

TABLE 14

**Federally financed higher education R&D expenditures, by federal agency and R&D field: FY 2022**

(Dollars in thousands)

Field	All federal R&D expenditures	DOD	DOE	HHS	NASA	NSF	USDA	Other <sup>a</sup>
All R&D fields	53,971,468	7,978,816	2,488,278	30,288,941	2,044,072	6,035,698	1,500,988	3,634,675
Science	42,786,338	3,785,848	1,405,523	28,721,809	1,372,761	4,174,626	1,364,342	1,961,429
Computer and information sciences	2,184,767	1,008,407	67,103	181,941	27,517	760,906	13,291	125,602
Geosciences, atmospheric sciences, and ocean sciences	2,478,702	265,345	131,608	77,148	525,426	793,092	35,995	650,088
Atmospheric science and meteorology	528,068	67,762	26,741	3,330	167,338	91,734	2,732	168,431
Geological and earth sciences	875,493	72,031	82,687	5,097	252,146	302,735	17,249	143,548
Ocean sciences and marine sciences	785,545	113,841	11,820	13,600	75,047	338,708	2,982	229,547
Geosciences, atmospheric sciences, and ocean sciences nec	289,596	11,711	10,360	55,121	30,895	59,915	13,032	108,562
Life sciences	30,958,717	1,398,169	252,351	26,479,262	89,305	851,067	1,212,975	675,588
Agricultural sciences	1,265,977	17,689	45,362	160,253	8,354	82,090	834,540	117,689
Biological and biomedical sciences	10,949,628	429,447	131,060	9,384,542	29,338	606,171	206,407	162,663
Health sciences	17,494,324	829,525	22,369	16,246,165	38,098	79,904	35,362	242,901
Natural resources and conservation	480,042	100,595	47,349	21,847	11,437	59,292	115,013	124,509
Life sciences nec	768,746	20,913	6,211	666,455	2,078	23,610	21,653	27,826
Mathematics and statistics	537,322	172,278	11,593	72,368	20,385	225,434	8,437	26,827
Physical sciences	4,212,405	688,996	896,963	678,686	673,259	1,164,641	10,243	99,617
Astronomy and astrophysics	581,652	20,525	15,965	4,109	411,440	125,536	85	3,992
Chemistry	1,322,328	140,461	179,357	577,302	19,043	379,718	3,604	22,843
Materials science	195,404	74,913	39,015	12,198	2,774	57,255	1,870	7,379
Physics	1,941,833	416,045	632,939	66,674	221,662	554,042	1,234	49,237
Physical sciences nec	171,188	37,052	29,687	18,403	18,340	48,090	3,450	16,166
Psychology	875,330	58,674	705	644,047	16,575	81,415	2,508	71,406
Social sciences	1,075,470	82,686	14,712	461,238	15,289	161,171	73,069	267,305
Anthropology	40,119	4,662	1,174	3,793	155	19,038	1,455	9,842
Economics	194,381	7,532	7,673	56,451	207	27,780	52,137	42,601
Political science and government	95,363	15,601	2,027	21,043	325	21,143	1,027	34,197
Sociology, demography, and population studies	272,683	15,063	180	152,863	535	35,695	7,302	61,045
Social sciences nec	472,924	39,828	3,658	227,088	14,067	57,515	11,148	119,620
Sciences nec	463,625	111,293	30,488	127,119	5,005	136,900	7,824	44,996
Engineering	9,694,378	4,116,469	1,074,222	1,191,971	660,630	1,523,416	87,560	1,040,110
Aerospace, aeronautical, and astronautical engineering	1,246,002	773,665	26,489	5,555	242,020	44,609	514	153,150
Bioengineering and biomedical engineering	1,100,258	167,990	23,283	725,852	11,752	110,187	22,919	38,275
Chemical engineering	646,644	116,252	183,834	98,261	12,884	168,647	8,292	58,474
Civil engineering	784,286	105,555	106,673	43,260	19,105	172,993	13,041	323,659
Electrical, electronic, and communications engineering	2,484,203	1,428,526	181,846	106,018	153,971	463,298	5,840	144,704
Industrial and manufacturing engineering	434,246	278,026	23,305	10,205	28,632	46,025	1,826	46,227

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(Dollars in thousands)

Field	All federal R&D expenditures	DOD	DOE	HHS	NASA	NSF	USDA	Other <sup>a</sup>
Mechanical engineering	1,409,792	660,149	185,887	92,246	116,094	241,401	7,544	106,471
Metallurgical and materials engineering	589,129	280,933	133,194	25,815	16,763	105,492	1,118	25,814
Engineering nec	999,818	305,373	209,711	84,759	59,409	170,764	26,466	143,336
Non-S&E	1,490,752	76,499	8,533	375,161	10,681	337,656	49,086	633,136
Business management and business administration	97,962	13,722	1,668	8,763	200	18,032	6,153	49,424
Communication and communications technologies	42,707	4,649	1,111	15,329	681	11,924	525	8,488
Education	783,518	16,679	1,356	104,154	7,222	236,173	9,080	408,854
Humanities	68,956	6,491	665	16,792	23	13,092	297	31,596
Law	32,391	240	109	7,471	1	2,310	495	21,765
Social work	181,943	1,029	3	165,978	3	1,311	931	12,688
Visual and performing arts	21,188	958	106	4,921	242	3,770	476	10,715
Non-S&E nec	262,087	32,731	3,515	51,753	2,309	51,044	31,129	89,606

DOD = Department of Defense; DOE = Department of Energy; HHS = Department of Health and Human Services; NASA = National Aeronautics and Space Administration; NSF = National Science Foundation; nec = not elsewhere classified; S&E = science and engineering; USDA = Department of Agriculture.

<sup>a</sup> Includes all other agencies reported.

**Note(s):**

This table includes only institutions reporting \$1 million or more in total R&D expenditures in 2021. Institutions reporting less than \$1 million in total R&D expenditures in 2021 completed a shorter version of the survey form in FY 2022, and that form did not collect federally financed R&D expenditures by source and detailed field. For federally financed R&D expenditures by major field at institutions completing the shorter version of the survey, see table 84.

**Source(s):**

National Center for Science and Engineering Statistics, Higher Education Research and Development Survey, FY 2022.