

TABLE A-15

Imputed amounts for total and federally financed higher education R&D expenditures at institutions in the standard form population, by R&D field: FY 2023

(Dollars in thousands)

R&D field	Total			Federally financed		
	All R&D expenditures	Imputed amount	Imputed amount as % of total	All R&D expenditures	Imputed amount	Imputed amount as % of total
All R&D fields	108,681,008	86,252	0.1	59,603,993	47,204	0.1
All science and engineering	101,776,017	1,389,829	1.4	57,879,194	475,949	0.8
Computer and information sciences	3,617,348	19,630	0.5	2,417,938	2,787	0.1
Geosciences, atmospheric sciences, and ocean sciences	4,032,534	27,365	0.7	2,693,891	2,918	0.1
Atmospheric science and meteorology	723,727	37,424	5.2	583,161	32,606	5.6
Geological and earth sciences	1,488,300	110,807	7.4	921,482	66,674	7.2
Ocean sciences and marine sciences	1,365,092	56,495	4.1	891,194	48,360	5.4
Geosciences, atmospheric sciences, and ocean sciences nec	455,415	17,152	3.8	298,054	9,573	3.2
Life sciences	62,204,360	808,168	1.3	33,896,235	204,449	0.6
Agricultural sciences	4,285,689	3,744	0.1	1,458,868	627	0.0
Biological and biomedical sciences	19,526,385	245,767	1.3	11,753,581	74,695	0.6
Health sciences	35,724,571	406,043	1.1	19,390,822	64,169	0.3
Natural resources and conservation	1,079,516	1,055	0.1	512,675	292	0.1
Life sciences nec	1,588,199	151,559	9.5	780,289	64,666	8.3
Mathematics and statistics	1,060,700	8,070	0.8	661,446	918	0.1
Physical sciences	6,944,769	102,458	1.5	4,621,763	10,425	0.2
Astronomy and astrophysics	967,125	11,033	1.1	659,781	50	0.0
Chemistry	2,301,102	20,414	0.9	1,413,489	3,204	0.2
Materials science	319,102	333	0.1	205,797	1	0.0
Physics	2,966,923	46,396	1.6	2,123,118	6,987	0.3
Physical sciences nec	390,517	24,282	6.2	219,578	183	0.1
Psychology	1,637,829	3,678	0.2	978,784	1,671	0.2
Social sciences	3,615,227	17,389	0.5	1,202,546	8,553	0.7
Anthropology	151,778	577	0.4	46,631	116	0.2
Economics	723,797	1,728	0.2	206,477	163	0.1
Political science and government	556,983	1,298	0.2	111,794	250	0.2
Sociology, demography, and population studies	727,782	1,548	0.2	317,113	296	0.1
Social sciences nec	1,454,887	12,238	0.8	520,531	7,728	1.5
Sciences nec	1,194,804	17,235	1.4	475,264	122	0.0
Engineering	17,468,446	98,011	0.6	10,931,327	5,552	0.1
Aerospace, aeronautical, and astronautical engineering	1,913,964	18,367	1.0	1,425,681	8,349	0.6
Bioengineering and biomedical engineering	1,885,216	15,422	0.8	1,198,449	1,669	0.1
Chemical engineering	1,246,882	3,896	0.3	713,248	81	0.0
Civil engineering	1,900,543	14,473	0.8	929,044	10,329	1.1
Electrical, electronic, and communications engineering	3,838,675	71,953	1.9	2,794,497	45,629	1.6
Industrial and manufacturing engineering	707,239	3,352	0.5	481,861	187	0.0
Mechanical engineering	2,324,946	39,461	1.7	1,551,973	23,439	1.5
Metallurgical and materials engineering	1,039,160	14,199	1.4	693,211	268	0.0
Engineering nec	2,611,821	10,974	0.4	1,143,363	254	0.0
All non-science and engineering	6,904,991	36,417	0.5	1,724,799	9,041	0.5

TABLE A-15

Imputed amounts for total and federally financed higher education R&D expenditures at institutions in the standard form population, by R&D field: FY 2023

(Dollars in thousands)

R&D field	Total			Federally financed		
	All R&D expenditures	Imputed amount	Imputed amount as % of total	All R&D expenditures	Imputed amount	Imputed amount as % of total
Business management and business administration	1,218,052	2,414	0.2	109,626	211	0.2
Communication and communications technologies	253,609	1,033	0.4	58,280	95	0.2
Education	2,042,372	12,279	0.6	890,786	7,692	0.9
Humanities	846,919	17,248	2.0	65,170	501	0.8
Law	430,807	351	0.1	35,110	64	0.2
Social work	416,735	259	0.1	205,510	169	0.1
Visual and performing arts	283,750	1,626	0.6	20,717	102	0.5
Non-science and engineering nec	1,412,747	1,207	0.1	339,600	207	0.1

nec = not elsewhere classified.

Note(s):

Imputation rate at total level is lower than imputation rates at detail levels because some institutions could provide totals but not details. This table includes only institutions reporting \$1 million or more in total R&D expenditures in FY 2022. Institutions reporting less than \$1 million in total R&D expenditures in FY 2022 completed a shorter version of the survey form in FY 2023 that did not include this question.

Source(s):

National Center for Science and Engineering Statistics, Higher Education Research and Development Survey, FY 2023.