

Table 3. Higher education R&D expenditures, by FY 2023 total, source of funds, and R&D field: FY 2024

(Millions of dollars)

Field	Total 2023 R&D expenditures	Total 2024 R&D expenditures	% change FYs 2023–24	Source of funds, 2024					
				Federal government	State and local government	Institution funds	Business	Nonprofit organizations	All other sources
All R&D fields	108,697	117,554	8.1	64,640	6,076	30,151	6,356	6,686	3,646
Science	84,322	90,714	7.6	50,524	4,485	22,474	4,905	5,495	2,831
Computer and information sciences	3,615	3,956	9.4	2,597	96	857	188	110	108
Geosciences, atmospheric sciences, and ocean sciences	4,036	4,407	9.2	2,904	297	842	98	170	97
Atmospheric science and meteorology	724	737	1.9	587	26	94	8	12	10
Geological and earth sciences	1,489	1,688	13.3	1,028	96	400	53	62	49
Ocean sciences and marine sciences	1,367	1,497	9.5	955	145	267	25	75	30
Geosciences, atmospheric sciences, and ocean sciences nec	456	485	6.3	334	30	81	12	21	7
Life sciences	62,198	66,821	7.4	36,574	3,495	16,149	4,277	4,129	2,197
Agricultural sciences	4,286	4,803	12.1	1,708	1,144	1,474	159	160	157
Biological and biomedical sciences	19,519	20,770	6.4	12,589	639	4,817	893	1,321	511
Health sciences	35,724	38,513	7.8	20,969	1,421	9,041	3,145	2,508	1,429
Natural resources and conservation	1,079	1,127	4.4	503	190	324	18	54	37
Life sciences nec	1,589	1,609	1.2	804	102	493	61	86	62
Mathematics and statistics	1,061	1,165	9.8	727	34	326	12	55	9
Physical sciences	6,947	7,456	7.3	4,900	153	1,713	229	293	170
Astronomy and astrophysics	967	1,079	11.6	723	11	201	3	59	83
Chemistry	2,301	2,518	9.4	1,525	67	673	96	114	44
Materials science	321	349	8.8	229	5	87	17	6	5
Physics	2,968	3,107	4.7	2,208	48	654	68	100	29
Physical sciences nec	391	403	3.2	215	22	97	45	15	9
Psychology	1,642	1,731	5.4	1,027	69	490	11	108	26
Social sciences	3,623	3,910	7.9	1,295	257	1,544	55	579	180
Anthropology	152	178	17.0	56	5	97	1	12	7
Economics	724	780	7.8	213	67	298	14	146	43
Political science and government	557	601	7.9	124	24	286	5	119	44
Sociology, demography, and population studies	735	769	4.6	337	46	254	16	99	16
Social sciences nec	1,455	1,581	8.6	565	115	609	19	203	70
Sciences nec	1,200	1,268	5.7	499	84	554	35	51	46

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Engineering	17,477	19,271	10.3	12,185	1,040	3,764	1,265	500	516
Aerospace, aeronautical, and astronautical engineering	1,914	2,054	7.3	1,580	51	188	206	6	23
Bioengineering and biomedical engineering	1,894	2,082	9.9	1,325	74	438	71	139	34
Chemical engineering	1,247	1,409	13.0	829	55	317	116	58	34
Civil engineering	1,901	2,097	10.3	1,023	363	523	85	57	46
Electrical, electronic, and communications engineering	3,838	4,416	15.1	3,231	100	689	186	100	109
Industrial and manufacturing engineering	707	748	5.7	524	42	133	29	11	9
Mechanical engineering	2,325	2,573	10.6	1,754	92	456	188	38	45
Metallurgical and materials engineering	1,039	1,141	9.8	748	42	205	82	28	37
Engineering nec	2,611	2,752	5.4	1,171	220	815	304	64	178
Non-S&E	6,898	7,569	9.7	1,931	551	3,913	185	690	299
Business management and business administration	1,219	1,349	10.7	121	62	986	40	54	85
Communication and communications technologies	253	263	4.0	65	13	133	6	34	11
Education	2,043	2,218	8.6	975	222	669	57	255	40
Humanities	845	926	9.6	70	24	654	20	117	41
Law	431	444	2.9	43	42	247	6	72	32
Social work	417	461	10.5	224	59	129	5	38	6
Visual and performing arts	284	303	6.6	26	16	234	3	16	9
Non-S&E nec	1,405	1,605	14.2	406	112	861	47	103	75

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 FY 2023. Institutions reporting less than \$1 million in total R&D expenditures in FY 2023 completed a shorter version of the survey form in FY 2024, and that form did not collect R&D expenditures by source and detailed field. Total expenditures from institutions reporting less than \$1 million in R&D in FY 2024 was \$164 million.

Source(s):

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