

**Table 2K. Federal obligations for basic research, by detailed field of science
& engineering: National Aeronautics & Space Administration,
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	357,530	327,301	331,611	350,279	305,857	309,335	293,209
Life sciences, total	28,348	24,090	27,095	30,009	15,731	7,005	8,902
Biol & agricultural, total	26,764	23,854	25,028	27,816	13,961	4,833	7,598
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	1,584	236	1,582	1,720	1,296	1,840	952
Clinical medical	1,584	0	0	0	239	401	272
Other medical	0	236	1,582	1,720	1,057	1,439	680
Life sciences, n.e.c.	0	0	485	473	474	332	352
Psychology, total	1,602	285	1,854	1,801	1,876	13,283	960
Biological aspects	1,602	285	1,126	755	265	1,491	0
Social aspects	0	0	0	100	1,182	3,260	133
Psychological sciences, n.e.c.	0	0	728	946	429	8,532	827
Physical sciences, total	147,535	149,892	176,055	160,235	159,726	197,950	182,856
Astronomy	95,612	88,537	88,952	81,070	89,740	119,710	114,288
Chemistry	10,263	6,868	15,514	18,013	7,980	6,246	4,733
Physics	41,660	54,487	71,589	58,515	60,762	67,871	60,249
Physical sciences, n.e.c.	0	0	0	2,637	1,244	4,123	3,586
Environmental sciences, total	109,564	104,820	82,512	100,654	88,708	52,011	60,393
Atmospheric sciences	65,630	63,743	50,910	67,045	64,614	36,536	37,484
Geological sciences	43,799	40,951	29,233	29,093	17,856	10,197	17,433
Oceanography	135	126	175	631	1,332	2,105	2,337
Environmental sciences, n.e.c.	0	0	2,194	3,885	4,906	3,173	3,139
Math & computer sciences, total	1,318	723	0	0	411	561	3,172
Mathematics	NA	NA	NA	NA	NA	NA	0
Computer sciences	NA	NA	NA	NA	NA	NA	0
Math & computer sciences, n.e.c.	NA	NA	NA	NA	NA	NA	3,172
Engineering, total	68,473	46,667	44,095	56,984	39,405	37,154	35,759
Aeronautical	32,267	23,645	21,591	31,173	21,185	19,411	19,587
Astronautical	6,059	3,522	493	846	5,430	5,583	6,630
Chemical	520	412	971	1,420	61	70	977
Civil	25	0	0	0	112	57	96
Electrical	8,370	5,285	9,629	10,484	3,844	3,615	2,112
Mechanical	12,254	8,490	4,386	6,282	1,529	591	890
Metallurgy & materials	7,630	5,106	7,025	6,779	6,491	6,661	4,454
Engineering, n.e.c.	1,348	207	0	0	753	1,166	1,013
Social sciences, total	690	0	0	0	0	65	39
Anthropology	0	0	0	0	0	0	0
Economics	34	0	0	0	0	3	1
Political science	0	0	0	0	0	24	38
Sociology	0	0	0	0	0	0	0
Social sciences, n.e.c.	656	0	0	0	0	38	0
History	0	0	0	0	0	25	NA
Linguistics	0	0	0	0	0	0	NA
Other social sciences	656	0	0	0	0	13	NA
Other sciences, n.e.c.	0	824	0	596	0	1,306	1,128

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

**Table 2K. Federal obligations for basic research, by detailed field of science
& engineering: National Aeronautics & Space Administration,
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	413,774	479,729	512,847	559,113	531,122	535,733	617,033
Life sciences, total	16,195	17,678	15,029	13,742	10,409	14,675	18,396
Biol & agricultural, total	13,569	17,678	11,815	10,243	7,034	11,027	12,831
Biol (excl environmental)	NA	17,678	11,471	9,823	6,191	9,309	10,691
Environmental biology	NA	0	344	340	494	831	1,315
Agricultural	NA	0	0	80	349	887	825
Medical sciences, total	1,785	0	1,244	1,317	1,238	1,402	1,558
Clinical medical	268	NA	NA	NA	NA	NA	NA
Other medical	1,517	NA	NA	NA	NA	NA	NA
Life sciences, n.e.c.	841	0	1,970	2,182	2,137	2,246	4,007
Psychology, total	1,319	439	484	649	864	1,051	1,814
Biological aspects	806	108	86	97	128	226	231
Social aspects	90	82	90	105	99	210	333
Psychological sciences, n.e.c.	423	249	308	447	637	615	1,250
Physical sciences, total	239,592	243,099	292,495	309,019	268,874	280,617	329,511
Astronomy	138,107	147,106	210,836	225,110	193,249	181,649	264,042
Chemistry	10,331	8,936	5,281	5,243	6,615	5,233	7,710
Physics	85,217	81,265	69,584	73,309	64,916	89,233	52,534
Physical sciences, n.e.c.	5,937	5,792	6,794	5,357	4,094	4,502	5,225
Environmental sciences, total	103,968	126,690	103,068	119,070	118,196	87,107	92,984
Atmospheric sciences	65,721	71,623	71,207	79,856	62,672	50,066	47,564
Geological sciences	30,880	31,224	26,533	31,391	48,480	31,390	28,511
Oceanography	3,612	11,138	3,333	3,851	3,602	2,519	3,368
Environmental sciences, n.e.c.	3,755	12,705	1,995	3,972	3,442	3,132	13,541
Math & computer sciences, total	2,494	1,973	1,062	1,847	1,934	2,496	9,055
Mathematics	2,223	675	914	1,163	776	813	757
Computer sciences	271	1,298	148	579	423	1,006	7,350
Math & computer sciences, n.e.c.	0	0	0	105	735	677	948
Engineering, total	48,803	88,777	98,902	113,294	128,682	148,880	164,332
Aeronautical	33,266	64,048	66,174	75,590	84,825	91,736	105,063
Astronautical	7,152	12,088	25,167	27,184	32,249	40,380	39,311
Chemical	885	2,302	62	173	253	348	935
Civil	402	10	55	55	112	320	542
Electrical	1,783	2,272	1,694	1,900	2,281	5,464	5,788
Mechanical	365	2,189	934	1,448	1,794	2,496	3,180
Metallurgy & materials	3,843	4,601	3,186	5,080	5,255	5,853	7,208
Engineering, n.e.c.	1,107	1,267	1,630	1,864	1,913	2,283	2,305
Social sciences, total	82	5	134	187	199	50	296
Anthropology	0	0	0	0	0	50	0
Economics	82	0	0	22	0	0	0
Political science	0	0	0	0	0	0	0
Sociology	0	0	0	25	0	0	0
Social sciences, n.e.c.	0	5	134	140	199	0	296
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.	1,321	1,068	1,673	1,305	1,964	857	645

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

**Table 2K. Federal obligations for basic research, by detailed field of science
& engineering: National Aeronautics & Space Administration,
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	754,500	750,900	916,700	1,013,717	1,112,713	1,417,410	1,636,926
Life sciences, total	17,931	18,486	22,839	25,354	27,871	38,982	35,996
Biol & agricultural, total	11,935	11,570	17,689	19,998	20,930	30,249	26,048
Biol (excl environmental)	9,526	9,053	14,776	16,988	19,108	27,839	22,960
Environmental biology	1,582	1,701	2,337	2,266	1,130	2,057	2,504
Agricultural	827	816	576	744	692	353	584
Medical sciences, total	1,664	2,509	2,134	2,509	3,345	5,058	5,870
Clinical medical	NA	NA	NA	NA	NA	NA	NA
Other medical	NA	NA	NA	NA	NA	NA	NA
Life sciences, n.e.c.	4,332	4,407	3,016	2,847	3,596	3,675	4,078
Psychology, total	1,397	1,975	1,863	2,167	2,270	3,054	3,673
Biological aspects	242	227	243	264	273	84	85
Social aspects	297	353	236	270	297	806	910
Psychological sciences, n.e.c.	858	1,395	1,384	1,633	1,700	2,164	2,678
Physical sciences, total	338,671	377,936	471,903	549,138	573,538	719,127	806,121
Astronomy	275,593	297,852	348,849	398,195	353,947	413,713	447,008
Chemistry	5,429	10,173	5,538	7,947	24,181	40,383	27,664
Physics	48,422	60,767	108,484	130,380	184,313	244,652	272,843
Physical sciences, n.e.c.	9,227	9,144	9,032	12,616	11,097	20,379	58,606
Environmental sciences, total	125,482	117,039	147,471	150,658	215,142	223,245	405,863
Atmospheric sciences	49,296	49,040	67,895	77,025	105,439	107,360	210,949
Geological sciences	32,325	47,510	56,556	48,936	44,280	36,697	95,570
Oceanography	11,263	5,243	6,881	8,207	16,703	15,217	25,916
Environmental sciences, n.e.c.	32,598	15,246	16,139	16,490	48,720	63,971	73,428
Math & computer sciences, total	21,791	20,603	21,859	21,590	19,416	24,351	24,679
Mathematics	383	737	721	888	965	886	944
Computer sciences	20,856	18,755	20,004	19,052	17,156	22,221	21,902
Math & computer sciences, n.e.c.	552	1,111	1,134	1,650	1,295	1,244	1,833
Engineering, total	247,748	213,362	248,263	261,223	267,950	399,675	349,976
Aeronautical	186,438	155,285	183,031	195,216	198,693	292,861	230,690
Astronautical	42,964	37,749	45,944	42,377	43,588	53,922	58,314
Chemical	254	553	901	1,330	1,408	4,015	8,510
Civil	0	332	309	113	232	91	151
Electrical	5,230	5,102	4,213	4,839	4,464	6,675	6,397
Mechanical	4,106	4,374	3,120	4,922	5,858	7,404	7,216
Metallurgy & materials	6,085	7,260	6,893	7,071	8,603	27,998	33,054
Engineering, n.e.c.	2,671	2,707	3,852	5,355	5,104	6,709	5,644
Social sciences, total	286	81	83	107	186	215	84
Anthropology	6	0	0	0	0	0	0
Economics	0	0	0	0	0	27	0
Political science	0	0	0	0	25	25	0
Sociology	0	0	0	0	0	0	74
Social sciences, n.e.c.	280	81	83	107	161	163	10
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.	1,194	1,418	2,419	3,480	6,340	8,761	10,534

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

**Table 2K. Federal obligations for basic research, by detailed field of science
& engineering: National Aeronautics & Space Administration,
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	1,705,575	1,738,171	1,800,087	1,963,909	1,978,193	1,980,935	2,094,767
Life sciences, total	45,117	37,176	70,526	76,945	77,504	77,669	81,771
Biol & agricultural, total	33,782	23,712	56,333	61,460	61,906	55,804	59,470
Biol (excl environmental)	29,607	20,763	52,131	56,875	57,289	50,989	54,571
Environmental biology	3,723	2,183	3,682	4,017	4,046	4,180	4,264
Agricultural	452	766	520	568	571	635	635
Medical sciences, total	5,181	5,778	6,615	7,217	7,270	7,521	7,671
Clinical medical	NA	NA	NA	NA	NA	NA	NA
Other medical	NA	NA	NA	NA	NA	NA	NA
Life sciences, n.e.c.	6,154	7,686	7,578	8,268	8,328	14,344	14,630
Psychology, total	2,323	3,904	3,270	3,568	3,594	3,553	3,754
Biological aspects	71	40	62	68	68	71	72
Social aspects	563	478	383	418	421	430	438
Psychological sciences, n.e.c.	1,689	3,386	2,825	3,082	3,105	3,052	3,244
Physical sciences, total	853,527	908,332	802,569	875,610	881,977	883,127	940,254
Astronomy	482,649	576,786	509,778	556,172	560,217	550,302	600,773
Chemistry	30,868	37,065	37,314	40,710	41,006	42,409	43,257
Physics	276,513	251,360	232,482	253,640	255,484	264,211	269,495
Physical sciences, n.e.c.	63,497	43,121	22,995	25,088	25,270	26,205	26,729
Environmental sciences, total	400,397	382,707	576,789	629,281	633,858	634,623	668,335
Atmospheric sciences	212,784	174,268	357,288	389,804	392,639	382,351	411,018
Geological sciences	114,928	142,941	148,744	162,281	163,461	169,008	172,388
Oceanography	25,746	26,858	31,141	33,975	34,222	35,388	36,096
Environmental sciences, n.e.c.	46,939	38,640	39,616	43,221	43,536	47,876	48,833
Math & computer sciences, total	27,574	26,415	21,117	23,039	23,207	23,157	24,408
Mathematics	1,221	4,993	684	746	752	775	791
Computer sciences	24,190	18,636	16,732	18,255	18,388	17,990	19,138
Math & computer sciences, n.e.c.	2,163	2,786	3,701	4,038	4,067	4,392	4,479
Engineering, total	363,401	364,213	305,800	333,629	336,056	336,556	354,450
Aeronautical	228,777	209,302	215,514	235,127	236,838	233,635	249,475
Astronautical	62,541	84,040	51,093	55,743	56,148	58,068	59,229
Chemical	8,620	8,427	2,192	2,391	2,409	2,502	2,552
Civil	340	162	180	196	198	169	169
Electrical	6,754	4,856	5,541	6,045	6,089	6,666	6,799
Mechanical	9,261	8,504	8,996	9,815	9,886	10,217	10,421
Metallurgy & materials	40,137	40,981	13,527	14,758	14,865	15,360	15,667
Engineering, n.e.c.	6,971	7,941	8,757	9,554	9,623	9,939	10,138
Social sciences, total	90	39	331	361	364	406	386
Anthropology	0	0	0	0	0	0	0
Economics	0	0	0	0	0	0	0
Political science	0	0	0	0	0	0	0
Sociology	90	0	212	231	233	260	247
Social sciences, n.e.c.	0	39	119	130	131	146	139
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.	13,146	15,385	19,685	21,476	21,633	21,844	21,409

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

Table 2K. Federal obligations for basic research, by detailed field of science & engineering: National Aeronautics & Space Administration, fiscal years 1970-2003

[Dollars in thousands]

Field of science & engineering	1998	1999	2000	2001	Preliminary	
					2002	2003
Total, all fields	2,023,793	2,040,901	2,305,437	1,765,200	2,129,022	2,459,114
Life sciences, total	94,073	94,868	107,165	82,053	98,964	114,308
Biol & agricultural, total	69,767	70,357	79,584	60,298	NA	NA
Biol (excl environmental)	64,190	64,733	73,123	55,339	NA	NA
Environmental biology	4,962	5,004	5,653	4,328	NA	NA
Agricultural	615	620	808	631	NA	NA
Medical sciences, total	7,824	7,890	8,913	7,379	NA	NA
Clinical medical	NA	NA	NA	NA	NA	NA
Other medical	NA	NA	NA	NA	NA	NA
Life sciences, n.e.c.	16,482	16,621	18,668	14,376	NA	NA
Psychology, total	3,801	3,833	2,522	3,315	3,999	4,619
Biological aspects	65	66	539	417	NA	NA
Social aspects	447	450	1,147	1,424	NA	NA
Psychological sciences, n.e.c.	3,289	3,317	836	1,474	NA	NA
Physical sciences, total	873,384	880,767	994,929	714,734	888,850	1,032,528
Astronomy	549,878	554,526	626,402	453,910	NA	NA
Chemistry	39,854	40,191	45,400	34,762	NA	NA
Physics	256,396	258,563	292,078	200,109	NA	NA
Physical sciences, n.e.c.	27,256	27,487	31,049	25,953	NA	NA
Environmental sciences, total	639,119	644,522	728,063	533,929	642,405	747,872
Atmospheric sciences	391,555	394,865	431,698	300,825	NA	NA
Geological sciences	158,872	160,215	180,982	138,572	NA	NA
Oceanography	37,810	38,130	43,072	32,979	NA	NA
Environmental sciences, n.e.c.	50,882	51,312	72,311	61,553	NA	NA
Math & computer sciences, total	22,326	22,515	25,433	19,473	23,487	27,128
Mathematics	1,135	1,145	1,293	990	NA	NA
Computer sciences	16,622	16,763	18,935	15,997	NA	NA
Math & computer sciences, n.e.c.	4,569	4,607	5,205	2,486	NA	NA
Engineering, total	368,194	371,307	380,172	297,621	357,392	418,670
Aeronautical	263,739	265,969	253,663	211,236	NA	NA
Astronautical	63,109	63,642	71,892	31,519	NA	NA
Chemical	2,341	2,361	2,770	2,179	NA	NA
Civil	90	91	0	160	NA	NA
Electrical	5,918	5,968	6,742	6,588	NA	NA
Mechanical	8,907	8,982	10,147	7,769	NA	NA
Metallurgy & materials	14,737	14,862	16,788	12,854	NA	NA
Engineering, n.e.c.	9,353	9,432	18,170	25,316	NA	NA
Social sciences, total	387	390	977	557	407	471
Anthropology	0	0	0	0	NA	NA
Economics	0	0	0	0	NA	NA
Political science	0	0	0	220	NA	NA
Sociology	250	252	0	218	NA	NA
Social sciences, n.e.c.	137	138	977	119	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.	22,509	22,699	66,176	113,518	113,518	113,518

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

NOTES: During the Vol. 45 (fiscal years 1995-97) survey cycle, the National Aeronautics & Space Administration made a statistical adjustment to the 1994 and 1995 field of science and engineering values to diminish a computational error introduced by its software.

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 2001, 2002, and 2003