

Table 1L. Federal obligations for total research, by detailed field of science & engineering: National Science Foundation, fiscal years 1970-2003

[Dollars in thousands]

Page 1 of 5

Field of science & engineering	1970	1971	1972	1973	1974	1975	1976
Total, all fields	274,789	318,286	427,270	463,953	520,256	570,015	595,776
Life sciences, total	60,119	63,322	78,143	80,253	90,727	97,799	104,352
Biol & agricultural, total	54,423	60,403	66,647	70,782	90,499	97,799	104,205
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	5,330	0	7	25	228	0	0
Clinical medical	4,120	0	7	25	200	0	0
Other medical	1,210	0	0	0	28	0	0
Life sciences, n.e.c.	366	2,919	11,489	9,446	0	0	147
Psychology, total	7,720	5,429	7,051	6,441	6,535	9,112	8,249
Biological aspects	4,300	3,123	4,221	4,007	4,348	6,612	5,697
Social aspects	1,460	2,306	2,656	2,434	2,187	2,500	2,552
Psychological sciences, n.e.c.	1,960	0	174	0	0	0	0
Physical sciences, total	76,276	79,796	119,086	117,893	124,172	148,947	148,044
Astronomy	19,922	23,236	25,608	27,080	30,283	29,093	31,754
Chemistry	22,241	23,131	30,951	31,140	36,790	49,792	43,080
Physics	33,785	33,429	50,065	53,889	57,099	70,062	73,210
Physical sciences, n.e.c.	328	0	12,462	5,784	0	0	0
Environmental sciences, total	59,270	77,883	102,347	101,296	124,919	135,736	130,078
Atmospheric sciences	25,398	32,979	37,951	43,669	50,769	51,734	50,955
Geological sciences	11,770	10,128	12,107	19,836	35,738	40,433	37,576
Oceanography	21,055	32,776	45,441	24,564	38,412	43,557	41,233
Environmental sciences, n.e.c.	1,047	2,000	6,848	13,227	0	12	314
Math & computer sciences, total	17,161	26,467	26,953	22,439	23,689	28,825	34,691
Mathematics	NA	NA	NA	NA	NA	NA	18,487
Computer sciences	NA	NA	NA	NA	NA	NA	16,029
Math & computer sciences, n.e.c.	NA	NA	NA	NA	NA	NA	175
Engineering, total	25,927	35,528	50,518	47,189	65,180	87,873	77,418
Aeronautical	520	1,164	1,981	209	684	22	0
Astronautical	0	0	24	0	56	0	0
Chemical	4,640	6,931	5,090	5,494	6,627	11,292	11,494
Civil	3,116	5,108	3,716	6,964	5,841	4,669	4,989
Electrical	5,983	6,980	9,484	11,226	10,432	11,703	15,503
Mechanical	5,299	5,563	5,136	8,455	7,886	7,355	7,674
Metallurgy & materials	3,070	7,636	9,246	10,296	16,394	18,816	17,467
Engineering, n.e.c.	3,299	2,146	15,841	4,545	17,260	34,016	20,291
Social sciences, total	19,582	26,453	36,464	36,876	35,531	40,319	56,321
Anthropology	3,227	3,999	4,118	3,886	3,913	3,659	3,489
Economics	5,133	5,981	6,672	7,066	6,270	7,796	7,884
Political science	2,505	1,176	1,751	1,640	1,500	1,547	2,326
Sociology	1,711	2,861	3,319	2,883	2,367	2,777	2,967
Social sciences, n.e.c.	7,006	12,436	20,604	21,401	21,481	24,540	39,655
History	924	733	876	898	920	929	NA
Linguistics	1,296	137	94	1,253	1,300	1,500	NA
Other social sciences	4,786	11,566	19,634	19,250	19,261	22,111	NA
Other sciences, n.e.c.	8,734	3,408	6,708	51,566	49,503	21,404	36,623

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

Table 1L. Federal obligations for total research, by detailed field of science & engineering: National Science Foundation, fiscal years 1970-2003

[Dollars in thousands]

Page 2 of 5

Field of science & engineering	1977	1978	1979	1980	1981	1982	1983
Total, all fields	688,300	743,502	800,025	873,687	955,464	973,165	1,061,990
Life sciences, total	113,322	124,885	137,927	156,851	165,992	173,259	194,363
Biol & agricultural, total	112,120	120,016	131,426	156,514	165,685	173,097	194,363
Biol (excl environmental)	NA	82,132	84,093	111,339	119,162	122,692	137,188
Environmental biology	NA	37,884	47,333	45,125	46,516	49,752	56,778
Agricultural	NA	0	0	50	7	653	397
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.	80	4,869	6,501	337	307	162	0
Psychology, total	11,381	9,209	12,453	13,496	11,332	8,271	8,513
Biological aspects	8,368	5,838	8,592	8,506	7,517	5,792	5,863
Social aspects	3,013	3,371	3,821	4,990	3,755	2,282	2,639
Psychological sciences, n.e.c.	0	0	40	0	60	197	11
Physical sciences, total	184,160	195,672	205,781	203,256	257,038	272,607	292,902
Astronomy	41,585	46,614	51,064	34,512	59,146	65,411	64,638
Chemistry	57,656	60,257	65,601	70,724	82,388	86,127	92,403
Physics	84,886	88,782	88,941	97,370	114,453	120,907	135,053
Physical sciences, n.e.c.	33	19	175	650	1,051	162	808
Environmental sciences, total	182,360	202,303	220,206	256,244	261,102	269,814	294,670
Atmospheric sciences	64,200	71,228	79,208	76,893	86,688	85,376	96,198
Geological sciences	54,476	62,104	66,619	92,231	69,651	72,522	66,860
Oceanography	63,662	68,673	73,731	86,125	96,325	98,709	131,527
Environmental sciences, n.e.c.	22	298	648	995	8,438	13,207	85
Math & computer sciences, total	42,264	44,510	45,149	52,678	61,605	66,237	72,204
Mathematics	21,873	23,256	24,500	27,372	31,554	33,763	37,834
Computer sciences	20,391	21,254	20,649	25,237	27,736	32,474	34,370
Math & computer sciences, n.e.c.	0	0	0	69	2,315	0	0
Engineering, total	86,135	89,270	96,539	106,796	121,024	129,867	142,546
Aeronautical	708	707	927	1,048	0	497	110
Astronautical	0	0	0	0	153	184	124
Chemical	10,059	9,847	14,307	15,014	19,148	18,791	21,490
Civil	8,248	8,026	22,063	27,381	28,143	28,620	30,339
Electrical	20,144	20,494	18,928	21,692	27,986	30,347	34,420
Mechanical	7,390	7,391	11,746	13,743	14,276	15,966	19,099
Metallurgy & materials	19,264	16,102	18,753	22,617	24,216	26,353	27,253
Engineering, n.e.c.	20,322	26,703	9,815	5,301	7,102	9,109	9,711
Social sciences, total	54,016	55,124	51,605	47,491	40,341	31,636	33,937
Anthropology	3,924	5,948	6,659	6,874	6,313	5,897	6,282
Economics	10,204	11,865	12,448	15,513	12,534	9,807	10,114
Political science	2,468	3,384	3,565	3,869	3,385	2,775	2,841
Sociology	3,810	3,958	3,661	5,130	4,028	3,369	3,151
Social sciences, n.e.c.	33,610	29,969	25,272	16,105	14,081	9,788	11,549
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.	14,662	22,529	30,365	36,875	37,030	21,474	22,855

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

Table 1L. Federal obligations for total research, by detailed field of science & engineering: National Science Foundation, fiscal years 1970-2003

[Dollars in thousands]

Page 3 of 5

Field of science & engineering	1984	1985	1986	1987	1988	1989	1990
Total, all fields	1,202,820	1,345,583	1,353,335	1,470,505	1,532,773	1,670,396	1,689,535
Life sciences, total	227,756	241,114	239,674	264,248	262,175	277,434	262,470
Biol & agricultural, total	227,512	235,520	236,334	259,957	261,826	277,039	261,636
Biol (excl environmental)	162,214	173,009	173,492	187,540	187,660	198,912	185,907
Environmental biology	64,431	62,511	62,842	72,417	74,166	78,127	75,729
Agricultural	867	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	5,594	3,340	4,291	349	395	834
Psychology, total	10,364	12,771	10,719	9,718	12,051	12,742	10,927
Biological aspects	7,135	8,772	7,064	6,605	7,789	8,231	4,448
Social aspects	3,228	3,969	3,490	2,987	3,606	3,822	6,465
Psychological sciences, n.e.c.	1	30	165	126	656	689	14
Physical sciences, total	341,151	359,628	355,845	390,479	397,106	433,808	468,670
Astronomy	77,534	76,554	77,808	76,789	77,638	83,373	104,613
Chemistry	109,962	115,614	112,574	115,259	120,594	127,354	133,218
Physics	152,866	164,684	163,420	144,928	147,657	167,183	190,074
Physical sciences, n.e.c.	789	2,776	2,043	53,503	51,217	55,898	40,765
Environmental sciences, total	320,106	360,798	359,985	380,816	396,246	423,234	438,442
Atmospheric sciences	108,308	121,402	122,671	126,038	130,449	136,981	128,349
Geological sciences	72,169	79,860	80,562	85,099	89,436	93,962	108,487
Oceanography	139,046	156,382	156,416	168,936	171,642	187,177	188,292
Environmental sciences, n.e.c.	583	3,154	336	743	4,719	5,114	13,314
Math & computer sciences, total	79,938	101,905	109,701	126,874	125,786	145,244	186,924
Mathematics	46,506	57,451	63,463	66,475	70,485	73,911	77,832
Computer sciences	33,006	44,432	45,188	60,084	55,301	71,333	109,092
Math & computer sciences, n.e.c.	426	22	1,050	315	0	0	0
Engineering, total	164,850	193,339	199,085	191,656	206,815	232,042	171,579
Aeronautical	100	695	161	227	359	391	649
Astronautical	0	0	0	0	0	0	0
Chemical	27,655	32,606	33,372	37,293	38,875	42,454	35,936
Civil	37,509	37,985	32,328	34,390	33,502	36,595	30,871
Electrical	40,674	40,423	44,647	50,132	57,604	69,152	49,427
Mechanical	21,425	24,413	26,105	28,785	32,914	35,809	29,582
Metallurgy & materials	27,326	42,692	43,465	22,925	25,641	28,099	7,841
Engineering, n.e.c.	10,161	14,525	19,007	17,904	17,920	19,542	17,273
Social sciences, total	37,416	43,158	38,213	39,305	40,802	43,265	49,225
Anthropology	7,499	7,656	8,023	8,362	8,230	8,529	8,197
Economics	10,845	13,902	11,233	11,977	12,892	13,843	13,700
Political science	3,096	3,767	2,290	3,413	3,455	3,668	3,915
Sociology	4,258	4,948	4,701	3,755	3,688	3,899	4,653
Social sciences, n.e.c.	11,718	12,885	11,966	11,798	12,537	13,326	18,760
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.	21,239	32,870	40,113	67,409	91,792	102,627	101,298

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

Table 1L. Federal obligations for total research, by detailed field of science & engineering: National Science Foundation, fiscal years 1970-2003

[Dollars in thousands]

Page 4 of 5

Field of science & engineering	1991	1992	1993	1994	1995	1996	1997
Total, all fields	1,785,223	1,868,397	1,881,889	2,040,358	2,149,277	2,188,313	2,248,520
Life sciences, total	269,308	297,630	299,739	314,211	341,040	316,740	330,477
Biol & agricultural, total	268,009	297,376	291,163	311,962	331,123	316,703	330,477
Biol (excl environmental)	185,319	218,500	214,383	231,418	241,535	232,987	240,374
Environmental biology	82,690	78,876	76,780	80,544	89,588	83,716	90,103
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.	1,299	254	8,576	2,249	9,917	37	0
Psychology, total	1,913	12,343	14,285	15,758	15,315	14,812	5,234
Biological aspects	672	5,465	5,231	3,719	3,226	222	0
Social aspects	397	4,247	4,390	5,392	7,961	3,800	5,234
Psychological sciences, n.e.c.	844	2,631	4,664	6,647	4,128	10,790	0
Physical sciences, total	467,150	444,682	469,074	466,325	485,798	426,013	477,926
Astronomy	101,712	116,126	109,711	122,065	126,225	119,946	115,212
Chemistry	151,683	135,410	121,502	149,108	149,797	148,188	128,827
Physics	201,708	187,136	162,242	167,698	172,094	138,457	128,336
Physical sciences, n.e.c.	12,047	6,010	75,619	27,454	37,682	19,422	105,551
Environmental sciences, total	393,317	414,835	403,539	435,260	437,742	457,887	445,719
Atmospheric sciences	121,505	127,604	128,820	139,290	150,019	144,174	130,323
Geological sciences	133,561	140,324	136,987	151,711	149,571	93,913	99,843
Oceanography	75,535	79,711	77,932	79,147	78,974	199,689	199,755
Environmental sciences, n.e.c.	62,716	67,196	59,800	65,112	59,178	20,111	15,798
Math & computer sciences, total	186,281	213,392	215,675	238,584	216,856	341,567	333,291
Mathematics	79,755	89,560	82,965	81,712	87,065	84,014	91,813
Computer sciences	106,226	123,165	127,008	145,512	124,089	253,273	241,478
Math & computer sciences, n.e.c.	300	667	5,702	11,360	5,702	4,280	0
Engineering, total	262,669	217,062	242,796	345,353	432,432	442,559	442,504
Aeronautical	822	2,991	3,315	3,333	0	0	0
Astronautical	0	0	0	0	0	0	0
Chemical	49,178	45,540	38,728	33,611	46,142	37,465	38,846
Civil	30,814	30,685	28,750	30,635	41,353	37,501	37,733
Electrical	57,867	53,291	59,977	66,500	57,014	39,062	42,232
Mechanical	40,212	33,882	34,745	36,338	56,887	6,046	7,363
Metallurgy & materials	28,896	21,942	21,342	118,519	149,843	124,828	106,838
Engineering, n.e.c.	54,880	28,731	55,939	56,417	81,193	197,657	209,492
Social sciences, total	40,366	54,145	56,791	65,714	79,478	84,489	87,997
Anthropology	7,522	7,947	7,069	6,885	12,737	9,821	11,708
Economics	13,317	18,175	17,628	11,567	15,306	11,667	19,803
Political science	4,247	4,601	4,591	5,117	7,479	5,036	5,481
Sociology	4,385	7,024	6,117	6,773	8,881	3,131	5,723
Social sciences, n.e.c.	10,895	16,398	21,386	35,372	35,075	54,834	45,282
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.	164,219	214,308	179,990	159,153	140,616	104,246	125,372

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

Table 1L. Federal obligations for total 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	2,289,337	2,506,031	2,725,512	3,043,484	3,249,691	3,403,614
Life sciences, total	366,845	410,672	452,800	459,120	489,696	513,071
Biol & agricultural, total	366,845	410,672	452,800	459,120	NA	NA
Biol (excl environmental)	281,965	302,181	336,263	345,659	NA	NA
Environmental biology	84,880	108,491	116,537	113,461	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	5,895	4,253	5,256	4,130	4,406	4,617
Biological aspects	0	0	0	0	NA	NA
Social aspects	5,895	4,253	5,256	4,130	NA	NA
Psychological sciences, n.e.c.	0	0	0	0	NA	NA
Physical sciences, total	467,920	527,453	536,586	576,249	614,593	643,877
Astronomy	113,248	124,395	130,702	153,919	NA	NA
Chemistry	124,019	143,515	142,409	153,541	NA	NA
Physics	129,376	172,533	168,221	165,561	NA	NA
Physical sciences, n.e.c.	101,277	87,010	95,254	103,228	NA	NA
Environmental sciences, total	436,868	494,640	467,427	525,898	561,003	587,916
Atmospheric sciences	134,858	158,494	150,762	162,674	NA	NA
Geological sciences	97,402	109,500	115,286	127,980	NA	NA
Oceanography	187,916	213,379	184,586	216,057	NA	NA
Environmental sciences, n.e.c.	16,692	13,267	16,793	19,187	NA	NA
Math & computer sciences, total	363,084	387,223	466,148	569,371	607,298	636,302
Mathematics	96,255	90,163	110,136	118,994	NA	NA
Computer sciences	266,829	297,060	356,012	450,377	NA	NA
Math & computer sciences, n.e.c.	0	0	0	0	NA	NA
Engineering, total	443,631	450,316	492,091	535,873	570,858	596,974
Aeronautical	0	0	0	0	NA	NA
Astronautical	0	0	0	0	NA	NA
Chemical	40,138	41,467	43,973	48,855	NA	NA
Civil	38,266	39,453	41,232	45,319	NA	NA
Electrical	40,247	46,832	49,284	57,106	NA	NA
Mechanical	8,183	7,100	6,897	6,089	NA	NA
Metallurgy & materials	106,453	111,884	119,844	121,943	NA	NA
Engineering, n.e.c.	210,344	203,580	230,861	256,561	NA	NA
Social sciences, total	85,028	109,337	116,857	120,293	128,226	134,224
Anthropology	11,476	11,574	12,317	12,611	NA	NA
Economics	19,429	19,190	21,255	22,770	NA	NA
Political science	5,174	5,325	5,592	6,420	NA	NA
Sociology	5,385	4,863	5,660	6,019	NA	NA
Social sciences, n.e.c.	43,564	68,385	72,033	72,473	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.	120,066	122,137	188,347	252,550	273,611	286,633

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