

**Table 370.—Federal obligations to colleges and universities for research and development, by field:
United States and outlying areas, 1980 to 1995**

Field of science or engineering	1980	1981	1986	1988	1989	1990 ¹	1991 ¹	1992 ¹	1993 ¹	1994 ¹	1995 ¹
1	2	3	4	5	6	7	8	9	10	11	12
Total, all fields	\$4,160,543	\$4,410,931	\$6,456,743	\$7,719,237	\$8,525,212	\$9,009,235	\$10,031,252	\$10,851,509	\$10,951,143	\$11,811,097	\$12,081,192
Engineering, total	612,456	792,223	998,312	1,129,303	1,157,047	474,709	543,530	587,404	683,676	706,452	287,098
Aeronautical	28,044	31,056	42,257	47,946	66,096	45,965	44,207	48,539	50,114	82,826	63,166
Astronautical	4,634	4,875	24,147	32,516	42,276	11,803	20,977	21,407	13,402	16,071	14,555
Chemical	22,210	27,667	50,379	67,647	45,829	56,845	67,968	63,900	67,234	58,293	5,610
Civil	48,130	58,300	35,402	30,947	43,026	37,306	34,064	30,756	44,252	68,240	39,364
Electrical	86,916	115,011	212,175	251,336	240,638	53,162	60,299	68,416	69,045	74,686	8,074
Mechanical	42,593	37,954	56,416	60,551	71,137	52,652	54,674	60,748	67,471	52,118	13,206
Metallurgy and materials	63,057	52,815	101,457	121,228	146,253	81,678	91,686	76,926	180,553	164,272	23,230
Engineering, other	316,872	464,545	476,079	517,132	501,792	135,298	169,655	216,712	191,605	189,946	119,893
All sciences, total	3,548,087	3,618,708	5,458,431	6,589,934	7,368,165	8,534,526	9,487,722	10,264,175	10,267,433	11,104,608	11,793,855
Physical sciences	507,884	500,657	770,254	859,764	980,297	891,596	1,022,807	1,136,460	1,024,928	1,138,746	1,009,330
Astronomy	52,736	54,835	78,435	89,791	103,271	98,804	115,212	149,417	139,579	214,549	132,640
Chemistry	170,048	165,189	255,593	281,573	299,417	272,929	295,576	325,224	321,105	324,213	134,622
Physics	249,661	250,342	379,289	426,005	506,983	454,690	518,840	546,081	513,084	542,800	698,846
Physical sciences, other	35,439	30,291	56,937	62,395	70,626	65,173	93,179	115,738	51,160	57,184	43,222
Mathematical sciences	53,987	53,668	96,405	119,217	134,998	109,587	125,893	140,544	131,875	77,337	21,856
Computer sciences	37,585	37,493	82,691	84,424	123,197	99,214	113,545	124,962	137,893	159,963	38,369
Environmental sciences	379,453	330,079	468,882	474,695	555,679	522,767	572,778	623,757	653,092	786,446	351,675
Atmospheric sciences	86,486	95,112	124,657	132,379	131,959	139,914	149,426	171,557	162,385	235,810	81,960
Geological sciences	109,523	101,207	118,401	131,913	152,449	147,517	173,492	149,913	163,011	186,542	30,552
Oceanography	92,079	91,863	121,855	129,473	163,035	117,636	94,448	107,897	103,472	116,367	43,424
Environmental sciences, other	91,365	41,897	103,969	80,930	108,236	117,700	155,412	194,390	224,224	247,727	195,739
Life sciences	2,137,751	2,290,587	3,463,114	4,349,268	4,730,663	4,773,434	5,319,947	5,633,514	5,572,481	6,313,516	5,915,567
Agricultural sciences	111,739	134,660	143,249	155,772	180,908	181,453	193,763	211,936	190,033	183,944	192,635
Biological sciences	1,085,602	1,192,756	1,849,516	2,345,433	2,558,987	2,578,470	2,820,183	2,950,701	2,931,726	3,191,651	2,935,783
Environmental biology	13,137	14,636	86,088	97,126	108,584	104,053	124,218	130,633	109,351	171,332	96,164
Medical sciences	885,898	904,963	1,325,157	1,689,606	1,829,888	1,853,979	2,102,127	2,252,375	2,253,419	2,689,279	2,598,691
Life sciences, other	41,375	43,572	59,104	61,331	52,296	55,479	79,656	87,869	87,952	77,310	92,294
Psychological sciences	86,459	87,734	138,338	186,924	209,344	225,987	258,886	254,311	277,667	318,832	298,545
Biological aspects	28,269	26,273	39,049	53,287	66,959	71,705	80,438	75,307	8,542	3,792	1,390
Social aspects	31,129	28,846	38,589	52,113	59,502	66,960	82,257	75,285	4,754	7,357	3,519
Psychological sciences, other	27,061	32,615	60,700	81,524	82,883	87,322	96,191	103,719	264,371	307,683	293,636
Social sciences	203,948	197,695	172,148	184,539	218,404	250,366	303,798	301,056	267,080	279,575	228,978
Anthropology	7,757	5,543	6,455	5,972	7,054	7,061	8,768	9,015	8,474	8,115	1,297
Economics	51,414	56,704	43,764	48,039	51,806	58,441	60,142	70,582	68,102	60,478	62,295
History	1,688	1,069	1,508	1,527	1,665	1,890	2,116	2,166	2,014	0	0
Linguistics	2,997	2,745	2,481	3,248	3,402	3,055	3,383	3,684	3,554	0	100
Political science	5,890	5,122	5,003	5,926	6,988	7,415	8,287	8,894	7,687	6,625	2,067
Sociology	34,903	38,136	34,580	55,204	75,404	96,240	113,829	104,430	35,666	30,602	11,066
Social sciences, other	99,299	88,376	78,357	64,623	72,085	76,264	107,273	102,285	141,583	173,755	152,153
Other sciences	141,020	120,795	266,599	331,103	415,583	1,661,575	1,770,068	2,049,571	2,202,417	2,030,193	3,929,535
Residual amounts	0	0	0	0	0	0	0	-70	34	37	239

¹ All U.S. Department of Defense data are reported as other sciences.

SOURCE: National Science Foundation, Science Resources Studies Division, unpublished data. (This table was prepared May 1998.)

NOTE.—Some data have been revised from previously published figures. Fields of science and engineering are no longer reported as of fiscal year 1996.