

TABLE 18

## Higher education R&amp;D expenditures for equipment, by R&amp;D field, source of funds, and institutional control: FY 2022

(Dollars in thousands)

Field	All expenditures			Federal			Nonfederal		
	Total	Public	Private	Total	Public	Private	Total	Public	Private
All R&D fields	2,700,652	1,980,284	720,368	1,336,692	955,690	381,002	1,363,960	1,024,594	339,366
Science	1,844,183	1,320,322	523,861	886,412	609,492	276,920	957,771	710,830	246,941
Computer and information sciences	136,868	96,925	39,943	78,813	56,021	22,792	58,055	40,904	17,151
Geosciences, atmospheric sciences, and ocean sciences	136,651	115,844	20,807	85,617	77,688	7,929	51,034	38,156	12,878
Atmospheric science and meteorology	23,944	21,484	2,460	18,413	16,938	1,475	5,531	4,546	985
Geological and earth sciences	47,613	33,753	13,860	22,360	17,824	4,536	25,253	15,929	9,324
Ocean sciences and marine sciences	52,689	49,204	3,485	36,435	35,046	1,389	16,254	14,158	2,096
Geosciences, atmospheric sciences, and ocean sciences nec	12,405	11,403	1,002	8,409	7,880	529	3,996	3,523	473
Life sciences	1,056,808	771,516	285,292	429,317	282,512	146,805	627,491	489,004	138,487
Agricultural sciences	120,530	117,922	2,608	33,636	32,829	807	86,894	85,093	1,801
Biological and biomedical sciences	485,746	313,990	171,756	231,374	146,206	85,168	254,372	167,784	86,588
Health sciences	408,455	306,476	101,979	149,025	92,094	56,931	259,430	214,382	45,048
Natural resources and conservation	13,797	13,349	448	5,278	5,085	193	8,519	8,264	255
Life sciences nec	28,280	19,779	8,501	10,004	6,298	3,706	18,276	13,481	4,795
Mathematics and statistics	10,648	5,407	5,241	5,277	3,473	1,804	5,371	1,934	3,437
Physical sciences	408,769	262,534	146,235	262,166	170,562	91,604	146,603	91,972	54,631
Astronomy and astrophysics	27,500	18,568	8,932	17,656	11,165	6,491	9,844	7,403	2,441
Chemistry	139,819	92,354	47,465	78,071	50,950	27,121	61,748	41,404	20,344
Materials science	22,064	14,493	7,571	16,928	11,380	5,548	5,136	3,113	2,023
Physics	198,354	127,429	70,925	136,324	91,056	45,268	62,030	36,373	25,657
Physical sciences nec	21,032	9,690	11,342	13,187	6,011	7,176	7,845	3,679	4,166
Psychology	14,616	9,652	4,964	6,886	3,872	3,014	7,730	5,780	1,950
Social sciences	21,001	14,438	6,563	6,247	4,801	1,446	14,754	9,637	5,117
Anthropology	2,944	2,463	481	308	172	136	2,636	2,291	345
Economics	2,346	1,578	768	1,191	721	470	1,155	857	298
Political science and government	1,640	1,509	131	740	739	1	900	770	130
Sociology, demography, and population studies	1,882	1,637	245	263	200	63	1,619	1,437	182
Social sciences nec	12,189	7,251	4,938	3,745	2,969	776	8,444	4,282	4,162
Sciences nec	58,822	44,006	14,816	12,089	10,563	1,526	46,733	33,443	13,290
Engineering	802,784	618,607	184,177	440,036	338,669	101,367	362,748	279,938	82,810
Aerospace, aeronautical, and astronautical engineering	72,887	61,707	11,180	48,599	44,387	4,212	24,288	17,320	6,968
Bioengineering and biomedical engineering	67,216	39,963	27,253	33,218	17,512	15,706	33,998	22,451	11,547
Chemical engineering	62,492	48,318	14,174	33,584	23,924	9,660	28,908	24,394	4,514
Civil engineering	48,545	41,022	7,523	24,667	21,104	3,563	23,878	19,918	3,960
Electrical, electronic, and communications engineering	181,826	135,778	46,048	124,371	103,585	20,786	57,455	32,193	25,262

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**Higher education R&D expenditures for equipment, by R&D field, source of funds, and institutional control: FY 2022**

(Dollars in thousands)

Field	All expenditures			Federal			Nonfederal		
	Total	Public	Private	Total	Public	Private	Total	Public	Private
Industrial and manufacturing engineering	26,538	16,604	9,934	16,102	9,792	6,310	10,436	6,812	3,624
Mechanical engineering	100,619	71,751	28,868	62,624	48,720	13,904	37,995	23,031	14,964
Metallurgical and materials engineering	66,604	47,301	19,303	43,734	29,520	14,214	22,870	17,781	5,089
Engineering nec	176,057	156,163	19,894	53,137	40,125	13,012	122,920	116,038	6,882
Non-S&E	53,685	41,355	12,330	10,244	7,529	2,715	43,441	33,826	9,615
Business management and business administration	8,885	6,461	2,424	916	903	13	7,969	5,558	2,411
Communication and communications technologies	4,102	3,328	774	900	140	760	3,202	3,188	14
Education	4,331	3,096	1,235	1,294	1,038	256	3,037	2,058	979
Humanities	3,092	1,610	1,482	237	224	13	2,855	1,386	1,469
Law	779	517	262	110	109	1	669	408	261
Social work	530	452	78	160	96	64	370	356	14
Visual and performing arts	2,563	1,688	875	99	49	50	2,464	1,639	825
Non-S&E nec	29,403	24,203	5,200	6,528	4,970	1,558	22,875	19,233	3,642

nec = not elsewhere classified; S&amp;E = science and engineering.

**Source(s):**

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