

TABLE 13

Higher education R&D expenditures, by source of funds and R&D field: FY 2023

(Dollars in thousands)

Field	All R&D expenditures	Source of funds					
		Federal government	State and local government	Institution funds	Business	Nonprofit organizations	All other sources
All R&D fields	108,681,008	59,603,993	5,437,566	27,654,829	6,221,128	6,671,012	3,092,480
Science	84,307,571	46,947,867	3,999,425	20,710,669	4,729,099	5,523,920	2,396,591
Computer and information sciences	3,617,348	2,417,938	92,811	746,035	184,448	102,976	73,140
Geosciences, atmospheric sciences, and ocean sciences	4,032,534	2,693,891	256,518	744,177	91,593	160,734	85,621
Atmospheric science and meteorology	723,727	583,161	19,012	89,160	8,111	14,336	9,947
Geological and earth sciences	1,488,300	921,482	75,003	336,752	50,694	61,060	43,309
Ocean sciences and marine sciences	1,365,092	891,194	130,518	237,128	21,338	62,096	22,818
Geosciences, atmospheric sciences, and ocean sciences nec	455,415	298,054	31,985	81,137	11,450	23,242	9,547
Life sciences	62,204,360	33,896,235	3,161,287	14,981,678	4,118,928	4,173,988	1,872,244
Agricultural sciences	4,285,689	1,458,868	1,055,262	1,312,589	163,362	153,390	142,218
Biological and biomedical sciences	19,526,385	11,753,581	605,856	4,541,078	909,293	1,239,276	477,301
Health sciences	35,724,571	19,390,822	1,245,027	8,327,824	2,967,948	2,644,523	1,148,427
Natural resources and conservation	1,079,516	512,675	166,015	303,113	19,284	48,391	30,038
Life sciences nec	1,588,199	780,289	89,127	497,074	59,041	88,408	74,260
Mathematics and statistics	1,060,700	661,446	30,663	293,464	13,942	52,785	8,400
Physical sciences	6,944,769	4,621,763	129,636	1,520,045	216,254	302,363	154,708
Astronomy and astrophysics	967,125	659,781	6,716	174,140	2,870	71,341	52,277
Chemistry	2,301,102	1,413,489	56,323	594,769	89,182	107,492	39,847
Materials science	319,102	205,797	3,257	69,680	17,630	5,714	17,024
Physics	2,966,923	2,123,118	44,142	597,719	63,168	101,088	37,688
Physical sciences nec	390,517	219,578	19,198	83,737	43,404	16,728	7,872
Psychology	1,637,829	978,784	59,755	462,658	13,266	101,674	21,692
Social sciences	3,615,227	1,202,546	208,838	1,444,371	48,351	560,818	150,303
Anthropology	151,778	46,631	2,882	86,134	1,697	9,028	5,406
Economics	723,797	206,477	51,013	282,137	13,846	134,058	36,266
Political science and government	556,983	111,794	18,347	256,138	4,953	122,971	42,780
Sociology, demography, and population studies	727,782	317,113	38,872	247,163	8,174	102,853	13,607
Social sciences nec	1,454,887	520,531	97,724	572,799	19,681	191,908	52,244
Sciences nec	1,194,804	475,264	59,917	518,241	42,317	68,582	30,483
Engineering	17,468,446	10,931,327	961,129	3,329,879	1,316,843	469,350	459,918
Aerospace, aeronautical, and astronautical engineering	1,913,964	1,425,681	49,179	169,291	234,299	13,133	22,381
Bioengineering and biomedical engineering	1,885,216	1,198,449	72,787	405,953	65,963	108,655	33,409
Chemical engineering	1,246,882	713,248	49,789	289,767	111,376	50,687	32,015
Civil engineering	1,900,543	929,044	321,866	464,145	89,171	53,101	43,216
Electrical, electronic, and communications engineering	3,838,675	2,794,497	95,317	565,978	213,480	91,116	78,287
Industrial and manufacturing engineering	707,239	481,861	42,289	123,495	38,000	11,101	10,493
Mechanical engineering	2,324,946	1,551,973	75,145	418,863	188,103	42,727	48,135

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Metallurgical and materials engineering	1,039,160	693,211	31,768	188,925	75,209	26,021	24,026
Engineering nec	2,611,821	1,143,363	222,989	703,462	301,242	72,809	167,956
Non-S&E	6,904,991	1,724,799	477,012	3,614,281	175,186	677,742	235,971
Business management and business administration	1,218,052	109,626	46,073	895,095	44,567	61,346	61,345
Communication and communications technologies	253,609	58,280	17,077	125,641	6,620	37,174	8,817
Education	2,042,372	890,786	198,505	630,046	47,941	237,427	37,667
Humanities	846,919	65,170	21,484	594,879	14,677	111,700	39,009
Law	430,807	35,110	27,187	251,221	12,851	83,021	21,417
Social work	416,735	205,510	60,678	107,154	4,131	35,487	3,775
Visual and performing arts	283,750	20,717	14,035	219,951	1,711	15,636	11,700
Non-S&E nec	1,412,747	339,600	91,973	790,294	42,688	95,951	52,241

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

Note(s):

This table includes only institutions reporting \$1 million or more in total R&D expenditures in 2022. Institutions reporting less than \$1 million in total R&D expenditures in 2022 completed a shorter version of the survey form in FY 2023, and that form did not collect R&D expenditures by source and detailed field. For 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 2023.