

Table 3**Higher education R&D expenditures, by R&D field: FYs 2021–22**

(Millions of current dollars)

Field	2021	2022	% change in current dollars, FYs 2021–22	% change in constant 2012 dollars, FYs 2021–22
All R&D fields	89,695	97,681	8.9	1.8
Science	70,289	76,226	8.4	1.4
Computer and information sciences	2,953	3,225	9.2	2.1
Geosciences, atmospheric sciences, and ocean sciences	3,295	3,690	12.0	4.7
Atmospheric science and meteorology	624	669	7.2	0.2
Geological and earth sciences	1,242	1,371	10.4	3.2
Ocean sciences and marine sciences	1,035	1,211	17.0	9.4
Geosciences, atmospheric sciences, and ocean sciences nec	393	440	12.0	4.6
Life sciences	52,350	56,498	7.9	0.9
Agricultural sciences	3,553	3,936	10.8	3.5
Biological and biomedical sciences	16,566	18,161	9.6	2.5
Health sciences	29,859	31,870	6.7	-0.2
Natural resources and conservation	935	1,013	8.3	1.3
Life sciences nec	1,436	1,518	5.7	-1.2
Mathematics and statistics	773	880	13.8	6.4
Physical sciences	5,737	6,168	7.5	0.5
Astronomy and astrophysics	741	814	9.9	2.7
Chemistry	1,996	2,127	6.6	-0.4
Materials science	286	286	0.0	-6.5
Physics	2,464	2,669	8.3	1.2
Physical sciences nec	251	271	8.0	0.9
Psychology	1,330	1,444	8.6	1.5
Social sciences	2,828	3,165	11.9	4.6
Anthropology	108	133	23.1	15.1
Economics	550	668	21.5	13.5
Political science and government	424	488	15.1	7.6
Sociology, demography, and population studies	553	616	11.4	4.1
Social sciences nec	1,193	1,260	5.6	-1.3
Sciences nec	1,025	1,156	12.8	5.4
Engineering	14,292	15,597	9.1	2.0
Aerospace, aeronautical, and astronautical engineering	1,452	1,647	13.4	6.0
Bioengineering and biomedical engineering	1,560	1,726	10.6	3.4
Chemical engineering	1,024	1,108	8.2	1.1
Civil engineering	1,482	1,647	11.1	3.9
Electrical, electronic, and communications engineering	3,079	3,437	11.6	4.3
Industrial and manufacturing engineering	574	615	7.1	0.1
Mechanical engineering	1,882	2,063	9.6	2.4
Metallurgical and materials engineering	842	887	5.3	-1.5
Engineering nec	2,397	2,467	2.9	-3.8
Non-S&E	5,114	5,858	14.5	7.1
Business management and business administration	934	1,081	15.7	8.2
Communication and communications technologies	186	213	14.5	7.0
Education	1,616	1,741	7.7	0.7
Humanities	561	714	27.3	18.9
Law	283	359	26.9	18.6

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Social work	320	363	13.4	6.0
Visual and performing arts	178	225	26.4	18.1
Non-S&E nec	1,037	1,162	12.1	4.7

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 2021. Institutions reporting less than \$1 million in total R&D expenditures in FY 2021 completed a shorter version of the survey form in FY 2022 that did not include this question. Total expenditures from institutions reporting less than \$1 million in R&D in FY 2022 was \$162 million. Gross domestic product deflators come from the Bureau of Economic Analysis and are available in Table 1.1.9 "Implicit Price Deflators for Gross Domestic Product" at https://www.bea.gov/iTable/index_nipa.cfm (accessed September 2023).

Source(s):

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