

**Table 3M. Federal obligations for applied research, by detailed field of science
& engineering: All other departments and agencies,
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	249,541	346,703	324,726	278,173	307,817	319,252	350,032
Life sciences, total	69,089	71,326	72,411	89,839	94,920	96,328	83,100
Biol & agricultural, total	26,762	31,307	28,367	32,144	26,974	30,977	29,775
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	40,676	39,439	43,401	57,695	66,848	64,439	52,546
Clinical medical	37,610	28,952	32,096	41,209	50,296	45,790	34,415
Other medical	3,066	10,487	11,305	16,486	16,552	18,649	18,131
Life sciences, n.e.c.	1,651	580	643	0	1,098	912	779
Psychology, total	18,911	14,900	11,786	6,295	6,596	6,721	12,124
Biological aspects	3,603	3,484	3,858	3,459	3,990	4,070	7,665
Social aspects	15,203	11,351	7,928	2,836	2,562	2,593	4,459
Psychological sciences, n.e.c.	105	65	0	0	44	58	0
Physical sciences, total	4,061	3,882	3,017	2,035	5,119	2,149	3,242
Astronomy	14	19	10	0	0	0	0
Chemistry	2,096	2,310	1,327	1,477	2,390	1,841	2,175
Physics	1,791	1,333	1,394	289	951	61	140
Physical sciences, n.e.c.	160	220	286	269	1,778	247	927
Environmental sciences, total	4,193	4,960	10,315	5,858	7,473	7,859	3,089
Atmospheric sciences	587	698	3,001	1,667	3,209	3,060	45
Geological sciences	1,870	3,185	1,491	799	730	342	2,716
Oceanography	251	293	211	354	196	258	162
Environmental sciences, n.e.c.	1,485	784	5,612	3,038	3,338	4,199	166
Math & computer sciences, total	2,326	830	7,366	4,855	667	337	1,207
Mathematics	NA	NA	NA	NA	NA	NA	582
Computer sciences	NA	NA	NA	NA	NA	NA	387
Math & computer sciences, n.e.c.	NA	NA	NA	NA	NA	NA	238
Engineering, total	81,007	100,245	94,197	78,379	111,304	130,255	136,608
Aeronautical	8,011	12,234	1,028	2,650	3,981	3,838	1,767
Astronautical	227	659	763	592	463	405	382
Chemical	2,401	3,276	2,683	1,977	1,504	1,988	1,695
Civil	32,159	29,641	67,449	51,236	40,065	36,963	21,957
Electrical	9,313	12,920	7,401	10,435	9,260	6,524	3,363
Mechanical	21,002	28,173	3,250	5,125	5,788	2,751	2,710
Metallurgy & materials	2,625	3,184	2,438	548	898	562	472
Engineering, n.e.c.	5,269	10,158	9,185	5,816	49,345	77,224	104,262
Social sciences, total	62,893	142,330	111,001	85,048	77,502	69,137	107,272
Anthropology	2	2	1	36	22	25	0
Economics	21,126	16,787	20,915	26,287	35,345	32,126	41,965
Political science	1,963	1,327	574	2,489	5,287	6,466	2,304
Sociology	12,098	68,554	59,554	37,070	12,942	11,674	11,643
Social sciences, n.e.c.	27,704	55,660	29,957	19,166	23,906	18,846	51,360
History	91	397	5	0	0	0	NA
Linguistics	50	150	263	386	51	0	NA
Other social sciences	27,563	55,113	29,689	18,780	23,855	18,846	NA
Other sciences, n.e.c.	7,061	8,230	14,633	5,864	4,236	6,466	3,390

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

**Table 3M. Federal obligations for applied research, by detailed field of science
& engineering: All other departments and agencies,
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	416,034	487,461	587,170	633,903	663,816	650,588	698,655
Life sciences, total	98,769	104,586	165,877	181,164	186,041	238,873	280,830
Biol & agricultural, total	29,301	29,142	59,557	60,608	69,681	92,166	116,137
Biol (excl environmental)	NA	27,460	22,078	18,493	21,149	29,898	27,874
Environmental biology	NA	0	1,702	1,554	1,869	835	1,086
Agricultural	NA	1,682	35,777	40,561	46,663	61,433	87,177
Medical sciences, total	67,205	71,018	98,819	117,084	116,360	142,723	159,556
Clinical medical	46,164	NA	NA	NA	NA	NA	NA
Other medical	21,041	NA	NA	NA	NA	NA	NA
Life sciences, n.e.c.	2,263	4,426	7,501	3,472	0	3,984	5,137
Psychology, total	10,256	13,551	15,134	14,299	11,724	9,524	12,674
Biological aspects	8,559	9,354	9,878	7,672	6,300	4,607	8,020
Social aspects	1,697	4,097	2,790	3,985	5,424	1,896	1,401
Psychological sciences, n.e.c.	0	100	2,466	2,642	0	3,021	3,253
Physical sciences, total	3,630	4,578	5,223	3,772	2,423	5,610	4,158
Astronomy	0	0	0	0	0	0	7
Chemistry	2,420	3,331	3,928	1,511	383	1,770	1,568
Physics	470	437	915	1,344	1,460	1,601	1,221
Physical sciences, n.e.c.	740	810	380	917	580	2,239	1,362
Environmental sciences, total	8,628	1,083	2,197	2,082	757	2,637	1,546
Atmospheric sciences	892	5	400	210	121	1,279	200
Geological sciences	331	237	194	430	331	851	1,203
Oceanography	407	659	1,215	1,015	162	223	13
Environmental sciences, n.e.c.	6,998	182	388	427	143	284	130
Math & computer sciences, total	1,533	14,203	12,893	4,886	3,824	4,997	8,291
Mathematics	378	11,258	1,775	791	383	1,431	1,863
Computer sciences	433	648	6,158	2,920	3,254	3,366	4,016
Math & computer sciences, n.e.c.	722	2,297	4,960	1,175	187	200	2,412
Engineering, total	186,611	214,257	213,788	270,590	300,708	301,802	289,196
Aeronautical	2,435	2,711	1,125	1,382	1,230	1,085	2,142
Astronautical	381	442	525	719	704	665	750
Chemical	174	301	1,302	1,275	955	715	1,078
Civil	34,661	44,427	13,596	24,058	24,898	33,121	33,256
Electrical	5,130	9,064	11,668	15,460	16,651	9,345	6,547
Mechanical	8,443	9,168	13,679	19,394	20,897	13,845	15,305
Metallurgy & materials	796	813	232	1,224	1,084	840	1,316
Engineering, n.e.c.	134,591	147,331	171,661	207,078	234,289	242,186	228,802
Social sciences, total	105,958	129,965	151,952	141,837	137,017	76,174	100,652
Anthropology	0	2,190	0	0	0	0	200
Economics	43,277	44,460	59,547	65,551	86,250	36,600	32,698
Political science	3,726	2,240	5,504	3,075	2,817	1,758	2,588
Sociology	13,598	11,823	17,093	13,544	12,369	8,318	10,522
Social sciences, n.e.c.	45,357	69,252	69,808	59,667	35,581	29,498	54,644
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.	649	5,238	20,106	15,273	21,322	10,971	1,308

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

**Table 3M. Federal obligations for applied research, by detailed field of science
& engineering: All other departments and agencies,
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	724,640	723,679	693,214	700,239	706,933	850,111	945,289
Life sciences, total	312,386	348,697	313,423	298,176	281,082	392,839	409,223
Biol & agricultural, total	120,243	119,364	135,764	109,950	89,845	174,597	173,565
Biol (excl environmental)	28,732	28,779	19,515	23,627	29,648	47,740	32,570
Environmental biology	315	165	2,994	5,308	2,833	3,308	5,845
Agricultural	91,196	90,420	113,255	81,015	57,364	123,549	135,150
Medical sciences, total	186,103	225,119	167,141	175,246	172,900	193,872	200,904
Clinical medical	NA	NA	NA	NA	NA	NA	NA
Other medical	NA	NA	NA	NA	NA	NA	NA
Life sciences, n.e.c.	6,040	4,214	10,518	12,980	18,337	24,370	34,754
Psychology, total	14,176	16,761	20,551	22,459	24,380	22,417	20,649
Biological aspects	8,595	11,659	10,145	11,166	12,424	13,673	13,817
Social aspects	1,704	1,786	8,670	8,957	7,948	4,376	4,114
Psychological sciences, n.e.c.	3,877	3,316	1,736	2,336	4,008	4,368	2,718
Physical sciences, total	5,199	4,081	2,935	7,871	6,662	13,681	17,287
Astronomy	55	0	0	3,657	0	0	0
Chemistry	2,321	1,527	1,461	1,789	4,558	11,324	14,893
Physics	1,279	731	573	614	919	1,360	1,184
Physical sciences, n.e.c.	1,544	1,823	901	1,811	1,185	997	1,210
Environmental sciences, total	1,336	594	1,333	754	2,557	6,139	5,976
Atmospheric sciences	283	98	0	0	0	753	737
Geological sciences	155	233	75	361	1,405	4,474	4,750
Oceanography	404	263	338	0	0	0	70
Environmental sciences, n.e.c.	494	0	920	393	1,152	912	419
Math & computer sciences, total	5,749	10,393	10,663	15,224	15,229	16,166	19,581
Mathematics	1,821	3,313	4,673	4,666	5,117	6,328	7,678
Computer sciences	1,771	5,845	4,821	6,607	8,483	6,949	7,470
Math & computer sciences, n.e.c.	2,157	1,235	1,169	3,951	1,629	2,889	4,433
Engineering, total	270,629	222,096	201,485	187,413	200,600	218,504	218,021
Aeronautical	2,310	2,730	2,115	1,665	2,229	3,737	4,180
Astronautical	1,075	1,211	980	777	1,129	1,699	1,676
Chemical	1,594	1,081	2,274	1,348	1,040	6,927	6,976
Civil	38,183	29,336	27,852	29,235	48,351	55,726	60,045
Electrical	5,885	6,864	6,701	3,339	3,748	7,146	8,963
Mechanical	14,435	12,407	13,503	11,953	13,996	14,701	12,138
Metallurgy & materials	1,920	2,032	2,102	902	3,638	179	169
Engineering, n.e.c.	205,227	166,435	145,958	138,194	126,469	128,389	123,874
Social sciences, total	105,719	111,689	123,136	144,181	144,176	164,349	211,111
Anthropology	200	265	250	250	150	150	208
Economics	34,002	34,789	30,782	40,786	47,358	46,940	71,036
Political science	3,051	2,505	2,956	2,577	3,934	4,819	3,412
Sociology	10,084	6,438	10,234	10,221	8,866	11,962	8,879
Social sciences, n.e.c.	58,382	67,692	78,914	90,347	83,868	100,478	127,576
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.	9,446	9,368	19,688	24,161	32,247	16,016	43,441

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

**Table 3M. Federal obligations for applied research, by detailed field of science
& engineering: All other departments and agencies,
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	980,396	984,457	1,105,207	1,007,520	1,157,441	1,088,058	1,058,340
Life sciences, total	483,451	413,045	472,439	367,795	470,794	417,264	383,952
Biol & agricultural, total	126,588	98,400	141,795	98,268	232,978	181,366	36,061
Biol (excl environmental)	35,618	29,702	31,623	32,463	32,003	33,879	33,241
Environmental biology	6,768	11,157	11,553	1,542	184,721	125,027	2,003
Agricultural	84,202	57,541	98,619	64,263	16,254	22,460	817
Medical sciences, total	175,641	242,939	290,206	241,321	171,925	194,511	177,718
Clinical medical	NA	NA	NA	NA	NA	NA	NA
Other medical	NA	NA	NA	NA	NA	NA	NA
Life sciences, n.e.c.	181,222	71,706	40,438	28,206	65,891	41,387	170,173
Psychology, total	24,874	32,435	54,937	47,783	55,088	43,930	49,578
Biological aspects	16,134	16,120	15,366	13,644	15,861	13,718	12,773
Social aspects	6,707	8,565	38,007	32,520	34,872	25,778	32,609
Psychological sciences, n.e.c.	2,033	7,750	1,564	1,619	4,355	4,434	4,196
Physical sciences, total	13,245	12,105	11,708	11,323	9,490	35,978	53,190
Astronomy	0	1,009	0	0	0	0	0
Chemistry	10,321	8,265	5,943	6,103	6,157	2,154	1,412
Physics	1,944	1,593	2,765	3,852	1,541	31,934	46,001
Physical sciences, n.e.c.	980	1,238	3,000	1,368	1,792	1,890	5,777
Environmental sciences, total	3,358	8,025	7,461	7,494	6,797	7,804	13,451
Atmospheric sciences	940	4,704	3,971	3,489	4,569	6,320	8,901
Geological sciences	1,095	1,579	0	1,416	102	0	426
Oceanography	803	647	982	712	581	630	651
Environmental sciences, n.e.c.	520	1,095	2,508	1,877	1,545	854	3,473
Math & computer sciences, total	32,184	35,720	39,759	35,580	91,354	32,977	25,446
Mathematics	8,694	8,861	2,397	1,908	115	190	564
Computer sciences	18,706	20,636	34,578	32,819	34,470	28,222	18,953
Math & computer sciences, n.e.c.	4,784	6,223	2,784	853	56,769	4,565	5,929
Engineering, total	198,427	221,991	248,984	287,281	274,750	289,447	261,500
Aeronautical	2,879	751	250	245	275	0	0
Astronautical	200	300	0	0	0	0	0
Chemical	7,114	3,179	6,477	4,789	2,379	896	0
Civil	41,401	47,352	68,813	104,907	114,776	131,445	105,225
Electrical	10,342	14,078	9,223	6,244	4,766	8,747	5,473
Mechanical	18,039	20,609	15,892	13,369	20,499	18,090	20,772
Metallurgy & materials	1,312	906	7,720	9,325	10,255	4,980	8,206
Engineering, n.e.c.	117,140	134,816	140,609	148,402	121,800	125,289	121,824
Social sciences, total	189,801	206,631	222,939	199,418	219,636	228,639	232,596
Anthropology	350	201	300	200	62	55	30
Economics	57,414	65,368	59,908	42,982	48,323	43,158	32,072
Political science	3,042	8,919	15,881	10,754	4,277	2,634	1,479
Sociology	8,979	10,400	18,343	21,941	16,346	13,464	2,218
Social sciences, n.e.c.	120,016	121,743	128,507	123,541	150,628	169,328	196,797
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.	35,056	54,505	46,980	50,846	29,532	32,019	38,627

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

Table 3M. Federal obligations for applied research, by detailed field of science & engineering: All other departments and agencies, fiscal years 1970-2003

[Dollars in thousands]

Field of science & engineering	1998	1999	2000	2001	Preliminary	
					2002	2003
Total, all fields	1,016,409	1,153,608	1,082,036	1,265,931	1,479,321	1,313,985
Life sciences, total	225,359	262,850	271,836	311,752	323,920	329,133
Biol & agricultural, total	77,178	65,891	75,903	65,317	NA	NA
Biol (excl environmental)	0	0	0	1,026	NA	NA
Environmental biology	473	2,050	200	396	NA	NA
Agricultural	76,705	63,841	75,703	63,895	NA	NA
Medical sciences, total	106,371	148,022	149,483	160,064	NA	NA
Clinical medical	NA	NA	NA	NA	NA	NA
Other medical	NA	NA	NA	NA	NA	NA
Life sciences, n.e.c.	41,810	48,937	46,450	86,371	NA	NA
Psychology, total	63,708	68,674	73,388	67,961	71,231	69,958
Biological aspects	0	0	75	0	NA	NA
Social aspects	30,237	28,412	30,034	22,319	NA	NA
Psychological sciences, n.e.c.	33,471	40,262	43,279	45,642	NA	NA
Physical sciences, total	41,584	53,237	42,891	56,354	96,650	8,027
Astronomy	0	0	0	0	NA	NA
Chemistry	1,448	644	467	1,272	NA	NA
Physics	35,887	47,845	38,865	49,618	NA	NA
Physical sciences, n.e.c.	4,249	4,748	3,559	5,464	NA	NA
Environmental sciences, total	28,435	38,042	27,274	38,144	43,938	46,541
Atmospheric sciences	21,439	26,909	21,084	29,515	NA	NA
Geological sciences	426	2,940	0	33	NA	NA
Oceanography	551	551	600	640	NA	NA
Environmental sciences, n.e.c.	6,019	7,642	5,590	7,956	NA	NA
Math & computer sciences, total	24,859	12,842	13,697	13,496	14,681	14,500
Mathematics	195	96	0	0	NA	NA
Computer sciences	17,896	4,141	5,233	3,784	NA	NA
Math & computer sciences, n.e.c.	6,768	8,605	8,464	9,712	NA	NA
Engineering, total	300,056	316,117	255,803	272,718	331,361	261,604
Aeronautical	0	18	3,820	0	NA	NA
Astronautical	0	0	0	0	NA	NA
Chemical	15	783	0	110	NA	NA
Civil	79,683	121,057	26,599	82,898	NA	NA
Electrical	4,170	2,742	1,727	1,952	NA	NA
Mechanical	19,299	21,409	37,948	18,708	NA	NA
Metallurgy & materials	6,186	3,503	37,360	694	NA	NA
Engineering, n.e.c.	190,703	166,605	148,349	168,356	NA	NA
Social sciences, total	304,627	354,441	348,975	383,094	370,208	374,513
Anthropology	0	0	956	45	NA	NA
Economics	40,343	54,817	44,026	34,421	NA	NA
Political science	6,822	4,944	5,784	11,334	NA	NA
Sociology	59,796	55,636	55,842	61,754	NA	NA
Social sciences, n.e.c.	197,666	239,044	242,367	275,540	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.	27,781	47,405	48,172	122,412	227,332	209,709

KEY: NA = Not applicable (indicates that the data collected for this table were not recorded at that level in that particular fiscal 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