

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 2020

(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	86,296,178	120,807	0.1	46,143,829	64,135	0.1
All science and engineering	81,260,563	842,329	1.0	44,899,794	75,154	0.2
Computer and information sciences	2,923,149	26,964	0.9	2,000,937	1,573	0.1
Geosciences, atmospheric sciences, and ocean sciences	3,281,251	22,311	0.7	2,109,065	3,236	0.2
Atmospheric science and meteorology	612,890	4,919	0.8	471,158	690	0.1
Geological and earth sciences	1,159,627	9,405	0.8	696,991	694	0.1
Ocean sciences and marine sciences	1,136,259	5,948	0.5	713,086	1,847	0.3
Geosciences, atmospheric sciences, and ocean sciences nec	372,475	2,039	0.5	227,830	5	0.0
Life sciences	49,640,508	624,655	1.3	26,254,002	51,485	0.2
Agricultural sciences	3,626,162	8,020	0.2	1,072,057	3,959	0.4
Biological and biomedical sciences	15,761,876	151,441	1.0	9,339,917	30,730	0.3
Health sciences	28,026,662	462,853	1.7	14,733,751	16,271	0.1
Natural resources and conservation	900,697	4,365	0.5	410,120	2,322	0.6
Life sciences nec	1,325,111	24,781	1.9	698,157	19,864	2.8
Mathematics and statistics	798,975	7,983	1.0	486,259	1,595	0.3
Physical sciences	5,667,046	44,473	0.8	3,789,237	7,204	0.2
Astronomy and astrophysics	780,080	8,819	1.1	542,725	265	0.0
Chemistry	1,926,772	12,781	0.7	1,166,743	1,879	0.2
Materials science	252,193	664	0.3	156,894	95	0.1
Physics	2,434,467	17,794	0.7	1,736,916	4,356	0.3
Physical sciences nec	273,534	4,415	1.6	185,959	609	0.3
Psychology	1,357,081	12,300	0.9	808,565	673	0.1
Social sciences	2,947,338	16,436	0.6	969,278	2,983	0.3
Anthropology	119,329	595	0.5	38,847	6	0.0
Economics	562,192	1,092	0.2	121,461	125	0.1
Political science and government	425,267	1,294	0.3	78,462	49	0.1
Sociology, demography, and population studies	591,754	6,281	1.1	253,213	1,351	0.5
Social sciences nec	1,248,796	7,174	0.6	477,295	1,452	0.3
Sciences nec	952,459	4,341	0.5	361,560	1,561	0.4
Engineering	13,692,756	82,866	0.6	8,120,891	4,844	0.1
Aerospace, aeronautical, and astronautical engineering	1,295,759	6,257	0.5	957,795	1,275	0.1
Bioengineering and biomedical engineering	1,468,229	10,740	0.7	906,145	398	0.0
Chemical engineering	999,312	6,242	0.6	521,758	296	0.1
Civil engineering	1,422,418	6,779	0.5	606,519	437	0.1
Electrical, electronic, and communications engineering	3,048,420	24,446	0.8	2,143,397	1,201	0.1
Industrial and manufacturing engineering	588,127	3,013	0.5	384,795	1	0.0
Mechanical engineering	1,812,916	15,570	0.9	1,160,117	621	0.1
Metallurgical and materials engineering	816,610	5,092	0.6	504,528	14	0.0
Engineering nec	2,240,965	5,355	0.2	935,837	776	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 2020

(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 non-science and engineering	5,035,615	45,338	0.9	1,244,035	3,097	0.2
Business management and business administration	878,721	6,672	0.8	74,126	286	0.4
Communication and communications technologies	191,813	1,370	0.7	40,830	34	0.1
Education	1,603,978	7,569	0.5	667,043	1,656	0.2
Humanities	563,007	6,542	1.2	54,155	483	0.9
Law	267,565	214	0.1	26,697	16	0.1
Social work	307,145	1,872	0.6	140,836	107	0.1
Visual and performing arts	171,605	823	0.5	15,140	15	0.1
Non-science and engineering nec	1,051,781	20,276	1.9	225,208	500	0.2

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 2019. Institutions reporting less than \$1 million in total R&D expenditures in FY 2019 completed a shorter version of the survey form in FY 2020 that did not include this question.

Source(s):

National Center for Science and Engineering Statistics, Higher Education Research and Development Survey, FY 2020.