

TABLE 4. Federally financed higher education R&D expenditures, by R&D field: FY 2003–10  
(Dollars in thousands)

Field	2003	2004	2005	2006	2007	2008	2009	2010
All R&D fields <sup>a</sup>	25,307,038	28,303,897	29,956,714	30,908,742	31,240,790	32,100,966	33,442,659	37,487,673
Science	21,140,951	23,720,765	25,056,944	25,823,786	25,974,534	26,546,902	27,541,226	30,770,896
Computer sciences	935,873	1,024,363	1,020,758	1,018,483	1,025,809	1,036,436	1,106,879	1,174,800
Environmental sciences	1,445,886	1,596,121	1,729,905	1,767,996	1,807,691	1,827,968	1,890,470	2,014,234
Atmospheric sciences	297,790	320,856	361,862	406,606	354,500	337,720	322,239	338,464
Earth sciences	439,604	536,716	615,785	591,714	601,428	603,223	645,126	735,912
Oceanography	537,255	546,973	545,509	560,990	671,710	686,106	711,758	666,936
Environmental sciences, nec	171,237	191,576	206,749	208,686	180,053	200,919	211,347	272,922
Life sciences	14,651,424	16,666,676	17,692,078	18,279,831	18,326,613	18,659,249	19,322,816	21,686,463
Agricultural sciences	764,261	866,940	844,413	883,383	897,109	862,443	863,378	955,959
Biological sciences	5,018,179	5,743,194	6,198,215	6,246,792	6,188,668	6,361,214	6,621,495	7,564,364
Medical sciences	8,242,517	9,389,023	9,896,496	10,438,130	10,563,250	10,748,831	11,057,667	12,066,037
Life sciences, nec	626,467	667,519	752,954	711,526	677,586	686,761	780,276	1,100,103
Mathematical sciences	294,623	317,764	345,942	374,931	408,608	447,399	368,730	418,995
Physical sciences	2,355,129	2,568,191	2,671,293	2,700,154	2,688,879	2,742,953	2,963,115	3,380,137
Astronomy	271,580	289,271	310,897	317,423	305,545	353,111	387,905	405,131
Chemistry	819,118	920,749	952,197	968,134	975,723	992,275	1,037,432	1,201,243
Physics	1,087,480	1,168,717	1,225,968	1,215,517	1,219,721	1,215,264	1,360,805	1,556,125
Physical sciences, nec	176,951	189,454	182,231	199,080	187,890	182,303	176,973	217,638
Psychology	552,984	586,204	609,456	629,253	603,423	634,857	656,196	760,007
Social sciences	667,976	696,142	697,034	712,628	762,714	816,056	854,748	897,468
Economics	106,433	109,044	108,956	120,316	124,401	127,685	121,542	126,963
Political sciences	96,853	112,110	112,124	106,991	134,811	124,970	137,282	155,108
Sociology	179,617	181,771	193,689	216,449	206,882	202,619	201,872	223,264
Social sciences, nec	285,073	293,217	282,265	268,872	296,620	360,782	394,052	392,133
Sciences, nec	237,056	265,304	290,478	340,510	350,797	381,984	378,272	438,792
Engineering	3,611,963	3,906,505	4,129,598	4,307,793	4,455,851	4,724,848	5,035,003	5,732,357
Aeronautical/astronautical engineering	309,384	334,059	335,130	287,578	340,102	399,378	431,389	466,388
Bioengineering/biomedical engineering	190,068	235,617	254,874	294,830	320,808	364,144	385,536	483,017
Chemical engineering	247,915	268,024	295,339	319,993	322,324	341,043	359,726	419,056
Civil engineering	326,436	347,499	337,133	334,655	355,597	385,333	400,280	459,144
Electrical engineering	925,005	970,763	1,046,787	1,076,684	1,065,059	1,111,187	1,200,129	1,372,652
Mechanical engineering	532,055	587,282	626,120	685,716	695,961	737,220	800,903	953,696
Metallurgical/materials engineering	313,784	352,062	369,238	386,147	377,631	376,879	389,255	437,146
Engineering, nec	767,316	811,199	864,977	922,190	978,369	1,009,664	1,067,785	1,141,258
Non-S&E <sup>a</sup>	554,124	676,627	770,172	777,163	810,405	829,216	866,430	984,420
Business and management	33,495	50,017	51,912	52,569	54,612	65,318	67,456	83,571
Communications, journalism, and library science	17,206	25,480	26,392	29,915	30,998	28,652	29,609	60,060
Education	313,815	414,871	429,057	436,424	473,204	448,853	474,571	537,271
Humanities	33,483	39,691	57,903	56,216	60,071	56,090	60,248	57,696
Law	12,839	19,596	27,681	28,261	29,590	28,476	23,206	19,325
Social work	18,419	27,468	25,774	40,685	40,657	59,163	61,899	94,423
Visual and performing arts	4,137	4,357	3,999	3,604	4,012	3,722	4,193	4,819
Non-S&E, nec	99,619	89,529	147,454	129,489	117,261	138,942	145,248	127,255

nec = not elsewhere classified; S&E = science and engineering.

<sup>a</sup> From FY 2003 through FY 2009 totals for all fields of R&D expenditures and totals for non-S&E are lower-bound estimates for national totals because National Science Foundation did not attempt to estimate for nonresponse on non-S&E R&D expenditures item.

NOTE: Non-S&E detailed field data may not sum to total non-S&E R&D expenditures because some institutions reporting non-S&E R&D expenditures did not break out total and federal funds by non-S&E fields.

SOURCE: National Science Foundation/National Center for Science and Engineering Statistics, Higher Education Research and Development Survey.