

Table 3**Higher education R&D expenditures, by FY 2022 total, source of funds, and R&D field: FY 2023**

(Millions of current dollars)

Field	Total FY 2022 R&D expenditures	Total FY 2023 R&D expenditures	% change in current dollars, FYs 2022-23	Source of funds, FY 2023					
				Federal government	State and local government	Institution funds	Business	Nonprofit organizations	All other sources
All R&D fields	97,670	108,681	11.3	59,604	5,438	27,655	6,221	6,671	3,092
Science	76,144	84,308	10.7	46,948	3,999	20,711	4,729	5,524	2,397
Computer and information sciences	3,202	3,617	13.0	2,418	93	746	184	103	73
Geosciences, atmospheric sciences, and ocean sciences	3,653	4,033	10.4	2,694	257	744	92	161	86
Atmospheric science and meteorology	669	724	8.2	583	19	89	8	14	10
Geological and earth sciences	1,348	1,488	10.4	921	75	337	51	61	43
Ocean sciences and marine sciences	1,211	1,365	12.7	891	131	237	21	62	23
Geosciences, atmospheric sciences, and ocean sciences nec	425	455	7.2	298	32	81	11	23	10
Life sciences	56,476	62,204	10.1	33,896	3,161	14,982	4,119	4,174	1,872
Agricultural sciences	3,936	4,286	8.9	1,459	1,055	1,313	163	153	142
Biological and biomedical sciences	18,130	19,526	7.7	11,754	606	4,541	909	1,239	477
Health sciences	31,875	35,725	12.1	19,391	1,245	8,328	2,968	2,645	1,148
Natural resources and conservation	1,017	1,080	6.2	513	166	303	19	48	30
Life sciences nec	1,518	1,588	4.6	780	89	497	59	88	74
Mathematics and statistics	879	1,061	20.6	661	31	293	14	53	8
Physical sciences	6,167	6,945	12.6	4,622	130	1,520	216	302	155
Astronomy and astrophysics	814	967	18.8	660	7	174	3	71	52
Chemistry	2,127	2,301	8.2	1,413	56	595	89	107	40
Materials science	286	319	11.4	206	3	70	18	6	17
Physics	2,669	2,967	11.1	2,123	44	598	63	101	38
Physical sciences nec	271	391	44.3	220	19	84	43	17	8
Psychology	1,446	1,638	13.2	979	60	463	13	102	22
Social sciences	3,164	3,615	14.3	1,203	209	1,444	48	561	150
Anthropology	133	152	14.4	47	3	86	2	9	5
Economics	665	724	8.8	206	51	282	14	134	36
Political science and government	488	557	14.1	112	18	256	5	123	43
Sociology, demography, and population studies	616	728	18.1	317	39	247	8	103	14

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Social sciences nec	1,261	1,455	15.4	521	98	573	20	192	52
Sciences nec	1,157	1,195	3.3	475	60	518	42	69	30
Engineering	15,663	17,468	11.5	10,931	961	3,330	1,317	469	460
Aerospace, aeronautical, and astronautical engineering	1,647	1,914	16.2	1,426	49	169	234	13	22
Bioengineering and biomedical engineering	1,727	1,885	9.1	1,198	73	406	66	109	33
Chemical engineering	1,108	1,247	12.5	713	50	290	111	51	32
Civil engineering	1,686	1,901	12.7	929	322	464	89	53	43
Electrical, electronic, and communications engineering	3,463	3,839	10.8	2,794	95	566	213	91	78
Industrial and manufacturing engineering	615	707	14.9	482	42	123	38	11	10
Mechanical engineering	2,062	2,325	12.7	1,552	75	419	188	43	48
Metallurgical and materials engineering	887	1,039	17.2	693	32	189	75	26	24
Engineering nec	2,466	2,612	5.9	1,143	223	703	301	73	168
Non-S&E	5,862	6,905	17.8	1,725	477	3,614	175	678	236
Business management and business administration	1,081	1,218	12.7	110	46	895	45	61	61
Communication and communications technologies	214	254	18.7	58	17	126	7	37	9
Education	1,741	2,042	17.3	891	199	630	48	237	38
Humanities	713	847	18.7	65	21	595	15	112	39
Law	359	431	20.1	35	27	251	13	83	21
Social work	363	417	14.8	206	61	107	4	35	4
Visual and performing arts	228	284	24.3	21	14	220	2	16	12
Non-S&E nec	1,164	1,413	21.4	340	92	790	43	96	52

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. Total expenditures from institutions reporting less than \$1 million in R&D in FY 2023 was \$160 million.

Source(s):

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