

**Table 63. Federal obligations to universities and colleges for basic research,
by detailed field of science & engineering and selected agency:
fiscal years 1973-2002**

[Dollars in thousands]

Field of science and engineering	1973	1974	1975	1976	1977	1978	1979	1980
Total, all fields	NA	1,125,103	1,229,791	1,320,736	1,535,210	1,738,104	2,051,685	2,291,264
Life sciences, total	NA	610,316	655,727	719,176	809,828	926,949	1,140,143	1,219,540
Biol & agricultural, total	NA	413,374	442,802	491,747	549,752	639,197	787,936	801,096
Biol (excl environmental)	NA	NA	NA	NA	NA	566,976	703,253	712,238
Environmental biology	NA	NA	NA	NA	NA	28,481	38,842	37,001
Agricultural	NA	NA	NA	NA	NA	43,740	45,841	51,857
Medical sciences, total	NA	177,864	192,794	203,582	231,597	255,473	310,513	372,110
Clinical medical	NA	7,501	11,262	8,954	12,315	NA	NA	NA
Other medical	NA	170,363	181,532	194,628	219,282	NA	NA	NA
Life sciences, n.e.c.	NA	19,078	20,131	23,847	28,479	32,279	41,694	46,334
Psychology, total	NA	28,206	27,918	27,767	31,786	35,981	42,889	52,416
Biological aspects	NA	11,182	12,148	12,479	13,191	12,868	15,584	18,491
Social aspects	NA	11,842	10,515	9,533	11,881	14,986	17,125	18,527
Psychological sciences, n.e.c.	NA	5,182	5,255	5,755	6,714	8,127	10,180	15,398
Physical sciences, total	NA	206,838	227,244	234,717	270,156	299,484	323,298	375,902
Astronomy	NA	29,507	26,698	26,204	31,965	35,860	38,209	41,131
Chemistry	NA	60,755	73,497	78,607	96,249	102,200	114,335	136,092
Physics	NA	114,305	123,491	126,331	137,362	157,083	166,247	194,284
Physical sciences, n.e.c.	NA	2,271	3,558	3,575	4,580	4,341	4,507	4,395
Environmental sciences, total	NA	104,482	120,194	128,205	166,004	191,790	229,887	255,297
Atmospheric sciences	NA	22,390	29,386	29,669	40,283	52,881	61,705	74,867
Geological sciences	NA	29,092	35,114	40,648	45,290	51,605	69,843	74,447
Oceanography	NA	48,094	52,509	54,318	72,669	79,928	91,845	94,945
Environmental sciences, n.e.c.	NA	4,906	3,185	3,570	7,762	7,376	6,494	11,038
Math & computer sciences, total	NA	36,559	42,197	46,344	56,623	65,303	68,969	79,799
Mathematics	NA	NA	NA	27,226	35,019	36,864	38,574	46,092
Computer sciences	NA	NA	NA	18,840	21,574	27,402	29,481	31,372
Math & computer sciences, n.e.c.	NA	NA	NA	278	30	1,037	914	2,335
Engineering, total	NA	88,321	106,710	113,896	139,291	151,506	163,976	208,416
Aeronautical	NA	9,146	9,492	10,793	12,750	16,931	19,131	22,071
Astronautical	NA	2,300	2,009	2,455	1,782	2,196	705	995
Chemical	NA	6,482	10,963	10,203	9,494	9,284	12,548	16,946
Civil	NA	4,937	3,665	3,665	5,992	6,422	9,625	15,068
Electrical	NA	18,873	19,212	26,380	36,414	37,962	37,069	47,482
Mechanical	NA	10,202	9,434	10,424	13,708	15,488	20,756	25,659
Metallurgy & materials	NA	28,008	33,928	35,276	42,113	43,429	47,635	51,871
Engineering, n.e.c.	NA	8,373	18,007	14,700	17,038	19,794	16,507	28,324
Social sciences, total	NA	41,735	40,404	44,818	52,201	55,743	56,976	63,956
Anthropology	NA	3,997	3,781	3,217	3,535	5,005	5,829	5,759
Economics	NA	16,340	15,669	15,755	19,053	20,071	21,126	22,273
Political science	NA	1,892	1,322	1,658	2,026	2,655	3,290	3,572
Sociology	NA	8,222	4,885	6,527	7,827	8,606	10,262	12,139
Social sciences, n.e.c.	NA	11,284	14,747	17,661	19,760	19,406	16,469	20,213
History	NA	905	937	NA	NA	NA	NA	NA
Linguistics	NA	1,685	1,528	NA	NA	NA	NA	NA
Other social sciences	NA	8,694	12,282	NA	NA	NA	NA	NA
Other sciences, n.e.c.	NA	8,646	9,397	5,813	9,321	11,348	25,547	35,938

See explanatory information, if any, and SOURCE at end of table.

**Table 63. Federal obligations to universities and colleges for basic research,
by detailed field of science & engineering and selected agency:
fiscal years 1973-2002**

[Dollars in thousands]

Field of science and engineering	1981	1982	1983	1984	1985	1986	1987	1988
Total, all fields	2,478,961	2,693,269	3,077,680	3,490,727	3,994,438	4,088,365	4,627,716	4,829,815
Life sciences, total	1,314,624	1,483,665	1,701,670	1,979,576	2,321,755	2,307,844	2,701,722	2,747,344
Biol & agricultural, total	875,788	996,127	1,139,430	1,307,263	1,528,897	1,511,534	1,773,442	1,722,758
Biol (excl environmental)	776,872	897,748	1,030,888	1,191,199	1,384,545	1,383,032	1,642,170	1,582,334
Environmental biology	36,674	33,756	36,736	60,164	62,443	60,755	63,672	65,853
Agricultural	62,242	64,623	71,806	55,900	81,909	67,747	67,600	74,571
Medical sciences, total	394,480	441,860	501,777	600,020	695,484	710,403	823,729	967,034
Clinical medical	NA	NA	NA	NA	NA	NA	NA	NA
Other medical	NA	NA	NA	NA	NA	NA	NA	NA
Life sciences, n.e.c.	44,356	45,678	60,463	72,293	97,374	85,907	104,551	57,552
Psychology, total	56,151	47,765	55,616	63,144	78,538	79,821	97,258	115,593
Biological aspects	17,229	14,734	15,679	21,598	26,516	27,393	30,142	35,041
Social aspects	18,771	17,053	21,243	21,586	26,939	26,753	32,382	20,491
Psychological sciences, n.e.c.	20,151	15,978	18,694	19,960	25,083	25,675	34,734	60,061
Physical sciences, total	434,744	455,265	502,182	581,913	631,135	636,037	698,787	733,685
Astronomy	42,409	46,188	49,872	67,058	65,230	67,185	70,713	73,252
Chemistry	164,696	165,267	181,946	212,099	236,948	232,482	246,515	258,104
Physics	222,397	238,564	264,727	293,870	317,241	325,870	321,123	343,889
Physical sciences, n.e.c.	5,242	5,246	5,637	8,886	11,716	10,500	60,436	58,440
Environmental sciences, total	241,573	255,951	284,262	288,948	330,689	335,534	369,634	378,172
Atmospheric sciences	67,363	69,043	68,605	84,597	89,707	96,179	101,676	98,049
Geological sciences	61,827	66,245	59,602	66,876	89,765	97,868	103,722	99,783
Oceanography	100,659	111,492	144,500	125,717	144,978	136,415	153,227	154,839
Environmental sciences, n.e.c.	11,724	9,171	11,555	11,758	6,239	5,072	11,009	25,501
Math & computer sciences, total	102,610	118,842	146,848	152,615	172,525	188,722	213,772	227,162
Mathematics	55,266	60,864	68,319	74,011	86,475	101,642	108,925	113,432
Computer sciences	40,588	53,244	66,807	62,304	73,714	74,534	88,298	94,662
Math & computer sciences, n.e.c.	6,756	4,734	11,722	16,300	12,336	12,546	16,549	19,068
Engineering, total	237,252	259,013	295,456	340,276	363,066	429,193	411,277	448,894
Aeronautical	22,596	25,203	28,243	31,546	29,375	41,200	43,051	40,312
Astronautical	945	3,532	8,012	5,042	4,662	8,470	8,340	9,715
Chemical	19,807	16,802	18,914	29,640	27,610	33,272	32,501	34,469
Civil	17,441	18,966	22,474	29,572	30,692	29,274	29,112	31,459
Electrical	52,922	61,064	63,811	85,207	84,380	91,896	95,365	98,185
Mechanical	28,639	32,106	43,884	45,424	54,384	56,857	58,638	58,252
Metallurgy & materials	62,583	69,648	76,812	79,916	95,820	120,373	96,494	120,740
Engineering, n.e.c.	32,319	31,692	33,306	33,929	36,143	47,851	47,776	55,762
Social sciences, total	58,653	46,624	56,911	49,781	50,961	47,854	54,119	63,694
Anthropology	5,470	5,367	5,428	6,385	6,311	6,756	7,419	7,454
Economics	19,981	21,240	22,896	12,587	14,148	13,248	13,983	16,326
Political science	3,300	1,973	2,124	3,037	3,865	2,672	2,999	3,475
Sociology	11,396	8,707	14,894	14,962	14,704	14,010	17,614	15,645
Social sciences, n.e.c.	18,506	9,337	11,569	12,810	11,933	11,168	12,104	20,794
History	NA	NA	NA	NA	NA	NA	NA	NA
Linguistics	NA	NA	NA	NA	NA	NA	NA	NA
Other social sciences	NA	NA	NA	NA	NA	NA	NA	NA
Other sciences, n.e.c.	33,354	26,144	34,735	34,474	45,769	63,360	81,147	115,271

See explanatory information, if any, and SOURCE at end of table.

**Table 63. Federal obligations to universities and colleges for basic research,
by detailed field of science & engineering and selected agency:
fiscal years 1973-2002**

[Dollars in thousands]

Field of science and engineering	1989	1990	1991	1992	1993	1994	1995	1996
Total, all fields	5,167,140	5,470,029	5,987,152	6,230,381	6,776,435	6,947,337	6,904,691	7,412,978
Life sciences, total	2,902,645	3,067,639	3,328,374	3,480,531	3,776,201	3,870,883	3,687,738	4,013,194
Biol & agricultural, total	1,799,360	1,884,346	2,049,432	2,125,111	2,205,569	2,237,608	2,089,931	2,224,268
Biol (excl environmental)	1,645,581	1,724,891	1,867,034	1,925,304	2,023,749	2,036,295	1,898,563	2,059,731
Environmental biology	69,515	86,934	103,192	114,646	108,217	116,284	112,570	100,107
Agricultural	84,264	72,521	79,206	85,161	73,603	85,029	78,798	64,430
Medical sciences, total	1,029,978	1,094,500	1,185,927	1,292,311	1,493,922	1,568,687	1,500,720	1,660,325
Clinical medical	NA	NA	NA	NA	NA	NA	NA	NA
Other medical	NA	NA	NA	NA	NA	NA	NA	NA
Life sciences, n.e.c.	73,307	88,793	93,015	63,109	76,710	64,588	97,087	128,601
Psychology, total	124,963	141,717	149,095	86,376	166,637	173,667	164,574	178,371
Biological aspects	41,914	42,313	43,714	10,865	12,932	9,835	10,896	19,632
Social aspects	24,717	40,600	46,847	13,521	12,961	11,926	12,195	6,189
Psychological sciences, n.e.c.	58,332	58,804	58,534	61,990	140,744	151,906	141,483	152,550
Physical sciences, total	782,712	828,867	900,354	956,564	941,646	933,400	976,310	999,818
Astronomy	76,332	77,917	97,207	188,790	110,478	119,572	140,898	172,353
Chemistry	258,507	275,968	299,872	305,137	300,161	323,785	313,347	302,382
Physics	383,550	424,544	471,158	438,162	445,221	441,975	455,656	476,116
Physical sciences, n.e.c.	64,323	50,438	32,117	24,475	85,786	48,068	66,409	48,967
Environmental sciences, total	424,120	455,947	522,786	554,617	559,028	602,585	573,866	611,900
Atmospheric sciences	110,834	120,021	139,086	154,328	151,516	165,235	199,492	151,594
Geological sciences	116,008	123,255	163,724	160,520	174,416	199,762	160,634	128,557
Oceanography	172,743	179,317	133,784	147,627	144,592	145,523	109,243	202,215
Environmental sciences, n.e.c.	24,535	33,354	86,192	92,142	88,504	92,065	104,497	129,534
Math & computer sciences, total	244,169	293,411	295,141	329,073	352,025	350,318	335,309	431,902
Mathematics	111,794	124,889	117,321	145,463	130,379	131,019	118,965	125,081
Computer sciences	116,729	166,507	158,032	181,149	217,363	211,886	199,650	289,079
Math & computer sciences, n.e.c.	15,646	2,015	19,788	2,461	4,283	7,413	16,694	17,742
Engineering, total	484,523	458,197	555,781	556,577	580,032	685,044	790,820	796,925
Aeronautical	45,651	53,237	41,832	44,305	39,736	53,615	42,578	39,982
Astronautical	11,238	8,656	13,305	15,459	11,857	11,301	13,659	15,939
Chemical	31,323	32,397	42,990	41,272	37,726	37,037	40,359	38,370
Civil	34,794	32,829	35,408	27,710	26,206	26,856	36,107	33,910
Electrical	110,070	95,224	98,401	105,060	146,438	151,042	137,899	142,024
Mechanical	67,743	61,773	82,996	82,421	99,182	105,030	112,470	81,460
Metallurgy & materials	130,309	121,826	146,944	123,087	127,803	208,490	258,324	244,144
Engineering, n.e.c.	53,395	52,255	93,905	117,263	91,084	91,673	149,424	201,096
Social sciences, total	70,133	70,019	72,168	70,159	109,399	96,359	112,070	107,960
Anthropology	7,643	7,773	7,594	6,922	6,416	5,855	10,786	9,232
Economics	18,379	19,297	20,903	22,535	22,570	19,261	22,311	21,432
Political science	3,924	3,679	4,356	3,938	3,878	4,537	6,590	4,631
Sociology	19,728	15,456	17,234	7,580	7,271	7,391	8,343	5,090
Social sciences, n.e.c.	20,459	23,814	22,081	29,184	69,264	59,315	64,040	67,575
History	NA	NA	NA	NA	NA	NA	NA	NA
Linguistics	NA	NA	NA	NA	NA	NA	NA	NA
Other social sciences	NA	NA	NA	NA	NA	NA	NA	NA
Other sciences, n.e.c.	133,875	154,232	163,453	196,484	291,467	235,081	264,004	272,908

See explanatory information, if any, and SOURCE at end of table.

Table 63. Federal obligations to universities and colleges for basic research, by detailed field of science & engineering and selected agency: fiscal years 1973-2002

[Dollars in thousands]

Field of science and engineering	1997	1998	1999	2000	Preliminary	
					2001	2002
Total, all fields	7,662,933	7,907,976	9,062,924	10,022,175	11,832,858	12,119,816
Life sciences, total	4,348,389	4,571,071	5,416,336	5,684,855	6,983,887	7,162,966
Biol & agricultural, total	2,606,233	2,727,337	3,221,545	4,323,776	NA	NA
Biol (excl environmental)	2,425,524	2,545,590	2,997,526	4,062,094	NA	NA
Environmental biology	95,015	97,824	126,467	149,153	NA	NA
Agricultural	85,694	83,923	97,552	112,529	NA	NA
Medical sciences, total	1,607,897	1,701,561	2,017,596	1,070,146	NA	NA
Clinical medical	NA	NA	NA	NA	NA	NA
Other medical	NA	NA	NA	NA	NA	NA
Life sciences, n.e.c.	134,259	142,173	177,195	290,933	NA	NA
Psychology, total	194,907	200,953	223,810	486,004	562,180	622,639
Biological aspects	21,197	18,301	10,357	5,458	NA	NA
Social aspects	9,421	8,872	8,090	13,932	NA	NA
Psychological sciences, n.e.c.	164,289	173,780	205,363	466,614	NA	NA
Physical sciences, total	1,041,915	1,011,650	1,124,000	1,216,740	1,336,877	1,344,797
Astronomy	153,329	148,197	172,549	144,135	NA	NA
Chemistry	278,566	273,252	309,749	423,183	NA	NA
Physics	489,058	480,058	538,582	526,605	NA	NA
Physical sciences, n.e.c.	120,962	110,143	103,120	122,817	NA	NA
Environmental sciences, total	620,507	603,017	652,883	747,852	798,872	822,883
Atmospheric sciences	190,317	154,124	187,975	171,293	NA	NA
Geological sciences	122,722	170,002	143,181	135,627	NA	NA
Oceanography	203,701	186,390	232,612	226,043	NA	NA
Environmental sciences, n.e.c.	103,767	92,501	89,115	214,889	NA	NA
Math & computer sciences, total	400,983	438,490	483,989	558,117	637,547	644,850
Mathematics	112,530	117,547	121,495	169,608	NA	NA
Computer sciences	268,660	301,055	337,917	382,543	NA	NA
Math & computer sciences, n.e.c.	19,793	19,888	24,577	5,966	NA	NA
Engineering, total	698,888	722,065	725,167	834,017	963,491	943,847
Aeronautical	35,738	42,289	45,496	38,488	NA	NA
Astronautical	10,712	4,920	28,370	12,413	NA	NA
Chemical	38,592	45,072	44,400	44,329	NA	NA
Civil	30,038	25,043	32,100	36,242	NA	NA
Electrical	120,885	141,701	138,332	125,148	NA	NA
Mechanical	69,961	68,584	70,020	63,496	NA	NA
Metallurgy & materials	203,630	203,573	204,861	233,855	NA	NA
Engineering, n.e.c.	189,332	190,883	161,588	280,046	NA	NA
Social sciences, total	117,212	111,963	141,317	172,245	194,215	202,428
Anthropology	10,214	10,157	10,775	10,967	NA	NA
Economics	23,884	17,294	18,231	23,494	NA	NA
Political science	4,829	4,546	4,762	5,010	NA	NA
Sociology	6,339	5,781	5,470	7,642	NA	NA
Social sciences, n.e.c.	71,946	74,185	102,079	125,132	NA	NA
History	NA	NA	NA	NA	NA	NA
Linguistics	NA	NA	NA	NA	NA	NA
Other social sciences	NA	NA	NA	NA	NA	NA
Other sciences, n.e.c.	240,132	248,767	295,422	322,345	355,789	375,406

KEY: NA = Not applicable (indicates that the data collected for this table were not recorded at that level for that particular fiscal year)
n.e.c. = Not elsewhere classified

NOTES: This table shows obligations from the Departments of Agriculture, Defense, Energy, and Health & Human Services; the National Aeronautics and Space Administration; and the National Science Foundation; they represent approximately 99 percent of total Federal basic research obligations to universities and colleges in fiscal years 2000, 2001, and 2002.

Beginning in the fiscal year 2000, the National Institutes of Health classified all of its development activities as research.

Beginning in fiscal year 2000, the National Aeronautics & Space Administration reclassified Space Station as a physical asset and Space Station Research as equipment, and transferred funding for the program from R&D to R&D plant.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Federal Funds for Research and Development: Fiscal Years 2000, 2001, and 2002