

TABLE 18

Higher education R&D expenditures for equipment, by R&D field, source of funds, and institutional control: FY 2021

(Dollars in thousands)

Field	All expenditures			Federal			Nonfederal		
	Total	Public	Private	Total	Public	Private	Total	Public	Private
All R&D fields	2,662,006	1,938,716	723,290	1,272,156	854,367	417,789	1,389,850	1,084,349	305,501
Science	1,816,025	1,300,359	515,666	855,824	556,388	299,436	960,201	743,971	216,230
Computer and information sciences	112,305	68,582	43,723	61,300	34,837	26,463	51,005	33,745	17,260
Geosciences, atmospheric sciences, and ocean sciences	125,635	104,802	20,833	82,581	70,541	12,040	43,054	34,261	8,793
Atmospheric science and meteorology	21,241	15,601	5,640	16,808	12,046	4,762	4,433	3,555	878
Geological and earth sciences	46,776	35,470	11,306	24,303	19,063	5,240	22,473	16,407	6,066
Ocean sciences and marine sciences	51,267	47,881	3,386	37,823	36,079	1,744	13,444	11,802	1,642
Geosciences, atmospheric sciences, and ocean sciences nec	6,351	5,850	501	3,647	3,353	294	2,704	2,497	207
Life sciences	1,029,337	749,376	279,961	409,732	253,326	156,406	619,605	496,050	123,555
Agricultural sciences	96,332	93,996	2,336	28,703	27,604	1,099	67,629	66,392	1,237
Biological and biomedical sciences	448,424	284,951	163,473	212,198	121,746	90,452	236,226	163,205	73,021
Health sciences	439,402	334,781	104,621	150,692	92,647	58,045	288,710	242,134	46,576
Natural resources and conservation	14,937	14,281	656	6,694	6,463	231	8,243	7,818	425
Life sciences nec	30,242	21,367	8,875	11,445	4,866	6,579	18,797	16,501	2,296
Mathematics and statistics	9,780	3,820	5,960	5,812	2,597	3,215	3,968	1,223	2,745
Physical sciences	447,085	300,630	146,455	273,687	179,511	94,176	173,398	121,119	52,279
Astronomy and astrophysics	39,188	28,831	10,357	20,664	14,404	6,260	18,524	14,427	4,097
Chemistry	147,904	104,431	43,473	81,731	54,324	27,407	66,173	50,107	16,066
Materials science	28,355	18,142	10,213	17,379	13,950	3,429	10,976	4,192	6,784
Physics	210,252	135,653	74,599	140,734	89,102	51,632	69,518	46,551	22,967
Physical sciences nec	21,386	13,573	7,813	13,179	7,731	5,448	8,207	5,842	2,365
Psychology	17,293	11,535	5,758	9,684	5,250	4,434	7,609	6,285	1,324
Social sciences	11,893	9,070	2,823	3,711	2,832	879	8,182	6,238	1,944
Anthropology	1,029	784	245	42	30	12	987	754	233
Economics	3,311	2,749	562	853	537	316	2,458	2,212	246
Political science and government	427	369	58	23	16	7	404	353	51
Sociology, demography, and population studies	984	748	236	449	370	79	535	378	157
Social sciences nec	6,142	4,420	1,722	2,344	1,879	465	3,798	2,541	1,257
Sciences nec	62,697	52,544	10,153	9,317	7,494	1,823	53,380	45,050	8,330
Engineering	791,204	590,423	200,781	408,715	290,758	117,957	382,489	299,665	82,824
Aerospace, aeronautical, and astronautical engineering	68,280	50,130	18,150	41,490	34,299	7,191	26,790	15,831	10,959
Bioengineering and biomedical engineering	58,226	33,746	24,480	26,204	11,659	14,545	32,022	22,087	9,935
Chemical engineering	58,603	46,909	11,694	29,151	22,816	6,335	29,452	24,093	5,359
Civil engineering	39,391	32,451	6,940	16,260	12,488	3,772	23,131	19,963	3,168

TABLE 18

Higher education R&D expenditures for equipment, by R&D field, source of funds, and institutional control: FY 2021

(Dollars in thousands)

Field	All expenditures			Federal			Nonfederal		
	Total	Public	Private	Total	Public	Private	Total	Public	Private
Electrical, electronic, and communications engineering	181,023	130,570	50,453	127,631	102,322	25,309	53,392	28,248	25,144
Industrial and manufacturing engineering	23,314	12,249	11,065	13,954	7,400	6,554	9,360	4,849	4,511
Mechanical engineering	98,623	71,836	26,787	64,312	48,100	16,212	34,311	23,736	10,575
Metallurgical and materials engineering	65,891	39,409	26,482	46,073	23,432	22,641	19,818	15,977	3,841
Engineering nec	197,853	173,123	24,730	43,640	28,242	15,398	154,213	144,881	9,332
Non-S&E	54,777	47,934	6,843	7,617	7,221	396	47,160	40,713	6,447
Business management and business administration	6,236	5,572	664	702	694	8	5,534	4,878	656
Communication and communications technologies	3,415	2,740	675	145	145	0	3,270	2,595	675
Education	5,099	4,320	779	918	780	138	4,181	3,540	641
Humanities	3,092	1,827	1,265	157	136	21	2,935	1,691	1,244
Law	215	131	84	92	33	59	123	98	25
Social work	351	300	51	85	57	28	266	243	23
Visual and performing arts	1,813	1,670	143	167	156	11	1,646	1,514	132
Non-S&E nec	34,556	31,374	3,182	5,351	5,220	131	29,205	26,154	3,051

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

Source(s):

National Center for Science and Engineering Statistics, Higher Education Research and Development Survey, FY 2021.