

**Table 2L. Federal obligations for basic research, by detailed field of science
& engineering: National Science Foundation,
fiscal years 1970-2003**

[Dollars in thousands]

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Field of science & engineering	1970	1971	1972	1973	1974	1975	1976
Total, all fields	244,977	272,566	367,691	392,442	415,217	485,989	523,634
Life sciences, total	52,662	54,795	67,600	72,610	76,011	91,576	97,593
Biol & agricultural, total	47,176	51,876	59,747	63,497	75,796	91,576	97,460
Biol (excl environmental)	NA	NA	NA	NA	NA	NA	NA
Environmental biology	NA	NA	NA	NA	NA	NA	NA
Agricultural	NA	NA	NA	NA	NA	NA	NA
Medical sciences, total	5,120	0	7	25	215	0	0
Clinical medical	4,120	0	7	25	187	0	0
Other medical	1,000	0	0	0	28	0	0
Life sciences, n.e.c.	366	2,919	7,846	9,088	0	0	133
Psychology, total	7,600	5,249	6,171	5,531	5,595	8,474	8,249
Biological aspects	4,210	2,973	3,541	3,307	3,628	6,149	5,697
Social aspects	1,430	2,276	2,456	2,224	1,967	2,325	2,552
Psychological sciences, n.e.c.	1,960	0	174	0	0	0	0
Physical sciences, total	74,649	77,550	108,900	115,239	118,600	137,581	143,471
Astronomy	19,922	23,236	25,608	27,080	30,208	28,733	31,754
Chemistry	21,741	21,665	30,171	29,966	33,370	43,439	40,570
Physics	32,892	32,649	48,985	52,660	55,022	65,409	71,147
Physical sciences, n.e.c.	94	0	4,136	5,533	0	0	0
Environmental sciences, total	53,031	71,502	91,026	86,344	112,280	123,218	120,789
Atmospheric sciences	22,973	29,000	33,118	38,090	43,480	44,832	45,410
Geological sciences	10,288	9,516	11,422	19,174	32,524	36,286	34,463
Oceanography	19,680	30,986	43,613	23,699	36,276	42,088	40,755
Environmental sciences, n.e.c.	90	2,000	2,873	5,381	0	12	161
Math & computer sciences, total	17,061	17,236	26,813	22,115	23,239	27,341	32,845
Mathematics	NA	NA	NA	NA	NA	NA	18,391
Computer sciences	NA	NA	NA	NA	NA	NA	14,444
Math & computer sciences, n.e.c.	NA	NA	NA	NA	NA	NA	10
Engineering, total	21,669	24,037	39,818	40,485	44,436	64,445	61,912
Aeronautical	520	1,164	1,981	209	684	22	0
Astronautical	0	0	24	0	56	0	0
Chemical	3,810	4,191	4,330	4,704	5,817	10,846	10,962
Civil	2,736	3,392	2,956	6,107	5,031	4,223	4,427
Electrical	4,953	4,795	8,724	10,328	9,622	11,257	14,972
Mechanical	3,811	3,654	4,376	5,166	7,076	6,909	7,123
Metallurgy & materials	2,740	4,695	8,486	9,504	11,666	16,088	15,475
Engineering, n.e.c.	3,099	2,146	8,941	4,467	4,484	15,100	8,953
Social sciences, total	14,234	20,225	26,117	24,689	22,629	27,127	34,217
Anthropology	3,227	3,999	4,118	3,886	3,913	3,309	3,449
Economics	4,111	4,443	4,685	4,622	5,220	6,661	6,998
Political science	1,554	706	1,395	1,431	1,290	1,361	2,249
Sociology	1,311	2,581	2,969	2,383	1,857	2,444	2,733
Social sciences, n.e.c.	4,031	8,496	12,950	12,367	10,349	13,352	18,788
History	924	733	876	898	920	818	NA
Linguistics	1,296	137	94	1,253	1,300	1,320	NA
Other social sciences	1,811	7,626	11,980	10,216	8,129	11,214	NA
Other sciences, n.e.c.	4,071	1,972	1,246	25,429	12,427	6,227	24,558

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

**Table 2L. Federal obligations for basic research, by detailed field of science
& engineering: National Science Foundation,
fiscal years 1970-2003**

[Dollars in thousands]

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Field of science & engineering	1977	1978	1979	1980	1981	1982	1983
Total, all fields	624,900	678,040	733,255	815,246	896,569	916,078	999,136
Life sciences, total	108,237	121,801	133,184	148,780	161,787	159,488	181,490
Biol & agricultural, total	107,115	119,900	131,215	148,617	161,708	159,473	181,490
Biol (excl environmental)	NA	82,016	83,882	105,365	116,285	116,970	131,689
Environmental biology	NA	37,884	47,333	43,202	45,416	42,129	49,672
Agricultural	NA	0	0	50	7	374	129
Medical sciences, total	1,122	0	0	0	0	0	0
Clinical medical	0	NA	NA	NA	NA	NA	NA
Other medical	1,122	NA	NA	NA	NA	NA	NA
Life sciences, n.e.c.	0	1,901	1,969	163	79	15	0
Psychology, total	11,381	9,209	11,882	11,875	10,066	7,912	8,334
Biological aspects	8,368	8,388	8,587	8,136	7,249	5,710	5,745
Social aspects	3,013	3,371	3,255	3,739	2,788	2,059	2,586
Psychological sciences, n.e.c.	0	0	40	0	29	143	3
Physical sciences, total	179,180	189,750	197,064	198,604	254,815	266,577	283,492
Astronomy	41,585	46,614	51,064	34,487	59,079	65,399	64,606
Chemistry	54,387	56,686	60,317	68,385	81,475	83,343	88,487
Physics	83,175	86,431	85,576	95,593	113,602	117,753	129,687
Physical sciences, n.e.c.	33	19	107	139	659	82	712
Environmental sciences, total	177,627	198,594	216,403	253,223	259,308	264,493	290,544
Atmospheric sciences	61,270	70,928	79,082	76,784	86,667	84,288	95,030
Geological sciences	52,684	58,939	63,532	90,195	68,810	70,548	64,814
Oceanography	63,662	68,670	73,656	86,110	95,840	98,364	130,657
Environmental sciences, n.e.c.	11	57	133	134	7,991	11,293	43
Math & computer sciences, total	38,985	43,349	42,416	47,769	55,761	63,544	69,671
Mathematics	21,624	22,920	24,040	27,166	31,450	33,274	37,294
Computer sciences	17,361	20,429	18,376	20,603	23,226	30,270	32,377
Math & computer sciences, n.e.c.	0	0	0	0	1,085	0	0
Engineering, total	70,424	69,791	76,397	89,372	100,241	111,308	122,503
Aeronautical	588	582	927	1,048	0	441	107
Astronautical	0	0	0	0	123	183	124
Chemical	9,475	9,231	13,690	14,572	17,171	16,384	18,810
Civil	6,596	6,589	10,544	16,505	18,134	21,840	23,769
Electrical	19,495	19,814	18,568	21,087	24,208	26,349	29,679
Mechanical	6,733	6,715	11,700	13,356	12,123	14,553	17,551
Metallurgy & materials	17,802	14,822	16,405	19,114	22,603	23,482	23,984
Engineering, n.e.c.	9,735	12,038	4,563	3,690	5,879	8,076	8,479
Social sciences, total	34,525	36,425	34,440	36,844	29,953	25,360	27,063
Anthropology	3,924	5,948	6,659	6,812	6,301	5,807	6,109
Economics	8,704	10,405	9,460	10,297	7,295	6,744	7,182
Political science	2,348	2,969	3,267	3,544	3,015	2,303	2,306
Sociology	3,600	3,601	3,358	4,300	3,387	2,783	2,487
Social sciences, n.e.c.	15,949	13,502	11,696	11,891	9,955	7,723	8,979
History	NA	NA	NA	NA	NA	NA	NA
Linguistics	NA	NA	NA	NA	NA	NA	NA
Other social sciences	NA	NA	NA	NA	NA	NA	NA
Other sciences, n.e.c.	4,541	9,121	21,469	28,779	24,638	17,396	16,039

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

**Table 2L. Federal obligations for basic research, by detailed field of science
& engineering: National Science Foundation,
fiscal years 1970-2003**

[Dollars in thousands]

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Field of science & engineering	1984	1985	1986	1987	1988	1989	1990
Total, all fields	1,132,340	1,261,807	1,275,221	1,371,169	1,433,190	1,562,629	1,586,276
Life sciences, total	214,007	227,881	228,547	250,135	252,686	267,810	252,570
Biol & agricultural, total	213,763	224,794	226,678	248,096	252,374	267,456	251,752
Biol (excl environmental)	155,714	168,734	169,405	181,621	183,667	194,804	179,737
Environmental biology	57,736	56,060	57,273	66,475	68,707	72,652	72,015
Agricultural	313	0	0	0	0	0	0
Medical sciences, total	0	0	0	0	0	0	0
Clinical medical	NA	NA	NA	NA	NA	NA	NA
Other medical	NA	NA	NA	NA	NA	NA	NA
Life sciences, n.e.c.	244	3,087	1,869	2,039	312	354	818
Psychology, total	10,179	12,422	10,297	9,372	11,753	12,429	10,854
Biological aspects	7,005	8,600	7,001	6,369	7,728	8,163	4,414
Social aspects	3,174	3,792	3,259	2,948	3,589	3,804	6,426
Psychological sciences, n.e.c.	0	30	37	55	436	462	14
Physical sciences, total	330,209	347,877	343,661	375,752	385,414	422,176	453,561
Astronomy	77,501	76,554	77,545	76,653	77,541	83,115	104,223
Chemistry	106,828	112,721	109,521	111,705	115,295	122,070	127,916
Physics	145,110	155,826	154,896	136,552	142,106	161,841	183,481
Physical sciences, n.e.c.	770	2,776	1,699	50,842	50,472	55,150	37,941
Environmental sciences, total	315,030	353,432	353,519	375,841	391,056	417,868	433,618
Atmospheric sciences	107,251	120,006	121,050	123,890	128,429	135,562	127,530
Geological sciences	69,464	77,133	77,742	83,463	87,436	92,260	107,652
Oceanography	137,924	154,080	154,504	167,984	170,862	185,308	186,026
Environmental sciences, n.e.c.	391	2,213	223	504	4,329	4,738	12,410
Math & computer sciences, total	78,264	99,713	107,603	123,878	122,368	140,970	172,781
Mathematics	46,206	56,709	62,454	65,827	70,247	73,669	76,032
Computer sciences	32,058	43,004	44,099	57,736	52,121	67,301	96,749
Math & computer sciences, n.e.c.	0	0	1,050	315	0	0	0
Engineering, total	141,430	163,493	169,599	149,023	155,924	176,968	133,646
Aeronautical	51	639	121	151	270	293	542
Astronautical	0	0	0	0	0	0	0
Chemical	24,278	26,382	27,414	28,055	29,877	32,765	26,968
Civil	30,610	31,592	27,001	26,591	27,605	30,198	26,830
Electrical	34,715	33,276	35,843	36,782	42,384	52,398	39,998
Mechanical	17,942	19,844	21,799	22,095	24,318	26,550	22,843
Metallurgy & materials	24,705	39,387	40,507	20,807	21,053	23,389	5,257
Engineering, n.e.c.	9,129	12,373	16,914	14,542	10,417	11,375	11,208
Social sciences, total	32,355	35,397	32,575	31,117	33,024	35,249	39,239
Anthropology	7,313	7,150	7,512	7,781	7,900	8,404	8,175
Economics	8,974	10,464	9,106	7,551	8,848	9,443	10,468
Political science	2,605	3,193	1,812	3,055	3,091	3,294	3,065
Sociology	3,510	3,843	3,934	2,921	2,683	2,858	3,462
Social sciences, n.e.c.	9,953	10,747	10,211	9,809	10,502	11,250	14,069
History	NA	NA	NA	NA	NA	NA	NA
Linguistics	NA	NA	NA	NA	NA	NA	NA
Other social sciences	NA	NA	NA	NA	NA	NA	NA
Other sciences, n.e.c.	10,866	21,592	29,420	56,051	80,965	89,159	90,007

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

**Table 2L. Federal obligations for basic research, by detailed field of science
& engineering: National Science Foundation,
fiscal years 1970-2003**

[Dollars in thousands]

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Field of science & engineering	1991	1992	1993	1994	1995	1996	1997
Total, all fields	1,676,205	1,741,472	1,743,770	1,870,669	1,973,264	2,007,355	2,056,713
Life sciences, total	260,299	282,897	286,125	296,940	323,987	306,815	320,123
Biol & agricultural, total	259,041	282,659	279,204	295,427	316,311	306,802	320,123
Biol (excl environmental)	180,586	210,000	205,604	219,279	234,838	230,352	239,185
Environmental biology	78,455	72,659	73,600	76,148	81,473	76,450	80,938
Agricultural	0	0	0	0	0	0	0
Medical sciences, total	0	0	0	0	0	0	0
Clinical medical	NA	NA	NA	NA	NA	NA	NA
Other medical	NA	NA	NA	NA	NA	NA	NA
Life sciences, n.e.c.	1,258	238	6,921	1,513	7,676	13	0
Psychology, total	1,691	10,177	9,629	10,673	11,847	10,276	5,181
Biological aspects	649	5,232	5,002	3,711	2,596	3	0
Social aspects	307	4,015	4,207	4,838	6,877	2,099	5,181
Psychological sciences, n.e.c.	735	930	420	2,124	2,374	8,174	0
Physical sciences, total	456,039	427,911	454,598	448,525	467,914	413,177	464,095
Astronomy	101,623	115,483	109,518	121,969	126,196	119,934	115,199
Chemistry	147,167	127,415	118,061	138,975	139,774	140,606	124,245
Physics	195,852	179,687	160,066	162,511	167,785	135,613	125,728
Physical sciences, n.e.c.	11,397	5,326	66,953	25,070	34,159	17,024	98,923
Environmental sciences, total	388,779	409,254	398,663	427,590	431,320	452,746	440,269
Atmospheric sciences	120,911	126,577	128,561	138,362	149,182	143,950	130,275
Geological sciences	131,245	137,668	134,632	148,423	146,187	91,157	96,863
Oceanography	74,634	78,996	76,727	77,549	77,684	197,894	197,367
Environmental sciences, n.e.c.	61,989	66,013	58,743	63,256	58,267	19,745	15,764
Math & computer sciences, total	177,349	191,290	200,377	214,412	200,249	321,818	318,125
Mathematics	78,538	87,655	81,583	79,662	84,002	83,700	91,629
Computer sciences	98,511	103,635	118,484	130,940	115,550	237,831	226,496
Math & computer sciences, n.e.c.	300	0	310	3,810	697	287	0
Engineering, total	206,371	167,387	180,912	274,811	346,090	336,906	328,360
Aeronautical	659	2,861	3,218	2,288	0	0	0
Astronautical	0	0	0	0	0	0	0
Chemical	37,241	33,773	27,449	24,983	31,367	27,332	28,925
Civil	25,607	25,732	24,553	25,175	36,320	32,154	28,652
Electrical	45,880	42,200	51,319	48,522	45,576	38,142	41,591
Mechanical	33,613	26,471	26,944	26,793	43,691	5,104	6,253
Metallurgy & materials	24,883	18,526	17,739	109,145	133,547	122,328	103,623
Engineering, n.e.c.	38,488	17,824	29,690	37,905	55,589	111,846	119,316
Social sciences, total	33,097	45,531	47,690	56,684	67,524	74,207	77,101
Anthropology	6,739	7,300	6,830	6,072	11,715	9,232	11,120
Economics	11,014	14,896	14,255	9,564	12,423	9,934	16,606
Political science	3,780	4,036	4,008	4,650	6,716	4,633	4,894
Sociology	3,027	5,505	4,649	5,331	6,754	2,788	4,562
Social sciences, n.e.c.	8,537	13,794	17,948	31,067	29,916	47,620	39,919
History	NA	NA	NA	NA	NA	NA	NA
Linguistics	NA	NA	NA	NA	NA	NA	NA
Other social sciences	NA	NA	NA	NA	NA	NA	NA
Other sciences, n.e.c.	152,580	207,025	165,776	141,034	124,333	91,410	103,459

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

Table 2L. Federal obligations for basic research, by detailed field of science & engineering: National Science Foundation, fiscal years 1970-2003

[Dollars in thousands]

Field of science & engineering	1998	1999	2000	2001	Preliminary	
					2002	2003
Total, all fields	2,118,677	2,359,503	2,540,012	2,862,558	3,058,035	3,204,940
Life sciences, total	351,533	393,556	439,261	446,776	476,619	499,515
Biol & agricultural, total	351,533	393,556	439,261	446,776	NA	NA
Biol (excl environmental)	276,084	296,663	333,817	343,578	NA	NA
Environmental biology	75,449	96,893	105,444	103,198	NA	NA
Agricultural	0	0	0	0	NA	NA
Medical sciences, total	0	0	0	0	NA	NA
Clinical medical	NA	NA	NA	NA	NA	NA
Other medical	NA	NA	NA	NA	NA	NA
Life sciences, n.e.c.	0	0	0	0	NA	NA
Psychology, total	5,877	4,249	5,235	4,092	4,365	4,575
Biological aspects	0	0	0	0	NA	NA
Social aspects	5,877	4,249	5,235	4,092	NA	NA
Psychological sciences, n.e.c.	0	0	0	0	NA	NA
Physical sciences, total	452,653	512,215	516,430	556,404	593,571	622,085
Astronomy	113,234	124,395	128,027	150,508	NA	NA
Chemistry	118,920	135,974	134,112	147,682	NA	NA
Physics	124,537	169,091	163,566	160,753	NA	NA
Physical sciences, n.e.c.	95,962	82,755	90,725	97,461	NA	NA
Environmental sciences, total	432,541	494,435	465,718	522,766	557,686	584,477
Atmospheric sciences	134,796	158,492	150,554	162,446	NA	NA
Geological sciences	94,560	109,467	114,964	127,624	NA	NA
Oceanography	186,851	213,274	184,099	214,705	NA	NA
Environmental sciences, n.e.c.	16,334	13,202	16,101	17,991	NA	NA
Math & computer sciences, total	353,957	380,382	449,156	555,330	592,424	620,884
Mathematics	96,055	90,154	110,051	118,911	NA	NA
Computer sciences	257,902	290,228	339,105	436,419	NA	NA
Math & computer sciences, n.e.c.	0	0	0	0	NA	NA
Engineering, total	343,074	356,277	385,415	427,777	456,351	478,274
Aeronautical	0	0	0	0	NA	NA
Astronautical	0	0	0	0	NA	NA
Chemical	31,456	33,158	35,363	39,711	NA	NA
Civil	23,258	31,919	33,731	37,595	NA	NA
Electrical	39,797	38,187	36,435	45,103	NA	NA
Mechanical	7,157	6,135	5,756	5,160	NA	NA
Metallurgy & materials	102,551	109,493	118,026	119,910	NA	NA
Engineering, n.e.c.	138,855	137,385	156,104	180,298	NA	NA
Social sciences, total	75,229	97,125	103,957	106,890	114,029	119,507
Anthropology	10,813	11,308	11,670	11,639	NA	NA
Economics	15,921	15,652	17,314	18,441	NA	NA
Political science	4,624	4,762	5,061	5,721	NA	NA
Sociology	4,361	3,857	4,546	5,018	NA	NA
Social sciences, n.e.c.	39,510	61,546	65,366	66,071	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.	103,813	121,264	174,840	242,523	262,990	275,623

KEY: NA = Not applicable (indicates that the data collected for this table were not recorded at that level in that particular fiscal year, or that the agency or subagency did not exist as such or in that organization in that year)
n.e.c. = Not elsewhere classified

NOTE: The National Science Foundation has made changes to its field of science and engineering coding system, producing changes to some of the fiscal year 1996 field of science data (such as mechanical engineering). These changes are reflected in the historical data tables.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Federal Funds for Research and Development: Fiscal Years 2001, 2002, and 2003