

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 2022

(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	97,680,528	77,216	0.1	53,971,468	37,219	0.1
All science and engineering	91,822,920	844,263	0.9	52,480,716	269,266	0.5
Computer and information sciences	3,224,949	15,596	0.5	2,184,767	2,511	0.1
Geosciences, atmospheric sciences, and ocean sciences	3,690,235	138,856	3.8	2,478,702	130,373	5.3
Atmospheric science and meteorology	668,918	31,078	4.6	528,068	26,210	5.0
Geological and earth sciences	1,370,650	77,107	5.6	875,493	54,528	6.2
Ocean sciences and marine sciences	1,211,130	50,287	4.2	785,545	40,586	5.2
Geosciences, atmospheric sciences, and ocean sciences nec	439,537	17,140	3.9	289,596	9,049	3.1
Life sciences	56,498,207	431,758	0.8	30,958,717	29,825	0.1
Agricultural sciences	3,935,731	11,518	0.3	1,265,977	5,139	0.4
Biological and biomedical sciences	18,161,442	119,760	0.7	10,949,628	11,731	0.1
Health sciences	31,869,957	285,669	0.9	17,494,324	12,583	0.1
Natural resources and conservation	1,012,919	14,125	1.4	480,042	243	0.1
Life sciences nec	1,518,158	686	0.0	768,746	129	0.0
Mathematics and statistics	879,526	5,990	0.7	537,322	978	0.2
Physical sciences	6,167,583	27,253	0.4	4,212,405	6,134	0.1
Astronomy and astrophysics	813,900	2,452	0.3	581,652	225	0.0
Chemistry	2,126,741	8,314	0.4	1,322,328	2,965	0.2
Materials science	286,461	614	0.2	195,404	1	0.0
Physics	2,669,076	13,073	0.5	1,941,833	2,257	0.1
Physical sciences nec	271,405	2,800	1.0	171,188	686	0.4
Psychology	1,443,894	4,797	0.3	875,330	1,206	0.1
Social sciences	3,165,440	22,234	0.7	1,075,470	11,219	1.0
Anthropology	132,764	246	0.2	40,119	50	0.1
Economics	667,707	9,662	1.4	194,381	4,517	2.3
Political science and government	488,480	1,332	0.3	95,363	370	0.4
Sociology, demography, and population studies	616,142	1,438	0.2	272,683	222	0.1
Social sciences nec	1,260,347	9,556	0.8	472,924	6,060	1.3
Sciences nec	1,156,452	3,939	0.3	463,625	5	0.0
Engineering	15,596,634	150,373	1.0	9,694,378	87,015	0.9
Aerospace, aeronautical, and astronautical engineering	1,647,191	14,607	0.9	1,246,002	8,416	0.7
Bioengineering and biomedical engineering	1,726,307	10,314	0.6	1,100,258	152	0.0
Chemical engineering	1,108,245	1,945	0.2	646,644	290	0.0
Civil engineering	1,647,038	13,290	0.8	784,286	9,032	1.2
Electrical, electronic, and communications engineering	3,436,892	68,219	2.0	2,484,203	44,355	1.8
Industrial and manufacturing engineering	615,228	3,595	0.6	434,246	149	0.0
Mechanical engineering	2,062,508	36,080	1.7	1,409,792	23,018	1.6
Metallurgical and materials engineering	886,681	4,679	0.5	589,129	218	0.0
Engineering nec	2,466,544	4,963	0.2	999,818	1,622	0.2
All non-science and engineering	5,857,608	23,304	0.4	1,490,752	3,539	0.2

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Imputed amounts for total and federally financed higher education R&D expenditures at institutions in the standard form population, by R&D field: FY 2022

(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	1,081,380	2,690	0.2	97,962	388	0.4
Communication and communications technologies	213,000	442	0.2	42,707	50	0.1
Education	1,740,784	3,705	0.2	783,518	1,846	0.2
Humanities	713,685	12,866	1.8	68,956	607	0.9
Law	358,693	336	0.1	32,391	62	0.2
Social work	363,079	830	0.2	181,943	111	0.1
Visual and performing arts	224,572	1,226	0.5	21,188	96	0.5
Non-science and engineering nec	1,162,415	1,209	0.1	262,087	379	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 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.

Source(s):

National Center for Science and Engineering Statistics, Higher Education Research and Development Survey, FY 2022.