

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 2024

(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	117,554,145	443,990	0.4	64,639,941	214,612	0.3
All science and engineering	109,984,909	1,816,640	1.7	62,709,350	660,990	1.1
Computer and information sciences	3,955,529	21,954	0.6	2,597,399	2,774	0.1
Geosciences, atmospheric sciences, and ocean sciences	4,407,449	32,508	0.7	2,904,063	3,417	0.1
Atmospheric science and meteorology	737,245	39,818	5.4	587,101	34,919	5.9
Geological and earth sciences	1,688,053	116,290	6.9	1,028,127	69,966	6.8
Ocean sciences and marine sciences	1,497,079	59,438	4.0	954,889	49,927	5.2
Geosciences, atmospheric sciences, and ocean sciences nec	485,072	28,857	5.9	333,946	16,005	4.8
Life sciences	66,821,053	1,179,686	1.8	36,573,922	386,003	1.1
Agricultural sciences	4,802,906	14,477	0.3	1,707,617	10,730	0.6
Biological and biomedical sciences	20,769,747	439,340	2.1	12,589,402	181,615	1.4
Health sciences	38,512,622	578,981	1.5	20,969,007	126,196	0.6
Natural resources and conservation	1,127,157	1,354	0.1	503,439	289	0.1
Life sciences nec	1,608,621	145,534	9.0	804,457	67,173	8.4
Mathematics and statistics	1,164,507	9,782	0.8	727,271	664	0.1
Physical sciences	7,456,024	84,850	1.1	4,899,902	3,651	0.1
Astronomy and astrophysics	1,078,915	11,786	1.1	722,929	66	0.0
Chemistry	2,517,853	18,715	0.7	1,524,637	1,810	0.1
Materials science	348,922	344	0.1	229,274	0	0.0
Physics	3,107,027	30,924	1.0	2,207,764	1,775	0.1
Physical sciences nec	403,307	23,081	5.7	215,298	0	0.0
Psychology	1,730,944	9,374	0.5	1,027,212	995	0.1
Social sciences	3,909,953	23,756	0.6	1,295,442	8,056	0.6
Anthropology	178,236	663	0.4	56,158	131	0.2
Economics	780,462	2,186	0.3	212,947	100	0.0
Political science and government	601,465	1,681	0.3	124,004	242	0.2
Sociology, demography, and population studies	768,731	5,072	0.7	337,323	468	0.1
Social sciences nec	1,581,059	14,154	0.9	565,010	7,115	1.3
Sciences nec	1,268,044	22,671	1.8	498,894	377	0.1
Engineering	19,271,406	123,819	0.6	12,185,245	4,913	0.0
Aerospace, aeronautical, and astronautical engineering	2,054,095	20,327	1.0	1,579,997	8,475	0.5
Bioengineering and biomedical engineering	2,081,887	18,398	0.9	1,324,949	44	0.0
Chemical engineering	1,409,387	3,975	0.3	828,980	0	0.0
Civil engineering	2,096,724	24,717	1.2	1,023,417	10,421	1.0
Electrical, electronic, and communications engineering	4,415,693	79,647	1.8	3,231,304	45,369	1.4
Industrial and manufacturing engineering	747,870	2,571	0.3	524,338	88	0.0
Mechanical engineering	2,572,680	44,196	1.7	1,753,617	22,223	1.3
Metallurgical and materials engineering	1,141,081	20,837	1.8	747,553	990	0.1
Engineering nec	2,751,989	5,496	0.2	1,171,090	43	0.0
All non-science and engineering	7,569,236	45,399	0.6	1,930,591	6,955	0.4
Business management and business administration	1,349,055	2,790	0.2	120,973	69	0.1

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 2024

(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
Communication and communications technologies	263,204	354	0.1	65,394	125	0.2
Education	2,218,025	12,910	0.6	974,858	6,101	0.6
Humanities	926,242	17,913	1.9	69,567	132	0.2
Law	443,674	1,206	0.3	43,441	62	0.1
Social work	461,284	999	0.2	224,358	110	0.0
Visual and performing arts	302,978	2,346	0.8	25,590	92	0.4
Non-science and engineering nec	1,604,774	6,881	0.4	406,410	264	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 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 that did not include this question.

Source(s):

National Center for Science and Engineering Statistics, Higher Education Research and Development Survey, FY 2024.