515	14,314	136,998	19,970
U. NE Kearney	459	19	266	0	149	25
U. NE Lincoln	184,652	59,194	4,872	7,001	109,122	4,463
U. NE Medical Ctr.	85,007	33,846	3,325	7,299	25,196	15,341
U. NE Omaha	6,306	3,568	52	14	2,531	141
Private	24,116	9,413	3,499	7,710	3,403	91
Creighton U.	24,116	9,413	3,499	7,710	3,403	91
Nevada	154,515	103,532	8,024	5,593	33,435	3,931
Public	154,515	103,532	8,024	5,593	33,435	3,931
Desert Research Institute	31,757	23,265	3,163	1,938	976	2,415
U. NV, Las Vegas	42,205	32,511	825	2,085	6,784	0
U. NV, Reno	80,553	47,756	4,036	1,570	25,675	1,516
New Hampshire	252,210	165,497	7,709	11,257	49,139	18,608
Public	96,415	59,463	4,453	6,195	20,318	5,986
U. NH	96,415	59,463	4,453	6,195	20,318	5,986
Private	155,795	106,034	3,256	5,062	28,821	12,622
Dartmouth C.	155,795	106,034	3,256	5,062	28,821	12,622
New Jersey	747,481	361,046	67,683	37,225	211,712	69,815
Public	549,141	247,060	58,783	28,534	161,926	52,838
C. NJ, The	2,856 i	483 i	784 i	0 i	1,588 i	1 i
Montclair State U.	945 i	406 i	0 i	0 i	443 i	96 i
NJ City U.	326	326	0	0	0	0
NJ Institute of Technology	73,664	30,535	11,518	5,681	22,774	3,156

TABLE 23. R&D expenditures at universities and colleges, by state, control, and source of funds: FY 2003  
(Dollars in thousands)

State, control, and institution	All R&D expenditures	Federal government	State and local government	Industry	Institutional funds	All other sources
Rowan U.	6,011	3,755	1,541	668	47	0
Rutgers, The State U. NJ all campuses	274,576	106,060	34,963	10,821	95,256	27,476
U. of Medicine and Dentistry NJ	190,763	105,495	9,977	11,364	41,818	22,109
Private	198,340	113,986	8,900	8,691	49,786	16,977
Fairleigh Dickinson U. all campuses	286	85	84	16	0	101
Princeton U.	179,951	104,011	5,406	8,487	49,243	12,804
Rider U.	912	185	34	28	488	177
Seton Hall U.	1,779	635	0	160	55	929
Stevens Institute of Technology	15,412 i	9,070 i	3,376 i	0 i	0 i	2,966 i
New Mexico	306,623	199,607	14,900	15,326	68,935	7,855
Public	306,623	199,607	14,900	15,326	68,935	7,855
NM Highlands U.	2,585	2,264	28	0	0	293
NM Institute of Mining and Technology	37,186	15,434	3,589	8,145	8,743	1,275
NM State U. all campuses	108,613	75,368	7,935	4,895	19,035	1,380
U. NM all campuses	158,239	106,541	3,348	2,286	41,157	4,907
New York	3,089,988	2,014,483	160,855	132,590	523,868	258,192
Public	764,254	435,737	49,580	28,243	181,035	69,659
CUNY Baruch C.	507	213	189	6	99	0
CUNY Brooklyn C.	5,575	2,798	330	256	1,085	1,106
CUNY City C.	17,712	13,456	1,993	1,829	345	89
CUNY C. Staten Island	2,540	1,723	53	170	228	366
CUNY Graduate Ctr.	3,068	1,724	0	0	176	1,168
CUNY Herbert H. Lehman C.	3,981	3,725	0	125	83	48
CUNY Hunter C.	32,704	17,047	4,941	103	7,435	3,178
CUNY John Jay C. of Criminal Justice	930	168	72	0	0	690
CUNY Medgar Evers C.	670	652	0	0	18	0
CUNY Queens C.	6,430	5,062	406	772	190	0
CUNY York C.	1,829	1,796	0	12	21	0
SUNY Albany	120,655	76,038	23,477	1,554	7,865	11,721
SUNY Binghamton	23,090	8,981	1,341	2,281	5,180	5,307
SUNY Buffalo all campuses	240,180	129,794	7,898	10,575	68,367	23,546
SUNY C. Brockport	757	613	41	0	95	8
SUNY C. Buffalo	2,610	1,053	16	789	752	0
SUNY C. Cortland	446	335	0	0	81	30
SUNY C. Fredonia	271	172	10	0	28	61
SUNY C. Geneseo	1,366	847	3	16	458	42
SUNY C. of Environmental Science and Forestry	26,783	5,177	1,960	1,088	17,206	1,352
SUNY C. of Optometry	3,187	2,461	0	157	341	228
SUNY C. Old Westbury	1,295	1,182	0	0	113	0
SUNY C. Oswego	1,207	1,120	13	14	59	1
SUNY C. Plattsburgh	1,494	1,087	147	45	170	45
SUNY Health Science Ctr. Brooklyn	38,424 i	29,127 i	272 i	2,124 i	4,867 i	2,034 i
SUNY Purchase C.	282	282	0	0	0	0
SUNY Stony Brook all campuses	200,330	112,452	4,552	4,950	64,791	13,585
SUNY Upstate Medical U.	25,931	16,652	1,866	1,377	982	5,054
Private	2,325,734	1,578,746	111,275	104,347	342,833	188,533
Adelphi U.	169 i	128 i	0 i	5 i	5 i	31 i
Albany C. of Pharmacy	894	377	0	478	39	0
Albany Medical C.	13,394	9,677	186	191	2,406	934
Alfred U. all campuses	6,360	674	1,496	2,537	1,224	429
Barnard C.	1,516	1,369	0	142	5	0
Clarkson U.	7,466	4,833	593 i	1,219 i	821 i	0 i
Colgate U.	1,425	646	0	0	475	304

TABLE 23. R&D expenditures at universities and colleges, by state, control, and source of funds: FY 2003  
(Dollars in thousands)

State, control, and institution	All R&D expenditures	Federal government	State and local government	Industry	Institutional funds	All other sources
Columbia U. in the City of NY	437,669	385,529	2,280	5,350	21,514	22,996
Cooper Union	502	0	0	401	0	101
Cornell U. all campuses	554,760	320,868	61,712	25,569	103,990	42,621
Fordham U.	3,814	1,823	51	0	351	1,589
Hamilton C. (Clinton, NY)	1,459	849	13	27	253	317
Hartwick C.	221	151	40	0	30	0
Hofstra U.	735 i	450 i	0 i	117 i	0 i	168 i
Iona C.	232	222	0	0	10	0
Ithaca C.	2,187	1,792	0	0	395	0
Long Island U. all campuses	1,769	1,470	14	116	68	101
Manhattan C.	257 e	257 e	0 e	0 e	0 e	0 e
Mt. Sinai School of Medicine	214,514	152,719	4,700	12,686	20,067	24,342
New School U.	3,435	741	0 i	0 i	0 i	2,694 i
NY Institute of Technology all campuses	423 i	94 i	26 i	4 i	221 i	78 i
NY Medical C.	30,492	23,387	100	5,266	89	1,650
NY U.	241,593	166,033	5,637	8,043	28,605	33,275
Pace U. all campuses	425 e	362 e	0 e	0 e	0 e	63 e
Polytechnic U.	12,142 i	5,511 i	3,023 i	2,443 i	989 i	176 i
Rensselaer Polytechnic Institute	50,777	32,295	3,950	6,486	6,023	2,023
Rochester Institute of Technology	17,197	11,630	1,262	2,875	0	1,430
Rockefeller U.	192,143	75,303	7,673	2,988	76,440	29,739
Skidmore C.	632	384	0	230	18	0
St. John's U. (Jamaica, NY)	1,463 i	1,188 i	91 i	0 i	184 i	0 i
Syracuse U. all campuses	48,846	34,559	6,342	1,730	2,343	3,872
Teachers C. Columbia U.	9,603	5,572	0	0	0	4,031
Union C. (Schenectady, NY)	2,086	471	35	146	236	1,198
U. Rochester	285,768	208,148	11,995	25,298	27,690	12,637
Vassar C.	2,130 i	340 i	56 i	0 i	0 i	1,734 i
Yeshiva U.	177,236	128,894	0	0	48,342	0
North Carolina	1,394,545	838,312	117,139	183,682	207,365	48,047
Public	742,688	421,948	101,569	48,539	160,289	10,343
Appalachian State U.	986	491	39	163	234	59
East Carolina U.	12,520	7,565	873	2,870	0	1,212
Elizabeth City State U.	1,103	1,103	0	0	0	0
Fayetteville State U.	586	546	0	0	40	0
NC Agricultural and Technical State U.	17,304	12,226	170	607	4,301	0
NC Central U.	1,100 i	1,029 i	0 i	0 i	0 i	71 i
NC State U.	286,025	96,157	83,003	35,940	62,795	8,130
U. NC Asheville	1,108	271	504	82	42	209
U. NC Chapel Hill	390,542	280,678	15,690	6,551	87,623	0
U. NC Charlotte	12,599	7,981	323	1,705	2,413	177
U. NC Greensboro	3,454	2,704	140	208	164	238
U. NC Wilmington	12,762	8,957	799	201	2,558	247
Western Carolina U.	577	218	28	212	119	0
Winston-Salem State U.	2,022 e	2,022 e	0 e	0 e	0 e	0 e
Private	651,857	416,364	15,570	135,143	47,076	37,704
Bennett C.	0	0	0	0	0	0
Duke U.	520,191	306,864	14,756	122,181	45,548	30,842
Johnson C. Smith U.	0	0	0	0	0	0
Shaw U.	1,261	1,033	80	0	0	148
Wake Forest U.	130,405	108,467	734	12,962	1,528	6,714
North Dakota	133,615	66,276	3,760	6,636	51,377	5,566
Public	133,615	66,276	3,760	6,636	51,377	5,566

TABLE 23. R&D expenditures at universities and colleges, by state, control, and source of funds: FY 2003  
(Dollars in thousands)

State, control, and institution	All R&D expenditures	Federal government	State and local government	Industry	Institutional funds	All other sources
ND State U. all campuses	91,812	37,940	2,120	979	46,276	4,497
U. ND all campuses	41,803	28,336	1,640	5,657	5,101	1,069
Ohio	1,268,784	742,798	39,432	73,981	316,664	95,909
Public	962,731	488,140	33,434	65,329	299,568	76,260
Air Force Institute of Technology	12,454	6,418	312	107	5,617	0
Bowling Green State U. all campuses	7,336	4,378	405	39	1,433	1,081
Central State U.	574 i	304 i	0 i	128 i	38 i	104 i
Cleveland State U.	14,112	3,611	3,826	593	5,148	934
Kent State U. all campuses	14,549	9,278	1,250	907	3,114	0
Medical C. OH	18,233	14,146	491	230	2,311	1,055
Miami U. all campuses	13,727	4,312	1,211	659	6,643	902
Northeastern OH Universities C. of Medicine	4,364	1,708	151	120	1,888	497
OH State U. all campuses	496,438	198,488	11,657	45,957	187,954	52,382
OH U. all campuses	37,527	20,406	2,455	2,831	10,631	1,204
U. Akron all campuses	27,953	9,348	2,344	3,044	9,902	3,315
U. Cincinnati all campuses	255,083	185,261	5,269	5,254	46,233	13,066
U. Toledo	24,123	10,928	403	1,774	9,440	1,578
Wright State U. all campuses	34,860	18,733	3,580	3,570	8,835	142
Youngstown State U.	1,398	821	80	116	381	0
Private	306,053	254,658	5,998	8,652	17,096	19,649
Antioch U. all campuses	0	0	0	0	0	0
C. Wooster	413	342	0	62	9	0
Case Western Reserve U.	250,674	205,452	5,508	5,339	15,414	18,961
Denison U.	546	381	0	7	56	102
John Carroll U.	442	334	73	14	0	21
Oberlin C.	471	424	15	32	0	0
OH Wesleyan U.	284 e	203 e	0 e	0 e	35 e	46 e
Union Institute & U.	0	0	0	0	0	0
U. Dayton	52,943	47,327	377	3,143	1,577	519
U. Findlay, The	200	115	25	55	5	0
Wilberforce U.	80	80	0	0	0	0
Oklahoma	295,098	127,055	40,582	17,211	94,350	15,900
Public	283,571	118,616	39,818	15,556	93,681	15,900
Langston U.	4,332	4,332	0	0	0	0
Northeastern State U.	1,283	1,038	180	22	43	0
OK State U. all campuses	103,079	37,748	25,281	4,877	34,485	688
Southeastern OK State U.	231	122	62	12	35	0
U. Central OK	180	58	114	0	0	8
U. OK all campuses	174,466	75,318	14,181	10,645	59,118	15,204
Private	11,527	8,439	764	1,655	669	0
U. Tulsa	11,527	8,439	764	1,655	669	0
Oregon	436,958	317,704	38,016	10,706	46,523	24,009
Public	433,565	315,746	37,866	10,650	46,056	23,247
Eastern OR U.	226	126	0	0	100	0
OR Health and Science U.	197,178	164,221	3,898	8,673	6,575	13,811
OR Institute of Technology	1,752	953	139	660	0	0
OR State U.	167,631	100,499	32,385	353	29,736	4,658
Portland State U.	21,433	13,276	1,072	668	4,953	1,464
Southern OR U.	741	544	2	49	102	44
U. OR	44,604	36,127	370	247	4,590	3,270
Private	3,393	1,958	150	56	467	762
Lewis and Clark C.	622	394	0	56	172	0

TABLE 23. R&D expenditures at universities and colleges, by state, control, and source of funds: FY 2003  
(Dollars in thousands)

State, control, and institution	All R&D expenditures	Federal government	State and local government	Industry	Institutional funds	All other sources
Pacific U.	823	823	0	0	0	0
Reed C.	1,129	472	0	0	125	532
U. Portland	543	133	150	0	46	214
Willamette U.	276	136	0	0	124	16
Pennsylvania	2,013,453	1,444,109	94,017	141,283	212,154	121,890
Public	1,017,018	699,741	69,092	86,670	129,598	31,917
East Stroudsburg U. PA	152	0	123	29	0	0
Indiana U. PA all campuses	841	504	4	218	115	0
Lincoln U. (Lincoln University, PA)	704	704	0	0	0	0
PA State U. all campuses	533,427	301,094	56,104	77,660	97,496	1,073
Temple U.	71,327	51,309	1,832	4,245	7,785	6,156
U. Pittsburgh all campuses	409,684	345,625	10,784	4,427	24,202	24,646
West Chester U. PA	883	505	245	91	0	42
Private	996,435	744,368	24,925	54,613	82,556	89,973
Allegheny C.	974	368	12	0	226	368
Bryn Mawr C.	4,705	880	107	7	3,711	0
Bucknell U.	2,123	1,285	452	386	0	0
Carnegie-Mellon U.	186,351	157,583	3,877	13,132	6,080	5,679
Dickinson C.	1,550	624	95	506	325	0
Drexel U.	69,548	49,271	2,754	2,407	12,104	3,012
Duquesne U.	6,848	2,742	517	96	3,334	159
Franklin and Marshall C.	1,028	529	0	0	279	220
Haverford C.	1,428	931	0	0	113	384
Juniata C.	530	363	24	0	0	143
La Salle U.	104	45	0	0	59	0
Lafayette C.	2,065	1,253	44	0	768	0
Lehigh U.	29,211	16,215	8,570	1,373	2,864	189
PA C. of Optometry	1,226	1,209	8	0	0	9
Philadelphia C. of Osteopathic Medicine	836	358	7	21	140	310
St. Joseph's U.	2,660	1,771	384	0	41	464
Swarthmore C.	1,717	915	55	0	506	241
Thomas Jefferson U.	109,083	85,348	5,201	8,781	9,262	491
U. PA	564,716	415,631	2,476	26,623	42,674	77,312
U. Scranton	2,599	2,439	0	99	61	0
U. of the Sciences Philadelphia	453	119	12	322	0	0
Villanova U.	6,000 i	4,229 i	293 i	860 i	0 i	618 i
Widener U. all campuses	253 i	39 i	0 i	0 i	0 i	214 i
Wilkes U.	427	221	37	0	9	160
Rhode Island	187,131	133,560	6,764	2,995	37,239	6,573
Public	61,818	51,942	6,540	619	1,428	1,289
U. RI	61,818	51,942	6,540	619	1,428	1,289
Private	125,313	81,618	224	2,376	35,811	5,284
Brown U.	125,090	81,445	189	2,363	35,809	5,284
Providence C.	223 e	173 e	35 e	13 e	2 e	0 e
South Carolina	435,328	226,288	21,673	22,995	152,311	12,061
Public	432,828	224,141	21,615	22,995	152,311	11,766
Clemson U.	152,986	62,552	17,172	12,329	60,572	361
Coastal Carolina U.	940	776	20	0	135	9
C. Charleston	3,716	2,678	88	10	675	265
Medical U. SC	150,551	92,893	639	7,288	44,266	5,465
SC State U.	3,225	2,198	28	0	309	690
U. SC all campuses	121,410	63,044	3,668	3,368	46,354	4,976

TABLE 23. R&D expenditures at universities and colleges, by state, control, and source of funds: FY 2003  
(Dollars in thousands)

State, control, and institution	All R&D expenditures	Federal government	State and local government	Industry	Institutional funds	All other sources
Private	2,500	2,147	58	0	0	295
Benedict C.	1,071	1,002	58	0	0	11
Clafflin U.	293	293	0	0	0	0
Furman U.	1,136	852	0	0	0	284
Morris C.	0	0	0	0	0	0
South Dakota	49,977	28,195	9,826	689	4,938	6,329
Public	49,653	27,971	9,826	689	4,838	6,329
SD School of Mines and Technology	10,853	8,222	532	157	1,632	310
SD State U.	27,652	11,441	9,068	532	2,329	4,282
U. SD	11,148	8,308	226	0	877	1,737
Private	324	224	0	0	100	0
Augustana C. (Sioux Falls, SD)	324	224	0	0	100	0
Tennessee	599,723	382,619	54,499	21,660	104,750	36,195
Public	295,222	133,445	54,389	16,618	67,401	23,369
East TN State U.	12,971	4,642	5,842	0	169	2,318
Middle TN State U.	2,219	1,513	235	37	434	0
TN State U.	14,306	10,280	104	280	3,642	0
TN Technological U.	9,609	1,539	4,444	1,877	1,655	94
U. Memphis, The	38,728	14,985	3,313	430	18,199	1,801
U. TN	210,388	100,354	40,385	13,963	39,183	16,503
U. TN Chattanooga	5,385	124	53	31	2,558	2,619
U. TN Martin	1,616	8	13	0	1,561	34
Private	304,501	249,174	110	5,042	37,349	12,826
Fisk U.	3,000	3,000	0	0	0	0
Le Moyne-Owen C.	0	0	0	0	0	0
Meharry Medical C.	25,427	24,195	0	0	0	1,232
Vanderbilt U.	276,074	221,979	110	5,042	37,349	11,594
Texas	2,765,634	1,551,740	338,491	174,426	417,430	283,547
Public	2,231,522	1,194,417	330,607	152,540	352,507	201,451
Lamar U.	4,029	1,998	1,591	357	83	0
Prairie View A&M U.	11,193	7,886	2,292	0	900	115
Sam Houston State U.	3,269	2,726	339	106	98	0
Southwest TX State U.	7,621	3,873	2,321	202	372	853
Stephen F. Austin State U.	4,954	759	83	0	2,105	2,007
Sul Ross State U.	838	96	502	0	0	240
Tarleton State U.	8,534	5,698	115	0	2,610	111
TX A&M U. all campuses	456,235	177,119	112,180	27,006	128,079	11,851
TX A&M U. Commerce	303	43	152	0	0	108
TX A&M U. Corpus Christi	10,281	4,581	3,035	45	1,552	1,068
TX A&M U. Kingsville	10,203	2,766	2,000	279	3,311	1,847
TX A&M U. System Health Science Ctr.	55,031	26,729	2,876	1,631	14,670	9,125
TX Southern U.	3,088	2,925	95	68	0	0
TX Tech U.	92,515	31,776	27,207	7,166	21,925	4,441
TX Woman's U.	2,932	1,494	1,208	45	0	185
U. Houston	63,455	32,556	9,570	4,980	9,411	6,938
U. Houston-Clear Lake	1,224	514	301	34	241	134
U. Houston-Downtown	661	373	205	5	69	9
U. North TX	13,990	6,320	2,190	609	3,565	1,306
U. North TX Health Science Ctr. Ft. Worth	15,388	9,927	626	585	2,674	1,576
U. TX Arlington	15,102	7,884	2,691	967	3,560	0
U. TX Austin	343,854	231,996	21,338	32,174	42,702	15,644
U. TX Dallas	30,748	14,530	8,812	2,843	1,635	2,928

TABLE 23. R&D expenditures at universities and colleges, by state, control, and source of funds: FY 2003  
(Dollars in thousands)

State, control, and institution	All R&D expenditures	Federal government	State and local government	Industry	Institutional funds	All other sources
U. TX El Paso	27,185	18,116	6,051	1,729	1,289	0
U. TX Health Science Ctr. Houston	149,294	107,481	3,240	12,414	11,614	14,545
U. TX Health Science Ctr. San Antonio	133,304	86,683	5,857	7,514	22,375	10,875
U. TX M. D. Anderson Cancer Ctr.	315,169	122,869	78,379	31,316	45,267	37,338
U. TX Medical Branch	153,122	93,039	13,783	7,979	24,770	13,551
U. TX San Antonio	13,654	9,982	3,155	111	406	0
U. TX Southwestern Medical Ctr. Dallas	276,692	177,196	15,933	12,087	6,968	64,508
U. TX-Pan American	2,920	1,887	856	17	12	148
West TX A&M U.	4,734	2,595	1,624	271	244	0
Private	534,112	357,323	7,884	21,886	64,923	82,096
Abilene Christian U.	231	172	0	0	24	35
Baylor C. of Medicine	461,763	302,764	3,347	17,526	61,510	76,616
Baylor U.	4,203	812	451	1,325	1,038	577
Jarvis Christian C.	335	100	90	100	20	25
Rice U.	52,367	43,706	3,272	1,426	0	3,963
Southern Methodist U.	9,890	5,940	548	511	2,101	790
St. Mary's U. (San Antonio, TX)	300	199	0	0	101	0
TX Christian U.	3,693	2,716	176	716	85	0
Trinity U.	935	636	0	257	42	0
U. Dallas	97	15	0	25	2	55
Wiley C.	298	263	0	0	0	35
Utah	385,158	264,170	22,677	9,252	56,685	32,374
Public	362,601	247,606	21,860	8,304	54,237	30,594
U. UT	223,739	152,112	2,656	4,964	36,834	27,173
UT State U.	138,862	95,494	19,204	3,340	17,403	3,421
Private	22,557	16,564	817	948	2,448	1,780
Brigham Young U. all campuses	22,557	16,564	817	948	2,448	1,780
Vermont	106,581	71,982	3,440	7,489	16,824	6,846
Public	104,994	70,832	3,436	7,477	16,818	6,431
U. VT	104,994	70,832	3,436	7,477	16,818	6,431
Private	1,587	1,150	4	12	6	415
Middlebury C.	1,587 e	1,150 e	4 e	12 e	6 e	415 e
Virginia	776,026	482,743	76,661	56,640	116,335	43,647
Public	719,213	447,258	76,018	49,380	115,567	30,990
Christopher Newport U.	2,055	1,945	39	0	0	71
C. of William and Mary all campuses	43,974	21,992	4,251	575	14,660	2,496
George Mason U.	44,980	38,510	860	472	1,736	3,402
James Madison U.	4,484	1,607	1,959	0	218	700
Norfolk State U.	4,532	4,404	105	0	0	23
Old Dominion U.	30,324	18,882	5,708	2,919	2,815	0
Radford U.	294	136	113	0	45	0
U. VA all campuses	206,199	173,442	990	9,053	13,139	9,575
VA Commonwealth U.	126,451	81,201	3,424	10,780	26,828	4,218
VA Military Institute	904	32	0	787	60	25
VA Polytechnic Institute and State U.	247,807	98,143	58,378	24,760	56,046	10,480
VA State U.	7,209	6,964	191	34	20	0
Private	56,813	35,485	643	7,260	768	12,657
Eastern VA Medical School	32,801	15,431	642	4,150	38	12,540
Hampton U.	18,673	18,417	0	14	238	4
Institute of Textile Technology	2,826 e	0 e	0 e	2,816 e	10 e	0 e
Roanoke C.	476	388	1	0	87	0

TABLE 23. R&D expenditures at universities and colleges, by state, control, and source of funds: FY 2003  
(Dollars in thousands)

State, control, and institution	All R&D expenditures	Federal government	State and local government	Industry	Institutional funds	All other sources
U. Richmond	1,470	807	0	280	372	11
VA Union U.	567 i	442 i	0 i	0 i	23 i	102 i
Washington	869,695	642,216	20,015	51,976	128,545	26,943
Public	869,076	641,648	20,015	51,976	128,545	26,892
Central WA U.	2,698	2,246	190	28	196	38
Eastern WA U.	1,156	365	430	0	147	214
Evergreen State C.	511	511	0	0	0	0
U. WA	684,814	565,602	11,699	48,222	43,599	15,692
WA State U.	175,181	70,653	7,124	3,666	83,208	10,530
Western WA U.	4,716	2,271	572	60	1,395	418
Private	619	568	0	0	0	51
Gonzaga U.	0	0	0	0	0	0
Whitman C.	619	568	0	0	0	51
West Virginia	120,514	73,522	3,243	2,306	38,863	2,580
Public	120,125	73,424	3,243	2,306	38,583	2,569
Bluefield State C.	54	36	18	0	0	0
Marshall U. Graduate C.	15,070	12,802	98	32	1,350	788
WV School of Osteopathic Medicine	188	0	3	0	184	1
WV State C.	65 i	0 i	57 i	0 i	0 i	8 i
WV U.	104,748	60,586	3,067	2,274	37,049	1,772
Private	389	98	0	0	280	11
Salem International U.	389 i	98 i	0 i	0 i	280 i	11 i
Wisconsin	881,214	504,352	50,427	20,167	222,159	84,109
Public	758,773	416,359	46,012	16,661	208,056	71,685
U. WI Eau Claire	1,131	827	9	5	76	214
U. WI Green Bay	1,122	824	50	10	156	82
U. WI La Crosse	1,483	967	140	167	202	7
U. WI Madison	721,248	396,231	41,492	15,918	199,072	68,535
U. WI Milwaukee	27,259	13,704	3,969	463	7,435	1,688
U. WI Oshkosh	942	523	70	9	162	178
U. WI Parkside	559	427	22	2	75	33
U. WI River Falls	331	51	77	24	110	69
U. WI Stevens Point	1,980	725	179	3	409	664
U. WI Stout	1,437	1,156	0	9	191	81
U. WI Superior	1,057	720	0	51	166	120
U. WI Whitewater	224	204	4	0	2	14
Private	122,441	87,993	4,415	3,506	14,103	12,424
Marquette U.	11,385	4,409	3,996	1,064	561	1,355
Medical C. WI	108,608	83,026	169	1,188	13,240	10,985
Milwaukee School of Engineering	2,448	558	250	1,254	302	84
Wyoming	60,054	23,186	1,993	2,494	29,370	3,011
Public	60,054	23,186	1,993	2,494	29,370	3,011
U. WY	60,054	23,186	1,993	2,494	29,370	3,011
Guam	6,989	5,818	1,171	0	0	0
Public	6,989	5,818	1,171	0	0	0
U. GU	6,989	5,818	1,171	0	0	0
Puerto Rico	78,410	55,673	3,875	3,787	13,235	1,840
Public	62,626	42,201	3,168	2,566	12,857	1,834
U. PR Mayaguez Campus	20,029	9,596	2,809	668	5,364	1,592



TABLE 23. R&D expenditures at universities and colleges, by state, control, and source of funds: FY 2003  
(Dollars in thousands)

State, control, and institution	All R&D expenditures	Federal government	State and local government	Industry	Institutional funds	All other sources
U. PR Medical Sciences Campus	31,124	25,845	316	1,848	3,046	69
U. PR Rio Piedras Campus	11,473	6,760	43	50	4,447	173
Private	15,784	13,472	707	1,221	378	6
Ponce School of Medicine	7,491	6,270	0	1,221	0	0
Pontifical Catholic U. PR, The	19	19	0	0	0	0
Universidad Central del Caribe	8,274	7,183	707	0	378	6
Virgin Islands	15,762	10,772	3,221	1,769	0	0
Public	15,762	10,772	3,221	1,769	0	0
U. of the VI	15,762	10,772	3,221	1,769	0	0

e = estimated.

i = imputed.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory, with \$607 million in total R&D expenditures.

NOTE: Because of rounding, detail may not add to total.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 24. R&D expenditures at universities and colleges, by geographic division, state, and science and engineering field: FY 2003  
(Dollars in thousands)

Division and state	All R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
United States	40,077,399	2,187,841	23,763,981	1,733,373	3,272,629	768,730	1,661,090	690,934	5,998,821
New England	3,037,372	266,954	1,668,402	135,533	289,021	66,153	110,038	74,828	426,443
Connecticut	594,541	12,518	468,767	11,254	31,170	18,455	15,829	3,036	33,512
Maine	75,092	22,481	25,836	1,379	6,289	880	5,102	1,947	11,178
Massachusetts	1,821,817	152,070	868,452	101,522	228,866	31,899	75,785	49,387	313,836
New Hampshire	252,210	44,289	127,567	6,392	8,860	6,104	6,727	12,911	39,360
Rhode Island	187,131	34,956	82,246	13,572	11,420	7,791	6,452	4,373	26,321
Vermont	106,581	640	95,534	1,414	2,416	1,024	143	3,174	2,236
Middle Atlantic	5,850,922	198,868	3,679,360	287,304	438,072	149,341	227,013	59,615	811,349
New Jersey	747,481	47,059	363,329	35,100	66,443	20,285	55,430	18,583	141,252
New York	3,089,988	104,322	2,128,290	113,303	235,633	73,545	82,926	20,463	331,506
Pennsylvania	2,013,453	47,487	1,187,741	138,901	135,996	55,511	88,657	20,569	338,591
East North Central	5,877,725	151,566	3,408,152	271,326	484,241	125,511	377,934	111,778	947,217
Illinois	1,613,691	49,223	931,685	148,456	145,469	36,343	64,727	30,183	207,605
Indiana	725,752	9,925	369,679	33,154	76,194	20,926	54,826	35,156	125,892
Michigan	1,388,284	22,719	817,583	27,697	113,087	21,614	146,889	3,157	235,538
Ohio	1,268,784	18,092	720,733	42,292	94,214	19,257	63,036	38,534	272,626
Wisconsin	881,214	51,607	568,472	19,727	55,277	27,371	48,456	4,748	105,556
West North Central	2,617,106	62,384	1,856,267	62,031	133,953	45,601	106,001	43,334	307,535
Iowa	498,669	7,717	333,248	14,968	28,988	5,720	21,040	11,947	75,041
Kansas	310,052	11,985	193,923	7,458	22,097	3,264	13,953	5,219	52,153
Minnesota	517,346	13,191	374,062	18,597	27,984	12,796	19,775	57	50,884
Missouri	806,907	11,325	658,297	10,517	25,856	14,008	23,330	1,847	61,727
Nebraska	300,540	8,245	202,386	8,801	12,788	8,543	15,232	16,842	27,703
North Dakota	133,615	5,462	65,105	1,508	13,502	1,082	8,425	7,027	31,504
South Dakota	49,977	4,459	29,246	182	2,738	188	4,246	395	8,523
South Atlantic	7,505,393	420,011	4,197,523	342,037	590,591	132,585	323,381	100,683	1,398,582
Delaware	104,650	11,829	26,720	2,605	16,522	2,014	5,566	5,043	34,351
District of Columbia	263,342	619	161,143	23,533	32,124	7,688	13,482	331	24,422
Florida	1,204,592	116,824	629,257	32,772	116,181	45,285	61,052	27,078	176,143
Georgia	1,175,852	31,610	640,808	71,679	63,521	31,368	63,342	8,225	265,299
Maryland	2,030,544	109,700	978,216	134,438	201,910	10,043	78,745	33,887	483,605
North Carolina	1,394,545	54,571	1,034,820	39,587	66,773	10,315	59,479	6,725	122,275
South Carolina	435,328	22,178	242,675	7,913	28,153	6,454	19,507	17,701	90,747
Virginia	776,026	66,427	415,731	28,701	58,478	18,956	20,615	637	166,481
West Virginia	120,514	6,253	68,153	809	6,929	462	1,593	1,056	35,259
East South Central	1,859,515	50,554	1,203,234	48,938	110,488	43,035	57,685	59,735	285,846

TABLE 24. R&D expenditures at universities and colleges, by geographic division, state, and science and engineering field: FY 2003  
(Dollars in thousands)

Division and state	All R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
Alabama	557,859	11,577	393,671	13,064	26,533	10,349	9,365	5,413	87,887
Kentucky	377,635	4,638	268,519	7,569	15,049	6,625	11,832	15,647	47,756
Mississippi	324,298	24,472	154,450	10,969	35,897	3,774	8,187	16,988	69,561
Tennessee	599,723	9,867	386,594	17,336	33,009	22,287	28,301	21,687	80,642
West South Central	3,768,177	226,909	2,448,610	141,725	246,856	46,580	103,674	44,100	509,723
Arkansas	183,183	5,816	126,002	4,124	11,661	2,760	3,902	9,470	19,448
Louisiana	524,262	32,959	332,187	15,926	34,182	2,270	21,318	18,159	67,261
Oklahoma	295,098	32,116	140,815	8,379	26,213	14,168	24,641	3,486	45,280
Texas	2,765,634	156,018	1,849,606	113,296	174,800	27,382	53,813	12,985	377,734
Mountain	2,465,449	235,324	1,167,302	68,257	309,844	45,405	93,834	84,319	461,164
Arizona	617,978	23,424	294,500	16,439	131,452	12,175	31,814	5,582	102,592
Colorado	694,862	110,921	347,101	14,509	87,691	15,318	22,471	5,897	90,954
Idaho	105,039	9,137	59,811	2,054	7,235	672	3,615	6,114	16,401
Montana	141,220	5,269	82,221	2,448	15,817	625	7,791	12,626	14,423
Nevada	154,515	49,814	51,803	3,490	14,224	664	6,421	15,193	12,906
New Mexico	306,623	14,275	112,888	7,175	22,265	9,023	13,962	20,835	106,200
Utah	385,158	14,408	191,226	21,702	25,889	5,336	5,960	9,513	111,124
Wyoming	60,054	8,076	27,752	440	5,271	1,592	1,800	8,559	6,564
Pacific	6,994,579	565,322	4,069,757	372,448	662,686	113,163	258,275	112,542	840,386
Alaska	140,641	75,017	25,800	12,117	822	38	1,374	13,945	11,528
California	5,362,683	311,796	3,105,124	296,727	577,672	84,798	207,041	75,498	704,027
Hawaii	184,602	46,625	66,608	19,725	20,244	111	6,129	16,442	8,718
Oregon	436,958	42,129	287,768	29,582	15,884	17,108	14,691	1,686	28,110
Washington	869,695	89,755	584,457	14,297	48,064	11,108	29,040	4,971	88,003
Outlying areas <sup>a</sup>	101,161	9,949	65,374	3,774	6,877	1,356	3,255	0	10,576

nec = not elsewhere classified.

<sup>a</sup> Outlying areas include Guam, Puerto Rico, and the Virgin Islands.

NOTE: Because of rounding, detail may not add to total.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 25. R&amp;D expenditures at universities and colleges, by state, control, and science and engineering field: FY 2003

(Dollars in thousands)

State, control, and institution	All R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
United States	40,077,399	2,187,841	23,763,981	1,733,373	3,272,629	768,730	1,661,090	690,934	5,998,821
Public	27,355,031	1,777,855	15,601,505	1,114,893	2,182,370	568,145	1,334,513	500,850	4,274,900
Private	12,722,368	409,986	8,162,476	618,480	1,090,259	200,585	326,577	190,084	1,723,921
Alabama	557,859	11,577	393,671	13,064	26,533	10,349	9,365	5,413	87,887
Public	547,242	11,571	386,681	13,030	26,138	10,349	7,233	5,413	86,827
AL A&M U.	36,856	0 i	26,391 i	1,652 i	5,426 i	0 i	511 i	1,426 i	1,450 i
AL State U.	1,633	0	1,361	210	0	0	62	0	0
Auburn U. all campuses	124,103	1,192	75,770	693	4,333	304	2,380	3,860	35,571
U. AL Birmingham, The	284,497	0	262,742	1,189	2,673	7,266	1,407	0	9,220
U. AL Huntsville, The	46,595	6,879	2,214	6,570	9,704	22	116	86	21,004
U. AL, The	34,187	2,353	3,877	2,480	3,754	2,549	1,942	41	17,191
U. South AL	19,371	1,147	14,326	236	248	208	815	0	2,391
Private	10,617	6	6,990	34	395	0	2,132	0	1,060
Miles C.	0	0	0	0	0	0	0	0	0
Oakwood C.	479 i	6 i	278 i	19 i	176 i	0 i	0 i	0 i	0 i
Selma U.	0	0	0	0	0	0	0	0	0
Talladega C.	71	0	40	15	16	0	0	0	0
Tuskegee U.	10,067	0	6,672	0	203	0	2,132	0	1,060
Alaska	140,641	75,017	25,800	12,117	822	38	1,374	13,945	11,528
Public	140,641	75,017	25,800	12,117	822	38	1,374	13,945	11,528
U. AK Anchorage all campuses	10,816	0 i	0 i	0 i	0 i	0 i	0 i	10,816 i	0 i
U. AK Fairbanks all campuses	128,916	74,882	25,521	12,035	693	0	1,312	3,066	11,407
U. AK Southeast all campuses	909	135 i	279 i	82 i	129 i	38 i	62 i	63 i	121 i
Arizona	617,978	23,424	294,500	16,439	131,452	12,175	31,814	5,582	102,592
Public	617,978	23,424	294,500	16,439	131,452	12,175	31,814	5,582	102,592
AZ State U. main campus	145,591	10,985	32,025	6,898	19,896	8,323	10,468	5,464	51,532
Northern AZ U.	17,446	1,326	13,618	133	900	32	972	27	438
U. AZ	454,941	11,113	248,857	9,408	110,656	3,820	20,374	91	50,622
Arkansas	183,183	5,816	126,002	4,124	11,661	2,760	3,902	9,470	19,448
Public	183,183	5,816	126,002	4,124	11,661	2,760	3,902	9,470	19,448
AR State U. main campus	2,634	236	1,447	3	632	52	139	0	125
AR Tech U.	539 i	203 i	231 i	1 i	10 i	0 i	11 i	0 i	83 i
U. AR for Medical Sciences	63,677	0	63,677	0	0	0	0	0	0
U. AR Little Rock	24,284	1,361 i	2,042 i	2,762 i	978 i	2,000 i	0 i	9,315 i	5,826 i
U. AR main campus	82,277	3,518	51,878	1,057	9,073	607	3,308	0	12,836
U. AR Pine Bluff	6,543	0	5,776	0	533	0	234	0	0
U. Central AR	3,229	498 i	951 i	301 i	435 i	101 i	210 i	155 i	578 i

TABLE 25. R&amp;D expenditures at universities and colleges, by state, control, and science and engineering field: FY 2003

(Dollars in thousands)

State, control, and institution	All R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
Private	0	0	0	0	0	0	0	0	0
Philander Smith C.	0	0	0	0	0	0	0	0	0
California	5,362,683	311,796	3,105,124	296,727	577,672	84,798	207,041	75,498	704,027
Public	4,002,320	266,001	2,425,106	170,941	360,406	70,017	181,587	60,165	468,097
CA State Polytechnic U. Pomona	3,922	0	3,673	0	0	0	0	23	226
CA State Polytechnic U. San Luis Obispo	13,598	885	4,276	1,410	192	51	172	1,559	5,053
CA State U. Bakersfield	4,464 i	724 i	1,201 i	250 i	437 i	70 i	323 i	696 i	763 i
CA State U. Chico	4,427	0	903	1,398	50	124	822	359	771
CA State U. Dominguez Hills	4,503	5	3,893	50	469	72	14	0	0
CA State U. Fresno	13,558	525	9,343	13	145	996	44	0	2,492
CA State U. Fullerton	5,318	473 i	1,654 i	375 i	909 i	145 i	533 i	138 i	1,091 i
CA State U. Hayward	1,559	218 i	474 i	149 i	232 i	78 i	94 i	96 i	218 i
CA State U. Long Beach	13,732	659	1,941	204	671	909	195	770	8,383
CA State U. Los Angeles	7,073	936	3,321	178	1,037	0	371	0	1,230
CA State U. Monterey Bay	2,644	2,436	0	146	0	0	0	0	62
CA State U. Northridge	11,638	1,090	1,384	762	977	1,805	690	2,713	2,217
CA State U. Sacramento	0 i	0 i	0 i	0 i	0 i	0 i	0 i	0 i	0 i
CA State U. San Bernardino	7,576	932	697	2,442	198	1,136	648	1,334	189
Humboldt State U.	7,573 i	641 i	4,527 i	505 i	23 i	10 i	623 i	147 i	1,097 i
Naval Postgraduate School	61,025	11,324	0	17,139	3,285	0	12,990	6,518	9,769
San Diego State U.	67,053	3,590	26,030	2,226	3,753	9,021	5,883	6,946	9,604
San Francisco State U.	12,500	468 i	1,873 i	0 i	7,816 i	0 i	0 i	937 i	1,406 i
San Jose State U.	28,323	10,832	525	1,184	3,405	8,155	88	1,038	3,096
Sonoma State U.	493	2	483	4	4	0	0	0	0
U. CA, Berkeley	507,186	10,180	174,915	8,732	83,187	11,820	51,283	15,036	152,033
U. CA, Davis	482,145	28,451	364,029	5,970	17,833	1,267	16,736	3,002	44,857
U. CA, Irvine	234,656	5,135	155,880	12,321	22,611	4,347	9,826	27	24,509
U. CA, Los Angeles	849,357	16,351	613,990	22,860	72,411	11,905	41,263	11,079	59,498
U. CA, Riverside	112,468	12,090	61,621	2,743	8,704	1,762	10,099	3,133	12,316
U. CA, San Diego	646,508	116,885	327,752	71,668	42,904	6,935	12,929	1,345	66,090
U. CA, San Francisco	671,443	0	642,645	0	28,798	0	0	0	0
U. CA, Santa Barbara	149,130	24,343	4,502	13,780	27,030	8,177	11,918	3,236	56,144
U. CA, Santa Cruz	78,448	16,826	13,574	4,432	33,325	1,232	4,043	33	4,983
Private	1,360,363	45,795	680,018	125,786	217,266	14,781	25,454	15,333	235,930
Alliant International U.	76	0	0	0	0	76	0	0	0
Azusa Pacific U.	0	0	0	0	0	0	0	0	0
Biola U.	6	0	0	0	0	6	0	0	0
CA Institute of Integral Studies	0	0	0	0	0	0	0	0	0
CA Institute of Technology	240,664	13,651	36,353	12,348	125,015	0	1,733	11,500	40,064

TABLE 25. R&amp;D expenditures at universities and colleges, by state, control, and science and engineering field: FY 2003

(Dollars in thousands)

State, control, and institution	All R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
Chapman U.	1,016	270	267	0	0	177	242	60	0
Charles R. Drew U. of Medicine and Science	49,888	0	49,888	0	0	0	0	0	0
Claremont Graduate U.	1,652	0	0	405	0	761	486	0	0
Golden Gate U.	0	0	0	0	0	0	0	0	0
Harvey Mudd C.	7,997 i	81 i	3,446 i	278 i	1,219 i	52 i	324 i	415 i	2,182 i
Loma Linda U.	26,296	0	26,227	0	0	0	69	0	0
Loyola Marymount U.	674	42 i	201 i	63 i	127 i	39 i	47 i	35 i	120 i
Occidental C.	2,633	158	332	0	811	1	1,009	322	0
Pepperdine U.	0	0	0	0	0	0	0	0	0
Pitzer C.	343	0	0	0	0	269	74	0	0
Pomona C.	1,962	53	532	57	652	513	83	72	0
Santa Clara U.	3,364 i	0 i	472 i	148 i	211 i	9 i	672 i	0 i	1,852 i
Stanford U.	603,227	10,193	333,147	22,601	78,811	6,530	11,793	0	140,152
U. Redlands	1,848	1,726	83	19	10	0	10	0	0
U. San Diego	1,046	0 i	305 i	0 i	57 i	0 i	30 i	606 i	48 i
U. San Francisco	690	37	257	39	77	90	0	190	0
U. Southern CA	414,099	19,572	225,942	89,821	10,276	6,258	8,882	2,133	51,215
U. of the Pacific	1,877	12	1,561	7	0	0	0	0	297
Western U. of Health Sciences	1,005	0	1,005	0	0	0	0	0	0
Colorado	694,862	110,921	347,101	14,509	87,691	15,318	22,471	5,897	90,954
Public	683,595	110,626	345,307	14,295	85,169	13,226	21,457	5,770	87,745
CO School of Mines	29,162	2,040	0	694	7,777	0	40	0	18,611
CO State U.	187,054	42,779	96,068	3,026	10,001	3,312	9,246	3,969	18,653
Ft. Lewis C.	231	0	58	0	168	0	5	0	0
U.S. Air Force Academy	27,198	0	588	2,127	4,315	346	143	440	19,239
U. CO Boulder	212,517	65,363	28,042	7,421	61,792	9,078	10,461	1,150	29,210
U. CO Colorado Springs	1,754	23	568	47	375	199	43	0	499
U. CO Denver	6,426	252	2,631	609	421	283	691	52	1,487
U. CO Health Sciences Ctr.	216,064	0	216,064	0	0	0	0	0	0
U. Northern CO	2,240	164	838	369	13	6	828	22	0
U. Southern CO	628	0	281	2	297	2	0	0	46
Western State C. CO	321 e	5 e	169 e	0 e	10 e	0 e	0 e	137 e	0 e
Private	11,267	295	1,794	214	2,522	2,092	1,014	127	3,209
CO C.	1,318	176	254	89	261	82	329	127	0
U. Denver	9,949	119	1,540	125	2,261	2,010	685	0	3,209
Connecticut	594,541	12,518	468,767	11,254	31,170	18,455	15,829	3,036	33,512
Public	194,773	8,667	133,989	2,696	7,157	10,966	8,291	2,946	20,061
Central CT State U.	355	0	122	0	34	0	199	0	0

TABLE 25. R&amp;D expenditures at universities and colleges, by state, control, and science and engineering field: FY 2003

(Dollars in thousands)

State, control, and institution	All R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
Southern CT State U.	2,911	23	0	58	19	68	90	2,653	0
U.S. Coast Guard Academy	1,166	0	0	0	31	0	0	0	1,135
U. CT all campuses	190,341	8,644	133,867	2,638	7,073	10,898	8,002	293	18,926
Private	399,768	3,851	334,778	8,558	24,013	7,489	7,538	90	13,451
CT C.	593 i	4 i	229 i	32 i	137 i	2 i	26 i	21 i	142 i
Fairfield U.	1,024	0	187	86	325	26	248	0	152
Trinity C. (Hartford, CT)	856	202	182	20	99	47	53	12	241
U. Hartford	1,336	0	37	81	41	0	441	28	708
U. New Haven	1,633 i	0 i	0 i	1,604 i	0 i	0 i	0 i	29 i	0 i
Wesleyan U.	6,682	421	2,700	152	2,157	1,103	149	0	0
Yale U.	387,644	3,224	331,443	6,583	21,254	6,311	6,621	0	12,208
Delaware	104,650	11,829	26,720	2,605	16,522	2,014	5,566	5,043	34,351
Public	104,650	11,829	26,720	2,605	16,522	2,014	5,566	5,043	34,351
DE State U.	3,944	0	3,419	224	301	0	0	0	0
U. DE	100,706	11,829	23,301	2,381	16,221	2,014	5,566	5,043	34,351
District of Columbia	263,342	619	161,143	23,533	32,124	7,688	13,482	331	24,422
Public	4,125	175	1,285	0	614	22	1,679	212	138
U. DC	4,125	175	1,285	0	614	22	1,679	212	138
Private	259,217	444	159,858	23,533	31,510	7,666	11,803	119	24,284
American U.	2,517	0	4	197	383	814	1,026	64	29
Catholic U. America, The	24,475	0	1,076	0	19,606	1,268	617	0	1,908
Gallaudet U.	2,013	0	332	0	0	1,147	534	0	0
George Washington U.	92,454	444	41,984	21,090	2,486	1,180	6,907	55	18,308
Georgetown U.	100,181	0	91,290	286	5,501	705	2,399	0	0
Howard U.	37,577	0	25,172	1,960	3,534	2,552	320	0	4,039
Florida	1,204,592	116,824	629,257	32,772	116,181	45,285	61,052	27,078	176,143
Public	1,006,745	71,458	505,708	29,655	111,474	34,710	59,821	27,070	166,849
FL A&M U.	23,503	1,946	14,603	768	822	42	383	2,794	2,145
FL Atlantic U.	25,946	581	7,487	1,463	1,726	2,291	3,781	532	8,085
FL International U.	52,175	1,392	9,858	1,369	3,467	1,005	8,568	11,105	15,411
FL State U.	152,277	19,330	26,507	6,956	48,889	6,371	18,050	231	25,943
New C. FL	206	0	105	9	17	18	57	0	0
U. Central FL	89,880	12,584	8,703	323	21,364	2,414	9,226	10,694	24,572
U. FL	429,734	6,458	295,557	10,438	30,292	7,945	10,701	0	68,343
U. North FL	4,421	0	2,451	201	239	3	647	81	799
U. South FL	213,249	27,198	139,132	1,631	3,281	14,505	4,318	1,633	21,551
U. West FL	15,354	1,969	1,305	6,497	1,377	116	4,090	0	0

TABLE 25. R&amp;D expenditures at universities and colleges, by state, control, and science and engineering field: FY 2003

(Dollars in thousands)

State, control, and institution	All R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
Private	197,847	45,366	123,549	3,117	4,707	10,575	1,231	8	9,294
Bethune Cookman C.	741	0	426	0	315	0	0	0	0
Embry-Riddle Aeronautical U.	6,641	431	0	223	690	0	0	0	5,297
FL Institute of Technology	8,004	1,040	1,326	2,681	1,106	151	0	0	1,700
Nova Southeastern U.	4,752	3,087	1,081	0	0	576	0	8	0
U. Miami	177,709	40,808	120,716	213	2,596	9,848	1,231	0	2,297
Georgia	1,175,852	31,610	640,808	71,679	63,521	31,368	63,342	8,225	265,299
Public	777,226	31,474	298,668	69,627	43,968	27,763	60,216	3,913	241,597
Albany State U.	2,178	182	541	38	24	0	868	35	490
Ft. Valley State U.	2,892	0	2,892	0	0	0	0	0	0
GA Institute of Technology all campuses	364,190	14,863	13,964	59,261	24,290	5,008	10,219	3,614	232,971
GA Southern U.	2,488	496	1,469	54	282	16	171	0	0
GA State U.	45,653	471	15,068	1,752	6,958	9,553	11,587	264	0
Kennesaw State U.	300	0	0	0	300	0	0	0	0
Medical C. GA	56,398	0	56,398	0	0	0	0	0	0
Savannah State U.	2,345 i	1,698 i	387 i	0 i	0 i	0 i	0 i	0 i	260 i
State U. West GA	1,034	500	210	0	294	0	30	0	0
U. GA	299,748	13,264	207,739	8,522	11,820	13,186	37,341	0	7,876
Private	398,626	136	342,140	2,052	19,553	3,605	3,126	4,312	23,702
Clark Atlanta U.	12,760	0	3,137	1,006	2,628	187	534	3,392	1,876
Emory U.	323,224	136	305,031	795	11,868	2,992	2,402	0	0
Institute of Paper Science and Technology	15,494 i	0 i	1,546 i	0 i	3,256 i	0 i	0 i	0 i	10,692 i
Mercer U. all campuses	14,996	0	2,948	59	712	10	8	125	11,134
Morehouse C.	2,410 i	0 i	913 i	51 i	243 i	226 i	182 i	795 i	0 i
Morehouse School of Medicine	27,154	0	27,154	0	0	0	0	0	0
Morris Brown C.	290 i	0 i	62 i	2 i	175 i	51 i	0 i	0 i	0 i
Spelman C.	2,298	0	1,349	139	671	139	0	0	0
Hawaii	184,602	46,625	66,608	19,725	20,244	111	6,129	16,442	8,718
Public	184,602	46,625	66,608	19,725	20,244	111	6,129	16,442	8,718
U. HI Hilo	5,317	1,342	2,619	290	668	0	253	145	0
U. HI Manoa	179,285	45,283	63,989	19,435	19,576	111	5,876	16,297	8,718
Idaho	105,039	9,137	59,811	2,054	7,235	672	3,615	6,114	16,401
Public	105,039	9,137	59,811	2,054	7,235	672	3,615	6,114	16,401
Boise State U.	7,583	1,850	1,794	96	810	515	158	121	2,239
ID State U.	12,243	1,661	4,373	66	3,160	31	561	1,987	404
U. ID	85,213	5,626	53,644	1,892	3,265	126	2,896	4,006	13,758
Illinois	1,613,691	49,223	931,685	148,456	145,469	36,343	64,727	30,183	207,605



TABLE 25. R&amp;D expenditures at universities and colleges, by state, control, and science and engineering field: FY 2003

(Dollars in thousands)

State, control, and institution	All R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
Public	875,534	44,204	384,361	135,340	71,863	19,931	51,223	23,653	144,959
Chicago State U.	1,155	0	0	0	0	0	0	1,155	0
IL State U.	3,963	97	2,512	214	572	110	394	64	0
Northeastern IL U.	168	64	42	29	4	24	1	4	0
Northern IL U.	12,368	559	1,946	466	7,469	1,585	54	0	289
Southern IL U. Carbondale	53,018	1,541	34,031	564	1,483	481	2,570	2,927	9,421
Southern IL U. Edwardsville	17,100	1,858	2,339	521	921	0	3,506	4,698	3,257
U. IL Chicago	291,507	2,059	210,330	18,130	13,233	6,195	15,390	9,164	17,006
U. IL Springfield	1,324	201	73	0	6	0	997	47	0
U. IL Urbana-Champaign	493,581	37,822	132,414	115,235	47,967	11,536	28,027	5,594	114,986
Western IL U.	1,350	3	674	181	208	0	284	0	0
Private	738,157	5,019	547,324	13,116	73,606	16,412	13,504	6,530	62,646
Augustana C. (Rock Island, IL)	212	13	95	0	0	0	0	104	0
Bradley U.	1,755	0	392	211	696	0	10	0	446
DePaul U.	3,086	31	291	203	168	2,295	98	0	0
Finch U. of Health Sciences/Chicago Medical School	9,923	0	9,310	0	0	613	0	0	0
IL Institute of Technology	25,744	0	6,603	1,174	9,745	658	8	0	7,556
Lake Forest C.	271	0	170	0	70	18	13	0	0
Loyola U. Chicago	37,581	25	35,556	104	625	882	389	0	0
Midwestern U. (Chicago, IL)	2,725	0	2,725	0	0	0	0	0	0
National U. of Health Sciences	620	0	620	0	0	0	0	0	0
Northwestern U.	319,722	858	213,394	3,987	25,858	4,177	10,602	6,419	54,427
Rush U.	89,196	0	87,056	0	0	2,140	0	0	0
U. Chicago	247,322	4,092	191,112	7,437	36,444	5,629	2,384	7	217
Indiana	725,752	9,925	369,679	33,154	76,194	20,926	54,826	35,156	125,892
Public	652,392	9,925	358,349	27,644	55,915	17,588	51,555	27,938	103,478
Ball State U.	3,878	630	1,656	286	335	65	871	28	7
IN State U. all campuses	1,369	128	490	0	73	251	427	0	0
IN U. all campuses	337,669	6,031	210,579	13,761	34,322	11,462	35,476	22,741	3,297
Purdue U. all campuses	309,476	3,136	145,624	13,597	21,185	5,810	14,781	5,169	100,174
Private	73,360	0	11,330	5,510	20,279	3,338	3,271	7,218	22,414
Rose-Hulman Institute of Technology	13,201	0	0	2,339	2,754	0	0	0	8,108
U. of Notre Dame	59,803	0	11,314	3,162	17,230	3,338	3,271	7,218	14,270
Valparaiso U.	356	0	16	9	295	0	0	0	36
Iowa	498,669	7,717	333,248	14,968	28,988	5,720	21,040	11,947	75,041
Public	493,422	7,716	329,626	14,905	28,233	5,672	20,459	11,770	75,041
IA State U.	199,566	4,977	98,658	12,885	10,606	714	14,618	11,303	45,805
U. IA	292,035	2,466	230,028	1,994	17,522	4,958	5,364	467	29,236

TABLE 25. R&amp;D expenditures at universities and colleges, by state, control, and science and engineering field: FY 2003

(Dollars in thousands)

State, control, and institution	All R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
U. Northern IA	1,821	273	940	26	105	0	477	0	0
Private	5,247	1	3,622	63	755	48	581	177	0
Des Moines U. Osteopathic Medical Ctr.	676	0	676	0	0	0	0	0	0
Drake U.	1,053 e	0 e	109 e	3 e	213 e	0 e	551 e	177 e	0 e
Grinnell C.	977	1	306	50	542	48	30	0	0
Maharishi U. of Management	2,541	0	2,531	10	0	0	0	0	0
Kansas	310,052	11,985	193,923	7,458	22,097	3,264	13,953	5,219	52,153
Public	310,052	11,985	193,923	7,458	22,097	3,264	13,953	5,219	52,153
KS State U.	112,733	689	71,803	2,699	11,174	1,022	4,227	3,216	17,903
Pittsburg State U.	1,894	0	160	11	29	1	3	0	1,690
U. KS all campuses	173,024	11,291	121,019	4,358	8,040	1,209	9,135	2,003	15,969
Wichita State U.	22,401	5	941	390	2,854	1,032	588	0	16,591
Kentucky	377,635	4,638	268,519	7,569	15,049	6,625	11,832	15,647	47,756
Public	376,447	4,638	268,519	6,381	15,049	6,625	11,832	15,647	47,756
Eastern KY U.	506	70	230	0	167	4	35	0	0
KY State U.	6,395	0	6,362	0	0	0	0	0	33
Morehead State U.	1,487	0	655	16	547	209	60	0	0
Murray State U.	2,778	477	2,082	71	88	2	58	0	0
Northern KY U.	434	0	71	100	113	52	98	0	0
U. KY all campuses	272,062	3,317	187,045	5,820	9,126	3,158	9,201	14,580	39,815
U. Louisville	88,522	661	71,379	374	2,168	2,736	2,380	917	7,907
Western KY U.	4,263	113	695	0	2,840	464	0	150	1
Private	1,188	0	0	1,188	0	0	0	0	0
Spalding U.	1,188 e	0 e	0 e	1,188 e	0 e	0 e	0 e	0 e	0 e
Louisiana	524,262	32,959	332,187	15,926	34,182	2,270	21,318	18,159	67,261
Public	400,370	31,650	231,016	14,123	27,819	1,972	16,566	18,159	59,065
Grambling State U.	2,218	61	690	915	552	0	0	0	0
LA State U. and A&M C.	206,677	28,138	112,003	4,617	14,672	338	5,642	7,552	33,715
LA State U. Health Sciences Ctr.	81,807	0	81,807	0	0	0	0	0	0
LA State U. Shreveport	183	0	154	0	0	0	29	0	0
LA Tech U.	15,055	0	1,976	968	1,684	146	729	0	9,552
McNeese State U.	743	430	5	94	75	39	0	0	100
Nicholls State U.	690	0	290	35	3	325	37	0	0
Southeastern LA U.	900	0	713	0	187	0	0	0	0
Southern U. New Orleans	556	0	133	10	0	0	0	413	0
Southern U. and A&M C. all campuses	10,997 i	861 i	6,022 i	280 i	2,016 i	151 i	385 i	0 i	1,282 i
U. LA Lafayette	43,769	400	24,837	6,942	1,514	203	790	5,213	3,870

TABLE 25. R&amp;D expenditures at universities and colleges, by state, control, and science and engineering field: FY 2003

(Dollars in thousands)

State, control, and institution	All R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
U. LA Monroe	10,777 i	619 i	931 i	53 i	156 i	0 i	4,037 i	4,981 i	0 i
U. New Orleans	25,998	1,141	1,455	209	6,960	770	4,917	0	10,546
Private	123,892	1,309	101,171	1,803	6,363	298	4,752	0	8,196
Dillard U.	668	0	0	0	668	0	0	0	0
Tulane U.	117,709	1,309	97,906	1,511	3,891	298	4,752	0	8,042
Xavier U. LA	5,515	0	3,265	292	1,804	0	0	0	154
Maine	75,092	22,481	25,836	1,379	6,289	880	5,102	1,947	11,178
Public	70,785	21,713	24,360	1,329	5,452	779	4,027	1,947	11,178
U. ME	68,923	21,337	23,116	1,238	5,452	779	3,876	1,947	11,178
U. Southern ME	1,862 i	376 i	1,244 i	91 i	0 i	0 i	151 i	0 i	0 i
Private	4,307	768	1,476	50	837	101	1,075	0	0
Bates C.	1,340	392	611	0	322	15	0	0	0
Bowdoin C.	1,673	313	725	35	313	82	205	0	0
Colby C.	1,294	63	140	15	202	4	870	0	0
Maryland	2,030,544	109,700	978,216	134,438	201,910	10,043	78,745	33,887	483,605
Public	785,958	73,997	427,476	41,819	65,579	5,728	73,690	476	97,193
Bowie State U.	2,206	0	259	1,947	0	0	0	0	0
Coppin State C.	0	0	0	0	0	0	0	0	0
Morgan State U.	7,493	0	1,773	2,150	397	10	62	433	2,668
St. Mary's C. MD	335	204	89	0	41	1	0	0	0
Towson U.	1,660	60	653	754	150	0	0	43	0
Uniformed Services U. of the Health Sciences	30,604	0	30,604	0	0	0	0	0	0
U.S. Naval Academy	3,451	144	0	457	865	0	61	0	1,924
U. MD Baltimore	297,271	0	297,271	0	0	0	0	0	0
U. MD Baltimore County	42,906	16,160	3,601	1,525	6,869	1,514	3,082	0	10,155
U. MD Biotechnology Institute	39,789	6,746	33,043	0	0	0	0	0	0
U. MD Ctr. for Environmental Science	38,344	38,344	0	0	0	0	0	0	0
U. MD College Park	321,899	12,339	60,183	34,986	57,257	4,203	70,485	0	82,446
U. MD Eastern Shore	0	0	0	0	0	0	0	0	0
Private	1,244,586	35,703	550,740	92,619	136,331	4,315	5,055	33,411	386,412
Johns Hopkins U., The <sup>a</sup>	1,244,132	35,703	550,700	92,464	136,074	4,315	5,053	33,411	386,412
Loyola C.	454	0	40	155	257	0	2	0	0
Massachusetts	1,821,817	152,070	868,452	101,522	228,866	31,899	75,785	49,387	313,836
Public	317,806	16,048	189,397	21,463	37,829	6,763	14,890	1,443	29,973
Bridgewater State C.	419	8	16	8	47	5	335	0	0
U. MA Amherst	113,512	4,261	33,195	19,454	28,858	5,067	2,663	766	19,248
U. MA Boston	15,793	2,765	2,531	523	611	1,352	7,860	109	42

TABLE 25. R&amp;D expenditures at universities and colleges, by state, control, and science and engineering field: FY 2003

(Dollars in thousands)

State, control, and institution	All R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
U. MA Dartmouth	16,476	7,415	1,164	1,241	1,270	161	362	20	4,843
U. MA Lowell	22,783	1,599	3,668	237	7,043	178	3,670	548	5,840
U. MA Worcester	148,823	0	148,823	0	0	0	0	0	0
Private	1,504,011	136,022	679,055	80,059	191,037	25,136	60,895	47,944	283,863
Amherst C.	2,115 e	77 e	793 e	20 e	883 e	91 e	251 e	0 e	0 e
Boston C.	32,158	514	4,395	12,544	8,225	870	5,610	0	0
Boston U.	224,841	3,681	152,133	3,788	24,422	6,193	1,177	12,259	21,188
Brandeis U.	50,841	0	24,747	2,570	5,316	2,591	15,617	0	0
Clark U.	5,638	1,394	507	32	786	582	31	0	2,306
C. of the Holy Cross	490	0	15	116	193	102	64	0	0
Hampshire C.	2,754	119	95	325	362	60	1,085	254	454
Harvard U.	408,707	14,786	314,500	3,492	36,178	6,459	22,398	0	10,894
MA C. of Pharmacy and Health Sciences	1,043	0	1,043	0	0	0	0	0	0
MA Institute of Technology	485,764	27,656	76,045	50,761	96,678	1,462	6,131	31,327	195,704
Mt. Holyoke C.	3,174	306	698	1,258	735	115	23	39	0
New England C. of Optometry	2,166	0	2,166	0	0	0	0	0	0
Northeastern U.	42,931	0	7,493	2,288	11,231	2,846	2,537	0	16,536
Simmons C.	978	0	40	0	390	18	530	0	0
Smith C.	2,194	275	894	173	157	31	90	27	547
Tufts U.	112,609	809	91,883	1,058	3,726	3,619	4,599	0	6,915
Wellesley C.	5,733	32	668	87	549	42	446	3,909	0
Williams C.	3,295	80 i	719 i	268 i	568 i	55 i	223 i	129 i	1,253 i
Woods Hole Oceanographic Institution	104,223	86,293	0	0	0	0	0	0	17,930
Worcester Polytechnic Institute	12,357	0	221	1,279	638	0	83	0	10,136
Michigan	1,388,284	22,719	817,583	27,697	113,087	21,614	146,889	3,157	235,538
Public	1,382,330	22,574	816,651	27,096	111,805	21,611	146,361	2,763	233,469
Central MI U.	2,339	247	614	163	841	267	95	0	112
Eastern MI U.	4,051	95	785	97	426	129	744	0	1,775
Ferris State U.	70 i	0 i	70 i	0 i	0 i	0 i	0 i	0 i	0 i
Grand Valley State U.	2,237	1,819	285	0	72	21	40	0	0
MI State U.	321,410	2,164	203,510	7,336	50,353	6,633	26,198	1,039	24,177
MI Technological U.	30,264	6,815	1,000	1,242	1,845	0	479	835	18,048
Oakland U.	6,175	0	3,193	638	1,197	5	20	0	1,122
Saginaw Valley State U.	442	19	123	144	40	5	0	76	35
U. MI all campuses	780,054	9,729	432,951	11,427	37,817	10,150	108,702	237	169,041
Wayne State U.	213,717	138	170,498	1,878	16,006	3,873	6,079	570	14,675
Western MI U.	21,571	1,548	3,622	4,171	3,208	528	4,004	6	4,484
Private	5,954	145	932	601	1,282	3	528	394	2,069
Andrews U.	469	0	74	43	43	0	309	0	0

TABLE 25. R&amp;D expenditures at universities and colleges, by state, control, and science and engineering field: FY 2003

(Dollars in thousands)

State, control, and institution	All R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
Calvin C.	1,714	82	297	319	554	0	219	181	62
Hope C.	1,457	0	555	199	480	0	0	0	223
Kettering U.	1,295	63	0	40	0	0	0	0	1,192
Lawrence Technological U.	471	0	0	0	0	0	0	0	471
U. Detroit Mercy	548	0	6	0	205	3	0	213	121
Minnesota	517,346	13,191	374,062	18,597	27,984	12,796	19,775	57	50,884
Public	511,654	12,138	372,673	18,137	26,097	12,525	19,193	9	50,882
MN State U. Mankato	768	60	500	115	7	7	43	9	27
St. Cloud State U.	2,329	259 i	144 i	494 i	400 i	0 i	352 i	0 i	680 i
U. MN all campuses	508,557	11,819	372,029	17,528	25,690	12,518	18,798	0	50,175
Private	5,692	1,053	1,389	460	1,887	271	582	48	2
Augsburg C.	734	216	0	169	349	0	0	0	0
Carleton C.	1,965	687	616	81	350	119	64	48	0
Macalester C.	2,091	150	385	210	856	87	403	0	0
St. Olaf C.	710	0	304	0	226	65	115	0	0
U. of St. Thomas (St. Paul, MN)	192	0	84	0	106	0	0	0	2
Mississippi	324,298	24,472	154,450	10,969	35,897	3,774	8,187	16,988	69,561
Public	323,447	24,472	154,028	10,778	35,659	3,774	8,187	16,988	69,561
Alcorn State U.	7,619	0	7,582	0	0	0	0	37	0
Jackson State U.	28,843	3,710	6,450	5,296	4,582	1,483	545	6,399	378
MS State U.	165,922	6,248	80,613	3,658	5,489	1,780	5,050	3,091	59,993
MS Valley State U.	636	81	101	343	96	0	0	0	15
U. MS all campuses	85,378	0	54,512	291	17,432	208	2,276	3,702	6,957
U. Southern MS	35,049	14,433	4,770	1,190	8,060	303	316	3,759	2,218
Private	851	0	422	191	238	0	0	0	0
Rust C.	0	0	0	0	0	0	0	0	0
Tougaloo C.	851 i	0 i	422 i	191 i	238 i	0 i	0 i	0 i	0 i
Missouri	806,907	11,325	658,297	10,517	25,856	14,008	23,330	1,847	61,727
Public	289,679	5,694	186,147	4,224	12,536	10,698	18,554	400	51,426
Lincoln U. (Jefferson City, MO)	2,601	137	2,407	0	0	0	57	0	0
Southwest MO State U.	1,423	134	745	32	191	9	27	126	159
Truman State U.	521	0	193	0	54	0	0	274	0
U. MO system administration	0	0	0	0	0	0	0	0	0
U. MO-Columbia	205,212	1,924	151,772	2,723	4,589	8,306	14,185	0	21,713
U. MO-Kansas City	31,104	0	25,185	958	2,335	1,198	388	0	1,040
U. MO-Rolla	35,999	3,499	435	134	3,371	35	11	0	28,514
U. MO-St. Louis	12,819	0	5,410	377	1,996	1,150	3,886	0	0

TABLE 25. R&amp;D expenditures at universities and colleges, by state, control, and science and engineering field: FY 2003

(Dollars in thousands)

State, control, and institution	All R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
Private	517,228	5,631	472,150	6,293	13,320	3,310	4,776	1,447	10,301
Forest Institute of Professional Psychology	0	0	0	0	0	0	0	0	0
Kirksville C. of Osteopathic Medicine	691	0	691	0	0	0	0	0	0
St. Louis U. all campuses	41,189	819	39,869	161	85	60	102	93	0
U. of Health Sciences	1,020	0	1,020	0	0	0	0	0	0
Washington U. St. Louis	474,328	4,812	430,570	6,132	13,235	3,250	4,674	1,354	10,301
Montana	141,220	5,269	82,221	2,448	15,817	625	7,791	12,626	14,423
Public	141,220	5,269	82,221	2,448	15,817	625	7,791	12,626	14,423
MT State U. Bozeman	91,503	1,233	53,672	655	13,067	0	2,711	7,766	12,399
MT Tech of the U. MT	6,155	3,492	419	1	219	0	0	0	2,024
U. MT, The	43,562	544	28,130	1,792	2,531	625	5,080	4,860	0
Nebraska	300,540	8,245	202,386	8,801	12,788	8,543	15,232	16,842	27,703
Public	276,424	8,147	178,679	8,719	12,602	8,543	15,189	16,842	27,703
U. NE Kearney	459	19	280	2	127	6	23	2	0
U. NE Lincoln	184,652	8,101	92,644	7,090	12,213	7,799	13,738	16,840	26,227
U. NE Medical Ctr.	85,007	0	85,007	0	0	0	0	0	0
U. NE Omaha	6,306	27	748	1,627	262	738	1,428	0	1,476
Private	24,116	98	23,707	82	186	0	43	0	0
Creighton U.	24,116	98	23,707	82	186	0	43	0	0
Nevada	154,515	49,814	51,803	3,490	14,224	664	6,421	15,193	12,906
Public	154,515	49,814	51,803	3,490	14,224	664	6,421	15,193	12,906
Desert Research Institute	31,757	24,623	0	0	0	0	0	7,134	0
U. NV, Las Vegas	42,205	16,714	5,988	1,995	6,269	0	5,076	0	6,163
U. NV, Reno	80,553	8,477	45,815	1,495	7,955	664	1,345	8,059	6,743
New Hampshire	252,210	44,289	127,567	6,392	8,860	6,104	6,727	12,911	39,360
Public	96,415	41,807	24,447	367	4,144	525	5,984	1,378	17,763
U. NH	96,415	41,807	24,447	367	4,144	525	5,984	1,378	17,763
Private	155,795	2,482	103,120	6,025	4,716	5,579	743	11,533	21,597
Dartmouth C.	155,795	2,482	103,120	6,025	4,716	5,579	743	11,533	21,597
New Jersey	747,481	47,059	363,329	35,100	66,443	20,285	55,430	18,583	141,252
Public	549,141	26,721	328,218	22,872	35,556	12,465	24,285	17,979	81,045
C. NJ, The	2,856 i	0 i	324 i	567 i	163 i	302 i	296 i	1,068 i	136 i
Montclair State U.	945 i	319 i	288 i	250 i	34 i	54 i	0 i	0 i	0 i
NJ City U.	326	0	0	0	223	103	0	0	0
NJ Institute of Technology	73,664	0	34	5,660	6,876	0	488	15,409	45,197
Rowan U.	6,011	0	89	516	1,496	1,197	136	0	2,577

TABLE 25. R&amp;D expenditures at universities and colleges, by state, control, and science and engineering field: FY 2003

(Dollars in thousands)

State, control, and institution	All R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
Rutgers, The State U. NJ all campuses	274,576	26,402	136,720	15,879	26,764	10,809	23,365	1,502	33,135
U. of Medicine and Dentistry NJ	190,763	0	190,763	0	0	0	0	0	0
Private	198,340	20,338	35,111	12,228	30,887	7,820	31,145	604	60,207
Fairleigh Dickinson U. all campuses	286	147	38	2	11	0	83	5	0
Princeton U.	179,951	17,335	33,738	11,458	28,542	7,812	28,647	0	52,419
Rider U.	912	12	300	18	30	8	0	544	0
Seton Hall U.	1,779	0	1,035	0	689	0	0	55	0
Stevens Institute of Technology	15,412 i	2,844 i	0 i	750 i	1,615 i	0 i	2,415 i	0 i	7,788 i
New Mexico	306,623	14,275	112,888	7,175	22,265	9,023	13,962	20,835	106,200
Public	306,623	14,275	112,888	7,175	22,265	9,023	13,962	20,835	106,200
NM Highlands U.	2,585	157	199	0	1,336	893	0	0	0
NM Institute of Mining and Technology	37,186	9,465	1,433	214	2,799	10	0	5,956	17,309
NM State U. all campuses	108,613	692	25,484	3,336	9,337	1,667	2,242	239	65,616
U. NM all campuses	158,239	3,961	85,772	3,625	8,793	6,453	11,720	14,640	23,275
New York	3,089,988	104,322	2,128,290	113,303	235,633	73,545	82,926	20,463	331,506
Public	764,254	37,673	458,682	31,408	74,057	27,930	28,997	1,549	103,958
CUNY Baruch C.	507	8	3	30	91	0	323	52	0
CUNY Brooklyn C.	5,575	4	988	1,046	777	2,367	393	0	0
CUNY City C.	17,712	839	3,621	467	7,356	489	163	0	4,777
CUNY C. Staten Island	2,540	0	896	245	1,251	92	36	0	20
CUNY Graduate Ctr.	3,068	2	0	1,403	20	330	819	494	0
CUNY Herbert H. Lehman C.	3,981	65	591	578	131	2,595	21	0	0
CUNY Hunter C.	32,704	4,014	11,553	185	7,894	5,524	3,413	121	0
CUNY John Jay C. of Criminal Justice	930	6	0	94	0	158	137	535	0
CUNY Medgar Evers C.	670	109	84	208	261	0	8	0	0
CUNY Queens C.	6,430	224	3,804	209	1,131	500	562	0	0
CUNY York C.	1,829	3	1,647	0	163	0	16	0	0
SUNY Albany	120,655	5,382	72,593	3,048	2,653	1,816	11,554	0	23,609
SUNY Binghamton	23,090	720	2,021	1,356	3,191	4,009	3,718	37	8,038
SUNY Buffalo all campuses	240,180	1,236	170,680	10,043	15,981	5,120	3,572	279	33,269
SUNY C. Brockport	757	59	632	0	6	29	0	31	0
SUNY C. Buffalo	2,610	1,372	74	0	45	318	801	0	0
SUNY C. Cortland	446	87	267	0	29	0	63	0	0
SUNY C. Fredonia	271	14	81	0	176	0	0	0	0
SUNY C. Geneseo	1,366	53	293	256	566	177	21	0	0
SUNY C. of Environmental Science and Forestry	26,783	2,619 i	12,661 i	0 i	2,131 i	0 i	266 i	0 i	9,106 i
SUNY C. of Optometry	3,187	0	3,187	0	0	0	0	0	0
SUNY C. Old Westbury	1,295	0	957	22	316	0	0	0	0

TABLE 25. R&amp;D expenditures at universities and colleges, by state, control, and science and engineering field: FY 2003

(Dollars in thousands)

State, control, and institution	All R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
SUNY C. Oswego	1,207	153	0	295	2	676	81	0	0
SUNY C. Plattsburgh	1,494	536	202	3	708	15	30	0	0
SUNY Health Science Ctr. Brooklyn	38,424 i	0 i	38,424 i	0 i	0 i	0 i	0 i	0 i	0 i
SUNY Purchase C.	282	86	58	0	138	0	0	0	0
SUNY Stony Brook all campuses	200,330	20,082	107,434	11,920	29,040	3,715	3,000	0	25,139
SUNY Upstate Medical U.	25,931	0	25,931	0	0	0	0	0	0
Private	2,325,734	66,649	1,669,608	81,895	161,576	45,615	53,929	18,914	227,548
Adelphi U.	169 i	0 i	105 i	24 i	39 i	1 i	0 i	0 i	0 i
Albany C. of Pharmacy	894	0	894	0	0	0	0	0	0
Albany Medical C.	13,394	0	13,394	0	0	0	0	0	0
Alfred U. all campuses	6,360	0	0	0	0	0	0	0	6,360
Barnard C.	1,516	95	212	42	280	820	67	0	0
Clarkson U.	7,466	0 i	119 i	165 i	1,120 i	36 i	0 i	0 i	6,026 i
Colgate U.	1,425	252	351	130	516	110	66	0	0
Columbia U. in the City of NY	437,669	52,298	301,110	10,424	35,025	3,862	9,473	1,772	23,705
Cooper Union	502	0	0	0	0	0	0	0	502
Cornell U. all campuses	554,760	6,203	348,401	29,671	78,827	6,920	21,451	0	63,287
Fordham U.	3,814	0	1,446	66	23	1,403	876	0	0
Hamilton C. (Clinton, NY)	1,459	127	112	0	636	241	343	0	0
Hartwick C.	221	32	103	14	28	0	32	12	0
Hofstra U.	735 i	0 i	255 i	0 i	5 i	0 i	0 i	0 i	475 i
Iona C.	232	0	42	121	69	0	0	0	0
Ithaca C.	2,187	0	698	1,373	50	60	6	0	0
Long Island U. all campuses	1,769	230	810	12	268	449	0	0	0
Manhattan C.	257 e	0 e	0 e	0 e	0 e	0 e	0 e	0 e	257 e
Mt. Sinai School of Medicine	214,514	0	214,514	0	0	0	0	0	0
New School U.	3,435	0 i	485 i	0 i	0 i	26 i	2,924 i	0 i	0 i
NY Institute of Technology all campuses	423 i	0 i	385 i	30 i	0 i	0 i	0 i	0 i	8 i
NY Medical C.	30,492	0	30,492	0	0	0	0	0	0
NY U.	241,593	735	193,182	15,794	8,697	13,380	7,988	1,817	0
Pace U. all campuses	425 e	26 e	315 e	6 e	0 e	0 e	0 e	40 e	38 e
Polytechnic U.	12,142 i	0 i	0 i	1,569 i	0 i	0 i	26 i	0 i	10,547 i
Rensselaer Polytechnic Institute	50,777	2,464	819	3,493	5,394	0	784	4	37,819
Rochester Institute of Technology	17,197	1,148	1,370	467	6,663	11	98	8	7,432
Rockefeller U.	192,143	0	177,216	8,593	6,334	0	0	0	0
Skidmore C.	632	0	378	18	35	1	200	0	0
St. John's U. (Jamaica, NY)	1,463 i	11 i	1,110 i	5 i	0 i	320 i	17 i	0 i	0 i
Syracuse U. all campuses	48,846	2,214	3,765	6,770	5,143	2,314	3,060	13,740	11,840
Teachers C. Columbia U.	9,603	0	1,543	0	0	3,824	4,236	0	0
U. Rochester	285,768	781	197,436	2,887	11,878	11,811	931	1,455	58,589



TABLE 25. R&amp;D expenditures at universities and colleges, by state, control, and science and engineering field: FY 2003

(Dollars in thousands)

State, control, and institution	All R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
Union C. (Schenectady, NY)	2,086	33	390	98	95	25	1,274	0	171
Vassar C.	2,130 i	0 i	920 i	123 i	451 i	1 i	77 i	66 i	492 i
Yeshiva U.	177,236	0	177,236	0	0	0	0	0	0
North Carolina	1,394,545	54,571	1,034,820	39,587	66,773	10,315	59,479	6,725	122,275
Public	742,688	41,858	472,175	31,726	48,425	7,350	37,817	6,342	96,995
Appalachian State U.	986	51	540	170	138	9	66	0	12
East Carolina U.	12,520	182	11,088	167	624	8	288	0	163
Elizabeth City State U.	1,103	121	31	370	0	0	0	0	581
Fayetteville State U.	586	0	515	7	52	0	12	0	0
NC Agricultural and Technical State U.	17,304	0	7,809	300	1,231	0	619	3	7,342
NC Central U.	1,100 i	0 i	720 i	0 i	281 i	0 i	99 i	0 i	0 i
NC State U.	286,025	15,439	135,298	17,087	21,499	2	8,508	3,750	84,442
U. NC Asheville	1,108	711	15	2	74	0	284	0	22
U. NC Chapel Hill	390,542	19,409	304,618	11,491	21,482	6,447	27,095	0	0
U. NC Charlotte	12,599	1,160	2,811	1,859	1,897	18	390	31	4,433
U. NC Greensboro	3,454	0	2,134	168	189	694	269	0	0
U. NC Wilmington	12,762	4,516	4,956	0	464	169	99	2,558	0
Western Carolina U.	577	269	73	0	147	0	88	0	0
Winston-Salem State U.	2,022 e	0 e	1,567 e	105 e	347 e	3 e	0 e	0 e	0 e
Private	651,857	12,713	562,645	7,861	18,348	2,965	21,662	383	25,280
Bennett C.	0	0	0	0	0	0	0	0	0
Duke U.	520,191	12,357	433,834	7,533	16,630	2,965	21,662	0	25,210
Johnson C. Smith U.	0	0	0	0	0	0	0	0	0
Shaw U.	1,261	356	777	58	0	0	0	0	70
Wake Forest U.	130,405	0	128,034	270	1,718	0	0	383	0
North Dakota	133,615	5,462	65,105	1,508	13,502	1,082	8,425	7,027	31,504
Public	133,615	5,462	65,105	1,508	13,502	1,082	8,425	7,027	31,504
ND State U. all campuses	91,812	256	52,693	1,201	12,668	1,034	8,342	4,510	11,108
U. ND all campuses	41,803	5,206	12,412	307	834	48	83	2,517	20,396
Ohio	1,268,784	18,092	720,733	42,292	94,214	19,257	63,036	38,534	272,626
Public	962,731	17,233	534,140	41,560	82,050	17,908	60,140	19,789	189,911
Air Force Institute of Technology	12,454	530	0	840	3,580	0	0	952	6,552
Bowling Green State U. all campuses	7,336	185	2,072	117	1,578	1,011	1,271	381	721
Central State U.	574 i	209 i	30 i	33 i	8 i	8 i	10 i	35 i	241 i
Cleveland State U.	14,112	488	1,728	31	1,105	45	5,583	0	5,132
Kent State U. all campuses	14,549	737	1,964	715	5,570	1,633	661	3,114	155
Medical C. OH	18,233	0	18,233	0	0	0	0	0	0
Miami U. all campuses	13,727	359 i	3,122 i	1 i	3,548 i	854 i	2,403 i	3,024 i	416 i

TABLE 25. R&amp;D expenditures at universities and colleges, by state, control, and science and engineering field: FY 2003

(Dollars in thousands)

State, control, and institution	All R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
Northeastern OH Universities C. of Medicine	4,364	0	4,364	0	0	0	0	0	0
OH State U. all campuses	496,438	9,267	255,354	34,792	32,998	8,297	40,370	7,196	108,164
OH U. all campuses	37,527	862	9,519	404	5,859	1,805	1,057	1,030	16,991
U. Akron all campuses	27,953	447	1,644	683	11,638	159	5,236	0	8,146
U. Cincinnati all campuses	255,083	372	211,405	701	6,264	1,306	3,089	3,503	28,443
U. Toledo	24,123	3,215	3,994	33	6,099	367	427	133	9,855
Wright State U. all campuses	34,860	561	20,531	3,209	2,914	2,423	20	161	5,041
Youngstown State U.	1,398	1	180	1	889	0	13	260	54
Private	306,053	859	186,593	732	12,164	1,349	2,896	18,745	82,715
Antioch U. all campuses	0	0	0	0	0	0	0	0	0
Case Western Reserve U.	250,674	509	185,237	333	10,950	1,080	2,839	18,739	30,987
C. Wooster	413	38	2	1	270	72	30	0	0
Denison U.	546	48	166	10	282	13	21	6	0
John Carroll U.	442	0	167	135	140	0	0	0	0
Oberlin C.	471	22	192	44	117	96	0	0	0
OH Wesleyan U.	284 e	0 e	182 e	0 e	74 e	28 e	0 e	0 e	0 e
Union Institute & U.	0	0	0	0	0	0	0	0	0
U. Dayton	52,943	172	482	164	331	60	6	0	51,728
U. Findlay, The	200	70	85	45	0	0	0	0	0
Wilberforce U.	80	0	80	0	0	0	0	0	0
Oklahoma	295,098	32,116	140,815	8,379	26,213	14,168	24,641	3,486	45,280
Public	283,571	31,986	139,847	5,142	24,849	14,131	24,581	3,486	39,549
Langston U.	4,332	0	4,332	0	0	0	0	0	0
Northeastern State U.	1,283	0	735	13	107	8	279	141	0
OK State U. all campuses	103,079	2,025	57,737	1,351	9,129	446	8,559	3,325	20,507
Southeastern OK State U.	231	32 i	74 i	17 i	33 i	8 i	15 i	20 i	32 i
U. Central OK	180	0	180	0	0	0	0	0	0
U. OK all campuses	174,466	29,929	76,789	3,761	15,580	13,669	15,728	0	19,010
Private	11,527	130	968	3,237	1,364	37	60	0	5,731
U. Tulsa	11,527	130	968	3,237	1,364	37	60	0	5,731
Oregon	436,958	42,129	287,768	29,582	15,884	17,108	14,691	1,686	28,110
Public	433,565	42,095	286,798	29,559	14,484	17,038	14,036	1,686	27,869
Eastern OR U.	226	0	0	0	75	51	0	100	0
OR Health and Science U.	197,178	0	166,291	20,207	0	10,680	0	0	0
OR Institute of Technology	1,752	39	0	394	0	0	0	0	1,319
OR State U.	167,631	37,739	95,370	3,470	3,800	39	2,730	887	23,596
Portland State U.	21,433	2,618	3,377	2,411	1,772	371	7,689	699	2,496
Southern OR U.	741	0	205	0	377	0	159	0	0

TABLE 25. R&amp;D expenditures at universities and colleges, by state, control, and science and engineering field: FY 2003

(Dollars in thousands)

State, control, and institution	All R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
U. OR	44,604	1,699	21,555	3,077	8,460	5,897	3,458	0	458
Private	3,393	34	970	23	1,400	70	655	0	241
Lewis and Clark C.	622	22	301	21	232	40	6	0	0
Pacific U.	823	0	0	0	223	0	600	0	0
Reed C.	1,129	0	404	0	655	30	40	0	0
U. Portland	543	0	149	2	142	0	9	0	241
Willamette U.	276	12	116	0	148	0	0	0	0
Pennsylvania	2,013,453	47,487	1,187,741	138,901	135,996	55,511	88,657	20,569	338,591
Public	1,017,018	44,201	574,035	30,002	83,294	35,659	36,734	10,230	202,863
East Stroudsburg U. PA	152	0	152	0	0	0	0	0	0
Indiana U. PA all campuses	841	152	185	4	110	3	342	29	16
Lincoln U. (Lincoln University, PA)	704	0	329	0	263	0	0	112	0
PA State U. all campuses	533,427	43,134	175,537	23,874	57,498	17,220	26,511	6,083	183,570
Temple U.	71,327	165	42,315	921	8,676	11,558	3,884	0	3,808
U. Pittsburgh all campuses	409,684	664	354,931	5,154	16,654	6,878	5,928	4,006	15,469
West Chester U. PA	883	86	586	49	93	0	69	0	0
Private	996,435	3,286	613,706	108,899	52,702	19,852	51,923	10,339	135,728
Allegheny C.	974	342	139	0	181	5	0	307	0
Bryn Mawr C.	4,705	197	408	510	1,055	2,190	345	0	0
Bucknell U.	2,123	358	120	12	354	24	0	48	1,207
Carnegie-Mellon U.	186,351	0	7,098	89,600	13,624	11,111	10,037	694	54,187
Dickinson C.	1,550	188	398	143	619	77	125	0	0
Drexel U.	69,548	0	31,036	2,855	2,577	520	0	0	32,560
Duquesne U.	6,848	0	4,669	166	1,872	0	141	0	0
Franklin and Marshall C.	1,028	128	511	4	203	123	59	0	0
Haverford C.	1,428	0 i	601 i	46 i	664 i	93 i	24 i	0 i	0 i
Juniata C.	530	22	369	0	136	0	0	3	0
La Salle U.	104	0	55	12	0	5	32	0	0
Lafayette C.	2,065	26	269	25	120	75	19	620	911
Lehigh U.	29,211	1,148	1,592	1,435	4,580	76	48	0	20,332
PA C. of Optometry	1,226	0	1,226	0	0	0	0	0	0
Philadelphia C. of Osteopathic Medicine	836	0	836	0	0	0	0	0	0
St. Joseph's U.	2,660	0	259	122	72	271	390	1,546	0
Swarthmore C.	1,717	0	245	154	531	181	365	16	225
Thomas Jefferson U.	109,083	0	109,083	0	0	0	0	0	0
U. PA	564,716	656	451,131	13,402	25,291	4,978	40,272	6,928	22,058
U. Scranton	2,599	0	2,360	11	228	0	0	0	0
U. of the Sciences Philadelphia	453	0	453	0	0	0	0	0	0
Villanova U.	6,000 i	139 i	464 i	365 i	595 i	123 i	66 i	0 i	4,248 i

TABLE 25. R&amp;D expenditures at universities and colleges, by state, control, and science and engineering field: FY 2003

(Dollars in thousands)

State, control, and institution	All R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
Widener U. all campuses	253 i	39 i	0 i	37 i	0 i	0 i	0 i	177 i	0 i
Wilkes U.	427	43	384	0	0	0	0	0	0
Rhode Island	187,131	34,956	82,246	13,572	11,420	7,791	6,452	4,373	26,321
Public	61,818	28,756	16,599	306	742	5,515	152	4,373	5,375
U. RI	61,818	28,756	16,599	306	742	5,515	152	4,373	5,375
Private	125,313	6,200	65,647	13,266	10,678	2,276	6,300	0	20,946
Brown U.	125,090	6,200	65,444	13,266	10,668	2,266	6,300	0	20,946
Providence C.	223 e	0 e	203 e	0 e	10 e	10 e	0 e	0 e	0 e
South Carolina	435,328	22,178	242,675	7,913	28,153	6,454	19,507	17,701	90,747
Public	432,828	21,970	241,305	7,880	27,441	6,277	19,507	17,701	90,747
Clemson U.	152,986	0	47,986	4,140	10,055	882	10,302	15,100	64,521
Coastal Carolina U.	940	768	69	0	100	2	0	1	0
C. Charleston	3,716	2,060	426	169	640	16	391	14	0
Medical U. SC	150,551	0	150,551	0	0	0	0	0	0
SC State U.	3,225	0 i	708 i	0 i	1,547 i	0 i	915 i	0 i	55 i
U. SC all campuses	121,410	19,142	41,565	3,571	15,099	5,377	7,899	2,586	26,171
Private	2,500	208	1,370	33	712	177	0	0	0
Benedict C.	1,071	0	955	0	116	0	0	0	0
Clafin U.	293	0	293	0	0	0	0	0	0
Furman U.	1,136	208	122	33	596	177	0	0	0
Morris C.	0	0	0	0	0	0	0	0	0
South Dakota	49,977	4,459	29,246	182	2,738	188	4,246	395	8,523
Public	49,653	4,459	29,192	30	2,664	188	4,202	395	8,523
SD School of Mines and Technology	10,853	3,661	0	4	137	0	0	394	6,657
SD State U.	27,652	712	22,702	22	450	3	1,897	0	1,866
U. SD	11,148	86	6,490	4	2,077	185	2,305	1	0
Private	324	0	54	152	74	0	44	0	0
Augustana C. (Sioux Falls, SD)	324	0	54	152	74	0	44	0	0
Tennessee	599,723	9,867	386,594	17,336	33,009	22,287	28,301	21,687	80,642
Public	295,222	9,717	146,895	16,657	16,063	11,768	22,794	14,597	56,731
East TN State U.	12,971	28	6,505	129	104	47	5,575	442	141
Middle TN State U.	2,219	15	1,041	481	262	22	297	0	101
TN State U.	14,306	0	6,597	687	1,435	12	1,340	0	4,235
TN Technological U.	9,609	19	924	34	253	0	12	0	8,367
U. Memphis, The	38,728	4,473	5,399	2,962	1,627	11,373	7,043	1,290	4,561
U. TN	210,388	5,182	126,007	11,958	12,282	307	7,509	10,586	36,557

TABLE 25. R&amp;D expenditures at universities and colleges, by state, control, and science and engineering field: FY 2003

(Dollars in thousands)

State, control, and institution	All R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
U. TN Chattanooga	5,385	0	422	399	100	7	1,018	670	2,769
U. TN Martin	1,616	0	0	7	0	0	0	1,609	0
Private	304,501	150	239,699	679	16,946	10,519	5,507	7,090	23,911
Fisk U.	3,000	0	0	0	3,000	0	0	0	0
Le Moyne-Owen C.	0 i	0 i	0 i	0 i	0 i	0 i	0 i	0 i	0 i
Meharry Medical C.	25,427	0	25,427	0	0	0	0	0	0
Vanderbilt U.	276,074	150	214,272	679	13,946	10,519	5,507	7,090	23,911
Texas	2,765,634	156,018	1,849,606	113,296	174,800	27,382	53,813	12,985	377,734
Public	2,231,522	151,945	1,377,050	97,616	153,999	23,516	51,921	11,605	363,870
Lamar U.	4,029	1,973	216	24	185	5	6	267	1,353
Prairie View A&M U.	11,193	0	5,728	1,476	1,054	0	475	0	2,460
Sam Houston State U.	3,269 i	1,233 i	505 i	124 i	79 i	2 i	1,326 i	0 i	0 i
Southwest TX State U.	7,621	92	2,044	897	3,734	0	663	0	191
Stephen F. Austin State U.	4,954	0	4,253	24	109	13	515	40	0
Sul Ross State U.	838	91	294	0	0	0	453	0	0
Tarleton State U.	8,534	4,161	4,274	15	71	0	0	0	13
TX A&M U. all campuses	456,235	85,351	160,127	15,400	32,808	2,725	5,384	4,201	150,239
TX A&M U. Commerce	303	0	131	9	159	0	4	0	0
TX A&M U. Corpus Christi	10,281	3,230	801	2,001	1,184	30	73	213	2,749
TX A&M U. Kingsville	10,203	1,668	7,144	0	114	0	0	105	1,172
TX A&M U. System Health Science Ctr.	55,031	580	53,382	0	0	146	0	0	923
TX Southern U.	3,088	0	2,921	19	4	0	0	144	0
TX Tech U.	92,515	11,421	41,037	2,176	9,003	424	7,240	693	20,521
TX Woman's U.	2,932	0	2,756	2	24	1	47	102	0
U. Houston	63,455	1,404	12,726	6,076	5,924	3,294	9,802	0	24,229
U. Houston-Clear Lake	1,224	246	241	396	94	11	8	6	222
U. Houston-Downtown	661	0	114	226	209	0	16	79	17
U. North TX	13,990	1,543	2,544	1,571	3,753	694	1,540	0	2,345
U. North TX Health Science Ctr. Ft. Worth	15,388	0	15,388	0	0	0	0	0	0
U. TX Arlington	15,102	163	1,224	355	3,256	204	541	0	9,359
U. TX Austin	343,854	29,744	43,886	44,135	73,352	7,186	20,251	4,317	120,983
U. TX Dallas	30,748	3,578	5,737	3,955	7,378	157	633	1,307	8,003
U. TX El Paso	27,185	4,676	6,177	869	3,383	526	789	129	10,636
U. TX Health Science Ctr. Houston	149,294	0	149,294	0	0	0	0	0	0
U. TX Health Science Ctr. San Antonio	133,304	0	133,304	0	0	0	0	0	0
U. TX M. D. Anderson Cancer Ctr.	315,169	0	283,543	14,720	7,097	7,856	187	0	1,766
U. TX Medical Branch	153,122	0	150,479	0	0	0	0	0	2,643

TABLE 25. R&amp;D expenditures at universities and colleges, by state, control, and science and engineering field: FY 2003

(Dollars in thousands)

State, control, and institution	All R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
U. TX San Antonio	13,654	396	7,349	2,528	796	150	1,900	0	535
U. TX Southwestern Medical Ctr. Dallas	276,692	0	276,692	0	0	0	0	0	0
U. TX-Pan American	2,920	61	1,146	572	173	91	40	0	837
West TX A&M U.	4,734	334	1,593	46	56	1	28	2	2,674
Private	534,112	4,073	472,556	15,680	20,801	3,866	1,892	1,380	13,864
Abilene Christian U.	231	0	5	0	222	4	0	0	0
Baylor C. of Medicine	461,763	0	461,763	0	0	0	0	0	0
Baylor U.	4,203	791	196	255	1,730	143	135	902	51
Jarvis Christian C.	335	15	93	39	170	2	10	6	0
Rice U.	52,367	1,326	7,857	14,172	15,469	925	839	0	11,779
Southern Methodist U.	9,890	1,810	2,056	1,078	1,615	405	853	310	1,763
St. Mary's U. (San Antonio, TX)	300	0	0	0	0	0	0	162	138
TX Christian U.	3,693	93	207	13	819	2,381	49	0	131
Trinity U.	935	18	365	33	511	6	0	0	2
U. Dallas	97	0	2	25	64	0	6	0	0
Wiley C.	298	20	12	65	201	0	0	0	0
Utah	385,158	14,408	191,226	21,702	25,889	5,336	5,960	9,513	111,124
Public	362,601	14,265	187,819	19,972	22,133	4,640	4,476	9,029	100,267
U. UT	223,739	4,531	148,016	18,614	18,333	2,368	1,737	0	30,140
UT State U.	138,862	9,734	39,803	1,358	3,800	2,272	2,739	9,029	70,127
Private	22,557	143	3,407	1,730	3,756	696	1,484	484	10,857
Brigham Young U. all campuses	22,557	143	3,407	1,730	3,756	696	1,484	484	10,857
Vermont	106,581	640	95,534	1,414	2,416	1,024	143	3,174	2,236
Public	104,994	550	94,922	1,414	1,554	1,024	143	3,174	2,213
U. VT	104,994	550	94,922	1,414	1,554	1,024	143	3,174	2,213
Private	1,587	90	612	0	862	0	0	0	23
Middlebury C.	1,587 e	90 e	612 e	0 e	862 e	0 e	0 e	0 e	23 e
Virginia	776,026	66,427	415,731	28,701	58,478	18,956	20,615	637	166,481
Public	719,213	55,794	380,162	28,092	52,269	18,835	20,299	402	163,360
Christopher Newport U.	2,055	0	264	130	1,622	39	0	0	0
C. of William and Mary all campuses	43,974	30,325	2,225	1,359	8,339	380	1,346	0	0
George Mason U.	44,980	8,387	7,841	8,006	386	2,747	8,193	0	9,420
James Madison U.	4,484	64	974	1,995	642	376	188	108	137
Norfolk State U.	4,532	0	49	357	3,654	0	13	49	410
Old Dominion U.	30,324	3,563	2,970	1,757	1,852	873	1,021	0	18,288

TABLE 25. R&amp;D expenditures at universities and colleges, by state, control, and science and engineering field: FY 2003

(Dollars in thousands)

State, control, and institution	All R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
Radford U.	294	80	32	1	10	5	151	15	0
U. VA all campuses	206,199	2,657	141,784	6,695	15,315	6,367	1,352	230	31,799
VA Commonwealth U.	126,451	614	107,759	252	5,102	5,101	1,632	0	5,991
VA Military Institute	904	0	8	6	82	1	4	0	803
VA Polytechnic Institute and State U.	247,807	10,104	109,760	7,534	14,552	2,946	6,399	0	96,512
VA State U.	7,209	0	6,496	0	713	0	0	0	0
Private	56,813	10,633	35,569	609	6,209	121	316	235	3,121
Eastern VA Medical School	32,801	0	32,801	0	0	0	0	0	0
Hampton U.	18,673	10,595	2,028	259	4,868	0	155	0	768
Institute of Textile Technology	2,826 e	0 e	0 e	155 e	350 e	0 e	0 e	0 e	2,321 e
Roanoke C.	476	0	120	1	325	0	30	0	0
U. Richmond	1,470	7	386	160	524	86	74	233	0
VA Union U.	567 i	31 i	234 i	34 i	142 i	35 i	57 i	2 i	32 i
Washington	869,695	89,755	584,457	14,297	48,064	11,108	29,040	4,971	88,003
Public	869,076	89,399	584,261	14,297	47,997	11,108	29,040	4,971	88,003
Central WA U.	2,698	1,601	356	383	304	15	39	0	0
Eastern WA U.	1,156	10	201	20	30	16	879	0	0
Evergreen State C.	511	0	242	92	52	0	0	125	0
U. WA	684,814	82,846	474,742	12,705	33,589	8,640	15,229	0	57,063
WA State U.	175,181	3,691	107,386	1,004	13,497	1,821	12,660	4,846	30,276
Western WA U.	4,716	1,251	1,334	93	525	616	233	0	664
Private	619	356	196	0	67	0	0	0	0
Gonzaga U.	0	0	0	0	0	0	0	0	0
Whitman C.	619	356	196	0	67	0	0	0	0
West Virginia	120,514	6,253	68,153	809	6,929	462	1,593	1,056	35,259
Public	120,125	6,253	67,765	809	6,928	462	1,593	1,056	35,259
Bluefield State C.	54	0	18	0	0	0	0	0	36
Marshall U. Graduate C.	15,070	11	7,621	0	221	0	0	0	7,217
WV School of Osteopathic Medicine	188	0	188	0	0	0	0	0	0
WV State C.	65 i	0 i	57 i	0 i	8 i	0 i	0 i	0 i	0 i
WV U.	104,748	6,242	59,881	809	6,699	462	1,593	1,056	28,006
Private	389	0	388	0	1	0	0	0	0
Salem International U.	389 i	0 i	388 i	0 i	1 i	0 i	0 i	0 i	0 i

TABLE 25. R&amp;D expenditures at universities and colleges, by state, control, and science and engineering field: FY 2003

(Dollars in thousands)

State, control, and institution	All R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
Wisconsin	881,214	51,607	568,472	19,727	55,277	27,371	48,456	4,748	105,556
Public	758,773	51,607	456,430	19,625	54,382	27,168	47,795	1,529	100,237
U. WI Eau Claire	1,131	136	282	38	655	0	20	0	0
U. WI Green Bay	1,122	937	5	0	0	11	56	113	0
U. WI La Crosse	1,483	2	524	115	138	1	488	215	0
U. WI Madison	721,248	44,557	449,977	17,725	47,928	26,189	39,324	18	95,530
U. WI Milwaukee	27,259	4,472	2,999	1,652	5,112	700	7,622	0	4,702
U. WI Oshkosh	942	37	349	36	199	139	37	145	0
U. WI Parkside	559	46	298	0	74	114	0	27	0
U. WI River Falls	331	0	226	0	98	0	7	0	0
U. WI Stevens Point	1,980	539	1,305	0	69	4	58	0	5
U. WI Stout	1,437	0	350	51	12	10	3	1,011	0
U. WI Superior	1,057	881	61	0	4	0	111	0	0
U. WI Whitewater	224	0	54	8	93	0	69	0	0
Private	122,441	0	112,042	102	895	203	661	3,219	5,319
Marquette U.	11,385	0	2,972	102	857	203	649	3,219	3,383
Medical C. WI	108,608	0	108,608	0	0	0	0	0	0
Milwaukee School of Engineering	2,448	0	462	0	38	0	12	0	1,936
Wyoming	60,054	8,076	27,752	440	5,271	1,592	1,800	8,559	6,564
Public	60,054	8,076	27,752	440	5,271	1,592	1,800	8,559	6,564
U. WY	60,054	8,076	27,752	440	5,271	1,592	1,800	8,559	6,564
Guam	6,989	1,082	5,179	0	0	0	715	0	13
Public	6,989	1,082	5,179	0	0	0	715	0	13
U. GU	6,989	1,082	5,179	0	0	0	715	0	13
Puerto Rico	78,410	7,316	49,973	909	6,084	1,356	2,209	0	10,563
Public	62,626	7,316	34,203	909	6,070	1,356	2,209	0	10,563
U. PR Mayaguez Campus	20,029	5,396	703	464	3,330	0	81	0	10,055
U. PR Medical Sciences Campus	31,124	0	31,124	0	0	0	0	0	0
U. PR Rio Piedras Campus	11,473	1,920	2,376	445	2,740	1,356	2,128	0	508
Private	15,784	0	15,770	0	14	0	0	0	0
Ponce School of Medicine	7,491	0	7,491	0	0	0	0	0	0
Pontifical Catholic U. PR, The	19	0	5	0	14	0	0	0	0
Universidad Central del Caribe	8,274	0	8,274	0	0	0	0	0	0



TABLE 25. R&D expenditures at universities and colleges, by state, control, and science and engineering field: FY 2003

(Dollars in thousands)

State, control, and institution	All R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
Virgin Islands	15,762	1,551	10,222	2,865	793	0	331	0	0
Public	15,762	1,551	10,222	2,865	793	0	331	0	0
U. of the VI	15,762	1,551 i	10,222 i	2,865 i	793 i	0 i	331 i	0 i	0 i

e = estimated.

i = imputed.

nec = not elsewhere classified.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory, with \$607 million in total R&D expenditures.

NOTE: Because of rounding, detail may not add to total.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 26. R&amp;D expenditures at universities and colleges, ranked by FY 2003 R&amp;D expenditures: FY 1996–2003

(Dollars in thousands)

Institution and ranking	1996	1997	1998	1999	2000	2001	2002	2003
All institutions	23,045,577	24,369,598	25,854,724	27,529,522	30,067,188	32,796,894	36,370,421	40,077,399
1 Johns Hopkins U., The <sup>a</sup>	798,468	829,241	853,620	874,518	901,156	999,246	1,140,235	1,244,132
2 U. CA, Los Angeles	354,645	398,865	447,367	477,620	530,826	693,801	787,598	849,357
3 U. MI all campuses	468,876	483,485	496,761	508,619	551,556	600,523	673,724	780,054
4 U. WI Madison	412,570	419,810	443,695	499,688	554,361	604,143	662,101	721,248
5 U. WA	406,472	409,959	438,191	482,659	529,342	589,626	627,273	684,814
6 U. CA, San Francisco	320,757	343,384	379,970	417,095	443,013	524,975	596,965	671,443
7 U. CA, San Diego	371,509	376,655	418,790	461,632	518,559	556,533	585,008	646,508
8 Stanford U.	351,526	395,310	410,309	426,549	457,822	482,906	538,474	603,227
9 U. PA	288,430	296,141	333,477	383,569	430,389	469,852	522,269	564,716
10 Cornell U. all campuses	339,534	351,030	363,511	395,552	410,393	443,828	496,123	554,760
11 PA State U. all campuses	337,938	339,955	362,643	379,402	427,575	458,066	492,739	533,427
12 Duke U.	242,235	251,536	282,388	348,274	356,625	375,133	441,533	520,191
13 U. MN all campuses	341,179	363,095	360,323	371,384	411,380	462,011	494,265	508,557
14 U. CA, Berkeley	316,320	377,376	420,426	451,539	518,514	446,273	474,746	507,186
15 OH State U. all campuses	262,147	289,100	301,518	322,810	361,399	390,652	432,387	496,438
16 U. IL Urbana-Champaign	268,995	286,470	329,266	358,247	373,024	390,863	427,174	493,581
17 MA Institute of Technology	380,612	410,930	413,098	420,306	426,299	435,495	446,786	485,764
18 U. CA, Davis	254,604	267,341	288,796	307,950	364,789	432,396	456,653	482,145
19 Washington U. St. Louis	218,640	262,426	269,550	315,606	362,216	406,642	416,960	474,328
20 Baylor C. of Medicine	184,613	192,744	216,528	272,198	334,175	381,461	411,924	461,763
21 TX A&M U. all campuses	366,983	366,798	393,720	402,203	397,268	407,041	436,681	456,235
22 U. AZ	279,656	285,278	302,328	320,245	345,090	367,128	390,827	454,941
23 Columbia U. in the City of NY	236,403	244,337	267,007	279,587	319,693	354,497	405,403	437,669
24 U. CO all campuses	251,301	269,816	311,203	318,618 <sup>e</sup>	353,908 <sup>i</sup>	365,472	399,818	436,761
25 U. FL	255,099	272,373	274,862	304,447	313,692	347,892	386,316	429,734
26 U. Southern CA	244,258	259,246	268,806	280,741	300,445	340,597	372,397	414,099
27 U. Pittsburgh all campuses	189,826	202,533	213,842	249,477	294,809	348,792	400,200	409,684
28 Harvard U.	282,443	299,961	306,100	326,193	341,810	372,107	401,367	408,707
29 U. NC Chapel Hill	208,529	221,380	235,296	252,767	269,072	303,576	370,806	390,542
30 Yale U.	234,901	245,536	262,680	274,050	296,706	321,514	354,243	387,644
31 GA Institute of Technology all campuses	225,633	240,237	259,233	263,725	304,511	306,533	340,347	364,190
32 U. TX Austin	241,606	239,021	244,843	258,122	272,811	295,104	320,966	343,854
33 IN U. all campuses	154,260	165,198	171,754	194,790	227,737	259,899	299,080	337,669
34 Emory U.	149,168	163,619	172,884	189,170	206,070	236,997	271,238	323,224
35 U. MD College Park	216,957	215,927	223,190	257,628	252,429	267,383	324,980	321,899
36 MI State U.	182,589	190,178	193,611	207,912	238,436	265,946	289,787	321,410
37 Northwestern U.	187,262	200,943	223,235	233,809	245,774	257,933	282,154	319,722
38 U. TX M. D. Anderson Cancer Ctr.	120,964	129,578	141,260	155,126	182,196	212,746	262,145	315,169
39 LA State U. all campuses	196,328	205,441	208,928	225,808	251,233	268,911	287,363	314,665

TABLE 26. R&amp;D expenditures at universities and colleges, ranked by FY 2003 R&amp;D expenditures: FY 1996–2003

(Dollars in thousands)

Institution and ranking	1996	1997	1998	1999	2000	2001	2002	2003
40 Purdue U. all campuses	206,951	206,588	216,479	226,411	234,536	254,917	285,778	309,476
41 U. GA	209,357	225,457	217,945	237,493	258,476	272,298	284,660	299,748
42 U. MD Baltimore	122,207	134,808	143,321	140,903	224,346	239,007	266,822	297,271
43 U. IA	178,228	184,414	199,063	207,135	236,944	255,348	288,808	292,035
44 U. IL Chicago	121,540	139,296	151,739	175,093	195,839	233,098	259,852	291,507
45 NC State U.	190,748	229,292	254,254	270,621	277,946	299,259	290,018	286,025
46 U. Rochester	144,914	155,311	174,617	177,126	197,335	234,261	261,601	285,768
47 U. AL Birmingham, The	170,193	203,758	227,720	232,115	233,461	231,702	255,053	284,497
48 U. TX Southwestern Medical Ctr. Dallas	130,162	140,589	153,711	165,520	189,216	222,376	263,958	276,692
49 U. NE central administration	146,853 i	164,354 i	171,309 i	189,480 i	192,639	223,964	247,948	276,424
50 Vanderbilt U.	117,003	122,598	135,214	149,675	171,926	186,504	208,305	276,074
51 Rutgers, The State U. NJ all campuses	185,103	183,038	197,053	213,838	225,268	236,793	258,829	274,576
52 U. KY all campuses	118,721	124,804	161,346	174,034	202,392	211,721	236,275	272,062
53 U. Cincinnati all campuses	127,733	141,604	159,695	153,002	171,906	192,895	217,739	255,083
54 Case Western Reserve U.	143,435	161,825	176,330	182,332	193,057	198,253	219,042	250,674
55 VA Polytechnic Institute and State U.	143,815	169,808	167,118	169,250	192,672	216,323	232,560	247,807
56 U. Chicago	135,693	150,531	151,635	162,805	170,678	194,125	225,264	247,322
57 NY U.	145,874	153,288	156,452	167,179	182,205	190,722	222,978	241,593
58 CA Institute of Technology	157,005	177,888	185,066	212,216	222,666	215,085	220,004	240,664
59 SUNY Buffalo all campuses	137,701	135,663	151,650	166,823	187,692	186,829	226,959	240,180
60 U. CA, Irvine	119,647	119,669	130,415	141,842	158,437	179,866	209,469	234,656
61 Boston U.	110,266	120,392	130,054	141,102	154,029	172,031	192,612	224,841
62 U. UT	114,423	135,911	142,956	153,843	187,661	197,597	216,707	223,739
63 U. TN all campuses	149,331	154,230	150,694	158,930	163,690	161,898	188,261	217,389
64 Mt. Sinai School of Medicine	92,405	94,776	109,448	127,765	149,846	176,946	185,335	214,514
65 Wayne State U.	112,151	124,383	138,456	146,832	156,814	175,984	199,007	213,717
66 U. South FL	94,157	99,649	104,325	123,961	145,397	171,550	197,894	213,249
67 U. VA all campuses	97,334	114,085	139,135	131,138	140,416	149,547	182,340	206,199
68 U. MO-Columbia	119,079	128,178	136,061	149,002	158,861	174,782	177,011	205,212
69 SUNY Stony Brook all campuses	126,377	136,624	141,766	148,982	163,307	168,487	184,045	200,330
70 IA State U.	151,914	155,433	156,766	161,301	175,558	179,196	188,664	199,566
71 OR Health and Science U.	80,333	98,319	109,374 i	120,429 i	131,486	136,785	158,729	197,178
72 Rockefeller U.	105,595	109,999	115,494	121,519	124,138	145,571	166,603	192,143
73 U. of Medicine and Dentistry NJ	98,535	110,383	114,491	126,277	140,951	162,417	178,156	190,763
74 U. CT all campuses	147,522	140,840	134,448	134,986	161,084	164,366	172,003	190,341
75 CO State U.	126,701	128,580	140,179	150,281	152,279	161,144	178,845	187,054
76 Carnegie-Mellon U.	136,514	134,954	137,450	142,174	137,980	144,882	188,191	186,351
77 Princeton U.	112,380	114,549	115,996	124,237	134,875	149,411	164,408	179,951
78 U. HI Manoa	111,202	120,107	148,007	156,810	161,300	156,976	161,823	179,285
79 U. Miami	130,056	135,888	136,972	139,608	145,795	153,772	171,319	177,709

TABLE 26. R&amp;D expenditures at universities and colleges, ranked by FY 2003 R&amp;D expenditures: FY 1996–2003

(Dollars in thousands)

Institution and ranking	1996	1997	1998	1999	2000	2001	2002	2003
80 Yeshiva U.	91,430	96,819	99,000	111,771	139,618	148,230	157,124	177,236
81 WA State U.	98,641	97,700	95,422	96,943	104,796	107,937	146,862	175,181
82 U. OK all campuses	109,071	114,387	126,861	142,085	150,902	148,695	169,373	174,466
83 U. KS all campuses	100,649	108,893	117,115	132,752	148,670	156,467	172,131	173,024
84 OR State U.	131,334	131,467	138,240	139,285	140,751	153,925	161,735	167,631
85 MS State U.	84,124	84,157	100,410	110,896	132,503	146,939	158,652	165,922
86 U. NM all campuses	116,618	116,152	125,910	115,850	133,980	156,619	150,598	158,239
87 Dartmouth C.	52,945	61,619	64,964	69,522	78,874	109,096	126,839	155,795
88 U. TX Medical Branch	73,759	77,683	86,488	93,580	97,896	102,722	129,534	153,122
89 Clemson U.	84,836	84,034	90,150	99,341	114,903	123,885	134,840	152,986
90 FL State U.	78,125	95,908	94,463	97,673	105,095	113,817	134,351	152,277
91 Medical U. SC	54,426	57,111	57,940	55,819	65,243	116,687	132,030	150,551
92 U. TX Health Science Ctr. Houston	82,803	95,638	101,993	105,307	119,587	125,439	138,380	149,294
93 U. CA, Santa Barbara	91,284	91,149	96,034	104,561	118,154	116,372	131,795	149,130
94 U. MA Worcester	63,341	71,346	82,950	83,040	97,587	111,221	132,729	148,823
95 AZ State U. main campus	84,653	80,740	92,019	107,184	108,117	118,763	123,016	145,591
96 UT State U.	81,709	91,292	94,228	95,364	103,161	121,359	121,621	138,862
97 U. TX Health Science Ctr. San Antonio	83,028	86,019	82,357	87,804	103,824	115,154	129,616	133,304
98 Wake Forest U.	75,331	75,290	76,893	82,827	86,840	98,343	111,634	130,405
99 U. AK Fairbanks all campuses	71,381	70,943	75,606	88,825	102,500	110,195	116,279	128,916
100 VA Commonwealth U.	79,018	78,948	80,538	79,785	88,220	99,180	109,619	126,451
101 Brown U.	67,621	71,411	73,977	76,330	81,476	91,636	109,482	125,090
102 Auburn U. all campuses	87,358	85,460	87,768	80,544	92,612	106,347	108,775	124,103
103 U. SC all campuses	78,619	77,855	92,785	105,835	104,398	109,973	123,108	121,410
104 SUNY Albany	66,247	57,415	50,568	64,278	82,792	70,119	67,493	120,655
105 Tulane U.	83,660	86,427	87,858	87,324	89,785	99,761	102,998	117,709
106 U. MA Amherst	73,678	85,811	89,970	86,576	96,907	97,976	109,332	113,512
107 KS State U.	71,222	76,896	81,233	85,580	91,790	94,030	106,804	112,733
108 Tufts U.	79,356	83,568	92,130	100,872	105,783	105,806	109,291	112,609
109 U. CA, Riverside	71,495	75,486	79,775	75,821	83,580	94,455	111,936	112,468
110 Thomas Jefferson U.	69,154	69,228	69,460	78,410	89,626	88,936	102,974	109,083
111 NM State U. all campuses	76,493	81,024	77,370	79,877	79,695	86,963	103,078	108,613
112 Medical C. WI	47,365	51,629	56,021	61,446	70,581	83,857	96,700	108,608
113 U. VT	53,659	59,526	57,832	64,049	63,391	75,597	88,602	104,994
114 WV U.	54,844	63,312	62,362	63,392	66,130	71,311	84,985	104,748
115 Woods Hole Oceanographic Institution	73,015	77,407	75,011	71,722	81,547	91,029	99,964	104,223
116 OK State U. all campuses	82,960	62,480	71,466	83,108	88,285	90,311	94,987	103,079
117 U. DE	54,154	65,095	69,896	73,521	74,711	77,491	85,157	100,706
118 Georgetown U.	112,582	119,114	116,611	111,426	133,211	99,228	96,450	100,181
119 U. NH	45,693	45,886	52,359	57,613	72,108	87,879	93,222	96,415

TABLE 26. R&amp;D expenditures at universities and colleges, ranked by FY 2003 R&amp;D expenditures: FY 1996–2003

(Dollars in thousands)

Institution and ranking	1996	1997	1998	1999	2000	2001	2002	2003
120 TX Tech U.	43,000	46,645	53,126	58,488	66,263	69,918	82,785	92,515
121 George Washington U.	49,263	55,158	74,481	66,757	69,300	73,805	86,288	92,454
122 ND State U. all campuses	43,661	35,197	40,007	44,696	50,063	64,882	72,105	91,812
123 MT State U. Bozeman	50,097	49,440	52,292	55,475	65,324	69,593	78,211	91,503
124 U. Central FL	21,488	38,592	35,530	42,466	47,646	79,287	66,351	89,880
125 Rush U.	48,772	49,969	55,277	60,957	68,189	70,219	79,394	89,196
126 U. Louisville	29,655	33,434	39,147	57,051	64,062	72,857	80,974	88,522
127 U. MS all campuses	26,215	26,231	28,079	32,129 i	44,927	58,410 i	71,893 i	85,378
128 U. ID	56,198	57,582 i	58,967	62,531	61,347	67,496	76,758	85,213
129 U. AR main campus	59,753	64,868	71,686	61,585	70,817	78,303	83,063	82,277
130 U. NV, Reno	47,977	52,703	45,476	47,939	56,248	59,229	66,721	80,553
131 U. CA, Santa Cruz	51,062	49,428	56,533	52,902	56,212	64,253	70,967	78,448
132 NJ Institute of Technology	39,110	38,728	40,982	40,982	47,895	62,747	69,138	73,664
133 Temple U.	56,533	54,500	63,024	53,940	52,466	60,182	63,850	71,327
134 Drexel U.	19,322	19,267	19,603	22,397	24,876	27,698	44,465	69,548
135 U. ME	34,684	33,144	33,106	41,452	54,821	64,070	62,149	68,923
136 San Diego State U.	43,201	40,586	41,915	45,579	55,002	58,332	64,302	67,053
137 U. AR for Medical Sciences	33,354	37,336	39,487	44,066	49,074	51,921	45,046	63,677
138 U. Houston	49,178	45,916	42,297	43,370	48,902	51,567	59,707	63,455
139 U. RI	39,575	40,522	37,940	44,452	48,135	50,835	53,347	61,818
140 Naval Postgraduate School	30,706	32,333	34,095	34,095 e	40,827 i	47,559 i	54,291 i	61,025
141 U. WY	40,553	47,753	48,500	47,197	43,094	41,632	41,632 e	60,054
142 U. of Notre Dame	24,556	24,116	28,873	30,483	34,524	46,096	52,371	59,803
143 Medical C. GA	35,971	38,725	39,806	41,103	45,596	52,191	51,705	56,398
144 TX A&M U. System Health Science Ctr.	NA	NA	NA	NA	25,736	40,859	49,636	55,031
145 Southern IL U. Carbondale	28,578	30,043	30,490	33,169	36,354	43,207	53,604	53,018
146 U. Dayton	43,188	45,437	45,000	36,937	39,345	41,343	46,554	52,943
147 Rice U.	39,696	43,601	41,067	41,069	41,840	42,675	48,169	52,367
148 FL International U.	16,856	17,359	17,880	25,061	34,649	44,291	47,654	52,175
149 Brandeis U.	36,760	40,145	44,589	48,305	47,658	52,818	47,122	50,841
150 Rensselaer Polytechnic Institute	37,917	38,803 e	38,560	39,034	40,762	45,010	45,955	50,777
151 Charles R. Drew U. of Medicine and Science	16,386	17,205 e	17,205 e	24,484	31,045	36,717	48,839	49,888
152 Syracuse U. all campuses	34,322	34,642	37,322	39,640	40,063	42,476	45,870	48,846
153 U. AL Huntsville, The	38,176	32,817	36,946	40,203	41,274	43,731	48,353	46,595
154 GA State U.	18,114	27,069	31,153	36,523	36,600	38,960	44,564	45,653
155 George Mason U.	23,230	19,126	22,543	26,766	26,793	32,881	38,849	44,980
156 U. OR	33,654	31,487	33,315	32,695	35,934	36,881	43,723	44,604
157 C. of William and Mary all campuses	25,183	24,051	25,966	31,322	33,299	35,829	39,858	43,974
158 U. LA Lafayette	13,429	22,381	24,768	30,735	32,692	32,073	47,796	43,769
159 U. MT, The	21,421	21,151	20,133	24,372	29,590	33,535	39,367	43,562

TABLE 26. R&amp;D expenditures at universities and colleges, ranked by FY 2003 R&amp;D expenditures: FY 1996–2003

(Dollars in thousands)

Institution and ranking	1996	1997	1998	1999	2000	2001	2002	2003
160 Northeastern U.	17,980	19,822	26,385	30,209	35,340	34,467	38,540	42,931
161 U. MD Baltimore County	14,304	19,799	18,155	21,854	26,044	29,641	36,323	42,906
162 U. NV, Las Vegas	16,893	15,628	16,912	20,170	24,215	27,008	30,527	42,205
163 U. ND all campuses	28,188	20,899	16,938	16,999	17,343	19,692	33,973	41,803
164 St. Louis U. all campuses	25,099	26,517	26,943	27,817	31,002	32,442	35,444	41,189
165 U. MD Biotechnology Institute	22,933	29,117	31,861	31,172	29,946	32,458	34,440	39,789
166 U. Memphis, The	18,429	21,271	22,486	24,280	27,381	29,445	33,625	38,728
167 SUNY Health Science Ctr. Brooklyn	30,254 i	29,727	27,517	28,840	31,626	31,626 e	34,981 i	38,424 i
168 U. MD Ctr. for Environmental Science	21,448	21,377	24,038	26,816	31,605	36,635	38,501	38,344
169 Loyola U. Chicago	29,365	30,994	34,241	29,001	30,034	37,156	37,607	37,581
170 Howard U.	28,894	27,873	23,673	23,557	27,254	30,148	35,387	37,577
171 OH U. all campuses	18,329	21,008	21,469	21,437	23,767	27,146	36,601	37,527
172 NM Institute of Mining and Technology	20,580	21,974	22,791	26,061	23,636	28,392	36,309	37,186
173 AL A&M U.	9,615 i	9,813 e	14,143	11,562	8,238	11,977 i	15,717	36,856
174 U. MO-Rolla	20,235	20,895	21,740	25,893	25,968	28,799	32,222	35,999
175 U. Southern MS	9,112	9,078	11,117	16,211	17,706	20,286	25,685	35,049
176 Wright State U. all campuses	17,381	17,291	19,676	23,131	29,092	32,033	30,962	34,860
177 U. AL, The	21,806	23,671	23,935	28,909	31,847	33,133	37,130	34,187
178 Eastern VA Medical School	17,730	19,109	21,672	24,096	23,299	26,250	28,572	32,801
179 CUNY Hunter C.	15,021	14,037	13,497	15,934	15,047	19,964	25,905	32,704
180 Boston C.	14,504	14,746	17,774	21,726	27,767	30,768	31,754	32,158
181 Desert Research Institute	20,100	20,000	21,500	23,376	25,691	29,697	29,465	31,757
182 U. PR Medical Sciences Campus	15,005	15,575	19,830	17,114	21,373	23,913	29,089	31,124
183 U. MO-Kansas City	12,597	11,734	12,875	14,331	19,647	18,795	24,060	31,104
184 U. TX Dallas	13,562	14,561	15,211	16,028	15,684	15,684 e	26,198	30,748
185 Uniformed Services U. of the Health Sciences	36,851	18,812	20,309	22,898	23,987	23,247	28,630	30,604
186 NY Medical C.	16,372	16,890	19,159	20,436	23,348	24,283	25,222	30,492
187 Old Dominion U.	17,577	18,583	20,150	23,030	25,058	24,659	29,223	30,324
188 MI Technological U.	23,882	24,140	26,522	28,074	27,204	29,613	30,005	30,264
189 Lehigh U.	34,780	26,451	26,115	27,902	25,506	29,058	22,687	29,211
190 CO School of Mines	19,291	19,221	20,681	21,715	21,795	23,654	26,515	29,162
191 Jackson State U.	5,224	5,135	6,111	8,823	12,027	25,663	25,445	28,843
192 San Jose State U.	21,005 i	21,005 i	21,005 e	21,005 e	21,005 e	22,709	25,003	28,323
193 U. Akron all campuses	15,507	17,999	16,326	16,279	19,495	22,266	28,080	27,953
194 SD State U.	14,925	15,671	15,631	15,599	16,784	19,717	20,085	27,652
195 U. WI Milwaukee	19,679	19,995	20,807	21,325	20,010	23,492	24,933	27,259
196 U.S. Air Force Academy	3,279 i	3,720 i	4,163	3,761	4,551	5,323	25,589	27,198
197 U. TX El Paso	13,548	15,850	14,092	21,961	20,877	21,889	23,684	27,185
198 Morehouse School of Medicine	13,206	13,218	13,614	13,622	16,889	19,670	23,956	27,154
199 SUNY C. of Environmental Science and Forestry	21,969	20,540	22,036	25,385	26,663	27,854	26,337	26,783

TABLE 26. R&amp;D expenditures at universities and colleges, ranked by FY 2003 R&amp;D expenditures: FY 1996–2003

(Dollars in thousands)

Institution and ranking	1996	1997	1998	1999	2000	2001	2002	2003
200 Loma Linda U.	10,837	13,396	12,788	18,818	24,369	24,183 i	23,996	26,296
201 FL Atlantic U.	10,576	10,521	14,265	17,151	19,535	25,111	23,995	25,946
202 SUNY Upstate Medical U.	14,093	14,914	14,089	15,099	17,095	17,294	22,326	25,931
203 IL Institute of Technology	16,000	16,182	14,013	13,438	13,734	14,722	19,909	25,744
204 Meharry Medical C.	11,212	11,212 e	11,212 e	9,460	9,460 e	14,984 i	20,508	25,427
205 Catholic U. America, The	7,427	8,845	9,418	13,317	9,329	17,539	22,883	24,475
206 U. AR Little Rock	NA	NA	NA	NA	3,400 e	2,088	2,088 e	24,284
207 U. Toledo	8,180 e	8,729	11,512	11,819	13,694	16,278	24,825	24,123
208 Creighton U.	11,641	13,127	15,011	16,015	15,841	17,674	18,982	24,116
209 FL A&M U.	22,474	25,415	19,066	21,622	21,612	23,865	31,147	23,503
210 SUNY Binghamton	18,500	19,310	20,754	17,998	18,661	18,992	21,343	23,090
211 U. MA Lowell	18,515	18,695	19,372	19,413	19,334	20,656	22,827	22,783
212 Brigham Young U. all campuses	11,791 e	11,502 e	11,963	23,985	17,237	19,171	21,228	22,557
213 Wichita State U.	9,904	11,797	13,117	14,555	16,213	16,142	18,842	22,401
214 Western MI U.	9,606	10,035	11,532	13,727	14,230	14,976	19,023	21,571
215 Portland State U.	9,376	9,285	10,507	13,940	16,494	16,838	17,683	21,433
216 U. PR Mayaguez Campus	44,502	48,857	51,181	55,648	34,683	18,627	19,939	20,029
217 U. South AL	14,873	13,083	11,990	11,990 e	9,865	9,865 e	17,692	19,371
218 Hampton U.	3,854	8,002	7,140	7,472	9,323	9,158	11,067	18,673
219 Medical C. OH	13,367	13,469	11,425	12,467	13,747	15,276	17,040	18,233
220 CUNY City C.	22,166	22,526	21,147	15,888	17,059	17,099	17,103	17,712
221 Northern AZ U.	11,572	10,800	11,652	11,857	12,570	14,657	17,263	17,446
222 NC Agricultural and Technical State U.	15,991	15,817	14,816	14,741	13,400	15,629	15,353	17,304
223 Rochester Institute of Technology	8,118	8,398	8,133 e	9,340 e	4,755	11,416	13,500	17,197
224 Southern IL U. Edwardsville	1,355 i	1,161 i	966	1,316	1,344	1,270	14,043	17,100
225 U. MA Dartmouth	4,092	4,197	4,902	5,820	6,905	9,488	15,030	16,476
226 U. MA Boston	10,898	11,194	11,491	11,132	12,058	11,672	13,121	15,793
227 U. of the VI	4,828	4,828 e	4,828 e	3,310	3,310 e	8,645 i	13,981	15,762
228 Institute of Paper Science and Technology	12,532 i	15,424 e	15,424 e	10,533 e	10,533 e	13,929	13,929 e	15,494 i
229 Stevens Institute of Technology	15,249	12,179	12,944	13,794	15,879	13,855	13,855 e	15,412 i
230 U. North TX Health Science Ctr. Ft. Worth	6,499	7,258	8,921	9,689	10,131	11,035	12,893	15,388
231 U. West FL	3,072 i	3,683 i	4,294	4,588	6,248	7,395	8,652	15,354
232 U. TX Arlington	24,010	37,509	19,075	11,450	10,723	17,486	15,097	15,102
233 Marshall U. Graduate C.	234	180	25	66	6,231	7,218	11,285	15,070
234 LA Tech U.	3,100	5,379 i	7,659	7,659 e	10,228	9,986	12,110	15,055
235 Mercer U. all campuses	13,641	13,704	14,995	17,250	18,138	15,337	12,998	14,996
236 Kent State U. all campuses	11,497	11,439	12,690	11,083	10,817	11,316	12,868	14,549
237 TN State U.	9,137	8,629	9,329	10,762	11,285	12,791	15,262	14,306
238 Cleveland State U.	10,690 i	10,884 e	11,211 e	11,893 e	10,214	12,986	13,855	14,112
239 U. North TX	11,250	10,678	8,813	7,487	9,108	14,224	13,227	13,990

TABLE 26. R&amp;D expenditures at universities and colleges, ranked by FY 2003 R&amp;D expenditures: FY 1996–2003

(Dollars in thousands)

Institution and ranking	1996	1997	1998	1999	2000	2001	2002	2003
240 CA State U. Long Beach	5,843	5,843	18,563 i	31,283	32,551	3,995	8,026	13,732
241 Miami U. all campuses	8,847	9,644	6,738	10,964	10,674	12,804	13,279	13,727
242 U. TX San Antonio	5,538	15,890	7,220	7,780	10,292	11,331	11,115	13,654
243 CA State Polytechnic U. San Luis Obispo	5,324 i	5,648 i	5,972	11,892	12,133	12,193	14,002	13,598
244 CA State U. Fresno	7,546 i	8,785	10,345	11,450	11,598	4,531	9,398	13,558
245 Albany Medical C.	7,888	6,965	8,236	10,377	11,522	12,836	13,104	13,394
246 Rose-Hulman Institute of Technology	851 i	943 i	1,035 i	1,132	4,994	18,540	7,912	13,201
247 East TN State U.	2,255	2,252	3,152	3,351	6,494	8,222	11,701	12,971
248 U. MO-St. Louis	7,600	8,150	9,462	10,294	9,898	10,084	11,519	12,819
249 U. NC Wilmington	6,604 i	6,905 i	7,208	7,647	7,859	10,307	14,568	12,762
250 Clark Atlanta U.	34,566	28,893	29,637	19,467	16,891	17,173	17,194	12,760
251 U. NC Charlotte	6,014 i	6,340 i	6,669	9,041	7,790	7,905	8,773	12,599
252 East Carolina U.	6,817	6,600	7,644	9,014	8,461	10,535	11,513	12,520
253 San Francisco State U.	5,231 i	5,155 i	5,079 i	5,000 e	5,223 e	5,223 e	14	12,500
254 Air Force Institute of Technology	5,877	7,619	4,240	4,316	7,771	8,311	9,243	12,454
255 Northern IL U.	11,674	7,466	6,725	6,455	7,431	9,028	10,366	12,368
256 Worcester Polytechnic Institute	9,407	10,710	9,637	9,618	10,315	9,348	10,493	12,357
257 ID State U.	8,732	5,495	10,016	5,642	8,899	8,847	10,119	12,243
258 Polytechnic U.	10,964	8,452	6,373	9,050	15,500	8,277	10,915	12,142 i
259 CA State U. Northridge	3,940 i	3,059 i	2,175	3,230	6,190	6,190 e	10,619	11,638
260 U. Tulsa	9,565	9,776	8,235	10,040	10,054	12,553	11,603	11,527
261 U. PR Rio Piedras Campus	6,116	6,671	9,959	9,885	9,308	10,341	9,736	11,473
262 Marquette U.	5,946	5,855	6,763	6,469	7,653	7,236	9,807	11,385
263 Prairie View A&M U.	10,621	9,768	9,952	10,157	9,464	11,297	10,444	11,193
264 U. SD	5,500	4,586	4,959	5,762	4,742	5,546	8,368	11,148
265 Southern U. and A&M C. all campuses	10,748	10,249	9,063	9,296	8,302	9,052 i	10,012 i	10,997 i
266 SD School of Mines and Technology	5,015	4,301	4,550	4,161	5,743	6,922	9,692	10,853
267 U. AK Anchorage all campuses	0 i	0 i	0 e	4,782	4,782 e	8,233 i	11,685 e	10,816
268 U. LA Monroe	6,134	7,112	6,140	8,135	8,135 e	8,870 i	9,811 i	10,777 i
269 TX A&M U. Corpus Christi	NA	NA	NA	NA	5,999	5,606	9,124	10,281
270 TX A&M U. Kingsville	5,933 i	6,623 i	7,317	6,397	7,404	6,919	8,208	10,203
271 Tuskegee U.	9,061	33,046	37,354	9,223	8,893	9,539	9,965	10,067
272 U. Denver	8,349	9,019	10,589	10,247	8,383	12,944	10,539	9,949
273 Finch U. of Health Sciences/Chicago Medical School	7,022	6,672	6,672 e	6,764	7,587	8,037	8,645	9,923
274 Southern Methodist U.	9,050	8,220	7,964	9,401	9,713	8,948	9,774	9,890
275 TN Technological U.	9,188	9,053	9,661	9,204	8,878	9,347	9,823	9,609
276 Teachers C. Columbia U.	1,005	1,381	6,775	7,206	8,561	9,676	10,409	9,603
277 Tarleton State U.	2,987	2,695	3,954	3,905	3,872	6,607	7,871	8,534
278 Universidad Central del Caribe	2,626	2,456	3,558 i	4,660	5,677	6,943	7,103	8,274
279 FL Institute of Technology	8,013	5,077	5,848	5,830	6,058	6,195	6,669	8,004



TABLE 26. R&amp;D expenditures at universities and colleges, ranked by FY 2003 R&amp;D expenditures: FY 1996–2003

(Dollars in thousands)

Institution and ranking	1996	1997	1998	1999	2000	2001	2002	2003
280 Harvey Mudd C.	3,819 i	4,444 i	5,069 i	5,699 e	5,699 e	6,443 i	7,306 i	7,997 i
281 Southwest TX State U.	3,376 i	3,339 i	3,299	3,597	4,507	8,884	8,109	7,621
282 Alcorn State U.	3,368	4,243 i	5,119	5,223	8,034	7,370	5,809	7,619
283 Boise State U.	3,102	3,211	3,412	3,501	3,480	6,153	6,446	7,583
284 CA State U. San Bernardino	294 i	340 i	390	3,301	1,797	1,906	3,740	7,576
285 Humboldt State U.	3,937 i	4,175 i	4,417	5,557	5,557 e	6,282 i	7,123 i	7,573 i
286 Morgan State U.	3,768 i	3,873 i	3,981	1,066	4,371	2,390	1,674	7,493
287 Ponce School of Medicine	4,450	2,802	2,953 i	3,105	3,403	3,842	4,365	7,491
288 Clarkson U.	8,264	6,964	6,345	6,989	7,751	8,322	8,322 e	7,466
289 Bowling Green State U. all campuses	3,942	3,542	3,392	3,454	3,454 e	5,028	5,327	7,336
290 VA State U.	3,270	3,988	3,338	2,611	4,422	5,066	7,144	7,209
291 CA State U. Los Angeles	2,029 i	1,531 i	1,033 i	535	9,062	5,557	7,933	7,073
292 U. GU	2,789 i	2,801 i	2,819	2,829	4,130	3,752	4,571	6,989
293 Duquesne U.	861	1,396	1,297	2,025	2,662	5,003	5,955	6,848
294 Wesleyan U.	5,245	5,927	5,146	5,373	5,673	5,846	5,614	6,682
295 Embry-Riddle Aeronautical U.	2,436 i	2,540 i	2,647	2,647 e	2,700 e	7,711	5,102	6,641
296 U. AR Pine Bluff	3,424	3,974	4,151	4,151 e	4,695 i	5,240	5,976	6,543
297 CUNY Queens C.	2,980	2,686	3,353	3,083	3,827	4,595	6,718	6,430
298 KY State U.	2,773	2,139	713	713 e	2,354 i	3,996	6,188	6,395
299 Alfred U. all campuses	4,217	3,694	5,275	5,857	6,442	6,678	6,916	6,360
300 Oakland U.	6,832	6,598	7,272	6,422	6,422 e	7,397	6,869	6,175
301 MT Tech of the U. MT	3,474 i	3,852 i	4,230 i	4,613	4,155	4,616	4,797	6,155
302 Rowan U.	NA	NA	NA	NA	NA	NA	NA	6,011
303 Villanova U.	2,040	2,141	4,714	3,950	5,280	5,380 i	5,481 e	6,000 i
304 Wellesley C.	4,944	4,943	4,943 e	5,128 i	5,313 i	5,498	5,498 e	5,733
305 Clark U.	1,954	2,417	2,147	2,651	2,908	3,039	3,418	5,638
306 CUNY Brooklyn C.	2,800	2,969	3,132 e	5,293	6,342	6,442	6,217	5,575
307 Xavier U. LA	5,188	5,527	5,388	3,294	3,425	5,113	6,413	5,515
308 CA State U. Fullerton	1,749 i	1,749 i	1,749 e	3,632 i	5,515 i	7,398 i	9,282	5,318
309 U. HI Hilo	NA	NA	NA	NA	NA	NA	10,841	5,317
310 Stephen F. Austin State U.	3,990	5,083	4,213	4,892	5,289	4,994	5,582	4,954
311 Nova Southeastern U.	1,258	1,402	1,986	3,106	2,919	2,594	3,327	4,752
312 West TX A&M U.	1,711 i	2,131 i	2,551	2,267	1,751	4,515	5,261	4,734
313 Western WA U.	3,249 i	3,481 i	3,716	3,894	3,433	3,560	4,019	4,716
314 Bryn Mawr C.	3,432	7,016	4,231	3,929	2,791	3,066	3,502	4,705
315 Norfolk State U.	2,239	1,401	2,524	2,995	3,408	3,984	4,967	4,532
316 CA State U. Dominguez Hills	4,547 i	5,869 i	7,191 i	8,517	998	4,311	3,970	4,503
317 James Madison U.	1,303 i	1,434 i	1,568	1,781	1,121	1,449	2,867	4,484
318 CA State U. Bakersfield	418 i	346 i	274 i	200 e	3,703	3,703 e	4,199 i	4,464 i
319 CA State U. Chico	1,629	3,558	3,376	3,106	2,390	3,904	5,486	4,427

TABLE 26. R&amp;D expenditures at universities and colleges, ranked by FY 2003 R&amp;D expenditures: FY 1996–2003

(Dollars in thousands)

Institution and ranking	1996	1997	1998	1999	2000	2001	2002	2003
320 U. North FL	NA	NA	NA	NA	NA	1,222	2,061	4,421
321 Northeastern OH Universities C. of Medicine	2,493	2,990	2,918	3,389	4,011	4,532	4,525	4,364
322 Langston U.	2,521	1,828	2,031	2,340	2,553	2,863	3,975	4,332
323 Western KY U.	4,160 i	5,249 i	6,342	3,287	3,770	4,165	5,281	4,263
324 Baylor U.	1,251	2,233	2,032	2,032 e	3,307	2,698	3,868	4,203
325 U. DC	3,244	3,244 e	3,074	3,394	2,737	3,001	4,223	4,125
326 Eastern MI U.	1,318 i	1,381 i	1,444 i	1,512	4,118	2,992	3,164	4,051
327 Lamar U.	2,407	1,988	3,051	3,739	3,204	3,441	4,030	4,029
328 CUNY Herbert H. Lehman C.	1,199	1,247 e	1,308 i	1,370	1,632	2,255	2,955	3,981
329 IL State U.	4,608	4,596	4,688 e	4,326	4,434	3,902	3,848	3,963
330 DE State U.	2,071	1,947	2,883	2,765	3,415	2,494	3,162	3,944
331 CA State Polytechnic U. Pomona	1,847 i	1,589 i	1,331 i	1,069	1,703	2,498	2,806	3,922
332 Ball State U.	2,667	3,076	2,361	2,056	2,429	3,071	4,008	3,878
333 Fordham U.	2,712	3,663	2,247	3,134	3,584	3,639	3,793	3,814
334 C. Charleston	1,717 i	1,853 i	1,989	2,100	3,047	3,069	3,295	3,716
335 TX Christian U.	2,787	3,175	3,125	4,061	3,050	3,678	3,300	3,693
336 U. NC Greensboro	2,028	1,882	2,619	2,368	2,368 e	3,881	4,454	3,454
337 U.S. Naval Academy	3,881 i	3,268 i	2,651	2,316	2,786	3,140	2,324	3,451
338 New School U.	4,801 i	5,011	3,705	5,230	5,209	5,791	5,791 e	3,435
339 Santa Clara U.	1,954 i	2,077 i	2,189 i	2,326 i	2,509 i	2,723 i	3,024 i	3,364 i
340 Williams C.	1,853 i	1,853 i	1,853 e	1,853 e	1,853 e	2,407 i	2,961	3,295
341 Sam Houston State U.	5,490	5,849	4,532	3,892	3,053	2,441	2,976	3,269 i
342 U. Central AR	NA	NA	NA	NA	1,758	2,405	2,306	3,229
343 SC State U.	3,000	2,855	2,885	2,900	2,915	2,915 e	2,931	3,225
344 SUNY C. of Optometry	641	499	668	1,135	1,001	1,435	1,750	3,187
345 Mt. Holyoke C.	936 i	980 i	1,033	1,721	1,835	1,734	2,644	3,174
346 TX Southern U.	3,820	3,867	2,690	2,507	2,182	2,468	4,189	3,088
347 DePaul U.	1,300	1,103	1,233	1,028	863	1,628	2,389	3,086
348 CUNY Graduate Ctr.	4,224 i	4,999	5,109	1,098	739	2,906	2,391	3,068
349 Fisk U.	1,969	1,969 e	2,909	4,034	3,401	2,722	3,030	3,000
350 TX Woman's U.	1,818	2,224	2,359	2,179	3,005	2,898	2,822	2,932
351 U. TX-Pan American	1,434 i	1,547 i	1,664	1,684	1,688	2,279	2,336	2,920
352 Southern CT State U.	245 i	227 i	209 i	188	596	596 e	361	2,911
353 Ft. Valley State U.	2,474	2,863	2,989	2,937	2,768	2,768 e	2,985	2,892
354 C. NJ, The	NA	NA	NA	NA	NA	NA	2,686	2,856 i
355 Institute of Textile Technology	2,781	2,813	2,776	2,346	2,638	3,171	2,826	2,826 e
356 Murray State U.	1,059	1,490	2,043	1,966	2,084	2,331	2,112	2,778
357 Hampshire C.	2,782 i	3,185	2,972	2,900	2,658	3,152	3,224	2,754
358 Midwestern U. (Chicago, IL)	1,512	2,250	1,840	1,701	2,470	2,421	2,562	2,725
359 Central WA U.	1,237 i	1,400 i	1,563 i	1,731	2,006	1,880	1,738	2,698

TABLE 26. R&amp;D expenditures at universities and colleges, ranked by FY 2003 R&amp;D expenditures: FY 1996–2003

(Dollars in thousands)

Institution and ranking	1996	1997	1998	1999	2000	2001	2002	2003
360 St. Joseph's U.	413 i	504 i	595	311	975	1,628	2,703	2,660
361 CA State U. Monterey Bay	NA	NA	NA	NA	NA	1,911	1,911 e	2,644
362 AR State U. main campus	899 i	930 i	962	1,527	1,203	1,347	1,278	2,634
363 Occidental C.	2,220 i	2,220 i	2,220 e	862	826	1,543	2,503	2,633
364 SUNY C. Buffalo	2,570	2,448	1,157	1,689	1,683	1,552	1,969	2,610
365 Lincoln U. (Jefferson City, MO)	2,970	2,899	3,313	2,686	2,502	2,236	3,291	2,601
366 U. Scranton	2,355 i	2,608 i	2,861 i	3,114 i	3,367 i	3,620 i	3,873	2,599
367 NM Highlands U.	2,585	2,627 i	2,669 i	2,712	6,511	2,235	2,706	2,585
368 Maharishi U. of Management	0	0	0	0	1,632	1,612	3,112	2,541
369 CUNY C. Staten Island	901	794	1,014	979	1,208	1,635	1,944	2,540
370 American U.	3,279	3,029	3,453	2,987	2,245	2,565	4,420	2,517
371 GA Southern U.	1,009 i	951 i	893 i	833	944	841	1,127	2,488
372 Milwaukee School of Engineering	1,335 i	1,518 i	1,704	1,776	2,020	2,117	2,499	2,448
373 Morehouse C.	592	592 e	592 e	2,853	2,853 e	2,853 i	2,853 i	2,410 i
374 Savannah State U.	317	316	331	513	905	2,181	2,206	2,345 i
375 Central MI U.	1,043	843 e	0	755	755 e	2,032	2,252	2,339
376 St. Cloud State U.	1,301 i	1,617 i	1,935	1,935 e	1,935 e	2,066 i	2,197 i	2,329
377 Spelman C.	1,084	2,553	1,744	2,007	2,082	3,406	3,082	2,298
378 U. Northern CO	561	799	736 e	701	1,128	1,265	1,376	2,240
379 Grand Valley State U.	1,810	1,247	892	992	1,138	1,161	2,374	2,237
380 Middle TN State U.	535	465	297	618	733	799	479	2,219
381 Grambling State U.	1,455	2,634	1,997	1,997 e	2,264	2,264 e	2,452	2,218
382 Bowie State U.	49	2,672	4,511	2,675	2,675 e	2,207	2,330	2,206
383 Smith C.	1,536 i	1,344	1,295	1,107	2,582	2,578	1,827	2,194
384 Ithaca C.	1,013 i	1,256 i	1,499	2,066	2,565	2,034	2,513	2,187
385 Albany State U.	3,687 e	3,687 e	1,019	1,019 e	1,393	1,972	1,987	2,178
386 New England C. of Optometry	723	1,111	1,734	1,643	1,228	1,608	2,154	2,166
387 Vassar C.	596 i	596 i	596 e	1,156 i	1,716	1,716 e	1,946 i	2,130 i
388 Bucknell U.	997 i	1,109 i	1,221 i	1,335	1,835	1,791	1,900	2,123
389 Amherst C.	1,634 i	1,604 i	1,573	1,498	1,859	1,802	2,115	2,115 e
390 Macalester C.	811 i	1,032 i	1,253 i	1,474 i	1,695 i	1,923	3,024	2,091
391 Union C. (Schenectady, NY)	1,016	687	694	1,043	1,002	1,045	2,316	2,086
392 Lafayette C.	575 i	600 i	625	600	665	1,008	1,344	2,065
393 Christopher Newport U.	NA	NA	NA	NA	NA	NA	NA	2,055
394 Winston-Salem State U.	1,406	2,034	2,468	1,712	3,447	6,057	2,022	2,022 e
395 Gallaudet U.	2,743 i	2,479 i	2,212	2,348	1,752	1,824	1,950	2,013
396 U. WI Stevens Point	1,649	1,324	1,112	1,302	1,227	1,827	1,849	1,980
397 Carleton C.	934 i	932 i	930 i	927	1,245	1,176	1,688	1,965
398 Pomona C.	1,164 i	1,088 i	1,010	1,619	1,791	1,298	2,063	1,962
399 Pittsburg State U.	546	361	1,631	1,614	1,663	2,161	1,951	1,894

TABLE 26. R&amp;D expenditures at universities and colleges, ranked by FY 2003 R&amp;D expenditures: FY 1996–2003

(Dollars in thousands)

Institution and ranking	1996	1997	1998	1999	2000	2001	2002	2003
400 U. of the Pacific	860	2,601	886	999	1,020	1,241	1,891	1,877
401 U. Southern ME	524 i	568 i	614	1,366	1,366 e	1,544 i	1,751 i	1,862 i
402 U. Redlands	NA	NA	NA	NA	NA	NA	2,728	1,848
403 CUNY York C.	952	1,311	1,526	1,392	1,341	1,117	1,664	1,829
404 U. Northern IA	1,944	1,623	1,682	1,542	1,744	1,961	2,254	1,821
405 Seton Hall U.	2,400 e	2,400 e	2,400	1,116	996	826	1,200	1,779
406 Long Island U. all campuses	155	902	1,221	1,406	1,267	1,201	1,477	1,769
407 Bradley U.	1,089 i	1,291 i	1,493	1,341	1,371	1,197	1,928	1,755
408 OR Institute of Technology	NA	NA	NA	NA	NA	NA	1,025	1,752
409 Swarthmore C.	871	869	996	996 e	996 e	966	1,574	1,717
410 Calvin C.	763 i	853 i	943 i	1,033	1,191	1,300	1,509	1,714
411 Bowdoin C.	909	425	474	510	576	512	1,176	1,673
412 Towson U.	189	247	959	1,452	2,138	2,282	2,449	1,660
413 Claremont Graduate U.	1,100	902	401	1,870	2,416	2,369	1,949	1,652
414 AL State U.	1,000	818	1,177	1,365	1,365 e	1,433 e	1,433	1,633
415 U. New Haven	507	558 e	558 e	198	198 e	1,492	1,492 e	1,633 i
416 Middlebury C.	767 i	760 i	753 i	742	1,371	1,285	1,587	1,587 e
417 CA State U. Hayward	816 i	1,088 i	1,360 i	1,632 i	1,904 i	2,176 i	2,455	1,559
418 Dickinson C.	NA	NA	1,789	948	739	1,528	1,475	1,550
419 Barnard C.	934	943 e	1,172	1,181	1,347	1,376	1,064	1,516
420 SUNY C. Plattsburgh	1,207	951	1,133	793	996	1,118	1,061	1,494
421 Morehead State U.	611 i	735 i	859 i	983 i	1,107 i	1,231 i	1,355 i	1,487
422 U. WI La Crosse	1,310	1,045	1,185	1,113	1,404	1,563	1,939	1,483
423 U. Richmond	807	937	1,035	1,099	1,178	1,271	1,786	1,470
424 St. John's U. (Jamaica, NY)	1,903	2,216	1,572	1,617	1,184	1,184 e	1,315 i	1,463 i
425 Hamilton C. (Clinton, NY)	475 i	475 i	475 e	751 i	1,027	931	1,821	1,459
426 Hope C.	949 i	978 i	1,007 i	1,039	922	1,417	1,514	1,457
427 U. WI Stout	1,523	1,306	1,386	976	1,236	1,070	1,358	1,437
428 Haverford C.	1,077	1,304	1,303	1,104	1,191	1,178	1,215	1,428
429 Colgate U.	NA	NA	NA	NA	1,664	1,694	1,544	1,425
430 Southwest MO State U.	2,046 i	1,923 i	1,797	1,324	1,324 e	1,550	1,888	1,423
431 Youngstown State U.	607 i	752 i	898	468	532	849	1,259	1,398
432 IN State U. all campuses	1,548	1,265	5,255	4,977	4,196	1,504	1,220	1,369
433 SUNY C. Geneseo	651	461	475	543	686	644	682	1,366
434 Western IL U.	13,517	14,152	15,882	10,049	8,489	7,759	7,042	1,350
435 Bates C.	588	402	682	754	598	940	1,217	1,340
436 U. Hartford	466	365	397	773	1,061	1,068	1,130	1,336
437 U. IL Springfield	NA	NA	NA	NA	910	2,025	2,324	1,324
438 CO C.	257 i	235 i	211	877	1,213	1,548	1,286	1,318
439 Kettering U.	396 i	413 i	433	647	625	1,161	1,311	1,295

TABLE 26. R&amp;D expenditures at universities and colleges, ranked by FY 2003 R&amp;D expenditures: FY 1996–2003

(Dollars in thousands)

Institution and ranking	1996	1997	1998	1999	2000	2001	2002	2003
440 SUNY C. Old Westbury	640	991	777	691	1,310	1,310 e	1,214	1,295
441 Colby C.	350 i	368 i	389	355	392	968	2,929	1,294
442 Northeastern State U.	NA	NA	NA	NA	NA	NA	1,314	1,283
443 Shaw U.	115	147	110	100	100 e	487 i	874 i	1,261
444 PA C. of Optometry	564 i	479 i	394 i	307	581	800	992	1,226
445 U. Houston-Clear Lake	3,335 i	2,513 i	1,691	5,963	7,091	11,519	8,362	1,224
446 SUNY C. Oswego	920	803	716	542	744	783	1,112	1,207
447 Spalding U.	0	0	189	0	462	1,055	1,188	1,188 e
448 U.S. Coast Guard Academy	304 i	302 i	300	570	405	468	1,128	1,166
449 Eastern WA U.	2,445 i	2,445 i	2,445 e	2,356	2,108	2,620	2,275	1,156
450 Chicago State U.	757	759	713	1,266	1,263	1,415	1,297	1,155
451 Furman U.	728	665	522	365	793	719	1,414	1,136
452 U. WI Eau Claire	386	479	613	604	684	514	839	1,131
453 Reed C.	521 i	481 i	441 i	400 e	716	814	1,145	1,129
454 U. WI Green Bay	590	533	491	478	543	602	900	1,122
455 U. NC Asheville	636 i	671 i	706 i	742	861	1,269	1,232	1,108
456 Elizabeth City State U.	1,098	1,379	684	1,040	1,558	1,248	1,058	1,103
457 NC Central U.	852 i	869 e	869	825 e	808 i	913 i	1,035 i	1,100 i
458 Benedict C.	634	634 e	800 i	966 i	1,143	1,044	1,061	1,071
459 U. WI Superior	951	494	383	505	380	404	889	1,057
460 Drake U.	364 i	359 i	354 i	349	468	366	1,053	1,053 e
461 U. San Diego	252	248	484	343	545	240	2,686	1,046
462 MA C. of Pharmacy and Health Sciences	205	235	89	89 e	253 i	417	392	1,043
463 State U. West GA	821 i	1,028 i	1,235 i	1,442 i	1,655	1,360	1,029	1,034
464 Franklin and Marshall C.	1,056 i	1,106 i	1,158	1,424	1,188	698	989	1,028
465 Fairfield U.	629 i	737 i	845 i	953 i	1,061	1,648	810	1,024
466 U. of Health Sciences	677	652	885	885 e	677	1,166	1,436	1,020
467 Chapman U.	229 i	265 i	301 i	337 i	373	460	1,068	1,016
468 Western U. of Health Sciences	206	58	295	295 e	332 i	369	1,132	1,005
469 Appalachian State U.	511	511	558	621	694	752	781	986
470 Simmons C.	650 i	744 i	838 i	937	912	710	872	978
471 Grinnell C.	332 i	332 i	332 e	4,300	1,500	560	1,098	977
472 Allegheny C.	627 i	662 i	697 i	734	318	1,023	1,306	974
473 Montclair State U.	206 i	253 i	300 i	347 i	396	766	889	945 i
474 U. WI Oshkosh	396	574	636	603	585	670	662	942
475 Coastal Carolina U.	NA	NA	NA	NA	1,277	1,038	1,100	940
476 Trinity U.	1,177 i	1,074 i	971 i	867	1,241	1,241 e	474	935
477 CUNY John Jay C. of Criminal Justice	686	688	1,325	1,442	1,274	1,070	844	930
478 Rider U.	NA	NA	NA	NA	891	884	939	912
479 U. AK Southeast all campuses	326 i	415 i	504 i	593 i	682 i	771 i	868 e	909

TABLE 26. R&amp;D expenditures at universities and colleges, ranked by FY 2003 R&amp;D expenditures: FY 1996–2003

(Dollars in thousands)

Institution and ranking	1996	1997	1998	1999	2000	2001	2002	2003
480 VA Military Institute	508	429	334	394	470	613	695	904
481 Southeastern LA U.	681 i	778 i	875 i	976	1,057	645	836	900
482 Albany C. of Pharmacy	NA	NA	NA	NA	1,360	1,208	906	894
483 West Chester U. PA	462	506	672	769	794	794 e	1,115	883
484 Trinity C. (Hartford, CT)	1,076 i	1,233 i	1,390 i	1,552	1,010	1,010 e	464	856
485 Tougaloo C.	1,710 i	1,815	1,180	1,227	895	1,007	1,007 i	851 i
486 Indiana U. PA all campuses	562	512	512 e	389	731	756	794	841
487 Sul Ross State U.	316	320	602	630	796	779	767	838
488 Philadelphia C. of Osteopathic Medicine	869	688	516	1,050	930	935	891	836
489 Pacific U.	0	0	0	0	264	299	157	823
490 MN State U. Mankato	1,525 i	1,730 i	1,939	564	607	751	1,054	768
491 SUNY C. Brockport	532	591	609	676	722	722 e	739 i	757
492 McNeese State U.	131 e	25	410	699	639	471	709	743
493 Bethune Cookman C.	451	606	566	583	586	926	794	741
494 Southern OR U.	278 i	315	341	320	301	200	585	741
495 Hofstra U.	726	717	717	716	787	661	661 e	735 i
496 Augsburg C.	492 i	430 i	368 i	303	337	497	655	734
497 St. Olaf C.	395 i	432 i	469 i	506	544	453	847	710
498 Lincoln U. (Lincoln University, PA)	1,135	1,032	1,364	972	709	620	718	704
499 Kirksville C. of Osteopathic Medicine	747	644	509	743	816	907	1,134	691
500 Nicholls State U.	NA	NA	NA	NA	504	687	820	690
501 U. San Francisco	663 i	609 i	555 i	500 e	700	700 e	695 i	690
502 Des Moines U. Osteopathic Medical Ctr.	316	302	416	673	417	767	767 e	676
503 Loyola Marymount U.	NA	NA	NA	NA	NA	NA	NA	674
504 CUNY Medgar Evers C.	NA	NA	NA	NA	291	756	992	670
505 Dillard U.	314	175	175 e	175	264	349	528	668
506 U. Houston-Downtown	996 i	1,028 i	1,060 i	1,096	837	837 e	1,054	661
507 MS Valley State U.	586	563	350	495	834	1,316	1,030	636
508 Skidmore C.	192 i	173 i	151	236	314	250	519	632
509 U. Southern CO	1,183	884	824	979	724	753	597	628
510 Lewis and Clark C.	386 i	425 i	468	600	529	420	593	622
511 National U. of Health Sciences	NA	NA	NA	NA	NA	NA	577	620
512 Whitman C.	522 i	485 i	444	492	483	469	278	619
513 CT C.	432 i	432 i	432 e	432 i	423 i	478 i	542 i	593 i
514 Fayetteville State U.	503	139	485	265	507	589	311	586
515 Western Carolina U.	228	332	442	501	580	763	653	577
516 Central State U.	1,786	1,786 e	1,497	1,497 e	560 e	560 i	560 i	574 i
517 VA Union U.	NA	NA	671	671 e	671 i	671 i	671 i	567 i
518 U. WI Parkside	338	339	187	158	362	575	769	559
519 Southern U. New Orleans	NA	NA	NA	NA	183	680	937	556

TABLE 26. R&amp;D expenditures at universities and colleges, ranked by FY 2003 R&amp;D expenditures: FY 1996–2003

(Dollars in thousands)

Institution and ranking	1996	1997	1998	1999	2000	2001	2002	2003
520 U. Detroit Mercy	2,555	2,260	1,853	1,870	1,767	1,236	746	548
521 Denison U.	367 i	350 i	333 i	314	328	384	373	546
522 U. Portland	447	306	282	387	552	719	639	543
523 AR Tech U.	464 i	443 i	419	598	419	526	526 e	539 i
524 Juniata C.	194 i	185 i	176 i	164	168	171 e	283	530
525 Truman State U.	624	764	754	754 e	665 i	576 i	487	521
526 Evergreen State C.	494 i	562 i	630 i	698 i	766	487	441	511
527 CUNY Baruch C.	154	113	319 i	526	375	375 e	762	507
528 Eastern KY U.	18,580 i	24,621 i	30,662 i	36,708	640	770	666	506
529 Cooper Union	1,515 i	1,515 i	1,515 e	144	284	501	427	502
530 Sonoma State U.	NA	NA	194	134	150	736	341	493
531 C. of the Holy Cross	1,419	437	430	252	371	664	532	490
532 Oakwood C.	371	718	845	567	567 e	567 i	567 i	479 i
533 Roanoke C.	NA	NA	NA	NA	NA	NA	NA	476
534 Lawrence Technological U.	139 i	123 i	104	344	821	681	539	471
535 Oberlin C.	456 i	513 i	570 i	627 i	691	325	439	471
536 Andrews U.	366	381	290	290 e	444	712	597	469
537 Loyola C.	1,023	905	1,303	1,445	1,724	954	1,140	454
538 U. of the Sciences Philadelphia	695	650	358	358 e	532	573	833	453
539 SUNY C. Cortland	373	357	55	82	362	378	353	446
540 John Carroll U.	807 i	895 i	983 i	1,072	1,072 e	515	823	442
541 Saginaw Valley State U.	1,119 i	1,031 i	943 i	855 i	767 i	679 i	591	442
542 Northern KY U.	279 i	249 i	219 i	185	115	142 i	169	434
543 Wilkes U.	NA	NA	NA	NA	NA	NA	95	427
544 Pace U. all campuses	0	0	596	571	289	378	425	425 e
545 NY Institute of Technology all campuses	278	325	295	370	390	571	380	423 i
546 Bridgewater State C.	460 i	395 i	330 i	260	585	371	473	419
547 C. Wooster	293 e	219	323	379	593	286	362	413
548 Salem International U.	NA	NA	752	704	762	355	355 e	389 i
549 Valparaiso U.	426 e	443	571	569	725	391	349	356
550 Central CT State U.	211 i	212 i	213 i	214 i	218	259	283	355
551 Pitzer C.	423	240	260	297	383	322	287	343
552 Jarvis Christian C.	102	83	55	56	55	55 e	30	335
553 St. Mary's C. MD	NA	NA	NA	NA	447	251	274	335
554 U. WI River Falls	146	262	242	231	152	288	332	331
555 NJ City U.	NA	NA	NA	NA	NA	NA	267	326
556 Augustana C. (Sioux Falls, SD)	348 i	341 i	334 i	327 i	320 i	313 i	304	324
557 Western State C. CO	122 i	118 i	110	158	204	325	321	321 e
558 TX A&M U. Commerce	263	290	361	168	327	262	263	303
559 Kennesaw State U.	132	158	132	142	249	298	221	300

TABLE 26. R&amp;D expenditures at universities and colleges, ranked by FY 2003 R&amp;D expenditures: FY 1996–2003

(Dollars in thousands)

Institution and ranking	1996	1997	1998	1999	2000	2001	2002	2003
560 St. Mary's U. (San Antonio, TX)	234 i	118 i	0	0	287	362	293	300
561 Wiley C.	NA	NA	0	0	0	0	15	298
562 Radford U.	NA	NA	273	181	624	665	562	294
563 Claflin U.	764	1,254	1,403	555	555 e	2,074	203	293
564 Morris Brown C.	3,652	525	525 e	321 i	116	116 e	343	290 i
565 Fairleigh Dickinson U. all campuses	140	775	394	356	158	223	190	286
566 OH Wesleyan U.	508	619	197	255	255 e	269 i	284	284 e
567 SUNY Purchase C.	196	241	165	188	139	211 i	284	282
568 Willamette U.	NA	NA	340	58	266	344	254	276
569 Lake Forest C.	60 i	80 i	103	190	399	375	283	271
570 SUNY C. Fredonia	204	154	118	92	194	224	235	271
571 Manhattan C.	814 i	689 i	563	485	509	509 e	257	257 e
572 Widener U. all campuses	0	0	0	70	208	208 e	231 i	253 i
573 Iona C.	137	145	151 i	157 i	163 i	169 i	177	232
574 Abilene Christian U.	387 i	360 i	330	272	252	319	254	231
575 Ft. Lewis C.	235	447	599	243	191	314	286	231
576 Southeastern OK State U.	NA	NA	NA	NA	NA	NA	NA	231
577 Eastern OR U.	NA	NA	NA	NA	NA	NA	398	226
578 U. WI Whitewater	356	395	282	148	272	260	236	224
579 Providence C.	70	44	62	86	86 e	154 i	223	223 e
580 Hartwick C.	127 i	140 i	153 i	166 i	179 i	192 i	205 i	221
581 Augustana C. (Rock Island, IL)	58 i	58 i	58 e	88 i	118 i	148 i	178 i	212
582 New C. FL	NA	NA	NA	NA	NA	NA	132	206
583 U. Findlay, The	NA	NA	NA	NA	350	182	250	200
584 U. of St. Thomas (St. Paul, MN)	289 i	297 i	306	78	143 i	209	243	192
585 WV School of Osteopathic Medicine	128	146	146	99	132	129	182	188
586 U. Central OK	180 i	196 i	215	1,173	509	795	810	180
587 Adelphi U.	317	433	252	254	169	137	152 i	169 i
588 Northeastern IL U.	282	530	186	101	184	274	216	168
589 East Stroudsburg U. PA	532 i	649 i	766 i	887 e	642	962	151	152
590 La Salle U.	329	215	157	244	126	294	20	104
591 U. Dallas	63	67	490	194	60	81	116	97
592 Wilberforce U.	323	280	280 e	240 i	200 i	160 i	120 i	80
593 Alliant International U.	NA	NA	NA	NA	NA	517	368	76
594 Talladega C.	0	0	0 e	0	0	0	0	71
595 Ferris State U.	NA	NA	78	15	15 e	64	64 e	70 i
596 WV State C.	10	256	119	55	55 e	63 e	63 i	65 i
597 Bluefield State C.	NA	NA	15	0	0	0	0	54
598 Pontifical Catholic U. PR, The	20 e	86	111	131	85	89	54	19
599 Biola U.	0	0	0	0	0	0	12	6



TABLE 26. R&D expenditures at universities and colleges, ranked by FY 2003 R&D expenditures: FY 1996–2003

(Dollars in thousands)

Institution and ranking	1996	1997	1998	1999	2000	2001	2002	2003
Antioch U. all campuses	0	0	0	0	0	0	0	0
Azusa Pacific U.	NA	NA	NA	NA	0 e	0	0	0
Bennett C.	93	93 e	811	811 e	609 i	407 i	205 i	0
CA Institute of Integral Studies	0	0	0	0	0	0	0	0
CA State U. Sacramento	NA	NA	NA	NA	NA	NA	NA	0 i
Coppin State C.	116	15	6	11	0	0	0	0
Forest Institute of Professional Psychology	5	0	0	0	0	0	0	0
Golden Gate U.	0	0	0	0	0	0	0	0
Gonzaga U.	NA	NA	NA	NA	NA	NA	NA	0
Johnson C. Smith U.	1,307	1,546	4,299	8,659	287	195	0	0
Le Moyne-Owen C.	NA	NA	1,451	1,053	1,700	1,268	0	0 i
Miles C.	NA	NA	NA	NA	NA	NA	8,785	0
Morris C.	NA	NA	NA	NA	NA	NA	NA	0
Pepperdine U.	0	0	0	0	0	0	0	0
Philander Smith C.	73	73	73 e	72	72 e	0	0	0
Rust C.	0	0	317	114	138	0	0	0
Selma U.	250	210	210 e	116	0	0 e	0	0
Union Institute & U.	1,173	1,024 i	875	1,023	1,217	1,217 e	0	0
U. MD Eastern Shore	1,980	2,187	2,265	2,508	3,895	5,626	0	0
U. MO system administration	196	209	270	291	219	0	0	0
All other sampled institutions	83,350	118,476	130,502	60,118	68,312	52,297	38,519	0

e = estimated.

i = imputed.

NA = not available.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory, with \$607 million in total R&D expenditures.

NOTE: Tied institutions are ranked alphabetically.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 27. Federally financed R&amp;D expenditures at universities and colleges, ranked by FY 2003 expenditures: FY 1996–2003

(Dollars in thousands)

Institution and ranking	1996	1997	1998	1999	2000	2001	2002	2003
All institutions	13,840,177	14,314,241	15,150,456	16,101,053	17,534,849	19,223,035	21,860,110	24,734,033
1 Johns Hopkins U., The <sup>a</sup>	710,119	724,526	752,983	770,580	793,266	879,741	1,022,510	1,106,971
2 U. WA	312,695	320,784	342,291	368,112	389,622	435,103	487,059	565,602
3 U. MI all campuses	281,062	296,028	311,450	334,226	364,033	396,117	444,255	516,818
4 Stanford U.	295,373	332,272	342,426	353,947	367,083	384,468	426,620	483,540
5 U. CA, Los Angeles	236,635	215,937	234,005	251,999	274,162	312,858	366,762	421,174
6 U. PA	216,167	217,125	247,914	279,013	312,434	351,996	397,587	415,631
7 U. CA, San Diego	291,917	238,569	263,103	292,007	326,037	343,276	359,383	400,100
8 U. WI Madison	233,174	233,760	240,513	249,212	278,629	304,009	345,003	396,231
9 Columbia U. in the City of NY	195,652	212,180	229,723	240,158	283,163	317,928	356,749	385,529
10 U. CO all campuses	177,517	192,201	228,342	244,686 <sup>e</sup>	300,667 <sup>i</sup>	308,643	340,466	377,941
11 U. CA, San Francisco	221,864	206,749	219,630	233,181	248,878	277,489	327,393	371,697
12 Washington U. St. Louis	155,197	186,993	187,173	218,598	254,148	284,928	303,441	357,364
13 MA Institute of Technology	271,544	311,396	310,741	308,921	306,668	304,319	330,409	356,206
14 Harvard U.	203,047	222,612	251,876	266,019	281,699	300,414	336,607	348,620
15 U. Pittsburgh all campuses	149,960	160,833	168,511	194,618	228,155	268,571	306,913	345,625
16 Cornell U. all campuses	203,082	205,521	204,187	234,792	229,872	240,466	270,578	320,868
17 Duke U.	149,631	155,894	172,532	186,757	204,180	218,109	261,356	306,864
18 Baylor C. of Medicine	92,294	97,829	110,610	141,111	193,249	234,394	259,475	302,764
19 PA State U. all campuses	190,688	185,206	186,274	199,105	226,074	245,951	284,706	301,094
20 U. Southern CA	179,281	191,809	190,547	199,619	210,872	246,207	266,645	300,195
21 Yale U.	176,994	189,124	205,046	213,404	232,019	250,702	274,304	296,713
22 U. MN all campuses	198,927	200,149	204,741	207,761	229,958	264,289	295,301	293,266
23 U. NC Chapel Hill	157,034	153,985	171,505	182,935	194,794	221,615	254,571	280,678
24 U. IL Urbana-Champaign	145,514	156,366	171,250	185,767	193,490	195,316	214,323	266,487
25 U. AZ	154,004	152,221	161,999	178,126	187,161	199,484	211,772	259,074
26 U. AL Birmingham, The	125,804	150,501	166,830	165,223	175,309	194,625	216,221	245,217
27 U. CA, Berkeley	168,171	159,275	171,747	191,025	208,338	208,080	217,297	238,206
28 U. TX Austin	147,808	151,954	165,082	164,913	178,889	195,184	219,158	231,996
29 Emory U.	95,237	108,522	118,045	132,816	144,914	170,317	186,083	228,255
30 Vanderbilt U.	95,684	98,744	106,325	116,887	129,986	146,230	172,858	221,979
31 CA Institute of Technology	142,474	164,225	177,748	195,303	196,877	193,554	199,944	219,097
32 U. CA, Davis	130,188	104,943	114,018	124,463	141,740	154,937	176,644	208,327
33 U. Rochester	112,933	118,477	130,773	132,852	150,593	166,945	195,298	208,148
34 Case Western Reserve U.	109,901	120,992	132,274	140,178	150,586	158,852	181,888	205,452
35 Boston U.	87,946	97,522	104,428	123,390	133,730	150,771	171,438	203,947
36 GA Institute of Technology all campuses	116,155	112,544	113,643	112,861	126,164	143,836	165,680	203,582
37 U. Chicago	114,123	121,683	125,982	135,720	140,872	155,566	183,830	201,129
38 Northwestern U.	100,810	108,292	127,911	132,647	150,238	158,129	178,607	200,316
39 OH State U. all campuses	118,811	122,582	124,177	135,216	132,219	161,092	177,883	198,488

TABLE 27. Federally financed R&amp;D expenditures at universities and colleges, ranked by FY 2003 expenditures: FY 1996–2003

(Dollars in thousands)

Institution and ranking	1996	1997	1998	1999	2000	2001	2002	2003
40 U. IA	105,646	108,534	115,312	122,638	140,764	155,249	180,743	197,260
41 U. FL	86,973	94,328	106,510	122,296	120,374	135,421	167,108	194,958
42 U. Cincinnati all campuses	72,543	78,292	90,307	100,325	110,296	128,049	150,166	185,261
43 U. MD College Park	99,688	102,928	129,198	145,081	136,605	145,515	194,095	183,206
44 U. TX Southwestern Medical Ctr. Dallas	81,468	89,357	97,200	101,996	109,165	131,820	155,258	177,196
45 TX A&M U. all campuses	148,675	145,066	144,938	149,151	149,639	149,382	163,488	177,119
46 U. VA all campuses	75,256	82,488	99,173	107,856	115,684	122,868	152,358	173,442
47 U. IL Chicago	58,991	70,739	73,797	86,406	101,943	125,109	143,183	168,063
48 NY U.	90,010	94,117	101,426	111,124	117,163	129,897	149,995	166,033
49 OR Health and Science U.	51,338	68,637	82,146 i	95,655 i	109,165	111,671	130,231	164,221
50 Carnegie-Mellon U.	91,830	91,527	95,046	90,408	91,191	97,463	137,967	157,583
51 IN U. all campuses	90,881	95,931	95,840	102,262	107,577	116,781	132,759	153,625
52 Mt. Sinai School of Medicine	61,599	60,914	69,995	84,624	98,188	109,344	125,979	152,719
53 U. UT	93,788	99,322	100,722	111,716	124,344	127,253	142,625	152,112
54 U. HI Manoa	66,902	72,421	86,886	93,418	95,419	97,716	110,882	143,580
55 U. CA, Irvine	72,994	64,293	66,602	75,505	88,274	101,735	115,548	133,873
56 MI State U.	77,243	82,977	81,146	89,835	97,112	112,359	122,595	133,820
57 U. Miami	96,716	101,516	101,492	101,883	106,633	111,803	121,171	130,863
58 SUNY Buffalo all campuses	87,813	78,092	76,037	85,490	96,410	96,595	121,376	129,794
59 Purdue U. all campuses	91,632	91,969	92,844	95,708	92,010	98,151	107,477	129,199
60 Yeshiva U.	73,396	77,936	80,000	89,680	101,631	107,800	114,268	128,894
61 U. MD Baltimore	65,211	72,100	78,037	84,516	91,212	99,091	117,017	126,156
62 U. TX M. D. Anderson Cancer Ctr.	42,794	49,702	63,074	69,413	81,872	94,053	117,633	122,869
63 U. KY all campuses	51,450	62,128	60,760	66,184	73,858	86,239	100,426	120,003
64 CO State U.	74,930	79,393	80,451	91,943	101,429	101,308	112,650	117,151
65 SUNY Stony Brook all campuses	79,570	86,568	91,531	93,937	96,641	93,265	108,122	112,452
66 U. CT all campuses	53,009	49,503	53,189	55,496	66,144	70,013	93,326	111,654
67 U. MA Worcester	40,198	43,350	53,766	55,516	64,212	79,453	93,992	109,082
68 Wake Forest U.	55,845	54,287	56,705	60,293	65,585	78,021	91,738	108,467
69 U. TX Health Science Ctr. Houston	61,456	67,205	70,446	71,288	79,665	88,545	98,676	107,481
70 U. NM all campuses	76,850	76,978	84,365	84,976	100,442	109,505	104,252	106,541
71 U. South FL	29,751	31,068	35,930	42,005	50,557	58,826	84,108	106,102
72 Rutgers, The State U. NJ all campuses	67,588	68,225	69,829	75,664	79,711	77,156	91,205	106,060
73 Dartmouth C.	39,682	43,154	45,053	46,741	56,369	69,844	87,255	106,034
74 U. of Medicine and Dentistry NJ	47,505	57,471	59,828	61,730	75,318	86,054	90,235	105,495
75 Princeton U.	69,386	69,667	69,005	72,974	74,681	78,620	97,724	104,011
76 Wayne State U.	46,264	53,707	57,646	57,610	64,320	79,448	95,910	102,963
77 OR State U.	79,977	80,131	82,416	81,649	80,398	84,854	91,683	100,499
78 U. TN all campuses	73,724	74,049	69,793	70,187	72,059	78,611	88,344	100,486
79 LA State U. all campuses	64,524	65,257	67,090	75,831	89,007	94,625	97,928	99,362

TABLE 27. Federally financed R&amp;D expenditures at universities and colleges, ranked by FY 2003 expenditures: FY 1996–2003

(Dollars in thousands)

Institution and ranking	1996	1997	1998	1999	2000	2001	2002	2003
80 VA Polytechnic Institute and State U.	80,319	87,657	82,734	75,386	71,127	77,384	82,976	98,143
81 U. NE central administration	47,161 i	56,130 i	58,517 i	56,339 i	60,161	69,232	82,728	96,627
82 NC State U.	74,485	69,473	79,533	80,518	90,725	95,875	91,981	96,157
83 UT State U.	43,764	49,594	54,903	54,433	57,378	74,251	79,393	95,494
84 U. GA	56,254	54,364	54,712	56,080	62,678	66,913	78,086	93,884
85 U. TX Medical Branch	38,323	42,006	48,588	55,061	61,357	64,682	78,100	93,039
86 Medical U. SC	40,637	37,790	36,473	30,997	41,432	60,543	75,803	92,893
87 U. KS all campuses	41,858	46,733	50,567	57,272	68,950	74,494	82,663	90,876
88 U. CA, Santa Barbara	73,400	64,915	68,680	74,026	80,754	76,828	78,370	88,422
89 FL State U.	39,527	52,945	50,451	55,666	56,830	57,075	70,456	87,985
90 U. TX Health Science Ctr. San Antonio	51,203	53,478	51,954	56,904	65,251	71,153	83,761	86,683
91 Thomas Jefferson U.	51,475	49,091	51,728	56,369	67,448	64,881	79,217	85,348
92 Woods Hole Oceanographic Institution	61,820	66,386	64,765	59,534	67,036	75,670	78,458	84,410
93 U. MO-Columbia	38,938	43,335	45,448	53,875	65,420	68,435	77,742	84,211
94 Georgetown U.	81,704	84,198	84,801	83,972	98,836	93,626	87,087	83,745
95 Medical C. WI	34,527	39,364	43,831	47,087	55,034	64,003	76,241	83,026
96 IA State U.	54,904	52,938	51,196	54,179	59,976	62,024	71,419	82,297
97 Tulane U.	49,720	49,708	52,924	50,779	52,080	55,669	64,824	82,118
98 Brown U.	42,139	43,664	44,412	45,276	49,943	58,367	68,215	81,445
99 VA Commonwealth U.	45,454	44,982	48,167	48,175	52,137	57,315	65,028	81,201
100 MS State U.	34,637	34,928	42,004	46,528	53,808	65,493	77,521	79,837
101 Tufts U.	53,508	55,421	61,167	62,836	64,677	71,669	73,236	78,942
102 SUNY Albany	48,395	41,190	33,894	46,242	62,059	46,671	40,497	76,038
103 NM State U. all campuses	53,552	57,165	56,587	56,875	57,073	61,124	70,314	75,368
104 U. OK all campuses	42,679	45,756	54,451	57,589	60,542	60,264	69,388	75,318
105 Rockefeller U.	37,369	43,979	43,845	45,010	45,211	55,362	67,559	75,303
106 U. AK Fairbanks all campuses	30,351	28,127	31,505	34,647	46,605	55,287	66,169	72,607
107 AZ State U. main campus	38,947	37,700	41,359	53,905	49,935	56,616	64,407	71,741
108 U. VT	31,521	34,042	31,460	36,085	39,861	48,810	58,280	70,832
109 WA State U.	48,807	45,030	44,510	44,610	48,441	48,660	61,138	70,653
110 U. DE	29,509	32,031	33,688	34,628	37,716	41,830	48,183	69,493
111 George Washington U.	30,490	34,182	45,072	49,944	49,627	51,757	58,729	68,959
112 U. SC all campuses	51,269	37,005	42,586	48,490	51,872	51,983	53,403	63,044
113 Clemson U.	28,109	28,092	28,199	27,064	31,304	48,560	47,174	62,552
114 U. MS all campuses	15,571	15,696	16,463	19,053 i	28,107	39,451 i	50,795 i	62,140
115 U. MA Amherst	37,969	40,925	43,196	39,877	44,712	49,576	54,770	60,839
116 WV U.	30,800	29,443	24,985	26,264	28,013	29,440	49,394	60,586
117 U. NH	23,305	24,128	25,913	30,586	38,921	45,223	50,829	59,463
118 Naval Postgraduate School	29,873	31,618	33,308	33,308 e	39,596 i	45,884 i	52,172 i	58,463
119 KS State U.	24,769	25,781	27,001	28,102	31,185	33,998	43,988	53,313

TABLE 27. Federally financed R&amp;D expenditures at universities and colleges, ranked by FY 2003 expenditures: FY 1996–2003

(Dollars in thousands)

Institution and ranking	1996	1997	1998	1999	2000	2001	2002	2003
120 MT State U. Bozeman	17,667	19,707	23,982	26,231	30,564	34,857	39,986	53,283
121 U. RI	34,829 i	35,733	33,308	36,207	38,538	43,161	45,453	51,942
122 Temple U.	28,720	26,374	28,793	29,734	38,213	41,643	44,577	51,309
123 Rush U.	22,480	24,382	28,444	31,119	32,573	37,301	44,756	49,834
124 Drexel U.	11,613	10,545	10,929	12,914	14,292	20,159	30,232	49,271
125 U. NV, Reno	20,971	20,813	20,383	24,587	26,267	31,386	39,958	47,756
126 U. Central FL	18,714	13,361	13,502	16,048	13,801	22,342	29,929	47,749
127 U. Dayton	34,413	36,196	36,329	30,755	31,717	34,102	40,191	47,327
128 Auburn U. all campuses	31,401	27,412	27,706	27,058	31,515	40,097	42,432	45,374
129 Rice U.	33,238	37,935	34,772	35,012	35,144	35,682	39,739	43,706
130 U. ID	16,481	17,416 i	18,352	24,263	23,014	26,548	33,465	42,861
131 U. AR for Medical Sciences	16,796	19,249	21,857	26,392	29,962	34,219	27,491	41,681
132 U. of Notre Dame	18,886	19,173	23,053	23,614	27,362	29,801	33,285	41,220
133 FL International U.	13,415	13,828	14,243	15,757	20,296	23,940	32,057	40,860
134 U. CA, Riverside	27,727	24,006	22,999	19,994	21,085	25,713	32,305	40,409
135 U. Louisville	13,306	13,521	15,067	15,536	17,713	25,116	38,978	39,924
136 Charles R. Drew U. of Medicine and Science	15,288	16,052 e	16,052 e	22,212	21,969	27,415	39,259	39,407
137 George Mason U.	16,430	14,652	17,268	19,492	20,669	25,992	31,890	38,510
138 U. CA, Santa Cruz	31,727	24,005	29,881	25,084	25,959	29,201	32,901	38,213
139 ND State U. all campuses	11,683	6,432	9,787	12,308	15,463	15,207	21,414	37,940
140 OK State U. all campuses	25,034	21,455	23,220	23,179	24,770	25,636	31,100	37,748
141 St. Louis U. all campuses	21,483	23,218	23,341	23,722	26,453	28,117	31,215	36,989
142 Howard U.	26,253	25,884	21,501	21,658	25,292	27,848	33,949	36,137
143 U. OR	26,411	26,020	27,041	27,336	30,793	32,232	37,177	36,127
144 U. AL Huntsville, The	26,141	21,731	23,772	25,166	25,939	30,625	35,660	35,558
145 Syracuse U. all campuses	18,361	23,780 i	29,200	30,050	29,620	30,036	32,704	34,559
146 U. MD Baltimore County	8,135	9,816	12,618	15,624	20,244	23,695	29,376	34,164
147 Brandeis U.	23,233	25,233	28,098	29,423	26,444	30,031	29,006	33,722
148 U. Houston	25,448	21,695	22,018	20,443	21,365	21,876	31,455	32,556
149 U. NV, Las Vegas	11,142	9,221	9,713	10,248	13,815	15,681	22,367	32,511
150 Rensselaer Polytechnic Institute	24,748	22,785	21,774	22,803	25,555	25,894	26,490	32,295
151 TX Tech U.	13,013	14,901	17,481	20,242	21,480	22,967	28,202	31,776
152 U. Southern MS	7,587	7,766	9,536	14,124	15,084	18,061	22,398	31,653
153 NJ Institute of Technology	20,561	21,287	21,127	21,127	17,381	23,274	27,550	30,535
154 AL A&M U.	8,249 i	8,423 e	10,518	8,558	7,056	8,883 i	10,710	30,343
155 SUNY Health Science Ctr. Brooklyn	18,685 i	18,996	18,318	21,053	22,860	22,860 e	25,495 i	29,127 i
156 U. ME	16,211	15,066	13,028	19,163	24,412	23,873	23,732	28,901
157 U. ND all campuses	23,976	17,775	13,404	13,615	13,880	15,743	25,004	28,336
158 Medical C. GA	11,338	11,904	13,127	13,991	15,210	21,116	23,317	28,280
159 Loyola U. Chicago	16,831	14,771	17,685	17,588	20,695	26,474	27,678	28,107

TABLE 27. Federally financed R&amp;D expenditures at universities and colleges, ranked by FY 2003 expenditures: FY 1996–2003

(Dollars in thousands)

Institution and ranking	1996	1997	1998	1999	2000	2001	2002	2003
160 San Diego State U.	17,181	20,237	19,721	19,724	22,802	23,621	25,223	28,084
161 U. MT, The	11,591	11,554	11,748	14,627	18,378	19,194	22,612	27,220
162 U. AR main campus	16,019	15,772	16,156	15,851	20,778	23,172	27,588	27,071
163 Northeastern U.	14,706	16,321	21,454	22,776	26,916	23,532	24,295	26,895
164 TX A&M U. System Health Science Ctr.	NA	NA	NA	NA	14,321	18,384	22,417	26,729
165 U. AL, The	12,238	13,118	14,909	17,601	19,486	22,183	26,900	26,241
166 U. PR Medical Sciences Campus	12,191	12,978	11,843	13,971	16,657	19,433	23,931	25,845
167 Jackson State U.	4,702	3,960	5,326	7,925	10,690	22,750	21,721	25,607
168 Morehouse School of Medicine	11,747	12,099	12,461	12,948	15,419	18,127	21,919	24,382
169 Meharry Medical C.	11,004	11,004 e	11,004 e	9,192	9,192 e	14,822 i	20,453	24,195
170 NY Medical C.	11,657	11,866	13,639	14,029	17,975	18,344	19,318	23,387
171 Desert Research Institute	14,600	13,900	15,400	16,552	19,923	22,018	22,760	23,265
172 U. WY	14,991	15,003	17,806	19,109	16,556	20,017	20,017 e	23,186
173 Boston C.	11,137	11,207	12,778	14,492	16,673	20,123	22,827	22,907
174 Loma Linda U.	5,878	8,061	7,834	12,217	18,811	19,462 i	20,114	22,675
175 GA State U.	5,818	7,544	11,284	14,310	12,090	13,575	18,967	22,218
176 C. of William and Mary all campuses	13,020	10,911	11,097	11,892	13,031	15,288	18,007	21,992
177 OH U. all campuses	8,046	9,790	10,323	10,544	11,695	12,898	17,677	20,406
178 San Jose State U.	11,825 i	11,825 i	11,825 e	11,825 e	11,825 e	14,301	15,777	18,935
179 Old Dominion U.	9,266	10,736	12,346	13,706	14,908	15,280	17,170	18,882
180 Catholic U. America, The	5,901	6,910	7,161	11,064	7,680	13,308	17,925	18,864
181 Wright State U. all campuses	9,502	10,001	10,832	12,365	12,543	15,417	16,070	18,733
182 Hampton U.	3,854	7,777	6,801	7,168	8,994	8,377	10,058	18,417
183 FL A&M U.	20,118	22,547	15,726	20,693	16,278	22,477	21,592	18,273
184 U. MO-Rolla	7,542	8,080	7,934	8,731	9,804	11,929	15,749	18,142
185 U. TX El Paso	10,471	12,873	10,758	18,292	16,416	16,167	16,457	18,116
186 U. MD Biotechnology Institute	7,529	8,719	11,789	13,911	11,157	11,053	10,603	17,922
187 MI Technological U.	12,603	12,941	13,938	16,107	16,650	17,620	17,973	17,667
188 U. South AL	9,747	9,709	9,451	9,451 e	8,276	8,276 e	15,922	17,638
189 FL Atlantic U.	6,500	7,653	9,582	11,036	12,359	14,099	15,566	17,517
190 CUNY Hunter C.	6,083	6,895	6,414	7,526	8,650	10,922	14,573	17,047
191 SUNY Upstate Medical U.	6,764	7,188	6,487	7,889	8,461	8,815	13,404	16,652
192 Brigham Young U. all campuses	8,752 e	9,223 i	9,694	11,414	10,378	11,659	12,900	16,564
193 CO School of Mines	9,534	9,330	8,694	10,704	11,995	12,314	13,230	16,314
194 Lehigh U.	22,409	14,882	13,019	13,161	12,726	13,961	13,519	16,215
195 U. MA Lowell	10,257	11,560	12,259	10,354	9,905	11,196	14,932	15,821
196 NM Institute of Mining and Technology	7,205	10,496	8,959	10,719	8,652	13,255	18,864	15,434
197 Eastern VA Medical School	10,203	10,618	9,449	11,354	12,114	11,389	13,077	15,431
198 U. Memphis, The	4,954	5,413	5,849	6,364	11,177	11,012	14,072	14,985
199 U. TX Dallas	5,583	6,719	8,115	7,700	7,049	7,049 e	11,624	14,530

TABLE 27. Federally financed R&amp;D expenditures at universities and colleges, ranked by FY 2003 expenditures: FY 1996–2003

(Dollars in thousands)

Institution and ranking	1996	1997	1998	1999	2000	2001	2002	2003
200 U. LA Lafayette	2,936	4,699	5,834	9,430	12,164	12,130	12,925	14,455
201 U. MO-Kansas City	5,087	5,380	6,199	7,206	7,490	8,176	10,795	14,232
202 Medical C. OH	9,559	9,766	8,107	9,219	9,944	11,362	12,006	14,146
203 IL Institute of Technology	11,183	11,668	9,946	9,777	10,926	10,917	11,277	13,900
204 U. WI Milwaukee	8,026	8,156	8,936	9,190	8,425	11,089	11,461	13,704
205 CUNY City C.	16,169	15,221	14,437	12,393	13,059	13,022	13,319	13,456
206 Portland State U.	5,675	5,960	6,881	9,313	11,217	11,341	11,914	13,276
207 Marshall U. Graduate C.	234	180	25	66	5,618	5,980	9,502	12,802
208 U. MD Ctr. for Environmental Science	5,998	6,240	7,440	8,116	10,805	12,105	13,080	12,654
209 U.S. Air Force Academy	3,201 i	3,616 i	4,033	3,699	4,505	5,009	8,163	12,599
210 Clark Atlanta U.	25,345	25,943	24,079	12,116	16,170	14,354	15,325	12,367
211 NC Agricultural and Technical State U.	12,521	13,362	12,924	12,454	11,187	11,937	11,953	12,226
212 Western MI U.	3,336	3,618	4,023	4,165	4,584	6,192	9,913	12,131
213 CA State U. Long Beach	5,013	5,013 e	8,471 i	11,929	12,964	2,910	4,944	12,126
214 Southern IL U. Carbondale	8,836	8,632	7,801	7,660	10,130	10,868	10,789	12,078
215 Rochester Institute of Technology	2,545	2,523	2,339 e	2,690	2,664	5,612	7,868	11,630
216 SD State U.	5,500	5,650	5,812	6,086	7,448	8,456	9,115	11,441
217 U. Toledo	3,506 e	2,937	5,366	5,682	6,312	6,701	8,996	10,928
218 Northern AZ U.	6,938	8,176	6,812	7,111	7,842	9,616	10,873	10,900
219 U. of the VI	2,428	2,428 e	2,428 e	1,957	1,957 e	6,288 i	10,620	10,772
220 Wichita State U.	2,196	2,602	2,646	3,260	5,228	5,726	6,687	10,619
221 TN State U.	7,983	7,569	7,978	8,522	8,873	10,210	11,218	10,280
222 U. TX San Antonio	4,111	11,553	5,112	5,463	7,441	8,012	7,111	9,982
223 U. North TX Health Science Ctr. Ft. Worth	4,847	5,273	5,645	5,370	5,799	6,562	7,770	9,927
224 Albany Medical C.	6,691	5,632	6,545	7,437	7,691	8,562	8,901	9,677
225 U. PR Mayaguez Campus	19,568	21,052	21,903	23,784	11,837	9,015	8,865	9,596
226 Uniformed Services U. of the Health Sciences	24,621	9,218	7,547	9,696	11,023	10,105	10,294	9,527
227 Creighton U.	5,046	5,129	4,096	4,929	5,541	7,275	6,594	9,413
228 U. Akron all campuses	4,793	5,146	4,042	7,140	7,081	8,672	9,537	9,348
229 Kent State U. all campuses	7,729	7,577	8,251	8,212	7,736	8,158	9,427	9,278
230 U. West FL	1,908 i	2,356 i	2,806	3,624	4,521	4,785	5,315	9,105
231 Stevens Institute of Technology	9,222	6,174	6,667	7,084	8,785	8,094	8,094 e	9,070 i
232 Southern U. and A&M C. all campuses	7,724	7,774	6,983	6,689	6,418	7,059 i	7,903 i	9,029 i
233 SUNY Binghamton	5,661	6,218	6,205	5,761	6,319	6,392	8,959	8,981
234 U. NC Wilmington	4,326 i	4,212 i	4,098	4,431	5,336	7,242	9,950	8,957
235 U. MA Dartmouth	3,433	2,884	3,731	3,983	3,228	4,928	7,142	8,718
236 U. Tulsa	5,104	4,190	4,002	5,272	5,498	7,341	6,806	8,439
237 U. SD	2,350	2,239	2,669	3,373	2,084	3,534	5,830	8,308
238 U. Denver	7,415	7,888	9,385	9,081	7,439	9,248	8,386	8,268
239 SD School of Mines and Technology	3,278	2,990	3,221	3,300	4,127	4,417	6,950	8,222

TABLE 27. Federally financed R&amp;D expenditures at universities and colleges, ranked by FY 2003 expenditures: FY 1996–2003

(Dollars in thousands)

Institution and ranking	1996	1997	1998	1999	2000	2001	2002	2003
240 Mercer U. all campuses	10,832	10,741	12,043	12,657	11,350	9,076	8,607	8,018
241 U. NC Charlotte	3,411 i	3,779 i	4,150	4,780	5,380	5,145	5,850	7,981
242 Prairie View A&M U.	10,325	9,315	9,612	8,675	7,679	7,094	7,712	7,886
243 U. TX Arlington	14,804	26,829	11,294	6,089	5,106	9,413	7,848	7,884
244 U. AR Little Rock	NA	NA	NA	NA	3,400 e	2,088	2,088 e	7,757
245 Tuskegee U.	8,231	29,930	26,894	6,942	6,694	7,259	7,703	7,660
246 Alcorn State U.	3,365	4,242 i	5,119	5,223	8,034	7,370	5,809	7,582
247 East Carolina U.	4,079	3,904	4,027	4,832	4,388	5,188	6,030	7,565
248 Universidad Central del Caribe	2,353	2,072	3,208 i	4,345	5,347	6,622	6,470	7,183
249 VA State U.	2,735	3,453	2,792	2,061	3,602	4,246	6,895	6,964
250 Northern IL U.	4,809	3,460	3,344	3,727	3,603	4,264	4,980	6,892
251 CA State U. Los Angeles	1,806 i	1,359 i	912 i	463	8,344	5,365	7,728	6,882
252 Finch U. of Health Sciences/Chicago Medical School	5,209	5,022	5,022 e	4,860	5,117	6,256	5,638	6,783
253 U. PR Rio Piedras Campus	3,866	4,275	5,460	5,654	5,620	6,013	4,971	6,760
254 ID State U.	2,054	1,128	5,200	1,258	3,723	3,837	4,738	6,746
255 CA State U. Northridge	1,439 i	1,374 i	1,309	2,324	3,182	3,182 e	6,786	6,460
256 Air Force Institute of Technology	2,291	4,212	2,228	1,540	5,371	1,671	2,609	6,418
257 KY State U.	2,761	2,139	703	703 e	2,179 i	3,655	6,036	6,395
258 Boise State U.	1,875	1,932	1,892	2,595	2,151	3,962	4,173	6,321
259 U. North TX	3,492	3,703	2,621	2,617	3,618	5,401	6,015	6,320
260 Ponce School of Medicine	4,212	2,607	2,783 i	2,960	3,257	3,736	3,720	6,270
261 Morgan State U.	3,691 i	3,825 i	3,960	1,066	4,371	2,390	1,674	6,232
262 LA Tech U.	1,395 i	1,840 i	2,287	2,287 e	2,635	2,242	3,487	6,113
263 San Francisco State U.	3,799 i	3,744 i	3,689 i	3,630 e	4,561 e	4,561 e	13	6,089
264 Worcester Polytechnic Institute	6,967	7,315	5,230	4,292	4,219	4,506	5,013	5,966
265 Southern Methodist U.	6,007	4,543	4,836	6,387	6,302	5,587	6,026	5,940
266 U. GU	2,076 i	2,141 i	2,206	2,242	3,165	3,355	4,183	5,818
267 Tarleton State U.	911	1,177	1,483	1,623	1,426	4,094	5,216	5,698
268 U. MA Boston	2,706	3,075	3,160	2,951	3,378	2,546	4,837	5,579
269 Teachers C. Columbia U.	262	560	2,900	4,119	5,613	5,617	5,939	5,572
270 Polytechnic U.	6,329	3,485	2,843	4,595	8,200	4,063	4,918	5,511 i
271 FL Institute of Technology	2,980	2,292	2,152	2,735	2,980	2,614	3,646	5,204
272 SUNY C. of Environmental Science and Forestry	3,021	2,690	2,715	3,874	4,332	4,355	4,630	5,177
273 U. HI Hilo	NA	NA	NA	NA	NA	NA	8,499	5,082
274 CUNY Queens C.	1,365	1,637	2,323	1,884	2,604	3,484	5,516	5,062
275 Xavier U. LA	5,106	5,473	5,355	3,240	3,174	4,666	6,019	5,036
276 U. MO-St. Louis	3,349	3,650	3,975	4,841	4,523	4,321	4,755	4,978
277 CA State U. San Bernardino	198 i	228 i	258	697	880	676	1,399	4,858
278 Clarkson U.	3,794	3,368	3,010	3,694	3,837	4,286	4,286 e	4,833
279 East TN State U.	738	714	1,368	1,400	2,768	3,572	3,908	4,642



TABLE 27. Federally financed R&amp;D expenditures at universities and colleges, ranked by FY 2003 expenditures: FY 1996–2003

(Dollars in thousands)

Institution and ranking	1996	1997	1998	1999	2000	2001	2002	2003
280 TX A&M U. Corpus Christi	NA	NA	NA	NA	1,363	2,357	3,127	4,581
281 MT Tech of the U. MT	2,275 i	2,521 i	2,767 i	3,014	2,744	2,617	2,977	4,488
282 Clark U.	1,756	2,134	1,660	2,651	1,652	2,605	3,418	4,475
283 Oakland U.	3,222	3,303	3,218	3,033	3,033 e	5,318	4,903	4,470
284 Wesleyan U.	3,889	3,731	3,570	3,640	4,058	3,893	3,734	4,424
285 Marquette U.	2,270	2,421	3,510	3,416	3,085	3,309	3,565	4,409
286 Norfolk State U.	2,187	1,388	2,442	2,970	3,273	3,952	4,902	4,404
287 Bowling Green State U. all campuses	2,391 i	2,436	2,029	1,847	1,847 e	2,395	2,829	4,378
288 Langston U.	2,521	1,828	2,031	2,340	2,553	2,863	3,975	4,332
289 Miami U. all campuses	2,633	2,876	2,687	3,302	2,674	3,324	4,021	4,312
290 Villanova U.	1,390	1,471	2,470 i	3,470	4,035	4,293 i	4,551 e	4,229 i
291 U. LA Monroe	1,573	2,308	1,466	2,824	2,824 e	3,106 i	3,540 i	4,044 i
292 Wellesley C.	2,533	2,304	2,304 e	2,684 i	3,064 i	3,446	3,446 e	3,996
293 U. AK Anchorage all campuses	0 i	0 i	0 e	2,537	2,537 e	3,390 i	4,244 e	3,929
294 CA State Polytechnic U. Pomona	993 i	1,018 i	1,043 i	1,069	1,703	2,498	2,806	3,922
295 Southwest TX State U.	1,530 i	1,323 i	1,116	1,871	3,519	3,854	4,144	3,873
296 CA State Polytechnic U. San Luis Obispo	2,658 i	3,301 i	3,948	7,673	7,605	6,153	5,968	3,820
297 Rowan U.	NA	NA	NA	NA	NA	NA	NA	3,755
298 CUNY Herbert H. Lehman C.	891	927 e	1,071 i	1,216	1,444	2,048	2,816	3,725
299 DE State U.	1,787	1,833	2,734	2,055	3,052	2,222	2,819	3,636
300 Cleveland State U.	3,522 i	3,588 e	3,696 e	3,655 e	3,318	3,986	4,649	3,611
301 Humboldt State U.	1,822 i	2,003 i	2,185	2,629	2,629 e	2,945 i	3,354 i	3,553 i
302 CA State U. Dominguez Hills	2,226 i	2,794 i	3,362 i	3,932	909	2,578	2,783	3,471
303 U. AR Pine Bluff	2,747	2,838	2,911	2,911 e	2,754 i	2,596	3,016	3,470
304 Embry-Riddle Aeronautical U.	1,506 i	1,470 i	1,432	1,432 e	1,551 e	6,987	4,174	3,323
305 Institute of Paper Science and Technology	3,043 i	3,746 e	3,746 e	3,398 e	3,398 e	2,947	2,947 e	3,303 i
306 U.S. Naval Academy	3,777 i	3,156 i	2,534	2,234	2,770	3,140	2,324	3,169
307 CA State U. Fullerton	1,028 i	1,028 i	1,028 e	1,879 i	2,730 i	3,581 i	4,434	3,140
308 Western KY U.	2,083 i	2,606 i	3,130	2,287	2,711	3,294	3,493	3,125
309 Fisk U.	1,969	1,969 e	2,909	2,846	2,652	2,577	3,030	3,000
310 TX Southern U.	3,474	3,707	2,504	2,292	1,844	1,908	3,910	2,925
311 U. North FL	NA	NA	NA	NA	NA	731	1,397	2,915
312 CUNY Brooklyn C.	1,408	1,492	1,574 e	2,228	2,866	2,776	2,538	2,798
313 Ft. Valley State U.	2,338	2,471	2,359	2,318	2,417	2,417 e	2,985	2,798
314 U. DC	1,756	1,756 e	1,898	1,829	1,629	2,008	2,963	2,769
315 TX A&M U. Kingsville	1,532 i	1,703 i	1,874	1,771	2,179	1,828	1,956	2,766
316 DePaul U.	842	926	822	571	478	1,142	1,971	2,747
317 Duquesne U.	618	711	867	1,531	1,902	1,969	2,232	2,742
318 Sam Houston State U.	4,495	4,974	2,527	3,225	2,128	1,802	2,386	2,726 i
319 TX Christian U.	2,159	2,541	2,493	3,257	2,441	2,824	2,492	2,716

TABLE 27. Federally financed R&amp;D expenditures at universities and colleges, ranked by FY 2003 expenditures: FY 1996–2003

(Dollars in thousands)

Institution and ranking	1996	1997	1998	1999	2000	2001	2002	2003
320 U. NC Greensboro	1,730	1,581	1,829	1,535	1,535 e	2,803	3,340	2,704
321 C. Charleston	1,240 i	1,481 i	1,724	1,553	1,607	1,988	2,364	2,678
322 West TX A&M U.	76 i	93 i	114	93	140	2,681	3,245	2,595
323 CA State U. Fresno	1,199 i	1,382 i	1,565 i	1,749 e	1,823	585	1,392	2,579
324 Maharishi U. of Management	0	0	0	0	1,213	1,213	2,618	2,541
325 SUNY C. of Optometry	327	268	386	755	698	993	1,032	2,461
326 U. Scranton	1,898 i	2,200 i	2,502 i	2,804 i	3,106 i	3,408 i	3,715	2,439
327 Savannah State U.	317	316	331 i	513	905	2,181	2,206	2,337 i
328 Western WA U.	1,619 i	1,782 i	1,954	2,004	1,548	1,300	1,651	2,271
329 NM Highlands U.	2,345	2,446 i	2,547 i	2,648	3,747	1,849	1,953	2,264
330 Central WA U.	813 i	934 i	1,055 i	1,179	1,426	1,337	1,468	2,246
331 Bowie State U.	49	2,672	4,403	2,360	2,360 e	2,022	2,200	2,206
332 SC State U.	1,910	1,948	1,968	1,978	1,988	1,988 e	1,998	2,198
333 Spelman C.	988	1,282	1,700	1,832	1,978	3,262	2,968	2,186
334 Lincoln U. (Jefferson City, MO)	2,681	2,584	2,635 i	2,686	2,502	2,236	2,513	2,149
335 American U.	2,864	2,672	3,163	2,735	1,886	1,999	3,467	2,141
336 CA State U. Monterey Bay	NA	NA	NA	NA	NA	1,285	1,285 e	2,091
337 GA Southern U.	805 i	814 i	823 i	833	944	841	882	2,074
338 Albany State U.	675 e	675 e	1,019	1,019 e	840	740	1,640	2,056
339 Winston-Salem State U.	1,246	1,874	1,898	1,619	3,216	4,853	2,022	2,022 e
340 Lamar U.	1,451	1,169	2,307	2,914	2,330	2,217	2,080	1,998
341 Nova Southeastern U.	861	1,003	1,500	2,637	2,060	1,750	1,959	1,963
342 Gallaudet U.	2,449 i	2,284 i	2,119	2,264	1,682	1,768	1,880	1,959
343 Christopher Newport U.	NA	NA	NA	NA	NA	NA	NA	1,945
344 Ball State U.	1,459	1,329	959	835	873	1,177	1,590	1,944
345 IL State U.	2,110	2,420	2,468 e	2,057	2,108	1,638	1,574	1,928
346 New England C. of Optometry	437	715	1,020	1,118	950	1,179	1,792	1,900
347 U. TX-Pan American	1,121 i	1,176 i	1,233	1,068	1,135	1,288	1,387	1,887
348 Grambling State U.	1,450	2,630	1,936	1,936 e	2,200	2,200 e	1,977	1,880
349 Eastern MI U.	651 i	732 i	813 i	895	1,213	1,745	777	1,849
350 Fordham U.	1,421	1,472	769	1,725	2,101	1,980	1,990	1,823
351 U. Redlands	NA	NA	NA	NA	NA	NA	2,674	1,810
352 CUNY York C.	903	1,271	1,480	1,372	1,317	923	1,650	1,796
353 Ithaca C.	693 i	882 i	1,075	1,607	2,131	1,653	2,060	1,792
354 U. Central AR	NA	NA	NA	NA	820	1,189	1,140	1,790
355 St. Joseph's U.	330 i	395 i	462	185	797	1,130	2,069	1,771
356 CUNY Graduate Ctr.	3,077 i	3,445	3,573	515	532	1,489	832	1,724
357 CUNY C. Staten Island	557	559	739	595	858	1,128	1,315	1,723
358 Northeastern OH Universities C. of Medicine	1,068	1,530	1,430	1,693	2,002	2,072	1,871	1,708
359 Mt. Holyoke C.	663 i	696 i	733	975	1,135	1,004	1,449	1,639

TABLE 27. Federally financed R&amp;D expenditures at universities and colleges, ranked by FY 2003 expenditures: FY 1996–2003

(Dollars in thousands)

Institution and ranking	1996	1997	1998	1999	2000	2001	2002	2003
360 James Madison U.	617 i	669 i	722	763	712	890	1,372	1,607
361 U. Northern CO	470	702	609 e	526	982	994	840	1,581
362 TN Technological U.	1,250	1,205	1,065	1,222	1,452	1,124	1,695	1,539
363 Morehouse C.	591	591 e	591 e	1,843	1,843 e	1,843 i	1,843 i	1,517 i
364 Middle TN State U.	119	107	127	319	478	296	211	1,513
365 TX Woman's U.	1,006	1,304	1,485	1,306	1,440	1,185	1,321	1,494
366 Southern CT State U.	184 i	156 i	128 i	100	215	215 e	144	1,485
367 Long Island U. all campuses	14	700	1,197	1,116	1,044	919	1,162	1,470
368 Williams C.	1,010 i	1,010 i	1,010 e	1,345	1,345 e	1,367 i	1,389	1,454
369 AL State U.	970	787	1,133	1,190	1,190 e	1,249 e	1,249	1,449
370 Carleton C.	366 i	376 i	386 i	398	760	693	959	1,417
371 U. New Haven	272	188 i	104 i	19	19 e	1,492	1,492 e	1,386 i
372 Barnard C.	678	685 e	1,038	1,008	1,198	1,269	1,021	1,369
373 CA State U. Chico	107	1,090	1,497	850	450	961	617	1,356
374 Southern IL U. Edwardsville	275 i	261 i	244	147	200	311	1,413	1,340
375 Occidental C.	1,513 i	1,513 i	1,513 e	297	545	812	1,303	1,319
376 Bucknell U.	483 i	547 i	611 i	679	754	1,106	1,240	1,285
377 Lafayette C.	289 i	291 i	295	354	331	353	519	1,253
378 Harvey Mudd C.	691 i	804 i	917 i	1,032	1,032 e	1,156 i	1,316 i	1,223 i
379 Pomona C.	410 i	395 i	376	654	678	679	917	1,219
380 PA C. of Optometry	383 i	351 i	319 i	283	525	695	928	1,209
381 St. John's U. (Jamaica, NY)	1,227	1,230	916	1,177	938	938 e	1,060 i	1,188 i
382 SUNY C. Old Westbury	510	743	767	485	1,067	1,067 e	1,193	1,182
383 U.S. Coast Guard Academy	304 i	302 i	300	300	405	466	1,128	1,166
384 U. of the Pacific	860	1,755	254	844	546	489	730	1,160
385 U. WI Stout	881	774	986	782	880	816	1,003	1,156
386 Middlebury C.	622 i	643 i	664 i	688	1,371	1,285	1,150	1,150 e
387 SUNY C. Oswego	551	459	480	478	587	578	901	1,120
388 Hampshire C.	964 i	1,155	1,264	662	872	998	1,095	1,112
389 Chicago State U.	739	738	696	1,254	1,248	1,356	1,236	1,107
390 Elizabeth City State U.	753	1,146	575	1,040	1,558	1,248	1,058	1,103
391 CA State U. Hayward	642 i	856 i	1,070 i	1,284 i	1,498 i	1,712 i	1,930	1,088
392 SUNY C. Plattsburgh	740	692	802	432	610	712	760	1,087
393 Murray State U.	362	422	554	388	629	778	739	1,075
394 Bowdoin C.	388	137	213	154	228	140	658	1,070
395 SUNY C. Buffalo	1,786	1,207	1,054	1,167	577	338	583	1,053
396 Morehead State U.	352 i	451 i	550 i	649 i	748 i	847 i	946 i	1,046
397 Northeastern State U.	NA	NA	NA	NA	NA	NA	919	1,038
398 Shaw U.	115	122	110	100	100 e	411 i	722 i	1,033
399 NC Central U.	804 i	795 i	786 i	777 e	761 i	853 i	971 i	1,029 i

TABLE 27. Federally financed R&amp;D expenditures at universities and colleges, ranked by FY 2003 expenditures: FY 1996–2003

(Dollars in thousands)

Institution and ranking	1996	1997	1998	1999	2000	2001	2002	2003
400 Benedict C.	634 i	634 i	800 i	966 i	1,143	1,014	966	1,002
401 Bradley U.	407 i	519 i	632	218	146	286	953	973
402 U. WI La Crosse	748	510	562	686	1,001	871	1,196	967
403 Bates C.	387	306	411	576	463	819	977	964
404 Amherst C.	934 i	899 i	861	726	999	849	955	955 e
405 OR Institute of Technology	NA	NA	NA	NA	NA	NA	727	953
406 Haverford C.	635	933	820	937	1,000	989	874	931
407 Swarthmore C.	661	511	586	586 e	586 e	691	1,107	915
408 Towson U.	148	170	268	1,028	846	694	1,037	904
409 U. Northern IA	712	588	496	344	378	380	1,063	898
410 Rose-Hulman Institute of Technology	438 i	540 i	642 i	748	420	1,457	744	892
411 Bryn Mawr C.	1,039	871	910	764	978	855	751	880
412 Smith C.	695 i	730	634	240	774	812	515	866
413 Claremont Graduate U.	256	259	123	384	798	1,024	621	859
414 Furman U.	475	533	315	208	524	487	1,003	852
415 Hamilton C. (Clinton, NY)	359 i	359 i	359 e	414 i	469	382	1,035	849
416 SUNY C. Geneseo	251	218	229	183	389	350	481	847
417 U. WI Eau Claire	242	325	395	338	219	288	580	827
418 U. WI Green Bay	215	238	238	240	267	328	601	824
419 Pacific U.	0	0	0	0	20	157	157	823
420 Youngstown State U.	339 i	422 i	508	144	191	425	800	821
421 Baylor U.	433	615	522	522 e	353	516	830	812
422 U. Richmond	464	588	781	812	849	815	1,347	807
423 Santa Clara U.	450 i	479 i	506 i	533 i	574 i	625 i	706 i	791 i
424 Pittsburg State U.	30	69	229	94	247	514	963	781
425 Coastal Carolina U.	NA	NA	NA	NA	1,051	736	787	776
426 Stephen F. Austin State U.	1,684	2,285	1,125	776	521	959	1,054	759
427 Macalester C.	344 i	417 i	490 i	563 i	636 i	713	1,057	755
428 Bethune Cookman C.	333	472	566	583	586	926	794	741
429 New School U.	748 i	814	773	1,069	873	1,083	1,083 e	741
430 Augsburg C.	492 i	430 i	368 i	303	337	497	655	734
431 U. WI Stevens Point	629	413	306	257	193	270	639	725
432 U. WI Superior	619	169	96	97	33	79	552	720
433 Lincoln U. (Lincoln University, PA)	1,135	949	1,364	972	709	620	718	704
434 St. Cloud State U.	669 i	827 i	987	987 e	987 e	892 i	797 i	700
435 Drake U.	179 i	175 i	171 i	167	198	163	692	692 e
436 Alfred U. all campuses	600	445	1,348	1,491	1,227	1,166	946	674
437 U. Hartford	41	27	124	299	629	578	537	667
438 CUNY Medgar Evers C.	NA	NA	NA	NA	258	714	970	652
439 Colgate U.	NA	NA	NA	NA	917	708	586	646

TABLE 27. Federally financed R&amp;D expenditures at universities and colleges, ranked by FY 2003 expenditures: FY 1996–2003

(Dollars in thousands)

Institution and ranking	1996	1997	1998	1999	2000	2001	2002	2003
440 MS Valley State U.	586	563	350	495	834	1,316	1,030	636
441 Trinity U.	777 i	750 i	723 i	692	746	746 e	250	636
442 Hope C.	697 i	756 i	815 i	879	602	692	853	635
443 Seton Hall U.	1,228 i	1,243 e	1,243	1,116	996	826	692	635
444 Dickinson C.	NA	NA	1,168	653	390	806	685	624
445 U. San Diego	167	157	334	282	422	185	1,425	622
446 SUNY C. Brockport	288	264	349	308	344	344 e	478 i	613
447 U. Southern CO	959	616	538	642	370	707	541	580
448 St. Olaf C.	299 i	339 i	379 i	424	530	403	683	575
449 IN State U. all campuses	532	669	592	368	251	269	284	573
450 Whitman C.	108 i	84 i	58	181	283	322	211	568
451 Kettering U.	162 i	176 i	192	89	270	270	638	562
452 MA C. of Pharmacy and Health Sciences	0	0	0	0 e	64 i	129	77	562
453 Milwaukee School of Engineering	130 i	170 i	211	269	306	420	651	558
454 Southeastern LA U.	311 i	389 i	467 i	550	629	342	525	556
455 Southern U. New Orleans	NA	NA	NA	NA	60 e	652	902	556
456 State U. West GA	408 i	531 i	654 i	777 i	900	634	400	556
457 CA State U. Bakersfield	192 i	159 i	126 i	92 e	459	459 e	523 i	554 i
458 Fayetteville State U.	503 i	139	378	265	507	298	311	546
459 Southern OR U.	200 i	241	230	205	253	154	542	544
460 Loyola Marymount U.	NA	NA	NA	NA	NA	NA	NA	538
461 Franklin and Marshall C.	647 i	684 i	723	348	604	599	441	529
462 Midwestern U. (Chicago, IL)	613	756	491	443	467	542	589	529
463 U. AK Southeast all campuses	226 i	300 i	374 i	448 i	522 i	596 i	673 e	525
464 U. WI Oshkosh	119	199	268	307	248	271	356	523
465 Calvin C.	283 i	290 i	297 i	306	270	514	338	522
466 U. Houston-Clear Lake	2,924 i	2,095 i	1,266	5,387	6,383	10,629	7,460	514
467 Evergreen State C.	393 i	428 i	463 i	498 i	537	487	441	511
468 West Chester U. PA	271	148	462	547	697	697 e	918	505
469 Indiana U. PA all campuses	520	491	491 e	354	544	453	476	504
470 Kirksville C. of Osteopathic Medicine	482	381	329	311	542	731	895	494
471 Appalachian State U.	303	244	247	219	128	280	543	491
472 C. NJ, The	NA	NA	NA	NA	NA	NA	456	483 i
473 Reed C.	343 i	329 i	315 i	300 e	391	277	583	472
474 Union C. (Schenectady, NY)	610	343	126	608	553	587	1,217	471
475 U. San Francisco	343 i	296 i	249 i	200 e	400	400 e	431 i	462
476 Hofstra U.	192	319	319	659	649	402	402 e	450 i
477 VA Union U.	NA	NA	537	537 e	537 i	537 i	537 i	442 i
478 Dillard U.	314	164	164 e	164	182	199	393	441
479 McNeese State U.	131 e	25	256	611	512	290	409	430

TABLE 27. Federally financed R&amp;D expenditures at universities and colleges, ranked by FY 2003 expenditures: FY 1996–2003

(Dollars in thousands)

Institution and ranking	1996	1997	1998	1999	2000	2001	2002	2003
480 U. of Health Sciences	180	162	305	305 e	0	380	513	429
481 U. WI Parkside	112	132	119	108	212	352	563	427
482 Trinity C. (Hartford, CT)	409 i	448 i	487 i	529	326	326 e	181	426
483 Oberlin C.	456 i	513 i	570 i	627 i	691	285	406	424
484 Montclair State U.	98 i	109 i	120 i	131 i	146	465	383	406 i
485 Lewis and Clark C.	234 i	271 i	309	394	392	206	272	394
486 Roanoke C.	NA	NA	NA	NA	NA	NA	NA	388
487 AR State U. main campus	102 i	125 i	152	224	267	321	312	385
488 Skidmore C.	42 i	56 i	74	61	67	68	227	384
489 Denison U.	179 i	192 i	205 i	221	238	121	183	381
490 Western IL U.	9,016	8,804	10,867	6,595	6,112	5,501	4,982	379
491 Albany C. of Pharmacy	NA	NA	NA	NA	839	806	572	377
492 U. Houston-Downtown	870 i	860 i	850 i	838	660	660 e	596	373
493 Southwest MO State U.	482 i	539 i	596	484	484 e	443	79	371
494 Allegheny C.	255 i	254 i	253 i	252	88	412	562	368
495 Oakwood C.	371	716	690	447	447 e	447 i	447 i	368 i
496 Eastern WA U.	804 i	804 i	804 e	1,244	1,366	1,668	986	365
497 Juniata C.	77 i	95 i	113 i	135	105	107 e	101	363
498 National U. of Health Sciences	NA	NA	NA	NA	NA	NA	402	362
499 Pace U. all campuses	0	0	555	435	236	295	362	362 e
500 U. IL Springfield	NA	NA	NA	NA	182	126	200	362
501 Spalding U.	0	0	176	0	441	331	359	359 e
502 Philadelphia C. of Osteopathic Medicine	91	95	57	99	392	395	387	358
503 C. Wooster	172 i	153	244	318	276	249	284	342
504 Chapman U.	30 i	40 i	50 i	60 i	73	77	442	340
505 Vassar C.	517 i	517 i	517 e	419 i	321	321 e	366 i	340 i
506 SUNY C. Cortland	246	235	26	30	233	276	316	335
507 Tougaloo C.	867 i	929	657	767	473	407	407 i	335 i
508 John Carroll U.	701 i	824 i	947 i	1,072	1,072 e	232	489	334
509 Loyola C.	981	833	1,191	1,397	1,513	675	770	330
510 NJ City U.	NA	NA	NA	NA	NA	NA	184	326
511 Grinnell C.	117 i	117 i	117 e	210	774	168	385	325
512 Central MI U.	213	107 i	0	142	142 e	291	190	318
513 St. Mary's C. MD	NA	NA	NA	NA	378	233	262	318
514 Central State U.	1,162 i	1,153 i	1,144	1,144 e	283 e	283 i	283 i	304 i
515 Simmons C.	233 i	194 i	155 i	112	74	30	118	302
516 Kennesaw State U.	111	141	132	142	249	298	221	300
517 Eastern KY U.	3,889 i	5,059 i	6,229 i	7,403	192	235	225	297
518 Claflin U.	474	1,074	1,028	250	250 e	1,958	203	293
519 Central CT State U.	95 i	104 i	113 i	122 i	137	138	102	282

TABLE 27. Federally financed R&amp;D expenditures at universities and colleges, ranked by FY 2003 expenditures: FY 1996–2003

(Dollars in thousands)

Institution and ranking	1996	1997	1998	1999	2000	2001	2002	2003
520 Morris Brown C.	2,422	525	525 e	321 i	116	116 e	343	282 i
521 SUNY Purchase C.	161	211	160	188	139	145 i	151	282
522 Grand Valley State U.	30	42	92	309	368	392	405	278
523 C. of the Holy Cross	1,245	265	251	151	142	446	329	272
524 U. NC Asheville	250 i	238 i	226 i	213	227	386	412	271
525 Valparaiso U.	231 i	200	259	500	275	308	262	267
526 Pitzer C.	182	164	197	246	299	261	227	266
527 Wiley C.	NA	NA	0	0	0	0	0	263
528 Manhattan C.	519 i	424 i	327	70	293	293 e	257	257 e
529 Fairfield U.	147 i	161 i	175 i	189 i	203	160	106	246
530 Northern KY U.	160 i	132 i	104 i	71	41	34 i	26	240
531 Augustana C. (Sioux Falls, SD)	278 i	277 i	276 i	275 i	274 i	273 i	265	224
532 Iona C.	127	145	149 i	153 i	157 i	161 i	167	222
533 Wilkes U.	NA	NA	NA	NA	NA	NA	79	221
534 Western Carolina U.	95	218	277	300	354	362	280	218
535 CUNY Baruch C.	41	15	83 i	151	87	87 e	347	213
536 Sonoma State U.	NA	NA	145	16	33	597	161	213
537 U. WI Whitewater	233	171	145	106	223	255	210	204
538 OH Wesleyan U.	444	340	106	185	185 e	194 i	203	203 e
539 St. Mary's U. (San Antonio, TX)	108 i	56 i	0	0	62	193	152	199
540 Colby C.	88 i	90 i	93	121	83	146	306	192
541 Ft. Lewis C.	204	323	149	157	139	231	221	191
542 Rider U.	NA	NA	NA	NA	225	189	218	185
543 Bridgewater State C.	299 i	239 i	179 i	114	287	64	196	174
544 Providence C.	39	20	17	29	29 e	101 i	173	173 e
545 Abilene Christian U.	186 i	176 i	162	114	165	162	173	172
546 SUNY C. Fredonia	144	100	93	52	120	121	104	172
547 CUNY John Jay C. of Criminal Justice	579	565	912	951	779	733	201	168
548 U. Southern ME	299 i	268 i	236	123	123 e	138 i	157 i	166 i
549 Lawrence Technological U.	48 i	49 i	51	57	121	194	191	159
550 U. Detroit Mercy	950	877	494	310	314	219	369	158
551 Truman State U.	125	223	156	156 e	127 i	98 i	68	156
552 Hartwick C.	92 i	100 i	108 i	116 i	124 i	132 i	140 i	151
553 U. of St. Thomas (St. Paul, MN)	141 i	148 i	158	19	54 i	89	160	151
554 AR Tech U.	49 i	51 i	55	137	92	130	130 e	140 i
555 Radford U.	NA	NA	103	115	444	492	357	136
556 Willamette U.	NA	NA	137	29	77	69	87	136
557 U. Portland	119	127	55	105	235	291	285	133
558 Lake Forest C.	15 i	20 i	28	74	200	220	126	132
559 New C. FL	NA	NA	NA	NA	NA	NA	55	130

TABLE 27. Federally financed R&amp;D expenditures at universities and colleges, ranked by FY 2003 expenditures: FY 1996–2003

(Dollars in thousands)

Institution and ranking	1996	1997	1998	1999	2000	2001	2002	2003
560 Western U. of Health Sciences	115	40	253	253 e	127 i	0	214	129
561 Adelphi U.	221	329	80	130	73	101	114 i	128 i
562 Eastern OR U.	NA	NA	NA	NA	NA	NA	243	126
563 Southeastern OK State U.	NA	NA	NA	NA	NA	NA	NA	122
564 U. of the Sciences Philadelphia	342	269	162	162 e	222	200	311	119
565 U. Findlay, The	NA	NA	NA	NA	275	0	100	115
566 Augustana C. (Rock Island, IL)	42 i	42 i	42 e	55 i	68 i	81 i	94 i	108
567 Jarvis Christian C.	102	83	55	56	55	55 e	10	100
568 Salem International U.	NA	NA	271	247	239	106	106 e	98 i
569 Sul Ross State U.	137	148	156	74	228	95	77	96
570 MN State U. Mankato	298 i	335 i	372	164	175	165	181	95
571 NY Institute of Technology all campuses	30	28	38	92	114	166	84	94 i
572 Fairleigh Dickinson U. all campuses	35 i	17	7	7	24	98	98	85
573 Andrews U.	252	106	117	117 e	87	145	123	82
574 Wilberforce U.	323	236	236 e	205 i	174 i	143 i	112 i	80
575 Des Moines U. Osteopathic Medical Ctr.	0	0	2	309	134	164	164 e	78
576 CO C.	96 i	101 i	106	47	145	136	143	74
577 Talladega C.	0	0	0 i	0	0	0	0	71
578 Ferris State U.	NA	NA	49	0	0 e	62	62 e	70 i
579 U. Central OK	66 i	66 i	65	121	9	245	250	58
580 Nicholls State U.	NA	NA	NA	NA	14	0	59	57
581 U. WI River Falls	55	71	69	69	24	81	89	51
582 La Salle U.	302	192	136	229	0	236	0	45
583 TX A&M U. Commerce	80	55	122	109	157	83	37	43
584 Widener U. all campuses	0	0	0	70	37	37 e	42 i	39 i
585 Bluefield State C.	NA	NA	0	0	0	0	0	36
586 VA Military Institute	240	175	67	92	50	24	10	32
587 Northeastern IL U.	62	110	68	18	24	47	47	26
588 Pontifical Catholic U. PR, The	20 e	64	78	96	85	89	54	19
589 Saginaw Valley State U.	727 i	635 i	543 i	451 i	359 i	267 i	174	19
590 Western State C. CO	45 i	43 i	37	20	28	5	17	17 e
591 U. Dallas	34	36	441	157	0	26	30	15
592 Alliant International U.	NA	NA	NA	NA	NA	378	214	5
Antioch U. all campuses	0	0	0	0	0	0	0	0
Azusa Pacific U.	NA	NA	NA	NA	0 e	0	0	0
Bennett C.	93 i	93 e	583	583 e	438 i	293 i	148 i	0
Biola U.	0	0	0	0	0	0	0	0
CA Institute of Integral Studies	0	0	0	0	0	0	0	0
CA State U. Sacramento	NA	NA	NA	NA	NA	NA	NA	0 i
CT C.	65 i	34 i	0 e	0 i	0 i	0 i	0 i	0 i



TABLE 27. Federally financed R&amp;D expenditures at universities and colleges, ranked by FY 2003 expenditures: FY 1996–2003

(Dollars in thousands)

Institution and ranking	1996	1997	1998	1999	2000	2001	2002	2003
Cooper Union	50 i	50 i	50 e	34	94	27	0	0
Coppin State C.	116	15	6	11	0	0	0	0
East Stroudsburg U. PA	289 i	352 i	415 i	480	271	147	0	0
Forest Institute of Professional Psychology	0	0	0	0	0	0	0	0
Golden Gate U.	0	0	0	0	0	0	0	0
Gonzaga U.	NA	NA	NA	NA	NA	NA	NA	0
Institute of Textile Technology	0	0	0	0	0	0	0	0 e
Johnson C. Smith U.	1,083	1,546	4,299	8,659	250	195	0	0
Le Moyne-Owen C.	NA	NA	1,404	1,031	1,700	1,250	0	0 i
Miles C.	NA	NA	NA	NA	NA	NA	7,943	0
Morris C.	NA	NA	NA	NA	NA	NA	NA	0
Pepperdine U.	0	0	0	0	0	0	0	0
Philander Smith C.	73	73	73 e	72	72 e	0	0	0
Rust C.	0	0	317	114	138	0	0	0
Selma U.	250	210	210 e	116	0	0 e	0	0
Union Institute & U.	0	0 i	0	0	0	0 e	0	0
U. MD Eastern Shore	1,980	2,187	2,265	2,508	3,895	5,626	0	0
U. MO system administration	0	0	0	0	0	0	0	0
WV School of Osteopathic Medicine	0	0	0	0	0	0	0	0
WV State C.	10	196	0	0	0 e	0 e	0 i	0 i
All other sampled institutions	45,604	68,881	83,098	39,146	45,617	37,679	27,007	0

e = estimated.

i = imputed.

NA = not available.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory, with \$582 million in federally financed R&D expenditures.

NOTE: Tied institutions are ranked alphabetically.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 28. Nonfederal R&amp;D expenditures at universities and colleges, ranked by FY 2003 expenditures for the first 200 institutions: FY 1996–2003

(Dollars in thousands)

Institution and ranking	1996	1997	1998	1999	2000	2001	2002	2003
All institutions	9,205,400	10,055,357	10,704,268	11,428,469	12,532,339	13,573,859	14,510,311	15,343,366
1 U. CA, Los Angeles	118,010	182,928	213,362	225,621	256,664	380,943	420,836	428,183
2 U. WI Madison	179,396	186,050	203,182	250,476	275,732	300,134	317,098	325,017
3 U. CA, San Francisco	98,893	136,635	160,340	183,914	194,135	247,486	269,572	299,746
4 OH State U. all campuses	143,336	166,518	177,341	187,594	229,180	229,560	254,504	297,950
5 TX A&M U. all campuses	218,308	221,732	248,782	253,052	247,629	257,659	273,193	279,116
6 U. CA, Davis	124,416	162,398	174,778	183,487	223,049	277,459	280,009	273,818
7 U. CA, Berkeley	148,149	218,101	248,679	260,514	310,176	238,193	257,449	268,980
8 U. MI all campuses	187,814	187,457	185,311	174,393	187,523	204,406	229,469	263,236
9 U. CA, San Diego	79,592	138,086	155,687	169,625	192,522	213,257	225,625	246,408
10 U. FL	168,126	178,045	168,352	182,151	193,318	212,471	219,208	234,776
11 Cornell U. all campuses	136,452	145,509	159,324	160,760	180,521	203,362	225,545	233,892
12 PA State U. all campuses	147,250	154,749	176,369	180,297	201,501	212,115	208,033	232,333
13 U. IL Urbana-Champaign	123,481	130,104	158,016	172,480	179,534	195,547	212,851	227,094
14 LA State U. all campuses	131,804	140,184	141,838	149,977	162,226	174,286	189,435	215,303
15 U. MN all campuses	142,252	162,946	155,582	163,623	181,422	197,722	198,964	215,291
16 Duke U.	92,604	95,642	109,856	161,517	152,445	157,024	180,177	213,327
17 U. GA	153,103	171,093	163,233	181,413	195,798	205,385	206,574	205,864
18 U. AZ	125,652	133,057	140,329	142,119	157,929	167,644	179,055	195,867
19 U. TX M. D. Anderson Cancer Ctr.	78,170	79,876	78,186	85,713	100,324	118,693	144,512	192,300
20 NC State U.	116,263	159,819	174,721	190,103	187,221	203,384	198,037	189,868
21 MI State U.	105,346	107,201	112,465	118,077	141,324	153,587	167,192	187,590
22 IN U. all campuses	63,379	69,267	75,914	92,528	120,160	143,118	166,321	184,044
23 Purdue U. all campuses	115,319	114,619	123,635	130,703	142,526	156,766	178,301	180,277
24 U. NE central administration	99,692 i	108,224 i	112,792 i	133,141 i	132,478	154,732	165,220	179,797
25 U. MD Baltimore	56,996	62,708	65,284	56,387	133,134	139,916	149,805	171,115
26 Rutgers, The State U. NJ all campuses	117,515	114,813	127,224	138,174	145,557	159,637	167,624	168,516
27 GA Institute of Technology all campuses	109,478	127,693	145,590	150,864	178,347	162,697	174,667	160,608
28 Baylor C. of Medicine	92,319	94,915	105,918	131,087	140,926	147,067	152,449	158,999
29 U. KY all campuses	67,271	62,676	100,586	107,850	128,534	125,482	135,849	152,059
30 VA Polytechnic Institute and State U.	63,496	82,151	84,384	93,864	121,545	138,939	149,584	149,664
31 U. PA	72,263	79,016	85,563	104,556	117,955	117,856	124,682	149,085
32 U. MD College Park	117,269	112,999	93,992	112,547	115,824	121,868	130,885	138,693
33 Johns Hopkins U., The <sup>a</sup>	88,349	104,715	100,637	103,938	107,890	119,505	117,725	137,161
34 MA Institute of Technology	109,068	99,534	102,357	111,385	119,631	131,176	116,377	129,558
35 U. IL Chicago	62,549	68,557	77,942	88,687	93,896	107,989	116,669	123,444
36 U. MO-Columbia	80,141	84,843	90,613	95,127	93,441	106,347	99,269	121,001
37 Stanford U.	56,153	63,038	67,883	72,602	90,739	98,438	111,854	119,687
38 Northwestern U.	86,452	92,651	95,324	101,162	95,536	99,804	103,547	119,406
39 U. WA	93,777	89,175	95,900	114,547	139,720	154,523	140,214	119,212

TABLE 28. Nonfederal R&amp;D expenditures at universities and colleges, ranked by FY 2003 expenditures for the first 200 institutions: FY 1996–2003

(Dollars in thousands)

Institution and ranking	1996	1997	1998	1999	2000	2001	2002	2003
40 IA State U.	97,010	102,495	105,570	107,122	115,582	117,172	117,245	117,269
41 Washington U. St. Louis	63,443	75,433	82,377	97,008	108,068	121,714	113,519	116,964
42 U. TN all campuses	75,607	80,181	80,901	88,743	91,631	83,287	99,917	116,903
43 Rockefeller U.	68,226	66,020	71,649	76,509	78,927	90,209	99,044	116,840
44 U. Southern CA	64,977	67,437	78,259	81,122	89,573	94,390	105,752	113,904
45 U. TX Austin	93,798	87,067	79,761	93,209	93,922	99,920	101,808	111,858
46 Wayne State U.	65,887	70,676	80,810	89,222	92,494	96,536	103,097	110,754
47 SUNY Buffalo all campuses	49,888	57,571	75,613	81,333	91,282	90,234	105,583	110,386
48 U. NC Chapel Hill	51,495	67,395	63,791	69,832	74,278	81,961	116,235	109,864
49 U. South FL	64,406	68,581	68,395	81,956	94,840	112,724	113,786	107,147
50 WA State U.	49,834	52,670	50,912	52,333	56,355	59,277	85,724	104,528
51 U. CA, Irvine	46,653	55,376	63,813	66,337	70,163	78,131	93,921	100,783
52 U. TX Southwestern Medical Ctr. Dallas	48,694	51,232	56,511	63,524	80,051	90,556	108,700	99,496
53 U. OK all campuses	66,392	68,631	72,410	84,496	90,360	88,431	99,985	99,148
54 Emory U.	53,931	55,097	54,839	56,354	61,156	66,680	85,155	94,969
55 U. IA	72,582	75,880	83,751	84,497	96,180	100,099	108,065	94,775
56 Yale U.	57,907	56,412	57,634	60,646	64,687	70,812	79,939	90,931
57 Clemson U.	56,727	55,942	61,951	72,277	83,599	75,325	87,666	90,434
58 SUNY Stony Brook all campuses	46,807	50,056	50,235	55,045	66,666	75,222	75,923	87,878
59 MS State U.	49,487	49,229	58,406	64,368	78,695	81,446	81,131	86,085
60 U. of Medicine and Dentistry NJ	51,030	52,912	54,663	64,547	65,633	76,363	87,921	85,268
61 U. KS all campuses	58,791	62,160	66,548	75,480	79,720	81,973	89,468	82,148
62 Auburn U. all campuses	55,957	58,048	60,062	53,486	61,097	66,250	66,343	78,729
63 U. CT all campuses	94,513	91,337	81,259	79,490	94,940	94,353	78,677	78,687
64 U. Rochester	31,981	36,834	43,844	44,274	46,742	67,316	66,303	77,620
65 Princeton U.	42,994	44,882	46,991	51,263	60,194	70,791	66,684	75,940
66 NY U.	55,864	59,171	55,026	56,055	65,042	60,825	72,983	75,560
67 AZ State U. main campus	45,706	43,040	50,660	53,279	58,182	62,147	58,609	73,850
68 U. CA, Riverside	43,768	51,480	56,776	55,827	62,495	68,742	79,631	72,059
69 U. UT	20,635	36,589	42,234	42,127	63,317	70,344	74,082	71,627
70 CO State U.	51,771	49,187	59,728	58,338	50,850	59,836	66,195	69,903
71 U. Cincinnati all campuses	55,190	63,312	69,388	52,677	61,610	64,846	67,573	69,822
72 OR State U.	51,357	51,336	55,824	57,636	60,353	69,071	70,052	67,132
73 OK State U. all campuses	57,926	41,025	48,246	59,929	63,515	64,675	63,887	65,331
74 FL State U.	38,598	42,963	44,012	42,007	48,265	56,742	63,895	64,292
75 U. Pittsburgh all campuses	39,866	41,700	45,331	54,859	66,654	80,221	93,287	64,059
76 Mt. Sinai School of Medicine	30,806	33,862	39,453	43,141	51,658	67,602	59,356	61,795
77 TX Tech U.	29,987	31,744	35,645	38,246	44,783	46,951	54,583	60,739
78 U. CA, Santa Barbara	17,884	26,234	27,354	30,535	37,400	39,544	53,425	60,708
79 Harvard U.	79,396	77,349	54,224	60,174	60,111	71,693	64,760	60,087

TABLE 28. Nonfederal R&amp;D expenditures at universities and colleges, ranked by FY 2003 expenditures for the first 200 institutions: FY 1996–2003

(Dollars in thousands)

Institution and ranking	1996	1997	1998	1999	2000	2001	2002	2003
80 U. TX Medical Branch	35,436	35,677	37,900	38,519	36,539	38,040	51,434	60,083
81 KS State U.	46,453	51,115	54,232	57,478	60,605	60,032	62,816	59,420
82 U. CO all campuses	73,784	77,615	82,861	73,932 e	53,241 i	56,829	59,352	58,820
83 U. SC all campuses	27,350	40,850	50,199	57,345	52,526	57,990	69,705	58,366
84 Medical U. SC	13,789	19,321	21,467	24,822	23,811	56,144	56,227	57,658
85 U. AK Fairbanks all campuses	41,030	42,816	44,101	54,178	55,895	54,908	50,110	56,309
86 U. AR main campus	43,734	49,096	55,530	45,734	50,039	55,131	55,475	55,206
87 Vanderbilt U.	21,319	23,854	28,889	32,788	41,940	40,274	35,447	54,095
88 ND State U. all campuses	31,978	28,765	30,220	32,388	34,600	49,675	50,691	53,872
89 U. MA Amherst	35,709	44,886	46,774	46,699	52,195	48,400	54,562	52,673
90 Columbia U. in the City of NY	40,751	32,157	37,284	39,429	36,530	36,569	48,654	52,140
91 U. NM all campuses	39,768	39,174	41,545	30,874	33,538	47,114	46,346	51,698
92 Dartmouth C.	13,263	18,465	19,911	22,781	22,505	39,252	39,584	49,761
93 U. Louisville	16,349	19,913	24,080	41,515	46,349	47,741	41,996	48,598
94 Yeshiva U.	18,034	18,883	19,000	22,091	37,987	40,430	42,856	48,342
95 U. Miami	33,340	34,372	35,480	37,725	39,162	41,969	50,148	46,846
96 U. TX Health Science Ctr. San Antonio	31,825	32,541	30,403	30,900	38,573	44,001	45,855	46,621
97 U. Chicago	21,570	28,848	25,653	27,085	29,806	38,559	41,434	46,193
98 VA Commonwealth U.	33,564	33,966	32,371	31,610	36,083	41,865	44,591	45,250
99 Case Western Reserve U.	33,534	40,833	44,056	42,154	42,471	39,401	37,154	45,222
100 SUNY Albany	17,852	16,225	16,674	18,036	20,733	23,448	26,996	44,617
101 WV U.	24,044	33,869	37,377	37,128	38,117	41,871	35,591	44,162
102 Brown U.	25,482	27,747	29,565	31,054	31,533	33,269	41,267	43,645
103 UT State U.	37,945	41,698	39,325	40,931	45,783	47,108	42,228	43,368
104 NJ Institute of Technology	18,549	17,441	19,855	19,855	30,514	39,473	41,588	43,129
105 U. ID	39,717	40,166 i	40,615	38,268	38,333	40,948	43,293	42,352
106 U. Central FL	2,774	25,231	22,028	26,418	33,845	56,945	36,422	42,131
107 U. TX Health Science Ctr. Houston	21,347	28,433	31,547	34,019	39,922	36,894	39,704	41,813
108 Southern IL U. Carbondale	19,742	21,411	22,689	25,509	26,224	32,339	42,815	40,940
109 U. CA, Santa Cruz	19,335	25,423	26,652	27,818	30,253	35,052	38,066	40,235
110 U. ME	18,473	18,078	20,078	22,289	30,409	40,197	38,417	40,022
111 U. MA Worcester	23,143	27,996	29,184	27,524	33,375	31,768	38,737	39,741
112 Rush U.	26,292	25,587	26,833	29,838	35,616	32,918	34,638	39,362
113 U. AL Birmingham, The	44,389	53,257	60,890	66,892	58,152	37,077	38,832	39,280
114 San Diego State U.	26,020	20,349	22,194	25,855	32,200	34,711	39,079	38,969
115 MT State U. Bozeman	32,430	29,733	28,310	29,244	34,760	34,736	38,225	38,220
116 U. NH	22,388	21,758	26,446	27,027	33,187	42,656	42,393	36,952
117 U. WY	25,562	32,750	30,694	28,088	26,538	21,615	21,615 e	36,868
118 U. HI Manoa	44,300	47,686	61,121	63,392	65,881	59,260	50,941	35,705
119 Tulane U.	33,940	36,719	34,934	36,545	37,705	44,092	38,174	35,591

TABLE 28. Nonfederal R&amp;D expenditures at universities and colleges, ranked by FY 2003 expenditures for the first 200 institutions: FY 1996–2003

(Dollars in thousands)

Institution and ranking	1996	1997	1998	1999	2000	2001	2002	2003
120 U. VT	22,138	25,484	26,372	27,964	23,530	26,787	30,322	34,162
121 Tufts U.	25,848	28,147	30,963	38,036	41,106	34,137	36,055	33,667
122 NM State U. all campuses	22,941	23,859	20,783	23,002	22,622	25,839	32,764	33,245
123 OR Health and Science U.	28,995	29,682	27,228 i	24,774 i	22,321	25,114	28,498	32,957
124 U. NV, Reno	27,006	31,890	25,093	23,352	29,981	27,843	26,763	32,797
125 U. VA all campuses	22,078	31,597	39,962	23,282	24,732	26,679	29,982	32,757
126 U. DE	24,645	33,064	36,208	38,893	36,995	35,661	36,974	31,213
127 U. Houston	23,730	24,221	20,279	22,927	27,537	29,691	28,252	30,899
128 U. LA Lafayette	10,493	17,682	18,934	21,305	20,528	19,943	34,871	29,314
129 Carnegie-Mellon U.	44,684	43,427	42,404	51,766	46,789	47,419	50,224	28,768
130 TX A&M U. System Health Science Ctr.	NA	NA	NA	NA	11,415	22,475	27,219	28,302
131 Medical C. GA	24,633	26,821	26,679	27,112	30,386	31,075	28,388	28,118
132 U. MD Ctr. for Environmental Science	15,450	15,137	16,598	18,700	20,800	24,530	25,421	25,690
133 Medical C. WI	12,838	12,265	12,190	14,359	15,547	19,854	20,459	25,582
134 U. Memphis, The	13,475	15,858	16,637	17,916	16,204	18,433	19,553	23,743
135 Thomas Jefferson U.	17,679	20,137	17,732	22,041	22,178	24,055	23,757	23,735
136 George Washington U.	18,773	20,976	29,409	16,813	19,673	22,048	27,559	23,495
137 GA State U.	12,296	19,525	19,869	22,213	24,510	25,385	25,597	23,435
138 U. MS all campuses	10,644	10,535	11,616	13,076 i	16,820	18,959 i	21,098 i	23,238
139 U. AR for Medical Sciences	16,558	18,087	17,630	17,674	19,112	17,702	17,555	21,996
140 C. of William and Mary all campuses	12,163	13,140	14,869	19,430	20,268	20,541	21,851	21,982
141 Wake Forest U.	19,486	21,003	20,188	22,534	21,255	20,322	19,896	21,938
142 U. MD Biotechnology Institute	15,404	20,398	20,072	17,261	18,789	21,405	23,837	21,867
143 NM Institute of Mining and Technology	13,375	11,478	13,832	15,342	14,984	15,137	17,445	21,752
144 SUNY C. of Environmental Science and Forestry	18,948	17,850	19,321	21,511	22,331	23,499	21,707	21,606
145 CA Institute of Technology	14,531	13,663	7,318	16,913	25,789	21,531	20,060	21,567
146 Uniformed Services U. of the Health Sciences	12,230	9,594	12,762	13,202	12,964	13,142	18,336	21,077
147 Boston U.	22,320	22,870	25,626	17,712	20,299	21,260	21,174	20,894
148 Drexel U.	7,709	8,722	8,674	9,483	10,584	7,539	14,233	20,277
149 Temple U.	27,813	28,126	34,231	24,206	14,253	18,539	19,273	20,018
150 Woods Hole Oceanographic Institution	11,195	11,021	10,246	12,188	14,511	15,359	21,506	19,813
151 U. Akron all campuses	10,714	12,853	12,284	9,139	12,414	13,594	18,543	18,605
152 U. of Notre Dame	5,670	4,943	5,820	6,869	7,162	16,295	19,086	18,583
153 Rensselaer Polytechnic Institute	13,169	16,018 e	16,786	16,231	15,207	19,116	19,465	18,482
154 U. MO-Rolla	12,693	12,815	13,806	17,162	16,164	16,870	16,473	17,857
155 Eastern VA Medical School	7,527	8,491	12,223	12,742	11,185	14,861	15,495	17,370
156 OH U. all campuses	10,283	11,218	11,146	10,893	12,072	14,248	18,924	17,121
157 Brandeis U.	13,527	14,912	16,491	18,882	21,214	22,787	18,116	17,119
158 U. MO-Kansas City	7,510	6,354	6,676	7,125	12,157	10,619	13,265	16,872
159 U. AR Little Rock	NA	NA	NA	NA	0 e	0	0 e	16,527

TABLE 28. Nonfederal R&amp;D expenditures at universities and colleges, ranked by FY 2003 expenditures for the first 200 institutions: FY 1996–2003

(Dollars in thousands)

Institution and ranking	1996	1997	1998	1999	2000	2001	2002	2003
160 Georgetown U.	30,878	34,916	31,810	27,454	34,375	5,602	9,363	16,436
161 U. MT, The	9,830	9,597	8,385	9,745	11,212	14,341	16,755	16,342
162 U. TX Dallas	7,979	7,842	7,096	8,328	8,635	8,635 e	14,574	16,218
163 SD State U.	9,425	10,021	9,819	9,513	9,336	11,261	10,970	16,211
164 Wright State U. all campuses	7,879	7,290	8,844	10,766	16,549	16,616	14,892	16,127
165 Northeastern U.	3,274	3,501	4,931	7,433	8,424	10,935	14,245	16,036
166 Southern IL U. Edwardsville	1,080 i	900 i	722	1,169	1,144	959	12,630	15,760
167 CUNY Hunter C.	8,938	7,142	7,083	8,408	6,397	9,042	11,332	15,657
168 Creighton U.	6,595	7,998	10,915	11,086	10,300	10,399	12,388	14,703
169 U.S. Air Force Academy	78 i	104 i	130	62	46	314	17,426	14,599
170 Syracuse U. all campuses	15,961	10,862 i	8,122	9,590	10,443	12,440	13,166	14,287
171 SUNY Binghamton	12,839	13,092	14,549	12,237	12,342	12,600	12,384	14,109
172 U. WI Milwaukee	11,653	11,839	11,871	12,135	11,585	12,403	13,472	13,555
173 U. ND all campuses	4,212	3,124	3,534	3,384	3,463	3,949	8,969	13,467
174 U. Toledo	4,674 e	5,792	6,146	6,137	7,382	9,577	15,829	13,195
175 Lehigh U.	12,371	11,569	13,096	14,741	12,780	15,097	9,168	12,996
176 CO School of Mines	9,757	9,891	11,987	11,011	9,800	11,340	13,285	12,848
177 MI Technological U.	11,279	11,199	12,584	11,967	10,554	11,993	12,032	12,597
178 Rose-Hulman Institute of Technology	413 i	403 i	393 i	384	4,574	17,083	7,168	12,309
179 Institute of Paper Science and Technology	9,489 i	11,678 e	11,678 e	7,135 e	7,135 e	10,982	10,982 e	12,191 i
180 IL Institute of Technology	4,817	4,514	4,067	3,661	2,808	3,805	8,632	11,844
181 Wichita State U.	7,708	9,195	10,471	11,295	10,985	10,416	12,155	11,782
182 Old Dominion U.	8,311	7,847	7,804	9,324	10,150	9,379	12,053	11,442
183 FL International U.	3,441	3,531	3,637	9,304	14,353	20,351	15,597	11,315
184 U. AL Huntsville, The	12,035	11,086	13,174	15,037	15,335	13,106	12,693	11,037
185 CA State U. Fresno	6,347 i	7,403 i	8,780 i	9,701 e	9,775	3,946	8,006	10,979
186 Cleveland State U.	7,168 i	7,296 e	7,515 e	8,238 e	6,896	9,000	9,206	10,501
187 Charles R. Drew U. of Medicine and Science	1,098	1,153 e	1,153 e	2,272	9,076	9,302	9,580	10,481
188 U. PR Mayaguez Campus	24,934	27,805	29,278	31,864	22,846	9,612	11,074	10,433
189 U. MA Boston	8,192	8,119	8,331	8,181	8,680	9,126	8,284	10,214
190 U. RI	4,746 i	4,789	4,632	8,245	9,597	7,674	7,894	9,876
191 CA State Polytechnic U. San Luis Obispo	2,666 i	2,347 i	2,024	4,219	4,528	6,040	8,034	9,778
192 U. NV, Las Vegas	5,751	6,407	7,199	9,922	10,400	11,327	8,160	9,694
193 Loyola U. Chicago	12,534	16,223	16,556	11,413	9,339	10,682	9,929	9,474
194 Western MI U.	6,270	6,417	7,509	9,562	9,646	8,784	9,110	9,440
195 Miami U. all campuses	6,214	6,768	4,051	7,662	8,000	9,480	9,258	9,415
196 San Jose State U.	9,180 i	9,180 i	9,180 e	9,180 e	9,180 e	8,408	9,226	9,388
197 SUNY Health Science Ctr. Brooklyn	11,569 i	10,731	9,199	7,787	8,766	8,766 e	9,486 i	9,297 i
198 SUNY Upstate Medical U.	7,329	7,726	7,602	7,210	8,634	8,479	8,922	9,279
199 Boston C.	3,367	3,539	4,996	7,234	11,094	10,645	8,927	9,251

TABLE 28. Nonfederal R&D expenditures at universities and colleges, ranked by FY 2003 expenditures for the first 200 institutions: FY 1996–2003  
(Dollars in thousands)

Institution and ranking	1996	1997	1998	1999	2000	2001	2002	2003
200 U. TX El Paso	3,077	2,977	3,334	3,669	4,461	5,722	7,227	9,069
All other sampled institutions	474,893	494,707	530,030	535,639	538,369	572,659	634,085	642,462

e = estimated.

i = imputed.

NA = not available.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory, with \$25 million in nonfederally financed R&D expenditures.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 29. R&D expenditures at universities and colleges, ranked by all R&D expenditures for the first 200 institutions, by source of funds: FY 2003  
(Dollars in thousands)

Institution and ranking	All R&D expenditures	Federal government	State and local government	Industry	Institutional funds	All other sources
All institutions	40,077,399	24,734,033	2,652,966	2,162,215	7,683,484	2,844,701
1 Johns Hopkins U., The <sup>a</sup>	1,244,132	1,106,971	4,186	19,477	58,616	54,882
2 U. CA, Los Angeles	849,357	421,174	67,483	30,425	207,588	122,687
3 U. MI all campuses	780,054	516,818	16,532	36,087	157,565	53,052
4 U. WI Madison	721,248	396,231	41,492	15,918	199,072	68,535
5 U. WA	684,814	565,602	11,699	48,222	43,599	15,692
6 U. CA, San Francisco	671,443	371,697	26,668	37,396	127,704	107,978
7 U. CA, San Diego	646,508	400,100	23,781	28,868	122,556	71,203
8 Stanford U.	603,227	483,540	4,366	31,176	41,718	42,427
9 U. PA	564,716	415,631	2,476	26,623	42,674	77,312
10 Cornell U. all campuses	554,760	320,868	61,712	25,569	103,990	42,621
11 PA State U. all campuses	533,427	301,094	56,104	77,660	97,496	1,073
12 Duke U.	520,191	306,864	14,756	122,181	45,548	30,842
13 U. MN all campuses	508,557	293,266	59,293	24,152	70,446	61,400
14 U. CA, Berkeley	507,186	238,206	34,976	22,460	141,929	69,615
15 OH State U. all campuses	496,438	198,488	11,657	45,957	187,954	52,382
16 U. IL Urbana-Champaign	493,581	266,487	52,725	13,253	140,859	20,257
17 MA Institute of Technology	485,764	356,206	398	80,664	12,580	35,916
18 U. CA, Davis	482,145	208,327	40,059	22,688	163,540	47,531
19 Washington U. St. Louis	474,328	357,364	10,077	13,054	58,887	34,946
20 Baylor C. of Medicine	461,763	302,764	3,347	17,526	61,510	76,616
21 TX A&M U. all campuses	456,235	177,119	112,180	27,006	128,079	11,851
22 U. AZ	454,941	259,074	17,668	31,079	126,029	21,091
23 Columbia U. in the City of NY	437,669	385,529	2,280	5,350	21,514	22,996
24 U. CO all campuses	436,761	377,941	7,765	10,239	22,345	18,471
25 U. FL	429,734	194,958	70,977	23,893	124,070	15,836
26 U. Southern CA	414,099	300,195	11,022	25,406	77,476	0
27 U. Pittsburgh all campuses	409,684	345,625	10,784	4,427	24,202	24,646
28 Harvard U.	408,707	348,620	1,561	5,929	0	52,597
29 U. NC Chapel Hill	390,542	280,678	15,690	6,551	87,623	0
30 Yale U.	387,644	296,713	870	15,417	25,228	49,416
31 GA Institute of Technology all campuses	364,190	203,582	8,054	32,839	115,672	4,043
32 U. TX Austin	343,854	231,996	21,338	32,174	42,702	15,644
33 IN U. all campuses	337,669	153,625	5,061	8,079	124,546	46,358
34 Emory U.	323,224	228,255	8,390	6,416	32,617	47,546
35 U. MD College Park	321,899	183,206	19,478	8,060	100,717	10,438
36 MI State U.	321,410	133,820	56,953	11,307	106,639	12,691
37 Northwestern U.	319,722	200,316	2,833	8,927	76,431	31,215
38 U. TX M. D. Anderson Cancer Ctr.	315,169	122,869	78,379	31,316	45,267	37,338
39 LA State U. all campuses	314,665	99,362	87,637	16,212	88,327	23,127
40 Purdue U. all campuses	309,476	129,199	43,806	34,720	101,437	314
41 U. GA	299,748	93,884	56,806	15,777	132,374	907
42 U. MD Baltimore	297,271	126,156	28,163	65,473	40,737	36,742
43 U. IA	292,035	197,260	8,505	20,954	55,067	10,249
44 U. IL Chicago	291,507	168,063	9,235	7,014	86,372	20,823
45 NC State U.	286,025	96,157	83,003	35,940	62,795	8,130
46 U. Rochester	285,768	208,148	11,995	25,298	27,690	12,637
47 U. AL Birmingham, The	284,497	245,217	99	6,255	19,307	13,619
48 U. TX Southwestern Medical Ctr. Dallas	276,692	177,196	15,933	12,087	6,968	64,508
49 U. NE central administration	276,424	96,627	8,515	14,314	136,998	19,970
50 Vanderbilt U.	276,074	221,979	110	5,042	37,349	11,594
51 Rutgers, The State U. NJ all campuses	274,576	106,060	34,963	10,821	95,256	27,476



TABLE 29. R&D expenditures at universities and colleges, ranked by all R&D expenditures for the first 200 institutions, by source of funds: FY 2003  
(Dollars in thousands)

Institution and ranking	All R&D expenditures	Federal government	State and local government	Industry	Institutional funds	All other sources
52 U. KY all campuses	272,062	120,003	42,067	6,693	85,034	18,265
53 U. Cincinnati all campuses	255,083	185,261	5,269	5,254	46,233	13,066
54 Case Western Reserve U.	250,674	205,452	5,508	5,339	15,414	18,961
55 VA Polytechnic Institute and State U.	247,807	98,143	58,378	24,760	56,046	10,480
56 U. Chicago	247,322	201,129	6,515	3,189	16,219	20,270
57 NY U.	241,593	166,033	5,637	8,043	28,605	33,275
58 CA Institute of Technology	240,664	219,097	3,554	4,825	10,717	2,471
59 SUNY Buffalo all campuses	240,180	129,794	7,898	10,575	68,367	23,546
60 U. CA, Irvine	234,656	133,873	11,062	11,101	49,316	29,304
61 Boston U.	224,841	203,947	394	8,084	0	12,416
62 U. UT	223,739	152,112	2,656	4,964	36,834	27,173
63 U. TN all campuses	217,389	100,486	40,451	13,994	43,302	19,156
64 Mt. Sinai School of Medicine	214,514	152,719	4,700	12,686	20,067	24,342
65 Wayne State U.	213,717	102,963	17,254	13,566	64,519	15,415
66 U. South FL	213,249	106,102	10,098	2,115	72,405	22,529
67 U. VA all campuses	206,199	173,442	990	9,053	13,139	9,575
68 U. MO-Columbia	205,212	84,211	21,885	4,802	89,127	5,187
69 SUNY Stony Brook all campuses	200,330	112,452	4,552	4,950	64,791	13,585
70 IA State U.	199,566	82,297	42,204	14,384	58,012	2,669
71 OR Health and Science U.	197,178	164,221	3,898	8,673	6,575	13,811
72 Rockefeller U.	192,143	75,303	7,673	2,988	76,440	29,739
73 U. of Medicine and Dentistry NJ	190,763	105,495	9,977	11,364	41,818	22,109
74 U. CT all campuses	190,341	111,654	6,615	12,143	43,564	16,365
75 CO State U.	187,054	117,151	21,066	14,736	32,395	1,706
76 Carnegie-Mellon U.	186,351	157,583	3,877	13,132	6,080	5,679
77 Princeton U.	179,951	104,011	5,406	8,487	49,243	12,804
78 U. HI Manoa	179,285	143,580	11,792	6,829	17,084	0
79 U. Miami	177,709	130,863	5,293	17,117	8,617	15,819
80 Yeshiva U.	177,236	128,894	0	0	48,342	0
81 WA State U.	175,181	70,653	7,124	3,666	83,208	10,530
82 U. OK all campuses	174,466	75,318	14,181	10,645	59,118	15,204
83 U. KS all campuses	173,024	90,876	6,444	2,821	61,976	10,907
84 OR State U.	167,631	100,499	32,385	353	29,736	4,658
85 MS State U.	165,922	79,837	31,931	6,246	47,908	0
86 U. NM all campuses	158,239	106,541	3,348	2,286	41,157	4,907
87 Dartmouth C.	155,795	106,034	3,256	5,062	28,821	12,622
88 U. TX Medical Branch	153,122	93,039	13,783	7,979	24,770	13,551
89 Clemson U.	152,986	62,552	17,172	12,329	60,572	361
90 FL State U.	152,277	87,985	9,508	1,329	48,109	5,346
91 Medical U. SC	150,551	92,893	639	7,288	44,266	5,465
92 U. TX Health Science Ctr. Houston	149,294	107,481	3,240	12,414	11,614	14,545
93 U. CA, Santa Barbara	149,130	88,422	2,834	13,550	26,766	17,558
94 U. MA Worcester	148,823	109,082	26,976	4,397	0	8,368
95 AZ State U. main campus	145,591	71,741	18,141	8,103	44,167	3,439
96 UT State U.	138,862	95,494	19,204	3,340	17,403	3,421
97 U. TX Health Science Ctr. San Antonio	133,304	86,683	5,857	7,514	22,375	10,875
98 Wake Forest U.	130,405	108,467	734	12,962	1,528	6,714
99 U. AK Fairbanks all campuses	128,916	72,607	2,817	23,093	30,399	0
100 VA Commonwealth U.	126,451	81,201	3,424	10,780	26,828	4,218
101 Brown U.	125,090	81,445	189	2,363	35,809	5,284
102 Auburn U. all campuses	124,103	45,374	1,032	3,849	69,112	4,736
103 U. SC all campuses	121,410	63,044	3,668	3,368	46,354	4,976

TABLE 29. R&D expenditures at universities and colleges, ranked by all R&D expenditures for the first 200 institutions, by source of funds: FY 2003  
(Dollars in thousands)

Institution and ranking	All R&D expenditures	Federal government	State and local government	Industry	Institutional funds	All other sources
104 SUNY Albany	120,655	76,038	23,477	1,554	7,865	11,721
105 Tulane U.	117,709	82,118	7,374	14,454	11,325	2,438
106 U. MA Amherst	113,512	60,839	3,842	3,838	36,490	8,503
107 KS State U.	112,733	53,313	33,720	2,751	17,501	5,448
108 Tufts U.	112,609	78,942	1,232	8,756	12,072	11,607
109 U. CA, Riverside	112,468	40,409	6,916	5,004	49,276	10,863
110 Thomas Jefferson U.	109,083	85,348	5,201	8,781	9,262	491
111 NM State U. all campuses	108,613	75,368	7,935	4,895	19,035	1,380
112 Medical C. WI	108,608	83,026	169	1,188	13,240	10,985
113 U. VT	104,994	70,832	3,436	7,477	16,818	6,431
114 WV U.	104,748	60,586	3,067	2,274	37,049	1,772
115 Woods Hole Oceanographic Institution	104,223	84,410	775	167	3,051	15,820
116 OK State U. all campuses	103,079	37,748	25,281	4,877	34,485	688
117 U. DE	100,706	69,493	3,506	2,982	19,840	4,885
118 Georgetown U.	100,181	83,745	1,504	7,601	6,897	434
119 U. NH	96,415	59,463	4,453	6,195	20,318	5,986
120 TX Tech U.	92,515	31,776	27,207	7,166	21,925	4,441
121 George Washington U.	92,454	68,959	1,379	1,863	1,708	18,545
122 ND State U. all campuses	91,812	37,940	2,120	979	46,276	4,497
123 MT State U. Bozeman	91,503	53,283	19,005	5,601	13,614	0
124 U. Central FL	89,880	47,749	4,822	6,128	28,610	2,571
125 Rush U.	89,196	49,834	15	9,321	26,975	3,051
126 U. Louisville	88,522	39,924	7,355	1,442	26,007	13,794
127 U. MS all campuses	85,378	62,140	4,624	964	10,754	6,896
128 U. ID	85,213	42,861	18,408	3,111	19,539	1,294
129 U. AR main campus	82,277	27,071	33,438	5,470	13,601	2,697
130 U. NV, Reno	80,553	47,756	4,036	1,570	25,675	1,516
131 U. CA, Santa Cruz	78,448	38,213	1,568	1,683	26,283	10,701
132 NJ Institute of Technology	73,664	30,535	11,518	5,681	22,774	3,156
133 Temple U.	71,327	51,309	1,832	4,245	7,785	6,156
134 Drexel U.	69,548	49,271	2,754	2,407	12,104	3,012
135 U. ME	68,923	28,901	11,017	3,323	23,545	2,137
136 San Diego State U.	67,053	28,084	9,169	1,249	21,488	7,063
137 U. AR for Medical Sciences	63,677	41,681	6,279	3,519	9,460	2,738
138 U. Houston	63,455	32,556	9,570	4,980	9,411	6,938
139 U. RI	61,818	51,942	6,540	619	1,428	1,289
140 Naval Postgraduate School	61,025	58,463	193	119	409	1,841
141 U. WY	60,054	23,186	1,993	2,494	29,370	3,011
142 U. of Notre Dame	59,803	41,220	2,370	6,971	9,242	0
143 Medical C. GA	56,398	28,280	2,929	2,687	20,827	1,675
144 TX A&M U. System Health Science Ctr.	55,031	26,729	2,876	1,631	14,670	9,125
145 Southern IL U. Carbondale	53,018	12,078	11,936	3,281	21,956	3,767
146 U. Dayton	52,943	47,327	377	3,143	1,577	519
147 Rice U.	52,367	43,706	3,272	1,426	0	3,963
148 FL International U.	52,175	40,860	5,479	4,697	601	538
149 Brandeis U.	50,841	33,722	77	0	6,622	10,420
150 Rensselaer Polytechnic Institute	50,777	32,295	3,950	6,486	6,023	2,023
151 Charles R. Drew U. of Medicine and Science	49,888	39,407	7,267	3,201	13	0
152 Syracuse U. all campuses	48,846	34,559	6,342	1,730	2,343	3,872
153 U. AL Huntsville, The	46,595	35,558	446	1,186	9,405	0
154 GA State U.	45,653	22,218	5,641	2,392	14,079	1,323
155 George Mason U.	44,980	38,510	860	472	1,736	3,402

TABLE 29. R&D expenditures at universities and colleges, ranked by all R&D expenditures for the first 200 institutions, by source of funds: FY 2003  
(Dollars in thousands)

Institution and ranking	All R&D expenditures	Federal government	State and local government	Industry	Institutional funds	All other sources
156 U. OR	44,604	36,127	370	247	4,590	3,270
157 C. of William and Mary all campuses	43,974	21,992	4,251	575	14,660	2,496
158 U. LA Lafayette	43,769	14,455	5,885	0	11,773	11,656
159 U. MT, The	43,562	27,220	1,267	875	12,822	1,378
160 Northeastern U.	42,931	26,895	1,276	8,179	6,581	0
161 U. MD Baltimore County	42,906	34,164	1,943	1,953	2,290	2,556
162 U. NV, Las Vegas	42,205	32,511	825	2,085	6,784	0
163 U. ND all campuses	41,803	28,336	1,640	5,657	5,101	1,069
164 St. Louis U. all campuses	41,189	36,989	276	3,605	75	244
165 U. MD Biotechnology Institute	39,789	17,922	3,645	3,087	15,135	0
166 U. Memphis, The	38,728	14,985	3,313	430	18,199	1,801
167 SUNY Health Science Ctr. Brooklyn	38,424 i	29,127 i	272 i	2,124 i	4,867 i	2,034 i
168 U. MD Ctr. for Environmental Science	38,344	12,654	4,885	79	17,041	3,685
169 Loyola U. Chicago	37,581	28,107	677	1,017	4,314	3,466
170 Howard U.	37,577	36,137	213	1,227	0	0
171 OH U. all campuses	37,527	20,406	2,455	2,831	10,631	1,204
172 NM Institute of Mining and Technology	37,186	15,434	3,589	8,145	8,743	1,275
173 AL A&M U.	36,856	30,343	3,098	1,140	2,275	0
174 U. MO-Rolla	35,999	18,142	239	3,540	12,312	1,766
175 U. Southern MS	35,049	31,653	835	2,067	494	0
176 Wright State U. all campuses	34,860	18,733	3,580	3,570	8,835	142
177 U. AL, The	34,187	26,241	1,796	1,150	5,000	0
178 Eastern VA Medical School	32,801	15,431	642	4,150	38	12,540
179 CUNY Hunter C.	32,704	17,047	4,941	103	7,435	3,178
180 Boston C.	32,158	22,907	50	1,251	4,175	3,775
181 Desert Research Institute	31,757	23,265	3,163	1,938	976	2,415
182 U. PR Medical Sciences Campus	31,124	25,845	316	1,848	3,046	69
183 U. MO-Kansas City	31,104	14,232	0	1,214	14,092	1,566
184 U. TX Dallas	30,748	14,530	8,812	2,843	1,635	2,928
185 Uniformed Services U. of the Health Sciences	30,604	9,527	0	0	21,077	0
186 NY Medical C.	30,492	23,387	100	5,266	89	1,650
187 Old Dominion U.	30,324	18,882	5,708	2,919	2,815	0
188 MI Technological U.	30,264	17,667	1,287	3,369	7,628	313
189 Lehigh U.	29,211	16,215	8,570	1,373	2,864	189
190 CO School of Mines	29,162	16,314	1,382	11,327	139	0
191 Jackson State U.	28,843	25,607	7	318	2,911	0
192 San Jose State U.	28,323	18,935	5,434	590	1,038	2,326
193 U. Akron all campuses	27,953	9,348	2,344	3,044	9,902	3,315
194 SD State U.	27,652	11,441	9,068	532	2,329	4,282
195 U. WI Milwaukee	27,259	13,704	3,969	463	7,435	1,688
196 U.S. Air Force Academy	27,198	12,599	0	160	14,439	0
197 U. TX El Paso	27,185	18,116	6,051	1,729	1,289	0
198 Morehouse School of Medicine	27,154	24,382	1,971	150	651	0
199 SUNY C. of Environmental Science and Forestry	26,783	5,177	1,960	1,088	17,206	1,352
200 Loma Linda U.	26,296	22,675	388	140	717	2,376
All other sampled institutions	1,844,373	1,093,980	191,525	133,525	276,711	148,632

i = imputed.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 30. R&D expenditures at public universities and colleges, ranked by all R&D expenditures for the first 150 institutions, by source of funds: FY 2003  
(Dollars in thousands)

Institution and ranking	All R&D expenditures	Federal government	State and local government	Industry	Institutional funds	All other sources
All institutions	27,355,031	15,295,157	2,363,629	1,459,446	6,402,377	1,834,422
1 U. CA, Los Angeles	849,357	421,174	67,483	30,425	207,588	122,687
2 U. MI all campuses	780,054	516,818	16,532	36,087	157,565	53,052
3 U. WI Madison	721,248	396,231	41,492	15,918	199,072	68,535
4 U. WA	684,814	565,602	11,699	48,222	43,599	15,692
5 U. CA, San Francisco	671,443	371,697	26,668	37,396	127,704	107,978
6 U. CA, San Diego	646,508	400,100	23,781	28,868	122,556	71,203
7 PA State U. all campuses	533,427	301,094	56,104	77,660	97,496	1,073
8 U. MN all campuses	508,557	293,266	59,293	24,152	70,446	61,400
9 U. CA, Berkeley	507,186	238,206	34,976	22,460	141,929	69,615
10 OH State U. all campuses	496,438	198,488	11,657	45,957	187,954	52,382
11 U. IL Urbana-Champaign	493,581	266,487	52,725	13,253	140,859	20,257
12 U. CA, Davis	482,145	208,327	40,059	22,688	163,540	47,531
13 TX A&M U. all campuses	456,235	177,119	112,180	27,006	128,079	11,851
14 U. AZ	454,941	259,074	17,668	31,079	126,029	21,091
15 U. CO all campuses	436,761	377,941	7,765	10,239	22,345	18,471
16 U. FL	429,734	194,958	70,977	23,893	124,070	15,836
17 U. Pittsburgh all campuses	409,684	345,625	10,784	4,427	24,202	24,646
18 U. NC Chapel Hill	390,542	280,678	15,690	6,551	87,623	0
19 GA Institute of Technology all campuses	364,190	203,582	8,054	32,839	115,672	4,043
20 U. TX Austin	343,854	231,996	21,338	32,174	42,702	15,644
21 IN U. all campuses	337,669	153,625	5,061	8,079	124,546	46,358
22 U. MD College Park	321,899	183,206	19,478	8,060	100,717	10,438
23 MI State U.	321,410	133,820	56,953	11,307	106,639	12,691
24 U. TX M. D. Anderson Cancer Ctr.	315,169	122,869	78,379	31,316	45,267	37,338
25 LA State U. all campuses	314,665	99,362	87,637	16,212	88,327	23,127
26 Purdue U. all campuses	309,476	129,199	43,806	34,720	101,437	314
27 U. GA	299,748	93,884	56,806	15,777	132,374	907
28 U. MD Baltimore	297,271	126,156	28,163	65,473	40,737	36,742
29 U. IA	292,035	197,260	8,505	20,954	55,067	10,249
30 U. IL Chicago	291,507	168,063	9,235	7,014	86,372	20,823
31 NC State U.	286,025	96,157	83,003	35,940	62,795	8,130
32 U. AL Birmingham, The	284,497	245,217	99	6,255	19,307	13,619
33 U. TX Southwestern Medical Ctr. Dallas	276,692	177,196	15,933	12,087	6,968	64,508
34 U. NE central administration	276,424	96,627	8,515	14,314	136,998	19,970
35 Rutgers, The State U. NJ all campuses	274,576	106,060	34,963	10,821	95,256	27,476
36 U. KY all campuses	272,062	120,003	42,067	6,693	85,034	18,265
37 U. Cincinnati all campuses	255,083	185,261	5,269	5,254	46,233	13,066
38 VA Polytechnic Institute and State U.	247,807	98,143	58,378	24,760	56,046	10,480
39 SUNY Buffalo all campuses	240,180	129,794	7,898	10,575	68,367	23,546
40 U. CA, Irvine	234,656	133,873	11,062	11,101	49,316	29,304
41 U. UT	223,739	152,112	2,656	4,964	36,834	27,173
42 U. TN all campuses	217,389	100,486	40,451	13,994	43,302	19,156
43 Wayne State U.	213,717	102,963	17,254	13,566	64,519	15,415
44 U. South FL	213,249	106,102	10,098	2,115	72,405	22,529
45 U. VA all campuses	206,199	173,442	990	9,053	13,139	9,575
46 U. MO-Columbia	205,212	84,211	21,885	4,802	89,127	5,187
47 SUNY Stony Brook all campuses	200,330	112,452	4,552	4,950	64,791	13,585
48 IA State U.	199,566	82,297	42,204	14,384	58,012	2,669
49 OR Health and Science U.	197,178	164,221	3,898	8,673	6,575	13,811
50 U. of Medicine and Dentistry NJ	190,763	105,495	9,977	11,364	41,818	22,109
51 U. CT all campuses	190,341	111,654	6,615	12,143	43,564	16,365

TABLE 30. R&D expenditures at public universities and colleges, ranked by all R&D expenditures for the first 150 institutions, by source of funds: FY 2003  
(Dollars in thousands)

Institution and ranking	All R&D expenditures	Federal government	State and local government	Industry	Institutional funds	All other sources
52 CO State U.	187,054	117,151	21,066	14,736	32,395	1,706
53 U. HI Manoa	179,285	143,580	11,792	6,829	17,084	0
54 WA State U.	175,181	70,653	7,124	3,666	83,208	10,530
55 U. OK all campuses	174,466	75,318	14,181	10,645	59,118	15,204
56 U. KS all campuses	173,024	90,876	6,444	2,821	61,976	10,907
57 OR State U.	167,631	100,499	32,385	353	29,736	4,658
58 MS State U.	165,922	79,837	31,931	6,246	47,908	0
59 U. NM all campuses	158,239	106,541	3,348	2,286	41,157	4,907
60 U. TX Medical Branch	153,122	93,039	13,783	7,979	24,770	13,551
61 Clemson U.	152,986	62,552	17,172	12,329	60,572	361
62 FL State U.	152,277	87,985	9,508	1,329	48,109	5,346
63 Medical U. SC	150,551	92,893	639	7,288	44,266	5,465
64 U. TX Health Science Ctr. Houston	149,294	107,481	3,240	12,414	11,614	14,545
65 U. CA, Santa Barbara	149,130	88,422	2,834	13,550	26,766	17,558
66 U. MA Worcester	148,823	109,082	26,976	4,397	0	8,368
67 AZ State U. main campus	145,591	71,741	18,141	8,103	44,167	3,439
68 UT State U.	138,862	95,494	19,204	3,340	17,403	3,421
69 U. TX Health Science Ctr. San Antonio	133,304	86,683	5,857	7,514	22,375	10,875
70 U. AK Fairbanks all campuses	128,916	72,607	2,817	23,093	30,399	0
71 VA Commonwealth U.	126,451	81,201	3,424	10,780	26,828	4,218
72 Auburn U. all campuses	124,103	45,374	1,032	3,849	69,112	4,736
73 U. SC all campuses	121,410	63,044	3,668	3,368	46,354	4,976
74 SUNY Albany	120,655	76,038	23,477	1,554	7,865	11,721
75 U. MA Amherst	113,512	60,839	3,842	3,838	36,490	8,503
76 KS State U.	112,733	53,313	33,720	2,751	17,501	5,448
77 U. CA, Riverside	112,468	40,409	6,916	5,004	49,276	10,863
78 NM State U. all campuses	108,613	75,368	7,935	4,895	19,035	1,380
79 U. VT	104,994	70,832	3,436	7,477	16,818	6,431
80 WV U.	104,748	60,586	3,067	2,274	37,049	1,772
81 OK State U. all campuses	103,079	37,748	25,281	4,877	34,485	688
82 U. DE	100,706	69,493	3,506	2,982	19,840	4,885
83 U. NH	96,415	59,463	4,453	6,195	20,318	5,986
84 TX Tech U.	92,515	31,776	27,207	7,166	21,925	4,441
85 ND State U. all campuses	91,812	37,940	2,120	979	46,276	4,497
86 MT State U. Bozeman	91,503	53,283	19,005	5,601	13,614	0
87 U. Central FL	89,880	47,749	4,822	6,128	28,610	2,571
88 U. Louisville	88,522	39,924	7,355	1,442	26,007	13,794
89 U. MS all campuses	85,378	62,140	4,624	964	10,754	6,896
90 U. ID	85,213	42,861	18,408	3,111	19,539	1,294
91 U. AR main campus	82,277	27,071	33,438	5,470	13,601	2,697
92 U. NV, Reno	80,553	47,756	4,036	1,570	25,675	1,516
93 U. CA, Santa Cruz	78,448	38,213	1,568	1,683	26,283	10,701
94 NJ Institute of Technology	73,664	30,535	11,518	5,681	22,774	3,156
95 Temple U.	71,327	51,309	1,832	4,245	7,785	6,156
96 U. ME	68,923	28,901	11,017	3,323	23,545	2,137
97 San Diego State U.	67,053	28,084	9,169	1,249	21,488	7,063
98 U. AR for Medical Sciences	63,677	41,681	6,279	3,519	9,460	2,738
99 U. Houston	63,455	32,556	9,570	4,980	9,411	6,938
100 U. RI	61,818	51,942	6,540	619	1,428	1,289
101 Naval Postgraduate School	61,025	58,463	193	119	409	1,841
102 U. WY	60,054	23,186	1,993	2,494	29,370	3,011
103 Medical C. GA	56,398	28,280	2,929	2,687	20,827	1,675

TABLE 30. R&D expenditures at public universities and colleges, ranked by all R&D expenditures for the first 150 institutions, by source of funds: FY 2003  
(Dollars in thousands)

Institution and ranking	All R&D expenditures	Federal government	State and local government	Industry	Institutional funds	All other sources
104 TX A&M U. System Health Science Ctr.	55,031	26,729	2,876	1,631	14,670	9,125
105 Southern IL U. Carbondale	53,018	12,078	11,936	3,281	21,956	3,767
106 FL International U.	52,175	40,860	5,479	4,697	601	538
107 U. AL Huntsville, The	46,595	35,558	446	1,186	9,405	0
108 GA State U.	45,653	22,218	5,641	2,392	14,079	1,323
109 George Mason U.	44,980	38,510	860	472	1,736	3,402
110 U. OR	44,604	36,127	370	247	4,590	3,270
111 C. of William and Mary all campuses	43,974	21,992	4,251	575	14,660	2,496
112 U. LA Lafayette	43,769	14,455	5,885	0	11,773	11,656
113 U. MT, The	43,562	27,220	1,267	875	12,822	1,378
114 U. MD Baltimore County	42,906	34,164	1,943	1,953	2,290	2,556
115 U. NV, Las Vegas	42,205	32,511	825	2,085	6,784	0
116 U. ND all campuses	41,803	28,336	1,640	5,657	5,101	1,069
117 U. MD Biotechnology Institute	39,789	17,922	3,645	3,087	15,135	0
118 U. Memphis, The	38,728	14,985	3,313	430	18,199	1,801
119 SUNY Health Science Ctr. Brooklyn	38,424 i	29,127 i	272 i	2,124 i	4,867 i	2,034 i
120 U. MD Ctr. for Environmental Science	38,344	12,654	4,885	79	17,041	3,685
121 OH U. all campuses	37,527	20,406	2,455	2,831	10,631	1,204
122 NM Institute of Mining and Technology	37,186	15,434	3,589	8,145	8,743	1,275
123 AL A&M U.	36,856	30,343	3,098	1,140	2,275	0
124 U. MO-Rolla	35,999	18,142	239	3,540	12,312	1,766
125 U. Southern MS	35,049	31,653	835	2,067	494	0
126 Wright State U. all campuses	34,860	18,733	3,580	3,570	8,835	142
127 U. AL, The	34,187	26,241	1,796	1,150	5,000	0
128 CUNY Hunter C.	32,704	17,047	4,941	103	7,435	3,178
129 Desert Research Institute	31,757	23,265	3,163	1,938	976	2,415
130 U. PR Medical Sciences Campus	31,124	25,845	316	1,848	3,046	69
131 U. MO-Kansas City	31,104	14,232	0	1,214	14,092	1,566
132 U. TX Dallas	30,748	14,530	8,812	2,843	1,635	2,928
133 Uniformed Services U. of the Health Sciences	30,604	9,527	0	0	21,077	0
134 Old Dominion U.	30,324	18,882	5,708	2,919	2,815	0
135 MI Technological U.	30,264	17,667	1,287	3,369	7,628	313
136 CO School of Mines	29,162	16,314	1,382	11,327	139	0
137 Jackson State U.	28,843	25,607	7	318	2,911	0
138 San Jose State U.	28,323	18,935	5,434	590	1,038	2,326
139 U. Akron all campuses	27,953	9,348	2,344	3,044	9,902	3,315
140 SD State U.	27,652	11,441	9,068	532	2,329	4,282
141 U. WI Milwaukee	27,259	13,704	3,969	463	7,435	1,688
142 U.S. Air Force Academy	27,198	12,599	0	160	14,439	0
143 U. TX El Paso	27,185	18,116	6,051	1,729	1,289	0
144 SUNY C. of Environmental Science and Forestry	26,783	5,177	1,960	1,088	17,206	1,352
145 FL Atlantic U.	25,946	17,517	2,016	6,386	27	0
146 SUNY Upstate Medical U.	25,931	16,652	1,866	1,377	982	5,054
147 U. AR Little Rock	24,284	7,757	13,133	244	40	3,110
148 U. Toledo	24,123	10,928	403	1,774	9,440	1,578
149 FL A&M U.	23,503	18,273	2,784	2,446	0	0
150 SUNY Binghamton	23,090	8,981	1,341	2,281	5,180	5,307
All other sampled institutions	1,087,670	646,950	131,981	58,433	191,623	58,683

i = imputed.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 31. R&D expenditures at private universities and colleges, ranked by all R&D expenditures for the first 100 institutions, by source of funds: FY 2003  
(Dollars in thousands)

Institution and ranking	All R&D expenditures	Federal government	State and local government	Industry	Institutional funds	All other sources
All institutions	12,722,368	9,438,876	289,337	702,769	1,281,107	1,010,279
1 Johns Hopkins U., The <sup>a</sup>	1,244,132	1,106,971	4,186	19,477	58,616	54,882
2 Stanford U.	603,227	483,540	4,366	31,176	41,718	42,427
3 U. PA	564,716	415,631	2,476	26,623	42,674	77,312
4 Cornell U. all campuses	554,760	320,868	61,712	25,569	103,990	42,621
5 Duke U.	520,191	306,864	14,756	122,181	45,548	30,842
6 MA Institute of Technology	485,764	356,206	398	80,664	12,580	35,916
7 Washington U. St. Louis	474,328	357,364	10,077	13,054	58,887	34,946
8 Baylor C. of Medicine	461,763	302,764	3,347	17,526	61,510	76,616
9 Columbia U. in the City of NY	437,669	385,529	2,280	5,350	21,514	22,996
10 U. Southern CA	414,099	300,195	11,022	25,406	77,476	0
11 Harvard U.	408,707	348,620	1,561	5,929	0	52,597
12 Yale U.	387,644	296,713	870	15,417	25,228	49,416
13 Emory U.	323,224	228,255	8,390	6,416	32,617	47,546
14 Northwestern U.	319,722	200,316	2,833	8,927	76,431	31,215
15 U. Rochester	285,768	208,148	11,995	25,298	27,690	12,637
16 Vanderbilt U.	276,074	221,979	110	5,042	37,349	11,594
17 Case Western Reserve U.	250,674	205,452	5,508	5,339	15,414	18,961
18 U. Chicago	247,322	201,129	6,515	3,189	16,219	20,270
19 NY U.	241,593	166,033	5,637	8,043	28,605	33,275
20 CA Institute of Technology	240,664	219,097	3,554	4,825	10,717	2,471
21 Boston U.	224,841	203,947	394	8,084	0	12,416
22 Mt. Sinai School of Medicine	214,514	152,719	4,700	12,686	20,067	24,342
23 Rockefeller U.	192,143	75,303	7,673	2,988	76,440	29,739
24 Carnegie-Mellon U.	186,351	157,583	3,877	13,132	6,080	5,679
25 Princeton U.	179,951	104,011	5,406	8,487	49,243	12,804
26 U. Miami	177,709	130,863	5,293	17,117	8,617	15,819
27 Yeshiva U.	177,236	128,894	0	0	48,342	0
28 Dartmouth C.	155,795	106,034	3,256	5,062	28,821	12,622
29 Wake Forest U.	130,405	108,467	734	12,962	1,528	6,714
30 Brown U.	125,090	81,445	189	2,363	35,809	5,284
31 Tulane U.	117,709	82,118	7,374	14,454	11,325	2,438
32 Tufts U.	112,609	78,942	1,232	8,756	12,072	11,607
33 Thomas Jefferson U.	109,083	85,348	5,201	8,781	9,262	491
34 Medical C. WI	108,608	83,026	169	1,188	13,240	10,985
35 Woods Hole Oceanographic Institution	104,223	84,410	775	167	3,051	15,820
36 Georgetown U.	100,181	83,745	1,504	7,601	6,897	434
37 George Washington U.	92,454	68,959	1,379	1,863	1,708	18,545
38 Rush U.	89,196	49,834	15	9,321	26,975	3,051
39 Drexel U.	69,548	49,271	2,754	2,407	12,104	3,012
40 U. of Notre Dame	59,803	41,220	2,370	6,971	9,242	0
41 U. Dayton	52,943	47,327	377	3,143	1,577	519
42 Rice U.	52,367	43,706	3,272	1,426	0	3,963
43 Brandeis U.	50,841	33,722	77	0	6,622	10,420
44 Rensselaer Polytechnic Institute	50,777	32,295	3,950	6,486	6,023	2,023
45 Charles R. Drew U. of Medicine and Science	49,888	39,407	7,267	3,201	13	0
46 Syracuse U. all campuses	48,846	34,559	6,342	1,730	2,343	3,872
47 Northeastern U.	42,931	26,895	1,276	8,179	6,581	0
48 St. Louis U. all campuses	41,189	36,989	276	3,605	75	244
49 Loyola U. Chicago	37,581	28,107	677	1,017	4,314	3,466
50 Howard U.	37,577	36,137	213	1,227	0	0
51 Eastern VA Medical School	32,801	15,431	642	4,150	38	12,540

TABLE 31. R&D expenditures at private universities and colleges, ranked by all R&D expenditures for the first 100 institutions, by source of funds: FY 2003  
(Dollars in thousands)

Institution and ranking	All R&D expenditures	Federal government	State and local government	Industry	Institutional funds	All other sources
52 Boston C.	32,158	22,907	50	1,251	4,175	3,775
53 NY Medical C.	30,492	23,387	100	5,266	89	1,650
54 Lehigh U.	29,211	16,215	8,570	1,373	2,864	189
55 Morehouse School of Medicine	27,154	24,382	1,971	150	651	0
56 Loma Linda U.	26,296	22,675	388	140	717	2,376
57 IL Institute of Technology	25,744	13,900	6,676	0	1,905	3,263
58 Meharry Medical C.	25,427	24,195	0	0	0	1,232
59 Catholic U. America, The	24,475	18,864	84	138	4,804	585
60 Creighton U.	24,116	9,413	3,499	7,710	3,403	91
61 Brigham Young U. all campuses	22,557	16,564	817	948	2,448	1,780
62 Hampton U.	18,673	18,417	0	14	238	4
63 Rochester Institute of Technology	17,197	11,630	1,262	2,875	0	1,430
64 Institute of Paper Science and Technology	15,494 i	3,303 i	919 i	7,595 i	3,216 i	461 i
65 Stevens Institute of Technology	15,412 i	9,070 i	3,376 i	0 i	0 i	2,966 i
66 Mercer U. all campuses	14,996	8,018	233	5,099	1,646	0
67 Albany Medical C.	13,394	9,677	186	191	2,406	934
68 Rose-Hulman Institute of Technology	13,201	892	86	302	0	11,921
69 Clark Atlanta U.	12,760	12,367	0	0	234	159
70 Worcester Polytechnic Institute	12,357	5,966	115	2,068	3,119	1,089
71 Polytechnic U.	12,142 i	5,511 i	3,023 i	2,443 i	989 i	176 i
72 U. Tulsa	11,527	8,439	764	1,655	669	0
73 Marquette U.	11,385	4,409	3,996	1,064	561	1,355
74 Tuskegee U.	10,067	7,660	0	0	0	2,407
75 U. Denver	9,949	8,268	265	428	624	364
76 Finch U. of Health Sciences/Chicago Medical School	9,923	6,783	0	44	2,264	832
77 Southern Methodist U.	9,890	5,940	548	511	2,101	790
78 Teachers C. Columbia U.	9,603	5,572	0	0	0	4,031
79 Universidad Central del Caribe	8,274	7,183	707	0	378	6
80 FL Institute of Technology	8,004	5,204	640	980	170	1,010
81 Harvey Mudd C.	7,997 i	1,223 i	117 i	581 i	719 i	5,357 i
82 Ponce School of Medicine	7,491	6,270	0	1,221	0	0
83 Clarkson U.	7,466	4,833	593 i	1,219 i	821 i	0 i
84 Duquesne U.	6,848	2,742	517	96	3,334	159
85 Wesleyan U.	6,682	4,424	38	5	1,575	640
86 Embry-Riddle Aeronautical U.	6,641	3,323	1,000	1,898	420	0
87 Alfred U. all campuses	6,360	674	1,496	2,537	1,224	429
88 Villanova U.	6,000 i	4,229 i	293 i	860 i	0 i	618 i
89 Wellesley C.	5,733	3,996	14	14	0	1,709
90 Clark U.	5,638	4,475	115	31	829	188
91 Xavier U. LA	5,515	5,036	419	60	0	0
92 Nova Southeastern U.	4,752	1,963	1,097	0	248	1,444
93 Bryn Mawr C.	4,705	880	107	7	3,711	0
94 Baylor U.	4,203	812	451	1,325	1,038	577
95 Fordham U.	3,814	1,823	51	0	351	1,589



TABLE 31. R&D expenditures at private universities and colleges, ranked by all R&D expenditures for the first 100 institutions, by source of funds: FY 2003  
(Dollars in thousands)

Institution and ranking	All R&D expenditures	Federal government	State and local government	Industry	Institutional funds	All other sources
96 TX Christian U.	3,693	2,716	176	716	85	0
97 New School U.	3,435	741	0 i	0 i	0 i	2,694 i
98 Santa Clara U.	3,364 i	791 i	0 i	834 i	1,646 i	93 i
99 Williams C.	3,295	1,454	0	0	1,001	840
100 Mt. Holyoke C.	3,174	1,639	18	0	394	1,123
All other sampled institutions	146,453	85,633	4,303	15,115	20,848	20,554

i = imputed.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 32. Industry-financed R&D expenditures at universities and colleges, ranked by FY 2003 expenditures for the first 200 institutions: FY 1996–2003  
(Dollars in thousands)

Institution and ranking	1996	1997	1998	1999	2000	2001	2002	2003
All institutions	1,605,356	1,736,769	1,888,277	2,032,706	2,155,722	2,219,941	2,187,236	2,162,215
1 Duke U.	42,797	48,178	65,114	121,630	109,791	104,063	99,807	122,181
2 MA Institute of Technology	62,699	59,204	60,538	75,444	83,082	97,256	79,921	80,664
3 PA State U. all campuses	52,771	56,666	63,319	65,698	64,393	67,658	67,131	77,660
4 U. MD Baltimore	19,450	18,581	20,783	11,572	29,892	41,226	51,562	65,473
5 U. WA	36,180	37,744	38,370	51,319	57,405	43,312	46,702	48,222
6 OH State U. all campuses	30,870	36,685	40,401	52,034	57,075	54,736	51,135	45,957
7 U. CA, San Francisco	16,989	26,931	34,369	36,830	34,964	35,759	33,577	37,396
8 U. MI all campuses	34,975	31,411	33,029	34,432	35,515	34,439	33,252	36,087
9 NC State U.	26,067	26,834	31,429	34,414	35,675	37,858	34,656	35,940
10 Purdue U. all campuses	25,720	26,090	26,988	28,856	29,997	29,765	29,614	34,720
11 GA Institute of Technology all campuses	39,136	48,094	58,377	62,752	64,508	59,691	55,802	32,839
12 U. TX Austin	15,029	29,887	31,326	39,729	24,740	30,310	26,114	32,174
13 U. TX M. D. Anderson Cancer Ctr.	0	0	0	0	20,271	26,717	33,407	31,316
14 Stanford U.	19,167	23,839	27,404	31,516	41,013	35,012	39,110	31,176
15 U. AZ	13,106	14,964	16,392	16,660	22,412	22,934	23,104	31,079
16 U. CA, Los Angeles	15,788	23,144	28,310	34,404	33,427	32,539	31,686	30,425
17 U. CA, San Diego	15,130	23,725	27,010	31,356	34,541	36,845	32,299	28,868
18 TX A&M U. all campuses	26,947	31,816	33,674	34,722	31,084	35,110	33,300	27,006
19 U. PA	9,445	18,964	25,593	30,269	32,632	28,227	26,994	26,623
20 Cornell U. all campuses	14,915	8,215	11,253	12,053	12,697	22,261	27,341	25,569
21 U. Southern CA	21,592	21,606	24,125	23,111	25,298	22,949	24,321	25,406
22 U. Rochester	11,605	14,147	17,653	18,226	17,595	23,782	24,645	25,298
23 VA Polytechnic Institute and State U.	11,365	11,385	12,132	13,287	14,869	18,355	20,866	24,760
24 U. MN all campuses	23,726	24,196	24,094	23,933	26,392	26,454	26,572	24,152
25 U. FL	23,532	25,217	21,393	28,183	34,879	17,183	19,017	23,893
26 U. AK Fairbanks all campuses	9,965	12,769	16,081	19,340	19,686	28,352	22,907	23,093
27 U. CA, Davis	9,387	10,731	14,238	16,242	17,891	16,989	20,754	22,688
28 U. CA, Berkeley	15,128	21,253	20,902	21,928	27,851	26,791	24,999	22,460
29 U. IA	14,862	15,712	17,262	20,778	17,262	21,394	19,169	20,954
30 Johns Hopkins U., The <sup>a</sup>	12,388	13,917	14,761	15,317	15,751	18,737	20,282	19,477
31 Baylor C. of Medicine	13,655	14,420	16,588	19,400	17,578	18,389	18,729	17,526
32 U. Miami	12,321	12,200	13,338	15,752	17,028	17,554	17,262	17,117
33 LA State U. all campuses	11,298	13,331	12,157	13,187	15,108	16,648	16,394	16,212
34 U. WI Madison	13,871	14,832	14,371	14,172	16,127	17,237	16,746	15,918
35 U. GA	9,861	10,283	10,534	11,034	12,276	13,791	15,387	15,777
36 Yale U.	15,322	16,629	15,829	15,242	14,355	14,119	13,025	15,417
37 CO State U.	6,320	5,712	6,155	7,213	6,519	8,850	10,034	14,736
38 Tulane U.	11,276	12,913	10,734	11,914	10,340	8,654	13,555	14,454
39 IA State U.	7,407	8,499	13,717	14,905	15,075	13,177	16,047	14,384
40 U. NE central administration	7,753 i	8,594 i	10,276 i	10,990 i	11,552	11,840	13,982	14,314
41 U. TN all campuses	11,759	12,675	12,551	15,093	12,740	15,391	14,520	13,994
42 Wayne State U.	8,977	10,959	11,207	10,660	10,932	10,860	11,163	13,566
43 U. CA, Santa Barbara	2,988	3,106	3,809	4,742	5,499	6,001	10,482	13,550
44 U. IL Urbana-Champaign	12,365	11,761	13,636	12,864	12,693	10,992	11,796	13,253
45 Carnegie-Mellon U.	21,521	18,016	19,136	17,761	21,136	23,491	25,261	13,132
46 Washington U. St. Louis	18,700	21,205	19,869	19,964	22,691	24,865	16,100	13,054
47 Wake Forest U.	12,697	16,246	15,546	16,320	15,125	13,330	12,510	12,962
48 Mt. Sinai School of Medicine	3,288	6,994	7,588	9,257	12,141	18,133	12,203	12,686
49 U. TX Health Science Ctr. Houston	7,403	9,780	11,106	12,872	13,029	10,945	11,241	12,414
50 Clemson U.	5,887	5,253	6,641	8,445	9,768	11,582	12,035	12,329
51 U. CT all campuses	8,026	8,572	9,905	10,355	13,540	9,819	9,889	12,143
52 U. TX Southwestern Medical Ctr. Dallas	13,801	12,737	13,926	16,197	14,861	13,320	12,836	12,087

TABLE 32. Industry-financed R&D expenditures at universities and colleges, ranked by FY 2003 expenditures for the first 200 institutions: FY 1996–2003  
(Dollars in thousands)

Institution and ranking	1996	1997	1998	1999	2000	2001	2002	2003
53 U. of Medicine and Dentistry NJ	7,741	8,519	8,841	10,736	10,001	13,496	12,125	11,364
54 CO School of Mines	8,114	8,038	9,877	9,292	7,870	9,466	11,001	11,327
55 MI State U.	6,818	6,973	7,250	7,647	11,230	10,953	11,458	11,307
56 U. CA, Irvine	10,391	12,712	15,981	16,539	18,615	15,803	14,261	11,101
57 Rutgers, The State U. NJ all campuses	7,079	8,848	9,038	9,833	8,843	10,965	11,772	10,821
58 VA Commonwealth U.	7,435	9,172	8,478	8,062	7,495	8,522	9,053	10,780
59 U. OK all campuses	6,650	6,871	7,661	7,756	9,499	10,396	12,660	10,645
60 SUNY Buffalo all campuses	13,186	14,480	3,021	5,485	5,590	11,598	12,171	10,575
61 U. CO all campuses	8,902	9,403	9,963	9,867 e	9,356 i	9,002	11,822	10,239
62 Rush U.	5,872	7,232	8,911	8,154	8,762	9,128	10,108	9,321
63 U. VA all campuses	4,552	7,627	12,428	4,891	6,954	7,733	9,026	9,053
64 Northwestern U.	9,378	10,498	13,292	14,168	12,860	14,294	12,214	8,927
65 Thomas Jefferson U.	9,553	9,851	10,155	12,081	12,324	12,326	13,209	8,781
66 Tufts U.	4,970	5,344	5,560	7,027	8,118	7,726	8,888	8,756
67 OR Health and Science U.	4,597	7,036	1,757 i	1,599 i	12,430	11,538	10,626	8,673
68 Princeton U.	4,483	4,441	5,242	5,965	6,881	8,246	8,292	8,487
69 Northeastern U.	2,072	2,827	3,530	2,981	3,567	5,530	7,487	8,179
70 NM Institute of Mining and Technology	6,895	4,723	6,385	7,034	6,373	6,204	6,378	8,145
71 AZ State U. main campus	2,758	3,376	4,609	4,267	4,700	5,641	7,095	8,103
72 Boston U.	8,726	8,916	9,461	7,601	8,574	8,450	8,935	8,084
73 IN U. all campuses	5,357	4,242	6,333	4,820	5,384	6,375	5,312	8,079
74 U. MD College Park	24,044	5,009	2,127	3,053	1,028	7,315	5,078	8,060
75 NY U.	10,461	8,502	8,391	7,502	7,767	6,535	5,902	8,043
76 U. TX Medical Branch	6,008	7,301	5,319	6,366	6,146	6,020	5,737	7,979
77 Creighton U.	4,517	5,094	6,475	6,242	6,084	5,942	7,122	7,710
78 Georgetown U.	6,737	8,421	9,383	7,939	9,795	4,996	4,330	7,601
79 Institute of Paper Science and Technology	1,606 i	1,976 e	1,976 e	1,250 i	1,250 i	6,828	6,828 e	7,595 i
80 U. TX Health Science Ctr. San Antonio	9,021	9,051	10,845	10,777	10,707	9,677	8,847	7,514
81 U. VT	5,231	5,399	5,513	7,112	5,713	6,434	7,157	7,477
82 Medical U. SC	1,134	1,371	2,737	2,202	2,880	7,168	9,939	7,288
83 TX Tech U.	5,634	5,650	5,549	5,682	5,946	6,236	6,774	7,166
84 U. IL Chicago	6,746	6,947	9,424	9,683	11,010	10,989	9,325	7,014
85 U. of Notre Dame	3,511	1,979	2,020	2,920	2,279	3,631	7,076	6,971
86 U. HI Manoa	8,088	5,944	10,949	13,021	11,158	7,232	9,957	6,829
87 U. KY all campuses	13,374	11,259	13,668	15,109	11,213	12,933	7,810	6,693
88 U. NC Chapel Hill	2,592	3,311	4,860	5,886	6,835	6,971	6,601	6,551
89 Rensselaer Polytechnic Institute	6,210	9,340	10,974	10,084	6,581	5,928	5,142	6,486
90 Emory U.	6,383	6,700	7,670	7,794	7,513	7,950	9,282	6,416
91 FL Atlantic U.	1,776	1,922	3,981	5,681	6,387	9,580	6,406	6,386
92 U. AL Birmingham, The	17,354	16,233	16,842	10,181	7,752	8,443	8,368	6,255
93 MS State U.	7,599	5,469	7,470	7,892	7,955	6,744	6,366	6,246
94 U. NH	1,315	1,600	3,635	4,395	4,923	7,751	5,964	6,195
95 U. Central FL	1,207	9,800	4,019	4,873	5,833	5,288	5,499	6,128
96 Harvard U.	12,522	11,588	10,361	11,790	12,189	14,056	10,215	5,929
97 NJ Institute of Technology	2,313	1,600	1,258	1,258	1,344	6,779	6,035	5,681
98 U. ND all campuses	2,971	2,166	2,357	2,308	2,356	2,458	4,704	5,657
99 MT State U. Bozeman	5,489	6,976	7,378 i	7,079	8,523	7,041	6,161	5,601
100 U. AR main campus	4,474	4,130	5,145	6,198	4,746	4,224	6,370	5,470
101 Columbia U. in the City of NY	2,559	1,637	3,018	2,630	3,362	2,885	3,110	5,350
102 Case Western Reserve U.	5,784	5,662	6,984	6,157	5,890	6,190	5,555	5,339
103 NY Medical C.	1,532	1,810	2,461	3,742	3,294	3,626	3,802	5,266
104 U. Cincinnati all campuses	16,697	22,907	24,388	5,989	5,166	6,028	4,549	5,254
105 Mercer U. all campuses	1,651	1,292	1,718	1,280	1,405	1,115	1,986	5,099

TABLE 32. Industry-financed R&D expenditures at universities and colleges, ranked by FY 2003 expenditures for the first 200 institutions: FY 1996–2003  
(Dollars in thousands)

Institution and ranking	1996	1997	1998	1999	2000	2001	2002	2003
106 Dartmouth C.	2,571	3,280	2,574	4,544	4,274	4,389	4,425	5,062
107 Vanderbilt U.	3,097	2,583	4,036	3,730	4,063	3,036	3,302	5,042
108 U. CA, Riverside	1,702	1,905	1,929	3,893	3,345	4,227	3,358	5,004
109 U. Houston	1,341	1,815	1,707	1,762	1,689	1,992	3,784	4,980
110 U. UT	3,825	10,374	10,007	8,951	7,940	6,023	5,819	4,964
111 SUNY Stony Brook all campuses	5,848	7,119	6,908	7,416	7,567	7,026	5,947	4,950
112 U. MA Lowell	5,779	4,920	5,099	6,234	7,204	6,911	5,294	4,920
113 NM State U. all campuses	2,556	2,393	2,843	2,892	3,466	4,272	3,131	4,895
114 OK State U. all campuses	2,334	3,252	2,887	3,447	4,076	3,688	3,752	4,877
115 CA Institute of Technology	4,447	3,789	2,001	6,332	8,919	10,225	9,989	4,825
116 U. MO-Columbia	3,158	3,777	4,348	3,832	4,007	4,654	5,042	4,802
117 FL International U.	527	543	559	729	1,843	8,397	3,131	4,697
118 U. Pittsburgh all campuses	7,880	9,753	10,436	12,990	14,676	14,817	13,023	4,427
119 U. MA Worcester	1,146	2,129	2,631	4,265	3,467	3,317	3,275	4,397
120 Temple U.	5,173	4,690	8,855	1,284	188	5,400	5,030	4,245
121 Eastern VA Medical School	5,039	5,762	7,448	8,561	6,044	6,264	3,926	4,150
122 Auburn U. all campuses	4,212	4,644	4,452	3,649	3,917	4,683	4,178	3,849
123 U. MA Amherst	5,738	5,778	6,236	5,796	5,535	6,181	5,417	3,838
124 WA State U.	3,149	3,138	3,158	3,158	4,579	4,438	3,874	3,666
125 St. Louis U. all campuses	2,483	2,618	2,733	3,113	3,018	3,196	3,161	3,605
126 Wright State U. all campuses	1,250	1,409	1,325	1,717	2,968	3,269	3,812	3,570
127 U. MO-Rolla	2,364	1,575	1,361	2,079	2,543	3,088	4,283	3,540
128 U. AR for Medical Sciences	3,733	3,440	3,040	3,889	3,321	2,900	2,676	3,519
129 MI Technological U.	3,636	3,819	3,747	3,578	3,834	4,176	2,899	3,369
130 U. SC all campuses	3,657	2,058	2,022	2,176	2,822	4,239	5,050	3,368
131 UT State U.	4,614	3,356	2,744	3,998	7,885	6,595	3,298	3,340
132 U. ME	4,214	5,609	7,074	2,324	2,899	3,562	4,030	3,323
133 Southern IL U. Carbondale	2,033	1,954	2,306	2,462	2,355	5,484	4,108	3,281
134 Charles R. Drew U. of Medicine and Science	1,098	1,153 e	1,153 e	1,046	1,103	1,055	2,941	3,201
135 U. Chicago	1,306	1,634	1,684	1,621	1,462	1,746	2,285	3,189
136 U. Dayton	6,160	5,541	6,285	4,454	5,598	5,138	3,357	3,143
137 U. ID	6,478	6,551 i	6,496	1,903	2,764	3,634	3,809	3,111
138 U. MD Biotechnology Institute	870	927	986	848	915	2,103	3,167	3,087
139 U. Akron all campuses	3,313	3,411	2,767	2,150	3,090	2,557	2,568	3,044
140 Rockefeller U.	2,800	2,577	2,641	2,707	2,775	2,844	2,916	2,988
141 U. DE	2,964	3,361	3,859	4,152	3,757	5,041	5,661	2,982
142 Old Dominion U.	2,233	2,357	1,974	2,787	3,533	2,885	3,318	2,919
143 Rochester Institute of Technology	1,246	1,395	1,462 e	769	917	2,705	2,633	2,875
144 East Carolina U.	1,441	1,476	1,996	2,627	3,158	3,853	3,055	2,870
145 U. TX Dallas	1,113	1,275	981	1,336	4,715	4,715 e	3,367	2,843
146 OH U. all campuses	2,322	2,132	1,948	2,843	1,591	2,022	2,729	2,831
147 U. KS all campuses	9,356	8,201	8,281	14,393	15,712	4,155	5,098	2,821
148 Institute of Textile Technology	2,742	2,792	2,650	2,161	2,357	3,039	2,816	2,816 e
149 KS State U.	2,243	2,943	3,445	3,746	4,057	4,943	5,659	2,751
150 Medical C. GA	2,995	2,578	3,072	3,603	3,609	3,478	2,793	2,687
151 ID State U.	3,479	2,332	1,055	1,915	2,256	2,060	2,554	2,544
152 Alfred U. all campuses	1,755	1,633	1,946	2,414	3,066	3,244	3,249	2,537
153 U. WY	2,086	2,226	3,114	3,206	2,941	2,581	2,581 e	2,494
154 FL A&M U.	0	0	0	0	0	0	3,220	2,446
155 Polytechnic U.	2,857	3,074	2,093	2,135	2,100	2,510	2,825	2,443 i
156 Drexel U.	4,343	5,086	4,057	4,078	3,137	251	795	2,407
157 GA State U.	669	826	832	1,075	784	480	988	2,392
158 Brown U.	1,716	1,506	1,603	1,795	1,530	1,777	2,172	2,363

TABLE 32. Industry-financed R&D expenditures at universities and colleges, ranked by FY 2003 expenditures for the first 200 institutions: FY 1996–2003  
(Dollars in thousands)

Institution and ranking	1996	1997	1998	1999	2000	2001	2002	2003
159 Wichita State U.	532	763	378	1,043	3,500	3,220	2,830	2,322
160 U. NM all campuses	2,389	2,799	3,331	2,940	1,853	1,821	1,427	2,286
161 SUNY Binghamton	1,799	1,516	2,726	3,584	3,327	2,493	2,654	2,281
162 WV U.	3,608	3,719	4,547	5,532	7,185	6,328	6,795	2,274
163 SUNY Health Science Ctr. Brooklyn	4,808 i	4,385	3,045	2,261	1,787	1,787 e	1,934 i	2,124 i
164 U. South FL	3,282	3,747	5,397	6,236	10,873	11,152	8,215	2,115
165 U. NV, Las Vegas	1,443	2,058	2,461	2,596	2,131	1,938	1,585	2,085
166 Worcester Polytechnic Institute	619	1,185	1,485	870	1,380	1,059	2,166	2,068
167 U. Southern MS	1,081	708	805	996	984	807	1,905	2,067
168 U. MD Baltimore County	1,803	2,484	2,858	2,649	2,159	2,131	1,970	1,953
169 Desert Research Institute	5,200	1,600	1,500	1,226	844	802	1,331	1,938
170 CA State Polytechnic U. San Luis Obispo	530 i	468 i	272	664	894	1,255	919	1,929
171 Embry-Riddle Aeronautical U.	45 i	52 i	104	104 e	62 i	522	745	1,898
172 TN Technological U.	1,367	1,252	2,492	1,715	690	1,957	2,205	1,877
173 George Washington U.	5,704	7,865	7,575	4,001	4,220	5,081	6,456	1,863
174 U. PR Medical Sciences Campus	0	311	2,548	602	954	1,121	1,495	1,848
175 CUNY City C.	1,039	2,668	950	1,531	1,659	1,602	1,967	1,829
176 U. Toledo	1,613 i	1,241	934	1,245	2,013	2,025	1,988	1,774
177 U. of the VI	150	150 e	150 e	96	96 e	167 i	1,070	1,769
178 Western MI U.	1,403	1,460	1,600	1,648	1,650	858	1,530	1,764
179 Syracuse U. all campuses	2,550	1,910 i	1,418	1,470	6,329	1,420	1,280	1,730
180 U. TX El Paso	428	522	776	697	941	1,321	2,040	1,729
181 U. NC Charlotte	1,234 i	1,214 i	1,317	924	701	773	1,159	1,705
182 U. CA, Santa Cruz	1,032	1,456	1,518	1,094	1,531	1,004	1,084	1,683
183 U. Tulsa	2,820	3,913	2,772	3,561	3,179	3,258	3,061	1,655
184 TX A&M U. System Health Science Ctr.	NA	NA	NA	NA	2,704	1,050	2,005	1,631
185 U. NV, Reno	1,399	1,806	1,394	1,374	2,557	2,338	1,204	1,570
186 SUNY Albany	1,904	1,533	1,426	1,337	622	1,017	1,337	1,554
187 Northern IL U.	2,222	1,201	837	709	1,050	1,356	1,550	1,483
188 U. Louisville	6,312	3,522	4,800	6,100	6,532	911	739	1,442
189 U. South AL	1,981	2,353	1,779	1,779 e	1,298	1,298 e	1,185	1,439
190 Rice U.	1,898	1,779	1,435	1,645	2,858	1,720	1,600	1,426
191 San Francisco State U.	975 i	961 i	946 i	933 i	496 i	496 i	1 i	1,391 i
192 SUNY Upstate Medical U.	468	195	241	272	263	807	910	1,377
193 Lehigh U.	6,832	6,790	6,074	6,669	5,636	5,532	1,680	1,373
194 Oakland U.	1,068	1,002	889	1,002	1,002 e	1,370	1,731	1,334
195 FL State U.	1,565	1,148	1,159	988	693	892	1,176	1,329
196 Baylor U.	111	119	75	75 e	475	741	1,051	1,325
197 Milwaukee School of Engineering	1,159 i	1,296 i	1,463	1,434	1,472	1,444	1,242	1,254
198 Boston C.	280	205	577	934	1,487	2,050	2,479	1,251
199 San Diego State U.	725	827	853	1,021	1,811	1,162	1,059	1,249
200 Howard U.	1,057	1,059	1,519	1,774	1,874	2,108	1,399	1,227
All other sampled institutions	104,534	111,261	117,398	102,556	103,422	98,405	86,374	67,128

e = estimated.

i = imputed.

NA = not available.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 33. R&D expenditures at universities and colleges, ranked by all R&D expenditures for the first 200 institutions, by science and engineering field: FY 2003  
(Dollars in thousands)

Institution and ranking	All R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
All institutions	40,077,399	2,187,841	23,763,981	1,733,373	3,272,629	768,730	1,661,090	690,934	5,998,821
1 Johns Hopkins U., The <sup>a</sup>	1,244,132	35,703	550,700	92,464	136,074	4,315	5,053	33,411	386,412
2 U. CA, Los Angeles	849,357	16,351	613,990	22,860	72,411	11,905	41,263	11,079	59,498
3 U. MI all campuses	780,054	9,729	432,951	11,427	37,817	10,150	108,702	237	169,041
4 U. WI Madison	721,248	44,557	449,977	17,725	47,928	26,189	39,324	18	95,530
5 U. WA	684,814	82,846	474,742	12,705	33,589	8,640	15,229	0	57,063
6 U. CA, San Francisco	671,443	0	642,645	0	28,798	0	0	0	0
7 U. CA, San Diego	646,508	116,885	327,752	71,668	42,904	6,935	12,929	1,345	66,090
8 Stanford U.	603,227	10,193	333,147	22,601	78,811	6,530	11,793	0	140,152
9 U. PA	564,716	656	451,131	13,402	25,291	4,978	40,272	6,928	22,058
10 Cornell U. all campuses	554,760	6,203	348,401	29,671	78,827	6,920	21,451	0	63,287
11 PA State U. all campuses	533,427	43,134	175,537	23,874	57,498	17,220	26,511	6,083	183,570
12 Duke U.	520,191	12,357	433,834	7,533	16,630	2,965	21,662	0	25,210
13 U. MN all campuses	508,557	11,819	372,029	17,528	25,690	12,518	18,798	0	50,175
14 U. CA, Berkeley	507,186	10,180	174,915	8,732	83,187	11,820	51,283	15,036	152,033
15 OH State U. all campuses	496,438	9,267	255,354	34,792	32,998	8,297	40,370	7,196	108,164
16 U. IL Urbana-Champaign	493,581	37,822	132,414	115,235	47,967	11,536	28,027	5,594	114,986
17 MA Institute of Technology	485,764	27,656	76,045	50,761	96,678	1,462	6,131	31,327	195,704
18 U. CA, Davis	482,145	28,451	364,029	5,970	17,833	1,267	16,736	3,002	44,857
19 Washington U. St. Louis	474,328	4,812	430,570	6,132	13,235	3,250	4,674	1,354	10,301
20 Baylor C. of Medicine	461,763	0	461,763	0	0	0	0	0	0
21 TX A&M U. all campuses	456,235	85,351	160,127	15,400	32,808	2,725	5,384	4,201	150,239
22 U. AZ	454,941	11,113	248,857	9,408	110,656	3,820	20,374	91	50,622
23 Columbia U. in the City of NY	437,669	52,298	301,110	10,424	35,025	3,862	9,473	1,772	23,705
24 U. CO all campuses	436,761	65,638	247,305	8,077	62,588	9,560	11,195	1,202	31,196
25 U. FL	429,734	6,458	295,557	10,438	30,292	7,945	10,701	0	68,343
26 U. Southern CA	414,099	19,572	225,942	89,821	10,276	6,258	8,882	2,133	51,215
27 U. Pittsburgh all campuses	409,684	664	354,931	5,154	16,654	6,878	5,928	4,006	15,469
28 Harvard U.	408,707	14,786	314,500	3,492	36,178	6,459	22,398	0	10,894
29 U. NC Chapel Hill	390,542	19,409	304,618	11,491	21,482	6,447	27,095	0	0
30 Yale U.	387,644	3,224	331,443	6,583	21,254	6,311	6,621	0	12,208
31 GA Institute of Technology all campuses	364,190	14,863	13,964	59,261	24,290	5,008	10,219	3,614	232,971
32 U. TX Austin	343,854	29,744	43,886	44,135	73,352	7,186	20,251	4,317	120,983
33 IN U. all campuses	337,669	6,031	210,579	13,761	34,322	11,462	35,476	22,741	3,297
34 Emory U.	323,224	136	305,031	795	11,868	2,992	2,402	0	0
35 U. MD College Park	321,899	12,339	60,183	34,986	57,257	4,203	70,485	0	82,446
36 MI State U.	321,410	2,164	203,510	7,336	50,353	6,633	26,198	1,039	24,177
37 Northwestern U.	319,722	858	213,394	3,987	25,858	4,177	10,602	6,419	54,427

TABLE 33. R&D expenditures at universities and colleges, ranked by all R&D expenditures for the first 200 institutions, by science and engineering field: FY 2003  
(Dollars in thousands)

Institution and ranking	All R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
38 U. TX M. D. Anderson Cancer Ctr.	315,169	0	283,543	14,720	7,097	7,856	187	0	1,766
39 LA State U. all campuses	314,665	29,279	195,419	4,826	21,632	1,108	10,588	7,552	44,261
40 Purdue U. all campuses	309,476	3,136	145,624	13,597	21,185	5,810	14,781	5,169	100,174
41 U. GA	299,748	13,264	207,739	8,522	11,820	13,186	37,341	0	7,876
42 U. MD Baltimore	297,271	0	297,271	0	0	0	0	0	0
43 U. IA	292,035	2,466	230,028	1,994	17,522	4,958	5,364	467	29,236
44 U. IL Chicago	291,507	2,059	210,330	18,130	13,233	6,195	15,390	9,164	17,006
45 NC State U.	286,025	15,439	135,298	17,087	21,499	2	8,508	3,750	84,442
46 U. Rochester	285,768	781	197,436	2,887	11,878	11,811	931	1,455	58,589
47 U. AL Birmingham, The	284,497	0	262,742	1,189	2,673	7,266	1,407	0	9,220
48 U. TX Southwestern Medical Ctr. Dallas	276,692	0	276,692	0	0	0	0	0	0
49 U. NE central administration	276,424	8,147	178,679	8,719	12,602	8,543	15,189	16,842	27,703
50 Vanderbilt U.	276,074	150	214,272	679	13,946	10,519	5,507	7,090	23,911
51 Rutgers, The State U. NJ all campuses	274,576	26,402	136,720	15,879	26,764	10,809	23,365	1,502	33,135
52 U. KY all campuses	272,062	3,317	187,045	5,820	9,126	3,158	9,201	14,580	39,815
53 U. Cincinnati all campuses	255,083	372	211,405	701	6,264	1,306	3,089	3,503	28,443
54 Case Western Reserve U.	250,674	509	185,237	333	10,950	1,080	2,839	18,739	30,987
55 VA Polytechnic Institute and State U.	247,807	10,104	109,760	7,534	14,552	2,946	6,399	0	96,512
56 U. Chicago	247,322	4,092	191,112	7,437	36,444	5,629	2,384	7	217
57 NY U.	241,593	735	193,182	15,794	8,697	13,380	7,988	1,817	0
58 CA Institute of Technology	240,664	13,651	36,353	12,348	125,015	0	1,733	11,500	40,064
59 SUNY Buffalo all campuses	240,180	1,236	170,680	10,043	15,981	5,120	3,572	279	33,269
60 U. CA, Irvine	234,656	5,135	155,880	12,321	22,611	4,347	9,826	27	24,509
61 Boston U.	224,841	3,681	152,133	3,788	24,422	6,193	1,177	12,259	21,188
62 U. UT	223,739	4,531	148,016	18,614	18,333	2,368	1,737	0	30,140
63 U. TN all campuses	217,389	5,182	126,429	12,364	12,382	314	8,527	12,865	39,326
64 Mt. Sinai School of Medicine	214,514	0	214,514	0	0	0	0	0	0
65 Wayne State U.	213,717	138	170,498	1,878	16,006	3,873	6,079	570	14,675
66 U. South FL	213,249	27,198	139,132	1,631	3,281	14,505	4,318	1,633	21,551
67 U. VA all campuses	206,199	2,657	141,784	6,695	15,315	6,367	1,352	230	31,799
68 U. MO-Columbia	205,212	1,924	151,772	2,723	4,589	8,306	14,185	0	21,713
69 SUNY Stony Brook all campuses	200,330	20,082	107,434	11,920	29,040	3,715	3,000	0	25,139
70 IA State U.	199,566	4,977	98,658	12,885	10,606	714	14,618	11,303	45,805
71 OR Health and Science U.	197,178	0	166,291	20,207	0	10,680	0	0	0
72 Rockefeller U.	192,143	0	177,216	8,593	6,334	0	0	0	0
73 U. of Medicine and Dentistry NJ	190,763	0	190,763	0	0	0	0	0	0
74 U. CT all campuses	190,341	8,644	133,867	2,638	7,073	10,898	8,002	293	18,926
75 CO State U.	187,054	42,779	96,068	3,026	10,001	3,312	9,246	3,969	18,653

TABLE 33. R&D expenditures at universities and colleges, ranked by all R&D expenditures for the first 200 institutions, by science and engineering field: FY 2003  
(Dollars in thousands)

Institution and ranking	All R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
76 Carnegie-Mellon U.	186,351	0	7,098	89,600	13,624	11,111	10,037	694	54,187
77 Princeton U.	179,951	17,335	33,738	11,458	28,542	7,812	28,647	0	52,419
78 U. HI Manoa	179,285	45,283	63,989	19,435	19,576	111	5,876	16,297	8,718
79 U. Miami	177,709	40,808	120,716	213	2,596	9,848	1,231	0	2,297
80 Yeshiva U.	177,236	0	177,236	0	0	0	0	0	0
81 WA State U.	175,181	3,691	107,386	1,004	13,497	1,821	12,660	4,846	30,276
82 U. OK all campuses	174,466	29,929	76,789	3,761	15,580	13,669	15,728	0	19,010
83 U. KS all campuses	173,024	11,291	121,019	4,358	8,040	1,209	9,135	2,003	15,969
84 OR State U.	167,631	37,739	95,370	3,470	3,800	39	2,730	887	23,596
85 MS State U.	165,922	6,248	80,613	3,658	5,489	1,780	5,050	3,091	59,993
86 U. NM all campuses	158,239	3,961	85,772	3,625	8,793	6,453	11,720	14,640	23,275
87 Dartmouth C.	155,795	2,482	103,120	6,025	4,716	5,579	743	11,533	21,597
88 U. TX Medical Branch	153,122	0	150,479	0	0	0	0	0	2,643
89 Clemson U.	152,986	0	47,986	4,140	10,055	882	10,302	15,100	64,521
90 FL State U.	152,277	19,330	26,507	6,956	48,889	6,371	18,050	231	25,943
91 Medical U. SC	150,551	0	150,551	0	0	0	0	0	0
92 U. TX Health Science Ctr. Houston	149,294	0	149,294	0	0	0	0	0	0
93 U. CA, Santa Barbara	149,130	24,343	4,502	13,780	27,030	8,177	11,918	3,236	56,144
94 U. MA Worcester	148,823	0	148,823	0	0	0	0	0	0
95 AZ State U. main campus	145,591	10,985	32,025	6,898	19,896	8,323	10,468	5,464	51,532
96 UT State U.	138,862	9,734	39,803	1,358	3,800	2,272	2,739	9,029	70,127
97 U. TX Health Science Ctr. San Antonio	133,304	0	133,304	0	0	0	0	0	0
98 Wake Forest U.	130,405	0	128,034	270	1,718	0	0	383	0
99 U. AK Fairbanks all campuses	128,916	74,882	25,521	12,035	693	0	1,312	3,066	11,407
100 VA Commonwealth U.	126,451	614	107,759	252	5,102	5,101	1,632	0	5,991
101 Brown U.	125,090	6,200	65,444	13,266	10,668	2,266	6,300	0	20,946
102 Auburn U. all campuses	124,103	1,192	75,770	693	4,333	304	2,380	3,860	35,571
103 U. SC all campuses	121,410	19,142	41,565	3,571	15,099	5,377	7,899	2,586	26,171
104 SUNY Albany	120,655	5,382	72,593	3,048	2,653	1,816	11,554	0	23,609
105 Tulane U.	117,709	1,309	97,906	1,511	3,891	298	4,752	0	8,042
106 U. MA Amherst	113,512	4,261	33,195	19,454	28,858	5,067	2,663	766	19,248
107 KS State U.	112,733	689	71,803	2,699	11,174	1,022	4,227	3,216	17,903
108 Tufts U.	112,609	809	91,883	1,058	3,726	3,619	4,599	0	6,915
109 U. CA, Riverside	112,468	12,090	61,621	2,743	8,704	1,762	10,099	3,133	12,316
110 Thomas Jefferson U.	109,083	0	109,083	0	0	0	0	0	0
111 NM State U. all campuses	108,613	692	25,484	3,336	9,337	1,667	2,242	239	65,616
112 Medical C. WI	108,608	0	108,608	0	0	0	0	0	0
113 U. VT	104,994	550	94,922	1,414	1,554	1,024	143	3,174	2,213



TABLE 33. R&D expenditures at universities and colleges, ranked by all R&D expenditures for the first 200 institutions, by science and engineering field: FY 2003  
(Dollars in thousands)

Institution and ranking	All R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
114 WV U.	104,748	6,242	59,881	809	6,699	462	1,593	1,056	28,006
115 Woods Hole Oceanographic Institution	104,223	86,293	0	0	0	0	0	0	17,930
116 OK State U. all campuses	103,079	2,025	57,737	1,351	9,129	446	8,559	3,325	20,507
117 U. DE	100,706	11,829	23,301	2,381	16,221	2,014	5,566	5,043	34,351
118 Georgetown U.	100,181	0	91,290	286	5,501	705	2,399	0	0
119 U. NH	96,415	41,807	24,447	367	4,144	525	5,984	1,378	17,763
120 TX Tech U.	92,515	11,421	41,037	2,176	9,003	424	7,240	693	20,521
121 George Washington U.	92,454	444	41,984	21,090	2,486	1,180	6,907	55	18,308
122 ND State U. all campuses	91,812	256	52,693	1,201	12,668	1,034	8,342	4,510	11,108
123 MT State U. Bozeman	91,503	1,233	53,672	655	13,067	0	2,711	7,766	12,399
124 U. Central FL	89,880	12,584	8,703	323	21,364	2,414	9,226	10,694	24,572
125 Rush U.	89,196	0	87,056	0	0	2,140	0	0	0
126 U. Louisville	88,522	661	71,379	374	2,168	2,736	2,380	917	7,907
127 U. MS all campuses	85,378	0	54,512	291	17,432	208	2,276	3,702	6,957
128 U. ID	85,213	5,626	53,644	1,892	3,265	126	2,896	4,006	13,758
129 U. AR main campus	82,277	3,518	51,878	1,057	9,073	607	3,308	0	12,836
130 U. NV, Reno	80,553	8,477	45,815	1,495	7,955	664	1,345	8,059	6,743
131 U. CA, Santa Cruz	78,448	16,826	13,574	4,432	33,325	1,232	4,043	33	4,983
132 NJ Institute of Technology	73,664	0	34	5,660	6,876	0	488	15,409	45,197
133 Temple U.	71,327	165	42,315	921	8,676	11,558	3,884	0	3,808
134 Drexel U.	69,548	0	31,036	2,855	2,577	520	0	0	32,560
135 U. ME	68,923	21,337	23,116	1,238	5,452	779	3,876	1,947	11,178
136 San Diego State U.	67,053	3,590	26,030	2,226	3,753	9,021	5,883	6,946	9,604
137 U. AR for Medical Sciences	63,677	0	63,677	0	0	0	0	0	0
138 U. Houston	63,455	1,404	12,726	6,076	5,924	3,294	9,802	0	24,229
139 U. RI	61,818	28,756	16,599	306	742	5,515	152	4,373	5,375
140 Naval Postgraduate School	61,025	11,324	0	17,139	3,285	0	12,990	6,518	9,769
141 U. WY	60,054	8,076	27,752	440	5,271	1,592	1,800	8,559	6,564
142 U. of Notre Dame	59,803	0	11,314	3,162	17,230	3,338	3,271	7,218	14,270
143 Medical C. GA	56,398	0	56,398	0	0	0	0	0	0
144 TX A&M U. System Health Science Ctr.	55,031	580	53,382	0	0	146	0	0	923
145 Southern IL U. Carbondale	53,018	1,541	34,031	564	1,483	481	2,570	2,927	9,421
146 U. Dayton	52,943	172	482	164	331	60	6	0	51,728
147 Rice U.	52,367	1,326	7,857	14,172	15,469	925	839	0	11,779
148 FL International U.	52,175	1,392	9,858	1,369	3,467	1,005	8,568	11,105	15,411
149 Brandeis U.	50,841	0	24,747	2,570	5,316	2,591	15,617	0	0
150 Rensselaer Polytechnic Institute	50,777	2,464	819	3,493	5,394	0	784	4	37,819
151 Charles R. Drew U. of Medicine and Science	49,888	0	49,888	0	0	0	0	0	0

TABLE 33. R&D expenditures at universities and colleges, ranked by all R&D expenditures for the first 200 institutions, by science and engineering field: FY 2003  
(Dollars in thousands)

Institution and ranking	All R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
152 Syracuse U. all campuses	48,846	2,214	3,765	6,770	5,143	2,314	3,060	13,740	11,840
153 U. AL Huntsville, The	46,595	6,879	2,214	6,570	9,704	22	116	86	21,004
154 GA State U.	45,653	471	15,068	1,752	6,958	9,553	11,587	264	0
155 George Mason U.	44,980	8,387	7,841	8,006	386	2,747	8,193	0	9,420
156 U. OR	44,604	1,699	21,555	3,077	8,460	5,897	3,458	0	458
157 C. of William and Mary all campuses	43,974	30,325	2,225	1,359	8,339	380	1,346	0	0
158 U. LA Lafayette	43,769	400	24,837	6,942	1,514	203	790	5,213	3,870
159 U. MT, The	43,562	544	28,130	1,792	2,531	625	5,080	4,860	0
160 Northeastern U.	42,931	0	7,493	2,288	11,231	2,846	2,537	0	16,536
161 U. MD Baltimore County	42,906	16,160	3,601	1,525	6,869	1,514	3,082	0	10,155
162 U. NV, Las Vegas	42,205	16,714	5,988	1,995	6,269	0	5,076	0	6,163
163 U. ND all campuses	41,803	5,206	12,412	307	834	48	83	2,517	20,396
164 St. Louis U. all campuses	41,189	819	39,869	161	85	60	102	93	0
165 U. MD Biotechnology Institute	39,789	6,746	33,043	0	0	0	0	0	0
166 U. Memphis, The	38,728	4,473	5,399	2,962	1,627	11,373	7,043	1,290	4,561
167 SUNY Health Science Ctr. Brooklyn	38,424 i	0 i	38,424 i	0 i	0 i	0 i	0 i	0 i	0 i
168 U. MD Ctr. for Environmental Science	38,344	38,344	0	0	0	0	0	0	0
169 Loyola U. Chicago	37,581	25	35,556	104	625	882	389	0	0
170 Howard U.	37,577	0	25,172	1,960	3,534	2,552	320	0	4,039
171 OH U. all campuses	37,527	862	9,519	404	5,859	1,805	1,057	1,030	16,991
172 NM Institute of Mining and Technology	37,186	9,465	1,433	214	2,799	10	0	5,956	17,309
173 AL A&M U.	36,856	0 i	26,391 i	1,652 i	5,426 i	0 i	511 i	1,426 i	1,450 i
174 U. MO-Rolla	35,999	3,499	435	134	3,371	35	11	0	28,514
175 U. Southern MS	35,049	14,433	4,770	1,190	8,060	303	316	3,759	2,218
176 Wright State U. all campuses	34,860	561	20,531	3,209	2,914	2,423	20	161	5,041
177 U. AL, The	34,187	2,353	3,877	2,480	3,754	2,549	1,942	41	17,191
178 Eastern VA Medical School	32,801	0	32,801	0	0	0	0	0	0
179 CUNY Hunter C.	32,704	4,014	11,553	185	7,894	5,524	3,413	121	0
180 Boston C.	32,158	514	4,395	12,544	8,225	870	5,610	0	0
181 Desert Research Institute	31,757	24,623	0	0	0	0	0	7,134	0
182 U. PR Medical Sciences Campus	31,124	0 i	31,124 i	0 i	0 i	0 i	0 i	0 i	0 i
183 U. MO-Kansas City	31,104	0	25,185	958	2,335	1,198	388	0	1,040
184 U. TX Dallas	30,748	3,578	5,737	3,955	7,378	157	633	1,307	8,003
185 Uniformed Services U. of the Health Sciences	30,604	0	30,604	0	0	0	0	0	0
186 NY Medical C.	30,492	0	30,492	0	0	0	0	0	0
187 Old Dominion U.	30,324	3,563	2,970	1,757	1,852	873	1,021	0	18,288
188 MI Technological U.	30,264	6,815	1,000	1,242	1,845	0	479	835	18,048
189 Lehigh U.	29,211	1,148	1,592	1,435	4,580	76	48	0	20,332

TABLE 33. R&D expenditures at universities and colleges, ranked by all R&D expenditures for the first 200 institutions, by science and engineering field: FY 2003  
(Dollars in thousands)

Institution and ranking	All R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
190 CO School of Mines	29,162	2,040	0	694	7,777	0	40	0	18,611
191 Jackson State U.	28,843	3,710	6,450	5,296	4,582	1,483	545	6,399	378
192 San Jose State U.	28,323	10,832	525	1,184	3,405	8,155	88	1,038	3,096
193 U. Akron all campuses	27,953	447	1,644	683	11,638	159	5,236	0	8,146
194 SD State U.	27,652	712	22,702	22	450	3	1,897	0	1,866
195 U. WI Milwaukee	27,259	4,472	2,999	1,652	5,112	700	7,622	0	4,702
196 U.S. Air Force Academy	27,198	0	588	2,127	4,315	346	143	440	19,239
197 U. TX El Paso	27,185	4,676	6,177	869	3,383	526	789	129	10,636
198 Morehouse School of Medicine	27,154	0	27,154	0	0	0	0	0	0
199 SUNY C. of Environmental Science and Forestry	26,783	2,619 i	12,661 i	0 i	2,131 i	0 i	266 i	0 i	9,106 i
200 Loma Linda U.	26,296	0	26,227	0	0	0	69	0	0
All other sampled institutions	1,844,373	145,823	643,993	107,142	265,704	72,900	142,821	88,668	377,322

i = imputed.

nec = not elsewhere classified.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 34. Federally financed R&D expenditures at universities and colleges, ranked by federal R&D expenditures for the first 200 institutions, by science and engineering field: FY 2003

(Dollars in thousands)

Institution and ranking	Federal R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
All institutions	24,734,033	1,439,843	14,645,014	1,231,703	2,352,648	552,623	666,551	238,014	3,607,637
1 Johns Hopkins U., The <sup>a</sup>	1,106,971	33,989	449,328	89,253	133,643	3,954	2,679	16,609	377,516
2 U. WA	565,602	76,736	392,628	11,455	26,603	7,897	6,167	0	44,116
3 U. MI all campuses	516,818	4,768	285,432	7,199	25,355	9,348	69,293	114	115,309
4 Stanford U.	483,540	7,394	259,118	19,558	71,305	5,245	3,422	0	117,498
5 U. CA, Los Angeles	421,174	10,745	299,298	13,668	39,145	8,194	7,766	2,034	40,324
6 U. PA	415,631	3	346,579	11,799	21,122	4,494	14,132	2,893	14,609
7 U. CA, San Diego	400,100	71,454	203,564	51,638	31,052	5,529	4,281	0	32,582
8 U. WI Madison	396,231	36,300	212,985	12,784	32,695	21,042	19,565	0	60,860
9 Columbia U. in the City of NY	385,529	49,381	262,954	10,123	33,643	3,471	6,495	1,364	18,098
10 U. CO all campuses	377,941	61,328	208,648	7,113	57,555	8,621	9,134	1,066	24,476
11 U. CA, San Francisco	371,697	0	348,910	0	22,787	0	0	0	0
12 Washington U. St. Louis	357,364	2,795	327,042	4,188	10,255	2,302	3,782	43	6,957
13 MA Institute of Technology	356,206	21,920	60,914	30,912	93,550	1,280	1,620	11,995	134,015
14 Harvard U.	348,620	12,803	271,959	3,453	33,784	6,285	10,574	0	9,762
15 U. Pittsburgh all campuses	345,625	638	299,734	4,741	14,647	6,515	4,878	3,996	10,476
16 Cornell U. all campuses	320,868	3,211	195,193	17,982	55,800	2,693	6,842	0	39,147
17 Duke U.	306,864	6,291	244,212	6,722	14,090	2,394	15,005	0	18,150
18 Baylor C. of Medicine	302,764	0	302,764	0	0	0	0	0	0
19 PA State U. all campuses	301,094	23,646	86,415	18,457	40,089	10,256	9,778	1,778	110,675
20 U. Southern CA	300,195	12,160	153,185	79,974	6,397	4,678	3,133	199	40,469
21 Yale U.	296,713	2,693	257,953	5,318	17,726	4,271	778	0	7,974
22 U. MN all campuses	293,266	5,858	210,906	13,112	19,609	8,557	7,925	0	27,299
23 U. NC Chapel Hill	280,678	11,974	218,951	8,682	16,616	5,552	18,903	0	0
24 U. IL Urbana-Champaign	266,487	13,144	54,100	87,714	31,765	6,564	4,096	2,723	66,381
25 U. AZ	259,074	7,012	142,078	7,059	62,584	2,563	10,010	43	27,725
26 U. AL Birmingham, The	245,217	0	226,708	966	2,002	6,445	1,358	0	7,738
27 U. CA, Berkeley	238,206	5,342	88,065	6,981	58,292	8,065	6,586	530	64,345
28 U. TX Austin	231,996	10,483	31,220	37,405	51,027	6,572	11,751	3,464	80,074
29 Emory U.	228,255	96	217,874	636	6,594	2,301	754	0	0
30 Vanderbilt U.	221,979	124	179,144	574	10,700	7,298	4,325	0	19,814
31 CA Institute of Technology	219,097	10,916	34,128	12,296	121,492	0	1,733	1,508	37,024
32 U. CA, Davis	208,327	12,502	155,161	3,663	13,693	567	3,138	807	18,796
33 U. Rochester	208,148	649	136,882	2,607	10,210	8,056	770	605	48,369
34 Case Western Reserve U.	205,452	416	169,729	272	8,748	996	1,744	0	23,547
35 Boston U.	203,947	3,303	135,311	3,469	23,458	6,157	762	11,691	19,796
36 GA Institute of Technology all campuses	203,582	8,214	6,248	31,350	14,154	3,327	3,531	2,608	134,150

TABLE 34. Federally financed R&D expenditures at universities and colleges, ranked by federal R&D expenditures for the first 200 institutions, by science and engineering field: FY 2003

(Dollars in thousands)

Institution and ranking	Federal R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
37 U. Chicago	201,129	3,977	149,307	7,091	32,600	5,611	2,319	7	217
38 Northwestern U.	200,316	715	132,517	2,795	17,883	3,414	3,326	3,056	36,610
39 OH State U. all campuses	198,488	5,441	116,877	5,783	17,776	5,098	15,074	690	31,749
40 U. IA	197,260	1,161	163,646	1,544	14,019	4,471	1,066	11	11,342
41 U. FL	194,958	3,750	118,875	7,074	18,691	6,197	1,947	0	38,424
42 U. Cincinnati all campuses	185,261	111	167,484	174	2,771	163	985	20	13,553
43 U. MD College Park	183,206	8,805	29,284	21,983	42,879	3,936	28,506	0	47,813
44 U. TX Southwestern Medical Ctr. Dallas	177,196	0	177,196	0	0	0	0	0	0
45 TX A&M U. all campuses	177,119	60,162	45,979	11,432	16,048	2,022	1,622	45	39,809
46 U. VA all campuses	173,442	2,426	120,155	6,223	13,575	5,864	1,094	125	23,980
47 U. IL Chicago	168,063	1,012	124,559	13,409	8,860	3,961	6,811	1,610	7,841
48 NY U.	166,033	0	128,929	13,039	7,983	11,478	4,108	496	0
49 OR Health and Science U.	164,221	0	137,235	16,765	0	10,221	0	0	0
50 Carnegie-Mellon U.	157,583	0	6,032	79,728	9,672	9,532	7,986	5	44,628
51 IN U. all campuses	153,625	1,420	111,613	7,312	17,561	7,644	7,303	149	623
52 Mt. Sinai School of Medicine	152,719	0	152,719	0	0	0	0	0	0
53 U. UT	152,112	2,963	104,091	13,116	12,389	1,937	252	0	17,364
54 U. HI Manoa	143,580	33,925	50,110	19,351	17,746	64	4,068	10,833	7,483
55 U. CA, Irvine	133,873	3,107	92,285	6,379	14,730	3,149	3,501	19	10,703
56 MI State U.	133,820	564	74,152	4,606	30,314	4,128	11,597	477	7,982
57 U. Miami	130,863	36,705	79,261	213	2,506	9,530	1,163	0	1,485
58 SUNY Buffalo all campuses	129,794	653	93,241	4,388	8,354	2,719	1,336	31	19,072
59 Purdue U. all campuses	129,199	2,088	54,290	8,073	14,750	3,365	4,357	506	41,770
60 Yeshiva U.	128,894	0	128,894	0	0	0	0	0	0
61 U. MD Baltimore	126,156	0	126,156	0	0	0	0	0	0
62 U. TX M. D. Anderson Cancer Ctr.	122,869	0	108,532	4,256	4,956	4,113	113	0	899
63 U. KY all campuses	120,003	1,375	79,976	3,814	5,297	2,669	3,210	7,058	16,604
64 CO State U.	117,151	31,928	56,130	2,258	7,242	2,765	5,817	818	10,193
65 SUNY Stony Brook all campuses	112,452	12,146	60,520	6,905	19,062	2,548	878	0	10,393
66 U. CT all campuses	111,654	5,820	76,770	1,638	4,681	8,547	3,556	51	10,591
67 U. MA Worcester	109,082	0	109,082	0	0	0	0	0	0
68 Wake Forest U.	108,467	0	106,876	270	1,314	0	0	7	0
69 U. TX Health Science Ctr. Houston	107,481	0	107,481	0	0	0	0	0	0
70 U. NM all campuses	106,541	3,412	58,903	3,382	7,375	4,552	6,087	4,583	18,247
71 U. South FL	106,102	22,221	60,341	1,246	1,823	7,460	2,254	0	10,757
72 Rutgers, The State U. NJ all campuses	106,060	11,993	51,288	8,086	13,127	4,732	2,857	0	13,977
73 Dartmouth C.	106,034	1,224	69,269	4,123	2,895	3,972	359	7,946	16,246

TABLE 34. Federally financed R&D expenditures at universities and colleges, ranked by federal R&D expenditures for the first 200 institutions, by science and engineering field: FY 2003

(Dollars in thousands)

Institution and ranking	Federal R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
74 U. of Medicine and Dentistry NJ	105,495	0	105,495	0	0	0	0	0	0
75 Princeton U.	104,011	11,261	23,596	7,616	19,415	5,595	4,780	0	31,748
76 Wayne State U.	102,963	15	84,178	930	6,951	2,459	1,389	0	7,041
77 OR State U.	100,499	32,385	44,575	2,526	3,048	31	1,002	772	16,160
78 U. TN all campuses	100,486	2,909	63,321	7,093	8,720	212	673	2,100	15,458
79 LA State U. all campuses	99,362	7,277	60,649	964	11,731	318	2,277	0	16,146
80 VA Polytechnic Institute and State U.	98,143	7,234	35,641	4,226	8,159	2,006	1,579	0	39,298
81 U. NE central administration	96,627	3,245	62,619	4,187	7,684	5,210	4,553	1,656	7,473
82 NC State U.	96,157	5,921	39,689	9,055	9,156	0	2,390	658	29,288
83 UT State U.	95,494	2,944	20,215	998	3,117	1,151	743	952	65,374
84 U. GA	93,884	4,690	70,574	1,764	4,098	7,935	3,691	0	1,132
85 U. TX Medical Branch	93,039	0	91,645	0	0	0	0	0	1,394
86 Medical U. SC	92,893	0	92,893	0	0	0	0	0	0
87 U. KS all campuses	90,876	2,360	68,329	805	5,143	1,105	4,197	949	7,988
88 U. CA, Santa Barbara	88,422	11,931	3,532	9,945	19,814	5,811	4,977	296	32,116
89 FL State U.	87,985	11,366	16,254	4,024	26,052	2,804	6,387	0	21,098
90 U. TX Health Science Ctr. San Antonio	86,683	0	86,683	0	0	0	0	0	0
91 Thomas Jefferson U.	85,348	0	85,348	0	0	0	0	0	0
92 Woods Hole Oceanographic Institution	84,410	70,050	0	0	0	0	0	0	14,360
93 U. MO-Columbia	84,211	986	62,607	2,016	2,316	3,899	4,382	0	8,005
94 Georgetown U.	83,745	0	76,362	269	4,346	623	2,145	0	0
95 Medical C. WI	83,026	0	83,026	0	0	0	0	0	0
96 IA State U.	82,297	3,252	36,716	4,559	6,596	111	7,961	710	22,392
97 Tulane U.	82,118	952	65,908	1,341	2,513	190	4,703	0	6,511
98 Brown U.	81,445	3,901	45,491	8,771	5,995	1,558	1,902	0	13,827
99 VA Commonwealth U.	81,201	324	69,759	135	2,868	3,250	827	0	4,038
100 MS State U.	79,837	5,314	25,585	1,540	1,382	784	1,863	1,437	41,932
101 Tufts U.	78,942	191	68,487	881	3,023	1,385	237	0	4,738
102 SUNY Albany	76,038	3,213	63,018	2,380	1,368	1,141	4,661	0	257
103 NM State U. all campuses	75,368	125	11,443	2,952	8,311	1,499	1,710	237	49,091
104 U. OK all campuses	75,318	12,299	41,319	243	5,482	5,187	5,807	0	4,981
105 Rockefeller U.	75,303	0	70,042	1,254	4,007	0	0	0	0
106 U. AK Fairbanks all campuses	72,607	44,858	13,711	4,645	309	0	777	2,393	5,914
107 AZ State U. main campus	71,741	10,389	10,776	4,543	10,831	7,164	2,685	1,603	23,750
108 U. VT	70,832	326	64,619	779	1,150	438	89	2,304	1,127
109 WA State U.	70,653	2,031	40,478	672	9,005	1,309	2,843	1,201	13,114
110 U. DE	69,493	9,064	10,222	2,032	12,981	1,723	4,045	2,406	27,020

TABLE 34. Federally financed R&D expenditures at universities and colleges, ranked by federal R&D expenditures for the first 200 institutions, by science and engineering field: FY 2003

(Dollars in thousands)

Institution and ranking	Federal R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
111 George Washington U.	68,959	203	27,267	19,980	2,197	1,077	3,162	0	15,073
112 U. SC all campuses	63,044	9,481	21,579	1,894	7,234	2,916	3,644	139	16,157
113 Clemson U.	62,552	0	14,258	1,233	5,781	711	4,760	11	35,798
114 U. MS all campuses	62,140	0	36,540	221	15,129	98	1,695	2,493	5,964
115 U. MA Amherst	60,839	1,793	19,438	11,308	16,719	3,558	702	0	7,321
116 WV U.	60,586	4,284	29,531	450	5,307	242	707	493	19,572
117 U. NH	59,463	33,370	10,204	314	3,278	467	3,273	40	8,517
118 Naval Postgraduate School	58,463	10,284	0	16,873	3,076	0	12,565	6,443	9,222
119 KS State U.	53,313	330	28,046	1,949	10,337	703	1,797	1,588	8,563
120 MT State U. Bozeman	53,283	960	26,077	537	11,052	0	1,378	6,120	7,159
121 U. RI	51,942	26,524	13,440	234	697	4,543	98	2,099	4,307
122 Temple U.	51,309	123	30,161	603	7,864	8,113	2,009	0	2,436
123 Rush U.	49,834	0	48,374	0	0	1,460	0	0	0
124 Drexel U.	49,271	0	22,266	2,043	2,102	427	0	0	22,433
125 U. NV, Reno	47,756	5,844	28,402	1,331	6,565	547	279	19	4,769
126 U. Central FL	47,749	7,374	6,656	233	12,470	2,368	3,654	5,375	9,619
127 U. Dayton	47,327	113	248	54	253	0	0	0	46,659
128 Auburn U. all campuses	45,374	449	19,315	148	3,286	263	1,247	3,626	17,040
129 Rice U.	43,706	1,232	6,912	12,287	12,849	907	685	0	8,834
130 U. ID	42,861	3,272	24,429	1,256	2,012	28	897	2,084	8,883
131 U. AR for Medical Sciences	41,681	0	41,681	0	0	0	0	0	0
132 U. of Notre Dame	41,220	0	8,440	2,908	15,915	2,824	1,054	398	9,681
133 FL International U.	40,860	1,090	7,719	1,072	2,714	787	6,709	8,702	12,067
134 U. CA, Riverside	40,409	4,595	17,985	2,040	6,740	1,660	3,341	4	4,044
135 U. Louisville	39,924	255	30,931	211	1,608	2,054	483	671	3,711
136 Charles R. Drew U. of Medicine and Science	39,407	0	39,407	0	0	0	0	0	0
137 George Mason U.	38,510	8,334	5,614	7,626	248	2,122	5,517	0	9,049
138 U. CA, Santa Cruz	38,213	8,029	7,075	3,165	15,627	792	677	0	2,848
139 ND State U. all campuses	37,940	111	9,205	862	11,108	828	5,582	2,373	7,871
140 OK State U. all campuses	37,748	598	15,858	793	5,182	54	3,295	1,864	10,104
141 St. Louis U. all campuses	36,989	786	35,890	161	57	22	73	0	0
142 Howard U.	36,137	0	24,371	1,844	3,320	2,552	320	0	3,730
143 U. OR	36,127	1,315	17,340	3,025	6,874	5,527	2,021	0	25
144 U. AL Huntsville, The	35,558	5,113	1,363	5,495	7,410	16	13	3	16,145
145 Syracuse U. all campuses	34,559	1,117	3,334	4,201	4,806	2,298	1,658	9,703	7,442
146 U. MD Baltimore County	34,164	15,871	3,404	1,253	6,350	953	747	0	5,586
147 Brandeis U.	33,722	0	18,688	2,155	4,111	2,137	6,631	0	0

TABLE 34. Federally financed R&D expenditures at universities and colleges, ranked by federal R&D expenditures for the first 200 institutions, by science and engineering field: FY 2003

(Dollars in thousands)

Institution and ranking	Federal R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
148 U. Houston	32,556	737	9,892	4,326	3,269	1,673	5,691	0	6,968
149 U. NV, Las Vegas	32,511	13,476	4,975	1,736	4,472	0	3,401	0	4,451
150 Rensselaer Polytechnic Institute	32,295	1,953	565	2,572	3,674	0	689	0	22,842
151 TX Tech U.	31,776	7,241	12,313	887	3,329	255	871	0	6,880
152 U. Southern MS	31,653	13,882	4,603	1,190	6,058	182	313	3,304	2,121
153 NJ Institute of Technology	30,535	0	0	1,920	4,447	0	13	3,696	20,459
154 AL A&M U.	30,343	0 i	22,184 i	1,652 i	5,079 i	0 i	0 i	0 i	1,428 i
155 SUNY Health Science Ctr. Brooklyn	29,127 i	0 i	29,127 i	0 i	0 i	0 i	0 i	0 i	0 i
156 U. ME	28,901	11,466	8,150	537	2,813	683	1,071	0	4,181
157 U. ND all campuses	28,336	4,657	10,019	264	556	0	29	412	12,399
158 Medical C. GA	28,280	0	28,280	0	0	0	0	0	0
159 Loyola U. Chicago	28,107	18	26,944	95	314	682	54	0	0
160 San Diego State U.	28,084	1,809	13,977	807	1,647	4,924	296	43	4,581
161 U. MT, The	27,220	433	20,511	1,249	1,795	574	2,658	0	0
162 U. AR main campus	27,071	1,925	13,151	212	6,091	70	818	0	4,804
163 Northeastern U.	26,895	0	5,040	1,727	8,311	1,496	370	0	9,951
164 TX A&M U. System Health Science Ctr.	26,729	580	25,293	0	0	146	0	0	710
165 U. AL, The	26,241	1,959	3,222	1,493	2,414	2,440	1,207	0	13,506
166 U. PR Medical Sciences Campus	25,845	0 i	25,845 i	0 i	0 i	0 i	0 i	0 i	0 i
167 Jackson State U.	25,607	3,336	5,762	4,641	4,120	1,299	490	5,640	319
168 Morehouse School of Medicine	24,382	0	24,382	0	0	0	0	0	0
169 Meharry Medical C.	24,195	0	24,195	0	0	0	0	0	0
170 NY Medical C.	23,387	0	23,387	0	0	0	0	0	0
171 Desert Research Institute	23,265	17,204	0	0	0	0	0	6,061	0
172 U. WY	23,186	3,964	11,783	192	2,528	1,103	672	1,228	1,716
173 Boston C.	22,907	453	3,015	8,975	6,851	637	2,976	0	0
174 Loma Linda U.	22,675	0	22,675	0	0	0	0	0	0
175 GA State U.	22,218	219	7,542	715	3,214	6,658	3,870	0	0
176 C. of William and Mary all campuses	21,992	13,398	1,154	1,210	5,736	109	385	0	0
177 OH U. all campuses	20,406	458	3,388	1	4,062	1,274	282	138	10,803
178 San Jose State U.	18,935	6,610	403	167	2,117	8,155	0	0	1,483
179 Old Dominion U.	18,882	2,369	860	1,236	1,094	660	254	0	12,409
180 Catholic U. America, The	18,864	0	941	0	15,459	1,170	35	0	1,259
181 Wright State U. all campuses	18,733	179	12,098	1,010	1,734	1,316	14	0	2,382
182 Hampton U.	18,417	10,595	2,012	259	4,630	0	155	0	766
183 FL A&M U.	18,273	1,702	11,761	717	471	42	46	2,523	1,011
184 U. MO-Rolla	18,142	1,696	250	20	1,833	0	0	0	14,343



TABLE 34. Federally financed R&D expenditures at universities and colleges, ranked by federal R&D expenditures for the first 200 institutions, by science and engineering field: FY 2003

(Dollars in thousands)

Institution and ranking	Federal R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
185 U. TX El Paso	18,116	4,004	3,914	662	3,100	380	32	128	5,896
186 U. MD Biotechnology Institute	17,922	1,216	16,706	0	0	0	0	0	0
187 MI Technological U.	17,667	3,589	474	886	1,335	0	112	61	11,210
188 U. South AL	17,638	1,031	13,288	214	104	208	459	0	2,334
189 FL Atlantic U.	17,517	132	5,003	601	1,012	2,154	924	371	7,320
190 CUNY Hunter C.	17,047	270	6,653	52	5,703	3,788	559	22	0
191 SUNY Upstate Medical U.	16,652	0	16,652	0	0	0	0	0	0
192 Brigham Young U. all campuses	16,564	78	2,381	1,420	3,102	458	527	312	8,286
193 CO School of Mines	16,314	1,478	0	500	6,886	0	9	0	7,441
194 Lehigh U.	16,215	1,083	1,437	1,206	2,636	67	0	0	9,786
195 U. MA Lowell	15,821	1,459	2,704	176	5,783	11	2,308	62	3,318
196 NM Institute of Mining and Technology	15,434	1,255	982	90	1,069	9	0	4,165	7,864
197 Eastern VA Medical School	15,431	0	15,431	0	0	0	0	0	0
198 U. Memphis, The	14,985	1,241	1,335	1,185	614	6,682	2,806	0	1,122
199 U. TX Dallas	14,530	2,860	3,327	2,266	3,693	47	255	161	1,921
200 U. LA Lafayette	14,455	185	10,403	713	60	5	144	2,426	519
All other sampled institutions	1,030,799	86,588	402,997	69,439	152,518	47,963	55,546	28,726	187,022

i = imputed.

nec = not elsewhere classified.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 35. Nonfederal R&D expenditures at universities and colleges, ranked by nonfederal R&D expenditures for the first 200 institutions, by science and engineering field: FY 2003

(Dollars in thousands)

Institution and ranking	Nonfederal R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
All institutions	15,343,366	747,998	9,118,967	501,670	919,981	216,107	994,539	452,920	2,391,184
1 U. CA, Los Angeles	428,183	5,606	314,692	9,192	33,266	3,711	33,497	9,045	19,174
2 U. WI Madison	325,017	8,257	236,992	4,941	15,233	5,147	19,759	18	34,670
3 U. CA, San Francisco	299,746	0	293,735	0	6,011	0	0	0	0
4 OH State U. all campuses	297,950	3,826	138,477	29,009	15,222	3,199	25,296	6,506	76,415
5 TX A&M U. all campuses	279,116	25,189	114,148	3,968	16,760	703	3,762	4,156	110,430
6 U. CA, Davis	273,818	15,949	208,868	2,307	4,140	700	13,598	2,195	26,061
7 U. CA, Berkeley	268,980	4,838	86,850	1,751	24,895	3,755	44,697	14,506	87,688
8 U. MI all campuses	263,236	4,961	147,519	4,228	12,462	802	39,409	123	53,732
9 U. CA, San Diego	246,408	45,431	124,188	20,030	11,852	1,406	8,648	1,345	33,508
10 U. FL	234,776	2,708	176,682	3,364	11,601	1,748	8,754	0	29,919
11 Cornell U. all campuses	233,892	2,992	153,208	11,689	23,027	4,227	14,609	0	24,140
12 PA State U. all campuses	232,333	19,488	89,122	5,417	17,409	6,964	16,733	4,305	72,895
13 U. IL Urbana-Champaign	227,094	24,678	78,314	27,521	16,202	4,972	23,931	2,871	48,605
14 LA State U. all campuses	215,303	22,002	134,770	3,862	9,901	790	8,311	7,552	28,115
15 U. MN all campuses	215,291	5,961	161,123	4,416	6,081	3,961	10,873	0	22,876
16 Duke U.	213,327	6,066	189,622	811	2,540	571	6,657	0	7,060
17 U. GA	205,864	8,574	137,165	6,758	7,722	5,251	33,650	0	6,744
18 U. AZ	195,867	4,101	106,779	2,349	48,072	1,257	10,364	48	22,897
19 U. TX M. D. Anderson Cancer Ctr.	192,300	0	175,011	10,464	2,141	3,743	74	0	867
20 NC State U.	189,868	9,518	95,609	8,032	12,343	2	6,118	3,092	55,154
21 MI State U.	187,590	1,600	129,358	2,730	20,039	2,505	14,601	562	16,195
22 IN U. all campuses	184,044	4,611	98,966	6,449	16,761	3,818	28,173	22,592	2,674
23 Purdue U. all campuses	180,277	1,048	91,334	5,524	6,435	2,445	10,424	4,663	58,404
24 U. NE central administration	179,797	4,902	116,060	4,532	4,918	3,333	10,636	15,186	20,230
25 U. MD Baltimore	171,115	0	171,115	0	0	0	0	0	0
26 Rutgers, The State U. NJ all campuses	168,516	14,409	85,432	7,793	13,637	6,077	20,508	1,502	19,158
27 GA Institute of Technology all campuses	160,608	6,649	7,716	27,911	10,136	1,681	6,688	1,006	98,821
28 Baylor C. of Medicine	158,999	0	158,999	0	0	0	0	0	0
29 U. KY all campuses	152,059	1,942	107,069	2,006	3,829	489	5,991	7,522	23,211
30 VA Polytechnic Institute and State U.	149,664	2,870	74,119	3,308	6,393	940	4,820	0	57,214
31 U. PA	149,085	653	104,552	1,603	4,169	484	26,140	4,035	7,449
32 U. MD College Park	138,693	3,534	30,899	13,003	14,378	267	41,979	0	34,633
33 Johns Hopkins U., The <sup>a</sup>	137,161	1,714	101,372	3,211	2,431	361	2,374	16,802	8,896
34 MA Institute of Technology	129,558	5,736	15,131	19,849	3,128	182	4,511	19,332	61,689
35 U. IL Chicago	123,444	1,047	85,771	4,721	4,373	2,234	8,579	7,554	9,165
36 U. MO-Columbia	121,001	938	89,165	707	2,273	4,407	9,803	0	13,708

TABLE 35. Nonfederal R&D expenditures at universities and colleges, ranked by nonfederal R&D expenditures for the first 200 institutions, by science and engineering field: FY 2003

(Dollars in thousands)

Institution and ranking	Nonfederal R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
37 Stanford U.	119,687	2,799	74,029	3,043	7,506	1,285	8,371	0	22,654
38 Northwestern U.	119,406	143	80,877	1,192	7,975	763	7,276	3,363	17,817
39 U. WA	119,212	6,110	82,114	1,250	6,986	743	9,062	0	12,947
40 IA State U.	117,269	1,725	61,942	8,326	4,010	603	6,657	10,593	23,413
41 Washington U. St. Louis	116,964	2,017	103,528	1,944	2,980	948	892	1,311	3,344
42 U. TN all campuses	116,903	2,273	63,108	5,271	3,662	102	7,854	10,765	23,868
43 Rockefeller U.	116,840	0	107,174	7,339	2,327	0	0	0	0
44 U. Southern CA	113,904	7,412	72,757	9,847	3,879	1,580	5,749	1,934	10,746
45 U. TX Austin	111,858	19,261	12,666	6,730	22,325	614	8,500	853	40,909
46 Wayne State U.	110,754	123	86,320	948	9,055	1,414	4,690	570	7,634
47 SUNY Buffalo all campuses	110,386	583	77,439	5,655	7,627	2,401	2,236	248	14,197
48 U. NC Chapel Hill	109,864	7,435	85,667	2,809	4,866	895	8,192	0	0
49 U. South FL	107,147	4,977	78,791	385	1,458	7,045	2,064	1,633	10,794
50 WA State U.	104,528	1,660	66,908	332	4,492	512	9,817	3,645	17,162
51 U. CA, Irvine	100,783	2,028	63,595	5,942	7,881	1,198	6,325	8	13,806
52 U. TX Southwestern Medical Ctr. Dallas	99,496	0	99,496	0	0	0	0	0	0
53 U. OK all campuses	99,148	17,630	35,470	3,518	10,098	8,482	9,921	0	14,029
54 Emory U.	94,969	40	87,157	159	5,274	691	1,648	0	0
55 U. IA	94,775	1,305	66,382	450	3,503	487	4,298	456	17,894
56 Yale U.	90,931	531	73,490	1,265	3,528	2,040	5,843	0	4,234
57 Clemson U.	90,434	0	33,728	2,907	4,274	171	5,542	15,089	28,723
58 SUNY Stony Brook all campuses	87,878	7,936	46,914	5,015	9,978	1,167	2,122	0	14,746
59 MS State U.	86,085	934	55,028	2,118	4,107	996	3,187	1,654	18,061
60 U. of Medicine and Dentistry NJ	85,268	0	85,268	0	0	0	0	0	0
61 U. KS all campuses	82,148	8,931	52,690	3,553	2,897	104	4,938	1,054	7,981
62 Auburn U. all campuses	78,729	743	56,455	545	1,047	41	1,133	234	18,531
63 U. CT all campuses	78,687	2,824	57,097	1,000	2,392	2,351	4,446	242	8,335
64 U. Rochester	77,620	132	60,554	280	1,668	3,755	161	850	10,220
65 Princeton U.	75,940	6,074	10,142	3,842	9,127	2,217	23,867	0	20,671
66 NY U.	75,560	735	64,253	2,755	714	1,902	3,880	1,321	0
67 AZ State U. main campus	73,850	596	21,249	2,355	9,065	1,159	7,783	3,861	27,782
68 U. CA, Riverside	72,059	7,495	43,636	703	1,964	102	6,758	3,129	8,272
69 U. UT	71,627	1,568	43,925	5,498	5,944	431	1,485	0	12,776
70 CO State U.	69,903	10,851	39,938	768	2,759	547	3,429	3,151	8,460
71 U. Cincinnati all campuses	69,822	261	43,921	527	3,493	1,143	2,104	3,483	14,890
72 OR State U.	67,132	5,354	50,795	944	752	8	1,728	115	7,436
73 OK State U. all campuses	65,331	1,427	41,879	558	3,947	392	5,264	1,461	10,403

TABLE 35. Nonfederal R&D expenditures at universities and colleges, ranked by nonfederal R&D expenditures for the first 200 institutions, by science and engineering field: FY 2003

(Dollars in thousands)

Institution and ranking	Nonfederal R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
74 FL State U.	64,292	7,964	10,253	2,932	22,837	3,567	11,663	231	4,845
75 U. Pittsburgh all campuses	64,059	26	55,197	413	2,007	363	1,050	10	4,993
76 Mt. Sinai School of Medicine	61,795	0	61,795	0	0	0	0	0	0
77 TX Tech U.	60,739	4,180	28,724	1,289	5,674	169	6,369	693	13,641
78 U. CA, Santa Barbara	60,708	12,412	970	3,835	7,216	2,366	6,941	2,940	24,028
79 Harvard U.	60,087	1,983	42,541	39	2,394	174	11,824	0	1,132
80 U. TX Medical Branch	60,083	0	58,834	0	0	0	0	0	1,249
81 KS State U.	59,420	359	43,757	750	837	319	2,430	1,628	9,340
82 U. CO all campuses	58,820	4,310	38,657	964	5,033	939	2,061	136	6,720
83 U. SC all campuses	58,366	9,661	19,986	1,677	7,865	2,461	4,255	2,447	10,014
84 Medical U. SC	57,658	0	57,658	0	0	0	0	0	0
85 U. AK Fairbanks all campuses	56,309	30,024	11,810	7,390	384	0	535	673	5,493
86 U. AR main campus	55,206	1,593	38,727	845	2,982	537	2,490	0	8,032
87 Vanderbilt U.	54,095	26	35,128	105	3,246	3,221	1,182	7,090	4,097
88 ND State U. all campuses	53,872	145	43,488	339	1,560	206	2,760	2,137	3,237
89 U. MA Amherst	52,673	2,468	13,757	8,146	12,139	1,509	1,961	766	11,927
90 Columbia U. in the City of NY	52,140	2,917	38,156	301	1,382	391	2,978	408	5,607
91 U. NM all campuses	51,698	549	26,869	243	1,418	1,901	5,633	10,057	5,028
92 Dartmouth C.	49,761	1,258	33,851	1,902	1,821	1,607	384	3,587	5,351
93 U. Louisville	48,598	406	40,448	163	560	682	1,897	246	4,196
94 Yeshiva U.	48,342	0	48,342	0	0	0	0	0	0
95 U. Miami	46,846	4,103	41,455	0	90	318	68	0	812
96 U. TX Health Science Ctr. San Antonio	46,621	0	46,621	0	0	0	0	0	0
97 U. Chicago	46,193	115	41,805	346	3,844	18	65	0	0
98 VA Commonwealth U.	45,250	290	38,000	117	2,234	1,851	805	0	1,953
99 Case Western Reserve U.	45,222	93	15,508	61	2,202	84	1,095	18,739	7,440
100 SUNY Albany	44,617	2,169	9,575	668	1,285	675	6,893	0	23,352
101 WV U.	44,162	1,958	30,350	359	1,392	220	886	563	8,434
102 Brown U.	43,645	2,299	19,953	4,495	4,673	708	4,398	0	7,119
103 UT State U.	43,368	6,790	19,588	360	683	1,121	1,996	8,077	4,753
104 NJ Institute of Technology	43,129	0	34	3,740	2,429	0	475	11,713	24,738
105 U. ID	42,352	2,354	29,215	636	1,253	98	1,999	1,922	4,875
106 U. Central FL	42,131	5,210	2,047	90	8,894	46	5,572	5,319	14,953
107 U. TX Health Science Ctr. Houston	41,813	0	41,813	0	0	0	0	0	0
108 Southern IL U. Carbondale	40,940	1,244	26,100	440	954	303	1,948	1,703	8,248
109 U. CA, Santa Cruz	40,235	8,797	6,499	1,267	17,698	440	3,366	33	2,135
110 U. ME	40,022	9,871	14,966	701	2,639	96	2,805	1,947	6,997

TABLE 35. Nonfederal R&D expenditures at universities and colleges, ranked by nonfederal R&D expenditures for the first 200 institutions, by science and engineering field: FY 2003

(Dollars in thousands)

Institution and ranking	Nonfederal R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
111 U. MA Worcester	39,741	0	39,741	0	0	0	0	0	0
112 Rush U.	39,362	0	38,682	0	0	680	0	0	0
113 U. AL Birmingham, The	39,280	0	36,034	223	671	821	49	0	1,482
114 San Diego State U.	38,969	1,781	12,053	1,419	2,106	4,097	5,587	6,903	5,023
115 MT State U. Bozeman	38,220	273	27,595	118	2,015	0	1,333	1,646	5,240
116 U. NH	36,952	8,437	14,243	53	866	58	2,711	1,338	9,246
117 U. WY	36,868	4,112	15,969	248	2,743	489	1,128	7,331	4,848
118 U. HI Manoa	35,705	11,358	13,879	84	1,830	47	1,808	5,464	1,235
119 Tulane U.	35,591	357	31,998	170	1,378	108	49	0	1,531
120 U. VT	34,162	224	30,303	635	404	586	54	870	1,086
121 Tufts U.	33,667	618	23,396	177	703	2,234	4,362	0	2,177
122 NM State U. all campuses	33,245	567	14,041	384	1,026	168	532	2	16,525
123 OR Health and Science U.	32,957	0	29,056	3,442	0	459	0	0	0
124 U. NV, Reno	32,797	2,633	17,413	164	1,390	117	1,066	8,040	1,974
125 U. VA all campuses	32,757	231	21,629	472	1,740	503	258	105	7,819
126 U. DE	31,213	2,765	13,079	349	3,240	291	1,521	2,637	7,331
127 U. Houston	30,899	667	2,834	1,750	2,655	1,621	4,111	0	17,261
128 U. LA Lafayette	29,314	215	14,434	6,229	1,454	198	646	2,787	3,351
129 Carnegie-Mellon U.	28,768	0	1,066	9,872	3,952	1,579	2,051	689	9,559
130 TX A&M U. System Health Science Ctr.	28,302	0	28,089	0	0	0	0	0	213
131 Medical C. GA	28,118	0	28,118	0	0	0	0	0	0
132 U. MD Ctr. for Environmental Science	25,690	25,690	0	0	0	0	0	0	0
133 Medical C. WI	25,582	0	25,582	0	0	0	0	0	0
134 U. Memphis, The	23,743	3,232	4,064	1,777	1,013	4,691	4,237	1,290	3,439
135 Thomas Jefferson U.	23,735	0	23,735	0	0	0	0	0	0
136 George Washington U.	23,495	241	14,717	1,110	289	103	3,745	55	3,235
137 GA State U.	23,435	252	7,526	1,037	3,744	2,895	7,717	264	0
138 U. MS all campuses	23,238	0	17,972	70	2,303	110	581	1,209	993
139 U. AR for Medical Sciences	21,996	0	21,996	0	0	0	0	0	0
140 C. of William and Mary all campuses	21,982	16,927	1,071	149	2,603	271	961	0	0
141 Wake Forest U.	21,938	0	21,158	0	404	0	0	376	0
142 U. MD Biotechnology Institute	21,867	5,530	16,337	0	0	0	0	0	0
143 NM Institute of Mining and Technology	21,752	8,210	451	124	1,730	1	0	1,791	9,445
144 SUNY C. of Environmental Science and Forestry	21,606	2,359 i	8,777 i	0 i	1,769 i	0 i	216 i	0 i	8,485 i
145 CA Institute of Technology	21,567	2,735	2,225	52	3,523	0	0	9,992	3,040
146 Uniformed Services U. of the Health Sciences	21,077	0	21,077	0	0	0	0	0	0
147 Boston U.	20,894	378	16,822	319	964	36	415	568	1,392

TABLE 35. Nonfederal R&D expenditures at universities and colleges, ranked by nonfederal R&D expenditures for the first 200 institutions, by science and engineering field: FY 2003

(Dollars in thousands)

Institution and ranking	Nonfederal R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
148 Drexel U.	20,277	0	8,770	812	475	93	0	0	10,127
149 Temple U.	20,018	42	12,154	318	812	3,445	1,875	0	1,372
150 Woods Hole Oceanographic Institution	19,813	16,243	0	0	0	0	0	0	3,570
151 U. Akron all campuses	18,605	275	625	185	7,985	101	4,552	0	4,882
152 U. of Notre Dame	18,583	0	2,874	254	1,315	514	2,217	6,820	4,589
153 Rensselaer Polytechnic Institute	18,482	511	254	921	1,720	0	95	4	14,977
154 U. MO-Rolla	17,857	1,803	185	114	1,538	35	11	0	14,171
155 Eastern VA Medical School	17,370	0	17,370	0	0	0	0	0	0
156 OH U. all campuses	17,121	404	6,131	403	1,797	531	775	892	6,188
157 Brandeis U.	17,119	0	6,059	415	1,205	454	8,986	0	0
158 U. MO-Kansas City	16,872	0	13,164	474	1,493	470	370	0	901
159 U. AR Little Rock	16,527	693 i	983 i	1,357 i	470 i	970 i	0 i	9,204 i	2,850 i
160 Georgetown U.	16,436	0	14,928	17	1,155	82	254	0	0
161 U. MT, The	16,342	111	7,619	543	736	51	2,422	4,860	0
162 U. TX Dallas	16,218	718	2,410	1,689	3,685	110	378	1,146	6,082
163 SD State U.	16,211	455	14,251	4	75	3	948	0	475
164 Wright State U. all campuses	16,127	382	8,433	2,199	1,180	1,107	6	161	2,659
165 Northeastern U.	16,036	0	2,453	561	2,920	1,350	2,167	0	6,585
166 Southern IL U. Edwardsville	15,760	1,678	2,062	451	807	0	3,191	4,478	3,093
167 CUNY Hunter C.	15,657	3,744	4,900	133	2,191	1,736	2,854	99	0
168 Creighton U.	14,703	0	14,579	82	0	0	42	0	0
169 U.S. Air Force Academy	14,599	0	399	740	1,954	294	126	440	10,646
170 Syracuse U. all campuses	14,287	1,097	431	2,569	337	16	1,402	4,037	4,398
171 SUNY Binghamton	14,109	444	1,507	985	1,917	1,730	2,129	37	5,360
172 U. WI Milwaukee	13,555	2,695	1,589	780	1,914	150	3,209	0	3,218
173 U. ND all campuses	13,467	549	2,393	43	278	48	54	2,105	7,997
174 U. Toledo	13,195	1,447	2,403	10	3,279	229	285	133	5,409
175 Lehigh U.	12,996	65	155	229	1,944	9	48	0	10,546
176 CO School of Mines	12,848	562	0	194	891	0	31	0	11,170
177 MI Technological U.	12,597	3,226	526	356	510	0	367	774	6,838
178 Rose-Hulman Institute of Technology	12,309	0	0	2,339	1,956	0	0	0	8,014
179 Institute of Paper Science and Technology	12,191 i	0 i	1,546 i	0 i	2,266 i	0 i	0 i	0 i	8,379 i
180 IL Institute of Technology	11,844	0	1,655	369	5,826	33	8	0	3,953
181 Wichita State U.	11,782	5	332	77	1,381	309	194	0	9,484
182 Old Dominion U.	11,442	1,194	2,110	521	758	213	767	0	5,879
183 FL International U.	11,315	302	2,139	297	753	218	1,859	2,403	3,344
184 U. AL Huntsville, The	11,037	1,766	851	1,075	2,294	6	103	83	4,859

TABLE 35. Nonfederal R&D expenditures at universities and colleges, ranked by nonfederal R&D expenditures for the first 200 institutions, by science and engineering field: FY 2003

(Dollars in thousands)

Institution and ranking	Nonfederal R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
185 CA State U. Fresno	10,979	249	8,171	13	60	0	44	0	2,442
186 Cleveland State U.	10,501	195	1,292	31	894	25	5,467	0	2,597
187 Charles R. Drew U. of Medicine and Science	10,481	0	10,481	0	0	0	0	0	0
188 U. PR Mayaguez Campus	10,433	2,497	329	199	1,039	0	81	0	6,288
189 U. MA Boston	10,214	1,917	1,767	170	291	220	5,729	109	11
190 U. RI	9,876	2,232	3,159	72	45	972	54	2,274	1,068
191 CA State Polytechnic U. San Luis Obispo	9,778	885	3,492	1,168	145	0	112	156	3,820
192 U. NV, Las Vegas	9,694	3,238	1,013	259	1,797	0	1,675	0	1,712
193 Loyola U. Chicago	9,474	7	8,612	9	311	200	335	0	0
194 Western MI U.	9,440	433	971	1,266	740	222	1,897	2	3,909
195 Miami U. all campuses	9,415	127 i	1,874 i	0 i	2,200 i	317 i	1,996 i	2,566 i	335 i
196 San Jose State U.	9,388	4,222	122	1,017	1,288	0	88	1,038	1,613
197 SUNY Health Science Ctr. Brooklyn	9,297 i	0 i	9,297 i	0 i	0 i	0 i	0 i	0 i	0 i
198 SUNY Upstate Medical U.	9,279	0	9,279	0	0	0	0	0	0
199 Boston C.	9,251	61	1,380	3,569	1,374	233	2,634	0	0
200 U. TX El Paso	9,069	672	2,263	207	283	146	757	1	4,740
All other sampled institutions	642,462	59,775	191,272	33,905	80,217	20,491	76,834	45,135	134,833

i = imputed.

nec = not elsewhere classified.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 36. R&D expenditures at public universities and colleges, ranked by all R&D expenditures for the first 150 institutions, by science and engineering field: FY 2003  
(Dollars in thousands)

Institution and ranking	All R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
All institutions	27,355,031	1,777,855	15,601,505	1,114,893	2,182,370	568,145	1,334,513	500,850	4,274,900
1 U. CA, Los Angeles	849,357	16,351	613,990	22,860	72,411	11,905	41,263	11,079	59,498
2 U. MI all campuses	780,054	9,729	432,951	11,427	37,817	10,150	108,702	237	169,041
3 U. WI Madison	721,248	44,557	449,977	17,725	47,928	26,189	39,324	18	95,530
4 U. WA	684,814	82,846	474,742	12,705	33,589	8,640	15,229	0	57,063
5 U. CA, San Francisco	671,443	0	642,645	0	28,798	0	0	0	0
6 U. CA, San Diego	646,508	116,885	327,752	71,668	42,904	6,935	12,929	1,345	66,090
7 PA State U. all campuses	533,427	43,134	175,537	23,874	57,498	17,220	26,511	6,083	183,570
8 U. MN all campuses	508,557	11,819	372,029	17,528	25,690	12,518	18,798	0	50,175
9 U. CA, Berkeley	507,186	10,180	174,915	8,732	83,187	11,820	51,283	15,036	152,033
10 OH State U. all campuses	496,438	9,267	255,354	34,792	32,998	8,297	40,370	7,196	108,164
11 U. IL Urbana-Champaign	493,581	37,822	132,414	115,235	47,967	11,536	28,027	5,594	114,986
12 U. CA, Davis	482,145	28,451	364,029	5,970	17,833	1,267	16,736	3,002	44,857
13 TX A&M U. all campuses	456,235	85,351	160,127	15,400	32,808	2,725	5,384	4,201	150,239
14 U. AZ	454,941	11,113	248,857	9,408	110,656	3,820	20,374	91	50,622
15 U. CO all campuses	436,761	65,638	247,305	8,077	62,588	9,560	11,195	1,202	31,196
16 U. FL	429,734	6,458	295,557	10,438	30,292	7,945	10,701	0	68,343
17 U. Pittsburgh all campuses	409,684	664	354,931	5,154	16,654	6,878	5,928	4,006	15,469
18 U. NC Chapel Hill	390,542	19,409	304,618	11,491	21,482	6,447	27,095	0	0
19 GA Institute of Technology all campuses	364,190	14,863	13,964	59,261	24,290	5,008	10,219	3,614	232,971
20 U. TX Austin	343,854	29,744	43,886	44,135	73,352	7,186	20,251	4,317	120,983
21 IN U. all campuses	337,669	6,031	210,579	13,761	34,322	11,462	35,476	22,741	3,297
22 U. MD College Park	321,899	12,339	60,183	34,986	57,257	4,203	70,485	0	82,446
23 MI State U.	321,410	2,164	203,510	7,336	50,353	6,633	26,198	1,039	24,177
24 U. TX M. D. Anderson Cancer Ctr.	315,169	0	283,543	14,720	7,097	7,856	187	0	1,766
25 LA State U. all campuses	314,665	29,279	195,419	4,826	21,632	1,108	10,588	7,552	44,261
26 Purdue U. all campuses	309,476	3,136	145,624	13,597	21,185	5,810	14,781	5,169	100,174
27 U. GA	299,748	13,264	207,739	8,522	11,820	13,186	37,341	0	7,876
28 U. MD Baltimore	297,271	0	297,271	0	0	0	0	0	0
29 U. IA	292,035	2,466	230,028	1,994	17,522	4,958	5,364	467	29,236
30 U. IL Chicago	291,507	2,059	210,330	18,130	13,233	6,195	15,390	9,164	17,006
31 NC State U.	286,025	15,439	135,298	17,087	21,499	2	8,508	3,750	84,442
32 U. AL Birmingham, The	284,497	0	262,742	1,189	2,673	7,266	1,407	0	9,220
33 U. TX Southwestern Medical Ctr. Dallas	276,692	0	276,692	0	0	0	0	0	0
34 U. NE central administration	276,424	8,147	178,679	8,719	12,602	8,543	15,189	16,842	27,703
35 Rutgers, The State U. NJ all campuses	274,576	26,402	136,720	15,879	26,764	10,809	23,365	1,502	33,135



TABLE 36. R&D expenditures at public universities and colleges, ranked by all R&D expenditures for the first 150 institutions, by science and engineering field: FY 2003  
(Dollars in thousands)

Institution and ranking	All R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
36 U. KY all campuses	272,062	3,317	187,045	5,820	9,126	3,158	9,201	14,580	39,815
37 U. Cincinnati all campuses	255,083	372	211,405	701	6,264	1,306	3,089	3,503	28,443
38 VA Polytechnic Institute and State U.	247,807	10,104	109,760	7,534	14,552	2,946	6,399	0	96,512
39 SUNY Buffalo all campuses	240,180	1,236	170,680	10,043	15,981	5,120	3,572	279	33,269
40 U. CA, Irvine	234,656	5,135	155,880	12,321	22,611	4,347	9,826	27	24,509
41 U. UT	223,739	4,531	148,016	18,614	18,333	2,368	1,737	0	30,140
42 U. TN all campuses	217,389	5,182	126,429	12,364	12,382	314	8,527	12,865	39,326
43 Wayne State U.	213,717	138	170,498	1,878	16,006	3,873	6,079	570	14,675
44 U. South FL	213,249	27,198	139,132	1,631	3,281	14,505	4,318	1,633	21,551
45 U. VA all campuses	206,199	2,657	141,784	6,695	15,315	6,367	1,352	230	31,799
46 U. MO-Columbia	205,212	1,924	151,772	2,723	4,589	8,306	14,185	0	21,713
47 SUNY Stony Brook all campuses	200,330	20,082	107,434	11,920	29,040	3,715	3,000	0	25,139
48 IA State U.	199,566	4,977	98,658	12,885	10,606	714	14,618	11,303	45,805
49 OR Health and Science U.	197,178	0	166,291	20,207	0	10,680	0	0	0
50 U. of Medicine and Dentistry NJ	190,763	0	190,763	0	0	0	0	0	0
51 U. CT all campuses	190,341	8,644	133,867	2,638	7,073	10,898	8,002	293	18,926
52 CO State U.	187,054	42,779	96,068	3,026	10,001	3,312	9,246	3,969	18,653
53 U. HI Manoa	179,285	45,283	63,989	19,435	19,576	111	5,876	16,297	8,718
54 WA State U.	175,181	3,691	107,386	1,004	13,497	1,821	12,660	4,846	30,276
55 U. OK all campuses	174,466	29,929	76,789	3,761	15,580	13,669	15,728	0	19,010
56 U. KS all campuses	173,024	11,291	121,019	4,358	8,040	1,209	9,135	2,003	15,969
57 OR State U.	167,631	37,739	95,370	3,470	3,800	39	2,730	887	23,596
58 MS State U.	165,922	6,248	80,613	3,658	5,489	1,780	5,050	3,091	59,993
59 U. NM all campuses	158,239	3,961	85,772	3,625	8,793	6,453	11,720	14,640	23,275
60 U. TX Medical Branch	153,122	0	150,479	0	0	0	0	0	2,643
61 Clemson U.	152,986	0	47,986	4,140	10,055	882	10,302	15,100	64,521
62 FL State U.	152,277	19,330	26,507	6,956	48,889	6,371	18,050	231	25,943
63 Medical U. SC	150,551	0	150,551	0	0	0	0	0	0
64 U. TX Health Science Ctr. Houston	149,294	0	149,294	0	0	0	0	0	0
65 U. CA, Santa Barbara	149,130	24,343	4,502	13,780	27,030	8,177	11,918	3,236	56,144
66 U. MA Worcester	148,823	0	148,823	0	0	0	0	0	0
67 AZ State U. main campus	145,591	10,985	32,025	6,898	19,896	8,323	10,468	5,464	51,532
68 UT State U.	138,862	9,734	39,803	1,358	3,800	2,272	2,739	9,029	70,127
69 U. TX Health Science Ctr. San Antonio	133,304	0	133,304	0	0	0	0	0	0
70 U. AK Fairbanks all campuses	128,916	74,882	25,521	12,035	693	0	1,312	3,066	11,407

TABLE 36. R&amp;D expenditures at public universities and colleges, ranked by all R&amp;D expenditures for the first 150 institutions, by science and engineering field: FY 2003

(Dollars in thousands)

Institution and ranking	All R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
71 VA Commonwealth U.	126,451	614	107,759	252	5,102	5,101	1,632	0	5,991
72 Auburn U. all campuses	124,103	1,192	75,770	693	4,333	304	2,380	3,860	35,571
73 U. SC all campuses	121,410	19,142	41,565	3,571	15,099	5,377	7,899	2,586	26,171
74 SUNY Albany	120,655	5,382	72,593	3,048	2,653	1,816	11,554	0	23,609
75 U. MA Amherst	113,512	4,261	33,195	19,454	28,858	5,067	2,663	766	19,248
76 KS State U.	112,733	689	71,803	2,699	11,174	1,022	4,227	3,216	17,903
77 U. CA, Riverside	112,468	12,090	61,621	2,743	8,704	1,762	10,099	3,133	12,316
78 NM State U. all campuses	108,613	692	25,484	3,336	9,337	1,667	2,242	239	65,616
79 U. VT	104,994	550	94,922	1,414	1,554	1,024	143	3,174	2,213
80 WV U.	104,748	6,242	59,881	809	6,699	462	1,593	1,056	28,006
81 OK State U. all campuses	103,079	2,025	57,737	1,351	9,129	446	8,559	3,325	20,507
82 U. DE	100,706	11,829	23,301	2,381	16,221	2,014	5,566	5,043	34,351
83 U. NH	96,415	41,807	24,447	367	4,144	525	5,984	1,378	17,763
84 TX Tech U.	92,515	11,421	41,037	2,176	9,003	424	7,240	693	20,521
85 ND State U. all campuses	91,812	256	52,693	1,201	12,668	1,034	8,342	4,510	11,108
86 MT State U. Bozeman	91,503	1,233	53,672	655	13,067	0	2,711	7,766	12,399
87 U. Central FL	89,880	12,584	8,703	323	21,364	2,414	9,226	10,694	24,572
88 U. Louisville	88,522	661	71,379	374	2,168	2,736	2,380	917	7,907
89 U. MS all campuses	85,378	0	54,512	291	17,432	208	2,276	3,702	6,957
90 U. ID	85,213	5,626	53,644	1,892	3,265	126	2,896	4,006	13,758
91 U. AR main campus	82,277	3,518	51,878	1,057	9,073	607	3,308	0	12,836
92 U. NV, Reno	80,553	8,477	45,815	1,495	7,955	664	1,345	8,059	6,743
93 U. CA, Santa Cruz	78,448	16,826	13,574	4,432	33,325	1,232	4,043	33	4,983
94 NJ Institute of Technology	73,664	0	34	5,660	6,876	0	488	15,409	45,197
95 Temple U.	71,327	165	42,315	921	8,676	11,558	3,884	0	3,808
96 U. ME	68,923	21,337	23,116	1,238	5,452	779	3,876	1,947	11,178
97 San Diego State U.	67,053	3,590	26,030	2,226	3,753	9,021	5,883	6,946	9,604
98 U. AR for Medical Sciences	63,677	0	63,677	0	0	0	0	0	0
99 U. Houston	63,455	1,404	12,726	6,076	5,924	3,294	9,802	0	24,229
100 U. RI	61,818	28,756	16,599	306	742	5,515	152	4,373	5,375
101 Naval Postgraduate School	61,025	11,324	0	17,139	3,285	0	12,990	6,518	9,769
102 U. WY	60,054	8,076	27,752	440	5,271	1,592	1,800	8,559	6,564
103 Medical C. GA	56,398	0	56,398	0	0	0	0	0	0
104 TX A&M U. System Health Science Ctr.	55,031	580	53,382	0	0	146	0	0	923
105 Southern IL U. Carbondale	53,018	1,541	34,031	564	1,483	481	2,570	2,927	9,421

TABLE 36. R&amp;D expenditures at public universities and colleges, ranked by all R&amp;D expenditures for the first 150 institutions, by science and engineering field: FY 2003

(Dollars in thousands)

Institution and ranking	All R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
106 FL International U.	52,175	1,392	9,858	1,369	3,467	1,005	8,568	11,105	15,411
107 U. AL Huntsville, The	46,595	6,879	2,214	6,570	9,704	22	116	86	21,004
108 GA State U.	45,653	471	15,068	1,752	6,958	9,553	11,587	264	0
109 George Mason U.	44,980	8,387	7,841	8,006	386	2,747	8,193	0	9,420
110 U. OR	44,604	1,699	21,555	3,077	8,460	5,897	3,458	0	458
111 C. of William and Mary all campuses	43,974	30,325	2,225	1,359	8,339	380	1,346	0	0
112 U. LA Lafayette	43,769	400	24,837	6,942	1,514	203	790	5,213	3,870
113 U. MT, The	43,562	544	28,130	1,792	2,531	625	5,080	4,860	0
114 U. MD Baltimore County	42,906	16,160	3,601	1,525	6,869	1,514	3,082	0	10,155
115 U. NV, Las Vegas	42,205	16,714	5,988	1,995	6,269	0	5,076	0	6,163
116 U. ND all campuses	41,803	5,206	12,412	307	834	48	83	2,517	20,396
117 U. MD Biotechnology Institute	39,789	6,746	33,043	0	0	0	0	0	0
118 U. Memphis, The	38,728	4,473	5,399	2,962	1,627	11,373	7,043	1,290	4,561
119 SUNY Health Science Ctr. Brooklyn	38,424 i	0 i	38,424 i	0 i	0 i	0 i	0 i	0 i	0 i
120 U. MD Ctr. for Environmental Science	38,344	38,344	0	0	0	0	0	0	0
121 OH U. all campuses	37,527	862	9,519	404	5,859	1,805	1,057	1,030	16,991
122 NM Institute of Mining and Technology	37,186	9,465	1,433	214	2,799	10	0	5,956	17,309
123 AL A&M U.	36,856	0 i	26,391 i	1,652 i	5,426 i	0 i	511 i	1,426 i	1,450 i
124 U. MO-Rolla	35,999	3,499	435	134	3,371	35	11	0	28,514
125 U. Southern MS	35,049	14,433	4,770	1,190	8,060	303	316	3,759	2,218
126 Wright State U. all campuses	34,860	561	20,531	3,209	2,914	2,423	20	161	5,041
127 U. AL, The	34,187	2,353	3,877	2,480	3,754	2,549	1,942	41	17,191
128 CUNY Hunter C.	32,704	4,014	11,553	185	7,894	5,524	3,413	121	0
129 Desert Research Institute	31,757	24,623	0	0	0	0	0	7,134	0
130 U. PR Medical Sciences Campus	31,124	0 i	31,124 i	0 i	0 i	0 i	0 i	0 i	0 i
131 U. MO-Kansas City	31,104	0	25,185	958	2,335	1,198	388	0	1,040
132 U. TX Dallas	30,748	3,578	5,737	3,955	7,378	157	633	1,307	8,003
133 Uniformed Services U. of the Health Sciences	30,604	0	30,604	0	0	0	0	0	0
134 Old Dominion U.	30,324	3,563	2,970	1,757	1,852	873	1,021	0	18,288
135 MI Technological U.	30,264	6,815	1,000	1,242	1,845	0	479	835	18,048
136 CO School of Mines	29,162	2,040	0	694	7,777	0	40	0	18,611
137 Jackson State U.	28,843	3,710	6,450	5,296	4,582	1,483	545	6,399	378
138 San Jose State U.	28,323	10,832	525	1,184	3,405	8,155	88	1,038	3,096
139 U. Akron all campuses	27,953	447	1,644	683	11,638	159	5,236	0	8,146
140 SD State U.	27,652	712	22,702	22	450	3	1,897	0	1,866

TABLE 36. R&D expenditures at public universities and colleges, ranked by all R&D expenditures for the first 150 institutions, by science and engineering field: FY 2003  
(Dollars in thousands)

Institution and ranking	All R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
141 U. WI Milwaukee	27,259	4,472	2,999	1,652	5,112	700	7,622	0	4,702
142 U.S. Air Force Academy	27,198	0	588	2,127	4,315	346	143	440	19,239
143 U. TX El Paso	27,185	4,676	6,177	869	3,383	526	789	129	10,636
144 SUNY C. of Environmental Science and Forestry	26,783	2,619 i	12,661 i	0 i	2,131 i	0 i	266 i	0 i	9,106 i
145 FL Atlantic U.	25,946	581	7,487	1,463	1,726	2,291	3,781	532	8,085
146 SUNY Upstate Medical U.	25,931	0	25,931	0	0	0	0	0	0
147 U. AR Little Rock	24,284	1,361 i	2,042 i	2,762 i	978 i	2,000 i	0 i	9,315 i	5,826 i
148 U. Toledo	24,123	3,215	3,994	33	6,099	367	427	133	9,855
149 FL A&M U.	23,503	1,946	14,603	768	822	42	383	2,794	2,145
150 SUNY Binghamton	23,090	720	2,021	1,356	3,191	4,009	3,718	37	8,038
All other sampled institutions	1,087,670	104,429	387,760	68,260	143,528	34,289	100,175	55,704	193,525

i = imputed.

nec = not elsewhere classified.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 37. Federally financed R&D expenditures at public universities and colleges, ranked by federal R&D expenditures for the first 100 institutions, by science and engineering field: FY 2003

(Dollars in thousands)

Institution and ranking	Federal R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
All institutions	15,295,157	1,112,002	8,674,380	724,831	1,427,078	394,175	525,876	159,972	2,276,843
1 U. WA	565,602	76,736	392,628	11,455	26,603	7,897	6,167	0	44,116
2 U. MI all campuses	516,818	4,768	285,432	7,199	25,355	9,348	69,293	114	115,309
3 U. CA, Los Angeles	421,174	10,745	299,298	13,668	39,145	8,194	7,766	2,034	40,324
4 U. CA, San Diego	400,100	71,454	203,564	51,638	31,052	5,529	4,281	0	32,582
5 U. WI Madison	396,231	36,300	212,985	12,784	32,695	21,042	19,565	0	60,860
6 U. CO all campuses	377,941	61,328	208,648	7,113	57,555	8,621	9,134	1,066	24,476
7 U. CA, San Francisco	371,697	0	348,910	0	22,787	0	0	0	0
8 U. Pittsburgh all campuses	345,625	638	299,734	4,741	14,647	6,515	4,878	3,996	10,476
9 PA State U. all campuses	301,094	23,646	86,415	18,457	40,089	10,256	9,778	1,778	110,675
10 U. MN all campuses	293,266	5,858	210,906	13,112	19,609	8,557	7,925	0	27,299
11 U. NC Chapel Hill	280,678	11,974	218,951	8,682	16,616	5,552	18,903	0	0
12 U. IL Urbana-Champaign	266,487	13,144	54,100	87,714	31,765	6,564	4,096	2,723	66,381
13 U. AZ	259,074	7,012	142,078	7,059	62,584	2,563	10,010	43	27,725
14 U. AL Birmingham, The	245,217	0	226,708	966	2,002	6,445	1,358	0	7,738
15 U. CA, Berkeley	238,206	5,342	88,065	6,981	58,292	8,065	6,586	530	64,345
16 U. TX Austin	231,996	10,483	31,220	37,405	51,027	6,572	11,751	3,464	80,074
17 U. CA, Davis	208,327	12,502	155,161	3,663	13,693	567	3,138	807	18,796
18 GA Institute of Technology all campuses	203,582	8,214	6,248	31,350	14,154	3,327	3,531	2,608	134,150
19 OH State U. all campuses	198,488	5,441	116,877	5,783	17,776	5,098	15,074	690	31,749
20 U. IA	197,260	1,161	163,646	1,544	14,019	4,471	1,066	11	11,342
21 U. FL	194,958	3,750	118,875	7,074	18,691	6,197	1,947	0	38,424
22 U. Cincinnati all campuses	185,261	111	167,484	174	2,771	163	985	20	13,553
23 U. MD College Park	183,206	8,805	29,284	21,983	42,879	3,936	28,506	0	47,813
24 U. TX Southwestern Medical Ctr. Dallas	177,196	0	177,196	0	0	0	0	0	0
25 TX A&M U. all campuses	177,119	60,162	45,979	11,432	16,048	2,022	1,622	45	39,809
26 U. VA all campuses	173,442	2,426	120,155	6,223	13,575	5,864	1,094	125	23,980
27 U. IL Chicago	168,063	1,012	124,559	13,409	8,860	3,961	6,811	1,610	7,841
28 OR Health and Science U.	164,221	0	137,235	16,765	0	10,221	0	0	0
29 IN U. all campuses	153,625	1,420	111,613	7,312	17,561	7,644	7,303	149	623
30 U. UT	152,112	2,963	104,091	13,116	12,389	1,937	252	0	17,364
31 U. HI Manoa	143,580	33,925	50,110	19,351	17,746	64	4,068	10,833	7,483
32 U. CA, Irvine	133,873	3,107	92,285	6,379	14,730	3,149	3,501	19	10,703
33 MI State U.	133,820	564	74,152	4,606	30,314	4,128	11,597	477	7,982
34 SUNY Buffalo all campuses	129,794	653	93,241	4,388	8,354	2,719	1,336	31	19,072
35 Purdue U. all campuses	129,199	2,088	54,290	8,073	14,750	3,365	4,357	506	41,770
36 U. MD Baltimore	126,156	0	126,156	0	0	0	0	0	0

TABLE 37. Federally financed R&D expenditures at public universities and colleges, ranked by federal R&D expenditures for the first 100 institutions, by science and engineering field: FY 2003

(Dollars in thousands)

Institution and ranking	Federal R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
37 U. TX M. D. Anderson Cancer Ctr.	122,869	0	108,532	4,256	4,956	4,113	113	0	899
38 U. KY all campuses	120,003	1,375	79,976	3,814	5,297	2,669	3,210	7,058	16,604
39 CO State U.	117,151	31,928	56,130	2,258	7,242	2,765	5,817	818	10,193
40 SUNY Stony Brook all campuses	112,452	12,146	60,520	6,905	19,062	2,548	878	0	10,393
41 U. CT all campuses	111,654	5,820	76,770	1,638	4,681	8,547	3,556	51	10,591
42 U. MA Worcester	109,082	0	109,082	0	0	0	0	0	0
43 U. TX Health Science Ctr. Houston	107,481	0	107,481	0	0	0	0	0	0
44 U. NM all campuses	106,541	3,412	58,903	3,382	7,375	4,552	6,087	4,583	18,247
45 U. South FL	106,102	22,221	60,341	1,246	1,823	7,460	2,254	0	10,757
46 Rutgers, The State U. NJ all campuses	106,060	11,993	51,288	8,086	13,127	4,732	2,857	0	13,977
47 U. of Medicine and Dentistry NJ	105,495	0	105,495	0	0	0	0	0	0
48 Wayne State U.	102,963	15	84,178	930	6,951	2,459	1,389	0	7,041
49 OR State U.	100,499	32,385	44,575	2,526	3,048	31	1,002	772	16,160
50 U. TN all campuses	100,486	2,909	63,321	7,093	8,720	212	673	2,100	15,458
51 LA State U. all campuses	99,362	7,277	60,649	964	11,731	318	2,277	0	16,146
52 VA Polytechnic Institute and State U.	98,143	7,234	35,641	4,226	8,159	2,006	1,579	0	39,298
53 U. NE central administration	96,627	3,245	62,619	4,187	7,684	5,210	4,553	1,656	7,473
54 NC State U.	96,157	5,921	39,689	9,055	9,156	0	2,390	658	29,288
55 UT State U.	95,494	2,944	20,215	998	3,117	1,151	743	952	65,374
56 U. GA	93,884	4,690	70,574	1,764	4,098	7,935	3,691	0	1,132
57 U. TX Medical Branch	93,039	0	91,645	0	0	0	0	0	1,394
58 Medical U. SC	92,893	0	92,893	0	0	0	0	0	0
59 U. KS all campuses	90,876	2,360	68,329	805	5,143	1,105	4,197	949	7,988
60 U. CA, Santa Barbara	88,422	11,931	3,532	9,945	19,814	5,811	4,977	296	32,116
61 FL State U.	87,985	11,366	16,254	4,024	26,052	2,804	6,387	0	21,098
62 U. TX Health Science Ctr. San Antonio	86,683	0	86,683	0	0	0	0	0	0
63 U. MO-Columbia	84,211	986	62,607	2,016	2,316	3,899	4,382	0	8,005
64 IA State U.	82,297	3,252	36,716	4,559	6,596	111	7,961	710	22,392
65 VA Commonwealth U.	81,201	324	69,759	135	2,868	3,250	827	0	4,038
66 MS State U.	79,837	5,314	25,585	1,540	1,382	784	1,863	1,437	41,932
67 SUNY Albany	76,038	3,213	63,018	2,380	1,368	1,141	4,661	0	257
68 NM State U. all campuses	75,368	125	11,443	2,952	8,311	1,499	1,710	237	49,091
69 U. OK all campuses	75,318	12,299	41,319	243	5,482	5,187	5,807	0	4,981
70 U. AK Fairbanks all campuses	72,607	44,858	13,711	4,645	309	0	777	2,393	5,914
71 AZ State U. main campus	71,741	10,389	10,776	4,543	10,831	7,164	2,685	1,603	23,750
72 U. VT	70,832	326	64,619	779	1,150	438	89	2,304	1,127
73 WA State U.	70,653	2,031	40,478	672	9,005	1,309	2,843	1,201	13,114

TABLE 37. Federally financed R&D expenditures at public universities and colleges, ranked by federal R&D expenditures for the first 100 institutions, by science and engineering field: FY 2003

(Dollars in thousands)

Institution and ranking	Federal R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
74 U. DE	69,493	9,064	10,222	2,032	12,981	1,723	4,045	2,406	27,020
75 U. SC all campuses	63,044	9,481	21,579	1,894	7,234	2,916	3,644	139	16,157
76 Clemson U.	62,552	0	14,258	1,233	5,781	711	4,760	11	35,798
77 U. MS all campuses	62,140	0	36,540	221	15,129	98	1,695	2,493	5,964
78 U. MA Amherst	60,839	1,793	19,438	11,308	16,719	3,558	702	0	7,321
79 WV U.	60,586	4,284	29,531	450	5,307	242	707	493	19,572
80 U. NH	59,463	33,370	10,204	314	3,278	467	3,273	40	8,517
81 Naval Postgraduate School	58,463	10,284	0	16,873	3,076	0	12,565	6,443	9,222
82 KS State U.	53,313	330	28,046	1,949	10,337	703	1,797	1,588	8,563
83 MT State U. Bozeman	53,283	960	26,077	537	11,052	0	1,378	6,120	7,159
84 U. RI	51,942	26,524	13,440	234	697	4,543	98	2,099	4,307
85 Temple U.	51,309	123	30,161	603	7,864	8,113	2,009	0	2,436
86 U. NV, Reno	47,756	5,844	28,402	1,331	6,565	547	279	19	4,769
87 U. Central FL	47,749	7,374	6,656	233	12,470	2,368	3,654	5,375	9,619
88 Auburn U. all campuses	45,374	449	19,315	148	3,286	263	1,247	3,626	17,040
89 U. ID	42,861	3,272	24,429	1,256	2,012	28	897	2,084	8,883
90 U. AR for Medical Sciences	41,681	0	41,681	0	0	0	0	0	0
91 FL International U.	40,860	1,090	7,719	1,072	2,714	787	6,709	8,702	12,067
92 U. CA, Riverside	40,409	4,595	17,985	2,040	6,740	1,660	3,341	4	4,044
93 U. Louisville	39,924	255	30,931	211	1,608	2,054	483	671	3,711
94 George Mason U.	38,510	8,334	5,614	7,626	248	2,122	5,517	0	9,049
95 U. CA, Santa Cruz	38,213	8,029	7,075	3,165	15,627	792	677	0	2,848
96 ND State U. all campuses	37,940	111	9,205	862	11,108	828	5,582	2,373	7,871
97 OK State U. all campuses	37,748	598	15,858	793	5,182	54	3,295	1,864	10,104
98 U. OR	36,127	1,315	17,340	3,025	6,874	5,527	2,021	0	25
99 U. AL Huntsville, The	35,558	5,113	1,363	5,495	7,410	16	13	3	16,145
100 U. MD Baltimore County	34,164	15,871	3,404	1,253	6,350	953	747	0	5,586
All other sampled institutions	1,650,862	201,518	664,282	84,508	202,442	71,339	74,827	49,962	301,984

nec = not elsewhere classified.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 38. R&amp;D expenditures at private universities and colleges, ranked by all R&amp;D expenditures for the first 100 institutions, by science and engineering field: FY 2003

(Dollars in thousands)

Institution and ranking	All R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
All institutions	12,722,368	409,986	8,162,476	618,480	1,090,259	200,585	326,577	190,084	1,723,921
1 Johns Hopkins U., The <sup>a</sup>	1,244,132	35,703	550,700	92,464	136,074	4,315	5,053	33,411	386,412
2 Stanford U.	603,227	10,193	333,147	22,601	78,811	6,530	11,793	0	140,152
3 U. PA	564,716	656	451,131	13,402	25,291	4,978	40,272	6,928	22,058
4 Cornell U. all campuses	554,760	6,203	348,401	29,671	78,827	6,920	21,451	0	63,287
5 Duke U.	520,191	12,357	433,834	7,533	16,630	2,965	21,662	0	25,210
6 MA Institute of Technology	485,764	27,656	76,045	50,761	96,678	1,462	6,131	31,327	195,704
7 Washington U. St. Louis	474,328	4,812	430,570	6,132	13,235	3,250	4,674	1,354	10,301
8 Baylor C. of Medicine	461,763	0	461,763	0	0	0	0	0	0
9 Columbia U. in the City of NY	437,669	52,298	301,110	10,424	35,025	3,862	9,473	1,772	23,705
10 U. Southern CA	414,099	19,572	225,942	89,821	10,276	6,258	8,882	2,133	51,215
11 Harvard U.	408,707	14,786	314,500	3,492	36,178	6,459	22,398	0	10,894
12 Yale U.	387,644	3,224	331,443	6,583	21,254	6,311	6,621	0	12,208
13 Emory U.	323,224	136	305,031	795	11,868	2,992	2,402	0	0
14 Northwestern U.	319,722	858	213,394	3,987	25,858	4,177	10,602	6,419	54,427
15 U. Rochester	285,768	781	197,436	2,887	11,878	11,811	931	1,455	58,589
16 Vanderbilt U.	276,074	150	214,272	679	13,946	10,519	5,507	7,090	23,911
17 Case Western Reserve U.	250,674	509	185,237	333	10,950	1,080	2,839	18,739	30,987
18 U. Chicago	247,322	4,092	191,112	7,437	36,444	5,629	2,384	7	217
19 NY U.	241,593	735	193,182	15,794	8,697	13,380	7,988	1,817	0
20 CA Institute of Technology	240,664	13,651	36,353	12,348	125,015	0	1,733	11,500	40,064
21 Boston U.	224,841	3,681	152,133	3,788	24,422	6,193	1,177	12,259	21,188
22 Mt. Sinai School of Medicine	214,514	0	214,514	0	0	0	0	0	0
23 Rockefeller U.	192,143	0	177,216	8,593	6,334	0	0	0	0
24 Carnegie-Mellon U.	186,351	0	7,098	89,600	13,624	11,111	10,037	694	54,187
25 Princeton U.	179,951	17,335	33,738	11,458	28,542	7,812	28,647	0	52,419
26 U. Miami	177,709	40,808	120,716	213	2,596	9,848	1,231	0	2,297
27 Yeshiva U.	177,236	0	177,236	0	0	0	0	0	0
28 Dartmouth C.	155,795	2,482	103,120	6,025	4,716	5,579	743	11,533	21,597
29 Wake Forest U.	130,405	0	128,034	270	1,718	0	0	383	0
30 Brown U.	125,090	6,200	65,444	13,266	10,668	2,266	6,300	0	20,946
31 Tulane U.	117,709	1,309	97,906	1,511	3,891	298	4,752	0	8,042
32 Tufts U.	112,609	809	91,883	1,058	3,726	3,619	4,599	0	6,915
33 Thomas Jefferson U.	109,083	0	109,083	0	0	0	0	0	0
34 Medical C. WI	108,608	0	108,608	0	0	0	0	0	0
35 Woods Hole Oceanographic Institution	104,223	86,293	0	0	0	0	0	0	17,930
36 Georgetown U.	100,181	0	91,290	286	5,501	705	2,399	0	0
37 George Washington U.	92,454	444	41,984	21,090	2,486	1,180	6,907	55	18,308



TABLE 38. R&amp;D expenditures at private universities and colleges, ranked by all R&amp;D expenditures for the first 100 institutions, by science and engineering field: FY 2003

(Dollars in thousands)

Institution and ranking	All R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
38 Rush U.	89,196	0	87,056	0	0	2,140	0	0	0
39 Drexel U.	69,548	0	31,036	2,855	2,577	520	0	0	32,560
40 U. of Notre Dame	59,803	0	11,314	3,162	17,230	3,338	3,271	7,218	14,270
41 U. Dayton	52,943	172	482	164	331	60	6	0	51,728
42 Rice U.	52,367	1,326	7,857	14,172	15,469	925	839	0	11,779
43 Brandeis U.	50,841	0	24,747	2,570	5,316	2,591	15,617	0	0
44 Rensselaer Polytechnic Institute	50,777	2,464	819	3,493	5,394	0	784	4	37,819
45 Charles R. Drew U. of Medicine and Science	49,888	0	49,888	0	0	0	0	0	0
46 Syracuse U. all campuses	48,846	2,214	3,765	6,770	5,143	2,314	3,060	13,740	11,840
47 Northeastern U.	42,931	0	7,493	2,288	11,231	2,846	2,537	0	16,536
48 St. Louis U. all campuses	41,189	819	39,869	161	85	60	102	93	0
49 Loyola U. Chicago	37,581	25	35,556	104	625	882	389	0	0
50 Howard U.	37,577	0	25,172	1,960	3,534	2,552	320	0	4,039
51 Eastern VA Medical School	32,801	0	32,801	0	0	0	0	0	0
52 Boston C.	32,158	514	4,395	12,544	8,225	870	5,610	0	0
53 NY Medical C.	30,492	0	30,492	0	0	0	0	0	0
54 Lehigh U.	29,211	1,148	1,592	1,435	4,580	76	48	0	20,332
55 Morehouse School of Medicine	27,154	0	27,154	0	0	0	0	0	0
56 Loma Linda U.	26,296	0	26,227	0	0	0	69	0	0
57 IL Institute of Technology	25,744	0	6,603	1,174	9,745	658	8	0	7,556
58 Meharry Medical C.	25,427	0	25,427	0	0	0	0	0	0
59 Catholic U. America, The	24,475	0	1,076	0	19,606	1,268	617	0	1,908
60 Creighton U.	24,116	98	23,707	82	186	0	43	0	0
61 Brigham Young U. all campuses	22,557	143	3,407	1,730	3,756	696	1,484	484	10,857
62 Hampton U.	18,673	10,595	2,028	259	4,868	0	155	0	768
63 Rochester Institute of Technology	17,197	1,148	1,370	467	6,663	11	98	8	7,432
64 Institute of Paper Science and Technology	15,494 i	0 i	1,546 i	0 i	3,256 i	0 i	0 i	0 i	10,692 i
65 Stevens Institute of Technology	15,412 i	2,844 i	0 i	750 i	1,615 i	0 i	2,415 i	0 i	7,788 i
66 Mercer U. all campuses	14,996	0	2,948	59	712	10	8	125	11,134
67 Albany Medical C.	13,394	0	13,394	0	0	0	0	0	0
68 Rose-Hulman Institute of Technology	13,201	0	0	2,339	2,754	0	0	0	8,108
69 Clark Atlanta U.	12,760	0	3,137	1,006	2,628	187	534	3,392	1,876
70 Worcester Polytechnic Institute	12,357	0	221	1,279	638	0	83	0	10,136
71 Polytechnic U.	12,142 i	0 i	0 i	1,569 i	0 i	0 i	26 i	0 i	10,547 i
72 U. Tulsa	11,527	130	968	3,237	1,364	37	60	0	5,731
73 Marquette U.	11,385	0	2,972	102	857	203	649	3,219	3,383
74 Tuskegee U.	10,067	0	6,672	0	203	0	2,132	0	1,060
75 U. Denver	9,949	119	1,540	125	2,261	2,010	685	0	3,209

TABLE 38. R&D expenditures at private universities and colleges, ranked by all R&D expenditures for the first 100 institutions, by science and engineering field: FY 2003  
(Dollars in thousands)

Institution and ranking	All R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
76 Finch U. of Health Sciences/Chicago Medical School	9,923	0	9,310	0	0	613	0	0	0
77 Southern Methodist U.	9,890	1,810	2,056	1,078	1,615	405	853	310	1,763
78 Teachers C. Columbia U.	9,603	0	1,543	0	0	3,824	4,236	0	0
79 Universidad Central del Caribe	8,274	0	8,274	0	0	0	0	0	0
80 FL Institute of Technology	8,004	1,040	1,326	2,681	1,106	151	0	0	1,700
81 Harvey Mudd C.	7,997 i	81 i	3,446 i	278 i	1,219 i	52 i	324 i	415 i	2,182 i
82 Ponce School of Medicine	7,491	0	7,491	0	0	0	0	0	0
83 Clarkson U.	7,466	0 i	119 i	165 i	1,120 i	36 i	0 i	0 i	6,026 i
84 Duquesne U.	6,848	0	4,669	166	1,872	0	141	0	0
85 Wesleyan U.	6,682	421	2,700	152	2,157	1,103	149	0	0
86 Embry-Riddle Aeronautical U.	6,641	431	0	223	690	0	0	0	5,297
87 Alfred U. all campuses	6,360	0	0	0	0	0	0	0	6,360
88 Villanova U.	6,000 i	139 i	464 i	365 i	595 i	123 i	66 i	0 i	4,248 i
89 Wellesley C.	5,733	32	668	87	549	42	446	3,909	0
90 Clark U.	5,638	1,394	507	32	786	582	31	0	2,306
91 Xavier U. LA	5,515	0	3,265	292	1,804	0	0	0	154
92 Nova Southeastern U.	4,752	3,087	1,081	0	0	576	0	8	0
93 Bryn Mawr C.	4,705	197	408	510	1,055	2,190	345	0	0
94 Baylor U.	4,203	791	196	255	1,730	143	135	902	51
95 Fordham U.	3,814	0	1,446	66	23	1,403	876	0	0
96 TX Christian U.	3,693	93	207	13	819	2,381	49	0	131
97 New School U.	3,435	0 i	485 i	0 i	0 i	26 i	2,924 i	0 i	0 i
98 Santa Clara U.	3,364 i	0 i	472 i	148 i	211 i	9 i	672 i	0 i	1,852 i
99 Williams C.	3,295	80 i	719 i	268 i	568 i	55 i	223 i	129 i	1,253 i
100 Mt. Holyoke C.	3,174	306	698	1,258	735	115	23	39	0
All other sampled institutions	146,453	8,592	51,589	10,285	29,594	10,993	13,847	7,213	14,340

i = imputed.

nec = not elsewhere classified.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 39. Federally financed R&D expenditures at private universities and colleges, ranked by federal R&D expenditures for the first 100 institutions, by science and engineering field: FY 2003

(Dollars in thousands)

Institution and ranking	Federal R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
All institutions	9,438,876	327,841	5,970,634	506,872	925,570	158,448	140,675	78,042	1,330,794
1 Johns Hopkins U., The <sup>a</sup>	1,106,971	33,989	449,328	89,253	133,643	3,954	2,679	16,609	377,516
2 Stanford U.	483,540	7,394	259,118	19,558	71,305	5,245	3,422	0	117,498
3 U. PA	415,631	3	346,579	11,799	21,122	4,494	14,132	2,893	14,609
4 Columbia U. in the City of NY	385,529	49,381	262,954	10,123	33,643	3,471	6,495	1,364	18,098
5 Washington U. St. Louis	357,364	2,795	327,042	4,188	10,255	2,302	3,782	43	6,957
6 MA Institute of Technology	356,206	21,920	60,914	30,912	93,550	1,280	1,620	11,995	134,015
7 Harvard U.	348,620	12,803	271,959	3,453	33,784	6,285	10,574	0	9,762
8 Cornell U. all campuses	320,868	3,211	195,193	17,982	55,800	2,693	6,842	0	39,147
9 Duke U.	306,864	6,291	244,212	6,722	14,090	2,394	15,005	0	18,150
10 Baylor C. of Medicine	302,764	0	302,764	0	0	0	0	0	0
11 U. Southern CA	300,195	12,160	153,185	79,974	6,397	4,678	3,133	199	40,469
12 Yale U.	296,713	2,693	257,953	5,318	17,726	4,271	778	0	7,974
13 Emory U.	228,255	96	217,874	636	6,594	2,301	754	0	0
14 Vanderbilt U.	221,979	124	179,144	574	10,700	7,298	4,325	0	19,814
15 CA Institute of Technology	219,097	10,916	34,128	12,296	121,492	0	1,733	1,508	37,024
16 U. Rochester	208,148	649	136,882	2,607	10,210	8,056	770	605	48,369
17 Case Western Reserve U.	205,452	416	169,729	272	8,748	996	1,744	0	23,547
18 Boston U.	203,947	3,303	135,311	3,469	23,458	6,157	762	11,691	19,796
19 U. Chicago	201,129	3,977	149,307	7,091	32,600	5,611	2,319	7	217
20 Northwestern U.	200,316	715	132,517	2,795	17,883	3,414	3,326	3,056	36,610
21 NY U.	166,033	0	128,929	13,039	7,983	11,478	4,108	496	0
22 Carnegie-Mellon U.	157,583	0	6,032	79,728	9,672	9,532	7,986	5	44,628
23 Mt. Sinai School of Medicine	152,719	0	152,719	0	0	0	0	0	0
24 U. Miami	130,863	36,705	79,261	213	2,506	9,530	1,163	0	1,485
25 Yeshiva U.	128,894	0	128,894	0	0	0	0	0	0
26 Wake Forest U.	108,467	0	106,876	270	1,314	0	0	7	0
27 Dartmouth C.	106,034	1,224	69,269	4,123	2,895	3,972	359	7,946	16,246
28 Princeton U.	104,011	11,261	23,596	7,616	19,415	5,595	4,780	0	31,748
29 Thomas Jefferson U.	85,348	0	85,348	0	0	0	0	0	0
30 Woods Hole Oceanographic Institution	84,410	70,050	0	0	0	0	0	0	14,360
31 Georgetown U.	83,745	0	76,362	269	4,346	623	2,145	0	0
32 Medical C. WI	83,026	0	83,026	0	0	0	0	0	0
33 Tulane U.	82,118	952	65,908	1,341	2,513	190	4,703	0	6,511
34 Brown U.	81,445	3,901	45,491	8,771	5,995	1,558	1,902	0	13,827
35 Tufts U.	78,942	191	68,487	881	3,023	1,385	237	0	4,738
36 Rockefeller U.	75,303	0	70,042	1,254	4,007	0	0	0	0

TABLE 39. Federally financed R&D expenditures at private universities and colleges, ranked by federal R&D expenditures for the first 100 institutions, by science and engineering field: FY 2003

(Dollars in thousands)

Institution and ranking	Federal R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
37 George Washington U.	68,959	203	27,267	19,980	2,197	1,077	3,162	0	15,073
38 Rush U.	49,834	0	48,374	0	0	1,460	0	0	0
39 Drexel U.	49,271	0	22,266	2,043	2,102	427	0	0	22,433
40 U. Dayton	47,327	113	248	54	253	0	0	0	46,659
41 Rice U.	43,706	1,232	6,912	12,287	12,849	907	685	0	8,834
42 U. of Notre Dame	41,220	0	8,440	2,908	15,915	2,824	1,054	398	9,681
43 Charles R. Drew U. of Medicine and Science	39,407	0	39,407	0	0	0	0	0	0
44 St. Louis U. all campuses	36,989	786	35,890	161	57	22	73	0	0
45 Howard U.	36,137	0	24,371	1,844	3,320	2,552	320	0	3,730
46 Syracuse U. all campuses	34,559	1,117	3,334	4,201	4,806	2,298	1,658	9,703	7,442
47 Brandeis U.	33,722	0	18,688	2,155	4,111	2,137	6,631	0	0
48 Rensselaer Polytechnic Institute	32,295	1,953	565	2,572	3,674	0	689	0	22,842
49 Loyola U. Chicago	28,107	18	26,944	95	314	682	54	0	0
50 Northeastern U.	26,895	0	5,040	1,727	8,311	1,496	370	0	9,951
51 Morehouse School of Medicine	24,382	0	24,382	0	0	0	0	0	0
52 Meharry Medical C.	24,195	0	24,195	0	0	0	0	0	0
53 NY Medical C.	23,387	0	23,387	0	0	0	0	0	0
54 Boston C.	22,907	453	3,015	8,975	6,851	637	2,976	0	0
55 Loma Linda U.	22,675	0	22,675	0	0	0	0	0	0
56 Catholic U. America, The	18,864	0	941	0	15,459	1,170	35	0	1,259
57 Hampton U.	18,417	10,595	2,012	259	4,630	0	155	0	766
58 Brigham Young U. all campuses	16,564	78	2,381	1,420	3,102	458	527	312	8,286
59 Lehigh U.	16,215	1,083	1,437	1,206	2,636	67	0	0	9,786
60 Eastern VA Medical School	15,431	0	15,431	0	0	0	0	0	0
61 IL Institute of Technology	13,900	0	4,948	805	3,919	625	0	0	3,603
62 Clark Atlanta U.	12,367	0	3,075	1,006	2,588	187	336	3,386	1,789
63 Rochester Institute of Technology	11,630	259	1,084	113	5,384	10	98	0	4,682
64 Albany Medical C.	9,677	0	9,677	0	0	0	0	0	0
65 Creighton U.	9,413	98	9,128	0	186	0	1	0	0
66 Stevens Institute of Technology	9,070 i	908 i	0 i	321 i	1,279 i	0 i	1,326 i	0 i	5,236 i
67 U. Tulsa	8,439	130	832	2,938	1,203	37	30	0	3,269
68 U. Denver	8,268	103	1,200	105	1,895	1,947	299	0	2,719
69 Mercer U. all campuses	8,018	0	938	0	34	0	8	0	7,038
70 Tuskegee U.	7,660	0	5,257	0	181	0	1,431	0	791
71 Universidad Central del Caribe	7,183	0	7,183	0	0	0	0	0	0
72 Finch U. of Health Sciences/Chicago Medical School	6,783	0	6,266	0	0	517	0	0	0
73 Ponce School of Medicine	6,270	0	6,270	0	0	0	0	0	0

TABLE 39. Federally financed R&D expenditures at private universities and colleges, ranked by federal R&D expenditures for the first 100 institutions, by science and engineering field: FY 2003

(Dollars in thousands)

Institution and ranking	Federal R&D expenditures	Environmental sciences	Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering
74 Worcester Polytechnic Institute	5,966	0	177	873	506	0	30	0	4,380
75 Southern Methodist U.	5,940	1,419	1,804	633	1,010	272	198	0	604
76 Teachers C. Columbia U.	5,572	0	1,461	0	0	3,153	958	0	0
77 Polytechnic U.	5,511 i	0 i	0 i	774 i	0 i	0 i	0 i	0 i	4,737 i
78 FL Institute of Technology	5,204	441	673	2,287	996	0	0	0	807
79 Xavier U. LA	5,036	0	2,815	287	1,784	0	0	0	150
80 Clarkson U.	4,833	0 i	108 i	143 i	532 i	36 i	0 i	0 i	4,014 i
81 Clark U.	4,475	1,033	376	32	758	501	30	0	1,745
82 Wesleyan U.	4,424	182	1,812	47	1,523	859	1	0	0
83 Marquette U.	4,409	0	2,362	92	510	134	36	0	1,275
84 Villanova U.	4,229 i	139 i	394 i	222 i	390 i	106 i	0 i	0 i	2,978 i
85 Wellesley C.	3,996	32	513	0	261	1	256	2,933	0
86 Embry-Riddle Aeronautical U.	3,323	418	0	104	682	0	0	0	2,119
87 Institute of Paper Science and Technology	3,303 i	0 i	0 i	0 i	990 i	0 i	0 i	0 i	2,313 i
88 Fisk U.	3,000	0	0	0	3,000	0	0	0	0
89 DePaul U.	2,747	22	247	194	122	2,130	32	0	0
90 Duquesne U.	2,742	0	1,786	92	761	0	103	0	0
91 TX Christian U.	2,716	55	64	5	189	2,368	0	0	35
92 Maharishi U. of Management	2,541	0	2,531	10	0	0	0	0	0
93 U. Scranton	2,439	0	2,321	0	118	0	0	0	0
94 Spelman C.	2,186	0	1,262	119	671	134	0	0	0
95 American U.	2,141	0	4	157	371	593	923	64	29
96 Nova Southeastern U.	1,963	1,252	298	0	0	413	0	0	0
97 Gallaudet U.	1,959	0	332	0	0	1,147	480	0	0
98 New England C. of Optometry	1,900	0	1,900	0	0	0	0	0	0
99 Fordham U.	1,823	0	476	41	2	1,205	99	0	0
100 U. Redlands	1,810	1,726	74	0	10	0	0	0	0
All other sampled institutions	74,016	4,873	27,051	7,058	16,459	5,096	4,033	2,822	6,624

i = imputed.

nec = not elsewhere classified.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 40. Total and federally financed R&D expenditures at historically black colleges and universities, ranked by FY 2003 total: FY 2000–03  
(Dollars in thousands)

Institution and ranking	Total				Federally financed R&D expenditures			
	2000	2001	2002	2003	2000	2001	2002	2003
All institutions	263,581	317,531	360,675	392,628	227,723	271,776	305,783	337,482
1 Howard U.	27,254	30,148	35,387	37,577	25,292	27,848	33,949	36,137
2 AL A&M U.	8,238	11,977 i	15,717	36,856	7,056	8,883 i	10,710	30,343
3 Jackson State U.	12,027	25,663	25,445	28,843	10,690	22,750	21,721	25,607
4 Morehouse School of Medicine	16,889	19,670	23,956	27,154	15,419	18,127	21,919	24,382
5 Meharry Medical C.	9,460 e	14,984 i	20,508	25,427	9,192 e	14,822 i	20,453	24,195
6 FL A&M U.	21,612	23,865	31,147	23,503	16,278	22,477	21,592	18,273
7 Hampton U.	9,323	9,158	11,067	18,673	8,994	8,377	10,058	18,417
8 NC Agricultural and Technical State U.	13,400	15,629	15,353	17,304	11,187	11,937	11,953	12,226
9 U. of the VI	3,310 e	8,645 i	13,981	15,762	1,957 e	6,288 i	10,620	10,772
10 TN State U.	11,285	12,791	15,262	14,306	8,873	10,210	11,218	10,280
11 Clark Atlanta U.	16,891	17,173	17,194	12,760	16,170	14,354	15,325	12,367
12 Prairie View A&M U.	9,464	11,297	10,444	11,193	7,679	7,094	7,712	7,886
13 Southern U. and A&M C. all campuses	8,302	9,052 i	10,012 i	10,997 i	6,418	7,059 i	7,903 i	9,029 i
14 Tuskegee U.	8,893	9,539	9,965	10,067	6,694	7,259	7,703	7,660
15 Alcorn State U.	8,034	7,370	5,809	7,619	8,034	7,370	5,809	7,582
16 Morgan State U.	4,371	2,390	1,674	7,493	4,371	2,390	1,674	6,232
17 VA State U.	4,422	5,066	7,144	7,209	3,602	4,246	6,895	6,964
18 U. AR Pine Bluff	4,695 i	5,240	5,976	6,543	2,754 i	2,596	3,016	3,470
19 KY State U.	2,354 i	3,996	6,188	6,395	2,179 i	3,655	6,036	6,395
20 Xavier U. LA	3,425	5,113	6,413	5,515	3,174	4,666	6,019	5,036
21 Norfolk State U.	3,408	3,984	4,967	4,532	3,273	3,952	4,902	4,404
22 Langston U.	2,553	2,863	3,975	4,332	2,553	2,863	3,975	4,332
23 U. DC	2,737	3,001	4,223	4,125	1,629	2,008	2,963	2,769
24 DE State U.	3,415	2,494	3,162	3,944	3,052	2,222	2,819	3,636
25 SC State U.	2,915	2,915 e	2,931	3,225	1,988	1,988 e	1,998	2,198
26 TX Southern U.	2,182	2,468	4,189	3,088	1,844	1,908	3,910	2,925
27 Fisk U.	3,401	2,722	3,030	3,000	2,652	2,577	3,030	3,000
28 Ft. Valley State U.	2,768	2,768 e	2,985	2,892	2,417	2,417 e	2,985	2,798
29 Lincoln U. (Jefferson City, MO)	2,502	2,236	3,291	2,601	2,502	2,236	2,513	2,149
30 Morehouse C.	2,853 e	2,853 i	2,853 i	2,410 i	1,843 e	1,843 i	1,843 i	1,517 i
31 Savannah State U.	905	2,181	2,206	2,345 i	905	2,181	2,206	2,337 i
32 Spelman C.	2,082	3,406	3,082	2,298	1,978	3,262	2,968	2,186
33 Grambling State U.	2,264	2,264 e	2,452	2,218	2,200	2,200 e	1,977	1,880
34 Bowie State U.	2,675 e	2,207	2,330	2,206	2,360 e	2,022	2,200	2,206
35 Albany State U.	1,393	1,972	1,987	2,178	840	740	1,640	2,056
36 Winston-Salem State U.	3,447	6,057	2,022	2,022 e	3,216	4,853	2,022	2,022 e
37 AL State U.	1,365 e	1,433 e	1,433	1,633	1,190 e	1,249 e	1,249	1,449
38 Shaw U.	100 e	487 i	874 i	1,261	100 e	411 i	722 i	1,033
39 Elizabeth City State U.	1,558	1,248	1,058	1,103	1,558	1,248	1,058	1,103
40 NC Central U.	808 i	913 i	1,035 i	1,100 i	761 i	853 i	971 i	1,029 i
41 Benedict C.	1,143	1,044	1,061	1,071	1,143	1,014	966	1,002
42 Tougaloo C.	895	1,007	1,007 i	851 i	473	407	407 i	335 i
43 Bethune Cookman C.	586	926	794	741	586	926	794	741
44 Lincoln U. (Lincoln University, PA)	709	620	718	704	709	620	718	704
45 Dillard U.	264	349	528	668	182	199	393	441
46 MS Valley State U.	834	1,316	1,030	636	834	1,316	1,030	636
47 Fayetteville State U.	507	589	311	586	507	298	311	546
48 Central State U.	560 e	560 i	560 i	574 i	283 e	283 i	283 i	304 i
49 VA Union U.	671 i	671 i	671 i	567 i	537 i	537 i	537 i	442 i
50 Southern U. New Orleans	183	680	937	556	60 e	652	902	556
51 Oakwood C.	567 e	567 i	567 i	479 i	447 e	447 i	447 i	368 i

TABLE 40. Total and federally financed R&D expenditures at historically black colleges and universities, ranked by FY 2003 total: FY 2000–03  
(Dollars in thousands)

Institution and ranking	Total				Federally financed R&D expenditures			
	2000	2001	2002	2003	2000	2001	2002	2003
52 Jarvis Christian C.	55	55 e	30	335	55	55 e	10	100
53 Wiley C.	0	0	15	298	0	0	0	263
54 Claflin U.	555 e	2,074	203	293	250 e	1,958	203	293
55 Morris Brown C.	116	116 e	343	290 i	116	116 e	343	282 i
56 Wilberforce U.	200 i	160 i	120 i	80	174 i	143 i	112 i	80
57 Talladega C.	0	0	0	71	0	0	0	71
58 WV State C.	55 e	63 e	63 i	65 i	0 e	0 e	0 i	0 i
59 Bluefield State C.	0	0	0	54	0	0	0	36
Bennett C.	609 i	407 i	205 i	0	438 i	293 i	148 i	0
Coppin State C.	0	0	0	0	0	0	0	0
Johnson C. Smith U.	287	195	0	0	250	195	0	0
Le Moyne-Owen C.	1,700	1,268	0	0 i	1,700	1,250	0	0 i
Miles C.	NA	NA	8,785	0	NA	NA	7,943	0
Morris C.	NA	NA	NA	0	NA	NA	NA	0
Philander Smith C.	72 e	0	0	0	72 e	0	0	0
Rust C.	138	0	0	0	138	0	0	0
Selma U.	0	0 e	0	0	0	0 e	0	0
U. MD Eastern Shore	3,895	5,626	0	0	3,895	5,626	0	0

e = estimated.

i = imputed.

NA = not available.

NOTE: Tied institutions are listed alphabetically.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 41. Total and federally financed R&D expenditures in engineering at universities and colleges, ranked by FY 2003 total for the first 100 institutions: FY 2000–03

(Dollars in thousands)

Institution and ranking	Total				Federally financed R&D expenditures			
	2000	2001	2002	2003	2000	2001	2002	2003
All institutions	4,554,381	5,019,189	5,522,300	5,998,821	2,578,975	2,851,021	3,229,988	3,607,637
1 Johns Hopkins U., The <sup>a</sup>	251,993	284,936	349,481	386,412	247,231	278,116	342,355	377,516
2 GA Institute of Technology all campuses	197,589	201,581	228,484	232,971	81,862	94,589	111,226	134,150
3 MA Institute of Technology	149,282	148,795	171,606	195,704	106,362	102,226	117,369	134,015
4 PA State U. all campuses	162,795	183,823	193,590	183,570	99,076	110,576	121,950	110,675
5 U. MI all campuses	137,773	143,487	159,890	169,041	88,108	91,611	102,897	115,309
6 U. CA, Berkeley	120,757	128,984	137,766	152,033	56,757	54,554	55,003	64,345
7 TX A&M U. all campuses	118,494	124,227	142,887	150,239	31,008	31,514	36,311	39,809
8 Stanford U.	108,220	111,194	126,204	140,152	91,594	92,036	104,501	117,498
9 U. TX Austin	100,294	110,119	118,167	120,983	65,769	72,061	79,322	80,074
10 U. IL Urbana-Champaign	95,353	104,108	104,577	114,986	57,385	60,525	61,868	66,381
11 OH State U. all campuses	82,705	96,297	102,029	108,164	21,302	25,802	27,430	31,749
12 Purdue U. all campuses	71,515	78,561	91,370	100,174	31,300	30,109	29,770	41,770
13 VA Polytechnic Institute and State U.	66,963	80,349	86,257	96,512	26,084	32,817	34,702	39,298
14 U. WI Madison	71,293	82,652	89,683	95,530	41,315	50,565	58,900	60,860
15 NC State U.	76,839	81,949	76,609	84,442	29,981	32,403	30,210	29,288
16 U. MD College Park	76,091	75,574	75,160	82,446	40,494	39,841	45,416	47,813
17 UT State U.	41,074	59,162	55,524	70,127	31,180	48,154	50,264	65,374
18 U. FL	47,513	54,559	63,205	68,343	23,973	25,624	31,209	38,424
19 U. CA, San Diego	46,660	50,301	61,208	66,090	24,534	24,190	30,383	32,582
20 NM State U. all campuses	46,790	50,500	61,590	65,616	39,179	39,664	45,636	49,091
21 Clemson U.	35,374	50,307	52,744	64,521	9,636	23,994	24,531	35,798
22 Cornell U. all campuses	54,860	53,444	56,309	63,287	30,977	29,776	33,943	39,147
23 MS State U.	38,107	44,736	54,882	59,993	25,329	30,887	39,986	41,932
24 U. CA, Los Angeles	46,434	46,854	51,371	59,498	29,689	28,438	32,827	40,324
25 U. Rochester	46,494	49,396	56,192	58,589	40,942	41,036	47,238	48,369
26 U. WA	39,009	49,629	58,244	57,063	24,906	30,547	41,652	44,116
27 U. CA, Santa Barbara	38,902	35,393	44,475	56,144	28,834	23,566	24,933	32,116
28 Northwestern U.	44,685	47,799	47,655	54,427	30,492	28,746	33,972	36,610
29 Carnegie-Mellon U.	36,892	40,635	47,609	54,187	24,754	25,672	26,301	44,628
30 Princeton U.	41,026	46,947	48,947	52,419	21,220	23,363	30,525	31,748
31 U. Dayton	36,325	38,997	44,387	51,728	29,831	32,310	38,490	46,659
32 AZ State U. main campus	36,612	42,485	47,861	51,532	13,978	18,454	21,707	23,750
33 U. Southern CA	46,319	49,865	49,750	51,215	34,857	37,144	37,253	40,469
34 U. AZ	48,272	52,486	47,738	50,622	29,305	31,493	26,066	27,725
35 U. MN all campuses	41,343	41,659	47,353	50,175	24,515	25,585	28,807	27,299
36 IA State U.	47,049	44,099	45,727	45,805	16,863	16,995	19,022	22,392
37 NJ Institute of Technology	18,274	42,407	45,873	45,197	3,358	16,774	19,639	20,459
38 U. CA, Davis	35,197	41,928	42,674	44,857	12,693	14,571	16,988	18,796
39 LA State U. all campuses	41,628	44,813	42,796	44,261	18,937	19,823	15,146	16,146
40 CA Institute of Technology	43,662	46,377	43,931	40,064	35,711	41,810	40,636	37,024
41 U. KY all campuses	31,426	29,767	39,297	39,815	12,253	13,318	15,662	16,604
42 U. TN all campuses	32,928	36,580	34,785	39,326	11,971	14,608	13,752	15,458
43 Rensselaer Polytechnic Institute	31,036	34,069	34,241	37,819	17,616	18,391	18,944	22,842
44 Auburn U. all campuses	23,859	31,568	32,315	35,571	12,106	15,112	16,464	17,040
45 U. DE	23,730	25,360	31,312	34,351	12,009	13,213	18,344	27,020
46 SUNY Buffalo all campuses	32,301	29,725	37,954	33,269	16,121	17,080	24,418	19,072
47 Rutgers, The State U. NJ all campuses	33,681	33,575	35,000	33,135	15,101	12,271	14,113	13,977
48 Drexel U.	15,828	22,767	37,966	32,560	9,795	16,665	25,493	22,433
49 U. VA all campuses	23,937	25,838	28,866	31,799	18,361	19,932	22,125	23,980
50 U. CO all campuses	31,174	33,021	32,911	31,196	23,331	24,704	25,869	24,476



TABLE 41. Total and federally financed R&D expenditures in engineering at universities and colleges, ranked by FY 2003 total for the first 100 institutions: FY 2000–03

(Dollars in thousands)

Institution and ranking	Total				Federally financed R&D expenditures			
	2000	2001	2002	2003	2000	2001	2002	2003
51 Case Western Reserve U.	25,518	22,050	24,133	30,987	17,301	16,639	18,266	23,547
52 WA State U.	16,660	15,366	20,928	30,276	9,878	8,622	11,445	13,114
53 U. UT	25,293	25,565	26,349	30,140	15,561	15,283	14,514	17,364
54 U. IA	22,921	24,772	27,516	29,236	9,534	9,489	10,927	11,342
55 U. MO-Rolla	19,698	21,610	25,806	28,514	7,161	8,963	12,830	14,343
56 U. Cincinnati all campuses	24,127	26,114	26,701	28,443	11,604	12,244	12,886	13,553
57 WV U.	20,560	17,269	22,563	28,006	8,668	7,567	17,298	19,572
58 U. NE central administration	23,727	26,422	27,931	27,703	5,215	6,963	6,952	7,473
59 U. SC all campuses	23,095	25,573	28,314	26,171	14,923	15,061	15,098	16,157
60 FL State U.	11,673	11,889	15,500	25,943	7,159	7,099	11,082	21,098
61 Duke U.	15,249	16,530	19,253	25,210	11,358	12,075	13,893	18,150
62 SUNY Stony Brook all campuses	15,574	15,110	19,123	25,139	8,098	7,084	9,177	10,393
63 U. Central FL	9,157	25,575	9,972	24,572	2,914	3,799	5,194	9,619
64 U. CA, Irvine	15,518	18,035	22,888	24,509	5,590	7,433	8,227	10,703
65 U. Houston	18,081	19,320	22,111	24,229	5,721	5,316	8,688	6,968
66 MI State U.	20,695	20,845	23,870	24,177	5,913	6,970	7,866	7,982
67 Vanderbilt U.	12,223	15,103	17,861	23,911	8,667	11,750	14,125	19,814
68 Columbia U. in the City of NY	16,393	16,702	19,666	23,705	13,068	13,852	15,685	18,098
69 SUNY Albany	0	0	10,149	23,609	0	0	0	257
70 OR State U.	13,903	17,005	20,797	23,596	8,651	10,654	13,871	16,160
71 U. NM all campuses	26,464	24,737	26,013	23,275	21,979	20,384	19,546	18,247
72 U. PA	13,315	14,247	18,291	22,058	9,651	10,666	14,712	14,609
73 U. MO-Columbia	21,818	22,637	19,736	21,713	8,669	8,446	7,127	8,005
74 Dartmouth C.	8,691	14,137	18,326	21,597	7,112	10,294	13,636	16,246
75 U. South FL	16,698	19,063	19,132	21,551	4,615	6,494	8,110	10,757
76 Boston U.	17,455	18,219	20,875	21,188	15,274	16,275	19,165	19,796
77 U. AL Huntsville, The	17,154	16,671	20,999	21,004	8,964	13,049	15,157	16,145
78 Brown U.	9,958	14,337	14,836	20,946	5,626	9,239	8,957	13,827
79 TX Tech U.	16,748	15,751	18,477	20,521	6,178	5,249	6,101	6,880
80 OK State U. all campuses	16,752	18,589	18,295	20,507	6,465	7,051	7,681	10,104
81 U. ND all campuses	7,970	9,831	17,290	20,396	6,094	7,616	12,547	12,399
82 Lehigh U.	19,503	23,902	17,726	20,332	8,460	9,968	9,223	9,786
83 U. MA Amherst	17,476	18,811	21,224	19,248	6,800	6,605	7,766	7,321
84 U.S. Air Force Academy	1,786	2,719	17,901	19,239	1,760	2,625	5,623	8,593
85 U. OK all campuses	15,163	14,026	16,901	19,010	4,122	3,661	5,058	4,981
86 U. CT all campuses	27,294	28,225	16,177	18,926	5,228	5,640	7,439	10,591
87 CO State U.	15,452	28,708	37,060	18,653	8,162	19,973	23,217	10,193
88 CO School of Mines	13,878	16,288	17,672	18,611	5,195	6,169	6,092	7,441
89 George Washington U.	8,536	11,172	13,763	18,308	7,195	8,371	10,790	15,073
90 Old Dominion U.	11,712	13,122	15,547	18,288	7,558	9,440	9,884	12,409
91 MI Technological U.	18,387	19,688	19,625	18,048	10,041	11,300	11,640	11,210
92 Woods Hole Oceanographic Institution	16,637	19,180	22,404	17,930	12,801	15,368	14,697	14,360
93 KS State U.	15,935	15,099	16,488	17,903	5,611	5,500	6,708	8,563
94 U. NH	12,462	19,101	17,062	17,763	4,789	7,377	7,667	8,517
95 NM Institute of Mining and Technology	14,393	15,846	16,674	17,309	5,912	7,839	7,286	7,864

TABLE 41. Total and federally financed R&D expenditures in engineering at universities and colleges, ranked by FY 2003 total for the first 100 institutions: FY 2000–03

(Dollars in thousands)

Institution and ranking	Total				Federally financed R&D expenditures			
	2000	2001	2002	2003	2000	2001	2002	2003
96 U. AL, The	17,058	19,965	19,321	17,191	11,227	12,955	14,801	13,506
97 U. IL Chicago	19,007	20,646	15,679	17,006	9,333	10,384	6,043	7,841
98 OH U. all campuses	10,487	11,876	18,248	16,991	5,643	6,219	9,435	10,803
99 Wichita State U.	12,808	12,298	13,932	16,591	3,166	3,522	3,868	7,107
100 Northeastern U.	11,680	13,845	14,811	16,536	8,250	8,842	9,323	9,951
All other sampled institutions	585,282	661,914	713,932	804,146	300,126	344,382	381,097	444,375

i = imputed.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 42. R&amp;D expenditures in engineering subfields at universities and colleges, ranked by all R&amp;D expenditures in subfields for the first 100 institutions: FY 2003

(Dollars in thousands)

Institution and ranking	All R&D expenditures	Aeronautical/ astronautical engineering	Bioengineering/ biomedical engineering	Chemical engineering	Civil engineering	Electrical engineering	Mechanical engineering	Metallurgical/ materials engineering	Engineering, nec
All institutions	5,998,821	401,849	313,508	453,616	776,229	1,401,869	822,099	534,819	1,294,832
1 Johns Hopkins U., The <sup>a</sup>	386,412	38,614 i	14,369 i	8,300 i	8,844 i	113,648 i	77,954 i	1,503 i	123,180 i
2 GA Institute of Technology all campuses	232,971	23,196	11,623	9,519	11,313	114,112	28,516	12,374	22,318
3 MA Institute of Technology	195,704	21,352	25,094	17,340	11,751	32,946	28,587	18,059	40,575
4 PA State U. all campuses	183,570	5,602	3,099	15,060	22,307	47,123	32,608	57,090	681
5 U. MI all campuses	169,041	6,511	10,007	7,772	9,760	53,494	37,094	5,835	38,568
6 U. CA, Berkeley	152,033	0	270	6,161	41,458	72,788	135	173	31,048
7 TX A&M U. all campuses	150,239	11,620	2,076	9,528	51,674	8,120	15,413	4,300	47,508
8 Stanford U.	140,152	7,949	0	8,844	10,959	27,971	22,103	2,662	59,664
9 U. TX Austin	120,983	11,230	4,234	9,351	18,677	29,867	13,928	19,165	14,531
10 U. IL Urbana-Champaign	114,986	4,643	9	7,398	21,392	43,425	11,733	13,674	12,712
11 OH State U. all campuses	108,164	1,211	949	6,962	9,283	15,606	10,124	25,023	39,006
12 Purdue U. all campuses	100,174	6,721	8,180	5,345	18,464	29,001	15,432	2,059	14,972
13 VA Polytechnic Institute and State U.	96,512	4,644	0	3,860	23,888	27,151	17,750	6,712	12,507
14 U. WI Madison	95,530	0	3,032	6,850	5,421	10,203	5,320	3,392	61,312
15 NC State U.	84,442	5,232	5,073	16,839	13,302	13,093	6,469	7,831	16,603
16 U. MD College Park	82,446	8,066	0	1,050	8,598	11,582	15,543	6,313	31,294
17 UT State U.	70,127	46,058	0	452	0	2,945	16,786	0	3,886
18 U. FL	68,343	5,951	508	4,363	18,270	8,759	3,240	14,663	12,589
19 U. CA, San Diego	66,090	0	10,442	0	0	31,711	7,601	778	15,558
20 NM State U. all campuses	65,616	17,053	0	2,618	4,245	5,843	688	4,339	30,830
21 Clemson U.	64,521	0	4,990	11,095	8,324	9,354	9,570	11,269	9,919
22 Cornell U. all campuses	63,287	6,122	0	4,075	7,822	14,216	1,318	3,357	26,377
23 MS State U.	59,993	1,953	0	2,703	2,730	7,803	2,007	0	42,797
24 U. CA, Los Angeles	59,498	331	2,438	3,873	3,541	26,166	18,017	4,347	785
25 U. Rochester	58,589	0	924	781	0	3,341	43,873	0	9,670
26 U. WA	57,063	3,597	14,747	4,854	6,923	14,063	3,021	2,810	7,048
27 U. CA, Santa Barbara	56,144	0	0	5,843	0	25,310	3,408	20,540	1,043
28 Northwestern U.	54,427	0	5,297	4,932	5,359	6,849	5,297	12,753	13,940
29 Carnegie-Mellon U.	54,187	0	5,694	5,500	2,949	22,715	3,478	5,436	8,415
30 Princeton U.	52,419	8,442	0	6,362	3,371	26,340	0	7,642	262
31 U. Dayton	51,728	5,213	26	888	438	986	9,683	28,547	5,947
32 AZ State U. main campus	51,532	45	9,600	5,233	11,010	13,403	7,533	0	4,708
33 U. Southern CA	51,215	4,471	6,495	1,407	4,159	26,886	773	1,614	5,410
34 U. AZ	50,622	3,014	2,213	5,257	11,576	13,477	11,092	740	3,253
35 U. MN all campuses	50,175	4,263	1,155	7,555	14,334	6,621	9,549	0	6,698
36 IA State U.	45,805	8,742	0	1,444	8,872	6,386	2,680	3,227	14,454
37 NJ Institute of Technology	45,197	0	1,599	2,670	7,867	6,280	3,828	0	22,953

TABLE 42. R&amp;D expenditures in engineering subfields at universities and colleges, ranked by all R&amp;D expenditures in subfields for the first 100 institutions: FY 2003

(Dollars in thousands)

Institution and ranking	All R&D expenditures	Aeronautical/ astronautical engineering	Bioengineering/ biomedical engineering	Chemical engineering	Civil engineering	Electrical engineering	Mechanical engineering	Metallurgical/ materials engineering	Engineering, nec
38 U. CA, Davis	44,857	0	8,066	5,310	11,239	7,495	7,027	0	5,720
39 LA State U. all campuses	44,261	0	0	5,543	9,854	1,746	4,142	9,315	13,661
40 CA Institute of Technology	40,064	4,057	364	4,558	4,815	9,303	2,742	5,291	8,934
41 U. KY all campuses	39,815	0	1,233	1,152	8,641	2,420	3,104	5,111	18,154
42 U. TN all campuses	39,326	4,885	730	945	12,689	5,313	0	4,693	10,071
43 Rensselaer Polytechnic Institute	37,819	0	762	1,765	7,280	3,511	4,024	1,191	19,286
44 Auburn U. all campuses	35,571	1,339	0	3,044	8,231	6,544	3,799	1,349	11,265
45 U. DE	34,351	0	0	8,333	6,341	8,735	4,140	0	6,802
46 SUNY Buffalo all campuses	33,269	0	1,979	1,885	13,854	2,553	6,261	812	5,925
47 Rutgers, The State U. NJ all campuses	33,135	0	2,334	1,952	3,245	9,095	6,495	8,386	1,628
48 Drexel U.	32,560	0	3,611	3,234	1,810	17,808	2,909	3,165	23
49 U. VA all campuses	31,799	0	3,234	2,297	2,904	8,750	4,448	8,936	1,230
50 U. CO all campuses	31,196	12,286	65	3,672	7,289	4,516	2,965	0	403
51 Case Western Reserve U.	30,987	0	10,873	1,806	688	3,542	2,923	3,925	7,230
52 WA State U.	30,276	0	0	1,204	4,493	4,459	3,174	4,116	12,830
53 U. UT	30,140	0	4,246	6,233	7,844	1,897	3,913	4,208	1,799
54 U. IA	29,236	0	1,392	2,133	11,539	1,477	4,666	0	8,029
55 U. MO-Rolla	28,514	0	0	340	2,908	6,398	3,777	5,897	9,194
56 U. Cincinnati all campuses	28,443	3,232	1,183	2,179	6,728	8,406	3,898	2,780	37
57 WV U.	28,006	2,992	0	3,715	4,053	6,305	8,524	427	1,990
58 U. NE central administration	27,703	1,476	2,494	4,339	6,835	3,779	2,678	1,210	4,892
59 U. SC all campuses	26,171	0	0	6,607	2,176	12,572	2,955	0	1,861
60 FL State U.	25,943	0	6	789	1,807	6,416	16,654	0	271
61 Duke U.	25,210	0	9,957	0	2,192	8,407	3,120	0	1,534
62 SUNY Stony Brook all campuses	25,139	0	9,114	0	0	5,558	2,513	6,724	1,230
63 U. Central FL	24,572	2,865	5,613	144	4,806	5,281	1,469	2,632	1,762
64 U. CA, Irvine	24,509	0	2,592	2,649	4,610	7,366	5,339	0	1,953
65 U. Houston	24,229	2,250	0	2,704	4,725	3,543	2,187	6,488	2,332
66 MI State U.	24,177	0	0	7,712	3,867	5,281	4,936	0	2,381
67 Vanderbilt U.	23,911	0	5,396	1,469	2,771	12,213	2,062	0	0
68 Columbia U. in the City of NY	23,705	0	3,990	2,831	897	3,441	1,010	858	10,678
69 SUNY Albany	23,609	0	0	0	0	0	0	23,609	0
70 OR State U.	23,596	0	6,090	706	5,048	2,509	1,513	1,644	6,086
71 U. NM all campuses	23,275	0	0	2,060	2,836	3,622	1,382	11,218	2,157
72 U. PA	22,058	0	5,379	2,191	782	2,152	3,537	4,732	3,285
73 U. MO-Columbia	21,713	0	0	3,017	4,465	4,120	2,494	3,956	3,661
74 Dartmouth C.	21,597	0	0	0	1,504	4,390	2,562	0	13,141
75 U. South FL	21,551	0	0	838	12,337	5,381	2,339	635	21

TABLE 42. R&D expenditures in engineering subfields at universities and colleges, ranked by all R&D expenditures in subfields for the first 100 institutions: FY 2003  
(Dollars in thousands)

Institution and ranking	All R&D expenditures	Aeronautical/ astronautical engineering	Bioengineering/ biomedical engineering	Chemical engineering	Civil engineering	Electrical engineering	Mechanical engineering	Metallurgical/ materials engineering	Engineering, nec
76 Boston U.	21,188	1,214	12,034	0	0	4,228	1,214	2,359	139
77 U. AL Huntsville, The	21,004	0	0	928	889	9,330	6,955	0	2,902
78 Brown U.	20,946	1,484 i	0 i	1,513 i	1,603 i	5,047 i	4,760 i	0 i	6,539 i
79 TX Tech U.	20,521	0	0	3,290	5,562	4,961	1,741	2,480	2,487
80 OK State U. all campuses	20,507	431	0	2,224	1,975	2,801	3,221	0	9,855
81 U. ND all campuses	20,396	0	0	383	183	144	195	0	19,491
82 Lehigh U.	20,332	0	0	1,388	8,065	2,062	2,024	5,664	1,129
83 U. MA Amherst	19,248	0	0	3,012	4,545	7,096	4,194	0	401
84 U.S. Air Force Academy	19,239	16,497	0	0	123	75	2,544	0	0
85 U. OK all campuses	19,010	964	0	5,285	4,265	3,336	2,701	0	2,459
86 U. CT all campuses	18,926	0	0	3,133	4,467	3,420	4,860	2,939	107
87 CO State U.	18,653	0	0	2,173	8,741	3,567	4,172	0	0
88 CO School of Mines	18,611	0	0	5,349	0	0	0	9,557	3,705
89 George Washington U.	18,308	5,359	0	0	3,832	3,396	807	0	4,914
90 Old Dominion U.	18,288	4,616	0	0	466	9,823	1,031	0	2,352
91 MI Technological U.	18,048	0	278	1,418	4,512	1,024	6,127	2,715	1,974
92 Woods Hole Oceanographic Institution	17,930	1,273 i	0 i	1,320 i	1,397 i	4,454 i	3,843 i	0 i	5,643 i
93 KS State U.	17,903	0	0	3,351	2,387	651	1,531	0	9,983
94 U. NH	17,763	0	0	880	5,074	8,728	899	1,925	257
95 NM Institute of Mining and Technology	17,309	0	0	5,719	0	497	136	1,237	9,720
96 U. AL, The	17,191	3,296	0	2,734	2,575	1,113	1,506	2,689	3,278
97 U. IL Chicago	17,006	0	5,116	863	2,379	4,517	4,034	0	97
98 OH U. all campuses	16,991	8,373	0	3,160	1,834	1,873	1,024	0	727
99 Wichita State U.	16,591	14,661	0	0	0	248	122	0	1,560
100 Northeastern U.	16,536	0	0	2,664	575	3,960	1,992	0	7,345
All other sampled institutions	804,146	36,453	51,234	81,389	103,796	169,630	116,634	61,719	183,291

i = imputed.

nec = not elsewhere classified.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 43. Federally financed R&D expenditures in engineering subfields at universities and colleges, ranked by all R&D expenditures in subfields for the first 100 institutions: FY 2003  
(Dollars in thousands)

Institution and ranking	All R&D expenditures	Aeronautical/ astronautical engineering	Bioengineering/ biomedical engineering	Chemical engineering	Civil engineering	Electrical engineering	Mechanical engineering	Metallurgical/ materials engineering	Engineering, nec
All institutions	3,607,637	305,570	190,498	247,980	326,524	924,903	532,586	303,153	776,423
1 Johns Hopkins U., The <sup>a</sup>	377,516	36,312 i	12,294 i	7,608 i	7,677 i	112,912 i	76,587 i	1,217 i	122,909 i
2 GA Institute of Technology all campuses	134,150	15,323	5,195	4,615	4,974	71,663	17,296	7,520	7,564
3 MA Institute of Technology	134,015	18,895	19,904	10,740	7,672	22,978	14,242	9,052	30,532
4 Stanford U.	117,498	7,114	0	7,137	7,869	23,796	16,614	2,301	52,667
5 U. MI all campuses	115,309	4,989	6,879	5,153	6,334	36,681	25,457	3,912	25,904
6 PA State U. all campuses	110,675	3,695	1,572	8,811	8,678	35,390	24,371	27,926	232
7 U. TX Austin	80,074	10,227	2,763	4,776	935	25,494	10,667	13,675	11,537
8 U. IL Urbana-Champaign	66,381	3,893	0	3,653	13,118	26,101	5,092	8,439	6,085
9 UT State U.	65,374	45,992	0	81	0	1,411	16,538	0	1,352
10 U. CA, Berkeley	64,345	0	50	1,844	6,321	39,184	0	0	16,946
11 U. WI Madison	60,860	0	2,112	3,980	3,530	6,947	2,487	2,444	39,360
12 NM State U. all campuses	49,091	15,450	0	2,364	3,381	4,661	523	3,647	19,065
13 U. Rochester	48,369	0	264	677	0	2,442	38,853	0	6,133
14 U. MD College Park	47,813	5,093	0	671	4,547	9,979	6,731	4,714	16,078
15 U. Dayton	46,659	4,066	0	586	223	757	8,360	27,300	5,367
16 Carnegie-Mellon U.	44,628	0	5,111	4,636	2,511	18,081	2,968	4,063	7,258
17 U. WA	44,116	3,432	11,776	4,163	3,901	10,739	2,132	1,840	6,133
18 MS State U.	41,932	1,034	0	1,837	802	5,748	920	0	31,591
19 Purdue U. all campuses	41,770	3,471	3,503	2,195	2,792	17,933	5,063	993	5,820
20 U. Southern CA	40,469	3,848	4,702	944	2,871	22,246	722	1,363	3,773
21 U. CA, Los Angeles	40,324	186	2,015	2,436	1,359	18,575	13,808	1,945	0
22 TX A&M U. all campuses	39,809	6,976	597	2,494	4,759	2,650	4,900	299	17,134
23 VA Polytechnic Institute and State U.	39,298	2,375	0	1,393	8,270	12,639	7,003	3,843	3,775
24 Cornell U. all campuses	39,147	4,148	0	2,862	2,401	9,420	807	1,682	17,827
25 U. FL	38,424	4,712	240	2,428	6,536	5,543	2,383	9,150	7,432
26 CA Institute of Technology	37,024	4,000	364	3,579	4,400	8,378	2,742	5,238	8,323
27 Northwestern U.	36,610	0	2,719	3,245	3,515	5,480	4,070	9,106	8,475
28 Clemson U.	35,798	0	2,956	6,579	3,608	5,102	4,684	7,571	5,298
29 U. CA, San Diego	32,582	0	7,668	0	0	10,847	4,897	0	9,170
30 U. CA, Santa Barbara	32,116	0	0	3,698	0	14,762	2,597	10,155	904
31 OH State U. all campuses	31,749	439	157	1,441	2,659	6,059	3,657	10,056	7,281
32 Princeton U.	31,748	4,402	0	4,143	2,001	15,053	0	6,114	35
33 NC State U.	29,288	3,386	937	6,091	3,001	7,224	1,795	4,803	2,051
34 U. AZ	27,725	2,347	847	2,799	8,822	5,775	4,994	597	1,544
35 U. MN all campuses	27,299	3,001	819	3,678	7,842	3,038	5,262	0	3,659
36 U. DE	27,020	0	0	6,173	4,816	7,151	3,444	0	5,436
37 U. CO all campuses	24,476	11,074	61	2,518	5,047	3,037	2,672	0	67

TABLE 43. Federally financed R&D expenditures in engineering subfields at universities and colleges, ranked by all R&D expenditures in subfields for the first 100 institutions: FY 2003  
(Dollars in thousands)

Institution and ranking	All R&D expenditures	Aeronautical/ astronautical engineering	Bioengineering/ biomedical engineering	Chemical engineering	Civil engineering	Electrical engineering	Mechanical engineering	Metallurgical/ materials engineering	Engineering, nec
38 U. VA all campuses	23,980	0	2,684	1,664	1,843	6,456	2,606	7,834	893
39 AZ State U. main campus	23,750	20	3,983	3,562	4,829	5,560	4,233	0	1,563
40 Case Western Reserve U.	23,547	0	8,677	630	459	2,424	2,506	3,313	5,538
41 Rensselaer Polytechnic Institute	22,842	0	524	1,283	4,046	2,645	2,524	826	10,994
42 Drexel U.	22,433	0	2,568	2,027	1,173	12,531	1,946	2,188	0
43 IA State U.	22,392	6,677	0	872	2,649	2,686	1,757	2,567	5,184
44 FL State U.	21,098	0	0	536	1,048	5,771	13,627	0	116
45 NJ Institute of Technology	20,459	0	375	489	1,828	1,609	1,058	0	15,100
46 Vanderbilt U.	19,814	0	3,531	1,211	2,100	11,309	1,663	0	0
47 Boston U.	19,796	1,163	11,161	0	0	4,070	1,163	2,100	139
48 WV U.	19,572	2,963	0	2,514	3,147	4,302	4,841	366	1,439
49 SUNY Buffalo all campuses	19,072	0	1,536	937	7,260	1,397	5,507	604	1,831
50 U. CA, Davis	18,796	0	2,914	2,957	2,192	4,386	1,639	0	4,708
51 U. NM all campuses	18,247	0	0	1,727	1,962	3,019	1,137	9,124	1,278
52 Duke U.	18,150	0	8,346	0	1,227	5,212	2,014	0	1,351
53 Columbia U. in the City of NY	18,098	0	2,418	763	376	2,808	1,010	712	10,011
54 U. UT	17,364	0	2,425	4,708	2,664	888	2,861	3,260	558
55 Auburn U. all campuses	17,040	686	0	1,647	3,396	2,348	2,578	684	5,701
56 U. KY all campuses	16,604	0	688	761	6,489	893	1,446	1,880	4,447
57 Dartmouth C.	16,246	0	0	0	1,221	3,412	1,571	0	10,042
58 OR State U.	16,160	0	4,959	456	2,463	1,451	738	801	5,292
59 U. SC all campuses	16,157	0	0	3,529	1,510	9,161	1,573	0	384
60 LA State U. all campuses	16,146	0	0	1,617	3,074	334	1,008	1,935	8,178
61 U. AL Huntsville, The	16,145	0	0	705	488	7,069	5,470	0	2,413
62 U. TN all campuses	15,458	2,241	317	849	2,091	4,209	0	2,379	3,372
63 George Washington U.	15,073	5,194	0	0	3,033	1,821	701	0	4,324
64 U. PA	14,609	0	4,150	1,064	0	1,421	3,038	2,500	2,436
65 Woods Hole Oceanographic Institution	14,360	1,023 i	0 i	1,115 i	1,128 i	3,754 i	2,784 i	0 i	4,556 i
66 U. MO-Rolla	14,343	0	0	161	1,593	3,810	1,451	3,252	4,076
67 Rutgers, The State U. NJ all campuses	13,977	0	76	645	149	3,839	4,792	3,689	787
68 Brown U.	13,827	980 i	0 i	1,062 i	1,091 i	3,632 i	2,679 i	0 i	4,383 i
69 U. Cincinnati all campuses	13,553	1,422	324	840	4,299	4,026	1,188	1,454	0
70 U. AL, The	13,506	3,021	0	2,347	2,224	889	1,110	1,297	2,618
71 WA State U.	13,114	0	0	871	2,184	2,291	2,268	2,619	2,881
72 Old Dominion U.	12,409	3,732	0	0	295	7,021	759	0	602
73 U. ND all campuses	12,399	0	0	194	123	71	145	0	11,866
74 FL International U.	12,067	0	362	0	603	845	483	0	9,774
75 U. IA	11,342	0	678	1,052	3,828	1,011	2,340	0	2,433

TABLE 43. Federally financed R&D expenditures in engineering subfields at universities and colleges, ranked by all R&D expenditures in subfields for the first 100 institutions: FY 2003  
(Dollars in thousands)

Institution and ranking	All R&D expenditures	Aeronautical/ astronautical engineering	Bioengineering/ biomedical engineering	Chemical engineering	Civil engineering	Electrical engineering	Mechanical engineering	Metallurgical/ materials engineering	Engineering, nec
76 MI Technological U.	11,210	0	114	471	2,956	779	3,578	2,499	813
77 OH U. all campuses	10,803	7,192	0	461	1,107	1,269	424	0	350
78 U. South FL	10,757	0	0	461	4,279	4,158	1,639	220	0
79 U. CA, Irvine	10,703	0	1,160	1,546	949	3,383	3,655	0	10
80 U. CT all campuses	10,591	0	0	1,306	2,628	1,621	3,186	1,833	17
81 U. Pittsburgh all campuses	10,476	0	1,987	3,762	266	1,405	711	1,847	498
82 SUNY Stony Brook all campuses	10,393	0	2,116	0	0	2,541	1,397	4,257	82
83 CO State U.	10,193	0	0	1,415	6,099	2,129	550	0	0
84 OK State U. all campuses	10,104	255	0	788	1,205	1,104	1,064	0	5,688
85 Northeastern U.	9,951	0	0	2,238	350	2,667	692	0	4,004
86 Lehigh U.	9,786	0	0	995	2,427	1,483	1,450	2,651	780
87 Harvard U.	9,762	0	0	0	0	0	0	0	9,762
88 U. of Notre Dame	9,681	1,607	0	1,577	1,673	4,824	0	0	0
89 U. Central FL	9,619	942	0	0	2,672	3,262	852	606	1,285
90 Naval Postgraduate School	9,222	3,845	0	0	0	3,884	586	907	0
91 George Mason U.	9,049	0	0	0	501	4,820	0	0	3,728
92 U. ID	8,883	300	748	78	1,447	3,272	532	1,141	1,365
93 Rice U.	8,834	0	2,243	499	957	3,995	1,097	0	43
94 U.S. Air Force Academy	8,593	6,529	0	0	49	30	1,985	0	0
95 KS State U.	8,563	0	0	2,972	845	454	1,049	0	3,243
96 U. NH	8,517	0	0	575	2,957	2,869	705	1,411	0
97 Brigham Young U. all campuses	8,286	0	0	1,170	2,461	2,740	1,869	0	46
98 CA State U. Long Beach	8,072	0	0	29	140	57	38	0	7,808
99 U. MO-Columbia	8,005	0	0	543	2,494	2,772	1,170	499	527
100 U. KS all campuses	7,988	818	10	1,310	1,684	3,893	255	18	0
All other sampled institutions	414,170	25,080	23,919	48,961	49,121	89,235	68,550	38,915	70,389

i = imputed.

nec = not elsewhere classified.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.



TABLE 44. R&D expenditures in the physical sciences at universities and colleges, ranked by all FY 2003 physical sciences for the first 100 institutions: FY 2000–03 and by subfield for FY 2003

(Dollars in thousands)

Institution and ranking	2003							
	2000	2001	2002	All physical sciences	Astronomy	Chemistry	Physics	Physical sciences, nec
All institutions	2,711,578	2,804,329	3,016,451	3,272,629	392,067	1,220,238	1,420,231	240,093
1 Johns Hopkins U., The <sup>a</sup>	97,484	111,414	115,899	136,074	60,041	11,330	58,531	6,172
2 CA Institute of Technology	117,689	107,479	107,140	125,015	5,315	18,099	101,601	0
3 U. AZ	83,227	72,131	77,860	110,656	92,968	10,874	6,814	0
4 MA Institute of Technology	92,198	92,608	99,254	96,678	15,130	20,184	56,334	5,030
5 U. CA, Berkeley	90,306	79,469	78,918	83,187	8,850	24,907	47,923	1,507
6 Cornell U. all campuses	70,153	61,239	66,273	78,827	14,071	20,804	36,036	7,916
7 Stanford U.	53,594	54,140	63,387	78,811	0	18,097	7,486	53,228
8 U. TX Austin	56,338	58,845	73,665	73,352	9,829	23,382	38,079	2,062
9 U. CA, Los Angeles	45,035	68,170	68,211	72,411	14,954	19,607	37,110	740
10 U. CO all campuses	72,003 i	71,362	58,379	62,588	25,101	15,164	18,623	3,700
11 PA State U. all campuses	42,461	55,196	56,959	57,498	11,419	18,214	27,865	0
12 U. MD College Park	53,718	47,085	81,315	57,257	15,510	10,067	21,363	10,317
13 MI State U.	39,788	45,432	47,401	50,353	0	13,230	37,123	0
14 FL State U.	43,626	42,586	49,388	48,889	0	13,321	35,502	66
15 U. IL Urbana-Champaign	48,612	47,013	48,218	47,967	4,049	20,949	22,969	0
16 U. WI Madison	46,678	49,127	50,449	47,928	4,927	15,546	20,733	6,722
17 U. CA, San Diego	33,652	33,185	38,999	42,904	4,971	17,530	18,116	2,287
18 U. MI all campuses	23,407	25,654	27,653	37,817	1,378	15,191	16,214	5,034
19 U. Chicago	35,534	33,192	33,410	36,444	16,188	8,802	7,198	4,256
20 Harvard U.	32,530	35,170	35,156	36,178	2,433	19,456	14,139	150
21 Columbia U. in the City of NY	26,104	34,612	32,054	35,025	4,303	7,746	3,239	19,737
22 IN U. all campuses	29,682	34,958	34,095	34,322	671	14,701	18,847	103
23 U. WA	27,122	29,784	28,015	33,589	2,619	16,947	14,023	0
24 U. CA, Santa Cruz	23,844	31,117	31,335	33,325	18,041	6,656	8,628	0
25 OH State U. all campuses	24,446	23,906	28,251	32,998	2,625	15,512	14,104	757
26 TX A&M U. all campuses	24,131	25,848	29,238	32,808	0	19,703	11,009	2,096
27 U. FL	20,005	23,257	28,654	30,292	3,074	11,594	14,956	668
28 SUNY Stony Brook all campuses	24,797	25,283	27,071	29,040	1,876	9,007	18,157	0
29 U. MA Amherst	20,094	20,876	26,779	28,858	7,966	15,688	4,891	313
30 U. CA, San Francisco	12,332	13,845	27,262	28,798	0	28,798	0	0
31 Princeton U.	27,100	29,244	28,122	28,542	4,032	11,278	13,232	0
32 U. CA, Santa Barbara	23,459	24,757	25,959	27,030	0	7,318	12,592	7,120
33 Rutgers, The State U. NJ all campuses	23,768	26,867	31,423	26,764	0	11,365	15,399	0
34 Northwestern U.	20,408	22,674	23,694	25,858	0	16,108	6,235	3,515
35 U. MN all campuses	24,475	35,028	22,614	25,690	1,643	9,569	14,478	0
36 U. PA	24,780	23,695	23,609	25,291	0	11,165	14,126	0
37 Boston U.	12,569	13,499	15,800	24,422	1,131	3,827	6,496	12,968
38 GA Institute of Technology all campuses	21,141	21,086	23,024	24,290	0	9,652	13,484	1,154
39 U. CA, Irvine	16,519	17,693	20,286	22,611	0	10,856	11,755	0
40 LA State U. all campuses	17,479	17,231	19,668	21,632	0	14,200	7,353	79
41 NC State U.	20,814	25,574	20,267	21,499	0	8,198	13,301	0
42 U. NC Chapel Hill	17,580	17,161	18,616	21,482	0	16,045	5,437	0
43 U. Central FL	13,656	16,754	15,645	21,364	0	4,185	17,179	0
44 Yale U.	18,830	20,108	20,731	21,254	903	8,062	12,289	0
45 Purdue U. all campuses	20,095	20,461	21,672	21,185	0	13,268	7,917	0
46 AZ State U. main campus	19,021	22,231	17,772	19,896	211	10,162	3,646	5,877
47 Catholic U. America, The	6,628	12,790	18,565	19,606	0	1,392	4,892	13,322
48 U. HI Manoa	26,699	26,405	22,167	19,576	13,273	2,205	4,038	60
49 U. UT	15,453	14,605	15,847	18,333	0	12,247	5,910	176

TABLE 44. R&D expenditures in the physical sciences at universities and colleges, ranked by all FY 2003 physical sciences for the first 100 institutions: FY 2000–03 and by subfield for FY 2003

(Dollars in thousands)

Institution and ranking	2000	2001	2002	2003				
				All physical sciences	Astronomy	Chemistry	Physics	Physical sciences, nec
50 U. CA, Davis	18,183	21,329	21,445	17,833	0	7,526	4,844	5,463
51 U. IA	15,985	15,080	18,547	17,522	1,753	4,091	11,678	0
52 U. MS all campuses	10,177	13,400	15,159	17,432	0	680	16,752	0
53 U. of Notre Dame	15,252	13,946	17,792	17,230	0	10,657	6,573	0
54 U. Pittsburgh all campuses	11,914	13,139	13,707	16,654	1,129	9,630	5,895	0
55 Duke U.	13,288	13,377	16,837	16,630	0	5,416	11,214	0
56 U. DE	11,038	12,830	13,042	16,221	752	8,931	3,010	3,528
57 Wayne State U.	11,683	14,516	16,058	16,006	0	5,136	10,870	0
58 SUNY Buffalo all campuses	9,790	9,189	13,633	15,981	0	12,382	3,550	49
59 U. OK all campuses	15,549	13,690	17,763	15,580	0	10,237	5,343	0
60 Rice U.	11,909	12,701	14,885	15,469	868	9,294	5,307	0
61 U. VA all campuses	12,397	11,538	14,173	15,315	1,532	8,377	5,406	0
62 U. SC all campuses	12,921	16,499	24,054	15,099	0	8,911	4,565	1,623
63 VA Polytechnic Institute and State U.	10,223	9,298	12,830	14,552	0	11,694	2,752	106
64 Vanderbilt U.	12,865	9,903	10,688	13,946	0	4,546	9,400	0
65 Carnegie-Mellon U.	7,942	9,311	11,263	13,624	0	4,904	6,359	2,361
66 WA State U.	4,881	5,715	12,242	13,497	0	6,266	6,750	481
67 Washington U. St. Louis	10,535	12,940	12,556	13,235	0	6,547	6,688	0
68 U. IL Chicago	8,186	9,107	12,918	13,233	0	6,319	6,914	0
69 MT State U. Bozeman	10,712	11,799	12,798	13,067	0	5,109	7,958	0
70 ND State U. all campuses	3,844	3,140	5,292	12,668	0	4,958	130	7,580
71 U. NE central administration	11,601	10,438	12,902	12,602	0	4,522	8,080	0
72 U. TN all campuses	10,933	9,579	10,403	12,382	0	4,937	7,445	0
73 U. Rochester	13,461	12,860	12,725	11,878	1,672	3,066	7,140	0
74 Emory U.	8,355	9,394	8,673	11,868	0	10,667	1,201	0
75 U. GA	10,068	10,870	11,145	11,820	0	7,521	4,299	0
76 U. Akron all campuses	8,279	8,178	10,236	11,638	0	11,260	378	0
77 Northeastern U.	12,507	9,696	8,969	11,231	0	3,045	8,186	0
78 KS State U.	8,062	9,957	11,131	11,174	0	3,116	8,058	0
79 Case Western Reserve U.	6,496	6,025	6,600	10,950	379	3,714	3,890	2,967
80 Brown U.	8,806	9,546	9,427	10,668	0	4,821	5,847	0
81 IA State U.	9,232	10,536	10,218	10,606	0	6,702	3,897	7
82 U. Southern CA	10,177	10,030	8,448	10,276	155	8,890	1,231	0
83 Clemson U.	6,996	8,047	8,333	10,055	0	5,667	4,388	0
84 CO State U.	8,469	8,564	10,549	10,001	0	6,617	3,169	215
85 IL Institute of Technology	1,203	1,139	8,041	9,745	0	692	9,053	0
86 U. AL Huntsville, The	8,185	9,769	12,474	9,704	0	5,080	4,624	0
87 NM State U. all campuses	4,574	5,851	10,224	9,337	1,063	5,488	1,819	967
88 OK State U. all campuses	6,282	6,105	5,930	9,129	0	5,150	3,972	7
89 U. KY all campuses	8,068	7,709	7,767	9,126	0	5,819	3,307	0
90 U. AR main campus	5,560	7,002	11,336	9,073	0	5,469	3,604	0
91 TX Tech U.	5,230	6,028	8,644	9,003	0	5,479	3,524	0
92 U. NM all campuses	11,000	6,611	8,165	8,793	0	2,868	5,277	648
93 U. CA, Riverside	7,627	7,168	7,524	8,704	0	4,725	3,711	268
94 NY U.	5,200	4,743	6,494	8,697	0	5,300	3,397	0
95 Temple U.	4,676	6,979	7,033	8,676	0	1,357	7,319	0
96 U. OR	7,267	7,911	8,693	8,460	0	4,315	4,145	0
97 C. of William and Mary all campuses	5,126	5,728	7,603	8,339	0	758	3,310	4,271
98 Boston C.	7,638	7,802	8,421	8,225	0	6,330	1,895	0
99 U. Southern MS	4,113	4,914	6,824	8,060	0	7,637	423	0

TABLE 44. R&D expenditures in the physical sciences at universities and colleges, ranked by all FY 2003 physical sciences for the first 100 institutions: FY 2000–03 and by subfield for FY 2003

(Dollars in thousands)

Institution and ranking	2000	2001	2002	2003				
				All physical sciences	Astronomy	Chemistry	Physics	Physical sciences, nec
100 U. KS all campuses	10,207	6,269	7,768	8,040	271	3,856	3,913	0
All other sampled institutions	455,842	454,588	459,900	517,361	12,991	251,551	220,399	32,420

i = imputed.

nec = not elsewhere classified.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 45. Federally financed R&D expenditures in the physical sciences at universities and colleges, ranked by all FY 2003 physical sciences for the first 100 institutions: FY 2000–03 and by subfield for FY 2003

(Dollars in thousands)

Institution and ranking	2003							
	2000	2001	2002	All physical sciences	Astronomy	Chemistry	Physics	Physical sciences, nec
All institutions	1,915,097	1,972,756	2,130,613	2,352,648	271,505	816,056	1,088,184	176,903
1 Johns Hopkins U., The <sup>a</sup>	95,181	109,309	114,292	133,643	59,114	10,753	57,604	6,172
2 CA Institute of Technology	111,480	103,362	102,970	121,492	4,743	15,279	101,470	0
3 MA Institute of Technology	89,453	89,881	96,224	93,550	15,043	17,551	56,151	4,805
4 Stanford U.	48,464	48,502	56,406	71,305	0	15,496	6,902	48,907
5 U. AZ	50,078	40,321	42,685	62,584	48,907	8,174	5,503	0
6 U. CA, Berkeley	53,882	52,604	54,879	58,292	4,201	17,078	36,985	28
7 U. CO all campuses	64,056	64,575	52,783	57,555	23,842	13,251	17,171	3,291
8 Cornell U. all campuses	53,842	44,655	44,674	55,800	4,598	15,897	29,908	5,397
9 U. TX Austin	41,510	42,500	52,700	51,027	3,884	15,122	31,910	111
10 U. MD College Park	34,162	32,982	57,640	42,879	14,417	7,448	15,482	5,532
11 PA State U. all campuses	27,124	36,777	39,869	40,089	9,263	11,001	19,825	0
12 U. CA, Los Angeles	29,115	31,178	33,954	39,145	0	14,598	24,547	0
13 Harvard U.	29,920	31,346	32,752	33,784	2,408	17,490	13,736	150
14 Columbia U. in the City of NY	25,462	33,143	31,122	33,643	4,296	7,341	2,683	19,323
15 U. WI Madison	31,742	32,878	32,913	32,695	2,799	9,174	16,094	4,628
16 U. Chicago	31,905	27,664	27,553	32,600	15,866	6,775	5,842	4,117
17 U. IL Urbana-Champaign	33,653	30,747	30,780	31,765	2,940	12,336	16,489	0
18 U. CA, San Diego	25,391	25,428	28,434	31,052	2,906	12,749	13,587	1,810
19 MI State U.	25,026	28,919	27,149	30,314	0	7,452	22,862	0
20 U. WA	20,168	20,482	20,100	26,603	1,575	12,522	12,506	0
21 FL State U.	21,881	19,716	24,809	26,052	0	5,344	20,708	0
22 U. MI all campuses	18,693	20,839	21,585	25,355	975	11,202	13,155	23
23 Boston U.	12,004	12,961	14,626	23,458	997	3,567	6,401	12,493
24 U. CA, San Francisco	9,033	11,198	20,915	22,787	0	22,787	0	0
25 U. PA	22,163	21,681	21,498	21,122	0	9,505	11,617	0
26 U. CA, Santa Barbara	17,170	19,170	19,037	19,814	0	5,708	8,878	5,228
27 U. MN all campuses	18,442	26,233	18,529	19,609	754	7,051	11,804	0
28 Princeton U.	18,039	18,987	20,523	19,415	2,374	7,397	9,644	0
29 SUNY Stony Brook all campuses	16,751	16,748	17,782	19,062	1,486	6,287	11,289	0
30 U. FL	12,162	14,377	17,554	18,691	1,240	7,262	10,064	125
31 Northwestern U.	14,565	15,507	15,577	17,883	0	11,484	4,165	2,234
32 OH State U. all campuses	12,728	13,936	15,518	17,776	1,321	8,271	7,781	403
33 U. HI Manoa	14,039	13,645	16,740	17,746	12,400	1,378	3,951	17
34 Yale U.	15,835	17,867	17,511	17,726	674	5,991	11,061	0
35 IN U. all campuses	17,177	17,231	17,371	17,561	224	6,503	10,823	11
36 U. MA Amherst	10,292	11,495	14,493	16,719	5,544	8,567	2,608	0
37 U. NC Chapel Hill	13,796	13,755	13,325	16,616	0	12,455	4,161	0
38 TX A&M U. all campuses	11,732	11,292	14,199	16,048	0	8,532	6,825	691
39 U. of Notre Dame	13,117	12,814	14,777	15,915	0	9,559	6,356	0
40 U. CA, Santa Cruz	9,449	11,894	12,816	15,627	5,230	5,055	5,342	0
41 Catholic U. America, The	5,737	10,453	15,129	15,459	0	1,169	3,994	10,296
42 U. MS all campuses	9,574	11,879	13,259	15,129	0	599	14,530	0
43 Purdue U. all campuses	12,804	13,134	14,492	14,750	0	8,219	6,531	0
44 U. CA, Irvine	11,410	12,331	14,134	14,730	0	7,175	7,555	0
45 U. Pittsburgh all campuses	10,273	11,341	12,023	14,647	1,039	8,516	5,092	0
46 GA Institute of Technology all campuses	8,759	9,894	11,207	14,154	0	4,934	9,099	121
47 Duke U.	11,171	10,799	13,054	14,090	0	3,824	10,266	0
48 U. IA	12,384	12,700	14,509	14,019	1,085	3,170	9,764	0
49 U. CA, Davis	12,936	14,233	13,923	13,693	0	5,488	3,192	5,013

TABLE 45. Federally financed R&D expenditures in the physical sciences at universities and colleges, ranked by all FY 2003 physical sciences for the first 100 institutions: FY 2000–03 and by subfield for FY 2003

(Dollars in thousands)

Institution and ranking	2000	2001	2002	2003				
				All physical sciences	Astronomy	Chemistry	Physics	Physical sciences, nec
50 U. VA all campuses	10,236	9,901	12,595	13,575	1,405	7,234	4,936	0
51 Rutgers, The State U. NJ all campuses	12,579	13,166	16,334	13,127	0	7,011	6,116	0
52 U. DE	7,945	9,118	8,939	12,981	602	6,894	2,408	3,077
53 Rice U.	9,784	10,359	12,398	12,849	782	7,421	4,646	0
54 U. Central FL	3,106	5,363	7,160	12,470	0	3,890	8,580	0
55 U. UT	10,264	10,502	11,745	12,389	0	7,902	4,487	0
56 LA State U. all campuses	9,796	10,861	12,330	11,731	0	7,470	4,260	1
57 ND State U. all campuses	2,918	2,177	4,168	11,108	0	3,870	85	7,153
58 MT State U. Bozeman	8,079	9,532	9,776	11,052	0	4,313	6,739	0
59 AZ State U. main campus	9,177	9,700	8,831	10,831	0	5,513	2,742	2,576
60 Vanderbilt U.	10,673	8,305	9,158	10,700	0	3,714	6,986	0
61 KS State U.	6,605	8,358	9,489	10,337	0	2,739	7,598	0
62 Washington U. St. Louis	7,848	9,644	9,951	10,255	0	4,744	5,511	0
63 U. Rochester	12,455	11,298	11,199	10,210	1,497	2,380	6,333	0
64 Carnegie-Mellon U.	6,276	7,251	8,627	9,672	0	3,668	5,502	502
65 NC State U.	11,458	12,176	9,282	9,156	0	3,666	5,490	0
66 WA State U.	4,090	4,589	8,289	9,005	0	2,685	5,941	379
67 U. IL Chicago	5,412	5,972	7,768	8,860	0	4,402	4,458	0
68 Case Western Reserve U.	4,297	5,361	6,022	8,748	348	3,267	3,075	2,058
69 U. TN all campuses	6,445	7,486	7,991	8,720	0	3,517	5,203	0
70 SUNY Buffalo all campuses	4,448	4,109	7,497	8,354	0	5,895	2,459	0
71 NM State U. all campuses	3,556	5,255	8,846	8,311	951	4,901	1,584	875
72 Northeastern U.	11,091	7,318	6,089	8,311	0	1,407	6,904	0
73 VA Polytechnic Institute and State U.	4,766	4,135	6,545	8,159	0	6,598	1,561	0
74 NY U.	3,897	4,165	5,822	7,983	0	4,592	3,391	0
75 Temple U.	4,072	6,384	6,285	7,864	0	1,072	6,792	0
76 U. NE central administration	5,792	6,289	7,605	7,684	0	2,397	5,287	0
77 U. AL Huntsville, The	5,626	7,157	9,413	7,410	0	3,647	3,763	0
78 U. NM all campuses	8,668	5,570	7,285	7,375	0	2,154	4,645	576
79 CO State U.	6,338	6,900	7,483	7,242	0	5,372	1,753	117
80 U. SC all campuses	8,076	8,495	9,103	7,234	0	4,468	2,404	362
81 Wayne State U.	5,114	7,453	8,511	6,951	0	4,520	2,431	0
82 CO School of Mines	5,842	5,026	5,816	6,886	0	684	6,202	0
83 U. OR	6,075	6,766	7,214	6,874	0	3,290	3,584	0
84 Boston C.	5,424	5,725	6,743	6,851	0	5,222	1,629	0
85 U. CA, Riverside	5,578	5,088	5,467	6,740	0	3,605	3,135	0
86 IA State U.	4,714	5,811	5,754	6,596	0	4,190	2,399	7
87 Emory U.	5,658	6,350	5,365	6,594	0	5,729	865	0
88 U. NV, Reno	4,659	4,344	4,997	6,565	80	1,095	4,702	688
89 U. Southern CA	7,862	6,910	5,870	6,397	36	5,321	1,040	0
90 U. MD Baltimore County	3,227	4,990	5,129	6,350	0	3,541	2,809	0
91 U. AR main campus	2,858	4,702	8,081	6,091	0	4,151	1,940	0
92 U. Southern MS	3,014	3,620	4,915	6,058	0	5,636	422	0
93 Brown U.	4,771	5,136	5,126	5,995	0 i	2,518 i	3,477 i	0 i
94 U. MA Lowell	3,742	4,066	5,343	5,783	0	1,154	4,629	0
95 Clemson U.	1,906	4,363	4,629	5,781	0	2,927	2,854	0
96 C. of William and Mary all campuses	3,140	3,380	5,458	5,736	0	297	2,984	2,455
97 CUNY Hunter C.	2,930	3,740	4,101	5,703	0	4,486	1,217	0
98 CUNY City C.	4,995	4,955	5,245	5,702	0	3,175	2,258	269
99 U. OK all campuses	8,894	7,654	9,501	5,482	0	2,566	2,916	0

TABLE 45. Federally financed R&D expenditures in the physical sciences at universities and colleges, ranked by all FY 2003 physical sciences for the first 100 institutions: FY 2000–03 and by subfield for FY 2003

(Dollars in thousands)

Institution and ranking	2000	2001	2002	2003				
				All physical sciences	Astronomy	Chemistry	Physics	Physical sciences, nec
100 Rochester Institute of Technology	1,376	2,578	3,645	5,384	0	105	231	5,048
All other sampled institutions	281,815	277,840	288,884	328,956	9,659	158,555	150,908	9,834

i = imputed.

nec = not elsewhere classified.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory.

NOTE: Tied institutions are ranked alphabetically.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 46. Total and federally financed R&D expenditures in chemistry at universities and colleges, ranked by FY 2003 total for the first 100 institutions: FY 2000–03  
(Dollars in thousands)

Institution and ranking	Total				Federally financed R&D expenditures			
	2000	2001	2002	2003	2000	2001	2002	2003
All institutions	961,223	1,007,422	1,131,101	1,220,238	630,984	659,758	738,251	816,056
1 U. CA, San Francisco	12,332	13,845	27,256	28,798	9,033	11,198	20,915	22,787
2 U. CA, Berkeley	21,471	21,339	21,787	24,907	15,774	14,617	15,867	17,078
3 U. TX Austin	10,142	11,640	22,782	23,382	5,749	5,163	14,104	15,122
4 U. IL Urbana-Champaign	17,667	20,091	20,962	20,949	10,294	12,239	12,266	12,336
5 Cornell U. all campuses	14,002	11,013	13,340	20,804	9,103	7,743	8,944	15,897
6 MA Institute of Technology	18,756	18,063	18,352	20,184	16,690	16,380	16,357	17,551
7 TX A&M U. all campuses	15,385	17,206	18,587	19,703	6,986	6,629	8,450	8,532
8 U. CA, Los Angeles	13,564	15,071	17,758	19,607	10,432	11,339	13,074	14,598
9 Harvard U.	16,957	17,446	15,549	19,456	14,788	14,166	13,637	17,490
10 PA State U. all campuses	16,075	18,042	17,070	18,214	9,797	10,201	10,312	11,001
11 CA Institute of Technology	15,538	15,357	15,590	18,099	12,866	13,092	12,135	15,279
12 Stanford U.	12,947	15,752	17,856	18,097	10,973	13,425	14,844	15,496
13 U. CA, San Diego	9,831	11,131	14,593	17,530	7,251	8,742	11,311	12,749
14 U. WA	9,167	9,597	13,934	16,947	6,493	6,437	8,656	12,522
15 Northwestern U.	11,373	13,733	13,776	16,108	8,865	10,383	10,134	11,484
16 U. NC Chapel Hill	10,080	12,652	13,446	16,045	7,556	10,150	9,294	12,455
17 U. MA Amherst	11,267	10,509	13,387	15,688	5,667	5,467	7,103	8,567
18 U. WI Madison	14,758	12,935	15,214	15,546	8,094	7,301	8,053	9,174
19 OH State U. all campuses	13,141	12,174	14,174	15,512	5,529	6,734	7,691	8,271
20 U. MI all campuses	9,009	10,957	11,623	15,191	7,317	8,722	9,041	11,202
21 U. CO all campuses	12,251 i	14,229	15,623	15,164	10,281 i	12,242	13,602	13,251
22 IN U. all campuses	10,812	14,316	13,737	14,701	5,988	6,212	5,584	6,503
23 LA State U. all campuses	8,543	8,632	11,104	14,200	5,254	5,828	7,005	7,470
24 FL State U.	11,631	11,635	13,709	13,321	4,229	3,873	4,015	5,344
25 Purdue U. all campuses	11,260	12,194	13,553	13,268	6,958	7,831	8,496	8,219
26 MI State U.	8,247	10,488	14,142	13,230	4,486	5,425	6,186	7,452
27 SUNY Buffalo all campuses	6,852	5,711	10,407	12,382	3,403	2,194	5,243	5,895
28 U. UT	8,420	10,086	10,349	12,247	7,172	7,483	7,186	7,902
29 VA Polytechnic Institute and State U.	7,724	6,461	9,524	11,694	3,435	2,621	4,577	6,598
30 U. FL	10,070	11,359	12,154	11,594	6,088	7,180	7,901	7,262
31 Rutgers, The State U. NJ all campuses	12,351	13,190	16,891	11,365	8,071	7,972	11,031	7,011
32 Johns Hopkins U., The <sup>a</sup>	12,616	12,124	10,512	11,330	12,217	11,681	10,090	10,753
33 Princeton U.	9,850	11,314	11,316	11,278	6,068	6,291	7,920	7,397
34 U. Akron all campuses	8,214	8,108	10,091	11,260	2,507	3,179	3,669	3,561
35 U. PA	12,886	11,110	11,107	11,165	11,992	10,112	10,158	9,505
36 U. AZ	9,699	9,908	9,253	10,874	7,265	7,336	6,853	8,174
37 U. CA, Irvine	9,683	9,863	9,949	10,856	6,979	7,180	7,196	7,175
38 Emory U.	7,155	8,037	7,526	10,667	4,917	5,537	4,615	5,729
39 U. of Notre Dame	10,010	8,960	11,252	10,657	8,826	8,177	8,886	9,559
40 U. OK all campuses	12,512	10,574	12,853	10,237	7,377	6,025	6,871	2,566
41 AZ State U. main campus	8,979	12,416	8,244	10,162	4,304	5,237	4,401	5,513
42 U. MD College Park	6,197	7,242	8,480	10,067	5,060	5,825	6,624	7,448
43 GA Institute of Technology all campuses	9,962	9,027	8,948	9,652	4,127	4,236	4,356	4,934
44 U. Pittsburgh all campuses	7,459	7,943	7,668	9,630	6,436	6,812	6,628	8,516
45 U. MN all campuses	8,472	8,860	9,372	9,569	6,122	6,476	6,866	7,051
46 Rice U.	6,605	7,390	9,273	9,294	4,856	5,627	7,469	7,421
47 SUNY Stony Brook all campuses	6,774	6,730	8,203	9,007	4,773	4,446	5,735	6,287
48 U. DE	5,418	6,043	6,332	8,931	3,576	4,023	4,050	6,894
49 U. SC all campuses	9,321	9,228	12,358	8,911	5,826	5,316	5,557	4,468
50 U. Southern CA	7,551	8,010	6,859	8,890	5,762	5,187	4,484	5,321

TABLE 46. Total and federally financed R&D expenditures in chemistry at universities and colleges, ranked by FY 2003 total for the first 100 institutions: FY 2000–03

(Dollars in thousands)

Institution and ranking	Total				Federally financed R&D expenditures			
	2000	2001	2002	2003	2000	2001	2002	2003
51 U. Chicago	8,676	9,403	7,387	8,802	6,519	5,643	6,020	6,775
52 U. VA all campuses	7,697	6,583	7,535	8,377	5,892	5,328	6,498	7,234
53 NC State U.	7,813	11,143	8,829	8,198	4,925	5,427	3,954	3,666
54 Yale U.	6,888	6,751	6,964	8,062	5,369	5,854	5,199	5,991
55 Columbia U. in the City of NY	7,072	7,983	6,628	7,746	6,747	7,306	6,145	7,341
56 U. Southern MS	3,960	4,741	6,506	7,637	2,861	3,447	4,597	5,636
57 U. CA, Davis	5,972	6,771	6,249	7,526	4,752	5,645	4,783	5,488
58 U. GA	6,560	6,977	6,735	7,521	1,736	2,087	2,077	2,607
59 U. CA, Santa Barbara	7,056	6,656	6,545	7,318	4,946	4,657	5,031	5,708
60 IA State U.	5,139	5,503	7,307	6,702	2,272	2,860	3,508	4,190
61 U. CA, Santa Cruz	5,610	5,838	6,274	6,656	3,557	3,852	4,464	5,055
62 CO State U.	5,666	5,917	7,508	6,617	4,230	4,916	5,705	5,372
63 Washington U. St. Louis	4,975	5,035	5,993	6,547	3,643	3,826	4,470	4,744
64 Boston C.	5,230	5,843	6,223	6,330	3,914	4,331	5,074	5,222
65 U. IL Chicago	4,075	4,023	6,335	6,319	2,765	2,793	3,460	4,402
66 WA State U.	2,466	3,048	5,902	6,266	2,013	2,245	2,740	2,685
67 CUNY Hunter C.	3,344	4,101	3,943	5,994	2,267	2,682	2,959	4,486
68 U. KY all campuses	4,787	4,121	4,391	5,819	3,159	3,249	2,174	3,332
69 Clemson U.	3,777	3,933	4,786	5,667	1,029	1,835	2,296	2,927
70 NM State U. all campuses	1,732	2,826	5,591	5,488	1,275	2,732	4,890	4,901
71 TX Tech U.	3,208	4,150	5,708	5,479	732	1,129	1,290	1,627
72 U. AR main campus	2,517	3,273	6,945	5,469	1,536	2,134	5,483	4,151
73 Duke U.	4,210	4,417	5,921	5,416	2,403	2,619	3,276	3,824
74 NY U.	2,838	2,456	3,637	5,300	2,068	2,168	3,346	4,592
75 U. TX Dallas	1,857	1,857 e	2,655	5,209	770	770 e	1,307	2,459
76 OK State U. all campuses	2,468	2,363	2,776	5,150	1,033	932	1,463	2,991
77 Wayne State U.	5,760	6,874	8,233	5,136	3,984	4,053	4,457	4,520
78 MT State U. Bozeman	4,331	4,542	5,521	5,109	2,869	3,632	4,129	4,313
79 U. AL Huntsville, The	1,837	5,413	6,882	5,080	1,023	3,665	4,943	3,647
80 ND State U. all campuses	3,467	2,894	4,492	4,958	2,606	2,008	3,468	3,870
81 U. TN all campuses	3,660	3,044	3,998	4,937	2,137	2,467	2,852	3,517
82 Carnegie-Mellon U.	2,033	2,867	4,326	4,904	1,622	2,341	3,086	3,668
83 Brown U.	4,140	4,330	4,272 i	4,821 i	2,290	2,158	2,153 i	2,518 i
84 U. CA, Riverside	4,422	4,859	4,900	4,725	3,053	3,104	3,379	3,605
85 Vanderbilt U.	3,227	3,171	4,355	4,546	2,910	2,717	3,632	3,714
86 U. NE central administration	6,297	5,681	5,812	4,522	3,562	3,644	3,063	2,397
87 U. Houston	5,411	6,074	4,121	4,330	2,437	2,889	2,080	2,310
88 VA Commonwealth U.	5,338	5,269	4,571	4,328	2,936	3,466	2,665	2,516
89 U. OR	3,265	3,969	4,279	4,315	2,614	3,256	3,283	3,290
90 U. Central FL	4,146	3,714	1,885	4,185	824	1,234	1,581	3,890
91 GA State U.	1,581	2,158	2,395	4,116	355	513	1,017	1,756
92 U. IA	3,560	3,820	4,139	4,091	2,232	2,427	2,655	3,170
93 Rockefeller U.	1,584	1,929	3,169	4,004	1,133	1,497	2,153	2,917
94 U. MD Baltimore County	2,237	3,280	3,760	3,950	1,954	3,012	3,112	3,541
95 U. KS all campuses	7,134	3,099	3,420	3,856	4,725	1,142	1,864	2,033



TABLE 46. Total and federally financed R&D expenditures in chemistry at universities and colleges, ranked by FY 2003 total for the first 100 institutions: FY 2000–03

(Dollars in thousands)

Institution and ranking	Total				Federally financed R&D expenditures			
	2000	2001	2002	2003	2000	2001	2002	2003
96 U. WY	2,483	2,482	2,482 e	3,836	1,194	1,739	1,739 e	1,842
97 Boston U.	2,228	2,557	3,059	3,827	2,070	2,374	2,904	3,567
98 U. Cincinnati all campuses	2,557	2,873	3,288	3,796	911	707	1,128	1,406
99 U. CT all campuses	3,689	3,666	3,698	3,792	1,836	1,696	2,164	2,625
100 Georgetown U.	4,569	4,870	3,834	3,757	3,634	4,515	2,887	2,798
All other sampled institutions	195,688	198,534	217,112	227,332	120,048	121,343	134,206	144,450

e = estimated.

i = imputed.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 47. Total and federally financed R&D expenditures in physics at universities and colleges, ranked by FY 2003 total for the first 100 institutions: FY 2000–03

(Dollars in thousands)

Institution and ranking	Total				Federally financed R&D expenditures			
	2000	2001	2002	2003	2000	2001	2002	2003
All institutions	1,207,233	1,240,559	1,286,945	1,420,231	901,923	927,024	975,493	1,088,184
1 CA Institute of Technology	61,073	58,873	59,403	101,601	57,536	57,498	59,051	101,470
2 Johns Hopkins U., The <sup>a</sup>	50,215	52,412	58,558	58,531	49,549	51,802	58,028	57,604
3 MA Institute of Technology	56,131	58,449	60,509	56,334	55,491	57,628	59,772	56,151
4 U. CA, Berkeley	49,397	48,272	47,182	47,923	34,223	34,352	34,841	36,985
5 U. TX Austin	36,507	37,520	38,683	38,079	31,781	33,578	34,366	31,910
6 MI State U.	31,541	34,944	33,259	37,123	20,540	23,494	20,963	22,862
7 U. CA, Los Angeles	27,683	32,337	35,062	37,110	17,389	19,839	20,880	24,547
8 Cornell U. all campuses	37,188	34,050	34,326	36,036	30,174	29,203	27,487	29,908
9 FL State U.	31,797	30,696	35,655	35,502	17,463	15,597	20,794	20,708
10 PA State U. all campuses	18,668	21,380	24,027	27,865	13,234	13,571	16,947	19,825
11 U. IL Urbana-Champaign	24,871	21,004	21,795	22,969	19,253	14,586	14,877	16,489
12 U. MD College Park	24,791	18,202	18,175	21,363	16,989	13,938	14,512	15,482
13 U. WI Madison	21,817	22,952	22,052	20,733	16,927	17,960	17,726	16,094
14 IN U. all campuses	18,017	19,987	19,699	18,847	10,922	10,820	11,672	10,823
15 U. CO all campuses	17,121 i	14,088	15,999	18,623	15,265 i	12,725	14,484	17,171
16 SUNY Stony Brook all campuses	16,515	17,331	17,539	18,157	10,844	11,335	10,974	11,289
17 U. CA, San Diego	13,057	13,566	16,067	18,116	9,776	10,310	11,711	13,587
18 U. Central FL	9,510	13,040	13,760	17,179	2,282	4,129	5,579	8,580
19 U. MS all campuses	9,505	12,706	14,333	16,752	9,025	11,279	12,535	14,530
20 U. MI all campuses	11,496	13,013	14,264	16,214	10,070	10,959	11,277	13,155
21 Rutgers, The State U. NJ all campuses	11,417	13,677	14,532	15,399	4,508	5,194	5,303	6,116
22 U. FL	7,652	9,209	13,727	14,956	4,673	5,767	8,499	10,064
23 U. MN all campuses	13,407	24,214	11,383	14,478	10,068	18,143	10,125	11,804
24 Harvard U.	10,173	12,745	16,076	14,139	9,823	12,225	15,613	13,736
25 U. PA	11,894	12,585	12,502	14,126	10,171	11,569	11,340	11,617
26 OH State U. all campuses	9,549	10,086	11,843	14,104	6,032	6,166	6,763	7,781
27 U. WA	15,090	16,869	11,687	14,023	12,365	12,395	10,257	12,506
28 GA Institute of Technology all campuses	11,179	11,843	12,682	13,484	4,632	5,557	6,173	9,099
29 NC State U.	11,036	14,006	10,489	13,301	6,533	6,411	4,617	5,490
30 Princeton U.	13,369	14,002	13,090	13,232	10,546	11,172	10,469	9,644
31 U. CA, Santa Barbara	16,394	12,191	13,485	12,592	12,215	9,260	9,530	8,878
32 Yale U.	10,994	12,335	12,984	12,289	9,936	11,121	11,788	11,061
33 U. CA, Irvine	6,800	7,830	10,337	11,755	4,431	5,151	6,938	7,555
34 U. IA	11,282	10,259	12,967	11,678	9,137	9,272	10,669	9,764
35 Duke U.	9,078	8,960	10,916	11,214	8,768	8,180	9,778	10,266
36 TX A&M U. all campuses	7,568	7,363	9,224	11,009	4,255	4,360	5,407	6,825
37 Wayne State U.	5,923	7,642	7,825	10,870	1,130	3,400	4,054	2,431
38 Vanderbilt U.	9,638	6,732	6,333	9,400	7,763	5,588	5,526	6,986
39 IL Institute of Technology	939	940	7,489	9,053	756	634	2,312	3,648
40 U. CA, Santa Cruz	5,226	8,501	6,243	8,628	3,458	3,527	3,467	5,342
41 Northeastern U.	9,463	7,019	5,892	8,186	8,685	5,467	4,378	6,904
42 U. NE central administration	5,304	4,757	7,090	8,080	2,230	2,645	4,542	5,287
43 KS State U.	5,717	7,396	8,199	8,058	4,953	6,502	7,070	7,598
44 MT State U. Bozeman	6,381	7,257	7,277	7,958	5,210	5,900	5,647	6,739
45 Purdue U. all campuses	8,835	8,267	8,119	7,917	5,846	5,303	5,996	6,531
46 Stanford U.	5,007	6,103	5,423	7,486	4,698	5,770	5,042	6,902
47 U. TN all campuses	7,273	6,535	6,405	7,445	4,308	5,019	5,139	5,203
48 LA State U. all campuses	8,929	8,237	8,483	7,353	4,542	5,033	5,274	4,260
49 Temple U.	3,702	6,012	5,948	7,319	3,219	5,598	5,427	6,792
50 U. Chicago	10,447	8,821	11,979	7,198	9,875	8,270	7,674	5,842

TABLE 47. Total and federally financed R&D expenditures in physics at universities and colleges, ranked by FY 2003 total for the first 100 institutions: FY 2000–03

(Dollars in thousands)

Institution and ranking	Total				Federally financed R&D expenditures			
	2000	2001	2002	2003	2000	2001	2002	2003
51 U. Rochester	7,820	8,395	7,675	7,140	7,474	7,492	6,977	6,333
52 U. TX M. D. Anderson Cancer Ctr.	3,707	4,409	4,936	7,097	2,670	3,172	3,452	4,956
53 U. IL Chicago	4,111	5,084	6,583	6,914	2,647	3,179	4,308	4,458
54 U. AZ	5,368	4,619	5,763	6,814	4,364	3,693	4,759	5,503
55 WA State U.	2,348	2,623	5,934	6,750	2,077	2,344	5,195	5,941
56 Washington U. St. Louis	5,560	7,905	6,563	6,688	4,205	5,818	5,481	5,511
57 U. of Notre Dame	5,242	4,986	6,362	6,573	4,291	4,637	5,891	6,356
58 CO School of Mines	5,265	4,918	5,500	6,554	4,946	4,530	5,041	6,202
59 Boston U.	4,417	4,629	4,780	6,496	4,374	4,535	4,696	6,401
60 Carnegie-Mellon U.	5,041	5,646	6,344	6,359	4,342	4,910	4,948	5,502
61 Northwestern U.	5,061	5,218	5,419	6,235	3,577	3,492	3,321	4,165
62 NJ Institute of Technology	1,382	4,939	5,469	6,099	693	2,848	2,901	3,874
63 U. UT	4,051	4,319	5,391	5,910	3,092	3,019	4,559	4,487
64 U. Pittsburgh all campuses	3,929	4,310	4,992	5,895	3,326	3,694	4,398	5,092
65 Brown U.	4,666	5,216	5,155 i	5,847 i	2,481	2,978	2,973 i	3,477 i
66 Northern IL U.	2,313	2,749	3,855	5,820	1,171	1,158	1,421	2,923
67 U. NC Chapel Hill	7,500	4,509	5,170	5,437	6,240	3,605	4,031	4,161
68 U. VA all campuses	3,515	3,407	5,213	5,406	3,262	3,146	4,764	4,936
69 U. OK all campuses	3,037	3,116	4,910	5,343	1,517	1,629	2,630	2,916
70 U. MA Lowell	3,194	3,556	3,390	5,341	2,514	2,863	2,798	4,629
71 Rice U.	2,890	3,312	4,202	5,307	2,559	2,920	3,708	4,646
72 U. NM all campuses	8,172	3,492	5,424	5,277	6,459	3,174	5,015	4,645
73 AL A&M U.	1,700	2,471 i	1,979	5,203 i	1,600	2,016 i	1,715	4,859 i
74 U. NV, Reno	2,908	2,952	3,585	4,984	2,908	2,935	3,520	4,702
75 Catholic U. America, The	1,377	3,053	4,293	4,892	1,347	2,833	3,526	3,994
76 U. MA Amherst	8,238	4,295	4,105	4,891	4,612	2,019	1,941	2,608
77 U. CA, Davis	4,772	4,872	5,345	4,844	3,133	3,206	3,216	3,192
78 Hampton U.	3,637	7,115	6,920	4,660	3,358	6,424	6,049	4,440
79 U. AL Huntsville, The	6,348	4,356	5,592	4,624	4,603	3,492	4,470	3,763
80 U. SC all campuses	3,600	4,508	4,774	4,565	2,250	2,842	3,239	2,404
81 Clemson U.	3,219	4,114	3,547	4,388	877	2,528	2,333	2,854
82 U. GA	3,508	3,893	4,410	4,299	1,281	1,290	1,798	1,491
83 U. OR	4,002	3,942	4,414	4,145	3,461	3,510	3,931	3,584
84 U. HI Manoa	2,592	4,044	4,765	4,038	2,353	3,797	4,677	3,951
85 OK State U. all campuses	3,642	3,475	3,002	3,972	1,088	1,056	1,436	2,191
86 U. KS all campuses	1,856	2,452	4,068	3,913	1,343	1,328	2,830	2,843
87 IA State U.	4,093	5,033	2,911	3,897	2,442	2,951	2,246	2,399
88 Case Western Reserve U.	1,754	2,243	2,854	3,890	1,422	2,088	2,709	3,075
89 U. CA, Riverside	3,205	2,309	2,334	3,711	2,525	1,984	2,087	3,135
90 AZ State U. main campus	3,893	4,258	3,438	3,646	2,802	2,724	2,696	2,742
91 U. AR main campus	3,043	3,729	4,391	3,604	1,322	2,568	2,598	1,940
92 Air Force Institute of Technology	1,236	1,059	1,580	3,580	940	382	662	2,786
93 SUNY Buffalo all campuses	2,407	3,342	3,181	3,550	724	1,915	2,254	2,459
94 TX Tech U.	2,022	1,878	2,936	3,524	911	735	1,413	1,702
95 CUNY City C.	3,377	2,707	2,799	3,405	2,627	1,924	2,255	2,258

TABLE 47. Total and federally financed R&D expenditures in physics at universities and colleges, ranked by FY 2003 total for the first 100 institutions: FY 2000–03

(Dollars in thousands)

Institution and ranking	Total				Federally financed R&D expenditures			
	2000	2001	2002	2003	2000	2001	2002	2003
96 NY U.	2,362	2,287	2,857	3,397	1,829	1,997	2,476	3,391
97 Syracuse U. all campuses	2,721	2,703	2,837	3,311	2,648	2,619	2,674	3,167
98 C. of William and Mary all campuses	2,860	2,872	4,469	3,310	2,479	2,461	4,095	2,984
99 U. KY all campuses	3,281	3,588	3,376	3,307	1,870	2,058	2,244	1,965
100 Naval Postgraduate School	2,598 i	3,028 i	3,455 i	3,285	2,482 i	2,876 i	3,271 i	3,076
All other sampled institutions	181,827	175,409	162,722	180,307	118,906	114,428	110,572	125,274

i = imputed.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 48. R&D expenditures in the environmental sciences at universities and colleges, ranked by all FY 2003 environmental sciences for the first 100 institutions: FY 2000–03 and by subfield for FY 2003

(Dollars in thousands)

Institution and ranking	2003							
	2000	2001	2002	All environmental sciences	Atmospheric sciences	Earth sciences	Oceanography	Environmental sciences, nec
All institutions	1,765,216	1,831,493	2,019,849	2,187,841	395,823	724,248	773,572	294,198
1 U. CA, San Diego	115,186	119,096	114,136	116,885	7,268	28,723	79,901	993
2 Woods Hole Oceanographic Institution	64,910	71,849	77,560	86,293	6,317 i	28,191 i	22,582 i	29,203 i
3 TX A&M U. all campuses	85,330	80,789	81,950	85,351	4,498	4,564	63,777	12,512
4 U. WA	64,112	73,448	71,330	82,846	18,441	6,485	57,920	0
5 U. AK Fairbanks all campuses	21,644	30,488	71,747	74,882	40,325	10,724	23,833	0
6 U. CO all campuses	62,770 i	51,590	60,896	65,638	20,645	44,018	236	739
7 Columbia U. in the City of NY	49,198	46,375	52,455	52,298	5,500	270	43,813	2,715
8 U. HI Manoa	51,453	47,185	45,908	45,283	4,385	10,041	28,284	2,573
9 U. WI Madison	28,001	29,040	34,220	44,557	29,994	4,665	3,565	6,333
10 PA State U. all campuses	20,396	22,550	27,679	43,134	14,127	24,941	4,066	0
11 CO State U.	14,402	15,671	38,167	42,779	26,407	16,372	0	0
12 U. NH	36,418	40,098	38,664	41,807	8,599	15,333	17,875	0
13 U. Miami	28,353	30,957	37,275	40,808	19,582	37	18,296	2,893
14 U. MD Ctr. for Environmental Science	31,605	36,635	38,501	38,344	0	4,407	33,937	0
15 U. IL Urbana-Champaign	28,497	33,855	36,157	37,822	3,296	33,069	548	909
16 OR State U.	33,940	36,295	34,844	37,739	1,550	2,037	22,726	11,426
17 Johns Hopkins U., The <sup>a</sup>	37,558	36,577	35,791	35,703	6,421 i	2,331 i	10,281 i	16,670 i
18 C. of William and Mary all campuses	23,938	24,956	26,493	30,325	0	343	29,971	11
19 U. OK all campuses	29,158	29,571	33,499	29,929	23,111	6,818	0	0
20 U. TX Austin	24,134	24,932	27,396	29,744	0	23,305	5,143	1,296
21 LA State U. all campuses	31,665	32,636	35,314	29,279	0	5,461	16,518	7,300
22 U. RI	23,212	24,245	23,869	28,756	0	978	27,704	74
23 U. CA, Davis	9,958	30,580	29,532	28,451	0	3,577	5,896	18,978
24 MA Institute of Technology	22,009	21,390	22,007	27,656	9,495	10,942	5,565	1,654
25 U. South FL	19,197	18,752	25,479	27,198	0	2,601	24,590	7
26 Rutgers, The State U. NJ all campuses	20,936	20,511	25,279	26,402	2,203	1,391	13,789	9,019
27 Desert Research Institute	19,513	22,765	22,123	24,623	15,605	9,018	0	0
28 U. CA, Santa Barbara	28,009	22,963	22,840	24,343	0	4,382	19,220	741
29 U. ME	15,214	19,969	18,952	21,337	0	9,261	12,076	0
30 SUNY Stony Brook all campuses	17,379	17,199	20,744	20,082	2,367	5,171	12,544	0
31 U. Southern CA	14,394	14,440	15,381	19,572	0	10,948	5,778	2,846
32 U. NC Chapel Hill	11,382	12,615	15,402	19,409	0	13,950	5,459	0
33 FL State U.	14,303	14,893	19,232	19,330	6,428	8,140	4,762	0
34 U. SC all campuses	15,868	16,449	20,297	19,142	0	7,181	6,877	5,084
35 Princeton U.	12,946	13,293	15,508	17,335	3,992	5,713	0	7,630
36 U. CA, Santa Cruz	13,839	13,048	15,367	16,826	0	3,463	10,586	2,777
37 U. NV, Las Vegas	10,579	11,713	14,920 i	16,714	0	15,370	0	1,344
38 U. CA, Los Angeles	14,893	14,774	14,824	16,351	4,875	3,625	0	7,851
39 U. MD Baltimore County	5,373	10,412	15,336	16,160	16,160	0	0	0
40 NC State U.	15,699	16,099	16,842	15,439	0	0	6,747	8,692
41 GA Institute of Technology all campuses	23,382	16,924	15,590	14,863	6,534	5,741	0	2,588
42 Harvard U.	13,868	13,765	15,095	14,786	1,595	2,180	64	10,947
43 U. Southern MS	6,238	5,703	10,964	14,433	0	391	14,042	0
44 CA Institute of Technology	13,846	10,771	13,131	13,651	0	13,651	0	0
45 U. GA	13,994	14,687	13,399	13,264	0	4,482	8,782	0
46 U. Central FL	8,250	9,416	9,238	12,584	12,584	0	0	0
47 Duke U.	7,556	8,406	9,425	12,357	0	2,634	2,945	6,778
48 U. MD College Park	6,402	9,464	10,949	12,339	4,602	7,737	0	0

TABLE 48. R&D expenditures in the environmental sciences at universities and colleges, ranked by all FY 2003 environmental sciences for the first 100 institutions: FY 2000–03 and by subfield for FY 2003

(Dollars in thousands)

Institution and ranking	2000	2001	2002	2003				
				All environmental sciences	Atmospheric sciences	Earth sciences	Oceanography	Environmental sciences, nec
49 U. CA, Riverside	11,115	3,849	12,273	12,090	0	4,197	7,893	0
50 U. DE	9,960	8,252	10,293	11,829	0	792	11,037	0
51 U. MN all campuses	12,762	13,528	12,055	11,819	0	5,771	501	5,547
52 TX Tech U.	7,842	11,425	10,489	11,421	0	998	0	10,423
53 Naval Postgraduate School	9,839 i	11,461 i	13,084 i	11,324	7,401	0	3,923	0
54 U. KS all campuses	10,919	10,900	11,261	11,291	0	11,232	59	0
55 U. AZ	10,343	10,549	10,219	11,113	3,010	8,103	0	0
56 AZ State U. main campus	11,532	9,798	10,379	10,985	0	10,985	0	0
57 San Jose State U.	9,427 e	7,968	9,517	10,832	851	272	9,626	83
58 Hampton U.	3,687	968	2,919	10,595	10,203	0	392	0
59 Stanford U.	8,111	8,270	8,809	10,193	0	6,899	3,294	0
60 U. CA, Berkeley	7,132	6,513	7,069	10,180	125	10,055	0	0
61 VA Polytechnic Institute and State U.	16,786	15,734	13,525	10,104	0	3,841	0	6,263
62 UT State U.	8,453	8,522	9,804	9,734	2,186	7,548	0	0
63 U. MI all campuses	6,307	5,378	5,524	9,729	0	9,567	162	0
64 NM Institute of Mining and Technology	6,535	7,361	9,004	9,465	0	6,114	0	3,351
65 OH State U. all campuses	7,512	8,746	9,231	9,267	0	4,348	0	4,919
66 U. CT all campuses	8,259	9,127	9,780	8,644	0	457	8,187	0
67 U. NV, Reno	6,552	6,464	6,909	8,477	163	6,428	0	1,886
68 George Mason U.	5,059	7,399	6,479	8,387	0	8,387	0	0
69 U. NE central administration	12,726	8,375	7,511	8,147	1,411	6,736	0	0
70 U. WY	7,968	6,483	6,483 e	8,076	4,011	4,065	0	0
71 U. MA Dartmouth	2,227	3,466	4,703	7,415	0	0	7,415	0
72 U. AL Huntsville, The	5,241	5,772	7,003	6,879	6,879	0	0	0
73 MI Technological U.	1,813	1,132	1,048	6,815	0	1,995	0	4,820
74 U. MD Biotechnology Institute	7,442	8,066	8,558	6,746	0	0	6,746	0
75 U. FL	3,830	5,873	5,470	6,458	0	3,464	2,994	0
76 MS State U.	3,540	6,298	6,752	6,248	0	307	0	5,941
77 WV U.	5,671	4,530	5,777	6,242	0	1,012	0	5,230
78 Cornell U. all campuses	4,221	3,790	6,117	6,203	0	3,682	59	2,462
79 Brown U.	5,370	5,499	5,683	6,200	0 i	5,836 i	0 i	364 i
80 IN U. all campuses	3,070	3,927	4,085	6,031	0	6,031	0	0
81 U. ID	4,656	4,284	3,944	5,626	0	3,682	0	1,944
82 U. PR Mayaguez Campus	3,642	4,534	4,763	5,396	0	640	4,756	0
83 SUNY Albany	6,379	7,226	5,693	5,382	5,382	0	0	0
84 U. ND all campuses	1,640	1,591	3,323	5,206	2,393	2,180	0	633
85 U. TN all campuses	9,330	6,736	5,865	5,182	0	1,865	0	3,317
86 U. CA, Irvine	3,373	3,982	6,857	5,135	0	0	0	5,135
87 IA State U.	3,803	4,370	4,192	4,977	0	4,977	0	0
88 Washington U. St. Louis	4,374	4,615	4,971	4,812	0	4,812	0	0
89 U. TX El Paso	4,423	5,467	5,268	4,676	0	4,676	0	0
90 U. UT	4,040	4,989	5,097	4,531	1,999	2,532	0	0
91 U. NC Wilmington	5,070	4,503	5,922	4,516	0	21	4,495	0
92 U. Memphis, The	4,095	3,753	4,340	4,473	0	4,324	0	149
93 U. WI Milwaukee	3,675	3,699	4,008	4,472	0	170	4,271	31
94 U. MA Amherst	3,887	4,537	4,550	4,261	0	2,822	148	1,291
95 Tarleton State U.	3,717	3,945	4,103	4,161	0	4,161	0	0
96 U. Chicago	5,663	4,526	4,559	4,092	0	4,092	0	0
97 CUNY Hunter C.	536	490	3,697	4,014	0	3,937	77	0

TABLE 48. R&D expenditures in the environmental sciences at universities and colleges, ranked by all FY 2003 environmental sciences for the first 100 institutions: FY 2000–03 and by subfield for FY 2003

(Dollars in thousands)

Institution and ranking	2000	2001	2002	2003				
				All environmental sciences	Atmospheric sciences	Earth sciences	Oceanography	Environmental sciences, nec
98 U. NM all campuses	1,953	1,961	2,017	3,961	1,009	2,937	0	15
99 Jackson State U.	1,972	3,523	3,521	3,710	113	3,458	139	0
100 WA State U.	1,896	2,963	2,327	3,691	0	1,409	0	2,282
All other sampled institutions	164,934	174,537	181,312	201,779	21,781	107,769	26,700	45,529

e = estimated.

i = imputed.

nec = not elsewhere classified.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 49. Federally financed R&D expenditures in the environmental sciences at universities and colleges, ranked by all FY 2003 environmental sciences for the first 100 institutions: FY 2000–03 and by subfield for FY 2003

(Dollars in thousands)

Institution and ranking	2003							
	2000	2001	2002	All environmental sciences	Atmospheric sciences	Earth sciences	Oceanography	Environmental sciences, nec
All institutions	1,134,105	1,185,958	1,292,153	1,439,843	297,486	439,985	535,945	166,427
1 U. WA	58,356	66,244	61,985	76,736	16,527	5,802	54,407	0
2 U. CA, San Diego	72,813	71,006	72,667	71,454	4,620	12,981	53,520	333
3 Woods Hole Oceanographic Institution	54,235	60,302	63,761	70,050	4,763 i	24,536 i	17,794 i	22,957 i
4 U. CO all campuses	56,172 i	47,056	56,117	61,328	19,426	41,063	224	615
5 TX A&M U. all campuses	61,397	55,728	56,223	60,162	2,537	1,399	51,437	4,789
6 Columbia U. in the City of NY	46,838	44,889	49,623	49,381	4,362	227	42,077	2,715
7 U. AK Fairbanks all campuses	10,884	27,109	43,983	44,858	22,676	7,374	14,808	0
8 U. Miami	25,388	27,240	33,285	36,705	17,370	32	16,753	2,550
9 U. WI Madison	17,784	21,731	23,315	36,300	29,587	2,164	822	3,727
10 Johns Hopkins U., The <sup>a</sup>	35,596	34,923	34,678	33,989	6,421 i	2,161 i	10,274 i	15,133 i
11 U. HI Manoa	30,503	30,569	28,555	33,925	4,028	7,644	20,760	1,493
12 U. NH	24,122	25,935	28,454	33,370	6,408	12,623	14,339	0
13 OR State U.	28,487	30,081	29,777	32,385	1,482	1,376	20,990	8,537
14 CO State U.	12,451	13,143	27,743	31,928	21,168	10,760	0	0
15 U. RI	20,311	22,999	22,849	26,524	0	633	25,819	72
16 PA State U. all campuses	10,886	10,656	15,160	23,646	6,854	13,706	3,086	0
17 U. South FL	11,782	11,178	16,759	22,221	0	1,696	20,525	0
18 MA Institute of Technology	20,410	18,652	18,713	21,920	7,221	8,538	5,371	790
19 Desert Research Institute	14,685	16,435	16,553	17,204	10,075	7,129	0	0
20 U. MD Baltimore County	4,654	9,072	14,247	15,871	15,871	0	0	0
21 U. Southern MS	5,860	5,318	10,184	13,882	0	391	13,491	0
22 U. NV, Las Vegas	8,350	9,180	13,095 i	13,476	0	13,476	0	0
23 C. of William and Mary all campuses	7,847	9,213	9,630	13,398	0	315	13,072	11
24 U. IL Urbana-Champaign	10,468	11,765	10,021	13,144	2,421	10,143	339	241
25 Harvard U.	12,362	12,415	14,202	12,803	1,595	2,134	64	9,010
26 U. MD Ctr. for Environmental Science	10,805	12,105	13,080	12,654	0	753	11,901	0
27 U. CA, Davis	2,265	12,924	14,139	12,502	0	1,346	1,824	9,332
28 U. OK all campuses	14,805	13,597	12,890	12,299	11,159	1,140	0	0
29 U. Southern CA	9,513	10,499	11,194	12,160	0	8,281	3,094	785
30 SUNY Stony Brook all campuses	11,745	10,408	12,531	12,146	1,809	3,408	6,929	0
31 Rutgers, The State U. NJ all campuses	8,947	8,734	11,484	11,993	294	1,093	8,836	1,770
32 U. NC Chapel Hill	6,118	7,640	8,753	11,974	0	10,013	1,961	0
33 U. CA, Santa Barbara	17,649	13,227	11,565	11,931	0	2,124	9,588	219
34 U. ME	6,399	8,796	9,340	11,466	0	4,603	6,863	0
35 FL State U.	10,330	10,675	11,698	11,366	4,703	3,619	3,044	0
36 Princeton U.	8,035	7,812	9,857	11,261	3,466	4,280	0	3,515
37 CA Institute of Technology	11,353	10,319	11,207	10,916	0	10,916	0	0
38 U. CA, Los Angeles	8,514	8,561	8,520	10,745	4,382	2,957	0	3,406
39 Hampton U.	3,637	878	2,819	10,595	10,203	0	392	0
40 U. TX Austin	10,450	10,355	10,406	10,483	0	8,437	1,441	605
41 AZ State U. main campus	10,167	8,657	9,935	10,389	0	10,389	0	0
42 Naval Postgraduate School	9,543 i	11,061 i	12,575 i	10,284	6,929	0	3,355	0
43 U. SC all campuses	6,655	5,827	7,095	9,481	0	3,055	4,283	2,143
44 U. DE	6,630	5,955	6,769	9,064	0	665	8,399	0
45 U. MD College Park	4,604	7,068	8,112	8,805	3,249	5,556	0	0
46 George Mason U.	4,970	7,352	6,429	8,334	0	8,334	0	0
47 GA Institute of Technology all campuses	9,687	7,941	7,589	8,214	3,250	3,069	0	1,895
48 U. CA, Santa Cruz	5,864	6,209	7,613	8,029	0	1,844	5,510	675



TABLE 49. Federally financed R&D expenditures in the environmental sciences at universities and colleges, ranked by all FY 2003 environmental sciences for the first 100 institutions: FY 2000–03 and by subfield for FY 2003

(Dollars in thousands)

Institution and ranking	2000	2001	2002	2003				
				All environmental sciences	Atmospheric sciences	Earth sciences	Oceanography	Environmental sciences, nec
49 Stanford U.	6,029	5,926	5,881	7,394	0	5,725	1,669	0
50 U. Central FL	1,543	2,803	3,543	7,374	7,374	0	0	0
51 LA State U. all campuses	9,649	10,665	12,047	7,277	0	1,116	5,210	951
52 TX Tech U.	3,054	5,897	6,857	7,241	0	387	0	6,854
53 VA Polytechnic Institute and State U.	14,804	12,693	10,984	7,234	0	1,768	0	5,466
54 U. AZ	6,209	6,523	6,211	7,012	1,860	5,152	0	0
55 San Jose State U.	4,363 e	4,283	4,996	6,610	708	189	5,713	0
56 Duke U.	4,638	4,719	5,263	6,291	0	1,820	860	3,611
57 NC State U.	6,094	5,239	5,083	5,921	0	0	1,610	4,311
58 U. MN all campuses	5,940	6,566	5,501	5,858	0	2,705	346	2,807
59 U. NV, Reno	4,307	4,122	4,476	5,844	112	5,649	0	83
60 U. CT all campuses	4,573	5,052	6,181	5,820	0	332	5,488	0
61 OH State U. all campuses	3,953	5,287	4,764	5,441	0	1,996	0	3,445
62 U. CA, Berkeley	3,734	3,515	3,561	5,342	0	5,342	0	0
63 MS State U.	2,522	5,185	5,795	5,314	0	31	0	5,283
64 U. AL Huntsville, The	4,261	4,650	5,166	5,113	5,113	0	0	0
65 U. MI all campuses	4,319	3,232	3,057	4,768	0	4,649	119	0
66 U. GA	4,845	5,628	4,789	4,690	0	1,024	3,666	0
67 U. ND all campuses	1,618	1,573	2,877	4,657	2,099	2,126	0	432
68 U. CA, Riverside	2,520	1,153	3,401	4,595	0	2,521	2,074	0
69 U. NC Wilmington	3,839	4,255	5,752	4,350	0	21	4,329	0
70 WV U.	2,180	2,629	4,025	4,284	0	558	0	3,726
71 U. TX El Paso	3,769	4,894	4,693	4,004	0	4,004	0	0
72 U. Chicago	5,111	4,148	4,391	3,977	0	3,977	0	0
73 U. WY	3,873	3,984	3,984 e	3,964	2,197	1,767	0	0
74 Brown U.	3,377	3,756	3,601	3,901	0 i	3,857 i	0 i	44 i
75 U. FL	1,924	2,897	2,732	3,750	0	1,852	1,898	0
76 MI Technological U.	1,501	710	873	3,589	0	782	0	2,807
77 U. NM all campuses	1,735	1,825	1,674	3,412	906	2,506	0	0
78 Jackson State U.	1,743	3,123	3,006	3,336	102	3,109	125	0
79 Boston U.	2,918	2,960	2,824	3,303	0	657	0	2,646
80 U. ID	2,685	2,171	2,152	3,272	0	2,144	0	1,128
81 IA State U.	2,071	2,640	2,332	3,252	0	3,252	0	0
82 U. NE central administration	7,265	3,880	2,863	3,245	1,395	1,850	0	0
83 SUNY Albany	3,207	3,362	2,961	3,213	3,213	0	0	0
84 Cornell U. all campuses	2,098	1,722	2,797	3,211	0	2,233	22	956
85 U. CA, Irvine	1,982	2,660	2,979	3,107	0	0	0	3,107
86 U. MA Dartmouth	645	1,423	1,351	3,062	0	0	3,062	0
87 U. UT	3,453	3,761	3,548	2,963	1,861	1,102	0	0
88 UT State U.	3,053	3,048	2,895	2,944	1,697	1,247	0	0
89 U. TN all campuses	5,444	4,865	3,570	2,909	0	1,183	0	1,726
90 U. PR Mayaguez Campus	1,826	2,245	2,040	2,899	0	43	2,856	0
91 U. TX Dallas	1,020	1,020 e	2,991	2,860	2,860	0	0	0
92 Washington U. St. Louis	2,757	2,508	2,588	2,795	0	2,795	0	0
93 Yale U.	2,317	1,836	2,236	2,693	403	2,019	242	29
94 U. VA all campuses	4,865	4,382	4,081	2,426	2,426	0	0	0
95 SD School of Mines and Technology	2,125	1,904	1,663	2,377	2,377	0	0	0
96 Old Dominion U.	3,283	2,416	2,703	2,369	0	0	2,369	0
97 U. KS all campuses	2,547	2,383	2,526	2,360	0	2,360	0	0

TABLE 49. Federally financed R&D expenditures in the environmental sciences at universities and colleges, ranked by all FY 2003 environmental sciences for the first 100 institutions: FY 2000–03 and by subfield for FY 2003

(Dollars in thousands)

Institution and ranking	2000	2001	2002	2003				
				All environmental sciences	Atmospheric sciences	Earth sciences	Oceanography	Environmental sciences, nec
98 MT Tech of the U. MT	1,280	1,329	1,414	2,220	312	1,399	0	509
99 Purdue U. all campuses	2,683	2,683	2,681	2,088	759	379	0	950
100 WA State U.	1,614	2,612	1,529	2,031	0	778	0	1,253
All other sampled institutions	83,614	91,777	93,086	106,130	4,856	67,394	16,895	16,985

e = estimated.

i = imputed.

nec = not elsewhere classified.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 50. Total and federally financed R&D expenditures in the mathematical sciences at universities and colleges, ranked by FY 2003 total for the first 100 institutions: FY 2000–03

(Dollars in thousands)

Institution and ranking	Total				Federally financed R&D expenditures			
	2000	2001	2002	2003	2000	2001	2002	2003
All institutions	341,268	359,682	388,064	428,893	229,871	242,095	268,463	295,219
1 Johns Hopkins U., The <sup>a</sup>	24,195	23,901	25,826	26,304	24,072	23,763	25,558	25,310
2 George Washington U.	16,276	14,654	14,712	17,960	15,835	13,644	13,942	17,073
3 U. TX Austin	15,011	16,304	16,782	15,386	9,699	11,148	12,420	11,688
4 U. TX M. D. Anderson Cancer Ctr.	5,142	7,341	10,347	14,720	1,239	2,058	3,882	4,256
5 NC State U.	10,839	11,795	10,816	12,545	5,432	4,586	4,153	5,567
6 Boston C.	12,077	14,514	13,639	12,409	7,295	9,695	9,629	8,840
7 Rutgers, The State U. NJ all campuses	8,728	6,733	8,211	9,520	4,652	2,960	3,504	5,221
8 TX A&M U. all campuses	3,684	5,334	7,229	9,393	2,715	3,784	6,122	8,101
9 OH State U. all campuses	1,751	1,981	4,196	8,518	1,364	1,498	1,509	3,113
10 GA Institute of Technology all campuses	5,829	7,885	7,563	7,653	2,415	3,700	3,682	3,629
11 NY U.	5,555	6,780	6,275	7,392	4,746	6,562	5,779	6,742
12 IA State U.	6,907	6,276	7,620	7,194	3,182	2,597	3,733	2,791
13 U. FL	4,705	5,636	6,229	6,874	2,600	3,068	4,002	4,193
14 PA State U. all campuses	3,750	5,881	6,802	6,580	2,318	2,424	4,031	4,327
15 U. CA, Berkeley	5,730	6,070	7,474	6,417	4,476	4,707	5,881	4,952
16 SUNY Stony Brook all campuses	4,903	4,732	7,061	6,402	3,006	2,877	4,269	3,523
17 Brown U.	7,439	6,807	6,636	6,395	4,760	4,405	4,379	4,107
18 U. MN all campuses	4,327	4,682	5,921	5,909	3,579	3,974	4,133	4,257
19 U. IL Chicago	3,324	4,204	5,721	5,885	2,291	3,057	4,352	4,267
20 U. GA	4,732	5,243	5,681	5,881	598	736	1,117	1,368
21 Stanford U.	5,146	4,737	5,126	5,807	4,672	4,444	4,853	5,317
22 MA Institute of Technology	5,097	5,046	5,185	5,348	4,169	4,255	3,979	4,108
23 U. CA, Los Angeles	4,957	5,988	4,229	4,991	3,426	4,331	3,147	3,807
24 U. WI Madison	3,833	4,461	4,157	4,580	1,767	2,234	2,251	2,810
25 Princeton U.	3,158	3,663	4,151	4,286	1,928	2,110	2,772	2,886
26 U. IL Urbana-Champaign	2,597	2,730	3,565	4,226	1,316	1,576	2,227	2,674
27 U. MI all campuses	3,115	4,117	4,169	4,062	2,448	3,532	3,235	3,085
28 Purdue U. all campuses	3,277	3,797	4,636	4,009	1,533	2,015	2,543	2,938
29 U. WA	4,366	4,603	4,445	3,934	3,849	3,922	3,988	3,424
30 U. AZ	2,999	2,905	2,814	3,905	2,124	2,252	2,304	3,090
31 Western MI U.	3,038	3,712	4,159	3,673	2,225	2,165	2,815	2,481
32 George Mason U.	429	532	2,748	3,622	342	428	2,696	3,383
33 Rice U.	2,809	2,300	3,183	3,558	2,660	2,148	2,990	3,486
34 Naval Postgraduate School	3,650 i	4,252 i	4,854 i	3,380	3,591 i	4,160 i	4,731 i	3,380
35 U. Chicago	2,038	2,010	2,729	3,361	1,980	1,814	2,621	3,045
36 IN U. all campuses	2,077	2,133	2,334	3,350	1,033	1,084	1,377	1,959
37 U. Southern CA	2,387	2,337	2,662	3,221	2,202	1,971	2,397	2,400
38 Cornell U. all campuses	2,487	2,625	2,612	3,146	1,729	2,077	1,835	2,442
39 MI State U.	876	1,697	2,532	3,099	599	1,190	1,684	2,210
40 U. MA Amherst	2,298	2,900	3,124	3,086	1,653	2,112	2,007	1,916
41 U. MD College Park	1,015	1,507	2,370	3,084	865	821	1,087	1,521
42 Rockefeller U.	1,086	1,432	1,644	2,999	578	846	946	570
43 Carnegie-Mellon U.	3,757	3,224	3,064	2,977	3,322	2,868	2,292	2,692
44 U. of the VI	819 e	1,375 i	1,930 i	2,865 i	0 e	0 i	0 i	0 i
45 U. NE central administration	2,020	2,753	2,075	2,735	396	397	596	1,000
46 U. CA, San Diego	1,078	1,249	1,894	2,672	894	914	1,206	1,673
47 U. Houston	787	760	510	2,367	552	585	375	1,935
48 VA Polytechnic Institute and State U.	2,666	2,626	2,256	2,357	1,503	1,640	1,521	1,456
49 U. CO all campuses	2,144 i	1,979	1,651	2,334	1,948 i	1,764	1,479	1,955
50 U. PA	1,084	1,060	1,895	2,329	1,035	1,014	1,865	2,216

TABLE 50. Total and federally financed R&D expenditures in the mathematical sciences at universities and colleges, ranked by FY 2003 total for the first 100 institutions: FY 2000–03

(Dollars in thousands)

Institution and ranking	Total				Federally financed R&D expenditures			
	2000	2001	2002	2003	2000	2001	2002	2003
51 FL State U.	2,275	4,249	1,842	2,302	1,343	999	694	1,223
52 U. SC all campuses	9,911	3,105	2,309	2,238	2,108	1,424	1,259	1,109
53 AZ State U. main campus	1,677	1,976	2,011	2,218	960	1,285	1,576	1,576
54 U. CA, Davis	1,156	1,878	2,116	2,158	707	1,033	1,521	1,727
55 U. Memphis, The	738	785	1,254	2,153	620	703	1,161	1,161
56 Clemson U.	2,319	1,809	2,263	2,135	632	182	397	543
57 U. CA, Irvine	1,038	1,249	1,467	2,103	770	839	1,044	1,571
58 Harvard U.	1,887	1,769	1,571	2,102	1,853	1,654	1,554	2,084
59 TX A&M U. Corpus Christi	23	104	1,123	1,976	4	104	1,017	1,841
60 CO State U.	1,418	1,169	1,858	1,930	684	805	1,289	1,268
61 U. KY all campuses	692	619	745	1,928	506	396	515	1,425
62 Morgan State U.	878	588	588	1,903	878	588	588	1,903
63 CA Institute of Technology	701	360	366	1,902	691	347	366	1,850
64 LA State U. all campuses	1,346	1,615	1,341	1,876	318	531	400	450
65 Duke U.	1,666	1,672	2,040	1,856	1,545	1,564	1,880	1,530
66 NJ Institute of Technology	797	1,499	1,717	1,693	452	811	808	948
67 Boston U.	1,384	1,979	1,740	1,685	1,274	1,965	1,675	1,505
68 AL A&M U.	534	777 i	583	1,652 i	534	672 i	583	1,652 i
69 San Diego State U.	2,853	2,554	2,586	1,638	1,609	1,414	1,362	741
70 Rensselaer Polytechnic Institute	908	1,261	1,274	1,633	812	1,231	1,118	1,456
71 Jackson State U.	120	413	461	1,604	107	366	393	1,321
72 U. New Haven	13 e	1,492	1,492 e	1,604 i	11 e	1,492	1,492 e	1,386 i
73 SUNY Buffalo all campuses	1,265	777	613	1,569	217	474	408	480
74 U. CA, Santa Barbara	2,842	2,448	1,437	1,513	1,604	1,067	817	689
75 Tulane U.	730	893	1,742	1,511	564	747	1,494	1,341
76 OR State U.	316	324	767	1,500	185	188	610	1,265
77 U. NC Chapel Hill	797	1,087	1,034	1,496	719	910	826	1,187
78 U. IA	889	1,058	1,031	1,454	666	807	727	1,147
79 Columbia U. in the City of NY	1,096	762	901	1,439	1,031	721	901	1,439
80 U. Pittsburgh all campuses	919	1,146	1,212	1,418	802	951	1,095	1,345
81 U. VT	799	1,287	1,155	1,414	499	837	613	779
82 Ithaca C.	1,767	1,375	1,632	1,373	1,767	1,375	1,632	1,373
83 U. UT	1,356	1,006	1,218	1,352	1,130	917	1,022	1,167
84 U. MO-Columbia	1,335	1,335	1,004	1,325	581	632	665	942
85 U. of Notre Dame	529	659	568	1,274	462	629	568	1,180
86 U. MA Dartmouth	857	780	1,291	1,209	727	690	1,153	1,209
87 Yale U.	1,570	1,297	1,259	1,185	1,253	1,221	1,177	1,082
88 San Jose State U.	268 e	752	788	1,078	92 e	58	65	127
89 MS State U.	815	947	848	1,038	74	119	74	182
90 U. MT, The	400	314	261	1,018	387	262	213	624
91 Northwestern U.	1,229	840	891	996	920	670	746	853
92 U. MD Baltimore County	614	762	796	943	547	640	695	862
93 U. WI Milwaukee	557	699	985	933	184	402	368	386
94 Old Dominion U.	304	437	545	927	289	322	428	760
95 U. LA Lafayette	943	983	948	927	58	104	193	102

TABLE 50. Total and federally financed R&D expenditures in the mathematical sciences at universities and colleges, ranked by FY 2003 total for the first 100 institutions: FY 2000–03

(Dollars in thousands)

Institution and ranking	Total				Federally financed R&D expenditures			
	2000	2001	2002	2003	2000	2001	2002	2003
96 Grambling State U.	0	0 e	994	915	0	0 e	994	915
97 U. NM all campuses	681	837	827	908	642	784	746	849
98 Portland State U.	1,270	1,742	1,276	867	935	1,201	935	698
99 TX Tech U.	1,025	789	898	856	628	448	425	402
100 WA State U.	436	428	719	843	292	406	547	672
All other sampled institutions	49,331	49,733	50,233	48,623	31,585	32,196	31,738	31,708

e = estimated.

i = imputed.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory.

NOTE: Tied institutions are ranked alphabetically.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 51. Total and federally financed R&D expenditures in the computer sciences at universities and colleges, ranked by FY 2003 total for the first 100 institutions: FY 2000–03

(Dollars in thousands)

Institution and ranking	Total				Federally financed R&D expenditures			
	2000	2001	2002	2003	2000	2001	2002	2003
All institutions	876,393	956,065	1,125,446	1,304,480	583,621	644,280	770,334	936,484
1 U. IL Urbana-Champaign	61,032	55,729	75,064	111,009	41,162	37,891	51,913	85,040
2 Carnegie-Mellon U.	54,838	60,368	100,132	86,623	36,882	41,511	81,863	77,036
3 U. Southern CA	50,745	64,269	74,061	86,600	46,312	61,724	68,647	77,574
4 U. CA, San Diego	50,199	59,965	56,729	68,996	38,444	49,094	38,925	49,965
5 Johns Hopkins U., The <sup>a</sup>	70,525	70,155	70,528	66,160	69,244	69,178	69,580	63,943
6 GA Institute of Technology all campuses	34,339	35,925	38,892	51,608	14,227	16,857	18,933	27,721
7 MA Institute of Technology	34,384	34,618	41,283	45,413	23,290	23,241	24,501	26,804
8 U. MD College Park	19,617	21,229	32,233	31,902	12,029	12,515	20,222	20,462
9 U. TX Austin	24,350	23,502	27,376	28,749	18,970	20,605	24,985	25,717
10 Cornell U. all campuses	16,474	17,187	23,403	26,525	9,941	11,890	14,903	15,540
11 OH State U. all campuses	21,050	22,758	29,173	26,274	1,576	1,415	2,253	2,670
12 OR Health and Science U.	0	0	0 e	20,207	0	0	0 e	16,765
13 U. HI Manoa	412	722	10,115	19,430	317	689	10,073	19,351
14 U. CA, Los Angeles	7,681	11,313	11,091	17,869	5,190	5,305	7,561	9,861
15 PA State U. all campuses	5,878	4,250	4,303	17,294	4,346	3,016	3,378	14,130
16 U. UT	13,614	16,007	19,660	17,262	10,684	10,922	13,866	11,949
17 Stanford U.	13,732	15,459	15,166	16,794	11,573	12,701	12,834	14,241
18 U. MA Amherst	11,046	11,800	14,291	16,368	7,181	7,836	8,450	9,392
19 Naval Postgraduate School	4,711 i	5,488 i	6,264 i	13,759	4,656 i	5,395 i	6,135 i	13,493
20 U. WI Madison	8,441	9,910	11,517	13,145	6,079	6,770	7,928	9,974
21 U. CA, Santa Barbara	2,525	8,273	11,311	12,267	2,069	6,461	7,880	9,256
22 U. IL Chicago	2,082	1,156	8,567	12,245	1,634	727	6,003	9,142
23 U. AK Fairbanks all campuses	12,899	16,159	9,040	12,035	186	105	0	4,645
24 U. TN all campuses	7,981	10,451	9,520	11,719	2,787	5,806	5,097	6,629
25 U. MN all campuses	7,763	8,022	9,412	11,619	5,585	5,993	7,308	8,855
26 U. PA	9,034	8,939	10,539	11,073	7,664	7,658	9,393	9,583
27 Rice U.	10,590	8,995	9,075	10,614	10,251	8,688	7,882	8,801
28 CA Institute of Technology	5,969	4,402	6,906	10,446	5,559	4,340	6,696	10,446
29 IN U. all campuses	3,839	2,395	8,799	10,411	1,529	1,164	2,238	5,353
30 U. CA, Irvine	5,040	6,572	8,326	10,218	3,241	4,054	4,087	4,808
31 U. NC Chapel Hill	8,632	7,850	9,005	9,995	5,552	4,591	7,072	7,495
32 Purdue U. all campuses	7,220	8,528	9,733	9,588	2,995	2,850	3,852	5,135
33 Columbia U. in the City of NY	5,867	5,907	8,604	8,985	5,547	5,341	7,802	8,684
34 U. WA	4,872	6,295	7,130	8,771	4,050	5,316	6,383	8,031
35 SUNY Buffalo all campuses	7,413	7,489	9,720	8,474	2,015	2,220	3,344	3,908
36 NY U.	5,920	7,220	8,085	8,402	3,720	4,764	5,884	6,297
37 U. MI all campuses	9,110	10,184	7,384	7,365	3,386	5,261	2,561	4,114
38 Princeton U.	5,657	6,938	6,745	7,172	2,600	3,869	4,450	4,730
39 Brown U.	4,646	5,473	7,126	6,871	2,898	3,364	4,744	4,664
40 U. West FL	4,429	5,303	4,890	6,497	3,773	3,999	3,499	5,810
41 Rutgers, The State U. NJ all campuses	6,432	5,264	5,885	6,359	2,259	1,985	1,551	2,865
42 U. AL Huntsville, The	7,374	9,599	5,031	6,308	4,950	4,630	4,258	5,254
43 Syracuse U. all campuses	6,601	4,889	6,653	6,220	4,670	2,803	3,094	3,817
44 U. LA Lafayette	3,308	2,711	5,295	6,015	1,245	859	767	611
45 TX A&M U. all campuses	3,309	4,865	6,460	6,007	1,903	2,894	3,892	3,331
46 U. NE central administration	4,050	5,078	5,169	5,984	1,067	1,209	3,182	3,187
47 U. VA all campuses	3,544	4,020	4,723	5,980	3,242	3,137	4,168	5,550
48 U. CO all campuses	6,053 i	5,577	5,440	5,743	5,185 i	4,860	4,730	5,158
49 IA State U.	3,060	3,750	4,649	5,691	280	447	1,067	1,768
50 Duke U.	2,421	3,595	4,383	5,677	1,799	2,931	3,629	5,192

TABLE 51. Total and federally financed R&D expenditures in the computer sciences at universities and colleges, ranked by FY 2003 total for the first 100 institutions: FY 2000–03

(Dollars in thousands)

Institution and ranking	Total				Federally financed R&D expenditures			
	2000	2001	2002	2003	2000	2001	2002	2003
51 Rockefeller U.	1,907	3,237	3,767	5,594	167	605	742	684
52 Dartmouth C.	1,976	4,383	4,900	5,572	1,648	3,474	4,043	3,903
53 SUNY Stony Brook all campuses	2,956	3,245	6,166	5,518	1,744	1,962	2,660	3,382
54 U. AZ	4,686	6,158	7,954	5,503	3,488	4,325	5,447	3,969
55 Washington U. St. Louis	7,263	6,254	5,885	5,468	5,189	4,826	4,667	3,585
56 Yale U.	2,411	4,396	5,076	5,398	1,316	3,870	3,925	4,236
57 VA Polytechnic Institute and State U.	2,208	1,955	4,486	5,177	1,030	1,116	1,581	2,770
58 AZ State U. main campus	3,224	3,183	4,556	4,680	1,351	1,817	2,730	2,967
59 FL State U.	3,140	2,477	4,042	4,654	1,860	2,018	2,783	2,801
60 NC State U.	5,175	5,234	4,512	4,542	3,288	3,369	3,228	3,488
61 George Mason U.	1,007	1,201	3,350	4,384	940	1,048	3,278	4,243
62 MI State U.	3,677	3,745	4,542	4,237	1,791	1,684	2,408	2,396
63 U. Chicago	1,204	905	1,878	4,076	1,125	673	1,860	4,046
64 NJ Institute of Technology	212	2,800	4,252	3,967	212	278	645	972
65 U. KY all campuses	1,368	1,908	5,158	3,892	1,038	1,558	2,237	2,389
66 U. CA, Davis	2,563	2,053	2,677	3,812	1,628	989	1,246	1,936
67 U. CA, Santa Cruz	2,028	2,136	2,810	3,752	1,612	1,742	2,297	2,803
68 U. Pittsburgh all campuses	2,273	3,030	3,398	3,736	1,873	2,094	2,364	3,396
69 U. Houston	3,267	3,292	5,638	3,709	2,043	2,155	2,905	2,391
70 Jackson State U.	2,526	6,042	4,768	3,692	2,199	5,356	4,070	3,320
71 U. KS all campuses	3,619	4,198	1,383	3,595	576	228	45	264
72 U. FL	2,404	2,608	2,523	3,564	1,956	2,046	1,893	2,881
73 U. TX Dallas	853	853 e	2,735	3,476	226	226 e	1,091	1,889
74 U. Tulsa	229	541	1,178	3,202	183	418	953	2,938
75 U. OK all campuses	2,713	2,774	2,976	3,150	81	186	202	129
76 NM State U. all campuses	4,486	3,662	1,822	3,135	3,452	2,889	1,370	2,779
77 George Washington U.	0	0	2,722	3,130	0	0	1,775	2,907
78 Northwestern U.	3,700	3,899	2,808	2,991	1,893	2,145	2,258	1,942
79 LA State U. all campuses	2,076	2,993	3,301	2,950	291	281	488	514
80 Wright State U. all campuses	4,076	3,750	3,564	2,928	1,073	1,211	1,302	873
81 SUNY Albany	929	2,217	1,482	2,859	749	874	1,189	2,264
82 Drexel U.	1,212	1,626	3,152	2,855	255	1,138	2,146	2,043
83 U. AR Little Rock	85 i	378	378 e	2,762 i	85 i	378	378 e	1,405 i
84 U. NM all campuses	2,323	2,244	2,857	2,717	2,038	1,891	2,609	2,533
85 U. OR	3,075	2,379	2,162	2,686	2,683	2,133	2,142	2,655
86 U. GA	2,883	2,664	2,264	2,641	761	564	415	396
87 FL Institute of Technology	1,034	1,498	2,281	2,632	525	333	1,458	2,243
88 MS State U.	2,199	2,146	2,526	2,620	781	820	1,196	1,358
89 U. Rochester	2,307	2,288	2,763	2,486	2,226	2,082	2,516	2,244
90 U. AL, The	2,813	545	1,585	2,383	425	231	997	1,444
91 U. TX San Antonio	887	590	731	2,350	815	496	306	2,192
92 Rose-Hulman Institute of Technology	601	2,391	974	2,339	10	0	0	0
93 U. CA, Berkeley	2,078	825	506	2,315	1,065	500	485	2,029
94 CA State U. San Bernardino	266	537	313	2,300	177	310	256	1,861
95 Brandeis U.	1,242	1,319	1,746	2,120	1,185	1,274	1,471	1,791

TABLE 51. Total and federally financed R&D expenditures in the computer sciences at universities and colleges, ranked by FY 2003 total for the first 100 institutions: FY 2000–03

(Dollars in thousands)

Institution and ranking	Total				Federally financed R&D expenditures			
	2000	2001	2002	2003	2000	2001	2002	2003
96 U. CA, Riverside	439	1,322	2,297	2,108	249	591	1,747	1,781
97 Boston U.	915	997	1,258	2,103	872	976	1,078	1,964
98 Clemson U.	1,497	1,805	1,499	2,005	407	507	397	690
99 OR State U.	1,983	2,547	2,518	1,970	1,600	2,009	2,015	1,261
100 Bowie State U.	2,109 e	2,007	1,985	1,947	1,913 e	1,822	1,855	1,947
All other sampled institutions	85,581	94,275	90,456	96,060	53,783	59,881	55,722	60,843

e = estimated.

i = imputed.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.



TABLE 52. R&D expenditures in the life sciences at universities and colleges, ranked by all FY 2003 life sciences for the first 150 institutions: FY 2000–03 and by subfield for FY 2003

(Dollars in thousands)

Institution and ranking	2000	2001	2002	2003				
				All life sciences	Agricultural sciences	Biological sciences	Medical sciences	Life sciences, nec
All institutions	17,468,074	19,215,654	21,421,183	23,763,981	2,555,209	7,391,932	12,786,774	1,030,066
1 U. CA, San Francisco	429,541	509,607	569,703	642,645	0	61,621	581,024	0
2 U. CA, Los Angeles	368,030	493,355	573,899	613,990	6,659	24,164	583,167	0
3 Johns Hopkins U., The <sup>a</sup>	385,907	436,484	496,025	550,700	0	138,572	383,945	28,183
4 U. WA	372,339	406,532	436,160	474,742	19,075	124,234	311,786	19,647
5 Baylor C. of Medicine	334,175	381,461	411,924	461,763	0	237,343	224,420	0
6 U. PA	343,388	381,006	422,686	451,131	439	162,352	276,221	12,119
7 U. WI Madison	341,779	370,813	410,300	449,977	44,664	145,163	254,759	5,391
8 Duke U.	298,144	312,897	367,043	433,834	0	65,864	366,539	1,431
9 U. MI all campuses	305,904	325,083	364,265	432,951	7,192	122,533	244,181	59,045
10 Washington U. St. Louis	324,032	365,713	374,666	430,570	0	191,076	230,511	8,983
11 U. MN all campuses	297,925	336,099	372,169	372,029	62,884	64,602	235,350	9,193
12 U. CA, Davis	292,503	316,573	336,796	364,029	116,189	119,074	128,766	0
13 U. Pittsburgh all campuses	253,612	298,753	344,239	354,931	0	12,765	332,214	9,952
14 Cornell U. all campuses	243,158	284,381	314,857	348,401	75,694	78,523	194,184	0
15 Stanford U.	258,040	275,312	304,658	333,147	0	19,059	314,088	0
16 Yale U.	257,472	279,749	304,345	331,443	2,306	110,697	218,440	0
17 U. CA, San Diego	255,497	274,810	293,994	327,752	0	54,071	271,570	2,111
18 Harvard U.	251,246	278,884	307,150	314,500	0	71,591	242,559	350
19 Emory U.	192,492	221,105	255,462	305,031	0	54,005	190,824	60,202
20 U. NC Chapel Hill	204,646	235,300	277,423	304,618	0	129,799	145,126	29,693
21 Columbia U. in the City of NY	212,281	240,793	280,697	301,110	0	114,788	184,523	1,799
22 U. MD Baltimore	224,346	239,007	266,822	297,271	0	44,591	237,817	14,863
23 U. FL	220,588	238,143	260,138	295,557	111,340	58,708	118,105	7,404
24 U. TX M. D. Anderson Cancer Ctr.	173,347	200,996	246,862	283,543	0	133,393	150,150	0
25 U. TX Southwestern Medical Ctr. Dallas	189,216	222,376	263,958	276,692	0	122,035	154,194	463
26 U. AL Birmingham, The	216,304	216,201	238,232	262,742	0	80,500	179,415	2,827
27 OH State U. all campuses	194,937	197,406	214,313	255,354	51,748	72,744	107,610	23,252
28 U. AZ	180,467	203,319	222,892	248,857	60,461	75,743	109,167	3,486
29 U. CO all campuses	163,191	181,571	219,454	247,305	0	53,291	177,847	16,167
30 U. IA	183,099	199,891	227,210	230,028	0	55,773	147,960	26,295
31 U. Southern CA	162,756	185,096	205,018	225,942	0	14,013	200,561	11,368
32 Mt. Sinai School of Medicine	149,846	176,946	185,335	214,514	0	93,957	120,557	0
33 Vanderbilt U.	137,734	150,059	162,125	214,272	0	107,375	100,778	6,119
34 Northwestern U.	153,243	166,035	186,653	213,394	0	67,271	138,904	7,219
35 U. Cincinnati all campuses	135,543	154,214	176,777	211,405	0	62,101	140,722	8,582
36 IN U. all campuses	131,540	149,353	179,224	210,579	0	67,475	136,549	6,555
37 U. IL Chicago	142,203	171,420	186,570	210,330	0	53,627	145,433	11,270
38 U. GA	180,275	188,396	199,155	207,739	96,695	82,550	27,069	1,425
39 MI State U.	147,286	163,803	179,521	203,510	80,279	92,712	27,061	3,458
40 U. Rochester	124,571	156,659	175,565	197,436	0	52,101	137,060	8,275
41 LA State U. all campuses	147,295	160,836	168,782	195,419	59,956	77,352	57,571	540
42 NY U.	147,489	152,633	177,019	193,182	0	58,561	92,855	41,766
43 U. Chicago	121,687	147,810	176,233	191,112	0	62,497	126,964	1,651
44 U. of Medicine and Dentistry NJ	140,951	162,417	178,156	190,763	0	82,028	108,735	0
45 U. KY all campuses	145,901	154,696	156,833	187,045	50,440	58,746	73,423	4,436
46 Case Western Reserve U.	153,776	153,369	171,688	185,237	0	50,210	134,782	245
47 U. NE central administration	116,083	140,229	156,246	178,679	48,085	86,528	34,590	9,476
48 Yeshiva U.	139,618	148,230	157,124	177,236	0	42,962	96,665	37,609
49 Rockefeller U.	117,079	136,413	155,753	177,216	0	172,060	5,156	0

TABLE 52. R&D expenditures in the life sciences at universities and colleges, ranked by all FY 2003 life sciences for the first 150 institutions: FY 2000–03 and by subfield for FY 2003

(Dollars in thousands)

Institution and ranking	2000	2001	2002	2003				
				All life sciences	Agricultural sciences	Biological sciences	Medical sciences	Life sciences, nec
50 PA State U. all campuses	147,340	148,925	163,590	175,537	74,234	35,939	65,308	56
51 U. CA, Berkeley	219,128	165,525	170,348	174,915	70,932	58,860	45,123	0
52 SUNY Buffalo all campuses	124,168	127,859	155,888	170,680	0	59,106	103,221	8,353
53 Wayne State U.	120,701	140,180	159,013	170,498	0	3,350	163,851	3,297
54 OR Health and Science U.	126,445	131,290	152,379 e	166,291	0	53,547	98,228	14,516
55 TX A&M U. all campuses	146,600	153,264	155,557	160,127	73,474	33,920	52,693	40
56 U. CA, Irvine	107,771	117,618	135,406	155,880	0	83,099	72,781	0
57 Boston U.	103,731	118,512	130,144	152,133	0	9,021	141,491	1,621
58 U. MO-Columbia	112,396	124,701	132,161	151,772	63,609	39,274	42,069	6,820
59 Medical U. SC	65,243	116,687	132,030	150,551	0	43,591	64,132	42,828
60 U. TX Medical Branch	96,406	100,926	127,188	150,479	0	83,338	67,141	0
61 U. TX Health Science Ctr. Houston	119,587	125,439	138,380	149,294	0	42,126	96,241	10,927
62 U. MA Worcester	97,587	111,221	132,729	148,823	0	50,967	56,548	41,308
63 U. UT	124,257	130,721	144,575	148,016	0	38,259	77,267	32,490
64 Purdue U. all campuses	106,891	116,206	128,926	145,624	88,408	34,044	17,695	5,477
65 U. VA all campuses	91,269	98,876	123,266	141,784	0	64,283	76,804	697
66 U. South FL	95,756	116,446	134,360	139,132	0	4,109	134,865	158
67 Rutgers, The State U. NJ all campuses	99,301	106,092	118,490	136,720	37,725	54,928	27,669	16,398
68 NC State U.	136,438	145,775	148,461	135,298	63,130	69,603	0	2,565
69 U. CT all campuses	97,825	100,474	119,232	133,867	7,961	49,817	71,794	4,295
70 U. TX Health Science Ctr. San Antonio	103,824	115,154	129,616	133,304	0	58,654	74,650	0
71 U. IL Urbana-Champaign	97,752	109,062	121,383	132,414	55,359	61,955	10,649	4,451
72 Wake Forest U.	85,675	96,131	108,994	128,034	0	506	127,528	0
73 U. TN all campuses	95,074	90,646	114,256	126,429	31,704	47,941	44,761	2,023
74 U. KS all campuses	95,317	104,210	121,057	121,019	218	58,956	39,208	22,637
75 U. Miami	103,472	107,753	117,760	120,716	0	25,408	95,137	171
76 VA Polytechnic Institute and State U.	84,265	94,248	101,588	109,760	64,010	19,330	5,986	20,434
77 Thomas Jefferson U.	89,626	88,936	102,974	109,083	0	62,315	45,069	1,699
78 Medical C. WI	70,581	83,857	96,700	108,608	0	42,748	65,860	0
79 VA Commonwealth U.	75,323	85,501	95,536	107,759	0	36,781	64,709	6,269
80 SUNY Stony Brook all campuses	89,558	95,885	96,549	107,434	0	61,946	44,147	1,341
81 WA State U.	70,714	71,436	94,219	107,386	46,982	49,105	7,288	4,011
82 Dartmouth C.	59,803	74,490	86,943	103,120	0	4,605	98,515	0
83 IA State U.	79,334	87,087	93,870	98,658	43,841	43,449	10,974	394
84 Tulane U.	70,301	76,704	85,598	97,906	0	18,771	31,949	47,186
85 CO State U.	96,098	89,852	69,291	96,068	19,875	64,179	11,398	616
86 OR State U.	82,485	89,498	94,684	95,370	54,765	35,398	2,772	2,435
87 U. VT	56,067	66,357	79,952	94,922	7,069	33,233	44,443	10,177
88 Tufts U.	83,227	84,659	84,507	91,883	99	79,921	11,792	71
89 Georgetown U.	119,611	90,273	87,245	91,290	0	9,917	81,373	0
90 Rush U.	67,122	68,935	77,581	87,056	0	17,342	66,628	3,086
91 U. NM all campuses	46,280	62,419	72,901	85,772	0	39,717	31,673	14,382
92 MS State U.	75,070	79,165	79,575	80,613	71,392	1,779	6,908	534
93 U. OK all campuses	63,984	66,128	71,181	76,789	0	34,457	39,234	3,098
94 MA Institute of Technology	73,228	77,062	74,762	76,045	17	54,824	18,003	3,201
95 Auburn U. all campuses	56,273	58,552	65,769	75,770	49,985	18,123	3,709	3,953
96 SUNY Albany	55,159	41,335	35,182	72,593	0	72,593	0	0
97 KS State U.	59,728	60,229	68,452	71,803	48,261	22,496	1,046	0
98 U. Louisville	49,922	56,292	64,124	71,379	20	9,238	55,551	6,570
99 Brown U.	38,501	42,396	56,523	65,444	0 i	7,230 i	44,993 i	13,221 i

TABLE 52. R&D expenditures in the life sciences at universities and colleges, ranked by all FY 2003 life sciences for the first 150 institutions: FY 2000–03 and by subfield for FY 2003

(Dollars in thousands)

Institution and ranking	2000	2001	2002	2003				
				All life sciences	Agricultural sciences	Biological sciences	Medical sciences	Life sciences, nec
100 U. HI Manoa	63,662	58,455	58,286	63,989	10,176	3,608	29,145	21,060
101 U. AR for Medical Sciences	49,074	51,921	45,046	63,677	0	9,500	54,177	0
102 U. CA, Riverside	47,470	60,284	59,043	61,621	44,922	13,943	2,756	0
103 U. MD College Park	37,526	47,443	56,410	60,183	38,607	9,604	0	11,972
104 WV U.	32,628	43,380	48,372	59,881	10,950	16,717	31,201	1,013
105 OK State U. all campuses	49,269	50,096	54,332	57,737	33,863	20,307	3,110	457
106 Medical C. GA	45,596	52,191	51,705	56,398	0	32,954	21,716	1,728
107 U. MS all campuses	25,918	32,534 i	40,301 i	54,512	0	13,910	36,447	4,155
108 MT State U. Bozeman	39,492	42,114	47,193	53,672	36,945	14,388	1,234	1,105
109 U. ID	39,812	42,957	50,861	53,644	37,817	11,949	3,873	5
110 TX A&M U. System Health Science Ctr.	25,719	40,693	49,014	53,382	0	28	53,354	0
111 ND State U. all campuses	37,124	48,943	51,677	52,693	46,863	2,657	3,173	0
112 U. AR main campus	47,239	51,556	52,830	51,878	49,193	1,619	0	1,066
113 Charles R. Drew U. of Medicine and Science	31,045	36,717	48,839	49,888	0	0	49,888	0
114 Clemson U.	62,486	50,058	50,676	47,986	29,597	16,422	1,804	163
115 U. NV, Reno	26,014	31,445	34,621	45,815	14,325	22,202	9,157	131
116 U. TX Austin	39,125	41,544	39,495	43,886	184	25,367	16,525	1,810
117 Temple U.	30,675	36,228	39,678	42,315	10	19,936	19,676	2,693
118 George Washington U.	23,310	36,149	42,278	41,984	0	12,382	29,602	0
119 U. SC all campuses	24,371	27,153	33,200	41,565	0	7,022	31,788	2,755
120 TX Tech U.	27,413	31,241	36,628	41,037	11,460	15,025	12,990	1,562
121 St. Louis U. all campuses	29,888	31,328	34,241	39,869	0	15,806	18,144	5,919
122 UT State U.	35,626	34,166	37,392	39,803	24,405	8,996	6,402	0
123 SUNY Health Science Ctr. Brooklyn	31,626	31,626 e	34,981 i	38,424 i	0 i	23,003 i	15,346 i	75 i
124 CA Institute of Technology	31,931	33,779	37,600	36,353	0	36,353	0	0
125 Loyola U. Chicago	25,087	30,351	33,352	35,556	0	15,305	20,014	237
126 Southern IL U. Carbondale	23,401	25,714	34,114	34,031	11,650	6,093	15,653	635
127 Princeton U.	23,185	26,431	29,180	33,738	0	33,738	0	0
128 U. MA Amherst	32,453	29,894	30,158	33,195	10,762	20,073	884	1,476
129 U. MD Biotechnology Institute	22,504	24,392	25,882	33,043	1,951	27,942	0	3,150
130 Eastern VA Medical School	23,299	26,250	28,572	32,801	0	6,044	26,719	38
131 AZ State U. main campus	15,949	15,307	18,086	32,025	1,080	28,398	0	2,547
132 U. PR Medical Sciences Campus	21,373	23,913	29,089	31,124 i	0 i	0 i	31,124 i	0 i
133 Drexel U.	527	319	720	31,036	0	15,940	14,208	888
134 Uniformed Services U. of the Health Sciences	23,987	23,247	28,630	30,604	0	11,397	19,207	0
135 NY Medical C.	23,348	24,283	25,222	30,492	0	22,760	7,732	0
136 U. MT, The	20,509	23,287	26,908	28,130	9,291	9,201	8,497	1,141
137 U. WY	17,512	19,715	19,715 e	27,752	12,518	10,757	4,477	0
138 Morehouse School of Medicine	16,889	19,670	23,956	27,154	0	10,882	16,272	0
139 FL State U.	12,779	12,834	15,637	26,507	0	15,464	7,775	3,268
140 AL A&M U.	4,395	6,392 i	11,063	26,391 i	24,223 i	1,320 i	0 i	848 i
141 Loma Linda U.	21,488	21,325 i	19,545	26,227	0	8,827	17,374	26
142 San Diego State U.	20,629	22,063	24,271	26,030	0	12,746	11,339	1,945
143 SUNY Upstate Medical U.	17,095	17,294	22,326	25,931	0	6,939	18,992	0
144 U. AK Fairbanks all campuses	19,887	16,601	22,224	25,521	11,647	13,874	0	0
145 NM State U. all campuses	19,165	20,202	23,139	25,484	20,985	3,933	210	356
146 Meharry Medical C.	9,133 e	14,467 i	20,508	25,427	0	23,331	864	1,232
147 U. MO-Kansas City	14,979	13,472	19,453	25,185	0	8,959	14,252	1,974
148 Howard U.	16,400	19,534	24,138	25,172	0	13,822	11,349	1
149 U. LA Lafayette	18,167	18,550	30,367	24,837	532	3,422	20,251	632

TABLE 52. R&D expenditures in the life sciences at universities and colleges, ranked by all FY 2003 life sciences for the first 150 institutions: FY 2000–03 and by subfield for FY 2003

(Dollars in thousands)

Institution and ranking	2000	2001	2002	2003				
				All life sciences	Agricultural sciences	Biological sciences	Medical sciences	Life sciences, nec
150 Brandeis U.	20,159	22,902	21,187	24,747	0	24,747	0	0
All other sampled institutions	755,040	800,021	916,028	980,148	194,077	495,422	205,302	85,347

e = estimated.

i = imputed.

nec = not elsewhere classified.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 53. Federally financed R&D expenditures in the life sciences at universities and colleges, ranked by all FY 2003 life sciences for the first 150 institutions: FY 2000–03 and by subfield for FY 2003

(Dollars in thousands)

Institution and ranking	2000	2001	2002	2003				
				All life sciences	Agricultural sciences	Biological sciences	Medical sciences	Life sciences, nec
All institutions	10,067,742	11,194,502	12,854,786	14,645,014	761,825	5,017,208	8,249,066	616,915
1 Johns Hopkins U., The <sup>a</sup>	305,404	347,565	406,785	449,328	0	110,410	313,602	25,316
2 U. WA	268,355	299,001	341,857	392,628	12,619	106,610	256,534	16,865
3 U. CA, San Francisco	239,282	265,865	306,478	348,910	0	40,639	308,271	0
4 U. PA	259,136	296,706	332,825	346,579	186	127,515	206,835	12,043
5 Washington U. St. Louis	228,233	256,345	273,418	327,042	0	160,931	160,898	5,213
6 Baylor C. of Medicine	193,249	234,394	259,475	302,764	0	187,069	115,695	0
7 U. Pittsburgh all campuses	198,076	234,847	270,083	299,734	0	10,602	280,529	8,603
8 U. CA, Los Angeles	188,919	223,320	266,260	299,298	154	13,663	285,481	0
9 U. MI all campuses	200,003	212,732	240,123	285,432	2,876	87,784	158,448	36,324
10 Harvard U.	213,775	232,400	261,863	271,959	0	63,047	208,562	350
11 Columbia U. in the City of NY	185,106	212,271	242,713	262,954	0	103,598	157,648	1,708
12 Stanford U.	199,298	214,486	235,353	259,118	0	14,949	244,169	0
13 Yale U.	202,801	215,209	238,151	257,953	1,130	89,477	167,346	0
14 Duke U.	159,656	171,792	207,083	244,212	0	54,303	188,586	1,323
15 U. AL Birmingham, The	162,927	182,745	203,111	226,708	0	71,622	152,411	2,675
16 U. NC Chapel Hill	150,606	172,779	190,527	218,951	0	102,748	105,951	10,252
17 Emory U.	137,489	162,073	178,546	217,874	0	44,192	126,740	46,942
18 U. WI Madison	148,172	158,022	183,930	212,985	16,681	80,833	113,506	1,965
19 U. MN all campuses	163,831	187,638	220,412	210,906	15,946	37,159	153,523	4,278
20 U. CO all campuses	136,720 i	149,083	181,759	208,648	0	47,582	152,926	8,140
21 U. CA, San Diego	155,250	163,951	178,800	203,564	0	36,384	166,887	293
22 Cornell U. all campuses	125,344	144,510	163,939	195,193	23,869	46,244	125,080	0
23 Vanderbilt U.	103,565	117,681	138,209	179,144	0	93,586	80,036	5,522
24 U. TX Southwestern Medical Ctr. Dallas	109,165	131,820	155,258	177,196	0	75,230	101,573	393
25 Case Western Reserve U.	125,924	133,371	154,729	169,729	0	45,276	124,208	245
26 U. Cincinnati all campuses	94,624	112,087	133,431	167,484	0	48,856	115,730	2,898
27 U. IA	112,862	125,891	147,461	163,646	0	37,218	105,789	20,639
28 U. CA, Davis	109,978	106,675	123,169	155,161	32,100	53,858	69,203	0
29 U. Southern CA	103,260	120,682	134,335	153,185	0	7,888	137,508	7,789
30 Mt. Sinai School of Medicine	98,188	109,344	125,979	152,719	0	65,072	87,647	0
31 U. Chicago	97,251	115,766	141,164	149,307	0	50,068	98,117	1,122
32 U. AZ	89,978	105,356	118,710	142,078	24,760	45,836	68,726	2,756
33 OR Health and Science U.	104,185	106,328	123,979 e	137,235	0	48,848	75,901	12,486
34 U. Rochester	88,295	104,254	125,388	136,882	0	42,140	90,075	4,667
35 Boston U.	88,405	100,993	113,936	135,311	0	8,350	125,473	1,488
36 Northwestern U.	96,823	104,710	117,218	132,517	0	48,355	79,523	4,639
37 NY U.	93,890	101,365	114,924	128,929	0	44,784	55,995	28,150
38 Yeshiva U.	101,631	107,800	114,268	128,894	0	31,244	70,299	27,351
39 U. MD Baltimore	91,212	99,091	117,017	126,156	0	18,923	100,925	6,308
40 U. IL Chicago	76,932	96,837	107,963	124,559	0	35,240	81,795	7,524
41 U. VA all campuses	75,640	81,774	103,220	120,155	0	54,837	64,645	673
42 U. FL	72,971	81,772	101,313	118,875	25,070	35,884	53,390	4,531
43 OH State U. all campuses	79,507	94,278	109,006	116,877	6,306	40,152	55,686	14,733
44 IN U. all campuses	74,949	82,786	96,579	111,613	0	42,285	65,513	3,815
45 U. MA Worcester	64,212	79,453	93,992	109,082	0	46,064	45,965	17,053
46 U. TX M. D. Anderson Cancer Ctr.	77,963	88,823	110,299	108,532	0	51,823	56,709	0
47 U. TX Health Science Ctr. Houston	79,665	88,545	98,676	107,481	0	37,350	67,031	3,100
48 Wake Forest U.	65,094	76,951	90,127	106,876	0	480	106,396	0
49 U. of Medicine and Dentistry NJ	75,318	86,054	90,235	105,495	0	54,987	50,508	0

TABLE 53. Federally financed R&D expenditures in the life sciences at universities and colleges, ranked by all FY 2003 life sciences for the first 150 institutions: FY 2000–03 and by subfield for FY 2003

(Dollars in thousands)

Institution and ranking	2000	2001	2002	2003				
				All life sciences	Agricultural sciences	Biological sciences	Medical sciences	Life sciences, nec
50 U. UT	81,091	83,618	95,799	104,091	0	29,074	58,838	16,179
51 SUNY Buffalo all campuses	67,966	67,588	81,717	93,241	0	40,354	48,074	4,813
52 Medical U. SC	41,432	60,543	75,803	92,893	0	35,301	43,076	14,516
53 U. CA, Irvine	61,177	67,873	78,246	92,285	0	56,667	35,618	0
54 U. TX Medical Branch	60,749	63,917	77,093	91,645	0	43,833	47,812	0
55 U. CA, Berkeley	76,937	82,235	85,063	88,065	22,213	41,794	24,058	0
56 U. TX Health Science Ctr. San Antonio	65,251	71,153	83,761	86,683	0	38,140	48,543	0
57 PA State U. all campuses	68,343	67,800	82,591	86,415	19,173	18,421	48,779	42
58 Thomas Jefferson U.	67,448	64,881	79,217	85,348	0	47,756	35,933	1,659
59 Wayne State U.	52,637	64,031	77,350	84,178	0	2,286	79,939	1,953
60 Medical C. WI	55,034	64,003	76,241	83,026	0	32,679	50,347	0
61 U. KY all campuses	50,133	60,341	66,199	79,976	6,988	34,550	36,580	1,858
62 U. Miami	68,262	70,619	72,837	79,261	0	18,907	60,238	116
63 U. CT all campuses	46,875	48,914	64,292	76,770	3,729	43,114	27,374	2,553
64 Georgetown U.	92,084	85,315	79,374	76,362	0	8,603	67,759	0
65 MI State U.	51,536	59,016	69,114	74,152	22,514	37,814	12,420	1,404
66 U. GA	47,290	49,294	59,143	70,574	20,585	43,582	5,312	1,095
67 Rockefeller U.	42,109	51,317	62,725	70,042	0	64,886	5,156	0
68 VA Commonwealth U.	45,047	48,836	56,343	69,759	0	26,882	38,509	4,368
69 Dartmouth C.	41,537	47,443	60,892	69,269	0	3,310	65,959	0
70 Tufts U.	54,306	61,006	62,033	68,487	0	61,868	6,619	0
71 U. KS all campuses	46,879	54,887	60,391	68,329	192	36,047	22,250	9,840
72 Tulane U.	40,122	41,666	53,127	65,908	0	12,419	13,405	40,084
73 U. VT	35,632	43,959	53,274	64,619	2,878	27,064	31,360	3,317
74 U. TN all campuses	43,256	44,255	55,777	63,321	2,374	36,927	23,058	962
75 SUNY Albany	50,670	35,658	30,396	63,018	0	63,018	0	0
76 U. NE central administration	34,216	43,503	52,632	62,619	12,127	36,237	12,299	1,956
77 U. MO-Columbia	45,496	48,950	59,480	62,607	18,155	18,668	22,747	3,037
78 MA Institute of Technology	55,109	59,054	58,047	60,914	17	46,722	11,326	2,849
79 LA State U. all campuses	47,916	50,635	55,052	60,649	4,866	38,353	17,374	56
80 SUNY Stony Brook all campuses	51,701	50,667	57,809	60,520	0	37,906	22,106	508
81 U. South FL	29,878	35,731	52,194	60,341	0	3,121	57,085	135
82 U. NM all campuses	38,214	41,371	50,121	58,903	0	30,931	23,564	4,408
83 CO State U.	62,328	48,151	38,463	56,130	7,969	40,585	7,444	132
84 Purdue U. all campuses	35,919	41,501	48,077	54,290	21,635	20,309	9,131	3,215
85 U. IL Urbana-Champaign	37,004	39,942	45,822	54,100	14,495	34,172	4,218	1,215
86 Rutgers, The State U. NJ all campuses	28,157	30,684	37,573	51,288	9,290	22,461	16,130	3,407
87 U. HI Manoa	38,123	36,896	38,014	50,110	8,462	2,476	21,725	17,447
88 Rush U.	32,178	36,405	43,387	48,374	0	10,999	35,014	2,361
89 TX A&M U. all campuses	37,616	40,985	42,784	45,979	19,991	9,784	16,204	0
90 Brown U.	26,011	29,599	37,427	45,491	0 i	4,379 i	31,116 i	9,996 i
91 OR State U.	35,793	36,364	40,042	44,575	22,385	18,600	1,460	2,130
92 U. AR for Medical Sciences	29,962	34,219	27,491	41,681	0	7,292	34,389	0
93 U. OK all campuses	25,532	28,057	33,659	41,319	0	20,781	18,074	2,464
94 WA State U.	29,653	29,223	34,751	40,478	11,061	24,851	2,423	2,143
95 NC State U.	31,200	34,243	37,438	39,689	10,426	28,316	0	947
96 Charles R. Drew U. of Medicine and Science	21,969	27,415	39,259	39,407	0	0	39,407	0
97 IA State U.	22,669	25,448	31,898	36,716	11,072	19,122	6,154	368
98 U. MS all campuses	13,333	17,674 i	24,080 i	36,540	0	7,299	26,589	2,652
99 St. Louis U. all campuses	25,809	27,229	30,220	35,890	0	13,879	16,623	5,388

TABLE 53. Federally financed R&D expenditures in the life sciences at universities and colleges, ranked by all FY 2003 life sciences for the first 150 institutions: FY 2000–03 and by subfield for FY 2003

(Dollars in thousands)

Institution and ranking	2000	2001	2002	2003				
				All life sciences	Agricultural sciences	Biological sciences	Medical sciences	Life sciences, nec
100 VA Polytechnic Institute and State U.	20,481	22,598	23,715	35,641	17,865	9,420	1,829	6,527
101 CA Institute of Technology	28,580	31,553	35,134	34,128	0	34,128	0	0
102 U. TX Austin	24,953	27,681	27,544	31,220	0	17,956	11,514	1,750
103 U. Louisville	13,668	19,988	30,070	30,931	0	3,767	24,871	2,293
104 Temple U.	23,947	25,133	27,561	30,161	0	15,715	12,198	2,248
105 WV U.	13,420	15,671	22,211	29,531	4,409	9,045	15,685	392
106 U. MD College Park	11,573	16,447	26,381	29,284	14,187	9,036	0	6,061
107 SUNY Health Science Ctr. Brooklyn	22,860	22,860 e	25,495 i	29,127 i	0 i	19,227 i	9,900 i	0 i
108 U. NV, Reno	13,435	16,950	20,390	28,402	3,516	18,119	6,636	131
109 Medical C. GA	15,210	21,116	23,317	28,280	0	17,510	10,770	0
110 KS State U.	15,941	16,563	22,875	28,046	13,227	14,365	454	0
111 George Washington U.	14,073	23,062	25,815	27,267	0	9,175	18,092	0
112 Loyola U. Chicago	16,720	21,694	24,788	26,944	0	12,427	14,517	0
113 MT State U. Bozeman	14,484	16,155	19,161	26,077	14,133	10,027	1,008	909
114 U. PR Medical Sciences Campus	16,657	19,433	23,931	25,845 i	0 i	0 i	25,845 i	0 i
115 MS State U.	21,170	22,869	24,262	25,585	23,383	514	1,532	156
116 TX A&M U. System Health Science Ctr.	14,314	18,335	22,104	25,293	0	28	25,265	0
117 U. ID	12,180	14,206	18,866	24,429	14,411	7,287	2,727	4
118 Morehouse School of Medicine	15,419	18,127	21,919	24,382	0	8,608	15,774	0
119 Howard U.	15,284	18,240	23,343	24,371	0	13,249	11,122	0
120 Meharry Medical C.	8,865 e	14,305 i	20,453	24,195	0	23,331	864	0
121 Princeton U.	15,571	17,546	21,380	23,596	0	23,596	0	0
122 NY Medical C.	17,975	18,344	19,318	23,387	0	18,910	4,477	0
123 Loma Linda U.	15,930	16,604 i	17,011	22,675	0	8,087	14,588	0
124 Drexel U.	353	319	572	22,266	0	12,410	9,632	224
125 AL A&M U.	3,867	4,869 i	7,830	22,184 i	20,864 i	1,320 i	0 i	0 i
126 U. SC all campuses	14,074	14,110	14,948	21,579	0	4,463	15,543	1,573
127 U. MT, The	13,772	14,417	17,789	20,511	5,844	6,740	6,834	1,093
128 UT State U.	16,066	14,796	18,448	20,215	11,830	4,375	4,010	0
129 U. MA Amherst	12,934	14,740	15,946	19,438	5,508	12,995	355	580
130 Auburn U. all campuses	12,106	15,444	18,519	19,315	10,041	5,612	1,503	2,159
131 Brandeis U.	14,241	17,263	15,482	18,688	0	18,688	0	0
132 U. CA, Riverside	7,696	12,700	13,784	17,985	9,975	6,093	1,917	0
133 U. OR	15,174	16,016	15,678	17,340	0	6,836	10,504	0
134 U. MD Biotechnology Institute	8,384	8,045	7,968	16,706	253	16,395	0	58
135 SUNY Upstate Medical U.	8,461	8,815	13,404	16,652	0	6,110	10,542	0
136 FL State U.	6,237	6,016	8,031	16,254	0	9,070	5,524	1,660
137 OK State U. all campuses	11,709	11,395	13,150	15,858	7,669	7,318	739	132
138 Eastern VA Medical School	12,114	11,389	13,077	15,431	0	4,653	10,778	0
139 Clemson U.	17,023	15,698	14,802	14,258	6,193	7,557	508	0
140 Medical C. OH	9,944	11,362	12,006	14,146	0	11,097	2,738	311
141 San Diego State U.	10,332	11,931	13,317	13,977	0	6,663	6,404	910
142 U. AK Fairbanks all campuses	8,412	14,575	14,959	13,711	5,525	8,186	0	0
143 U. RI	8,541	7,705	9,568	13,440	6,833	1,818	3,335	1,454
144 U. South AL	6,924	6,924 e	13,567	13,288	0	6,310	6,756	222
145 U. AR main campus	10,059	10,704	13,170	13,151	11,125	1,257	0	769
146 TX Tech U.	6,837	8,865	11,254	12,313	1,885	7,985	2,015	428
147 Wright State U. all campuses	8,064	10,229	10,321	12,098	0	779	11,258	61
148 U. MO-Kansas City	5,939	6,667	8,819	12,021	0	4,289	7,732	0
149 U. WY	7,787	8,870	8,870 e	11,783	4,177	4,395	3,211	0

TABLE 53. Federally financed R&D expenditures in the life sciences at universities and colleges, ranked by all FY 2003 life sciences for the first 150 institutions: FY 2000–03 and by subfield for FY 2003

(Dollars in thousands)

Institution and ranking	2000	2001	2002	2003				
				All life sciences	Agricultural sciences	Biological sciences	Medical sciences	Life sciences, nec
150 FL A&M U.	9,364	13,759	8,515	11,761	4,493	1,063	0	6,205
All other sampled institutions	435,910	469,064	555,354	605,663	110,185	324,670	123,948	46,860

e = estimated.

i = imputed.

nec = not elsewhere classified.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.



TABLE 54. Total and federally financed R&D expenditures in the agricultural sciences at universities and colleges, ranked by FY 2003 total for the first 100 institutions: FY 2000–03

(Dollars in thousands)

Institution and ranking	Total				Federally financed R&D expenditures			
	2000	2001	2002	2003	2000	2001	2002	2003
All institutions	2,177,088	2,326,059	2,451,845	2,555,209	578,747	617,625	687,762	761,825
1 U. CA, Davis	128,145	105,152	111,445	116,189	34,870	22,873	25,683	32,100
2 U. FL	87,305	102,240	106,650	111,340	12,857	16,767	21,597	25,070
3 U. GA	87,415	89,594	88,620	96,695	14,600	14,501	17,165	20,585
4 Purdue U. all campuses	42,348	43,419	49,270	88,408	9,863	8,567	9,592	21,635
5 MI State U.	61,454	68,798	77,002	80,279	12,575	14,722	19,135	22,514
6 Cornell U. all campuses	52,517	64,188	69,355	75,694	13,758	17,221	18,729	23,869
7 PA State U. all campuses	63,436	70,405	73,977	74,234	14,236	14,680	17,139	19,173
8 TX A&M U. all campuses	66,793	69,231	72,545	73,474	14,226	17,270	18,329	19,991
9 MS State U.	68,358	72,172	70,570	71,392	20,283	21,628	21,962	23,383
10 U. CA, Berkeley	27,948	68,053	70,036	70,932	2,957	18,182	19,801	22,213
11 VA Polytechnic Institute and State U.	63,870	68,669	69,338	64,010	14,440	14,207	13,849	17,865
12 U. MO-Columbia	48,455	52,127	57,129	63,609	17,318	15,542	20,495	18,155
13 NC State U.	70,131	73,787	75,524	63,130	10,987	9,968	11,242	10,426
14 U. MN all campuses	60,482	68,399	65,828	62,884	13,217	14,696	18,134	15,946
15 U. AZ	46,745	49,212	53,026	60,461	13,887	15,380	17,081	24,760
16 LA State U. all campuses	54,345	55,497	56,460	59,956	4,268	5,617	4,831	4,866
17 U. IL Urbana-Champaign	48,239	50,984	53,955	55,359	11,049	11,668	12,482	14,495
18 OR State U.	52,052	56,223	57,748	54,765	21,950	21,261	21,746	22,385
19 OH State U. all campuses	44,558	40,794	37,255	51,748	6,821	8,134	8,138	6,306
20 U. KY all campuses	56,606	56,652	39,354	50,440	8,506	9,160	5,330	6,988
21 Auburn U. all campuses	40,941	38,916	45,086	49,985	7,952	8,791	9,560	10,041
22 U. AR main campus	45,525	48,697	50,233	49,193	8,968	9,170	11,268	11,125
23 KS State U.	43,595	43,352	46,169	48,261	8,558	8,562	10,132	13,227
24 U. NE central administration	40,692	46,128	47,057	48,085	8,368	10,472	10,498	12,127
25 WA State U.	25,070	26,130	41,107	46,982	7,785	8,707	10,111	11,061
26 ND State U. all campuses	33,003	45,518	46,754	46,863	4,556	4,514	5,264	5,971
27 U. CA, Riverside	24,419	23,315	44,635	44,922	2,334	3,470	6,727	9,975
28 U. WI Madison	38,597	40,912	41,943	44,664	10,572	12,757	14,792	16,681
29 IA State U.	42,644	48,689	49,398	43,841	10,250	11,822	13,053	11,072
30 U. MD College Park	18,670	29,836	37,239	38,607	2,766	6,657	13,956	14,187
31 U. ID	31,765	33,879	38,056	37,817	9,111	10,733	13,106	14,411
32 Rutgers, The State U. NJ all campuses	34,199	37,103	37,843	37,725	6,934	8,741	8,258	9,290
33 MT State U. Bozeman	29,341	31,020	34,363	36,945	8,375	9,538	10,726	14,133
34 OK State U. all campuses	26,625	27,169	29,857	33,863	4,509	4,412	5,962	7,669
35 U. TN all campuses	28,762	24,050	32,406	31,704	5,684	2,248	2,287	2,374
36 Clemson U.	27,124	37,620	34,662	29,597	7,389	11,174	8,607	6,193
37 UT State U.	22,774	21,080	23,550	24,405	10,641	9,168	11,354	11,830
38 AL A&M U.	3,179	4,624 i	9,945	24,223 i	2,676	3,369 i	7,364	20,864 i
39 NM State U. all campuses	17,331	17,650	19,339	20,985	6,167	6,423	7,190	8,301
40 CO State U.	57,129	63,426	37,964	19,875	38,093	35,204	20,544	7,969
41 U. WA	17,003	19,562	19,525	19,075	10,619	11,453	13,028	12,619
42 SD State U.	10,857	11,635	10,634	15,550	3,948	3,945	3,347	4,440
43 U. DE	16,566	17,231	14,590	15,357	3,125	4,272	3,210	4,165
44 U. NV, Reno	10,296	11,564	12,214	14,325	1,352	1,728	2,206	3,516
45 U. WY	13,590	11,745	11,745 e	12,518	4,903	4,713	4,713 e	4,177
46 Southern IL U. Carbondale	9,120	8,786	11,040	11,650	1,827	1,737	1,747	1,883
47 U. AK Fairbanks all campuses	8,509	7,814	9,226	11,647	3,315	7,283	6,632	5,525
48 U. NH	4,818	5,689	11,997	11,482	1,186	1,440	2,898	3,894
49 TX Tech U.	11,153	11,705	11,965	11,460	1,400	1,749	2,175	1,885
50 WV U.	7,566	8,860	9,460	10,950	2,113	2,329	4,408	4,409

TABLE 54. Total and federally financed R&D expenditures in the agricultural sciences at universities and colleges, ranked by FY 2003 total for the first 100 institutions: FY 2000–03

(Dollars in thousands)

Institution and ranking	Total				Federally financed R&D expenditures			
	2000	2001	2002	2003	2000	2001	2002	2003
51 U. ME	7,297	10,066	10,667	10,771	2,896	2,987	3,128	3,635
52 U. MA Amherst	13,932	11,275	11,073	10,762	3,603	3,988	5,025	5,508
53 U. HI Manoa	18,585	13,441	13,194	10,176	8,284	5,354	5,598	8,462
54 U. MT, The	8,012	7,776	8,505	9,291	4,898	4,180	5,069	5,844
55 CA State U. Fresno	4,314	3,135	6,807	8,110	451	229	176	418
56 U. CT all campuses	9,953	7,881	8,539	7,961	1,723	2,909	3,471	3,729
57 U. of the VI	1,466 e	4,510 i	7,553 i	7,673 i	1,466 e	4,510 i	7,532 i	7,641 i
58 U. RI	7,592	5,260	6,061	7,612	6,176	5,115	5,431	6,833
59 U. MI all campuses	4,114	4,313	6,011	7,192	1,562	1,531	2,241	2,876
60 U. VT	5,203	5,641	6,284	7,069	2,230	2,313	2,683	2,878
61 NC Agricultural and Technical State U.	3,362	4,544	5,175	6,855	2,574	2,167	3,112	3,496
62 U. CA, Los Angeles	0	7,362	7,565	6,659	0	0	135	154
63 VA State U.	3,125	3,125	6,244	6,305	2,305	2,305	5,995	6,060
64 KY State U.	1,934 i	3,355	6,068	6,251	1,768 i	3,014	5,916	6,251
65 Northern AZ U.	2,609	4,160	6,711	6,190	988	2,442	4,042	3,675
66 TX A&M U. Kingsville	4,252	4,358	4,994	5,565	440	235	386	604
67 Alcorn State U.	5,903	4,735	3,480	5,333	5,903	4,735	3,480	5,333
68 U. AR Pine Bluff	3,482 i	4,229	4,942	5,276	2,108 i	1,941	2,352	2,641
69 TN State U.	3,817	3,822	5,370	5,122	2,469	2,427	2,821	3,129
70 Prairie View A&M U.	4,339	6,561	5,213	5,097	2,938	2,837	3,206	3,218
71 FL A&M U.	4,887	5,605	4,527	4,913	4,335	5,605	4,189	4,493
72 Langston U.	2,553	2,863	3,975	4,332	2,553	2,863	3,975	4,332
73 Tarleton State U.	10	2,530	3,500	4,210	0	2,485	3,461	3,912
74 SUNY C. of Environmental Science and Forestry	4,086 e	4,228 e	3,988 i	4,044 i	577 e	588 e	625 i	698 i
75 Southern U. and A&M C. all campuses	2,552	2,783 i	3,091 i	3,413 i	2,044	2,248 i	2,518 i	2,877 i
76 Humboldt State U.	2,448 e	2,767 i	3,148 i	3,349 i	1,580 e	1,769 i	2,017 i	2,139 i
77 Stephen F. Austin State U.	3,927	3,092	3,475	3,170	458	668	495	590
78 CA State Polytechnic U. San Luis Obispo	2,921	2,292	3,371	2,936	1,082	92	266	227
79 Ft. Valley State U.	2,520	2,520 e	2,931 i	2,892	2,373	2,373 e	2,931 i	2,798
80 U. CA, Santa Cruz	1,911	2,141	2,333	2,575	152	296	345	420
81 U. GU	1,957	2,199	2,521	2,544	1,957	2,199	2,521	2,544
82 Lincoln U. (Jefferson City, MO)	2,207	2,236	3,291	2,407	2,207	2,236	2,513	2,015
83 Yale U.	1,278	1,609	2,125	2,306	402	756	1,122	1,130
84 Tuskegee U.	2,044	2,176	2,292	2,296	1,905	2,030	2,192	2,142
85 Harvey Mudd C.	1,452 i	1,641 i	1,865 i	2,042 i	277 i	310 i	354 i	331 i
86 U. MD Biotechnology Institute	5,379	6,110	6,483	1,951	2,004	1,901	1,996	253
87 DE State U.	2,075	1,383	1,811 e	1,888	1,954	1,116	1,478 e	1,650
88 West TX A&M U.	1,393	1,299	1,578	1,512	25	12	105	204
89 U. NC Wilmington	532	852	1,273	1,343	242	367	945	899
90 U. WI Stevens Point	718	861	1,073	1,126	115	130	459	494
91 AZ State U. main campus	1,183	1,327	1,183	1,080	700	736	626	558
92 U. Northern IA	939	1,282	1,542	938	335	345	858	439
93 San Francisco State U.	724 i	724 i	2 i	937 i	611 i	611 i	2 i	937 i
94 U. DC	803	1,094	1,117	930	407	440	523	451
95 CA State U. Bakersfield	638 i	572 i	650 i	694 i	66 i	66 i	77 i	83 i

TABLE 54. Total and federally financed R&D expenditures in the agricultural sciences at universities and colleges, ranked by FY 2003 total for the first 100 institutions: FY 2000–03

(Dollars in thousands)

Institution and ranking	Total				Federally financed R&D expenditures			
	2000	2001	2002	2003	2000	2001	2002	2003
96 Vassar C.	551 i	551 i	625 i	685 i	109 i	109 i	124 i	117 i
97 IL State U.	781 i	993	1,098	678	0 i	0	154	0
98 CA State U. Fullerton	691 i	927 i	1,119 i	677 i	410 i	538 i	670 i	475 i
99 Jackson State U.	0	306	165	657	0	271	141	591
100 U. MA Dartmouth	835	659	956	617	582	654	922	617
All other sampled institutions	37,737	17,587	19,192	9,242	16,359	9,967	9,776	3,285

e = estimated.

i = imputed.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 55. Total and federally financed R&D expenditures in the biological sciences at universities and colleges, ranked by FY 2003 total for the first 100 institutions: FY 2000–03

(Dollars in thousands)

Institution and ranking	Total				Federally financed R&D expenditures			
	2000	2001	2002	2003	2000	2001	2002	2003
All institutions	5,618,509	5,945,407	6,580,855	7,391,932	3,657,159	3,871,506	4,410,592	5,017,208
1 Baylor C. of Medicine	161,269	206,458	217,202	237,343	115,970	153,250	165,271	187,069
2 Washington U. St. Louis	152,562	172,778	161,833	191,076	117,727	130,763	130,449	160,931
3 Rockefeller U.	112,967	131,770	150,571	172,060	37,997	46,674	57,543	64,886
4 U. PA	133,269	139,556	155,680	162,352	102,380	112,144	125,800	127,515
5 U. WI Madison	119,722	127,460	135,056	145,163	61,131	65,058	71,057	80,833
6 Johns Hopkins U., The <sup>a</sup>	98,701	111,540	120,338	138,572	78,137	89,607	98,084	110,410
7 U. TX M. D. Anderson Cancer Ctr.	76,021	84,749	98,147	133,393	37,732	40,098	47,848	51,823
8 U. NC Chapel Hill	87,196	96,387	109,958	129,799	66,577	73,616	81,988	102,748
9 U. WA	111,425	102,824	112,566	124,234	77,047	78,281	93,957	106,610
10 U. MI all campuses	83,497	90,204	101,593	122,533	60,459	65,246	72,384	87,784
11 U. TX Southwestern Medical Ctr. Dallas	87,243	92,071	118,025	122,035	54,978	57,120	68,565	75,230
12 U. CA, Davis	84,997	119,269	118,477	119,074	35,990	40,033	45,283	53,858
13 Columbia U. in the City of NY	78,329	84,359	101,784	114,788	71,417	77,148	92,131	103,598
14 Yale U.	86,408	90,292	101,912	110,697	72,024	74,531	83,427	89,477
15 Vanderbilt U.	69,404	68,259	82,878	107,375	56,644	57,147	73,480	93,586
16 Mt. Sinai School of Medicine	58,576	66,120	64,867	93,957	43,900	38,307	44,061	65,072
17 MI State U.	64,601	71,116	78,263	92,712	28,080	32,128	37,175	37,814
18 U. NE central administration	53,345	65,796	74,500	86,528	20,216	25,338	30,656	36,237
19 U. TX Medical Branch	41,471	49,447	67,922	83,338	27,499	30,234	41,297	43,833
20 U. CA, Irvine	57,143	66,508	72,281	83,099	39,950	47,114	49,434	56,667
21 U. GA	68,244	73,668	84,603	82,550	29,784	31,617	38,075	43,582
22 U. of Medicine and Dentistry NJ	55,491	59,076	69,481	82,028	37,135	40,327	45,117	54,987
23 U. AL Birmingham, The	66,291	65,554	71,488	80,500	51,231	55,766	61,924	71,622
24 Tufts U.	73,036	73,730	74,421	79,921	49,247	54,948	56,575	61,868
25 Cornell U. all campuses	52,559	64,047	70,347	78,523	29,243	34,128	41,772	46,244
26 LA State U. all campuses	56,366	62,038	70,378	77,352	32,581	33,067	35,869	38,353
27 U. AZ	57,167	66,847	69,688	75,743	32,101	39,746	41,453	45,836
28 OH State U. all campuses	52,365	58,416	61,101	72,744	28,026	31,400	32,995	40,152
29 SUNY Albany	55,159	41,335	35,182	72,593	50,670	35,658	30,396	63,018
30 Harvard U.	90,740	92,150	81,845	71,591	77,164	77,780	70,557	63,047
31 NC State U.	63,084	69,462	68,619	69,603	19,463	23,181	24,018	28,316
32 IN U. all campuses	40,531	44,528	55,554	67,475	25,511	28,240	36,421	42,285
33 Northwestern U.	57,705	62,340	60,132	67,271	41,056	43,707	44,069	48,355
34 Duke U.	66,887	73,228	66,854	65,864	54,605	60,533	51,181	54,303
35 U. MN all campuses	54,228	54,865	62,555	64,602	33,317	33,857	35,943	37,159
36 U. VA all campuses	36,926	41,679	56,922	64,283	30,570	34,493	47,503	54,837
37 CO State U.	31,277	18,474	21,084	64,179	18,694	7,262	10,719	40,585
38 U. Chicago	38,325	49,696	57,812	62,497	30,813	41,020	46,532	50,068
39 Thomas Jefferson U.	42,590	45,390	54,459	62,315	34,650	36,280	46,331	47,756
40 U. Cincinnati all campuses	45,463	50,764	58,584	62,101	34,337	39,300	45,530	48,856
41 U. IL Urbana-Champaign	41,353	48,419	55,283	61,955	24,162	25,722	29,774	34,172
42 SUNY Stony Brook all campuses	49,072	54,662	51,118	61,946	30,859	30,050	34,044	37,906
43 U. CA, San Francisco	59,650	22,878	64,000	61,621	45,399	16,074	42,676	40,639
44 SUNY Buffalo all campuses	52,362	36,465	47,987	59,106	33,921	23,661	31,330	40,354
45 U. KS all campuses	47,159	49,805	57,182	58,956	22,870	27,021	29,601	36,047
46 U. CA, Berkeley	105,170	59,752	59,935	58,860	59,746	44,244	44,598	41,794
47 U. KY all campuses	3,184	2,767	48,463	58,746	1,319	1,581	30,439	34,550
48 U. FL	34,476	47,641	53,109	58,708	18,674	28,341	32,642	35,884
49 U. TX Health Science Ctr. San Antonio	34,974	40,249	51,262	58,654	25,949	28,678	36,377	38,140
50 NY U.	44,200	46,407	49,904	58,561	34,497	35,504	38,575	44,784

TABLE 55. Total and federally financed R&D expenditures in the biological sciences at universities and colleges, ranked by FY 2003 total for the first 100 institutions: FY 2000–03

(Dollars in thousands)

Institution and ranking	Total				Federally financed R&D expenditures			
	2000	2001	2002	2003	2000	2001	2002	2003
51 U. IA	44,149	50,154	53,114	55,773	27,879	31,580	34,900	37,218
52 Rutgers, The State U. NJ all campuses	42,223	41,922	42,791	54,928	13,960	14,047	15,630	22,461
53 MA Institute of Technology	57,181	58,635	55,993	54,824	44,122	46,892	45,324	46,722
54 U. CA, San Diego	40,608	37,957	50,860	54,071	30,260	26,145	32,803	36,384
55 Emory U.	44,884	51,160	55,999	54,005	37,809	42,981	46,403	44,192
56 U. IL Chicago	39,590	49,407	47,644	53,627	23,236	30,786	30,954	35,240
57 OR Health and Science U.	51,801	41,636	48,304 e	53,547	45,755	38,459	44,880 e	48,848
58 U. CO all campuses	48,258 i	55,001	57,550	53,291	41,457 i	46,408	50,116	47,582
59 U. Rochester	37,694	41,874	46,447	52,101	31,985	34,525	38,736	42,140
60 U. MA Worcester	32,296	35,724	44,810	50,967	28,016	32,419	40,556	46,064
61 Case Western Reserve U.	50,163	49,514	51,428	50,210	39,255	39,596	43,858	45,276
62 U. CT all campuses	35,293	39,168	45,972	49,817	19,300	23,167	31,630	43,114
63 WA State U.	38,726	38,620	43,565	49,105	19,328	17,767	20,493	24,851
64 U. TN all campuses	27,690	31,864	40,798	47,941	19,293	24,553	31,797	36,927
65 U. MD Baltimore	33,652	35,851	40,023	44,591	13,682	14,864	17,552	18,923
66 Medical U. SC	19,688	30,502	38,101	43,591	13,017	19,961	28,954	35,301
67 IA State U.	32,227	33,480	35,378	43,449	10,819	11,301	13,680	19,122
68 Yeshiva U.	33,843	35,931	38,087	42,962	24,635	26,131	27,699	31,244
69 Medical C. WI	28,980	34,617	39,154	42,748	22,597	26,420	30,870	32,679
70 U. TX Health Science Ctr. Houston	33,997	38,043	41,473	42,126	25,855	28,243	30,794	37,350
71 U. NM all campuses	25,465	31,014	36,040	39,717	21,075	23,076	28,512	30,931
72 U. MO-Columbia	30,760	33,827	33,340	39,274	13,250	15,316	18,723	18,668
73 U. UT	34,153	36,329	38,450	38,259	27,856	26,220	27,592	29,074
74 VA Commonwealth U.	26,825	28,591	32,772	36,781	18,574	20,107	22,644	26,882
75 CA Institute of Technology	31,931	33,779	37,600	36,353	28,580	31,553	35,134	34,128
76 PA State U. all campuses	56,446	27,305	29,379	35,939	35,919	14,688	17,173	18,421
77 OR State U.	26,003	28,355	31,947	35,398	11,155	11,940	15,184	18,600
78 U. OK all campuses	26,916	28,644	30,906	34,457	13,005	15,794	17,608	20,781
79 Purdue U. all campuses	46,279	52,406	56,102	34,044	18,839	24,159	27,640	20,309
80 TX A&M U. all campuses	33,216	32,798	32,584	33,920	10,146	8,426	9,554	9,784
81 Princeton U.	23,185	26,431	29,180	33,738	15,571	17,546	21,380	23,596
82 U. VT	21,253	23,789	28,718	33,233	16,863	17,865	22,132	27,064
83 Medical C. GA	27,765	30,271	29,913	32,954	10,294	13,137	13,461	17,510
84 AZ State U. main campus	12,143	11,776	14,443	28,398	5,398	6,178	8,052	8,307
85 U. MD Biotechnology Institute	16,940	18,007	19,107	27,942	6,311	6,107	5,882	16,395
86 U. Miami	20,681	21,616	24,726	25,408	16,444	16,816	18,534	18,907
87 U. TX Austin	26,891	29,195	22,675	25,367	18,409	20,227	15,482	17,956
88 Brandeis U.	20,159	22,902	21,187	24,747	14,241	17,263	15,482	18,688
89 U. CA, Los Angeles	51,743	18,799	22,351	24,164	33,860	10,801	13,981	13,663
90 Meharry Medical C.	4,600 e	7,288 i	18,406	23,331	4,593 e	7,288 i	18,356	23,331
91 SUNY Health Science Ctr. Brooklyn	18,509	18,509 e	20,681 i	23,003 i	15,089	15,089 e	16,829 i	19,227 i
92 NY Medical C.	11,800	13,990	17,380	22,760	9,505	11,666	13,933	18,910
93 KS State U.	15,881	16,575	21,876	22,496	7,346	7,925	12,635	14,365
94 U. NV, Reno	11,815	15,016	16,219	22,202	9,016	11,329	13,420	18,119
95 OK State U. all campuses	17,554	18,430	19,601	20,307	6,459	5,739	5,896	7,318

TABLE 55. Total and federally financed R&D expenditures in the biological sciences at universities and colleges, ranked by FY 2003 total for the first 100 institutions: FY 2000–03

(Dollars in thousands)

Institution and ranking	Total				Federally financed R&D expenditures			
	2000	2001	2002	2003	2000	2001	2002	2003
96 U. MA Amherst	15,612	15,453	15,949	20,073	8,478	9,489	9,876	12,995
97 Temple U.	15,256	16,645	18,025	19,936	12,044	12,492	13,270	15,715
98 VA Polytechnic Institute and State U.	11,741	12,751	16,454	19,330	3,847	4,263	7,026	9,420
99 Stanford U.	15,361	14,984	17,853	19,059	12,315	11,388	13,389	14,949
100 Tulane U.	10,196	11,885	16,194	18,771	7,370	6,812	10,167	12,419
All other sampled institutions	744,307	803,692	860,101	955,921	449,598	497,539	561,090	627,658

e = estimated.

i = imputed.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 56. Total and federally financed R&D expenditures in the medical sciences at universities and colleges, ranked by FY 2003 total for the first 100 institutions: FY 2000–03

(Dollars in thousands)

Institution and ranking	Total				Federally financed R&D expenditures			
	2000	2001	2002	2003	2000	2001	2002	2003
All institutions	8,986,427	10,190,951	11,501,449	12,786,774	5,441,836	6,259,513	7,227,778	8,249,066
1 U. CA, Los Angeles	312,078	462,136	537,772	583,167	152,515	208,134	247,311	285,481
2 U. CA, San Francisco	369,884	486,729	505,703	581,024	193,883	249,791	263,802	308,271
3 Johns Hopkins U., The <sup>a</sup>	258,324	298,656	347,468	383,945	202,668	235,267	282,113	313,602
4 Duke U.	230,670	239,127	299,704	366,539	104,471	110,770	155,482	188,586
5 U. Pittsburgh all campuses	237,966	279,251	321,572	332,214	186,326	219,767	251,920	280,529
6 Stanford U.	242,679	260,328	286,805	314,088	186,983	203,098	221,964	244,169
7 U. WA	239,350	279,027	284,686	311,786	177,807	206,149	218,691	256,534
8 U. PA	199,489	230,791	253,871	276,221	148,823	176,736	196,534	206,835
9 U. CA, San Diego	213,430	235,301	241,406	271,570	124,941	137,598	145,766	166,887
10 U. WI Madison	179,773	198,242	228,724	254,759	74,842	78,722	96,547	113,506
11 U. MI all campuses	183,043	186,148	205,213	244,181	112,859	117,552	132,419	158,448
12 Harvard U.	153,796	186,454	224,969	242,559	129,901	154,340	190,970	208,562
13 U. MD Baltimore	179,477	191,206	213,458	237,817	72,969	79,273	93,614	100,925
14 U. MN all campuses	173,794	200,593	231,995	235,350	111,373	130,966	159,548	153,523
15 Washington U. St. Louis	164,561	185,732	205,172	230,511	106,261	121,071	138,263	160,898
16 Baylor C. of Medicine	172,906	175,003	194,722	224,420	77,279	81,144	94,204	115,695
17 Yale U.	169,786	187,848	200,308	218,440	130,375	139,922	153,602	167,346
18 U. Southern CA	148,314	169,220	184,196	200,561	91,893	109,489	121,590	137,508
19 Cornell U. all campuses	138,082	156,146	175,155	194,184	82,343	93,161	103,438	125,080
20 Emory U.	115,760	129,895	150,660	190,824	74,023	87,296	95,171	126,740
21 Columbia U. in the City of NY	132,827	154,959	177,161	184,523	113,332	134,102	148,940	157,648
22 U. AL Birmingham, The	149,166	149,791	164,272	179,415	111,146	126,192	138,804	152,411
23 U. CO all campuses	111,438 i	122,409	151,887	177,847	93,510 i	100,540	126,065	152,926
24 Wayne State U.	116,063	134,074	152,591	163,851	50,451	60,743	73,575	79,939
25 U. TX Southwestern Medical Ctr. Dallas	101,518	129,698	145,189	154,194	53,847	74,149	86,083	101,573
26 U. TX M. D. Anderson Cancer Ctr.	97,326	116,247	148,715	150,150	40,231	48,725	62,451	56,709
27 U. IA	135,912	131,647	150,216	147,960	84,526	79,779	95,369	105,789
28 U. IL Chicago	94,381	111,543	128,276	145,433	48,167	59,277	70,015	81,795
29 U. NC Chapel Hill	99,553	116,484	140,192	145,126	76,970	90,714	99,906	105,951
30 Boston U.	95,805	108,662	119,867	141,491	81,463	92,068	104,378	125,473
31 U. Cincinnati all campuses	84,952	98,809	112,288	140,722	60,122	72,679	86,758	115,730
32 Northwestern U.	87,605	96,134	117,787	138,904	50,440	55,630	67,934	79,523
33 U. Rochester	81,799	108,323	121,966	137,060	53,561	65,913	82,217	90,075
34 IN U. all campuses	87,059	99,307	116,922	136,549	46,910	51,688	56,887	65,513
35 U. South FL	91,892	112,226	128,491	134,865	28,399	33,877	49,329	57,085
36 Case Western Reserve U.	103,269	103,459	119,958	134,782	86,372	93,650	110,871	124,208
37 U. CA, Davis	79,361	92,150	106,874	128,766	39,118	43,769	52,203	69,203
38 Wake Forest U.	85,083	95,714	108,418	127,528	64,663	76,655	89,581	106,396
39 U. Chicago	82,954	97,357	117,468	126,964	66,148	74,222	93,985	98,117
40 Mt. Sinai School of Medicine	91,270	110,826	120,468	120,557	54,288	71,037	81,918	87,647
41 U. FL	95,009	84,627	94,775	118,105	38,784	34,013	43,470	53,390
42 U. AZ	74,590	85,213	97,842	109,167	42,825	48,748	58,334	68,726
43 U. of Medicine and Dentistry NJ	85,460	103,341	108,675	108,735	38,183	45,727	45,118	50,508
44 OH State U. all campuses	80,300	81,376	96,930	107,610	37,533	43,684	54,837	55,686
45 SUNY Buffalo all campuses	63,675	83,824	100,858	103,221	28,453	39,463	46,316	48,074
46 Vanderbilt U.	59,285	73,053	74,042	100,778	39,046	52,764	60,056	80,036
47 Dartmouth C.	56,534	70,666	83,062	98,515	39,111	44,644	57,803	65,959
48 OR Health and Science U.	65,485	78,024	90,513 e	98,228	50,027	57,842	67,445 e	75,901
49 Yeshiva U.	76,148	80,845	85,696	96,665	55,430	58,794	62,322	70,299
50 U. TX Health Science Ctr. Houston	68,805	80,144	87,051	96,241	44,657	58,522	65,234	67,031

TABLE 56. Total and federally financed R&D expenditures in the medical sciences at universities and colleges, ranked by FY 2003 total for the first 100 institutions: FY 2000–03

(Dollars in thousands)

Institution and ranking	Total				Federally financed R&D expenditures			
	2000	2001	2002	2003	2000	2001	2002	2003
51 U. Miami	82,709	86,099	92,920	95,137	51,783	53,767	54,257	60,238
52 NY U.	64,090	74,482	88,315	92,855	34,990	40,319	48,019	55,995
53 Georgetown U.	107,609	81,472	78,926	81,373	82,703	77,266	71,520	67,759
54 U. UT	52,488	58,897	69,203	77,267	41,447	43,445	52,553	58,838
55 U. VA all campuses	52,593	56,158	65,520	76,804	43,464	46,338	55,053	64,645
56 U. TX Health Science Ctr. San Antonio	68,850	74,905	78,354	74,650	39,302	42,475	47,384	48,543
57 U. KY all campuses	82,698	91,612	63,885	73,423	40,070	49,211	27,765	36,580
58 U. CA, Irvine	49,477	51,110	63,125	72,781	20,830	20,759	28,812	35,618
59 U. CT all campuses	50,379	50,147	61,609	71,794	24,380	20,916	27,925	27,374
60 U. TX Medical Branch	54,655	51,430	59,266	67,141	33,022	33,652	35,796	47,812
61 Rush U.	52,830	53,634	60,344	66,628	25,223	28,121	32,570	35,014
62 Medical C. WI	41,601	49,240	57,546	65,860	32,437	37,583	45,371	50,347
63 PA State U. all campuses	23,825	48,279	59,892	65,308	16,194	36,705	48,076	48,779
64 VA Commonwealth U.	46,724	54,798	58,493	64,709	25,707	27,521	31,164	38,509
65 Medical U. SC	31,648	58,654	68,454	64,132	19,236	28,456	34,285	43,076
66 LA State U. all campuses	35,966	42,844	41,448	57,571	10,672	11,592	14,194	17,374
67 U. MA Worcester	40,328	44,349	51,616	56,548	31,972	35,318	41,948	45,965
68 U. Louisville	28,675	30,579	49,716	55,551	7,396	11,684	23,962	24,871
69 U. AR for Medical Sciences	37,613	33,975	34,649	54,177	20,003	20,529	19,907	34,389
70 TX A&M U. System Health Science Ctr.	24,048	40,392	49,014	53,354	13,411	18,034	22,104	25,265
71 TX A&M U. all campuses	46,591	51,233	50,428	52,693	13,244	15,289	14,901	16,204
72 Charles R. Drew U. of Medicine and Science	31,045	36,717	48,839	49,888	21,969	27,415	39,259	39,407
73 U. CA, Berkeley	86,010	37,720	40,377	45,123	14,234	19,809	20,664	24,058
74 Thomas Jefferson U.	45,792	42,211	46,854	45,069	31,671	27,497	31,491	35,933
75 Brown U.	28,495	29,146	38,880 i	44,993 i	19,609	20,246	25,600 i	31,116 i
76 U. TN all campuses	37,253	33,114	39,112	44,761	17,236	16,400	20,799	23,058
77 U. VT	25,677	31,810	38,070	44,443	14,701	21,253	25,532	31,360
78 SUNY Stony Brook all campuses	39,652	40,313	44,139	44,147	20,445	20,258	23,156	22,106
79 U. MO-Columbia	31,259	33,376	37,324	42,069	13,997	14,967	17,415	22,747
80 U. OK all campuses	35,404	35,612	38,007	39,234	11,774	11,505	14,260	18,074
81 U. KS all campuses	26,894	42,092	41,149	39,208	14,025	21,351	22,193	22,250
82 U. MS all campuses	18,542	24,083 i	30,304 i	36,447	8,396	12,367 i	17,673 i	26,589
83 U. NE central administration	20,212	25,913	30,817	34,590	5,320	6,958	10,636	12,299
84 Tulane U.	27,513	30,315	31,918	31,949	10,352	10,909	11,838	13,405
85 U. SC all campuses	18,022	19,033	25,263	31,788	10,584	9,692	10,826	15,543
86 U. NM all campuses	14,349	19,147	24,841	31,673	11,906	14,203	18,423	23,564
87 WV U.	18,527	25,171	25,483	31,201	7,701	9,220	11,348	15,685
88 U. PR Medical Sciences Campus	21,373	23,913	29,089	31,124 i	16,657	19,433	23,931	25,845 i
89 George Washington U.	22,814	35,326	26,602	29,602	13,607	22,340	14,423	18,092
90 U. HI Manoa	20,433	21,053	21,625	29,145	15,094	16,406	17,277	21,725
91 Rutgers, The State U. NJ all campuses	17,518	20,121	23,926	27,669	7,128	7,676	11,767	16,130
92 U. GA	24,527	25,078	25,611	27,069	2,906	3,176	3,707	5,312
93 MI State U.	18,467	20,705	21,232	27,061	9,782	10,839	11,333	12,420
94 Eastern VA Medical School	13,820	16,654	21,296	26,719	8,396	7,570	8,139	10,778
95 Medical C. GA	17,754	21,841	21,718	21,716	4,916	7,963	9,804	10,770



TABLE 56. Total and federally financed R&D expenditures in the medical sciences at universities and colleges, ranked by FY 2003 total for the first 100 institutions: FY 2000–03

(Dollars in thousands)

Institution and ranking	Total				Federally financed R&D expenditures			
	2000	2001	2002	2003	2000	2001	2002	2003
96 U. LA Lafayette	13,327	14,174	25,627	20,251	5,294	6,155	7,061	8,524
97 Loyola U. Chicago	13,090	15,414	14,206	20,014	8,605	10,142	8,885	14,517
98 Temple U.	14,383	17,843	19,840	19,676	11,040	11,345	12,725	12,198
99 Uniformed Services U. of the Health Sciences	15,656	15,694	18,111	19,207	7,194	6,821	6,511	5,979
100 SUNY Upstate Medical U.	7,763	10,277	16,190	18,992	2,211	3,608	8,047	10,542
All other sampled institutions	367,773	394,031	470,267	544,078	207,352	233,153	284,336	347,399

e = estimated.

i = imputed.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 57. Total and federally financed R&D expenditures in psychology at universities and colleges, ranked by FY 2003 total for the first 100 institutions: FY 2000–03

(Dollars in thousands)

Institution and ranking	Total				Federally financed R&D expenditures			
	2000	2001	2002	2003	2000	2001	2002	2003
All institutions	516,535	582,831	672,054	768,730	350,581	398,528	475,314	552,623
1 U. WI Madison	23,237	22,838	24,743	26,189	17,657	16,715	18,587	21,042
2 PA State U. all campuses	11,227	12,530	12,634	17,220	6,049	6,864	7,581	10,256
3 U. South FL	7,542	10,092	11,416	14,505	2,875	3,817	4,689	7,460
4 U. OK all campuses	13,927	11,937	13,043	13,669	4,632	4,426	4,398	5,187
5 NY U.	9,909	11,233	14,629	13,380	7,874	9,219	12,247	11,478
6 U. GA	7,632	8,421	10,302	13,186	2,771	3,585	5,093	7,935
7 U. MN all campuses	8,218	8,201	9,768	12,518	5,175	5,269	6,717	8,557
8 U. CA, Los Angeles	9,012	10,688	11,188	11,905	6,501	7,251	7,211	8,194
9 U. CA, Berkeley	7,218	8,244	9,823	11,820	4,459	4,239	6,310	8,065
10 U. Rochester	7,975	10,161	11,737	11,811	4,761	6,508	7,591	8,056
11 Temple U.	4,360	11,604	10,482	11,558	2,962	7,230	7,143	8,113
12 U. IL Urbana-Champaign	8,872	9,320	9,485	11,536	5,512	5,754	5,483	6,564
13 IN U. all campuses	9,073	9,652	10,500	11,462	6,090	6,380	6,762	7,644
14 U. Memphis, The	9,375	9,788	11,084	11,373	5,143	4,537	5,661	6,682
15 Carnegie-Mellon U.	5,880	6,460	7,016	11,111	4,095	4,336	6,295	9,532
16 U. CT all campuses	7,876	6,608	7,375	10,898	4,219	3,910	5,783	8,547
17 Rutgers, The State U. NJ all campuses	7,758	8,420	9,527	10,809	3,262	3,029	4,003	4,732
18 OR Health and Science U.	5,041	5,495	6,350 e	10,680	4,980	5,343	6,252 e	10,221
19 Vanderbilt U.	2,674	3,601	5,940	10,519	2,264	2,643	4,655	7,298
20 U. MI all campuses	9,076	11,049	12,259	10,150	4,337	5,701	8,317	9,348
21 U. Miami	6,893	7,749	8,412	9,848	6,725	7,625	8,213	9,530
22 U. CO all campuses	7,840 i	9,635	8,246	9,560	6,339 i	8,097	7,206	8,621
23 GA State U.	7,182	6,586	9,009	9,553	3,204	3,456	5,992	6,658
24 San Diego State U.	6,160	6,714	7,975	9,021	4,137	3,715	3,826	4,924
25 U. WA	9,493	9,316	8,718	8,640	8,716	7,998	7,485	7,897
26 U. NE central administration	2,193	6,006	7,175	8,543	337	3,777	4,215	5,210
27 AZ State U. main campus	5,438	6,399	6,308	8,323	3,678	4,251	4,996	7,164
28 U. MO-Columbia	4,515	5,274	4,506	8,306	2,863	3,000	2,700	3,899
29 OH State U. all campuses	4,480	5,719	7,876	8,297	3,422	4,068	5,353	5,098
30 U. CA, Santa Barbara	2,222	5,912	7,077	8,177	1,830	4,221	4,797	5,811
31 San Jose State U.	2,938 e	5,714	6,530	8,155	2,698 e	5,694	6,527	8,155
32 U. FL	5,122	5,845	6,371	7,945	3,591	3,831	4,945	6,197
33 U. TX M. D. Anderson Cancer Ctr.	0	0	0	7,856	0	0	0	4,113
34 Princeton U.	5,259	3,892	5,404	7,812	3,743	2,195	3,944	5,595
35 U. AL Birmingham, The	6,233	5,495	5,895	7,266	5,763	5,091	5,374	6,445
36 U. TX Austin	3,423	4,336	5,350	7,186	2,980	3,735	4,748	6,572
37 U. CA, San Diego	5,364	5,831	6,182	6,935	4,370	4,931	5,258	5,529
38 Cornell U. all campuses	6,077	6,425	7,055	6,920	2,083	1,942	2,302	2,693
39 U. Pittsburgh all campuses	4,546	4,791	5,669	6,878	3,865	4,540	5,451	6,515
40 MI State U.	3,698	5,401	5,983	6,633	2,514	3,853	3,940	4,128
41 Stanford U.	4,616	4,906	4,837	6,530	3,830	3,880	3,672	5,245
42 Harvard U.	4,387	3,964	6,168	6,459	4,059	3,648	5,901	6,285
43 U. NM all campuses	5,872	7,168	9,373	6,453	4,232	5,050	7,790	4,552
44 U. NC Chapel Hill	3,710	4,282	5,584	6,447	3,370	3,871	4,669	5,552
45 FL State U.	4,234	5,922	6,579	6,371	2,877	3,907	3,065	2,804
46 U. VA all campuses	2,775	3,001	5,070	6,367	2,550	2,759	4,467	5,864
47 Yale U.	4,162	4,720	5,987	6,311	2,698	3,978	3,735	4,271
48 U. Southern CA	3,965	5,013	4,650	6,258	3,394	3,895	3,625	4,678
49 U. IL Chicago	4,155	5,832	6,273	6,195	2,567	3,475	4,014	3,961
50 Boston U.	3,349	4,879	6,004	6,193	3,295	4,773	5,823	6,157

TABLE 57. Total and federally financed R&D expenditures in psychology at universities and colleges, ranked by FY 2003 total for the first 100 institutions: FY 2000–03

(Dollars in thousands)

Institution and ranking	Total				Federally financed R&D expenditures			
	2000	2001	2002	2003	2000	2001	2002	2003
51 U. OR	2,525	4,373	8,848	5,897	2,333	4,048	8,505	5,527
52 Purdue U. all campuses	2,965	4,010	4,524	5,810	1,634	2,262	2,598	3,365
53 U. Chicago	2,306	2,620	3,844	5,629	1,383	2,588	3,813	5,611
54 Dartmouth C.	3,100	4,685	5,868	5,579	2,431	3,473	4,173	3,972
55 CUNY Hunter C.	2,143	2,899	4,141	5,524	1,578	2,113	3,205	3,788
56 U. RI	3,434	4,408	5,391	5,515	3,250	3,809	4,843	4,543
57 U. SC all campuses	4,013	3,596	3,102	5,377	2,890	2,416	2,064	2,916
58 SUNY Buffalo all campuses	4,990	3,360	3,964	5,120	3,514	1,463	2,006	2,719
59 VA Commonwealth U.	2,081	3,096	3,214	5,101	1,417	2,166	2,259	3,250
60 U. MA Amherst	4,788	5,360	5,144	5,067	3,449	3,884	3,555	3,558
61 GA Institute of Technology all campuses	4,358	4,128	4,524	5,008	1,806	1,937	2,202	3,327
62 U. PA	2,903	3,483	3,504	4,978	2,564	3,050	2,982	4,494
63 U. IA	3,180	4,201	4,521	4,958	2,252	3,423	3,897	4,471
64 U. CA, Irvine	3,313	3,768	4,649	4,347	2,358	3,115	3,661	3,149
65 Johns Hopkins U., The <sup>a</sup>	3,636	3,940	3,371	4,315	3,453	3,691	3,250	3,954
66 U. MD College Park	3,233	3,873	3,970	4,203	2,394	2,677	3,019	3,936
67 Northwestern U.	2,952	2,894	3,314	4,177	1,836	2,305	2,800	3,414
68 SUNY Binghamton	2,991	2,482	3,233	4,009	1,773	1,648	2,136	2,279
69 Wayne State U.	3,096	2,749	2,960	3,873	1,915	1,805	1,821	2,459
70 Columbia U. in the City of NY	3,066	3,469	3,098	3,862	2,865	3,268	2,951	3,471
71 Teachers C. Columbia U.	2,992	3,085	3,301	3,824	2,471	2,480	2,636	3,153
72 U. AZ	38	3,403	3,342	3,820	0	1,705	2,131	2,563
73 SUNY Stony Brook all campuses	4,057	3,464	3,851	3,715	2,394	2,653	2,788	2,548
74 Tufts U.	2,933	3,357	4,133	3,619	1,312	1,935	1,725	1,385
75 U. of Notre Dame	1,355	1,729	2,177	3,338	1,084	1,337	1,809	2,824
76 CO State U.	2,679	3,004	3,979	3,312	2,530	2,839	2,885	2,765
77 U. Houston	2,954	3,445	8,457	3,294	1,715	1,733	6,205	1,673
78 Washington U. St. Louis	1,663	2,225	3,039	3,250	1,469	1,864	2,215	2,302
79 U. KY all campuses	799	872	3,400	3,158	645	749	2,887	2,669
80 Emory U.	967	1,340	1,663	2,992	631	1,027	1,160	2,301
81 Duke U.	3,645	3,862	3,783	2,965	3,089	3,184	2,943	2,394
82 VA Polytechnic Institute and State U.	2,142	2,015	2,461	2,946	1,057	1,210	1,502	2,006
83 Northeastern U.	1,281	1,579	1,969	2,846	935	1,162	1,290	1,496
84 George Mason U.	1,903	1,871	2,143	2,747	1,766	1,728	1,967	2,122
85 U. Louisville	1,819	2,130	2,405	2,736	982	1,153	1,867	2,054
86 TX A&M U. all campuses	2,752	2,898	3,078	2,725	1,583	1,761	2,420	2,022
87 CUNY Herbert H. Lehman C.	303	411	975	2,595	303	411	968	2,595
88 Brandeis U.	1,712	1,621	1,882	2,591	1,641	1,474	1,506	2,137
89 Howard U.	360	1,693	2,553	2,552	360	1,693	2,553	2,552
90 U. AL, The	1,346	1,917	2,226	2,549	1,258	1,877	2,203	2,440
91 Wright State U. all campuses	1,169	1,438	1,327	2,423	351	696	854	1,316
92 U. Central FL	1,026	1,247	1,902	2,414	844	1,146	1,756	2,368
93 TX Christian U.	2,043	2,397	2,147	2,381	2,037	2,382	2,142	2,368
94 U. UT	1,836	2,271	2,347	2,368	1,637	1,618	1,809	1,937
95 CUNY Brooklyn C.	1,441	1,745	1,656	2,367	1,035	1,271	1,048	1,009

TABLE 57. Total and federally financed R&D expenditures in psychology at universities and colleges, ranked by FY 2003 total for the first 100 institutions: FY 2000–03

(Dollars in thousands)

Institution and ranking	Total				Federally financed R&D expenditures			
	2000	2001	2002	2003	2000	2001	2002	2003
96 Syracuse U. all campuses	1,523	1,254	1,978	2,314	1,465	1,250	1,952	2,298
97 DePaul U.	570	1,189	2,011	2,295	302	861	1,775	2,130
98 FL Atlantic U.	1,636	1,591	1,691	2,291	1,414	1,436	1,536	2,154
99 UT State U.	1,067	1,782	2,298	2,272	451	1,131	1,223	1,151
100 Brown U.	2,143	2,666	3,028	2,266	1,400	1,868	2,216	1,558
All other sampled institutions	83,125	82,867	96,101	103,679	53,977	53,741	62,792	69,096

e = estimated.

i = imputed.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 58. R&D expenditures in the social sciences at universities and colleges, ranked by all FY 2003 social sciences for the first 100 institutions: FY 2000–03 and by subfield for FY 2003

(Dollars in thousands)

Institution and ranking	2000	2001	2002	2003				
				All social sciences	Economics	Political sciences	Sociology	Social sciences, nec
All institutions	1,298,959	1,441,683	1,585,553	1,661,090	314,393	289,162	371,930	685,605
1 U. MI all campuses	56,840	75,406	92,279	108,702	16,218	9,319	13,716	69,449
2 U. MD College Park	54,827	61,208	62,573	70,485	16,584	12,563	4,065	37,273
3 U. CA, Berkeley	41,708	44,406	51,204	51,283	14,019	7,231	7,471	22,562
4 U. CA, Los Angeles	32,915	35,135	42,971	41,263	779	499	10,475	29,510
5 OH State U. all campuses	20,035	30,546	30,963	40,370	6,979	4,831	3,446	25,114
6 U. PA	30,842	31,948	34,590	40,272	2,205	18,086	8,608	11,373
7 U. WI Madison	31,083	35,284	36,982	39,324	8,553	4,536	13,888	12,347
8 U. GA	31,287	34,768	34,689	37,341	13,347	2,844	2,409	18,741
9 IN U. all campuses	29,271	34,401	33,908	35,476	2,386	12,461	9,396	11,233
10 Princeton U.	16,544	19,003	26,351	28,647	2,938	21,634	1,264	2,811
11 U. IL Urbana-Champaign	24,868	23,922	24,875	28,027	9,166	1,083	7,823	9,955
12 U. NC Chapel Hill	22,325	25,281	43,742	27,095	234	0	10,499	16,362
13 PA State U. all campuses	16,529	19,577	25,408	26,511	1,140	6,504	18,867	0
14 MI State U.	19,130	21,461	23,383	26,198	9,794	4,215	2,073	10,116
15 Rutgers, The State U. NJ all campuses	22,708	27,826	23,288	23,365	1,374	7,630	3,198	11,163
16 Harvard U.	31,473	31,132	26,738	22,398	4,161	15,286	407	2,544
17 Duke U.	14,656	14,794	18,769	21,662	4,284	6,562	7,853	2,963
18 Cornell U. all campuses	12,963	14,737	19,497	21,451	6,187	218	2,294	12,752
19 U. AZ	15,044	16,149	17,987	20,374	5,968	294	10,371	3,741
20 U. TX Austin	9,617	13,898	11,470	20,251	941	234	5,742	13,334
21 U. MN all campuses	14,567	14,792	14,973	18,798	9,086	2,147	5,326	2,239
22 FL State U.	13,065	18,967	22,103	18,050	597	4,795	6,164	6,494
23 U. CA, Davis	3,649	13,247	16,578	16,736	7,361	2,820	730	5,825
24 U. OK all campuses	9,896	10,020	13,335	15,728	746	2,171	1,553	11,258
25 Brandeis U.	19,575	21,376	16,733	15,617	66	47	12,689	2,815
26 U. IL Chicago	9,439	10,977	13,319	15,390	404	126	5,747	9,113
27 U. WA	8,029	10,019	13,231	15,229	97	7,317	4,011	3,804
28 U. NE central administration	12,062	11,225	13,134	15,189	4,844	1,562	3,696	5,087
29 Purdue U. all campuses	18,050	18,864	20,095	14,781	7,813	212	3,705	3,051
30 IA State U.	15,842	14,125	12,834	14,618	3,676	345	10,399	198
31 U. MO-Columbia	12,393	14,072	12,254	14,185	7,998	52	1,038	5,097
32 Naval Postgraduate School	5,567 i	6,486 i	7,404 i	12,990	7	12,983	0	0
33 U. CA, San Diego	9,668	10,705	10,532	12,929	1,256	2,935	5,697	3,041
34 WA State U.	9,450	10,535	11,274	12,660	6,921	1,222	1,800	2,717
35 U. CA, Santa Barbara	8,974	10,531	12,285	11,918	32	89	297	11,500
36 Stanford U.	6,363	8,888	10,287	11,793	1,411	13	552	9,817
37 U. NM all campuses	6,574	6,180	7,177	11,720	389	226	1,836	9,269
38 GA State U.	14,748	10,186	10,319	11,587	6,387	2,597	1,926	677
39 SUNY Albany	7,389	8,532	10,832	11,554	95	3,891	4,677	2,891
40 U. CO all campuses	7,176 i	9,274	12,032	11,195	403	656	5,801	4,335
41 U. FL	9,525	11,971	13,726	10,701	6,634	11	898	3,158
42 Northwestern U.	8,260	9,523	12,473	10,602	823	7,939	942	898
43 LA State U. all campuses	8,331	7,443	9,461	10,588	4,362	379	1,454	4,393
44 AZ State U. main campus	9,591	10,114	10,083	10,468	2,224	1,360	453	6,431
45 Clemson U.	4,518	8,718	7,001	10,302	2,272	2,489	1,106	4,435
46 GA Institute of Technology all campuses	4,594	5,512	3,765	10,219	6,952	1,278	1,278	711
47 U. CA, Riverside	3,337	5,850	9,886	10,099	38	36	502	9,523
48 Carnegie-Mellon U.	9,193	8,827	9,569	10,037	2,617	3,390	1,118	2,912
49 U. CA, Irvine	5,494	8,539	9,472	9,826	299	4,593	1,175	3,759

TABLE 58. R&D expenditures in the social sciences at universities and colleges, ranked by all FY 2003 social sciences for the first 100 institutions: FY 2000–03 and by subfield for FY 2003

(Dollars in thousands)

Institution and ranking	2000	2001	2002	2003				
				All social sciences	Economics	Political sciences	Sociology	Social sciences, nec
50 U. Houston	2,088	2,514	3,582	9,802	213	158	3,467	5,964
51 Columbia U. in the City of NY	5,413	5,709	7,158	9,473	488	309	8,676	0
52 CO State U.	2,722	3,068	4,651	9,246	1,775	157	841	6,473
53 U. Central FL	5,204	5,902	6,006	9,226	664	182	3,900	4,480
54 U. KY all campuses	3,174	3,556	4,867	9,201	4,198	1,190	678	3,135
55 U. KS all campuses	5,711	5,726	6,901	9,135	432	1,876	5,328	1,499
56 U. Southern CA	7,640	7,666	9,249	8,882	174	2,695	3,546	2,467
57 FL International U.	3,864	8,351	8,926	8,568	0	0	0	8,568
58 OK State U. all campuses	7,796	8,630	11,652	8,559	4,200	191	881	3,287
59 U. TN all campuses	5,221	5,834	7,048	8,527	7,035	3	733	756
60 NC State U.	6,918	8,968	8,604	8,508	4,002	251	3,278	977
61 ND State U. all campuses	4,769	5,549	7,538	8,342	2,064	0	733	5,545
62 George Mason U.	7,219	7,977	8,354	8,193	1,383	5,416	371	1,023
63 U. CT all campuses	8,552	8,382	9,219	8,002	1,439	3,118	1,839	1,606
64 NY U.	5,566	7,022	8,029	7,988	1,112	6,107	552	217
65 U. SC all campuses	9,540	12,537	9,757	7,899	1,161	3,105	586	3,047
66 U. MA Boston	6,664	7,085	8,030	7,860	28	109	678	7,045
67 Portland State U.	9,095	8,600	7,784	7,689	299	652	284	6,454
68 U. WI Milwaukee	5,042	5,468	6,960	7,622	474	124	1,012	6,012
69 TX Tech U.	5,799	2,891	5,738	7,240	2,376	1,831	1,815	1,218
70 U. Memphis, The	4,748	5,551	6,370	7,043	3,926	435	1,850	832
71 George Washington U.	8,827	6,523	7,587	6,907	386	2,892	3,452	177
72 Yale U.	1,965	1,894	4,389	6,621	1,311	105	26	5,179
73 VA Polytechnic Institute and State U.	7,419	10,098	9,157	6,399	1,549	2,278	273	2,299
74 Brown U.	4,613	4,912	6,223	6,300	1,782 i	571 i	756 i	3,191 i
75 MA Institute of Technology	8,293	6,152	5,793	6,131	2,645	1,648	1,075	763
76 Wayne State U.	5,358	5,375	6,684	6,079	1,496	556	3,841	186
77 U. NH	4,781	5,733	4,541	5,984	674	481	2,771	2,058
78 U. Pittsburgh all campuses	7,750	10,570	13,915	5,928	233	239	680	4,776
79 San Diego State U.	5,893	5,142	5,655	5,883	583	959	743	3,598
80 U. HI Manoa	3,611	4,763	3,514	5,876	24	0	121	5,731
81 Boston C.	4,204	4,266	4,873	5,610	2,451	121	548	2,490
82 Cleveland State U.	4,775	5,923	5,212	5,583	3	12	50	5,518
83 East TN State U.	651	1,433	5,142	5,575	154	0	5,039	382
84 U. DE	4,918	4,831	5,423	5,566	269	4	4,780	513
85 Vanderbilt U.	5,291	6,322	6,704	5,507	261	5,009	7	230
86 TX A&M U. all campuses	7,227	7,543	7,510	5,384	1,067	927	1,116	2,274
87 U. IA	7,970	7,235	6,778	5,364	82	1,985	874	2,423
88 U. Akron all campuses	3,721	5,389	7,098	5,236	1	329	4,803	103
89 U. MT, The	2,586	4,242	4,685	5,080	2,212	37	31	2,800
90 U. NV, Las Vegas	1,791	2,176	1,829 i	5,076	4,089	0	618	369
91 Johns Hopkins U., The <sup>a</sup>	10,588	9,698	8,193	5,053	673 i	22 i	2,237 i	2,121 i
92 MS State U.	4,349	4,950	4,653	5,050	354	502	574	3,620
93 Tulane U.	2,097	3,998	4,251	4,752	0	19	30	4,703
94 Washington U. St. Louis	4,217	4,784	5,863	4,674	0	625	3,846	203
95 Tufts U.	5,606	6,291	8,049	4,599	117	3,527	8	947
96 U. South FL	3,090	4,005	3,559	4,318	703	66	1,274	2,275
97 Teachers C. Columbia U.	4,492	5,004	5,305	4,236	873	0	0	3,363
98 KS State U.	3,288	3,530	3,952	4,227	2,847	0	238	1,142
99 U. West FL	767	1,003	616	4,090	80	0	625	3,385

TABLE 58. R&D expenditures in the social sciences at universities and colleges, ranked by all FY 2003 social sciences for the first 100 institutions: FY 2000–03 and by subfield for FY 2003

(Dollars in thousands)

Institution and ranking	2000	2001	2002	2003				
				All social sciences	Economics	Political sciences	Sociology	Social sciences, nec
100 U. CA, Santa Cruz	2,335	3,297	3,663	4,043	652	50	655	2,686
All other sampled institutions	223,757	221,235	230,480	216,950	36,312	34,578	59,356	86,704

i = imputed.

nec = not elsewhere classified.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 59. Federally financed R&D expenditures in the social sciences at universities and colleges, ranked by all FY 2003 social sciences for the first 100 institutions: FY 2000–03 and by subfield for FY 2003

(Dollars in thousands)

Institution and ranking	2000	2001	2002	2003				
				All social sciences	Economics	Political sciences	Sociology	Social sciences, nec
All institutions	490,687	546,840	617,257	666,551	107,876	91,744	182,518	284,413
1 U. MI all campuses	42,739	53,209	62,450	69,293	13,561	5,669	8,647	41,416
2 U. MD College Park	30,484	33,164	32,218	28,506	2,533	2,889	2,342	20,742
3 U. WI Madison	14,113	15,094	17,179	19,565	4,681	460	8,109	6,315
4 U. NC Chapel Hill	14,633	18,069	29,399	18,903	99	0	8,527	10,277
5 OH State U. all campuses	7,992	14,489	11,543	15,074	1,185	1,842	1,091	10,956
6 Duke U.	10,924	11,045	13,611	15,005	2,384	3,734	6,303	2,584
7 U. PA	8,585	8,997	11,846	14,132	1,252	2,805	4,881	5,194
8 Naval Postgraduate School	5,428 i	6,288 i	7,149 i	12,565	7	12,558	0	0
9 U. TX Austin	4,416	6,710	6,103	11,751	440	0	4,647	6,664
10 MI State U.	9,070	9,979	10,042	11,597	6,197	791	858	3,751
11 Harvard U.	14,119	13,050	11,613	10,574	3,120	6,179	15	1,260
12 U. AZ	5,979	7,509	8,218	10,010	2,368	137	6,472	1,033
13 PA State U. all campuses	5,221	6,220	9,289	9,778	651	2,346	6,781	0
14 U. CO all campuses	5,432 i	7,140	9,832	9,134	265	374	4,739	3,756
15 Carnegie-Mellon U.	6,750	6,779	5,473	7,986	1,498	2,504	1,118	2,866
16 IA State U.	9,414	7,415	7,060	7,961	533	0	7,279	149
17 U. MN all campuses	2,891	3,031	3,894	7,925	2,926	935	3,810	254
18 U. CA, Los Angeles	2,796	4,451	5,679	7,766	41	61	2,341	5,323
19 IN U. all campuses	4,821	5,838	6,643	7,303	126	1,667	5,098	412
20 Cornell U. all campuses	3,858	3,894	6,185	6,842	1,810	42	679	4,311
21 U. IL Chicago	2,503	2,694	5,105	6,811	58	28	4,133	2,592
22 FL International U.	2,264	4,515	6,004	6,709	0	0	0	6,709
23 Brandeis U.	5,585	5,942	6,273	6,631	56	0	6,051	524
24 U. CA, Berkeley	5,613	5,706	4,999	6,586	2,644	91	1,158	2,693
25 Columbia U. in the City of NY	3,216	4,312	5,283	6,495	379	16	6,100	0
26 FL State U.	5,143	6,645	8,294	6,387	228	725	2,455	2,979
27 U. WA	1,222	1,593	3,609	6,167	0	1,484	2,474	2,209
28 U. NM all campuses	2,382	1,942	2,699	6,087	241	31	1,082	4,733
29 CO State U.	1,558	1,736	2,798	5,817	1,006	10	486	4,315
30 U. OK all campuses	2,354	2,592	3,554	5,807	0	0	637	5,170
31 U. Houston	620	294	938	5,691	179	17	1,374	4,121
32 ND State U. all campuses	3,105	3,361	4,878	5,582	1,153	0	587	3,842
33 George Mason U.	3,791	4,598	4,486	5,517	291	4,182	241	803
34 Portland State U.	6,451	5,759	5,265	5,014	188	233	176	4,417
35 U. CA, Santa Barbara	4,984	5,518	5,752	4,977	0	0	17	4,960
36 U. Pittsburgh all campuses	4,800	5,402	5,960	4,878	201	157	488	4,032
37 Princeton U.	3,545	2,738	4,273	4,780	598	4,015	73	94
38 Clemson U.	1,231	2,926	2,022	4,760	525	1,321	392	2,522
39 Tulane U.	1,656	3,345	3,689	4,703	0	0	15	4,688
40 SUNY Albany	4,239	4,254	4,151	4,661	61	491	1,931	2,178
41 U. NE central administration	4,199	2,310	3,260	4,553	186	230	2,588	1,549
42 U. WI Milwaukee	2,025	2,676	3,639	4,413	90	97	779	3,447
43 U. MO-Columbia	4,703	4,324	4,002	4,382	3,463	0	255	664
44 Purdue U. all campuses	2,993	3,439	3,403	4,357	2,281	10	1,859	207
45 Vanderbilt U.	3,879	4,468	4,900	4,325	156	4,086	4	79
46 U. CA, San Diego	4,327	3,762	3,710	4,281	551	828	2,812	90
47 U. KS all campuses	1,983	1,877	2,979	4,197	203	267	2,797	930
48 NY U.	2,013	3,610	5,015	4,108	884	2,690	395	139
49 U. IL Urbana-Champaign	3,858	4,127	4,344	4,096	1,473	50	445	2,128



TABLE 59. Federally financed R&D expenditures in the social sciences at universities and colleges, ranked by all FY 2003 social sciences for the first 100 institutions: FY 2000–03 and by subfield for FY 2003

(Dollars in thousands)

Institution and ranking	2000	2001	2002	2003				
				All social sciences	Economics	Political sciences	Sociology	Social sciences, nec
50 U. HI Manoa	1,700	3,074	1,844	4,068	0	0	42	4,026
51 U. DE	2,567	3,494	3,768	4,045	72	2	3,855	116
52 GA State U.	2,806	1,759	2,506	3,870	1,612	842	988	428
53 Washington U. St. Louis	2,904	3,498	4,484	3,782	0	357	3,294	131
54 U. GA	2,658	2,664	2,429	3,691	961	90	0	2,640
55 U. Central FL	1,321	2,701	3,276	3,654	267	72	896	2,419
56 U. SC all campuses	2,779	4,020	3,410	3,644	615	819	286	1,924
57 U. CT all campuses	947	2,092	3,885	3,556	628	984	961	983
58 GA Institute of Technology all campuses	1,905	2,587	1,833	3,531	2,818	186	186	341
59 U. CA, Irvine	1,746	2,780	3,170	3,501	94	1,803	398	1,206
60 Stanford U.	1,623	2,493	3,120	3,422	840	0	309	2,273
61 U. NV, Las Vegas	346	370	527 i	3,401	3,090	0	311	0
62 U. LA Monroe	2,353 e	2,588 i	2,950 i	3,370 i	2,575 i	0 i	795 i	0 i
63 U. CA, Riverside	345	1,502	2,375	3,341	0	0	289	3,052
64 Northwestern U.	2,725	3,402	4,270	3,326	166	2,744	338	78
65 OK State U. all campuses	1,965	2,281	5,389	3,295	357	113	168	2,657
66 U. NH	1,933	2,615	2,696	3,273	416	392	2,102	363
67 U. KY all campuses	1,258	1,134	2,073	3,210	1,351	195	365	1,299
68 George Washington U.	2,403	2,383	2,931	3,162	351	676	2,025	110
69 U. CA, Davis	529	2,539	4,086	3,138	2,293	128	256	461
70 U. Southern CA	3,009	2,996	2,983	3,133	37	929	1,066	1,101
71 Boston C.	2,041	2,729	3,128	2,976	1,747	6	21	1,202
72 Rutgers, The State U. NJ all campuses	4,687	4,241	2,643	2,857	24	210	135	2,488
73 WA State U.	2,461	2,425	2,924	2,843	1,219	647	747	230
74 U. Memphis, The	2,524	2,708	3,583	2,806	1,750	8	921	127
75 AZ State U. main campus	1,847	1,814	2,035	2,685	190	89	298	2,108
76 Johns Hopkins U., The <sup>a</sup>	8,019	6,613	6,905	2,679	540 i	0 i	1,250 i	889 i
77 U. MT, The	1,821	2,742	2,529	2,658	996	27	13	1,622
78 NC State U.	1,479	2,352	2,093	2,390	625	59	1,318	388
79 U. Chicago	2,117	2,913	2,235	2,319	295	1,068	460	496
80 U. MA Lowell	271	529	965	2,308	0	0	0	2,308
81 LA State U. all campuses	1,753	1,314	1,941	2,277	555	73	745	904
82 U. South FL	737	734	1,119	2,254	0	0	868	1,386
83 Georgetown U.	2,440	2,642	2,871	2,145	54	0	2,091	0
84 U. MA Boston	1,027	974	2,898	2,131	0	13	99	2,019
85 Western MI U.	320	510	2,406	2,107	11	66	146	1,884
86 U. OR	1,312	1,256	1,744	2,021	262	6	230	1,523
87 Temple U.	5,820	685	749	2,009	0	1,659	48	302
88 U. FL	1,197	1,806	3,460	1,947	842	0	464	641
89 Brown U.	1,100	1,000	1,765	1,902	50 i	0 i	5 i	1,847 i
90 MS State U.	1,357	2,431	2,248	1,863	0	0	49	1,814
91 KS State U.	1,022	1,015	1,177	1,797	1,255	0	157	385
92 Case Western Reserve U.	2,031	2,268	1,697	1,744	502	0	1,158	84
93 CA Institute of Technology	347	726	982	1,733	0	0	1,733	0
94 NM State U. all campuses	566	1,018	1,023	1,710	85	174	1,029	422
95 U. MS all campuses	824	1,861	3,704	1,695	1,661	34	0	0
96 Syracuse U. all campuses	1,749	3,418	2,396	1,658	0	1,161	128	369
97 TX A&M U. all campuses	1,685	1,320	1,529	1,622	79	356	548	639
98 MA Institute of Technology	1,954	1,840	1,420	1,620	378	260	699	283
99 SUNY Binghamton	1,590	1,115	1,300	1,589	14	181	1,333	61

TABLE 59. Federally financed R&D expenditures in the social sciences at universities and colleges, ranked by all FY 2003 social sciences for the first 100 institutions: FY 2000–03 and by subfield for FY 2003

(Dollars in thousands)

Institution and ranking	2000	2001	2002	2003				
				All social sciences	Economics	Political sciences	Sociology	Social sciences, nec
100 VA Polytechnic Institute and State U.	1,402	1,175	2,426	1,579	455	298	0	826
All other sampled institutions	87,458	86,858	84,647	74,772	12,972	8,965	21,354	31,481

e = estimated.

i = imputed.

nec = not elsewhere classified.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 60. Current fund expenditures for research equipment at universities and colleges, by science and engineering field and source of funds: FY 2002 and 2003

(Dollars in thousands)

Field	All expenditures		Federal		Nonfederal	
	2002	2003	2002	2003	2002	2003
All science and engineering	1,697,141	1,807,777	1,003,485	1,146,474	693,656	661,303
Science	1,334,090	1,424,562	791,195	915,162	542,895	509,400
Computer sciences	100,789	98,544	74,279	82,120	26,510	16,424
Environmental sciences	131,762	118,644	81,004	86,224	50,758	32,420
Atmospheric sciences	14,485	17,387	11,047	14,073	3,438	3,314
Earth sciences	32,642	41,859	18,983	26,020	13,659	15,839
Oceanography	73,779	50,238	45,370	40,867	28,409	9,371
Environmental sciences, nec	10,856	9,160	5,604	5,264	5,252	3,896
Life sciences	734,276	814,019	408,502	489,592	325,774	324,427
Agricultural sciences	71,158	74,275	21,285	29,408	49,873	44,867
Biological sciences	294,792	334,888	175,964	214,465	118,828	120,423
Medical sciences	338,968	372,249	197,859	229,080	141,109	143,169
Life sciences, nec	29,358	32,607	13,394	16,639	15,964	15,968
Mathematical sciences	9,958	7,461	6,639	5,323	3,319	2,138
Physical sciences	274,139	296,306	192,421	217,253	81,718	79,053
Astronomy	19,185	19,096	15,470	14,240	3,715	4,856
Chemistry	121,471	118,412	75,387	77,485	46,084	40,927
Physics	121,125	138,337	92,568	108,823	28,557	29,514
Physical sciences, nec	12,358	20,461	8,996	16,705	3,362	3,756
Psychology	18,794	22,955	13,333	17,030	5,461	5,925
Social sciences	17,198	17,866	6,344	8,108	10,854	9,758
Economics	2,461	2,878	903	1,636	1,558	1,242
Political sciences	2,055	2,256	443	1,172	1,612	1,084
Sociology	3,777	3,304	1,625	1,674	2,152	1,630
Social sciences, nec	8,905	9,428	3,373	3,626	5,532	5,802
Sciences, nec	47,174	48,767	8,673	9,512	38,501	39,255
Engineering	363,051	383,215	212,290	231,312	150,761	151,903
Aeronautical/astronautical engineering	23,905	22,032	18,867	18,366	5,038	3,666
Bioengineering/biomedical engineering	18,136	20,136	9,548	11,622	8,588	8,514
Chemical engineering	30,143	31,709	16,653	17,621	13,490	14,088
Civil engineering	42,561	29,991	25,184	18,124	17,377	11,867
Electrical engineering	79,060	85,690	47,405	58,079	31,655	27,611
Mechanical engineering	54,011	55,154	34,344	38,104	19,667	17,050
Metallurgical/materials engineering	40,923	60,149	21,758	27,087	19,165	33,062
Engineering, nec	74,312	78,354	38,531	42,309	35,781	36,045

nec = not elsewhere classified.

NOTE: Because of rounding, detail may not add to total.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 61. Current fund expenditures for research equipment at universities and colleges, by science and engineering field, source of funds, and type of control: FY 2003

(Dollars in thousands)

Field	All expenditures			Federal			Nonfederal		
	Total	Public	Private	Total	Public	Private	Total	Public	Private
All science and engineering	1,807,777	1,248,250	559,527	1,146,474	751,193	395,281	661,303	497,057	164,246
Science	1,424,562	971,183	453,379	915,162	596,573	318,589	509,400	374,610	134,790
Computer sciences	98,544	75,050	23,494	82,120	65,467	16,653	16,424	9,583	6,841
Environmental sciences	118,644	92,696	25,948	86,224	66,315	19,909	32,420	26,381	6,039
Atmospheric sciences	17,387	14,334	3,053	14,073	11,103	2,970	3,314	3,231	83
Earth sciences	41,859	29,456	12,403	26,020	18,560	7,460	15,839	10,896	4,943
Oceanography	50,238	42,617	7,621	40,867	33,510	7,357	9,371	9,107	264
Environmental sciences, nec	9,160	6,289	2,871	5,264	3,142	2,122	3,896	3,147	749
Life sciences	814,019	555,266	258,753	489,592	306,093	183,499	324,427	249,173	75,254
Agricultural sciences	74,275	71,979	2,296	29,408	28,216	1,192	44,867	43,763	1,104
Biological sciences	334,888	209,295	125,593	214,465	120,291	94,174	120,423	89,004	31,419
Medical sciences	372,249	251,107	121,142	229,080	146,690	82,390	143,169	104,417	38,752
Life sciences, nec	32,607	22,885	9,722	16,639	10,896	5,743	15,968	11,989	3,979
Mathematical sciences	7,461	4,759	2,702	5,323	3,368	1,955	2,138	1,391	747
Physical sciences	296,306	193,038	103,268	217,253	132,417	84,836	79,053	60,621	18,432
Astronomy	19,096	9,804	9,292	14,240	5,919	8,321	4,856	3,885	971
Chemistry	118,412	85,618	32,794	77,485	54,531	22,954	40,927	31,087	9,840
Physics	138,337	85,824	52,513	108,823	62,375	46,448	29,514	23,449	6,065
Physical sciences, nec	20,461	11,792	8,669	16,705	9,592	7,113	3,756	2,200	1,556
Psychology	22,955	14,048	8,907	17,030	9,754	7,276	5,925	4,294	1,631
Social sciences	17,866	15,663	2,203	8,108	6,668	1,440	9,758	8,995	763
Economics	2,878	2,610	268	1,636	1,491	145	1,242	1,119	123
Political sciences	2,256	1,865	391	1,172	945	227	1,084	920	164
Sociology	3,304	2,980	324	1,674	1,474	200	1,630	1,506	124
Social sciences, nec	9,428	8,208	1,220	3,626	2,758	868	5,802	5,450	352
Sciences, nec	48,767	20,663	28,104	9,512	6,491	3,021	39,255	14,172	25,083
Engineering	383,215	277,067	106,148	231,312	154,620	76,692	151,903	122,447	29,456
Aeronautical/astronautical engineering	22,032	18,336	3,696	18,366	15,687	2,679	3,666	2,649	1,017
Bioengineering/biomedical engineering	20,136	11,054	9,082	11,622	4,782	6,840	8,514	6,272	2,242
Chemical engineering	31,709	22,432	9,277	17,621	12,749	4,872	14,088	9,683	4,405
Civil engineering	29,991	24,419	5,572	18,124	13,684	4,440	11,867	10,735	1,132
Electrical engineering	85,690	66,134	19,556	58,079	42,810	15,269	27,611	23,324	4,287
Mechanical engineering	55,154	34,720	20,434	38,104	21,989	16,115	17,050	12,731	4,319
Metallurgical/materials engineering	60,149	50,170	9,979	27,087	20,475	6,612	33,062	29,695	3,367
Engineering, nec	78,354	49,802	28,552	42,309	22,444	19,865	36,045	27,358	8,687

nec = not elsewhere classified.

NOTE: Because of rounding, detail may not add to total.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 62. Total and federally financed current fund expenditures for research equipment at universities and colleges, ranked by FY 2003 total for the first 100 institutions: FY 2000–03

(Dollars in thousands)

Institution and ranking	Total				Federally financed R&D expenditures			
	2000	2001	2002	2003	2000	2001	2002	2003
All institutions	1,433,976	1,509,115	1,697,141	1,807,777	807,380	837,404	1,003,485	1,146,474
1 U. IL Urbana-Champaign	25,609	24,678	26,097	46,975	19,129	16,614	18,422	36,984
2 U. CA, San Diego	13,870	13,323	31,775	43,521	8,624	7,955	22,752	33,139
3 MA Institute of Technology	37,195	35,776	35,503	41,227	30,256	25,295	23,999	31,909
4 Johns Hopkins U., The <sup>a</sup>	40,204	39,332	41,596	40,784	15,391	16,542	22,460	16,462
5 U. CA, Los Angeles	14,335	14,659	32,879	38,832	8,417	6,523	19,447	23,548
6 Washington U. St. Louis	19,804	18,224	16,108	35,265	16,983	14,372	13,172	32,281
7 U. WA	28,166	25,053	31,157	34,880	22,332	19,615	24,341	29,645
8 U. WI Madison	33,102	30,338	35,389	33,435	18,010	16,381	19,493	19,364
9 CA Institute of Technology	27,093	8,923	6,559	30,830	16,057	8,141	6,198	19,164
10 U. PR Medical Sciences Campus	14,544 i	21,816 i	29,089	29,089 i	11,966 i	17,949 i	23,931	23,931 i
11 Stanford U.	20,775	22,197	23,800	27,671	17,220	19,046	19,824	24,482
12 PA State U. all campuses	18,799	19,500	20,403	24,598	9,128	9,713	12,724	11,821
13 Purdue U. all campuses	14,239	13,887	23,252	23,502	7,406	6,495	5,586	5,586
14 U. FL	12,994	17,130	18,010	23,295	5,401	5,678	6,950	9,280
15 U. MI all campuses	18,247	15,591	20,744	23,213	11,498	10,518	10,490	12,823
16 Baylor C. of Medicine	20,939	25,079	15,690	22,368	13,657	9,846	7,975	12,300
17 Cornell U. all campuses	24,166	18,297	21,443	22,010	12,589	12,733	15,049	14,868
18 U. CA, Berkeley	12,730	10,424	21,205	21,731	7,670	6,065	12,805	14,682
19 U. CA, Davis	14,346	18,784	19,317	20,854	6,123	8,137	7,263	8,309
20 U. CA, San Francisco	12,088	12,434	20,916	20,232	6,604	6,068	8,856	10,775
21 LA State U. all campuses	13,525	17,054	23,700	19,943	5,481	4,239	4,926	5,947
22 IN U. all campuses	8,825	13,753	22,641	19,311	4,207	4,521	5,598	8,470
23 SUNY Albany	5,776	6,178	4,290	17,172	2,391	2,929	1,417	2,443
24 GA Institute of Technology all campuses	26,819	25,493	21,201	16,516	11,111	11,962	10,320	3,716
25 OH State U. all campuses	21,601	22,754	16,577	16,362	4,218	6,149	4,611	7,295
26 U. CA, Santa Barbara	7,649	5,679	11,788	15,022	5,670	4,309	6,813	9,762
27 U. HI Manoa	7,160	9,005	17,387	14,966	4,869	6,594	13,248	12,485
28 U. Rochester	17,317	14,552	17,294	14,566	15,615	12,432	15,719	13,520
29 U. MN all campuses	16,727	14,823	14,038	14,473	9,232	8,933	9,391	9,140
30 Case Western Reserve U.	6,074	8,037	12,293	13,890	3,382	5,049	6,190	9,265
31 U. GA	25,887	22,731	10,086	13,662	2,982	3,028	2,698	7,304
32 Carnegie-Mellon U.	8,748	12,875	37,262	13,507	4,485	9,792	33,547	10,908
33 U. CA, Irvine	7,487	6,830	14,249	13,442	4,702	4,277	5,292	7,800
34 Vanderbilt U.	5,021	5,303	7,934	13,401	3,801	4,581	4,813	6,350
35 U. UT	10,281	10,004	8,430	13,285	6,909	5,038	4,963	8,671
36 U. Miami	8,064	8,637	15,864	13,175	5,927	5,944	11,709	10,465
37 Emory U.	7,817	8,497	10,790	12,999	4,327	4,148	3,902	5,815
38 MI State U.	11,489	12,475	10,531	12,892	6,805	6,243	4,282	4,785
39 U. PA	12,065	9,747	11,856	12,761	9,708	7,959	9,367	9,268
40 U. KY all campuses	19,486	15,816	9,191	12,683	3,584	4,788	3,178	5,430
41 Northwestern U.	10,306	9,244	10,152	12,562	6,262	5,061	5,211	6,204
42 Columbia U. in the City of NY	10,060	12,929	14,575	12,351	8,549	11,006	9,941	9,743
43 Yale U.	10,655	12,980	14,660	12,251	8,577	10,947	12,214	10,288
44 U. AZ	16,722	17,692	21,735	12,212	10,756	12,654	11,956	6,861
45 U. CO all campuses	9,852 i	10,531	10,035	12,014	9,077 i	9,641	9,063	10,765
46 U. TX Austin	15,558	15,146	12,845	11,840	8,494	7,470	7,925	7,476
47 U. Chicago	11,695	11,589	9,884	11,682	10,344	9,269	8,115	10,468
48 Rutgers, The State U. NJ all campuses	9,371	10,381	10,583	11,643	4,572	3,611	3,959	6,618
49 Harvard U.	11,712	9,957	11,304	11,470	9,552	8,595	10,823	10,658
50 SUNY Buffalo all campuses	1,734	1,764	7,780	11,150	1,420	1,067	5,895	5,315

TABLE 62. Total and federally financed current fund expenditures for research equipment at universities and colleges, ranked by FY 2003 total for the first 100 institutions: FY 2000–03

(Dollars in thousands)

Institution and ranking	Total				Federally financed R&D expenditures			
	2000	2001	2002	2003	2000	2001	2002	2003
51 Duke U.	6,987	7,039	12,602	11,062	5,016	5,081	9,976	9,868
52 FL State U.	6,559	9,255	14,106	10,912	4,807	3,283	10,561	7,045
53 TX A&M U. all campuses	18,340	12,630	13,002	10,613	8,865	3,076	4,566	4,820
54 U. TX Southwestern Medical Ctr. Dallas	7,911	10,268	12,139	10,466	3,094	3,099	3,389	5,794
55 U. KS all campuses	5,976	4,687	5,429	10,431	3,809	2,914	3,903	8,883
56 U. MD Baltimore	2,841	4,778	5,281	10,167	970	1,608	1,729	3,591
57 U. Pittsburgh all campuses	8,076	8,162	7,533	10,167	6,006	6,166	6,286	7,892
58 VA Polytechnic Institute and State U.	8,429	8,457	9,130	10,057	2,208	1,838	2,320	4,125
59 U. MD College Park	7,890	10,993	12,542	9,844	5,011	8,446	8,452	6,280
60 U. Southern CA	8,856	11,232	8,272	9,840	6,273	9,269	6,081	7,073
61 U. DE	4,624	7,245	7,492	9,558	2,414	3,120	3,347	4,927
62 U. IL Chicago	8,482	11,894	9,374	9,110	3,770	5,356	2,354	4,939
63 Boston U.	3,273	3,805	6,091	9,071	2,586	3,453	5,570	8,496
64 U. South FL	12,333	10,783	12,469	8,851	3,566	3,643	6,798	7,321
65 Yeshiva U.	5,998	7,331	7,771	8,765	2,702	5,865	6,217	7,013
66 NY U.	6,740	8,671	7,302	8,675	3,637	5,595	4,924	5,939
67 U. MS all campuses	5,484	6,530 i	7,576 i	8,623	4,301	5,121 i	5,941 i	7,464
68 U. MA Amherst	6,207	6,747	8,239	8,562	4,223	3,942	4,732	5,796
69 U. NC Chapel Hill	5,372	6,299	6,750	8,559	3,537	3,232	3,199	4,084
70 SUNY Stony Brook all campuses	8,392	9,349	13,100	8,297	3,255	4,682	6,464	4,542
71 U. IA	8,147	9,862	8,720	8,269	4,916	5,486	5,354	5,251
72 Rockefeller U.	3,338	6,080	6,459	7,991	1,359	3,050	2,610	2,547
73 U. NM all campuses	13,869	20,123	7,395	7,918	10,617	17,332	4,796	5,133
74 Princeton U.	6,378	7,767	6,968	7,908	4,797	6,071	5,371	6,269
75 OR Health and Science U.	5,107	3,852	4,444 e	7,904	3,972	3,068	3,516 e	7,031
76 ND State U. all campuses	2,385	2,244	3,330	7,884	1,981	1,186	1,318	6,417
77 U. VA all campuses	6,440	6,198	9,389	7,861	4,934	5,398	6,979	6,821
78 NC State U.	9,834	12,194	3,465	7,786	4,519	3,750	1,526	3,965
79 U. NE central administration	4,461	9,233	10,098	7,712	775	2,754	4,052	2,675
80 U. SC all campuses	6,749	6,821	5,107	7,644	4,837	3,860	2,668	5,260
81 AZ State U. main campus	6,176	7,740	5,834	7,457	2,092	3,382	3,834	4,181
82 MS State U.	3,650	7,837	7,814	7,241	2,594	5,511	4,956	3,379
83 U. AK Fairbanks all campuses	4,938	10,939	5,258	7,138	1,343	2,318	3,093	3,896
84 IA State U.	4,763	5,837	7,726	6,804	1,401	1,908	3,030	3,025
85 Wayne State U.	5,714	10,500	9,546	6,731	1,961	1,853	2,712	4,024
86 U. AL Birmingham, The	8,017	8,008	8,467	6,594	4,779	6,398	7,033	5,469
87 U. CA, Riverside	2,941	3,875	5,073	6,514	1,185	2,065	2,639	4,006
88 U. OK all campuses	10,189	8,283	9,899	6,470	4,436	3,030	3,543	3,331
89 U. TX M. D. Anderson Cancer Ctr.	8,419	11,449	7,435	6,422	1,718	1,348	942	878
90 Auburn U. all campuses	4,334	5,398	5,094	6,130	1,388	2,321	2,513	1,632
91 U. TX Health Science Ctr. Houston	3,481	4,638	7,470	6,102	2,459	3,325	5,023	3,367
92 Clemson U.	5,084	6,051	6,652	6,008	1,830	2,928	2,267	3,887
93 U. NV, Reno	3,186	3,928	6,586	5,950	2,353	2,711	5,887	5,617
94 Tulane U.	3,244	2,946	4,280	5,894	1,982	1,841	1,781	3,837
95 U. Central FL	3,318	18,247	5,303	5,786	901	2,152	2,895	3,486

TABLE 62. Total and federally financed current fund expenditures for research equipment at universities and colleges, ranked by FY 2003 total for the first 100 institutions: FY 2000–03

(Dollars in thousands)

Institution and ranking	Total				Federally financed R&D expenditures			
	2000	2001	2002	2003	2000	2001	2002	2003
96 WV U.	2,643	3,227	4,023	5,554	1,564	1,718	2,855	4,863
97 WA State U.	261	602	7,079	5,484	0	0	4,261	3,275
98 OK State U. all campuses	6,884	5,823	5,426	5,434	1,388	1,744	1,237	1,926
99 U. NV, Las Vegas	2,501	1,479	3,423 i	5,368	1,883	547	1,265 i	5,339
100 U. RI	1,638	1,966	1,345	5,336	1,361	1,584	1,252	5,100
All other sampled institutions	348,389	361,912	409,946	395,338	184,535	202,054	246,645	260,107

e = estimated.

i = imputed.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory.

NOTE: Tied institutions are ranked alphabetically.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 63. R&D expenditures at university-administered federally funded research and development centers, by character of work: FY 1953–2003

(Dollars in millions)

Fiscal year	All R&D expenditures	Basic research		Applied research and development	
		Amount	Percent	Amount	Percent
1953	121	33	27.3	88	72.7
1954	141	39	27.7	102	72.3
1955	180	49	27.2	131	72.8
1956	194	51	26.3	143	73.7
1957	240	65	27.1	175	72.9
1958	293	78	26.6	215	73.4
1959	338	92	27.2	246	72.8
1960	360	97	26.9	263	73.1
1961	410	115	28.0	295	72.0
1962	470	136	28.9	334	71.1
1963	530	159	30.0	371	70.0
1964	629	191	30.4	438	69.6
1965	629	208	33.1	421	66.9
1966	630	227	36.0	403	64.0
1967	673	250	37.1	423	62.9
1968	719	276	38.4	443	61.6
1969	725	275	37.9	450	62.1
1970	737	269	36.5	468	63.5
1971	716	260	36.3	456	63.7
1972	753	244	32.4	509	67.6
1973	817	296	36.2	521	63.8
1974	865	390	45.1	475	54.9
1975	987	439	44.5	548	55.5
1976	1,147	512	44.6	635	55.4
1977	1,384	600	43.4	784	56.6
1978 <sup>a</sup>	1,717	NA	NA	NA	NA
1979	1,935	1,022	52.8	913	47.2
1980	2,246	1,132	50.4	1,114	49.6
1981	2,486	1,270	51.1	1,216	48.9
1982	2,479	1,327	53.5	1,152	46.5
1983	2,737	1,484	54.2	1,253	45.8
1984	3,150	1,690	53.6	1,461	46.4
1985	3,523	1,765	50.1	1,758	49.9
1986	3,895	1,876	48.2	2,018	51.8
1987	4,206	2,033	48.3	2,173	51.7
1988	4,531	2,245	49.6	2,285	50.4
1989	4,730	2,352	49.7	2,377	50.3
1990	4,832	2,428	50.2	2,404	49.8
1991	5,076	2,592	51.1	2,484	48.9
1992	5,245	2,840	54.2	2,404	45.8
1993	5,290	2,933	55.4	2,357	44.6
1994	5,271	2,998	56.9	2,273	43.1
1995	5,363	2,742	51.1	2,622	48.9
1996	5,380	2,580	48.0	2,800	52.0
1997	5,440	2,683	49.3	2,757	50.7



TABLE 63. R&D expenditures at university-administered federally funded research and development centers, by character of work: FY 1953–2003

(Dollars in millions)

Fiscal year	All R&D expenditures	Basic research		Applied research and development	
		Amount	Percent	Amount	Percent
1998	5,531	2,636	47.7	2,895	52.3
1999	5,644	2,732	48.4	2,912	51.6
2000	5,675	2,863	50.5	2,812	49.5
2001	5,944	2,906	48.9	3,038	51.1
2002	7,069	3,698	52.3	3,371	47.7
2003	7,200	3,760	52.2	3,441	47.8

NA = not available.

<sup>a</sup> Separate data for basic research and for applied research and development were not collected for FY 1978.

NOTE: Because of rounding, detail may not add to total.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 64. Total and federally financed R&D expenditures at university-administered federally funded research and development centers, ranked by FY 2003 total: FY 2000–03  
(Dollars in thousands)

Institution and ranking	Total				Federally financed R&D expenditures			
	2000	2001	2002	2003	2000	2001	2002	2003
All institutions	5,675,275	5,944,112	7,069,245	7,200,056	5,517,119	5,771,401	6,810,095	6,948,179
1 Los Alamos National Lab.	1,333,194	1,333,194 e	1,994,031	2,106,145	1,312,974	1,312,974 e	1,884,284	1,990,573
2 Jet Propulsion Lab.	1,254,349 e	1,355,463	1,435,039	1,390,560	1,254,349 e	1,355,463	1,435,039	1,390,560
3 Lawrence Livermore National Lab.	1,041,234	1,090,875	1,227,111	1,286,215	993,962	1,049,675	1,192,111	1,258,505
4 MA Institute of Technology Lincoln Lab.	348,339	380,200	451,200	522,851	341,809	370,616	443,883	516,112
5 Argonne National Lab.	461,920	478,391	506,666	500,828	444,536	452,860	469,426	466,340
6 Lawrence Berkeley National Lab.	367,113	408,487	467,461	441,500	311,225	337,757	407,166	381,264
7 Fermi National Accelerator Lab.	297,082	310,928	313,556	303,340	297,082	310,928	313,556	303,041
8 Stanford Linear Accelerator Ctr.	149,438	145,979	171,343	164,747	149,438	145,979	171,343	164,747
9 National Ctr. for Atmospheric Research	115,510	119,846	157,173	140,756	106,819	116,553	153,202	137,993
10 Thomas Jefferson National Accelerator Facility	79,342	102,202	106,305	106,966	78,143	100,855	105,554	106,319
11 Plasma Physics Lab.	65,305	76,021	73,610	66,764	64,738	75,387	72,976	66,345
12 Software Engineering Institute	55,955	37,052	45,088	45,412	55,955	37,052	42,267	43,470
13 National Optical Astronomy Observatory	36,409	37,364	41,051	44,409	36,409	37,364	41,051	44,409
14 AUI National Radio Astronomy Observatory	35,536	34,208	43,900	42,842	35,313	34,043	43,684	42,644
15 Ames Lab.	23,281	22,916	23,416	25,213	23,281	22,916	23,416	25,213
16 National Astronomy and Ionosphere Ctr.	11,268	10,986	12,295	11,508	11,086	10,979	11,137	10,644

e = estimated.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE 65. R&D expenditures at all federally funded research and development centers, by source of funds and type of federally funded research and development center: FY 2003

(Dollars in thousands)

Institution and ranking	All expenditures	Federal government	State and local governments	Industry	Institutional funds	All other sources
All FFRDCs	12,126,881	11,681,288	31,119	140,898	140,219	133,357
University-administered FFRDCs	7,200,056	6,948,179	15,650	33,131	107,860	95,236
Ames Lab.	25,213	25,213	0	0	0	0
Argonne National Lab.	500,828	466,340	7,182	0	0	27,306
AUI National Radio Astronomy Observatory	42,842	42,644	0	0	196	2
Fermi National Accelerator Lab.	303,340	303,041	0	299	0	0
Jet Propulsion Lab.	1,390,560	1,390,560	0	0	0	0
Lawrence Berkeley National Lab.	441,500	381,264	3,194 e	10,842 e	0 e	46,200 e
Lawrence Livermore National Lab.	1,286,215	1,258,505	2,942	5,874	0	18,894
Los Alamos National Lab.	2,106,145	1,990,573	31	9,089	106,436	16
MA Institute of Technology Lincoln Lab.	522,851	516,112	1,560	5,179	0	0
National Astronomy and Ionosphere Ctr.	11,508	10,644	0	0	809	55
National Ctr. for Atmospheric Research	140,756	137,993	0	0	0	2,763
National Optical Astronomy Observatory	44,409	44,409	0	0	0	0
Plasma Physics Lab.	66,764	66,345	0	0	419	0
Software Engineering Institute	45,412	43,470	94	1,848	0	0
Stanford Linear Accelerator Ctr.	164,747	164,747	0	0	0	0
Thomas Jefferson National Accelerator Facility	106,966	106,319	647	0	0	0
Nonprofit-administered FFRDCs	2,463,386	2,327,524	15,230	56,546	25,965	38,121
Aerospace Corporation	32,745	13,619	0	6,222	12,904	0
Arroyo Ctr. Headquarters	27,889	27,889	0	0	0	0
Brookhaven National Lab.	452,728	436,969	0	7,209	0	8,550
C3I Federally Funded R&D Ctr.	32,696	32,696	0	0	0	0
Ctr. for Advanced Aviation System Development	6,633	3,180	0	0	3,453	0
Ctr. for Naval Analyses	75,869	71,895	764	0	3,210	0
Ctr. for Nuclear Waste Regulatory Analyses	17,625	16,884	99	344	298	0
Institute for Defense Analyses Communication and Computing	45,960	45,960	0	0	0	0
Institute for Defense Analyses Studies and Analyses	110,200	110,200	0	0	0	0
IRS FFRDC	2,834	2,834	0	0	0	0
National Defense Research Institute	26,908	26,908	0	0	0	0
National Renewable Energy Research Lab.	221,496	219,015	0	2,481	0	0
Oak Ridge National Lab.	690,538	664,210	367	15,290	6,100	4,571
Pacific Northwest National Lab.	679,000	615,000	14,000	25,000	0	25,000
Project Air Force	33,555	33,555	0	0	0	0
Science and Technology Policy Institute, The	6,710	6,710	0	0	0	0
Industry-administered FFRDCs	2,463,439	2,405,585	239	51,221	6,394	0
ID National Engineering and Environmental Lab.	330,154	318,363	239	5,158	6,394	0
NCI Frederick Cancer R&D Ctr.	296,000	296,000	0	0	0	0
Sandia National Lab.	1,742,862	1,696,799	0	46,063	0	0
Savannah River Technology Ctr.	94,423	94,423	0	0	0	0

e = estimated.

FFRDC = federally funded research and development center.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

# APPENDIX A: TECHNICAL NOTES

## SCOPE OF THE SURVEY

The FY 2003 Survey of Research and Development Expenditures at Universities and Colleges (academic R&D expenditures survey) was sent to 630 institutions of higher education in the United States, Guam, Puerto Rico, and the U.S. Virgin Islands. These institutions have doctoral programs in science and engineering (S&E), are historically black colleges or universities (HBCUs), or are master's or bachelor's degree-granting institutions that expend at least \$150,000 in separately budgeted R&D in S&E.

The survey population was reviewed before data collection began to ensure that each institutional classification was accurate. Characteristics of the schools were reviewed before and during the course of the survey to determine whether changes had occurred (e.g., highest degree granted; school openings, closings, or mergers).

The survey also collected information on R&D from each of the nation's 36 federally funded research and development centers (FFRDCs). Of these 36 FFRDCs, 16 are administered by academic institutions, 16 are administered by nonprofit organizations, and 4 are administered by industrial organizations.

To qualify for the survey, an FFRDC must be engaged in basic or applied research, development, or management of R&D activities, and the results of these activities must be directly monitored by the federal government (usually a single agency) in a relationship expected to be maintained on a long-term basis. The center must be operated, managed, and administered as an autonomous organization or as an identifiable separate operating unit of its parent institution. Finally, 70 percent or more of the center's financial support must be received from the federal government. Although the same survey form (NSF Form 411) is used to collect data from both academic institutions and FFRDCs, FFRDCs were asked to provide only item 1 data, their R&D expenditures by source of funding. The FFRDC R&D data are included in tables 63–65.

## FY 2003 SURVEY FRAME DESIGN

The academic R&D expenditures survey is a census of the full population of eligible academic institutions. Before FY 1998 a census of eligible institutions was conducted about every 5 years; during

intervening years eligible institutions were sampled. Since then, a census has been conducted annually. NSF also conducts a population review each year to ensure that all institutions that meet the inclusion criteria are surveyed. This review is based on the survey frame design developed in FY 1998:

- All S&E doctorate-granting institutions and all HBCUs are surveyed.
- All S&E master's and bachelor's degree-granting institutions that reported at least \$150,000 in separately budgeted R&D expenditures in S&E in the previous fiscal year are surveyed. NSF contacts master's and bachelor's degree-granting institutions that were not in the population of the previous census to determine whether they meet the \$150,000 expenditure criterion. Institutions with a minimum of \$150,000 are added to or retained in the survey population.

In FY 2003 NSF conducted a population review using the criteria listed above. As a result, the overall number of institutions surveyed increased from 661 in FY 2002 to 666 in FY 2003 (table A-1).

## SURVEY INSTRUMENT

Most major R&D performing institutions have incorporated the data that are needed to complete this survey into their record-keeping systems, thereby ensuring a consistent format from one year to the next. Such consistency yields the most useful statistics for time series. As a rule, information to complete this survey is found in the institutions' year-end accounting records.

The survey consists of seven main items.

**Item 1** is a request that institutions report their total current expenditures for separately budgeted S&E R&D expenditures by source of funds. Schools are also asked to provide the percentage of total expenditures and the percentage of federally financed expenditures that are considered basic research. Also included are research funds for which an outside organization, educational or other, is a subrecipient.

Care should be taken when interpreting data on source of funds. Industry R&D support is limited to grants and contracts for R&D activities from profit-making organi-

zations. Total industry funds excludes research funded through unrestricted accounts and from corporate foundations, endowments, and fellowships to students; those funds would be included in an institution's own funding totals. An increasing number of institutions have links with industry and foundations through subcontracts, thus complicating the identification of funding sources. In addition, institutional policy may determine whether unrestricted state support is reported as state or institutional funding.

**Item 1A** is a request for total and federally financed current fund expenditures for separately budgeted S&E R&D passed through the institution to subrecipients.

**Item 1B** is a request for total and federally financed current fund expenditures for separately budgeted S&E R&D received by the institution as a subrecipient.

**Item 2** is a request for total and federally financed current fund expenditures for separately budgeted R&D activities by detailed S&E fields. When interpreting these data at the detailed discipline level, users should keep in mind that there is considerable interdisciplinary and multidisciplinary activity.

**Item 2A** is a request for total and federally financed current fund expenditures for separately budgeted non-S&E R&D activities by detailed non-S&E fields. This item was originally added to the survey as an optional item in FY 1997 and was collected as a core item for the first time in FY 2003.

Table A-15 shows non-S&E R&D expenditures for the 100 institutions reporting the highest amounts. Table A-16 shows federal non-S&E R&D expenditures for the 100 institutions reporting the highest amounts.

**Item 2B** is a request for federally financed current fund expenditures for separately budgeted R&D activities by S&E field and federal agency. This item was originally added to the survey as an optional item in FY 1998 and was collected as a core item for the first time in FY 2003.

Table A-17 shows federally financed R&D expenditures by S&E field and federal agency for those institutions that responded to this item. Of the 630 universities and colleges surveyed, 516 responded to this question.

**Item 3** is a request for the portions of total and federally financed expenditures reported in items 1 and 2 that were used for the purchase of research equipment out of current funds. This portion includes all research equipment purchased under sponsored research project awards and disbursed in the same detailed disciplines as in item 2. These data are of special interest to federal and institutional policymakers in determining current funding levels for scientific research instrumentation.

## RESPONSE RATE

The FY 2003 survey questionnaires were sent by e-mail in December 2003. Respondents could choose to submit an Adobe Portable Document Format questionnaire from the Web or use the Web-based data collection system to respond to the survey. Every effort was made to maintain close contact with respondents in order to preserve both consistency and continuity in the resulting data. Questionnaires were carefully examined for completeness upon receipt. Computerized facsimiles of the survey data were then prepared for each institution; these compared the current and 2 prior years of data and noted any substantive disparities. Respondents were sent personalized e-mail messages asking them to provide revisions before the final processing and tabulation of data. The e-mail messages included a link to the academic R&D expenditures survey Web-based data collection system, allowing respondents to view and correct their data via the Web.

Respondents were asked to explain significant discrepancies between current and prior years' reporting patterns previously verified as correct. They were encouraged to correct prior years' data if anomalies were identified. When respondents updated or amended figures from past years, NSF made corresponding changes to trend data in this report and to the underlying microdata database. Similarly, if a respondent institution underwent an organizational change, such as a merger, NSF incorporated the effects of the change into prior years' data.

By the survey's closing date, at the beginning of September 2004, forms had been received from 593 universities and colleges out of the academic population of 630, a response rate of 94.1 percent. Responses were received from 96.5 percent of all doctorate-granting institutions, to which 98.5 percent of the estimated national R&D expenditures in S&E fields had been disbursed. All 36

FFRDCs returned forms. Table A-2 displays a detailed breakdown of response rates by highest degree granted.

## NATIONAL TOTAL AND IMPUTATION

Two statistical procedures were used to provide a national estimate for all universities and colleges performing R&D in FY 2003. First, data were estimated by imputation for the 37 institutions that had not responded by the closing date of the survey, using imputation techniques that have been used consistently since FY 1976. Second, data were imputed for universities and colleges that submitted only partial responses. The imputed total was \$159 million, or 0.4 percent of the \$40 billion in all separately budgeted R&D expenditures (table A-3).

Tables A-4 and A-5 present breakdowns of the total and federal imputed amounts by S&E field. The dollar amount imputed is displayed along with the percentage it represents of the national estimate for universities and colleges in a particular field. The amount imputed is similarly broken down by source of funds in table A-6.

A number of surveyed institutions have responded intermittently in past years. For the years in which no response was received, data have been imputed as previously described. Although the imputation algorithm accurately reflects national trends, it cannot account for specific trends at individual institutions. For this reason, a separate estimation of prior-years data was performed, following current-year imputation.

For each institution, formerly imputed key variables for items 1–3 were recomputed to ensure that the imputed data accurately represent the growth patterns shown by reported data. If, for example, data were reported for FY 1996 and FY 2003 but not for the intervening years, the difference between the reported figures for each item total was calculated and evenly distributed across the intervening years (1997–2002). The new figures were spread across disciplines (items 2 and 3) or sources of support (item 1) on the basis of the most recent reporting pattern. Institutions were given an opportunity to review imputed data and provide comments before data were finalized. These procedures result in much more consistent reporting trends for individual institutions but have little effect on aggregate figures reflecting national totals.

## CHANGES IN BASIC RESEARCH TOTALS

The Division of Science Resources Statistics (SRS) at NSF regularly reviews the methodologies used in the academic R&D expenditures survey with the goal of producing the most accurate statistics possible for researchers and policymakers. A review of responses to item 1, question 2, was conducted in FY 2001, 2002, and 2003. The reviews determined that the aggregate statistics could be improved by refining the imputation methodology for the item. Some universities and colleges are either unable or unwilling to respond to this question, and values must be imputed for it to present aggregate statistics.

In the past, if a respondent did not reply to the basic research question, the prior year's basic research share (whether reported by or imputed for the respondent) was carried forward. After interviews with respondents revealed that abnormal or erroneous values (such as 0 percent basic research) were sometimes carried forward for several years, a revised imputation methodology was introduced. The revised imputation methodology carries forward the prior year's basic research share only if the respondent reported or estimated that year's data. In all other cases an econometric model is used to impute the amount of total and federal basic research. The model accounts for differences between public and private institutions and nonfederal sources of R&D funding.

## ITEM 1A ANALYSIS

Item 1A was completed by 90.9 percent of the respondents from academic institutions. The total R&D expenditures passed through to subrecipients, \$2.4 billion, represents 7.2 percent of item 1A respondents' total R&D expenditures and 6.1 percent of all separately budgeted R&D in FY 2003 (table A-7). Doctorate-granting institutions reported a higher percentage of pass-through funds in item 1A than did nondoctorate-granting institutions, 7.2 percent compared with 5.1 percent (\$25 million) for nondoctorate-granting institutions. Item 1A respondents from private institutions reported a higher percentage of pass-through funds (8.5 percent) than did those from public institutions (6.4 percent).

Academic respondents to item 1A reported \$2.1 billion in federal R&D funds passed through to subrecipients (table A-8). This amount represents 9.9 percent of the

federal support reported by item 1A respondents and 8.5 percent of the \$25 billion in federal support to all respondents.

Table A-9 shows the R&D expenditures passed through to subrecipients for the 100 institutions reporting the highest amounts. Table A-10 shows the federal R&D expenditures passed through to subrecipients for the 100 institutions reporting the highest amounts.

## ITEM 1B ANALYSIS

Item 1B was completed by 89.6 percent of the respondents from academic institutions. The total R&D expenditures received as subrecipients, \$2.6 billion, represents 7.9 percent of item 1B respondents' total R&D expenditures and 6.5 percent of all separately budgeted R&D in FY 2003 (table 11). Doctorate-granting institutions reported a lower percentage of funds received as subrecipients in item 1B than did nondoctorate-granting institutions, 7.8 percent (\$2.5 billion) compared with 10.9 percent (\$55 million) for nondoctorate-granting institutions. Item 1B respondents from private institutions reported a slightly higher percentage of funds received as subrecipients (7.9 percent) than did those from public institutions (7.8 percent).

Academic respondents to item 1B reported \$2.3 billion in federal R&D funds received as subrecipients (table 12). This amount represents 11.1 percent of the federal support reported by item 1B respondents and 9.3 percent of the \$25 billion in federal support to all respondents.

Table A-13 shows R&D expenditures received as a subrecipient for the 100 institutions reporting the highest amounts. Table A-14 shows federal R&D expendi-

tures received as a subrecipient for the 100 institutions reporting the highest amounts.

## DATA AVAILABILITY

Data from this survey and previous reports are available on the Web at <http://www.nsf.gov/statistics/>.

Selected data items for institutions are available on the Web at <http://www.nsf.gov/statistics/profiles/start.cfm>. The institutional profiles cover data from this survey and data collected in other NSF academic S&E surveys: the Survey of Graduate Students and Postdoctorates in Science and Engineering (graduate student survey) and the Survey of Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions (federal S&E support survey). The profiles are also linked to the corresponding ranking table for each survey.

Data for these and other surveys are available through WebCASPAR, a database system designed to provide quick, convenient access to a wide range of statistical data on U.S. universities and colleges and their science and engineering resources. The latest version of WebCASPAR is available on the Web at <http://webcaspar.nsf.gov/>.

WebCASPAR data are drawn from a number of sources. All data are available for individual institutions, by state, and at the national level. Longitudinal data from surveys of universities and colleges conducted by SRS include the academic R&D expenditures survey, graduate student survey, and federal S&E support survey. Data from the National Center for Education Statistics surveys of universities and colleges include earned degrees, opening fall enrollment, tuition, faculty salaries, tenure and fringe benefits, and financial statistics.

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TABLE A-1. Institutions surveyed for the academic R&D expenditures survey, by respondent type and highest degree granted: FY 1998–2003

Respondent type and highest degree granted	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
All respondents	572	614	639	644	661	666
Universities and colleges	555	597	623	608	625	630
Doctorate	357	359	362	358	361	369
Master's	118	148	162	158	161	159
Bachelor's	80	90	99	92	103	102
All FFRDCs	17	17	16	36	36	36
University-administered FFRDCs	17	17	16	16	16	16
Industry-administered FFRDCs	0	0	0	4	4	4
Nonprofit-administered FFRDCs	0	0	0	16	16	16

FFRDC = federally funded research and development center.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE A-2. Response rates for the academic R&D expenditures survey, by respondent type and highest degree granted: FY 2003

Respondent type and highest degree granted	Number in survey universe	Number of complete responses	Number of partial responses	Total number of responses	Response rate
All respondents	666	541	88	629	94.4
Universities and colleges	630	505	88	593	94.1
Doctorate	369	309	47	356	96.5
Master's	159	117	27	144	90.6
Bachelor's	102	79	14	93	91.2
All FFRDCs	36	36	0	36	100.0
University-administered FFRDCs	16	16	0	16	100.0
Industry-administered FFRDCs	4	4	0	4	100.0
Nonprofit-administered FFRDCs	16	16	0	16	100.0

FFRDC = federally funded research and development center.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE A-3. Imputed amounts for total R&D expenditures at universities and colleges, by highest degree granted: FY 2003

(Dollars in millions)

Highest degree granted	All separately budgeted R&D expenditures	Imputed amount	Imputed amount as percent of total
All universities and colleges	40,077	159	0.4
Doctorate-granting institutions	39,477	113	0.3
Non-doctorate-granting institutions	601	46	7.7

NOTE: Because of rounding, detail may not add to total.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE A-4. Imputed amounts for total R&D expenditures at universities and colleges, by science and engineering field: FY 2003

(Dollars in millions)

Science and engineering field	All separately budgeted R&D expenditures	Imputed amount	Imputed amount as percent of total
All science and engineering	40,077	159	0.4
Computer sciences	1,304	8	0.6
Environmental sciences	2,188	18	0.8
Atmospheric sciences	396	15	3.8
Earth sciences	724	43	5.9
Oceanography	774	36	4.7
Environmental sciences, nec	294	52	17.7
Life sciences	23,764	160	0.7
Agricultural sciences	2,555	50	2.0
Biological sciences	7,392	63	0.9
Medical sciences	12,787	96	0.8
Life sciences, nec	1,030	17	1.7
Mathematical sciences	429	9	2.1
Physical sciences	3,273	39	1.2
Astronomy	392	1	0.3
Chemistry	1,220	22	1.8
Physics	1,420	21	1.5
Physical sciences, nec	240	9	3.8
Psychology	769	5	0.7
Social sciences	1,661	20	1.2
Economics	314	7	2.2
Political sciences	289	2	0.7
Sociology	372	9	2.4
Social sciences, nec	686	14	2.0
Sciences, nec	691	35	5.1
Engineering	5,999	71	1.2
Aeronautical/astronautical engineering	402	47	11.7
Bioengineering/biomedical engineering	314	17	5.4
Chemical engineering	454	25	5.5
Civil engineering	776	20	2.6
Electrical engineering	1,402	134	9.6
Mechanical engineering	822	100	12.2
Metallurgical/materials engineering	535	3	0.6
Engineering, nec	1,295	150	11.6

nec = not elsewhere classified.

NOTES: The imputation rate at the total level is lower than the imputation rates at the science and engineering field levels because many institutions could provide totals but not the science and engineering field details. Because of rounding, detail may not add to total.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE A-5. Imputed amounts for federally financed R&D expenditures at universities and colleges, by science and engineering field: FY 2003

(Dollars in millions)

Science and engineering field	All separately budgeted federal R&D expenditures	Imputed amount	Imputed amount as percent of total
All science and engineering	24,734	85	0.3
Computer sciences	936	4	0.4
Environmental sciences	1,440	8	0.6
Atmospheric sciences	297	12	4.0
Earth sciences	440	33	7.5
Oceanography	536	30	5.6
Environmental sciences, nec	166	40	24.1
Life sciences	14,645	114	0.8
Agricultural sciences	762	37	4.9
Biological sciences	5,017	42	0.8
Medical sciences	8,249	69	0.8
Life sciences, nec	617	11	1.8
Mathematical sciences	295	4	1.4
Physical sciences	2,353	18	0.8
Astronomy	272	1	0.4
Chemistry	816	10	1.2
Physics	1,088	14	1.3
Physical sciences, nec	177	2	1.1
Psychology	553	3	0.5
Social sciences	667	9	1.3
Economics	108	4	3.7
Political sciences	92	0	0.0
Sociology	183	3	1.6
Social sciences, nec	284	6	2.1
Sciences, nec	238	7	2.9
Engineering	3,608	31	0.9
Aeronautical/astronautical engineering	306	42	13.7
Bioengineering/biomedical engineering	190	14	7.4
Chemical engineering	248	16	6.5
Civil engineering	327	14	4.3
Electrical engineering	925	126	13.6
Mechanical engineering	533	89	16.7
Metallurgical/materials engineering	303	3	1.0
Engineering, nec	776	134	17.3

nec = not elsewhere classified.

NOTES: The imputation rate at the total level is lower than the imputation rates at the science and engineering field levels because many institutions could provide totals but not the science and engineering field details. Because of rounding, detail may not add to total.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE A-6. Imputed amounts for R&D expenditures at universities and colleges, by source of funds: FY 2003  
(Dollars in millions)

Source of funds	All separately budgeted R&D expenditures	Imputed amount	Imputed amount as percent of total
All sources	40,077	159	0.4
Federal government	24,734	85	0.3
State and local government	2,653	16	0.6
Industry	2,162	21	1.0
Institutional funds	7,683	26	0.3
All other sources	2,845	27	0.9

NOTES: Because of rounding, detail may not add to total. Because some institutions reported total R&D expenditures but not individual sources, the sum of imputed sources is greater than the imputed amount for all sources.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE A-7. Item 1A summary of total academic R&D expenditures: FY 2003  
(Dollars in thousands)

Highest degree and control	All respondents' total R&D <sup>a</sup>	Item 1A respondents' total R&D <sup>b</sup>	R&D expenditures passed through to subrecipients		
			Total <sup>c</sup>	Educational subrecipients	Other subrecipients
All academic institutions	39,918,745	33,810,976	2,427,685	1,126,739	761,983
Doctorate	39,363,777	33,309,847	2,402,345	1,111,917	751,465
Nondoctorate	554,968	501,129	25,340	14,822	10,518
Public	27,269,171	21,367,528	1,376,165	680,618	479,053
Private	12,649,574	12,443,448	1,051,520	446,121	282,930

<sup>a</sup> Total is amount prior to imputation for nonrespondents.

<sup>b</sup> Item 1A measures amount of R&D expenditures passed through institution to subrecipients.

<sup>c</sup> Detail may not add to total because of rounding and because some institutions provided only total and federal R&D expenditure data passed through to subrecipients.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE A-8. Item 1A summary of federal academic R&D expenditures: FY 2003

(Dollars in thousands)

Highest degree and control	All respondents' federal R&D <sup>a</sup>	Item 1A respondents' federal R&D <sup>b</sup>	Federal R&D expenditures passed through to subrecipients		
			Total <sup>c</sup>	Educational subrecipients	Other subrecipients
All academic institutions	24,649,271	21,169,059	2,103,212	1,012,682	606,196
Doctorate	24,319,488	20,868,565	2,088,314	1,003,382	600,598
Nondoctorate	329,783	300,494	14,898	9,300	5,598
Public	15,241,189	11,911,463	1,186,930	610,442	391,589
Private	9,408,082	9,257,596	916,282	402,240	214,607

<sup>a</sup> Total is amount prior to imputation for nonrespondents.

<sup>b</sup> Item 1A measures amount of R&D expenditures passed through institution to subrecipients.

<sup>c</sup> Detail may not add to total because of rounding and because some institutions provided only total and federal R&D expenditure data passed through to subrecipients.

SOURCE: National Science Foundation/Division of Sciences Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.



TABLE A-9. R&D expenditures passed through to subrecipients by universities and colleges, ranked by amount passed through for the first 100 institutions: FY 2003

(Dollars in thousands)

Institutions ranked by amount of R&D expenditures passed through	All R&D expenditures	R&D expenditures passed through to subrecipients		
		Total	Educational subrecipients	Other subrecipients
All institutions	40,077,399	2,427,685	1,126,739	761,983
1 Johns Hopkins U., The <sup>a</sup>	1,244,132	105,815	NA	NA
2 Stanford U.	603,227	74,603	NA	NA
3 Harvard U.	408,707	59,577	20,641	38,936
4 U. PA	564,716	56,782	33,058	23,724
5 Duke U.	520,191	54,103	35,768	18,335
6 U. MI all campuses	780,054	49,167	32,479	16,688
7 Columbia U. in the City of NY	437,669	47,733	26,730	21,003
8 U. Southern CA	414,099	45,716	17,422	28,294
9 U. AZ	454,941	44,034	33,025	11,009
10 U. CO all campuses	436,761	42,542	14,513	28,029
11 U. IL Urbana-Champaign	493,581	40,694	29,000	11,694
12 U. WI Madison	721,248	39,547	27,832	11,715
13 U. MN all campuses	508,557	38,490	NA	NA
14 U. NC Chapel Hill	390,542	38,442	20,216	18,226
15 Baylor C. of Medicine	461,763	37,365	33,051	4,314
16 U. MD College Park	321,899	31,477	0	31,477
17 CA Institute of Technology	240,664	30,712	NA	NA
18 OH State U. all campuses	496,438	30,624	15,621	15,003
19 MA Institute of Technology	485,764	29,979	16,490	13,489
20 U. Pittsburgh all campuses	409,684	28,198	14,381	13,817
21 U. South FL	213,249	26,724	NA	NA
22 Yale U.	387,644	26,218	NA	NA
23 Cornell U. all campuses	554,760	26,159	NA	NA
24 Washington U. St. Louis	474,328	24,381	18,646	5,735
25 Carnegie-Mellon U.	186,351	24,006	14,323	9,683
26 U. FL	429,734	23,816	21,434	2,382
27 U. AL Birmingham, The	284,497	23,508	NA	NA
28 U. Chicago	247,322	21,934	15,938	5,996
29 GA Institute of Technology all campuses	364,190	21,756	NA	NA
30 MS State U.	165,922	21,344	16,176	5,168
31 Boston U.	224,841	21,310	7,684	13,626
32 Rutgers, The State U. NJ all campuses	274,576	20,599	14,564	6,035
33 Northwestern U.	319,722	19,484	NA	NA
34 Emory U.	323,224	18,958	11,734	7,224
35 NC State U.	286,025	18,697	10,545	8,152
36 U. VA all campuses	206,199	18,683	13,753	4,930
37 MI State U.	321,410	18,598	14,658	3,940
38 FL State U.	152,277	18,249	6,925	11,324
39 IN U. all campuses	337,669	18,247	8,336	9,911
40 U. TX Austin	343,854	17,823	6,372	11,451
41 U. HI Manoa	179,285	17,648	5,669	11,979
42 NM State U. all campuses	108,613	17,594	5,642	11,952
43 Vanderbilt U.	276,074	17,541	11,657	5,884
44 U. MS all campuses	85,378	17,536	12,821	4,715
45 U. TX Health Science Ctr. Houston	149,294	16,902	11,394	5,508
46 Case Western Reserve U.	250,674	16,820	16,820	0
47 U. IL Chicago	291,507	16,214	8,328	7,886
48 U. NE central administration	276,424	15,792	8,902	6,890
49 U. IA	292,035	15,772	NA	NA

TABLE A-9. R&D expenditures passed through to subrecipients by universities and colleges, ranked by amount passed through for the first 100 institutions: FY 2003

(Dollars in thousands)

Institutions ranked by amount of R&D expenditures passed through	All R&D expenditures	R&D expenditures passed through to subrecipients		
		Total	Educational subrecipients	Other subrecipients
50 Purdue U. all campuses	309,476	15,336	11,313	4,023
51 U. GA	299,748	15,283	NA	NA
52 Wake Forest U.	130,405	15,280	NA	NA
53 George Washington U.	92,454	15,116	6,258	8,858
54 Dartmouth C.	155,795	15,067	6,805	8,262
55 Princeton U.	179,951	14,743	9,568	5,175
56 U. TX Southwestern Medical Ctr. Dallas	276,692	14,680	10,307	4,373
57 U. NH	96,415	14,167	NA	NA
58 U. Rochester	285,768	14,139	11,432	2,707
59 OR Health and Science U.	197,178	14,026	5,093	8,933
60 VA Polytechnic Institute and State U.	247,807	13,973	7,691	6,282
61 U. KY all campuses	272,062	13,903	13,903	0
62 NY U.	241,593	13,820	10,782	3,038
63 Eastern VA Medical School	32,801	13,641	3,701	9,940
64 Mt. Sinai School of Medicine	214,514	13,252	13,252	0
65 U. AK Fairbanks all campuses	128,916	13,247	NA	NA
66 Brown U.	125,090	11,812	NA	NA
67 U. UT	223,739	11,756	6,466	5,290
68 U. Miami	177,709	11,629	3,451	8,178
69 MT State U. Bozeman	91,503	11,480	NA	NA
70 U. TN all campuses	217,389	11,091	6,504	4,587
71 U. KS all campuses	173,024	10,914	7,161	3,753
72 SUNY Buffalo all campuses	240,180	10,875	7,356	3,519
73 Wayne State U.	213,717	10,758	6,034	4,724
74 U. TX M. D. Anderson Cancer Ctr.	315,169	10,703	6,467	4,236
75 U. of Medicine and Dentistry NJ	190,763	10,670	10,670	0
76 Drexel U.	69,548	10,645	NA	NA
77 U. CT all campuses	190,341	10,478	6,754	3,724
78 U. Cincinnati all campuses	255,083	10,147	4,562	5,585
79 U. OK all campuses	174,466	9,716	6,201	3,515
80 OR State U.	167,631	9,699	7,696	2,003
81 U. MO-Columbia	205,212	9,673	6,100	3,573
82 U. NM all campuses	158,239	9,559	7,928	1,631
83 U. NV, Las Vegas	42,205	9,503	5,979	3,524
84 U. Dayton	52,943	9,414	583	8,831
85 Rockefeller U.	192,143	9,406	9,406	0
86 WV U.	104,748	8,977	2,266	6,711
87 NJ Institute of Technology	73,664	8,900	NA	NA
88 Tulane U.	117,709	8,674	5,889	2,785
89 Yeshiva U.	177,236	8,647	8,647	0
90 U. TX Health Science Ctr. San Antonio	133,304	8,353	4,738	3,615
91 Thomas Jefferson U.	109,083	8,273	5,883	2,390
92 San Diego State U.	67,053	8,226	3,869	4,357
93 AZ State U. main campus	145,591	8,198	5,556	2,642
94 U. AL, The	34,187	8,058	7,275	783
95 LA State U. all campuses	314,665	7,997	5,438	2,559
96 TX A&M U. all campuses	456,235	7,959	5,599	2,360
97 Hampton U.	18,673	7,861	7,483	378
98 CO State U.	187,054	7,684	NA	NA
99 OK State U. all campuses	103,079	7,573	NA	NA

TABLE A-9. R&D expenditures passed through to subrecipients by universities and colleges, ranked by amount passed through for the first 100 institutions: FY 2003

(Dollars in thousands)

Institutions ranked by amount of R&D expenditures passed through	All R&D expenditures	R&D expenditures passed through to subrecipients		
		Total	Educational subrecipients	Other subrecipients
100 SUNY Stony Brook all campuses	200,330	7,330	0	7,330
All other sampled institutions	12,795,404	357,461	212,125	131,685

NA = not available.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory.

NOTE: Detail may not add to total because of rounding and because some respondents reporting total R&D funds passed through did not break out these funds by type of subrecipient (educational or other).

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE A-10. Federal R&D expenditures passed through to subrecipients by universities and colleges, ranked by amount passed through for the first 100 institutions: FY 2003

(Dollars in thousands)

Institutions ranked by amount of federal R&D expenditures passed through	Federal R&D expenditures	Federal R&D expenditures passed through to subrecipients		
		Total	Educational subrecipients	Other subrecipients
All institutions	24,734,033	2,103,212	1,012,682	606,196
1 Johns Hopkins U., The <sup>a</sup>	1,106,971	97,329	NA	NA
2 Stanford U.	483,540	69,424	NA	NA
3 Harvard U.	348,620	48,285	19,527	28,758
4 U. MI all campuses	516,818	43,061	29,295	13,766
5 U. PA	415,631	42,911	24,544	18,367
6 U. Southern CA	300,195	42,058	15,307	26,751
7 U. CO all campuses	377,941	40,696	14,201	26,495
8 Columbia U. in the City of NY	385,529	40,012	22,407	17,605
9 U. WI Madison	396,231	38,388	27,361	11,027
10 U. NC Chapel Hill	280,678	38,008	20,043	17,965
11 U. AZ	259,074	38,006	28,505	9,501
12 U. IL Urbana-Champaign	266,487	37,235	26,057	11,178
13 Baylor C. of Medicine	302,764	36,954	32,932	4,022
14 U. MN all campuses	293,266	34,441	NA	NA
15 Duke U.	306,864	34,392	34,392	0
16 CA Institute of Technology	219,097	29,292	NA	NA
17 U. Pittsburgh all campuses	345,625	27,032	14,057	12,975
18 U. MD College Park	183,206	26,719	0	26,719
19 Cornell U. all campuses	320,868	25,455	NA	NA
20 OH State U. all campuses	198,488	23,428	14,139	9,289
21 Yale U.	296,713	23,428	NA	NA
22 U. AL Birmingham, The	245,217	23,300	NA	NA
23 Carnegie-Mellon U.	157,583	22,727	14,298	8,429
24 U. South FL	106,102	22,680	NA	NA
25 MA Institute of Technology	356,206	22,636	11,879	10,757
26 Washington U. St. Louis	357,364	22,480	17,950	4,530
27 Boston U.	203,947	21,191	7,655	13,536
28 MS State U.	79,837	21,003	15,915	5,088
29 U. Chicago	201,129	20,636	14,864	5,772
30 U. FL	194,958	20,609	18,548	2,061
31 Northwestern U.	200,316	17,988	NA	NA
32 U. HI Manoa	143,580	17,648	5,669	11,979
33 U. VA all campuses	173,442	17,194	12,461	4,733
34 Vanderbilt U.	221,979	17,191	11,307	5,884
35 GA Institute of Technology all campuses	203,582	17,025	NA	NA
36 FL State U.	87,985	16,915	6,643	10,272
37 NM State U. all campuses	75,368	16,883	5,642	11,241
38 Emory U.	228,255	16,853	11,536	5,317
39 U. MS all campuses	62,140	16,770	12,122	4,648
40 Rutgers, The State U. NJ all campuses	106,060	16,625	13,034	3,591
41 Case Western Reserve U.	205,452	15,381	15,381	0
42 U. TX Health Science Ctr. Houston	107,481	15,247	9,993	5,254
43 U. NE central administration	96,627	14,848	8,565	6,283
44 U. TX Southwestern Medical Ctr. Dallas	177,196	14,680	10,307	4,373
45 IN U. all campuses	153,625	14,382	7,042	7,340
46 U. IA	197,260	14,317	NA	NA
47 Dartmouth C.	106,034	14,172	6,502	7,670
48 Wake Forest U.	108,467	14,058	NA	NA
49 NC State U.	96,157	14,055	7,574	6,481

TABLE A-10. Federal R&D expenditures passed through to subrecipients by universities and colleges, ranked by amount passed through for the first 100 institutions: FY 2003

(Dollars in thousands)

Institutions ranked by amount of federal R&D expenditures passed through	Federal R&D expenditures	Federal R&D expenditures passed through to subrecipients		
		Total	Educational subrecipients	Other subrecipients
50 NY U.	166,033	13,753	10,782	2,971
51 U. NH	59,463	13,609	NA	NA
52 U. GA	93,884	13,519	NA	NA
53 Purdue U. all campuses	129,199	12,977	10,729	2,248
54 U. TX Austin	231,996	12,962	5,691	7,271
55 Mt. Sinai School of Medicine	152,719	12,871	12,871	0
56 George Washington U.	68,959	12,774	5,680	7,094
57 U. IL Chicago	168,063	12,748	7,421	5,327
58 OR Health and Science U.	164,221	12,509	4,393	8,116
59 U. AK Fairbanks all campuses	72,607	12,500	NA	NA
60 U. UT	152,112	11,596	6,378	5,218
61 VA Polytechnic Institute and State U.	98,143	11,572	7,099	4,473
62 Princeton U.	104,011	11,237	8,489	2,748
63 MI State U.	133,820	11,197	8,445	2,752
64 U. Rochester	208,148	11,156	9,382	1,774
65 Brown U.	81,445	10,941	NA	NA
66 U. KY all campuses	120,003	10,775	10,775	0
67 U. TX M. D. Anderson Cancer Ctr.	122,869	10,703	6,467	4,236
68 U. of Medicine and Dentistry NJ	105,495	10,670	10,670	0
69 U. KS all campuses	90,876	10,273	6,948	3,325
70 Drexel U.	49,271	10,238	NA	NA
71 SUNY Buffalo all campuses	129,794	10,118	6,844	3,274
72 U. Cincinnati all campuses	185,261	10,085	4,519	5,566
73 U. NV, Las Vegas	32,511	9,503	5,979	3,524
74 U. CT all campuses	111,654	9,482	6,367	3,115
75 U. Dayton	47,327	9,329	574	8,755
76 Rockefeller U.	75,303	9,219	9,219	0
77 U. NM all campuses	106,541	9,191	7,746	1,445
78 MT State U. Bozeman	53,283	9,184	NA	NA
79 U. TN all campuses	100,486	9,136	6,243	2,893
80 Yeshiva U.	128,894	8,647	8,647	0
81 U. MO-Columbia	84,211	8,577	5,293	3,284
82 WV U.	60,586	8,336	2,122	6,214
83 U. TX Health Science Ctr. San Antonio	86,683	8,277	4,682	3,595
84 U. Miami	130,863	8,168	3,037	5,131
85 Wayne State U.	102,963	7,996	4,919	3,077
86 Tulane U.	82,118	7,931	5,592	2,339
87 Hampton U.	18,417	7,861	7,483	378
88 U. OK all campuses	75,318	7,772	5,404	2,368
89 U. AL, The	26,241	7,582	7,013	569
90 AZ State U. main campus	71,741	7,484	5,304	2,180
91 CO State U.	117,151	6,917	NA	NA
92 Thomas Jefferson U.	85,348	6,846	5,878	968
93 SUNY Stony Brook all campuses	112,452	6,757	0	6,757
94 OR State U.	100,499	6,556	4,553	2,003
95 TX A&M U. all campuses	177,119	6,535	5,409	1,126
96 OK State U. all campuses	37,748	6,472	NA	NA
97 Clemson U.	62,552	6,466	NA	NA
98 U. MA Worcester	109,082	6,206	6,206	0
99 Loma Linda U.	22,675	5,969	0	5,969

TABLE A-10. Federal R&D expenditures passed through to subrecipients by universities and colleges, ranked by amount passed through for the first 100 institutions: FY 2003

(Dollars in thousands)

Institutions ranked by amount of federal R&D expenditures passed through	Federal R&D expenditures	Federal R&D expenditures passed through to subrecipients		
		Total	Educational subrecipients	Other subrecipients
100 U. DE	69,493	5,961	3,869	2,092
All other sampled institutions	7,298,427	278,021	179,906	92,364

NA = not available.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory.

NOTES: Detail may not add to total because of rounding and because some respondents reporting federal R&D funds passed through did not break out these funds by type of subrecipient (educational or other). Tied institutions are ranked alphabetically.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE A-11. Item 1B summary of total academic R&D expenditures: FY 2003  
(Dollars in thousands)

Highest degree and control	All respondents' total R&D <sup>a</sup>	Item 1B respondents' total R&D <sup>b</sup>	R&D expenditures received as a subrecipient		
			Total <sup>c</sup>	Higher education pass-through entities	Other pass-through entities
All academic institutions	39,918,745	32,974,984	2,589,400	1,135,390	1,063,611
Doctorate	39,363,777	32,470,188	2,534,338	1,113,239	1,038,230
Nondoctorate	554,968	504,796	55,062	22,151	25,381
Public	27,269,171	21,157,837	1,656,224	750,544	727,601
Private	12,649,574	11,817,147	933,176	384,846	336,010

<sup>a</sup> Total is amount prior to imputation for nonrespondents.

<sup>b</sup> Item 1B measures amount of R&D expenditures received as a subrecipient.

<sup>c</sup> Detail may not add to total because of rounding and because some institutions provided only total and federal R&D expenditure data received as a subrecipient.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE A-12. Item 1B summary of federal academic R&D expenditures: FY 2003  
(Dollars in thousands)

Highest degree and control	All respondents' federal R&D <sup>a</sup>	Item 1B respondents' federal R&D <sup>b</sup>	Federal R&D expenditures received as a subrecipient		
			Total <sup>c</sup>	Higher education pass-through entities	Other pass-through entities
All academic institutions	24,649,271	20,648,443	2,301,947	1,031,076	930,215
Doctorate	24,319,488	20,345,893	2,256,822	1,012,302	911,394
Nondoctorate	329,783	302,550	45,125	18,774	18,821
Public	15,241,189	11,837,903	1,463,613	680,493	630,838
Private	9,408,082	8,810,540	838,334	350,583	299,377

<sup>a</sup> Total is amount prior to imputation for nonrespondents.

<sup>b</sup> Item 1B measures amount of R&D expenditures received as a subrecipient.

<sup>c</sup> Detail may not add to total because of rounding and because some institutions provided only total and federal R&D expenditure data received as a subrecipient.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.



TABLE A-13. R&D expenditures received as a subrecipient by universities and colleges, ranked by amount received for the first 100 institutions: FY 2003

(Dollars in thousands)

Institutions ranked by amount of R&D expenditures received as a subrecipient	All R&D expenditures	R&D expenditures received as a subrecipient		
		Total	Educational pass-through entities	Other pass-through entities
All institutions	40,077,399	2,589,400	1,135,390	1,063,611
1 U. MI all campuses	780,054	83,643	40,873	42,770
2 Stanford U.	603,227	67,251	NA	NA
3 MA Institute of Technology	485,764	65,736	28,224	37,512
4 TX A&M U. all campuses	456,235	64,998	56,732	8,266
5 U. AZ	454,941	58,718	38,238	20,480
6 OH State U. all campuses	496,438	52,679	22,614	30,065
7 Johns Hopkins U., The <sup>a</sup>	1,244,132	51,231	NA	NA
8 U. WI Madison	721,248	46,451	19,671	26,780
9 Harvard U.	408,707	42,966	14,549	28,417
10 U. TX Austin	343,854	42,282	19,010	23,272
11 Columbia U. in the City of NY	437,669	41,105	19,846	21,259
12 U. Southern CA	414,099	40,114	20,202	19,912
13 U. CO all campuses	436,761	39,158	17,817	21,341
14 U. IL Urbana-Champaign	493,581	34,903	15,903	19,000
15 Cornell U. all campuses	554,760	34,552	14,421	20,131
16 U. FL	429,734	33,564	11,073	22,491
17 GA Institute of Technology all campuses	364,190	32,889	NA	NA
18 Northwestern U.	319,722	31,729	NA	NA
19 CA Institute of Technology	240,664	31,561	18,581	12,980
20 Emory U.	323,224	31,503	11,715	19,788
21 Purdue U. all campuses	309,476	31,003	11,730	19,273
22 U. MN all campuses	508,557	29,692	NA	NA
23 Carnegie-Mellon U.	186,351	28,906	14,147	14,759
24 U. AL Birmingham, The	284,497	28,327	17,322	11,005
25 U. MD College Park	321,899	27,920	7,348	20,572
26 U. Pittsburgh all campuses	409,684	26,654	NA	NA
27 Washington U. St. Louis	474,328	26,041	12,519	13,522
28 Duke U.	520,191	24,740	18,478	6,262
29 AZ State U. main campus	145,591	24,705	6,249	18,456
30 U. NC Chapel Hill	390,542	23,694	14,530	9,164
31 U. Rochester	285,768	23,587	NA	NA
32 Rutgers, The State U. NJ all campuses	274,576	23,380	13,265	10,115
33 Yale U.	387,644	22,774	NA	NA
34 Boston U.	224,841	21,633	11,691	9,942
35 Vanderbilt U.	276,074	21,227	10,163	11,064
36 U. OK all campuses	174,466	20,321	6,519	13,802
37 PA State U. all campuses	533,427	19,945	19,945	0
38 U. Chicago	247,322	19,304	12,526	6,778
39 U. UT	223,739	19,281	8,403	10,878
40 U. SC all campuses	121,410	17,457	17,457	0
41 IN U. all campuses	337,669	16,919	9,678	7,241
42 VA Polytechnic Institute and State U.	247,807	16,874	6,165	10,709
43 Tulane U.	117,709	16,839	3,186	13,653
44 NC State U.	286,025	16,663	11,791	4,872
45 MI State U.	321,410	16,616	8,141	8,475
46 U. NM all campuses	158,239	16,580	6,486	10,094
47 U. AK Fairbanks all campuses	128,916	16,448	NA	NA
48 U. HI Manoa	179,285	16,239	4,516	11,723
49 U. KY all campuses	272,062	15,891	5,642	10,249

TABLE A-13. R&D expenditures received as a subrecipient by universities and colleges, ranked by amount received for the first 100 institutions: FY 2003

(Dollars in thousands)

Institutions ranked by amount of R&D expenditures received as a subrecipient	All R&D expenditures	R&D expenditures received as a subrecipient		
		Total	Educational pass-through entities	Other pass-through entities
50 U. IL Chicago	291,507	15,778	7,182	8,596
51 Case Western Reserve U.	250,674	15,065	15,065	0
52 LA State U. all campuses	314,665	14,981	9,533	5,448
53 FL State U.	152,277	14,684	3,428	11,256
54 Auburn U. all campuses	124,103	14,415	5,205	9,210
55 U. Central FL	89,880	14,376	NA	NA
56 U. IA	292,035	14,025	NA	NA
57 U. NV, Reno	80,553	13,962	10,648	3,314
58 OR State U.	167,631	13,796	7,800	5,996
59 MT State U. Bozeman	91,503	13,726	NA	NA
60 U. CT all campuses	190,341	13,623	5,875	7,748
61 U. NE central administration	276,424	13,603	7,518	6,085
62 U. TX Health Science Ctr. Houston	149,294	13,403	9,819	3,584
63 WV U.	104,748	13,305	5,217	8,088
64 MS State U.	165,922	13,300	6,285	7,015
65 CO State U.	187,054	13,143	7,674	5,469
66 Princeton U.	179,951	13,102	9,601	3,501
67 Baylor C. of Medicine	461,763	12,892	8,720	4,172
68 Mt. Sinai School of Medicine	214,514	12,308	9,848	2,460
69 Medical U. SC	150,551	12,252	4,402	7,850
70 U. KS all campuses	173,024	12,179	4,821	7,358
71 OK State U. all campuses	103,079	11,898	NA	NA
72 Catholic U. America, The	24,475	11,883	361	11,522
73 NY U.	241,593	11,481	6,289	5,192
74 U. TX M. D. Anderson Cancer Ctr.	315,169	11,460	9,447	2,013
75 U. NH	96,415	11,283	3,745	7,538
76 SUNY Albany	120,655	11,027	6,423	4,604
77 U. Cincinnati all campuses	255,083	10,769	3,930	6,839
78 Dartmouth C.	155,795	10,665	6,161	4,504
79 Rice U.	52,367	10,556	8,844	1,712
80 Thomas Jefferson U.	109,083	10,401	8,368	2,033
81 KS State U.	112,733	10,145	5,747	4,398
82 OR Health and Science U.	197,178	10,144	5,179	4,965
83 U. MO-Columbia	205,212	10,082	4,368	5,714
84 U. Southern MS	35,049	9,691	6,620	3,071
85 Woods Hole Oceanographic Institution	104,223	9,622	9,622	0
86 Brown U.	125,090	9,421	3,760	5,661
87 U. DE	100,706	9,246	4,225	5,021
88 WA State U.	175,181	9,228	3,526	5,702
89 SUNY Stony Brook all campuses	200,330	9,092	5,274	3,818
90 U. MA Worcester	148,823	9,076	3,102	5,974
91 U. TN all campuses	217,389	8,966	4,150	4,816
92 U. TX Health Science Ctr. San Antonio	133,304	8,795	3,396	5,399
93 Clark Atlanta U.	12,760	8,667	1,130	7,537
94 NM Institute of Mining and Technology	37,186	8,318	2,266	6,052
95 Rush U.	89,196	8,261	7,025	1,236
96 NM State U. all campuses	108,613	8,236	2,687	5,549
97 George Washington U.	92,454	7,968	4,542	3,426
98 Tufts U.	112,609	7,943	3,934	4,009
99 U. GA	299,748	7,805	NA	NA

TABLE A-13. R&D expenditures received as a subrecipient by universities and colleges, ranked by amount received for the first 100 institutions: FY 2003

(Dollars in thousands)

Institutions ranked by amount of R&D expenditures received as a subrecipient	All R&D expenditures	R&D expenditures received as a subrecipient		
		Total	Educational pass-through entities	Other pass-through entities
100 Temple U.	71,327	7,698	5,282	2,416
All other sampled institutions	13,557,651	454,962	229,980	198,668

NA = not available.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory.

NOTE: Detail may not add to total because of rounding and because some respondents reporting total R&D funds received as a subrecipient did not break out these funds by type of pass-through entity (educational or other).

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE A-14. Federal R&D expenditures received as a subrecipient by universities and colleges, ranked by amount received for the first 100 institutions: FY 2003

(Dollars in thousands)

Institutions ranked by amount of federal R&D expenditures received as a subrecipient	Federal R&D expenditures	Federal R&D expenditures received as a subrecipient		
		Total	Educational pass-through entities	Other pass-through entities
All institutions	24,734,033	2,301,947	1,031,076	930,215
1 U. MI all campuses	516,818	74,523	34,953	39,570
2 TX A&M U. all campuses	177,119	63,653	55,650	8,003
3 MA Institute of Technology	356,206	59,527	27,644	31,883
4 U. AZ	259,074	58,718	38,238	20,480
5 Stanford U.	483,540	55,458	NA	NA
6 Johns Hopkins U., The <sup>a</sup>	1,106,971	51,231	NA	NA
7 U. WI Madison	396,231	46,451	19,671	26,780
8 U. TX Austin	231,996	42,282	19,010	23,272
9 Harvard U.	348,620	40,968	13,334	27,634
10 Columbia U. in the City of NY	385,529	39,676	19,223	20,453
11 U. CO all campuses	377,941	39,158	17,817	21,341
12 Cornell U. all campuses	320,868	33,190	13,059	20,131
13 GA Institute of Technology all campuses	203,582	32,889	NA	NA
14 U. Southern CA	300,195	32,002	17,545	14,457
15 CA Institute of Technology	219,097	31,561	18,581	12,980
16 U. IL Urbana-Champaign	266,487	31,520	13,952	17,568
17 U. FL	194,958	28,512	10,797	17,715
18 U. AL Birmingham, The	245,217	28,327	17,322	11,005
19 Carnegie-Mellon U.	157,583	28,197	13,949	14,248
20 U. MN all campuses	293,266	26,552	NA	NA
21 U. Pittsburgh all campuses	345,625	26,198	NA	NA
22 Northwestern U.	200,316	25,966	NA	NA
23 Washington U. St. Louis	357,364	25,628	12,439	13,189
24 Emory U.	228,255	24,813	10,992	13,821
25 AZ State U. main campus	71,741	23,903	5,817	18,086
26 Yale U.	296,713	22,774	NA	NA
27 U. MD College Park	183,206	22,068	5,353	16,715
28 Boston U.	203,947	21,633	11,691	9,942
29 Vanderbilt U.	221,979	21,227	10,163	11,064
30 Rutgers, The State U. NJ all campuses	106,060	21,155	12,280	8,875
31 U. Rochester	208,148	21,126	NA	NA
32 U. NC Chapel Hill	280,678	20,995	12,912	8,083
33 U. OK all campuses	75,318	20,321	6,519	13,802
34 Purdue U. all campuses	129,199	19,192	11,730	7,462
35 U. Chicago	201,129	19,060	12,282	6,778
36 U. UT	152,112	18,614	8,112	10,502
37 U. SC all campuses	63,044	17,457	17,457	0
38 VA Polytechnic Institute and State U.	98,143	16,874	6,165	10,709
39 NC State U.	96,157	16,663	11,791	4,872
40 U. NM all campuses	106,541	16,580	6,486	10,094
41 U. HI Manoa	143,580	16,239	4,516	11,723
42 U. KY all campuses	120,003	15,891	5,642	10,249
43 MI State U.	133,820	15,869	7,851	8,018
44 IN U. all campuses	153,625	15,784	8,543	7,241
45 Tulane U.	82,118	15,489	3,169	12,320
46 Case Western Reserve U.	205,452	15,065	15,065	0
47 PA State U. all campuses	301,094	14,876	14,876	0
48 FL State U.	87,985	14,684	3,428	11,256
49 Auburn U. all campuses	45,374	14,415	5,205	9,210

TABLE A-14. Federal R&D expenditures received as a subrecipient by universities and colleges, ranked by amount received for the first 100 institutions: FY 2003

(Dollars in thousands)

Institutions ranked by amount of federal R&D expenditures received as a subrecipient	Federal R&D expenditures	Federal R&D expenditures received as a subrecipient		
		Total	Educational pass-through entities	Other pass-through entities
50 U. Central FL	47,749	14,376	NA	NA
51 U. NV, Reno	47,756	13,962	10,648	3,314
52 U. CT all campuses	111,654	13,623	5,875	7,748
53 U. TX Health Science Ctr. Houston	107,481	13,403	9,819	3,584
54 WV U.	60,586	13,305	5,217	8,088
55 U. NE central administration	96,627	13,218	7,217	6,001
56 CO State U.	117,151	13,143	7,674	5,469
57 OR State U.	100,499	13,036	7,282	5,754
58 MS State U.	79,837	12,893	5,878	7,015
59 Baylor C. of Medicine	302,764	12,892	8,720	4,172
60 U. IA	197,260	12,416	NA	NA
61 Mt. Sinai School of Medicine	152,719	12,308	9,848	2,460
62 U. IL Chicago	168,063	12,294	7,079	5,215
63 Medical U. SC	92,893	12,252	4,402	7,850
64 U. KS all campuses	90,876	12,172	4,821	7,351
65 Princeton U.	104,011	11,960	8,459	3,501
66 OK State U. all campuses	37,748	11,895	NA	NA
67 Catholic U. America, The	18,864	11,883	361	11,522
68 U. TX M. D. Anderson Cancer Ctr.	122,869	11,460	9,447	2,013
69 U. NH	59,463	11,283	3,745	7,538
70 MT State U. Bozeman	53,283	10,980	NA	NA
71 Dartmouth C.	106,034	10,665	6,161	4,504
72 Thomas Jefferson U.	85,348	10,401	8,368	2,033
73 U. Cincinnati all campuses	185,261	10,165	3,719	6,446
74 KS State U.	53,313	10,145	5,747	4,398
75 U. MO-Columbia	84,211	10,082	4,368	5,714
76 NY U.	166,033	9,930	6,289	3,641
77 Rice U.	43,706	9,748	8,844	904
78 OR Health and Science U.	164,221	9,645	4,979	4,666
79 Woods Hole Oceanographic Institution	84,410	9,622	9,622	0
80 U. Southern MS	31,653	9,457	6,405	3,052
81 Brown U.	81,445	9,421	3,760	5,661
82 U. DE	69,493	9,246	4,225	5,021
83 WA State U.	70,653	9,228	3,526	5,702
84 SUNY Stony Brook all campuses	112,452	9,092	5,274	3,818
85 U. MA Worcester	109,082	9,076	3,102	5,974
86 U. TX Health Science Ctr. San Antonio	86,683	8,795	3,396	5,399
87 Clark Atlanta U.	12,367	8,667	1,130	7,537
88 NM Institute of Mining and Technology	15,434	8,318	2,266	6,052
89 Rush U.	49,834	8,261	7,025	1,236
90 NM State U. all campuses	75,368	8,236	2,687	5,549
91 U. GA	93,884	7,805	NA	NA
92 Wayne State U.	102,963	7,678	3,581	4,097
93 Rensselaer Polytechnic Institute	32,295	7,597	4,551	3,046
94 U. West FL	9,105	7,273	NA	NA
95 U. Miami	130,863	6,875	3,837	3,038
96 U. MS all campuses	62,140	6,799	5,093	1,706
97 U. MT, The	27,220	6,711	4,559	2,152
98 GA State U.	22,218	6,702	4,918	1,784
99 U. ID	42,861	6,578	2,416	4,162

TABLE A-14. Federal R&D expenditures received as a subrecipient by universities and colleges, ranked by amount received for the first 100 institutions: FY 2003

(Dollars in thousands)

Institutions ranked by amount of federal R&D expenditures received as a subrecipient	Federal R&D expenditures	Federal R&D expenditures received as a subrecipient		
		Total	Educational pass-through entities	Other pass-through entities
100 George Washington U.	68,959	6,566	3,717	2,849
All other sampled institutions	8,544,347	373,455	199,790	159,948

NA = not available.

<sup>a</sup> The Johns Hopkins University includes the Applied Physics Laboratory.

NOTES: Detail may not add to total because of rounding and because some respondents reporting federal R&D funds received as a subrecipient did not break out these funds by type of pass-through entity (educational or other).

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE A-15. R&D expenditures in non-science and engineering fields at universities and colleges, ranked by total non-S&E expenditures for the first 100 institutions: FY 2003

(Dollars in thousands)

Institution and ranking	All S&E R&D expenditures	Non-S&E fields								
		Total	Education	Law	Humanities	Visual and performing arts	Business and management	Communications, journalism, and library science	Social work	Other non-S&E fields
All institutions	40,077,399	1,371,444	597,273	41,313	135,385	39,148	165,061	55,397	55,475	240,650
1 U. WI Madison	721,248	56,022	25,973	2,165	15,194	439	7,869	2,519	593	1,270
2 OH State U. all campuses	496,438	52,767	32,989	42	9,941	4,682	1,849	1,355	0	1,909
3 OR State U.	167,631	40,494	232	0	44	0	0	0	0	40,218
4 Purdue U. all campuses	309,476	37,607	4,993	0	1,586	91	13,298	188	0	17,451
5 FL State U.	152,277	37,402	28,354	1,105	695	1,086	1,485	511	4,166	0
6 Harvard U.	408,707	33,277	11,068	1,999	922	100	49	1	0	19,138
7 U. TX Austin	343,854	32,549	7,547	120	196	339	1,502	6,121	2,992	13,732
8 Southern IL U. Edwardsville	17,100	29,365	18,233	0	54	68	437	163	235	10,175
9 U. IL Urbana-Champaign	493,581	25,632	11,843	246	2,078	777	1,298	2,274	6,288	828
10 U. Southern CA	414,099	25,207	4,682	1,482	4,085	4,496	1,034	5,594	3,834	0
11 Northwestern U.	319,722	22,456	5,111	1,594	1,171	596	13,491	493	0	0
12 U. MD College Park	321,899	22,447	13,664	0	6,350	0	1,349	1,084	0	0
13 MI State U.	321,410	22,071	10,377	0	2,462	216	1,957	1,700	173	5,186
14 U. GA	299,748	21,672	13,270	1,320	2,309	3,833	60	880	0	0
15 U. PA	564,716	19,760	16,235	598	241	0	1,995	667	24	0
16 MA Institute of Technology	485,764	19,605	5,168	0	759	68	12,835	351	0	424
17 FL International U.	52,175	17,810	5,309	85	1,351	723	1,110	1,206	0	8,026
18 U. NE central administration	276,424	17,568	5,198	2,056	6,720	162	3,014	297	0	121
19 George Washington U.	92,454	16,821	14,869	908	800	0	1	243	0	0
20 TX A&M U. all campuses	456,235	15,962	8,961	2,250	1,072	0	3,364	315	0	0
21 CO State U.	187,054	15,387	0	0	0	0	0	0	0	15,387
22 FL A&M U.	23,503	15,152	13,981	0	0	0	0	0	0	1,171
23 Stanford U.	603,227	15,143	11,609	432	216	4	2,345	537	0	0
24 San Jose State U.	28,323	14,624	4,282	0	905	388	1,445	1,476	1,362	4,766
25 Rutgers, The State U. NJ all campuses	274,576	14,499	7,106	299	551	23	2,874	2,091	397	1,158
26 VA Commonwealth U.	126,451	12,971	5,696	0	1	0	389	12	619	6,254
27 Wichita State U.	22,401	12,925	5,696	615	16	25	924	258	5,391	0
28 Western MI U.	21,571	12,764	11,105	2	218	140	635	301	363	0
29 U. NC Greensboro	3,454	12,720	11,523	0	1,044	4	75	14	0	60
30 CA State U. Northridge	11,638	12,362	9,292	0	218	0	1,045	82	0	1,725
31 U. KY all campuses	272,062	12,264	283	613	323	1,486	2,009	3,799	120	3,631
32 PA State U. all campuses	533,427	11,604	2,425	402	974	667	6,621	515	0	0
33 U. KS all campuses	173,024	11,263	9,545	0	696	55	838	9	120	0
34 U. Memphis, The	38,728	11,131	NA	NA	NA	NA	NA	NA	NA	NA
35 CA State U. Dominguez Hills	4,503	10,974	10,331	0	493	0	150	0	0	0

TABLE A-15. R&D expenditures in non-science and engineering fields at universities and colleges, ranked by total non-S&E expenditures for the first 100 institutions: FY 2003  
(Dollars in thousands)

Institution and ranking	All S&E R&D expenditures	Non-S&E fields								
		Total	Education	Law	Humanities	Visual and performing arts	Business and management	Communications, journalism, and library science	Social work	Other non-S&E fields
36 U. Central FL	89,880	10,897	8,381	4	26	53	111	0	0	2,322
37 U. CO all campuses	436,761	10,707	6,123	7	17	1,278	2,680	602	0	0
38 San Diego State U.	67,053	10,294	2,859	0	2,107	340	2,903	549	1,330	206
39 AZ State U. main campus	145,591	10,234	3,305	0	2,050	1,964	2,059	74	0	782
40 George Mason U.	44,980	10,182	2,848	3,601	1,427	112	2,014	0	50	130
41 U. FL	429,734	10,174	3,219	145	531	226	101	2,659	0	3,293
42 SUNY Binghamton	23,090	10,071	0	0	0	0	0	0	0	10,071
43 U. West FL	15,354	10,010	NA	NA	NA	NA	NA	NA	NA	NA
44 Western IL U.	1,350	9,986	9,406	0	0	0	569	11	0	0
45 FL Atlantic U.	25,946	9,958	6,199	0	216	463	1,487	16	0	1,577
46 SUNY Buffalo all campuses	240,180	9,787	4,327	276	553	0	1,755	173	657	2,046
47 U. WI Milwaukee	27,259	9,719	1,622	0	1,499	2	4,723	366	792	715
48 CUNY Brooklyn C.	5,575	9,673	7,788	0	740	5	844	279	0	17
49 GA State U.	45,653	9,195	2,022	718	637	307	1,668	35	961	2,847
50 IN U. all campuses	337,669	9,107	2,832	132	107	697	2,316	798	336	1,889
51 U. AR main campus	82,277	8,713	5,388	574	786	46	360	20	279	1,260
52 U. Cincinnati all campuses	255,083	8,249	1,889	0	2,223	2,862	1,015	96	164	0
53 Princeton U.	179,951	7,784	614	0	6,436	230	0	5	0	499
54 MS State U.	165,922	7,430	4,757	0	880	147	648	104	0	894
55 C. of William and Mary all campuses	43,974	7,393	6,241	93	767	23	261	8	0	0
56 U. NH	96,415	7,273	4,927	0	311	0	1,470	0	279	286
57 U. OR	44,604	7,168	6,657	149	362	0	0	0	0	0
58 Emory U.	323,224	7,090	548	1,626	1,714	15	3,014	173	0	0
59 U. MO-Columbia	205,212	6,944	1,671	52	477	450	241	1,640	216	2,197
60 U. MN all campuses	508,557	6,854	2,540	1,382	1,545	224	72	78	458	555
61 U. SC all campuses	121,410	6,608	2,440	284	905	66	507	129	2,277	0
62 Clemson U.	152,986	6,518	5,052	0	343	75	156	0	0	892
63 Fayetteville State U.	586	6,420	4,962	0	0	26	0	0	0	1,432
64 U. IA	292,035	6,177	1,299	2,513	645	184	627	150	0	759
65 Wayne State U.	213,717	6,104	1,143	101	637	52	345	3	0	3,823
66 U. of Notre Dame	59,803	5,855	4	71	1,892	74	1,620	0	0	2,194
67 U. MS all campuses	85,378	5,770	NA	NA	NA	NA	NA	NA	NA	NA
68 Naval Postgraduate School	61,025	5,745	0	0	0	0	5,745	0	0	0
69 Southwest MO State U.	1,423	5,661	3,263	0	5	345	304	30	277	1,437
70 Case Western Reserve U.	250,674	5,596	0	0	269	268	76	174	4,460	349



TABLE A-15. R&D expenditures in non-science and engineering fields at universities and colleges, ranked by total non-S&E expenditures for the first 100 institutions: FY 2003  
(Dollars in thousands)

Institution and ranking	All S&E R&D expenditures	Non-S&E fields								
		Total	Education	Law	Humanities	Visual and performing arts	Business and management	Communications, journalism, and library science	Social work	Other non-S&E fields
71 U. OK all campuses	174,466	5,448	4,194	0	833	32	175	30	0	184
72 CA State U. San Bernardino	7,576	5,408	4,454	328	21	3	521	0	81	0
73 U. North TX	13,990	5,405	2,253	0	228	124	1,621	1,179	0	0
74 U. Louisville	88,522	5,402	1,061	314	79	110	1,958	89	834	957
75 IA State U.	199,566	5,350	2,096	0	248	19	1,329	24	0	1,634
76 U. LA Lafayette	43,769	5,318	2,035	0	1,423	556	1,116	184	0	4
77 U. TX El Paso	27,185	5,245	3,459	0	386	3	32	552	8	805
78 MT State U. Bozeman	91,503	5,027	480	0	167	214	0	1,238	0	2,928
79 Gallaudet U.	2,013	4,907	4,907	0	0	0	0	0	0	0
80 Western WA U.	4,716	4,828	NA	NA	NA	NA	NA	NA	NA	NA
81 LA State U. all campuses	314,665	4,769	555	863	2,047	84	571	131	96	422
82 WV U.	104,748	4,726	88	846	1,675	9	1,017	191	64	836
83 Vanderbilt U.	276,074	4,612	3,683	67	125	3	0	116	0	618
84 U. HI Hilo	5,317	4,577	3,336	0	0	0	900	0	0	341
85 Wellesley C.	5,733	4,547	0	0	0	60	922	0	0	3,565
86 U. VA all campuses	206,199	4,453	2,860	0	1,273	5	24	189	0	102
87 SUNY Albany	120,655	4,346	4,104	0	159	0	82	1	0	0
88 Benedict C.	1,071	4,295	1,860	0	0	0	0	0	0	2,435
89 GA Southern U.	2,488	4,260	2,813	0	42	0	663	0	557	185
90 U. IL Chicago	291,507	4,258	3,184	0	571	118	315	70	0	0
91 Fairfield U.	1,024	4,219	9	0	0	291	1,950	0	0	1,969
92 U. NC Chapel Hill	390,542	3,844	1,200	16	267	76	851	1,434	0	0
93 U. Denver	9,949	3,829	271	3,113	0	0	35	0	410	0
94 Old Dominion U.	30,324	3,828	3,103	0	10	1	493	2	0	219
95 Teachers C. Columbia U.	9,603	3,815	3,815	0	0	0	0	0	0	0
96 Central WA U.	2,698	3,788	1,090	0	76	0	0	0	0	2,622
97 U. Chicago	247,322	3,768	0	0	491	0	905	0	1,127	1,245
98 Tufts U.	112,609	3,754	603	369	2,401	37	0	291	53	0
99 U. MO-St. Louis	12,819	3,615	501	0	241	40	189	21	100	2,523
100 U. MO-Kansas City	31,104	3,532	80	68	309	263	949	82	286	1,495
All other sampled institutions	23,128,411	188,648	77,903	5,268	28,521	6,098	21,405	6,345	12,646	20,459

NA = not available.

S&E = science and engineering.

NOTE: Detail may not add to total because some respondents reporting total non-S&E R&D expenditures did not break out these funds by non-S&E field.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE A-16. Federally financed R&D expenditures in non-science and engineering fields at universities and colleges, ranked by total federal non-S&E expenditures for the first 100 institutions: FY 2003

(Dollars in thousands)

Institution and ranking	Federal S&E R&D expenditures	Non-S&E fields								
		Total	Education	Law	Humanities	Visual and performing arts	Business and management	Communications, journalism, and library science	Social work	Other non-S&E fields
All institutions	24,734,033	544,309	310,936	11,703	31,114	4,137	33,306	17,114	18,145	96,743
1 Southern IL U. Edwardsville	1,340	22,776	15,311	0	0	30	208	77	2	7,148
2 U. WI Madison	396,231	20,266	16,420	193	1,874	1	1,038	227	217	296
3 Harvard U.	348,620	15,893	6,814	19	377	0	0	0	0	8,683
4 FL State U.	87,985	14,950	13,198	339	94	6	97	152	1,064	0
5 OR State U.	100,499	14,879	231	0	44	0	0	0	0	14,604
6 OH State U. all campuses	198,488	14,334	13,097	0	695	53	163	4	0	322
7 FL International U.	40,860	13,942	4,157	64	1,058	566	869	944	0	6,284
8 FL A&M U.	18,273	12,702	11,827	0	0	0	0	0	0	875
9 U. NC Greensboro	2,704	11,999	11,204	0	717	4	74	0	0	0
10 George Washington U.	68,959	10,802	10,208	125	469	0	0	0	0	0
11 VA Commonwealth U.	81,201	10,211	5,084	0	0	0	371	4	43	4,709
12 U. MD College Park	183,206	9,636	6,360	0	1,907	0	1,070	299	0	0
13 CO State U.	117,151	8,724	0	0	0	0	0	0	0	8,724
14 U. TX Austin	231,996	8,542	2,432	102	0	9	217	524	896	4,362
15 MI State U.	133,820	8,053	4,794	0	1,362	0	641	523	102	631
16 U. PA	415,631	8,013	6,729	162	168	0	338	616	0	0
17 Western MI U.	12,131	7,986	7,177	2	171	52	271	39	274	0
18 U. CO all campuses	377,941	7,644	5,443	0	0	0	2,140	61	0	0
19 U. Southern CA	300,195	7,496	1,933	75	1,038	388	775	475	2,812	0
20 U. West FL	9,105	7,480	NA	NA	NA	NA	NA	NA	NA	NA
21 Purdue U. all campuses	129,199	7,176	2,094	0	193	0	1,145	5	0	3,739
22 San Jose State U.	18,935	7,117	3,552	0	50	50	795	1,009	0	1,661
23 CA State U. Northridge	6,460	7,090	5,315	0	218	0	61	82	0	1,414
24 U. IL Urbana-Champaign	266,487	6,692	5,183	61	30	0	120	576	562	160
25 U. GA	93,884	6,229	5,580	0	0	425	0	224	0	0
26 U. KS all campuses	90,876	6,030	5,632	0	151	55	185	0	7	0
27 U. OR	36,127	5,847	5,650	62	135	0	0	0	0	0
28 TX A&M U. all campuses	177,119	5,784	5,366	73	302	0	0	43	0	0
29 Wichita State U.	10,619	5,727	3,183	426	0	0	491	169	1,458	0
30 MA Institute of Technology	356,206	5,637	3,173	0	184	50	1,823	25	0	382
31 SUNY Binghamton	8,981	5,277	0	0	0	0	0	0	0	5,277
32 Western IL U.	379	5,199	4,982	0	0	0	217	0	0	0
33 George Mason U.	38,510	4,892	1,992	2,468	227	23	182	0	0	0
34 U. KY all campuses	120,003	4,855	24	0	206	0	56	3,616	75	878
35 FL Atlantic U.	17,517	4,778	3,456	0	2	0	1,124	2	0	194

TABLE A-16. Federally financed R&D expenditures in non-science and engineering fields at universities and colleges, ranked by total federal non-S&E expenditures for the first 100 institutions: FY 2003

(Dollars in thousands)

Institution and ranking	Federal S&E R&D expenditures	Non-S&E fields								
		Total	Education	Law	Humanities	Visual and performing arts	Business and management	Communications, journalism, and library science	Social work	Other non-S&E fields
36 U. MS all campuses	62,140	4,673	NA	NA	NA	NA	NA	NA	NA	NA
37 Stanford U.	483,540	4,570	3,925	0	157	0	488	0	0	0
38 MT State U. Bozeman	53,283	4,424	400	0	139	178	0	1,032	0	2,675
39 U. VA all campuses	173,442	4,344	2,853	0	1,182	0	24	183	0	102
40 U. FL	194,958	4,198	2,427	35	213	0	0	155	0	1,368
41 CA State U. San Bernardino	4,858	4,160	4,160	0	0	0	0	0	0	0
42 C. of William and Mary all campuses	21,992	3,916	3,326	0	554	0	28	8	0	0
43 SUNY Buffalo all campuses	129,794	3,785	2,648	0	74	0	50	87	93	833
44 U. Chicago	201,129	3,746	0	0	490	0	897	0	1,121	1,238
45 U. Denver	8,268	3,569	193	3,112	0	0	35	0	229	0
46 Western WA U.	2,271	3,502	NA	NA	NA	NA	NA	NA	NA	NA
47 Benedict C.	1,002	3,448	1,350	0	0	0	0	0	0	2,098
48 Northwestern U.	200,316	3,441	3,114	1	31	40	255	0	0	0
49 U. TX El Paso	18,116	3,370	3,365	0	5	0	0	0	0	0
50 U. NE central administration	96,627	3,350	2,598	0	123	0	628	0	0	1
51 Central WA U.	2,246	3,244	636	0	38	0	0	0	0	2,570
52 GA Southern U.	2,074	3,130	2,181	0	42	0	250	0	502	155
53 U. HI Hilo	5,082	3,055	3,051	0	0	0	4	0	0	0
54 IA State U.	82,297	3,027	1,190	0	91	0	621	21	0	1,104
55 U. IA	197,260	3,016	719	1,657	100	0	158	0	0	382
56 SUNY Albany	76,038	2,995	2,928	0	67	0	0	0	0	0
57 Rutgers, The State U. NJ all campuses	106,060	2,980	669	0	192	0	852	1,267	0	0
58 Southwest MO State U.	371	2,946	2,380	0	0	0	283	20	35	228
59 PA State U. all campuses	301,094	2,878	333	0	513	122	1,653	257	0	0
60 GA State U.	22,218	2,830	490	0	10	0	224	0	545	1,561
61 Vanderbilt U.	221,979	2,733	2,600	0	17	0	0	116	0	0
62 U. NH	59,463	2,728	1,559	0	195	0	719	0	0	255
63 CA State U. Dominguez Hills	3,471	2,661	2,183	0	478	0	0	0	0	0
64 U. Houston	32,556	2,645	NA	NA	NA	NA	NA	NA	NA	NA
65 U. MO-Columbia	84,211	2,586	893	4	189	0	0	570	82	848
66 San Diego State U.	28,084	2,460	757	0	503	0	850	0	330	20
67 AZ State U. main campus	71,741	2,397	1,526	0	117	40	72	0	0	642
68 Kent State U. all campuses	9,278	2,336	1,211	63	422	0	0	0	0	640
69 MS State U.	79,837	2,321	2,048	0	13	0	0	0	0	260
70 U. WI Milwaukee	13,704	2,318	1,038	0	137	0	892	0	231	20
71 U. North TX	6,320	2,107	1,856	0	75	3	85	88	0	0

TABLE A-16. Federally financed R&D expenditures in non-science and engineering fields at universities and colleges, ranked by total federal non-S&E expenditures for the first 100 institutions: FY 2003

(Dollars in thousands)

Institution and ranking	Federal S&E R&D expenditures	Non-S&E fields								
		Total	Education	Law	Humanities	Visual and performing arts	Business and management	Communications, journalism, and library science	Social work	Other non-S&E fields
72 SUNY C. Plattsburgh	1,087	1,993	1,485	0	0	0	183	0	0	325
73 IN U. all campuses	153,625	1,985	707	0	5	0	127	159	0	987
74 U. MN all campuses	293,266	1,926	1,095	0	599	7	0	0	0	225
75 U. SC all campuses	63,044	1,905	992	189	188	0	58	20	458	0
76 Tufts U.	78,942	1,886	450	0	1,235	0	0	162	39	0
77 Clemson U.	62,552	1,816	1,624	0	26	0	17	0	0	149
78 WV U.	60,586	1,803	69	725	160	0	323	0	3	523
79 NM State U. all campuses	75,368	1,799	47	0	0	48	1,570	134	0	0
80 U. OK all campuses	75,318	1,796	1,368	0	135	0	85	28	0	180
81 U. NC Chapel Hill	280,678	1,754	487	0	51	0	210	1,006	0	0
82 U. Pittsburgh all campuses	345,625	1,749	1,273	0	113	0	210	0	0	153
83 Boston U.	203,947	1,708	245	0	340	0	421	0	627	75
84 Carnegie-Mellon U.	157,583	1,663	0	0	646	994	0	23	0	0
85 U. Dayton	47,327	1,627	1,482	0	145	0	0	0	0	0
86 U. Rochester	208,148	1,625	765	0	96	579	174	11	0	0
87 U. IL Chicago	168,063	1,617	1,462	0	6	0	85	64	0	0
88 U. CT all campuses	111,654	1,612	498	0	220	20	309	6	559	0
89 Drexel U.	49,271	1,591	11	0	76	0	220	163	0	1,121
90 Northern IL U.	6,892	1,547	446	0	0	7	0	82	1,012	0
91 Shaw U.	1,033	1,515	1,515	0	0	0	0	0	0	0
92 CUNY Brooklyn C.	2,798	1,460	617	0	268	0	361	197	0	17
93 U. PR Mayaguez Campus	9,596	1,411	1,411	0	0	0	0	0	0	0
94 Brigham Young U. all campuses	16,564	1,266	418	69	701	0	0	0	78	0
95 Northeastern IL U.	26	1,259	765	0	0	0	0	75	419	0
96 Marshall U. Graduate C.	12,802	1,191	1,030	0	49	0	112	0	0	0
97 Case Western Reserve U.	205,452	1,176	0	0	0	0	63	0	906	207
98 Georgetown U.	83,745	1,174	1,018	0	156	0	0	0	0	0
99 TX Christian U.	2,716	1,172	1,117	0	0	0	2	0	38	15
100 U. NV, Las Vegas	32,511	1,168	635	116	240	0	99	78	0	0
All other sampled institutions	14,369,056	57,568	29,696	1,561	7,820	387	5,138	1,406	3,326	5,423

NA = not available.

S&E = science and engineering.

NOTE: Detail may not add to total because some respondents reporting total federal non-S&E R&D expenditures did not break out these funds by non-S&E field.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

TABLE A-17. Federally financed R&D expenditures at universities and colleges, by field of science and federal agency: FY 2003  
(Dollars in thousands)

Science and engineering field	Federal R&D expenditures	DOD	DOE	HHS	NASA	NSF	USDA	Other
All science and engineering	24,734,033	2,007,738	822,375	10,929,524	937,995	2,404,146	634,201	2,722,659
Computer sciences	936,484	297,063	29,405	21,119	28,164	290,728	2,114	101,248
Environmental sciences	1,439,843	90,988	71,942	22,250	182,001	343,648	25,296	391,622
Atmospheric sciences	297,486	19,890	15,908	2,016	85,395	57,526	1,199	71,635
Earth sciences	439,985	19,001	42,104	7,348	59,123	121,860	18,024	94,616
Oceanography	535,945	37,962	2,993	6,484	20,223	144,297	2,900	193,113
Environmental sciences, nec	166,427	14,135	10,937	6,402	15,700	18,246	3,162	31,636
Life sciences	14,645,014	274,025	123,865	9,756,344	100,591	393,555	537,560	1,171,759
Agricultural sciences	761,825	9,571	15,023	30,417	15,344	53,801	368,798	145,929
Biological sciences	5,017,208	96,979	63,928	3,427,779	41,144	295,019	135,387	338,523
Medical sciences	8,249,066	155,732	36,598	5,845,605	41,788	26,380	21,271	592,164
Life sciences, nec	616,915	11,013	8,264	413,715	2,315	16,592	12,042	91,087
Mathematical sciences	295,219	31,121	6,453	33,607	5,268	123,689	1,815	25,083
Physical sciences	2,352,648	244,729	302,730	304,248	279,773	558,746	6,009	189,467
Astronomy	271,505	8,845	7,069	107	124,916	40,416	15	16,697
Chemistry	816,056	71,379	51,143	263,209	14,978	191,368	3,943	66,637
Physics	1,088,184	143,103	227,401	29,362	80,241	284,595	2,010	95,214
Physical sciences, nec	176,903	20,798	15,275	8,538	59,026	40,569	41	10,086
Psychology	552,623	22,279	1,716	364,415	9,282	37,430	370	45,365
Social sciences	666,551	18,425	10,321	229,350	12,031	82,351	31,100	194,088
Economics	107,876	2,054	3,466	12,940	1,177	18,574	18,623	34,933
Political sciences	91,744	6,562	748	26,004	1,494	14,083	984	35,611
Sociology	182,518	3,097	2,150	95,543	939	23,664	4,382	33,649
Social sciences, nec	284,413	6,712	3,753	93,960	8,421	25,456	7,111	89,596
Sciences, nec	238,014	38,100	7,964	31,097	12,943	46,422	2,667	52,259
Engineering	3,607,637	989,491	265,950	158,329	307,817	525,584	27,125	551,354
Aeronautical/astronautical engineering	305,570	90,476	7,089	348	107,423	11,476	101	42,682
Bioengineering/biomedical engineering	190,498	19,897	1,622	72,520	5,269	23,756	4,362	32,751
Chemical engineering	247,980	28,721	46,503	21,807	14,684	61,089	2,963	29,755
Civil engineering	326,524	28,241	16,938	3,262	11,736	71,236	5,648	145,785
Electrical engineering	924,903	362,870	18,838	18,233	39,295	145,768	390	83,515
Mechanical engineering	532,586	142,321	77,405	11,417	37,909	59,025	706	59,663
Metallurgical/materials engineering	303,153	126,056	34,562	3,500	12,410	51,726	568	41,101
Engineering, nec	776,423	183,460	62,298	27,242	79,091	98,065	12,387	113,776

DOD = Department of Defense; DOE = Department of Energy; HHS = Department of Health and Human Services; NASA = National Aeronautics and Space Administration; NSF = National Science Foundation; USDA = Department of Agriculture; nec = not elsewhere classified.

NOTES: Agency detail may not add to total because some respondents reporting total federal agency data did not break out these data by field of science. Agency data may not add to total federal expenditures because some institutions did not break out their federal expenditures by federal agency.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2003.

# APPENDIX B: FEDERALLY FUNDED RESEARCH AND DEVELOPMENT CENTERS: FY 2003

## DEPARTMENT OF DEFENSE

Administered by universities and colleges

- Lincoln Laboratory  
(Massachusetts Institute of Technology)
- Software Engineering Institute  
(Carnegie Mellon University)

Administered by other nonprofit organizations

- Aerospace FFRDC  
(The Aerospace Corporation)
- Arroyo Center  
(RAND Corporation)
- C3I FFRDC  
(MITRE Corporation)
- Center for Naval Analyses  
(The CNA Corporation)
- Institute for Defense Analyses Communications and Computing FFRDC  
(Institute for Defense Analyses)
- Institute for Defense Analyses Studies and Analyses FFRDC  
(Institute for Defense Analyses)
- National Defense Research Institute  
(RAND Corporation)
- Project Air Force  
(RAND Corporation)

## DEPARTMENT OF ENERGY

Administered by universities and colleges

- Ames Laboratory  
(Iowa State University of Science and Technology)
- Argonne National Laboratory  
(University of Chicago and Argonne Universities Association)
- Ernest Orlando Lawrence Berkeley National Laboratory  
(University of California)
- Fermi National Accelerator Laboratory  
(Universities Research Association, Inc.)
- Lawrence Livermore National Laboratory  
(University of California)
- Los Alamos National Laboratory  
(University of California)
- Princeton Plasma Physics Laboratory  
(Princeton University)
- Stanford Linear Accelerator Center  
(Stanford University)
- Thomas Jefferson National Accelerator Facility  
(Southeastern Universities Research Association)

Administered by industrial firms

- Idaho National Engineering and Environmental Laboratory  
(Bechtel BWXT Idaho, LLC)
- Sandia National Laboratories  
(Sandia Corporation, a subsidiary of Lockheed Martin Corporation)
- Savannah River Technology Center  
(Westinghouse Savannah River Company)

Administered by other nonprofit organizations

- Brookhaven National Laboratory  
(Brookhaven Science Associates, Inc.)
- National Renewable Energy Laboratory  
(Midwest Research Institute)
- Oak Ridge National Laboratory  
(UT-Battelle, LLC)
- Pacific Northwest National Laboratory  
(Battelle Memorial Institute)

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

Administered by industrial firms

- National Cancer Institute at Frederick  
(Science Applications International Corporation)

## DEPARTMENT OF TRANSPORTATION

Administered by other nonprofit institutions

- Center for Advanced Aviation System Development  
(MITRE Corporation)

## DEPARTMENT OF THE TREASURY

Administered by other nonprofit institutions

- Internal Revenue Service FFRDC  
(MITRE Corporation)

## NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Administered by universities and colleges

- Jet Propulsion Laboratory  
(California Institute of Technology)

## NATIONAL SCIENCE FOUNDATION

Administered by universities and colleges

- National Astronomy and Ionosphere Center  
(Cornell University)
- National Center for Atmospheric Research  
(University Corporation for Atmospheric Research)
- National Optical Astronomy Observatories  
(Association of Universities for Research in Astronomy, Inc.)
- National Radio Astronomy Observatory  
(Associated Universities, Inc.)

Administered by other nonprofit institutions

- The Science and Technology Policy Institute  
(RAND Corporation)

## NUCLEAR REGULATORY COMMISSION

Administered by other nonprofit institutions

- Center for Nuclear Waste Regulatory Analyses  
(Southwest Research Institute)



# APPENDIX C: SURVEY INSTRUMENTS

Universities and Colleges Survey Instrument

Federally Funded Research and Development Centers Survey Instrument



NATIONAL SCIENCE FOUNDATION  
ARLINGTON, VA 22230

**SURVEY OF RESEARCH AND DEVELOPMENT EXPENDITURES  
AT UNIVERSITIES AND COLLEGES, FY 2003**

**Please submit your survey data by January 28, 2004.**

Please note that Items 2A and 2B are now part of the full survey.

The Web address for submitting your data:

<http://www.qrc.com/expweb>

Or, mail this form to:

ORC Macro  
7315 Wisconsin Avenue, Suite 400W  
Bethesda, MD 20814-3202

Or, e-mail your response to:

[expweb@qrc.com](mailto:expweb@qrc.com)

The Web password and user ID were e-mailed to each institution. If you have questions about this or any other issue, please call: Marge Machen of NSF at (703) 292-7786, or the Help Line at ORC Macro, 1-866-349-8626.

Your cooperation in returning the survey questionnaire promptly is very important. This information is solicited under the authority of the National Science Foundation Act of 1950, as amended. Your response is entirely voluntary; your failure to provide some or all of the information will in no way adversely affect your institution.

Report data for your institution's 2003 fiscal year. All financial data should be reported in thousands of dollars; for example, an expenditure of \$25,342 should be rounded to the nearest thousand dollars and reported as \$25.

Where exact data are not available, estimates are acceptable. Your estimates will be better than ours.

Include data for branches and all organizational units of your institution, such as medical schools and agricultural experiment stations. Data on research centers and facilities administered by your institution should be included. In addition, include hospitals or clinics owned, operated, or controlled by universities, and integrated operationally with the clinical programs of your medical schools.

**NOTE:** Academic institutions should exclude data for federally funded research and development centers (FFRDCs). Data for these facilities are collected separately.

It is estimated that response to this survey will require 22 hours. If you wish to comment on this burden, please contact Suzanne H. Plimpton of NSF at (703) 292-7556, or e-mail [splimpto@nsf.gov](mailto:splimpto@nsf.gov).

**Scope:**

This survey collects data on expenditures by universities and colleges for separately budgeted research and development (R&D). Definitions used are compatible with OMB Circular A-21, revised August 8, 2000. Items 1 and 2 ask for *current fund expenditures* by source of funds and by field of science and engineering. Item 3 collects data on that *portion of current fund expenditures* reported in Items 1 and 2 that went for the purchase of scientific and engineering research equipment. Item 2A asks for current fund expenditures in non-science and engineering fields, and Item 2B requests information on the Federal Government agency sources of current fund expenditures by field of science and engineering.

**Definitions:**

**Research and Development (R&D).** R&D for purposes of this survey is the same as "organized research" as defined in Section B.1.b. of OMB Circular A-21 (revised). It includes all R&D activities of an institution that are separately budgeted and accounted for. R&D includes both "sponsored research" activities (sponsored by Federal and non-Federal agencies and organizations) and "university research" (separately budgeted under an internal application of institutional funds).

**Research** is systematic study directed toward fuller knowledge or understanding of the subject studied. Research is classified as either basic or applied, according to the objectives of the investigator.

**Development** is systematic use of the knowledge or understanding gained from research, directed toward the production of useful materials, devices, systems, or methods, including design and development of prototypes and processes.

**Current fund expenditures.** These are expenditures of funds available for current operations. Such expenditures include all unrestricted gifts and restricted current funds to the extent that such funds were expended for current operating purposes.

Please circle the month in which your institution's fiscal year begins:

Jan Feb Mar Apr May Jun Jul Aug Sept Oct Nov Dec

Person who submitted this form:

Name:	Telephone number:
Title:	E-mail:
Address:	Fax:
	Date submitted:

Person who prepared this form (if different from above):

Name:	Telephone number:
Title:	E-mail:
	Fax:

## Instructions for Items 1 and 2

Separately budgeted research and development (R&D) includes all funds expended for activities specifically organized to produce research outcomes and commissioned by an agency either external to the institution or separately budgeted by an organizational unit within the institution. *Include* research equipment purchased under research project awards from “current fund” accounts. Also *include* research funds for which an outside organization, educational or other, is a subrecipient. *Exclude* training grants, public service grants, demonstration projects, clinical trials, and departmental research expenditures that are not separately budgeted. Also, *exclude* any R&D expenditures in the fields of education, law, humanities, music, the arts, physical education, library science, and all other non-science fields. Allocate funding to the original sources whenever possible, as specified below. If this information is unknown, report the proximate funding source.

### Total

- a. **Federal Government.** Report awards for R&D (including direct and reimbursed indirect costs) by all agencies of the Federal Government.
- b. **State and local governments.** Include funds for R&D (including direct and reimbursed indirect costs) from State, county, municipal, or other local governments and their agencies. Include here State funds that support R&D at agricultural and other experiment stations.
- c. **Industry.** Include all awards for R&D (including direct and reimbursed indirect costs) from profit-making organizations, whether engaged in production, distribution, research, service, or other activities. Do not include awards from nonprofit foundations financed by industry; these should be included under “All other sources.”
- d. **Institution funds.** Report funds, *including* related indirect costs, that your institution spent for R&D activities from the following unrestricted sources: general-purpose State or local government appropriations; general-purpose awards from industry, foundations, or other outside sources; tuition and fees; endowment income; gifts; and other institutional funds. In addition, estimate your institution’s on-campus and off-campus unreimbursed indirect costs associated with externally funded R&D projects, including mandatory and voluntary cost sharing. To estimate unreimbursed indirect costs, preferably on a project-by-project basis, use your appropriate on-campus or off-campus *negotiated research indirect cost rate(s)* multiplied by the corresponding base(s) minus actual indirect cost recovery.
- e. **All other sources.** Include awards for R&D (including direct and reimbursed indirect costs) from nonprofit foundations and voluntary health agencies as well as from all other sources not elsewhere classified. Also include gifts from individuals that are restricted by the donor to research. Funds from foundations that are affiliated with, or granted solely to your institution, should be included under “Institution funds.” Funds for R&D received from a health agency that is a unit of a State or local government should be included under “State and local governments.”

## Instructions for Items 1A and 1B

For Federal awards, **subrecipient** means the entity that expends Federal awards received from a pass-through entity to carry out a Federal program, but does not include an individual that is a beneficiary of such a program. A subrecipient may also be a recipient of other Federal awards directly from a Federal awarding agency.

–OMB Circular A-133, Section .105 (revised June 27, 2003) For awards from non-Federal sources, the subrecipient definition is analogous to the Federal one.

**Higher Education** [subrecipients] refers to all academic colleges and universities and all units owned, operated, and controlled by such institutions.

**Item 1. How much of your current fund expenditures for separately budgeted research and development in the sciences and engineering (including indirect costs) came from the following sources in FY 2003?**

Source of Funds	Line No.	(1) Total (Dollars in thousands)	(2) What Percentage of Federal & Total Funds Are Basic Research
a. Federal Government	1110	\$	_____ %
b. State and local governments	1125		<b>Basic research</b> is directed toward an increase of knowledge; it is research where the primary aim of the <b>investigator</b> is a fuller knowledge or understanding of the subject under study rather than a specific application thereof.
c. Industry	1150		
d. Institution funds (sum of lines 1161 and 1162)	1160		
(1) Institutionally financed organized research	1161		
(2) Unreimbursed indirect costs and related sponsored research	1162		
e. All other sources	1175		
f. TOTAL (sum of a through e)	1100	\$	_____ %

**BASIC RESEARCH**  
Please provide the percentages of Federal and total expenditures that are basic research (not applied research) as defined in column (2).

**CONFIDENTIALITY**  
Information received from individual institutions in lines 1161 and 1162, or estimates for basic research expenditures, will NOT be published or released; only aggregate totals will appear in tabulations.

**Item 1A. How much of your total (item 1, line f) and Federal (item 1, line a) R&D expenditures were passed through by your institution to subrecipients? (If all information is not available, report those amounts that are available. Exclude vendor relationships.)**

Subrecipients	Line No.	(Dollars in thousands)	
		(1) Total	(2) Federal
To higher education subrecipients	1910		
To other subrecipients	1920		
To all subrecipients	1900	\$	\$

**Item 1B. How much of your total (item 1, line f) and Federal (item 1, line a) R&D expenditures did your institution receive as a subrecipient? (If all information is not available, report those amounts that are available. Exclude vendor relationships.)**

Your Institution as a Subrecipient	Line No.	(Dollars in thousands)	
		(1) Total	(2) Federal
From higher education pass-through entities	1610		
From other pass-through entities	1620		
From all pass-through entities	1600	\$	\$

**Item 2. Allocate your FY 2003 current fund expenditures (total and federally financed) for separately budgeted research and development (including indirect costs) by field of science and engineering**

Please note that total R&D expenditures in line j, column (1) should be the same as reported in Item 1, line f.

Total Federal R&D expenditures in line j, column (2) should be the same as reported in Item 1, line a.

Please see pages 8 and 9 for the NSF/NCES Crosswalk of Discipline Codes.

Field of Science and Engineering	Line No.	(Dollars in thousands)	
		(1) Total	(2) Federal
<b>a. Engineering (Total)</b>	1410	\$	\$
(1) Aeronautical & astronautical	1411		
(2) Bioengineering/biomedical engineering	1418		
(3) Chemical	1412		
(4) Civil	1413		
(5) Electrical	1414		
(6) Mechanical	1415		
(7) Metallurgical & materials	1417		
(8) Other	1416		
<b>b. Physical Sciences (Total)</b>	1420		
(1) Astronomy	1421		
(2) Chemistry	1422		
(3) Physics	1423		
(4) Other	1424		
<b>c. Environmental Sciences (Total)</b>	1430		
(1) Atmospheric	1431		
(2) Earth sciences	1432		
(3) Oceanography	1433		
(4) Other	1434		
<b>d. Mathematical Sciences (Total)</b>	1441		
<b>e. Computer Sciences (Total)</b>	1442		
<b>f. Life Sciences (Total)</b>	1450		
(1) Agricultural	1451		
(2) Biological	1452		
(3) Medical	1453		
(4) Other	1454		
<b>g. Psychology (Total)</b>	1460		
<b>h. Social Sciences (Total)</b>	1470		
(1) Economics	1471		
(2) Political science	1472		
(3) Sociology	1473		
(4) Other	1474		
<b>i. Other Sciences, not elsewhere classified (Total)</b>	1480		
<b>j. Total (sum of a through i)</b>	1400	\$	\$

Please EXCLUDE from your response any R&D expenditures in the fields of education, law, humanities, music, the arts, physical education, library science, and all other non-science and engineering fields.

**Item 3. Allocate the portion of your FY 2003 current fund expenditures (total and federally financed) for separately budgeted research and development that went for the purchase of research equipment by field of science and engineering**

Please report that portion of current fund expenditures reported in items 1 and 2 that went for the purchase of research equipment. This includes all research equipment purchased under sponsored research project awards from current fund accounts.

For column (1), report current fund expenditures for R&D from all sources: Federal Government, State, county, municipal or other governments and their agencies (including State funds supporting R&D at agricultural experiment stations); industry; institution funds; and private foundations and voluntary health agencies, individuals, and associations.

For column (2), include funds from awards for R&D sponsored by agencies of the Federal Government.

Please see pages 8 and 9 for the NSF/NCES Crosswalk of Discipline Codes.

Field of Science and Engineering	Line No.	(Dollars in thousands)	
		(1) Total	(2) Federal
<b>a. Engineering (Total)</b>	1810	\$	\$
(1) Aeronautical & astronautical	1811		
(2) Bioengineering/biomedical engineering	1818		
(3) Chemical	1812		
(4) Civil	1813		
(5) Electrical	1814		
(6) Mechanical	1815		
(7) Metallurgical & materials	1817		
(8) Other	1816		
<b>b. Physical Sciences (Total)</b>	1820		
(1) Astronomy	1821		
(2) Chemistry	1822		
(3) Physics	1823		
(4) Other	1824		
<b>c. Environmental Sciences (Total)</b>	1830		
(1) Atmospheric	1831		
(2) Earth sciences	1832		
(3) Oceanography	1833		
(4) Other	1834		
<b>d. Mathematical Sciences (Total)</b>	1841		
<b>e. Computer Sciences (Total)</b>	1842		
<b>f. Life Sciences (Total)</b>	1850		
(1) Agricultural	1851		
(2) Biological	1852		
(3) Medical	1853		
(4) Other	1854		
<b>g. Psychology (Total)</b>	1860		
<b>h. Social Sciences (Total)</b>	1870		
(1) Economics	1871		
(2) Political science	1872		
(3) Sociology	1873		
(4) Other	1874		
<b>i. Other Sciences, not elsewhere classified (Total)</b>	1880		
<b>j. Total (sum of a through i)</b>	1800	\$	\$

Current fund expenditures in each field for scientific research equipment is that PORTION or SUBTOTAL of the amounts reported in the corresponding cells of the "Total" and "Federal" columns in Item 2.

**Item 2A. What were your current fund expenditures (total and federally financed) for separately budgeted research and development (including indirect costs) for non-science and engineering fields in FY 2003?**

**NOTE:** For rows 2A(a) through 2A(i), report only data that have not been reported in Items 1 and 2 on this survey. Non-S&E R&D should **include** any separately budgeted scholarly and creative activity, but should **exclude** training.

Non-science & Engineering Fields	Line No.	(Dollars in thousands)	
		(1) Total	(2) Federal
a. Education	1510	\$	\$
b. Law	1520		
c. Humanities	1530		
d. Visual & Performing Arts	1540		
e. Business and Management	1550		
f. Communications, Journalism, and Library Science	1560		
g. Social Work	1570		
h. Other Non-S&E Fields (please specify)	1580		
i. Total, Non-S&E Fields (sum of a through h)	1500		
j. Total, S&E (from Item 2, line j)	1400		
k. Grand Total (sum of i and j)	2000	\$	\$

**NOTE: If you cannot provide expenditures by non-S&E fields, please provide the Total (column 1, line i) and Federal Total (column 2, line i).**

**CROSSWALK BETWEEN NSF NON-SCIENCE & ENGINEERING FIELDS AND THE NATIONAL CENTER FOR EDUCATION STATISTICS (NCES) CLASSIFICATION OF INSTRUCTIONAL PROGRAMS (CIP)**

Questionnaire Field	CIP Code	CIP Program Category Title
<b>Education</b>	13.xx	Education
<b>Law</b>	22.xx	Law and Legal Studies
<b>Humanities</b>	16.xx	Foreign Languages & Literature
	23.xx	English Language and Literature/Letters
	24.xx	Liberal Arts & Sciences, General Studies & Humanities
	38.xx	Philosophy and Religion
	39.xx	Theological Studies and Religious Vocations
	45.08	History (except History of Science)
<b>Visual &amp; Performing Arts</b>	50.xx	Visual and Performing Arts
<b>Business and Management</b>	52.xx	Business Management and Administrative Services
	08.xx	Marketing Operations/Marketing Distribution
<b>Communications, Journalism, and Library Science</b>	09.xx	Communications
	25.xx	Library Science
	10.xx	Communications Technologies
<b>Social Work</b>	44.07	Social Work
<b>Other Non-S&amp;E Fields</b>	31.xx	Parks, Recreation, Leisure and Fitness Studies
	29.xx	Military Technologies

**Item 2B. What were the Federal Government agency sources for your FY 2003 federally financed current fund expenditures for separately budgeted research and development (including indirect costs) (item 2, column 2) by field of science and engineering?**

Federally financed R&D expenditures in line j, column (1) should be the same as reported in Item 1, line a.

**Allocate funding to the original sources whenever possible. If that information is unknown, report the proximate funding source.**

**KEY:** USDA, Department of Agriculture; DoD, Department of Defense; DOE, Department of Energy; HHS, Department of Health and Human Services; NASA, National Aeronautics and Space Administration; NSF, National Science Foundation. "Other" Federal sources include all other Federal agencies.

		(Dollars in thousands)							
Field of Science and Engineering	Line No.	Total Federal	Specific Federal Agencies						
			USDA	DoD	DOE	HHS*	NASA	NSF	Other
<b>a. Engineering (Total)</b>	1410	\$							
(1) Aeronautical & astronautical	1411								
(2) Bioengineering/biomedical engineering	1418								
(3) Chemical	1412								
(4) Civil	1413								
(5) Electrical	1414								
(6) Mechanical	1415								
(7) Metallurgical & materials	1417								
(8) Other	1416								
<b>b. Physical Sciences (Total)</b>	1420								
(1) Astronomy	1421								
(2) Chemistry	1422								
(3) Physics	1423								
(4) Other	1424								
<b>c. Environmental Sciences (Total)</b>	1430								
(1) Atmospheric	1431								
(2) Earth sciences	1432								
(3) Oceanography	1433								
(4) Other	1434								
<b>d. Mathematical Sciences (Total)</b>	1441								
<b>e. Computer Sciences (Total)</b>	1442								
<b>f. Life Sciences (Total)</b>	1450								
(1) Agricultural	1451								
(2) Biological	1452								
(3) Medical	1453								
(4) Other	1454								
<b>g. Psychology (Total)</b>	1460								
<b>h. Social Sciences (Total)</b>	1470								
(1) Economics	1471								
(2) Political science	1472								
(3) Sociology	1473								
(4) Other	1474								
<b>i. Other Sciences (Total)</b>	1480								
<b>j. Total (sum of a through i)</b>	1400	\$							

Please EXCLUDE from your response any R&D expenditures in the fields of education, law, humanities, music, the arts, physical education, library science, and all other non-science and engineering fields. \* Includes NIH.



**CROSSWALK BETWEEN NSF FIELDS OF SCIENCE & ENGINEERING AND THE  
NATIONAL CENTER FOR EDUCATION STATISTICS (NCES) CLASSIFICATION OF INSTRUCTIONAL PROGRAMS**

The left-hand column shows each of the detailed fields as displayed on the questionnaire form. The right-hand column shows the NCES fields that are included within the NSF category as well as some additional illustrative disciplines. These additional disciplines are intended to be guidelines—not sharp definitions—as to what should be reported under a particular field.

<b>Questionnaire Field</b>	<b>NCES Classification and Additional Illustrative Disciplines</b>			
<b>a. ENGINEERING</b>				
<b>(1) Aeronautical &amp; Astronautical</b>	14.02 Aerospace, Aeronautical, and Astronautical Engineering (also aerodynamics, space technology)			
<b>(2) Bioengineering/ Biomedical Engineering</b>	14.05 Bioengineering and Biomedical Engineering			
<b>(3) Chemical</b>	03.0509 Wood Science (also petroleum refining process)	14.07 Chemical Engineering 14.32 Polymer/Plastics Engineering	14.25 Petroleum Engineering	
<b>(4) Civil</b>	04.02 Architecture 14.14 Environmental/Environmental Health Engineering (also geotechnical, hydraulic, hydrologic, sanitary and environmental, structural, transportation)			
<b>(5) Electrical</b>	14.09 Computer Engineering (also power engineering)			
<b>(6) Mechanical</b>	14.10 Electrical, Electronics, and Communications Engineering			
<b>(7) Metallurgical &amp; Materials</b>	14.11 Engineering Mechanics			
<b>(8) Other</b>	14.19 Mechanical Engineering			
	14.06 Ceramic Sciences and Eng. 14.18 Materials Engineering 14.28 Textile Sciences and Eng. (also welding)	14.15 Geological Engineering 14.20 Metallurgical Engineering 14.31 Materials Science	14.16 Geophysical Engineering 14.21 Mining and Mineral Eng. 40.0701 Metallurgy	
	14.01 Engineering, General 14.13 Engineering Science 14.23 Nuclear Engineering 14.27 Systems Engineering 14.99 Engineering, Other (also marine and ocean engineering systems)			
	14.03 Agricultural Engineering 14.17 Industrial/Manufacturing Eng. 14.24 Ocean Engineering 14.29 Engineering Design 30.06 Systems Science and Theory			
	14.12 Engineering Physics 14.22 Naval Architecture and Marine Engineering 14.30 Eng./Industrial Management			
<b>b. PHYSICAL SCIENCES</b>				
<b>(1) Astronomy</b>	40.02 Astronomy (also Gamma-ray, neutrino, optical and radio, X-ray)			
<b>(2) Chemistry</b>	40.03 Astrophysics			
<b>(3) Physics</b>	40.05 Chemistry (also analytical, inorganic, organic, organo-metallic, pharmaceutical, physical, polymer sciences (except biochemistry))			
<b>(4) Other</b>	40.08 Physics (also acoustics, atomic/molecular, chemical, condensed matter, elementary particles, nuclear structure, optics, plasma, theoretical/mathematical)			
	40.01 Physical Sciences, General (used for multidisciplinary projects within physical sciences and for disciplines not requested separately)			
	40.0799 Miscellaneous Physical Sciences, Other			
	40.99 Physical Sciences, Other			
<b>c. ENVIRONMENTAL SCIENCES (Earth, Atmospheric, &amp; Ocean)</b>				
<b>(1) Atmospheric</b>	40.04 Atmospheric Sciences and Meteorology (also aeronomy, extraterrestrial atmospheres, solar, weather modification)			
<b>(2) Earth Sciences</b>	15.1102 Surveying 40.06 Geological and Related Sciences 40.0703 Earth & Planetary Sciences 45.0702 Cartography (also engineering geophysics, general geology, geodesy and gravity, geomagnetism, hydrology, inorganic, isotopic, lab geophysics, organic geochemistry, paleomagnetism, paleontology, physical geography, seismology)			
<b>(3) Oceanography</b>	26.0607 Marine/Aquatic Biology (also biological, chemical, geological, physical)			
<b>(4) Other</b>	40.0702 Oceanography			
	(used for multidisciplinary projects within Earth, Atmospheric, and Ocean Sciences)			
<b>d. MATHEMATICAL SCIENCES</b>				
	27.01 Mathematics, General 27.03 Applied Mathematics 27.0302 Operations Research 27.05 Mathematical Statistics 27.99 Mathematics, Other 30.08 Math./Computer Sciences (also algebra, analysis, foundations and logic, geometry, numerical analysis, topology)			

Questionnaire Field	NCES Classification and Additional Illustrative Disciplines (cont.)			
<b>e. COMPUTER SCIENCES</b>	11 Computer and Information Science, General 52.1201 Management Information Systems (also design, development, and application of computer capabilities to data storage and manipulation, information science)			
<b>f. LIFE SCIENCES</b> <b>(1) Agricultural</b>	01.03 Agricultural Production 01.0303 Aquaculture 01.07 International Agriculture 02.01 Agricultural Sciences 02.04 Plant Sciences 02.05 Soil Science 03 Renewable Natural Resources 04.06 Landscape Architecture (also agricultural chemistry, agronomy, animal science, conservation, fish and wildlife, forestry, horticulture)			
<b>(2) Biological</b>	19.05 Foods and Nutrition Studies 26.01 Biology, General 26.0202 Biochemistry 26.0203 Biophysics 26.03 Botany 26.04 Cell and Molecular Biology 26.05 Microbiology/Bacteriology 26.0601 Anatomy 26.0603 Ecology 26.0609 Nutritional Sciences 26.0610 Parasitology 26.0612 Toxicology 26.0613 Genetics, Plant and Animal 26.0614 Biometrics 26.0615 Biostatistics 26.0699 Misc. Bio. Specializations, Other 26.0701 Zoology 26.0702 Entomology 26.0704 Pathology, Human and Animal 26.0705 Pharmacology, Human and 26.0706 Physiology, Human and 26.0799 Zoology, Other Animal Animal 26.99 Biolog./Life Sciences, Other 51.1301 Medical Anatomy 51.1302 Medical Biochemistry 51.1307 Medical Immunology 51.1308 Medical Microbiology 51.1312 Medical Pathology 51.1313 Medical Physiology 51.1314 Medical Toxicology 51.2203 Epidemiology (also allergies and immunology, biogeography, biotechnology, pathology, physical anthropology, virology)			
<b>(3) Medical</b>	26.0608 Neurosciences 26.0611 Radiation Biology/Radiobiol. 51.04 Dentistry 51.1201 Medicine, General 51.1399 Med. Basic Sciences, Other 51.1610 Nursing Psychiatry/ 51.17 Optometry 51.19 Osteopathic Medicine Mental Health 51.20 Pharmacy 51.21 Podiatry 51.22 Public Health 51.24 Veterinary Medicine <sup>1</sup> Anesthesiology Cardiology Colon and Rectal Surgery Dental/Oral Surgery Dermatology Family Medicine Gastroenterology General Surgery Geriatric Medicine Hematology Internal Medicine Medical Programs, Other Neonatal-Perinatal Medicine Neurological Surgery Neurology Nuclear Medicine Nuclear Radiology Obstetrics and Gynecology Oncology Ophthalmology Orthopedics/Orthopedic Surgery Otorhinolaryngology Pediatrics Pharmacology Physical and Rehabilitative Medicine Plastic Surgery Preventive Medicine Psychiatry Thoracic Surgery Urology (exclude all residency programs)			
<b>(4) Other</b>	30.11 Gerontology 51.02 Communication Disorders 51.07 Health and Medical 51.10 Health and Medical Laboratory Sciences and Services Administrative Services Technologies 51.16 Nursing Technologies 51.2306 Occupational Therapy 51.2308 Physical Therapy 51.2399 Rehab./Therapeutic Services 51.99 Health Professions and Related Services, Other (used for multidisciplinary projects within life sciences)			
<b>g. PSYCHOLOGY</b>	42.01 Psychology, General 42.02 Clinical Psychology 42.17 School Psychology 51.2301 Art Therapy (also animal behavior, educational, experimental, human development and personality, social)			
<b>h. SOCIAL SCIENCES</b> <b>(1) Economics</b>	01.0103 Agricultural Economics 45.06 Economics 52.06 Business/Managerial Econ. (also applied, development, econometrics, industrial, international, labor, public finance and fiscal policy, quantitative, resource)			
<b>(2) Political Science</b>	44.04 Public Administration 44.05 Public Policy Analysis 44.99 Public Admin. and Services, Other 45.09 International Relations and Affairs 45.10 Political Science and Government (also comparative government, legal systems, political theory, regional studies)			
<b>(3) Sociology</b>	45.02 Anthropology (Social and 45.05 Demography and 45.11 Sociology Cultural only) Population Studies (also comparative and historical, complex organizations, cultural and social structure, group interactions, social problems and welfare theory)			
<b>(4) Other</b>	04.03 City/Urban, Community, and 05 Area and Ethnic Studies 16.0102 Linguistics Regional Planning 43.01 Crim'l. Justice & Corrections 44.02 Community Services 45.01 Social Sciences, General 45.03 Archaeology 45.07 Geography 45.12 Urban Studies/Affairs 45.99 Social Sciences, Other (also history of science, socioeconomic geography)			
<b>i. OTHER SCIENCES, n.e.c.</b>	(used when the multidisciplinary and interdisciplinary aspects make the classification under one primary field impossible)			

<sup>1</sup> Institutions with schools of veterinary medicine should distribute R&D expenditures among the appropriate disciplines (agricultural, biological, and medical) rather than only in medical sciences.

# Questions and Answers

This document answers common questions about the academic R&D expenditures survey.

## DATA USES AND AVAILABILITY

### How are these data typically used?

Congress has directed NSF to provide “a central clearinghouse for the collection, interpretation, and analysis of data on scientific and engineering resources and to provide a source of information for policy formulation by other agencies of the Federal Government....” As part of its response, the Division of Science Resources Statistics (SRS) conducts annual surveys of the research and development (R&D) expenditures at the Nation’s universities and colleges.

Congress and Federal and State government planners use the data for science policy analysis, national and international studies, legislative hearing reports, budget formulation sessions, and other measurements of the adequacy of the Nation’s research base. Academic institutions use the information for policy analysis, publicity, and other purposes. Industrial firms often request data to prepare for on-campus recruiting. The data often appear in higher education studies and publications.

### How are the data made available?

NSF’s annual *Academic Research and Development Expenditures Survey* compiles detailed data in a comprehensive document, available on request. Institutional profiles show trend data for responses at the institutional level from all academic science and engineering (S&E) surveys.

Survey data are now available on the Web. To obtain the most recent survey publications and data tables, data files, institutional profiles, and access to WebCASPAR, the Web-based Computer-Aided Science Policy Analysis and Research database system, direct your browser to <http://www.nsf.gov/sbe/srs/stats.htm>.

## FIELD OF SCIENCE CLASSIFICATIONS

### How should I assign field classifications for R&D performed in multidisciplinary centers?

Multidisciplinary research should be categorized by individual research project according to the nature of the research performed. When individual projects encompass multiple fields of S&E, prorate expenditures to report the proportions of each discipline involved. Do not lump funds together into “other” field categories unless the type of research is actually defined as “other.” NSF recommends crediting such research to the appropriate S&E discipline when the project first begins.

### How should I allocate research dollars spent for computing or supercomputing services?

Report research dollars spent for computer usage to the individual fields of science and engineering for which the R&D is performed. Do not report these funds in computer science, unless computer science research was performed.

### What fields should be excluded from the science and engineering totals?

Exclude fields that are considered to be non-science—education, law, humanities, business, music, the arts, library science, and physical education. Note that you would report separately budgeted R&D for the philosophy of science (a science category), but not philosophy (one of the humanities). The NSF/NCES Crosswalk included with the questionnaire lists all S&E fields.

## BASIC RESEARCH

### How should basic research be calculated?

The percentage of basic research should be defined at the individual grant level by each principal researcher. Where this is not possible, grants should be reviewed by each department head or other relevant research coordinator.

Here is another method used by one institution to estimate the amounts of basic and applied research: All federally funded grants and R&D funded from other universities, foundations, and nonprofit organizations are considered to be basic research. R&D funds received through Federal cooperative agreements and Federal contracts, all State-funded R&D (except that from the State’s Advanced Research Program), and R&D funds received from private for-profit institutions are considered to be applied research.

## SOURCES OF FUNDING

### **Should faculty practice plan income be included in the survey?**

Expenditures for faculty practice plans are not considered research and should not be included. If income from such plans is used to fund other research and the funds are separately budgeted, then the expenditures should be included in institutional funds.

### **How much of our administrative costs can be reported in the survey?**

Administrative salaries and other administrative costs, particularly at your organized research units, can be reported only if funded through projects specifically restricted and budgeted for research. General administrative costs should not be reported.

### **How should I report institutional funds?**

All research dollars reported for your institution should be funds that are separately budgeted and restricted for research, such as sponsored research accounts or general accounts that are specifically budgeted for research. Do not include funds not specifically budgeted for research.

If your institution does not track underrecovery of indirect costs, use the underrecovery formula included in the questionnaire instructions. Do not forget to include and distribute unreimbursed indirect costs by detailed field in survey Item 2.

Be sure to report all indirect costs related to your institutional funds.

### **Can I report donated research equipment in the survey?**

Since donated research equipment is not typically captured in university accounting systems, the value of donated research equipment should not be reported.

## COLLABORATIVE RESEARCH ARRANGEMENTS

### **Should I report expenditures received through collaborative research ventures with other institutions?**

Report only what your institution actually expends and accounts for when participating in joint research ventures.

### **How do I distinguish between being a subrecipient of pass-through funds and being a subcontractor of R&D services?**

For Federal awards, a subrecipient is an entity that receives Federal financial assistance from the State or any other entity to administer a program (OMB Circular A-110). The subrecipient actually administers or controls the program, as opposed to the subcontractor who contracts for a specific service on a per-unit basis. A key factor in determining if a subrecipient arrangement exists is determining if the entity assumes the responsibility to administer the program. Subrecipients tend to be the co-authors of publications, writers of technical reports discussing findings, inventors, etc. Unlike a subrecipient relationship, a subcontract is a procurement of goods and/or services. Payments to subcontractors are expenditures for services, not expenditures for research, and are different from pass-through funds to subrecipients.

## ORGANIZATIONAL UNITS

### **Which organizational units should I include in the survey?**

Include research conducted through units that are considered part of your institution's organizational structure. For example, report expenditures from branch campuses, medical schools, agricultural stations, research centers and institutes, and any other units whose expenditures are separately budgeted **and are accounted for by your institution's financial system**. Exclude R&D expenditures performed by federally funded research and development centers (FFRDCs), nonprofit institutions, and private laboratories. Do not report salaries of faculty doing research at outside institutions unless your institution accounts for the funding of that research.

*For more information, contact Marge Machen at (703) 292-7786 (e-mail: [mmachen@nsf.gov](mailto:mmachen@nsf.gov)).*

# Academic R&D Expenditures On The Web!

**Security:** Your data are password-protected to ensure confidentiality.

- Data reporting is easier—enter your data directly onto your computer screen.
- Help and instructions are readily available to you on each Web survey page.
- Data errors are reported to you instantly.

Everything's done on your computer screen. Totals are computed for you. Flags indicate when your survey is ready to submit to NSF.

## How It Works

On your computer, open your Web browser (such as Netscape Navigator or Microsoft Internet Explorer) and visit <http://www.qrc.com/expweb>.

Log in by entering the Institution ID and password you received from NSF. (If you forget them, e-mail us at [expweb@qrc.com](mailto:expweb@qrc.com).)

Then you can . . .

- update your contact information
- enter survey data

## You Can Also

- print the finished survey on paper for your records
- work offline using spreadsheets and data files
- get personalized help on your computer screen

## For Further Information

If you have any questions about this Web survey, please contact ORC Macro by telephone at 1-866-349-8626 or by e-mail at [expweb@qrc.com](mailto:expweb@qrc.com). For any other survey data questions, please contact Marge Machen of NSF at (703) 292-7786 or by e-mail at [mmachen@nsf.gov](mailto:mmachen@nsf.gov).

NSF Survey of R&D Expenditures at Universities and Colleges

Status Legend: Review Required, Please Review, Ready to Submit

Expenditures by Source of Funds

Item 1. Current Fund Expenditures for Separately Budgeted Research and Development in the Sciences and Engineering by Source of Funds (include indirect costs)

You may use the [automatic summation](#) feature on this screen.

Last Modified: Unmodified

Source of Funds	Line	(1) Total	(2) Percentage of Funds that are Basic Research	Calculated Amount (Total only)
A Federal government	1100		%	\$
B State and local governments	1102			
C Industry	1103			
D Institution funds (sum of lines 1101 and 1102)	1100			
E Institutionally financed organized research	1105			
F Unreimbursed indirect costs and related sponsored research	1106			
G All other sources	1107			
F TOTAL (sum of A through G)	1100		%	\$

Basic research is directed toward an increase of knowledge. It is research where the primary aim of the investigator is a fuller knowledge or understanding of the subject under study rather than a specific application thereof.

NSF Survey of R&D Expenditures at Universities and Colleges

Status Legend: Review Required, Please Review, Ready to Submit

Your Main Menu

This can provide new data, or review or update existing data by clicking on the status icons (R, S, A) below. The signals for each item are color coded to indicate the item's completion status. Please report only aggregated data from all reporting units at your institution for FY 2000.

- Contact Information
- Hospital Expenditures
- Item 1 Expenditures by Source of Funds
- Item 1a Passed Through Funds
- Item 1b Funds Received as a Subrecipient
- Item 2 Expenditures by Field of Science & Engineering
- National Item 2a Non-Science Expenditures
- National Item 2b Expenditures to Specific Federal Agencies
- Item 3 Expenditures for Research Equipment

Additional Options: Health Data, Update Your Data, Download Your Data, Print Expense, Related Websites, View CASRA, Institutional Profiles, Academic R&D Publications, NSF Science Resources Studies

NSF Survey of R&D Expenditures at Universities and Colleges

Welcome to...

The Web-based data reporting system for the NSF Survey of Research and Development Expenditures at Universities and Colleges (academic R&D expenditures). This system enables you to provide the National Science Foundation (NSF) with needed data about your institution's research and development expenditures.

Before you can begin you need to identify your institution and enter the password we sent you. If you have misplaced this information, please [contact us](#) and we will replace it. For additional help getting started, please consult the [Online Help](#). After you have entered your identification in the boxes below, click **Login**.

The Web system will be closed for preventive maintenance each Wednesday from 5:30-7:30 pm EST.

Institution ID Number

Password

The data you provide in this survey contribute to decisions affecting higher education. Congress, the executive branch, and education associations use institutional data. An institutional profile is created for each participating institution, showing trend data based on its responses to all the academic S&E surveys. These data are available on the NSF's Division of Science Resources Studies [Web pages](#).

Detailed data are made available to institutional, Federal, state, and other policy analysts in statistical tables, in data files, or through the Computer-Aided Science Policy Analysis and Research [CASPAR](#) database system. By providing accurate data, you can ensure your institution's representation in data used by Federal and state decision-makers. You will also find the data useful for comparing your institution with others in your state or region.

NSF Number: 3161-0100  
Expires: 4/30/2002

## More Features:

- You can review and revise your data at any time.
- The data are reviewed for errors every time you click on **Save**.
- Data are saved to a central database, accessible to you at your convenience.
- After you complete all survey questions, make the data available to NSF by the simple click of a button.



NATIONAL SCIENCE FOUNDATION  
ARLINGTON, VA 22230

**SURVEY OF RESEARCH AND DEVELOPMENT EXPENDITURES  
FY 2003**

**Please submit your survey data by January 28, 2004.**

The Web address for submitting your data:

<http://www.qrc.com/expweb>

Or, mail this form to:

ORC Macro  
7315 Wisconsin Avenue, Suite 400W  
Bethesda, MD 20814-3202

Or, e-mail your response to:

[expweb@qrc.com](mailto:expweb@qrc.com)

The Web password and user ID were e-mailed each institution. If you have any questions about this or any other issue, please call: Marge Machen of NSF at (703) 292-7786, or call the Help Line at ORC Macro, 1-866-349-8626.

Your cooperation in returning the survey questionnaire promptly is very important. This information is solicited under the authority of the National Science Foundation Act of 1950, as amended. Your response is entirely voluntary; your failure to provide some or all of the information will in no way adversely affect your institution.

All financial data requested on this form should be reported in thousands of dollars; for example, an expenditure of \$25,342 should be rounded to the nearest thousand dollars and reported as \$25.

Where exact data are not available, estimates are acceptable. Your estimates will be better than ours.

It is estimated that response to this survey will require 4 hours. If you wish to comment on this burden, please contact Suzanne H. Plimpton of NSF at (703) 292-7556, or e-mail [splimpto@nsf.gov](mailto:splimpto@nsf.gov).

**Scope:**

This survey contains one question which requests data on *current fund expenditures* by source of funds for separately budgeted research and development (R&D). Definitions used are compatible with OMB Circular A-21, revised August 8, 2000.

**Definitions:**

**Research and Development (R&D).** R&D for purposes of this survey is the same as "organized research" as defined in Section B.1.b. of OMB Circular A-21 (revised). It includes all R&D activities that are separately budgeted and accounted for.

**Research** is systematic study directed toward fuller knowledge or understanding of the subject studied. Research is classified as either basic or applied, according to the objectives of the investigator.

**Development** is systematic use of the knowledge or understanding gained from research, directed toward the production of useful materials, devices, systems, or methods, including design and development of prototypes and processes.

**Current fund expenditures.** These are expenditures of funds available for current operations. Such expenditures include all unrestricted gifts and restricted current funds to the extent that such funds were expended for current operating purposes.

Please circle the month in which your institution's fiscal year begins:

Jan Feb Mar Apr May Jun Jul Aug Sept Oct Nov Dec

Person who submitted this form:

Name:	Telephone number:
Title:	E-mail:
Address:	Fax:
	Date submitted:

Person who prepared this form (if different from above):

Name:	Telephone number:
Title:	E-mail:
	Fax:

## Instructions

Separately budgeted research and development (R&D) includes all funds expended for activities specifically organized to produce research outcomes and commissioned by an agency either external to the institution or separately budgeted by an organizational unit within the institution. *Include* research equipment purchased under research project awards from “current fund” accounts. Also *include* research funds for which an outside organization is a subrecipient. *Exclude* training grants, public service grants, demonstration projects, clinical trials, and research expenditures that are not separately budgeted. Allocate funding to the original sources whenever possible, as specified below. If this information is unknown, report the proximate funding source.

### Total

- a. **Federal Government.** Report awards for R&D (including direct and reimbursed indirect costs) by all agencies of the Federal Government.
- b. **State and local governments.** Include funds for R&D (including direct and reimbursed indirect costs) from State, county, municipal, or other local governments and their agencies.
- c. **Industry.** Include all awards for R&D (including direct and reimbursed indirect costs) from profit-making organizations, whether engaged in production, distribution, research, service, or other activities. Do not include awards from nonprofit foundations financed by industry; these should be included under “All other sources.”
- d. **Institution funds.** Report funds, *including* related indirect costs, that your institution spent for R&D activities from the following unrestricted sources: general-purpose awards from industry, foundations, or other outside sources, and other institutional funds. In addition, estimate your institution’s unreimbursed indirect costs associated with externally funded R&D projects, including mandatory and voluntary cost sharing. To estimate unreimbursed indirect costs, preferably on a project-by-project basis, use your appropriate *negotiated research indirect cost rate(s)* multiplied by the corresponding base(s) minus actual indirect cost recovery.
- e. **All other sources.** Include awards for R&D (including direct and reimbursed indirect costs) from nonprofit foundations and voluntary health agencies as well as from all other sources not elsewhere classified. Also include gifts from individuals that are restricted by the donor to research. Funds from foundations that are affiliated with, or granted solely to your institution, should be included under “Institution funds.” Funds for R&D received from a health agency that is a unit of a State or local government should be included under “State and local governments.”

**How much of your current fund expenditures for separately budgeted research and development in the sciences and engineering (including indirect costs) came from the following sources in FY 2003?**

Source of Funds	Line No.	(1) Total (Dollars in thousands)	(2) What Percentage of Federal & Total Funds Are Basic Research	<b>BASIC RESEARCH</b> Please provide the percentages of Federal and total expenditures that are basic research (not applied research) as defined in column (2).  <b>CONFIDENTIALITY</b> Information received from individual institutions in lines 1161 and 1162, or estimates for basic research expenditures, will NOT be published or released; only aggregate totals will appear in tabulations.
a. Federal Government	1110	\$	_____ %	
b. State and local governments	1125		<b>Basic research</b> is directed toward an increase of knowledge; it is research where the primary aim of the <b>investigator</b> is a fuller knowledge or understanding of the subject under study rather than a specific application thereof.	
c. Industry	1150			
d. Institution funds (sum of lines 1161 and 1162)	1160			
(1) Institutionally financed organized research	1161			
(2) Unreimbursed indirect costs and related sponsored research	1162			
e. All other sources	1175			
f. TOTAL (sum of a through e)	1100	\$	_____ %	