

Table 1C. Federal obligations for total research, by detailed field of science & engineering: Department of Commerce, 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	94,114	113,674	143,394	130,155	129,189	144,420	155,713
Life sciences, total	24,157	29,929	42,122	38,773	30,155	40,980	41,920
Biol & agricultural, total	24,157	29,929	42,052	38,773	30,155	40,980	41,920
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	0	0	70	0	0	0	0
Clinical medical	0	0	0	0	0	0	0
Other medical	0	0	70	0	0	0	0
Life sciences, n.e.c.	0	0	0	0	0	0	0
Psychology, total	1,096	1,291	690	125	151	151	209
Biological aspects	529	656	97	0	0	0	0
Social aspects	567	635	593	125	151	151	209
Psychological sciences, n.e.c.	0	0	0	0	0	0	0
Physical sciences, total	17,156	19,179	19,973	22,458	23,169	20,554	22,811
Astronomy	823	755	660	682	677	748	666
Chemistry	7,402	7,150	8,094	9,700	9,318	6,243	7,137
Physics	8,598	11,150	10,935	12,076	13,174	13,563	15,008
Physical sciences, n.e.c.	333	124	284	0	0	0	0
Environmental sciences, total	22,090	28,159	38,804	39,034	46,886	53,010	56,872
Atmospheric sciences	15,109	18,715	25,808	22,648	29,867	34,916	36,865
Geological sciences	4,545	6,420	8,844	1,946	917	1,355	1,339
Oceanography	2,436	3,024	4,152	14,440	16,102	16,739	18,668
Environmental sciences, n.e.c.	0	0	0	0	0	0	0
Math & computer sciences, total	1,347	901	1,286	1,365	1,293	2,314	3,900
Mathematics	NA	NA	NA	NA	NA	NA	1,870
Computer sciences	NA	NA	NA	NA	NA	NA	2,030
Math & computer sciences, n.e.c.	NA	NA	NA	NA	NA	NA	0
Engineering, total	15,689	26,145	34,617	22,858	22,397	18,941	18,117
Aeronautical	125	0	0	0	0	0	0
Astronautical	0	0	0	0	0	0	0
Chemical	956	1,185	1,625	0	80	80	62
Civil	4,064	11,808	9,982	5,024	5,987	5,686	5,599
Electrical	4,919	4,017	10,700	4,516	3,854	3,025	3,268
Mechanical	1,080	1,615	2,968	1,140	764	923	872
Metallurgy & materials	1,928	1,915	2,608	1,935	1,950	1,979	2,124
Engineering, n.e.c.	2,617	5,605	6,734	10,243	9,762	7,248	6,192
Social sciences, total	10,826	4,836	5,799	5,542	5,138	7,750	8,634
Anthropology	0	0	0	0	0	0	0
Economics	10,430	4,314	5,350	5,416	4,976	7,593	8,414
Political science	0	0	0	0	0	0	0
Sociology	396	522	449	126	162	157	220
Social sciences, n.e.c.	0	0	0	0	0	0	0
History	0	0	0	0	0	0	NA
Linguistics	0	0	0	0	0	0	NA
Other social sciences	0	0	0	0	0	0	NA
Other sciences, n.e.c.	1,753	3,234	103	0	0	720	3,250

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

Table 1C. Federal obligations for total research, by detailed field of science & engineering: Department of Commerce, 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	176,129	192,775	219,458	254,433	249,375	276,055	284,841
Life sciences, total	49,950	48,347	53,899	53,592	55,984	58,827	12,702
Biol & agricultural, total	49,790	48,347	53,899	53,592	55,984	58,659	11,079
Biol (excl environmental)	NA	0	0	0	153	134	550
Environmental biology	NA	0	0	0	531	1,544	2,039
Agricultural	NA	48,347	53,899	53,592	55,300	56,981	8,490
Medical sciences, total	160	0	0	0	0	168	1,623
Clinical medical	0	NA	NA	NA	NA	NA	NA
Other medical	160	NA	NA	NA	NA	NA	NA
Life sciences, n.e.c.	0	0	0	0	0	0	0
Psychology, total	203	263	232	223	303	192	290
Biological aspects	0	0	0	0	0	0	72
Social aspects	203	263	232	223	303	192	218
Psychological sciences, n.e.c.	0	0	0	0	0	0	0
Physical sciences, total	27,799	32,507	35,519	38,698	43,112	46,330	49,623
Astronomy	530	1,458	634	645	473	540	655
Chemistry	9,545	8,198	8,944	9,492	11,803	13,041	13,975
Physics	17,724	22,851	25,889	28,486	30,836	32,749	34,993
Physical sciences, n.e.c.	0	0	52	75	0	0	0
Environmental sciences, total	61,652	71,182	79,617	105,590	103,654	119,290	152,866
Atmospheric sciences	37,478	34,931	36,017	40,533	42,514	53,434	50,844
Geological sciences	1,146	1,527	1,797	1,880	1,873	2,484	2,051
Oceanography	23,028	34,379	41,720	63,140	59,190	62,952	94,182
Environmental sciences, n.e.c.	0	345	83	37	77	420	5,789
Math & computer sciences, total	4,903	5,273	6,591	8,990	11,486	13,675	12,504
Mathematics	1,994	4,226	5,146	5,410	6,547	6,575	6,623
Computer sciences	2,909	1,047	1,445	2,409	3,166	5,226	3,938
Math & computer sciences, n.e.c.	0	0	0	1,171	1,773	1,874	1,943
Engineering, total	23,852	24,838	32,245	40,572	28,502	32,013	37,421
Aeronautical	0	20	29	85	0	0	0
Astronautical	0	0	0	0	0	0	0
Chemical	492	389	1,017	720	1,023	1,971	1,313
Civil	5,497	6,284	9,702	14,084	3,620	5,333	8,817
Electrical	4,098	4,634	7,787	13,112	10,950	10,006	8,488
Mechanical	1,389	1,938	3,514	1,589	2,096	1,761	2,440
Metallurgy & materials	2,410	2,295	2,776	5,338	5,789	7,083	7,818
Engineering, n.e.c.	9,966	9,278	7,420	5,644	5,024	5,859	8,545
Social sciences, total	7,026	10,323	11,243	6,735	4,287	3,624	7,675
Anthropology	0	0	0	0	0	0	0
Economics	6,810	10,114	10,963	6,486	3,878	3,262	6,218
Political science	0	0	140	89	116	184	1,076
Sociology	216	209	140	160	293	178	219
Social sciences, n.e.c.	0	0	0	0	0	0	162
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.	744	42	112	33	2,047	2,104	11,760

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

Table 1C. Federal obligations for total research, by detailed field of science & engineering: Department of Commerce, 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	296,701	324,179	339,459	338,579	342,330	350,978	376,994
Life sciences, total	13,446	14,633	17,113	12,634	12,274	14,401	14,303
Biol & agricultural, total	12,404	12,495	15,583	11,630	10,999	12,969	12,917
Biol (excl environmental)	0	0	2,599	2,035	0	0	0
Environmental biology	6,420	2,320	2,697	2,818	5,097	6,685	5,975
Agricultural	5,984	10,175	10,287	6,777	5,902	6,284	6,942
Medical sciences, total	1,042	2,138	1,530	1,004	1,275	1,432	1,386
Clinical medical	NA	NA	NA	NA	NA	NA	NA
Other medical	NA	NA	NA	NA	NA	NA	NA
Life sciences, n.e.c.	0	0	0	0	0	0	0
Psychology, total	289	303	330	348	491	406	875
Biological aspects	46	49	50	0	0	0	163
Social aspects	243	254	280	348	491	406	712
Psychological sciences, n.e.c.	0	0	0	0	0	0	0
Physical sciences, total	53,256	54,876	56,743	54,886	61,537	62,119	65,188
Astronomy	682	716	499	569	589	451	436
Chemistry	15,345	17,678	19,133	22,883	23,610	24,375	25,006
Physics	37,229	36,355	37,111	31,434	37,338	37,283	39,671
Physical sciences, n.e.c.	0	127	0	0	0	10	75
Environmental sciences, total	160,798	183,482	200,976	205,437	197,161	200,552	217,380
Atmospheric sciences	59,870	67,686	62,452	59,256	49,379	50,856	56,694
Geological sciences	2,277	2,470	4,491	6,045	4,567	4,364	5,066
Oceanography	90,477	104,506	128,965	136,696	140,881	142,738	152,814
Environmental sciences, n.e.c.	8,174	8,820	5,068	3,440	2,334	2,594	2,806
Math & computer sciences, total	14,404	13,605	12,479	13,019	14,348	14,019	15,222
Mathematics	8,414	7,232	6,298	6,169	6,720	6,225	6,993
Computer sciences	4,238	3,352	3,765	4,510	5,099	5,368	4,967
Math & computer sciences, n.e.c.	1,752	3,021	2,416	2,340	2,529	2,426	3,262
Engineering, total	35,298	39,824	41,723	41,261	49,332	52,742	56,835
Aeronautical	0	0	0	0	0	0	0
Astronautical	0	0	0	0	0	52	0
Chemical	1,752	1,660	2,642	2,438	2,717	3,208	3,852
Civil	7,104	6,651	4,902	4,492	4,567	4,502	5,860
Electrical	9,355	11,001	10,621	10,653	11,980	12,012	12,375
Mechanical	1,969	2,900	649	885	1,006	1,233	1,496
Metallurgy & materials	6,362	6,895	7,552	8,566	10,615	11,651	11,834
Engineering, n.e.c.	8,756	10,717	15,357	14,227	18,447	20,084	21,418
Social sciences, total	7,660	4,988	5,068	7,146	3,175	2,844	3,226
Anthropology	0	0	0	0	0	0	0
Economics	6,393	3,633	3,680	6,130	2,313	2,003	2,333
Political science	598	637	656	457	333	567	624
Sociology	227	247	248	241	283	12	0
Social sciences, n.e.c.	442	471	484	318	246	262	269
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.	11,550	12,468	5,027	3,848	4,012	3,895	3,965

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

Table 1C. Federal obligations for total research, by detailed field of science & engineering: Department of Commerce, 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	449,706	595,909	582,075	718,280	892,318	850,600	808,058
Life sciences, total	68,242	97,883	93,588	111,275	150,587	161,141	139,420
Biol & agricultural, total	65,659	96,224	88,806	105,799	130,462	144,342	113,138
Biol (excl environmental)	10,269	22,981	16,626	22,596	37,907	58,190	24,862
Environmental biology	41,451	60,576	58,872	62,369	70,708	70,621	64,969
Agricultural	13,939	12,667	13,308	20,834	21,847	15,531	23,307
Medical sciences, total	2,583	1,659	4,344	4,785	19,284	16,799	21,586
Clinical medical	NA	NA	NA	NA	NA	NA	NA
Other medical	NA	NA	NA	NA	NA	NA	NA
Life sciences, n.e.c.	0	0	438	691	841	0	4,696
Psychology, total	838	396	324	280	287	300	406
Biological aspects	0	0	0	0	0	0	0
Social aspects	838	396	324	280	287	300	0
Psychological sciences, n.e.c.	0	0	0	0	0	0	406
Physical sciences, total	69,000	75,101	82,417	97,277	102,683	108,656	107,499
Astronomy	442	367	331	2,028	860	587	338
Chemistry	27,138	29,632	30,977	36,869	43,499	47,035	43,231
Physics	41,375	44,305	51,018	58,282	57,586	60,596	63,431
Physical sciences, n.e.c.	45	797	91	98	738	438	499
Environmental sciences, total	184,865	252,651	225,323	302,109	290,811	258,686	257,275
Atmospheric sciences	74,854	105,426	68,679	96,990	140,884	107,209	111,920
Geological sciences	7,793	4,275	6,002	4,387	43,643	36,893	4,131
Oceanography	97,906	139,714	147,560	191,983	95,930	104,934	133,215
Environmental sciences, n.e.c.	4,312	3,236	3,082	8,749	10,354	9,650	8,009
Math & computer sciences, total	28,344	35,390	39,147	49,047	102,369	77,341	78,946
Mathematics	11,293	12,482	12,217	12,229	12,643	13,464	10,538
Computer sciences	13,481	19,516	23,307	31,980	83,784	57,570	60,105
Math & computer sciences, n.e.c.	3,570	3,392	3,623	4,838	5,942	6,307	8,303
Engineering, total	65,562	84,445	94,051	108,426	189,311	186,455	169,957
Aeronautical	0	0	0	0	0	0	0
Astronautical	0	124	0	0	0	0	0
Chemical	4,529	4,769	7,231	5,664	11,998	13,662	19,697
Civil	5,237	4,522	5,959	8,701	13,185	11,314	14,167
Electrical	15,295	20,812	23,994	28,666	56,347	49,179	50,192
Mechanical	2,842	2,951	4,844	5,128	6,702	5,312	4,308
Metallurgy & materials	14,864	20,068	23,431	27,578	56,857	67,643	47,556
Engineering, n.e.c.	22,795	31,199	28,592	32,689	44,222	39,345	34,037
Social sciences, total	12,050	16,165	15,205	16,777	18,827	19,124	18,225
Anthropology	0	0	0	0	0	0	0
Economics	4,590	4,812	4,165	4,320	5,362	5,479	4,946
Political science	4,189	6,389	6,325	6,561	7,690	7,709	7,092
Sociology	2,987	4,737	4,473	5,536	5,229	5,936	5,578
Social sciences, n.e.c.	284	227	242	360	546	0	609
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.	20,805	33,878	32,020	33,089	37,443	38,897	36,330

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

Table 1C. Federal obligations for total research, by detailed field of science & engineering: Department of Commerce, fiscal years 1970-2003

[Dollars in thousands]

Page 5 of 5

Field of science & engineering	1998	1999	2000	2001	Preliminary	
					2002	2003
Total, all fields	806,993	848,000	895,916	828,328	911,625	963,529
Life sciences, total	150,568	144,943	165,262	176,446	173,670	159,356
Biol & agricultural, total	135,538	133,097	157,313	169,154	NA	NA
Biol (excl environmental)	35,491	37,486	44,816	33,689	NA	NA
Environmental biology	75,544	72,002	85,070	122,006	NA	NA
Agricultural	24,503	23,609	27,427	13,459	NA	NA
Medical sciences, total	11,312	8,201	6,719	6,083	NA	NA
Clinical medical	NA	NA	NA	NA	NA	NA
Other medical	NA	NA	NA	NA	NA	NA
Life sciences, n.e.c.	3,718	3,645	1,230	1,209	NA	NA
Psychology, total	506	1,937	0	0	0	0
Biological aspects	0	0	0	0	NA	NA
Social aspects	0	0	0	0	NA	NA
Psychological sciences, n.e.c.	506	1,937	0	0	NA	NA
Physical sciences, total	104,488	116,534	115,047	122,127	129,547	142,213
Astronomy	371	384	155	281	NA	NA
Chemistry	41,569	48,654	46,872	40,091	NA	NA
Physics	62,213	67,165	66,873	80,419	NA	NA
Physical sciences, n.e.c.	335	331	1,147	1,336	NA	NA
Environmental sciences, total	250,820	297,394	309,178	286,584	358,116	391,361
Atmospheric sciences	105,181	119,712	118,229	116,251	NA	NA
Geological sciences	4,698	8,316	4,934	34,372	NA	NA
Oceanography	126,409	107,620	146,665	95,066	NA	NA
Environmental sciences, n.e.c.	14,532	61,746	39,350	40,895	NA	NA
Math & computer sciences, total	78,103	77,932	78,836	77,355	75,813	73,526
Mathematics	12,610	12,509	14,777	4,624	NA	NA
Computer sciences	57,589	58,621	55,813	60,228	NA	NA
Math & computer sciences, n.e.c.	7,904	6,802	8,246	12,503	NA	NA
Engineering, total	158,476	149,703	156,907	155,409	164,427	190,002
Aeronautical	0	5	0	0	NA	NA
Astronautical	0	0	0	0	NA	NA
Chemical	6,813	5,347	6,242	5,132	NA	NA
Civil	23,129	14,979	15,360	18,511	NA	NA
Electrical	41,566	41,524	45,079	52,962	NA	NA
Mechanical	3,642	3,877	3,523	5,088	NA	NA
Metallurgy & materials	37,459	34,732	38,149	40,373	NA	NA
Engineering, n.e.c.	45,867	49,239	48,554	33,343	NA	NA
Social sciences, total	21,448	19,289	22,554	10,407	10,052	7,071
Anthropology	0	0	0	0	NA	NA
Economics	5,414	5,018	5,982	2,389	NA	NA
Political science	8,228	8,011	9,242	1,544	NA	NA
Sociology	6,499	6,260	7,330	772	NA	NA
Social sciences, n.e.c.	1,307	0	0	5,702	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.	42,584	40,268	48,132	0	0	0

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

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