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 2019

(Dollars in millions)

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	83,496	69	0.1	44,455	33	0.1
All science and engineering	78,633	836	1.1	43,219	61	0.1
Computer and information sciences	2,639	29	1.1	1,795	1	0.1
Geosciences, atmospheric sciences, and ocean sciences	3,185	20	0.6	2,067	1	0.0
Atmospheric science and meteorology	590	5	0.8	460	0	0.1
Geological and earth sciences	1,121	12	1.0	677	0	0.1
Ocean sciences and marine sciences	1,101	1	0.1	698	0	0.0
Geosciences, atmospheric sciences, and ocean sciences nec	373	3	0.8	232	0	0.0
Life sciences	48,230	635	1.3	25,444	50	0.2
Agricultural sciences	3,429	6	0.2	990	2	0.2
Biological and biomedical sciences	15,387	157	1.0	9,260	24	0.3
Health sciences	27,274	474	1.7	14,185	23	0.2
Natural resources and conservation	838	9	1.0	368	2	0.7
Life sciences nec	1,303	31	2.4	641	23	3.5
Mathematics and statistics	770	5	0.7	467	0	0.1
Physical sciences	5,551	46	0.8	3,691	3	0.1
Astronomy and astrophysics	735	9	1.2	514	0	0.0
Chemistry	1,966	22	1.1	1,183	2	0.2
Materials science	259	1	0.3	166	0	0.0
Physics	2,324	10	0.4	1,657	1	0.1
Physical sciences nec	267	5	2.0	171	0	0.0
Psychology	1,323	15	1.1	787	2	0.2
Social sciences	2,805	7	0.2	936	1	0.1
Anthropology	124	0	0.4	43	0	0.0
Economics	459	1	0.1	91	0	0.0
Political science and government	448	1	0.3	86	0	0.1
Sociology, demography, and population studies	610	2	0.3	289	0	0.1
Social sciences nec	1,164	3	0.2	427	0	0.1
Sciences nec	915	3	0.4	364	0	0.0
Engineering	13,214	75	0.6	7,667	3	0.0
Aerospace, aeronautical, and astronautical engineering	1,170	3	0.3	821	0	0.0
Bioengineering and biomedical engineering	1,450	11	0.8	880	0	0.0
Chemical engineering	978	13	1.3	498	0	0.0
Civil engineering	1,432	8	0.5	621	1	0.1
Electrical, electronic, and communications engineering	2,939	24	0.8	2,049	1	0.1
Industrial and manufacturing engineering	557	3	0.5	367	0	0.0
Mechanical engineering	1,705	16	0.9	1,056	1	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 2019

(Dollars in millions)

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
Metallurgical and materials engineering	791	5	0.7	484	0	0.0
Engineering nec	2,191	7	0.3	893	0	0.0
All non-science and engineering	4,863	44	0.9	1,236	1	0.1
Business management and business administration	873	5	0.6	73	0	0.1
Communication and communications technologies	209	1	0.6	35	0	0.1
Education	1,520	3	0.2	662	0	0.1
Humanities	541	4	0.7	50	0	0.2
Law	256	0	0.1	32	0	0.1
Social work	286	4	1.4	133	0	0.1
Visual and performing arts	159	0	0.3	9	0	0.1
Non-science and engineering nec	1,019	27	2.6	242	1	0.3

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. Because of rounding, detail may not add to total. Percentages calculated on unrounded numbers. This table includes only institutions reporting $1 million or more in total R&D expenditures in FY 2018. Institutions reporting less than $1 million in total R&D expenditures in FY 2018 completed a shorter version of the survey form in FY 2019 that did not include this question.

Source(s):

National Center for Science and Engineering Statistics, Higher Education Research and Development Survey, FY 2019.