

TABLE 51

Total and federally financed higher education R&D expenditures in physics, ranked by FY 2021 total: FYs 2018–21

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2018	2019	2020	2021	2018	2019	2020	2021
All institutions	-	2,206,620	2,327,034	2,434,432	2,463,331	1,570,701	1,657,750	1,735,972	1,767,740
Johns Hopkins U. ^a	1	150,439 i	183,818 i	232,583 i	223,991 i	143,918	176,299	222,997	215,073
Michigan State U.	2	158,507	140,832	142,473	154,887	105,035	89,321	92,899	113,913
California Institute of Technology	3	83,649	84,599	106,237	100,714 i	71,571	72,782	92,720	78,185
U. Rochester	4	88,866	106,277	95,695	93,851	84,512	102,405	90,436	88,161
U. Colorado Boulder	5	54,531	66,848	69,967	70,498	49,962	62,321	64,624	64,351
Harvard U.	6	36,953	43,696	49,146	59,910	23,294	25,671	29,457	31,258
Massachusetts Institute of Technology	7	44,041	43,880	48,695	57,207	34,614	33,496	38,758	45,000
U. California, San Diego	8	44,584	52,798	66,169	56,983	24,028	25,547	32,298	32,711
Cornell U.	9	47,530	50,551	48,658	53,686	37,320	39,904	37,180	43,263
Stanford U.	10	35,411	49,051	48,826	47,667	23,263	35,992	32,816	32,299
U. Maryland ^b	11	na	47,394	46,013	42,274	na	34,664	29,752	31,173
Florida State U.	12	43,927	39,877	41,870	38,309	26,286	23,281	26,260	22,154
Princeton U.	13	34,551	38,060	40,161	35,249	25,073	25,639	28,224	23,204
U. Illinois, Urbana-Champaign	14	25,760	24,104	27,506	33,961	18,780	19,128	20,032	22,415
U. California, Berkeley	15	24,630	29,261	32,085	33,755	16,384	17,665	17,480	18,480
U. Central Florida	16	23,077	26,198	29,759	33,116	16,823	16,665	16,961	19,270
U. California, Los Angeles	17	35,056	34,460	33,263	30,227	23,630	23,350	22,591	20,068
Yale U.	18	32,428	32,019	27,884	29,911	19,468	17,859	16,547	16,119
U. Michigan, Ann Arbor	19	24,822	24,752	23,596	27,204	15,236	14,747	13,625	16,183
SUNY, Stony Brook U.	20	27,815	27,697	26,615	26,964	19,335	21,289	19,742	20,764
U. California, Santa Barbara	21	17,663	16,998	23,427	26,695	10,856	8,294	13,661	16,106
U. Iowa	22	19,055	18,463	17,099	26,404	17,902	16,600	14,623	24,381
U. Wisconsin-Madison	23	24,980	27,643	24,984	26,135	19,691	19,614	17,822	18,846
U. Texas, Austin	24	26,391	23,553	26,463	23,011	14,929	13,519	18,638	14,953
U. Pennsylvania	25	23,102	23,806	21,371	20,728	16,380	15,939	14,450	14,568
Pennsylvania State U., University Park and Hershey Medical Center	26	26,179	26,674	26,281	20,314	17,984	18,349	16,969	17,473
Ohio State U.	27	19,057	22,458	21,007	19,719	15,524	17,794	17,224	16,003
U. California, Irvine	28	16,589	18,441	18,770	19,684	9,934	11,538	10,987	11,775
Northwestern U.	29	18,337	17,918	15,418	19,296	8,597	10,063	8,508	8,746
U. Minnesota, Twin Cities	30	19,371	22,848	19,948	19,162	16,100	18,504	16,693	15,816
U. Washington, Seattle	31	16,964	19,123	19,281	18,479	15,446	17,410	17,789	17,655
U. Texas M. D. Anderson Cancer Center	32	15,858	19,017	19,060	17,572	6,607	7,922	8,114	8,179
Columbia U. in the City of New York	33	10,285	11,102	12,331	17,403	8,485	8,586	9,642	15,103

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Institution	Rank	Total				Federally financed			
		2018	2019	2020	2021	2018	2019	2020	2021
U. Notre Dame	34	16,252	16,720	15,639	16,473	10,939	11,107	10,607	10,256
Purdue U., West Lafayette	35	14,819	15,318	19,417	16,391	8,549	8,498	9,235	10,082
Texas A&M U., College Station and Health Science Center	36	19,108	21,835	17,848	16,238	9,529	12,329	9,751	10,514
Air Force Institute of Technology	37	5,871	8,478	7,796	15,999	4,241	4,457	4,973	8,037
U. Chicago	38	13,301	12,617	12,688	15,752	11,582	10,463	10,586	13,574
Northeastern U.	39	10,413	11,698	12,711	15,248	7,634	7,954	8,026	9,014
Boston U.	40	14,384	14,758	14,002	15,143	9,806	9,580	9,963	10,572
Arizona State U.	41	12,359	11,934	12,338	14,980	6,077	5,865	6,395	8,833
Iowa State U.	42	16,452	16,586	14,842	14,746	10,735	10,808	9,760	11,324
U. Nebraska, Lincoln	43	15,119	15,908	13,795	14,617	10,574	11,136	9,346	8,578
Rice U.	44	14,060	16,234	16,107	14,466	8,839	9,712	9,200	8,273
Dartmouth C. and Dartmouth Hitchcock Medical Center	45	10,542	10,632	12,021	14,279	3,205	3,832	4,677	5,301
U. Tennessee, Knoxville ^c	46	15,826	17,897	14,423	14,277	10,820	13,025	8,951	9,105
Catholic U. of America	47	9,434	11,192	12,213	13,988	9,090	10,760	11,952	13,555
Vanderbilt U. and Vanderbilt U. Medical Center	48	14,239	15,954	14,458	13,676	7,143	8,777	8,139	6,510
Rutgers, State U. New Jersey, New Brunswick	49	10,341	11,380	12,903	13,193	7,595	7,578	6,212	6,736
U. Florida	50	10,474	11,707	13,128	13,180	6,922	8,198	9,258	9,375
Louisiana State U., Baton Rouge	51	14,148	14,926	13,851	12,979	8,197	8,553	9,293	8,305
U. Massachusetts, Lowell	52	10,236	13,871	14,669	12,753	6,782	7,738	10,138	9,661
New York U.	53	11,661	11,615	12,945	12,261	7,093	7,180	6,927	7,483
North Carolina State U.	54	10,671	11,957	11,615	12,217	7,424	7,674	7,012	7,912
Indiana U., Bloomington	55	7,165	10,702	12,816	11,417	7,148	7,561	9,644	8,075
Georgia Institute of Technology	56	11,087	12,427	11,892	11,359	6,198	7,871	7,182	6,788
Carnegie Mellon U.	57	9,912	9,879	11,458	11,111	5,648	5,753	6,254	6,000
Washington State U.	58	17,436	16,288	12,549	10,978	6,667	7,330	6,837	8,560
U. Virginia, Charlottesville	59	10,786	11,930	12,224	10,671	8,255	8,914	10,220	8,967
Duke U.	60	10,029	10,465	12,587	10,595	9,104	9,595	10,780	9,760
U. Texas, Arlington	61	10,412	9,378	10,782	10,373	5,879	6,027	6,615	6,574
U. North Carolina, Chapel Hill	62	8,318	8,412	10,472	10,003	5,441	6,000	8,065	7,344
Montana State U., Bozeman	63	4,734	7,183	9,194	9,940	4,223	4,393	5,188	7,261
Syracuse U.	64	9,237	11,440	9,629	9,184	6,218	7,811	5,770	6,037
Auburn U., Auburn	65	7,303	6,710	7,842	9,147	3,557	4,225	5,012	4,549
U. Arizona	66	6,151	8,970	9,230	9,072	3,972	5,354	5,464	5,685
U. California, Davis	67	10,035	10,672	10,195	9,032	6,947	7,553	7,160	6,595

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Total and federally financed higher education R&D expenditures in physics, ranked by FY 2021 total: FYs 2018–21

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Institution	Rank	Total				Federally financed			
		2018	2019	2020	2021	2018	2019	2020	2021
U. Utah	68	0	0	0	8,945	0	0	0	5,381
Kansas State U.	69	8,725	8,878	8,209	8,759	6,066	6,186	6,007	6,616
U. Pittsburgh, Pittsburgh	70	9,209	9,772	8,507	8,706	6,891	6,844	6,176	5,927
Brown U.	71	9,766	7,636	7,968	8,542	4,482	4,358	3,718	5,221
U. Illinois, Chicago	72	4,949	5,792	7,884	8,392	3,690	4,579	5,874	6,815
U. California, Riverside	73	7,903	6,917	7,777	8,003	6,997	5,889	6,880	6,534
U. Massachusetts, Amherst	74	7,256	7,403	8,927	7,995	3,763	4,709	4,976	5,267
Virginia Polytechnic Institute and State U.	75	6,511	7,909	7,831	7,913	3,627	4,538	4,788	5,196
Brandeis U.	76	7,129	7,551	9,118	7,631	4,919	5,958	5,523	4,522
U. Mississippi	77	7,349	8,361	7,658	7,568	4,968	5,816	5,768	5,690
Texas Tech U.	78	7,096	6,641	7,419	7,553	1,194	1,656	1,215	1,141
Georgetown U.	79	3,119	3,921	5,833	7,444	1,955	2,939	4,763	6,119
U. Houston	80	5,168	7,839	8,637	7,385	2,845	3,366	2,775	2,809
U. California, Santa Cruz	81	7,803	7,057	6,991	6,919	5,071	5,048	4,865	4,666
U. Toledo	82	5,693	4,115	4,645	6,700	2,781	2,724	3,237	4,768
U. Oklahoma, Norman and Health Science Center	83	4,081	3,526	6,397	6,446	3,088	2,731	3,054	2,907
Temple U.	84	5,366	5,717	6,708	6,242	3,696	4,069	3,720	3,387
Clemson U.	85	5,148	5,861	5,747	5,915	3,171	3,703	3,820	4,288
U. Southern California	86	2,735	4,410	5,508	5,759	2,715	3,439	4,861	5,061
Washington U., Saint Louis	87	6,274	5,476	5,060	5,680	5,461	4,827	4,606	5,255
U. Maine	88	4,442	5,457	5,267	5,645	1,633	1,844	1,648	2,161
William & Mary	89	4,520	5,788	5,280	5,491	3,600	3,752	4,049	3,774
U. Connecticut	90	5,973	6,330	6,034	5,482	3,604	3,691	4,609	4,030
Colorado School of Mines	91	3,128	4,841	5,398	5,336	2,689	4,336	5,059	4,957
Florida International U.	92	6,587	5,911	8,185	5,218	3,399	3,113	3,976	2,345
West Virginia U.	93	10,631	8,707	7,810	4,887	6,494	6,067	5,765	3,757
U. Nevada, Las Vegas	94	4,989	3,765	3,807	4,851	3,504	1,321	982	1,428
Emory U.	95	2,773	2,882	3,433	4,835	1,844	2,262	2,729	2,984
Georgia State U.	96	6,368	4,948	5,727	4,705	4,558	4,548	5,143	2,893
Old Dominion U.	97	3,875	4,709	4,731	4,551	3,276	3,606	3,510	3,352
U. Texas, Dallas	98	3,845	2,216	5,219	4,550	1,675	1,749	2,914	2,588
U. Delaware	99	5,605	5,499	5,429	4,523	4,747	4,630	4,452	3,576
U. Texas, San Antonio	100	3,086	3,774	4,254	4,510	1,858	2,463	3,017	3,090
CUNY, Advanced Science Research Center	101	329	1,640	2,778	4,490	232	1,252	2,096	3,559

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Institution	Rank	Total				Federally financed			
		2018	2019	2020	2021	2018	2019	2020	2021
Oklahoma State U., Stillwater	102	3,429	3,654	4,604	4,483	875	1,164	1,357	1,461
U. Hawaii, Manoa	103	3,897	4,040	4,021	4,291	3,677	3,914	3,792	3,763
Wayne State U.	104	5,025	4,317	3,654	4,254	3,666	2,614	2,469	3,071
Abilene Christian U.	105	ne	ne	ne	4,209	ne	ne	ne	712
New Jersey Institute of Technology	106	4,059	4,090	4,366	4,153	1,430	1,511	1,542	1,640
SUNY, Binghamton U.	107	6,720	3,930	6,624	4,123	1,096	1,121	2,318	1,619
Ohio U.	108	4,602	3,859	3,971	4,088	2,373	2,386	2,885	3,070
Naval Postgraduate School	109	4,310	6,126	6,244	4,070	3,074	5,302	6,178	3,899
U. New Mexico	110	4,344	3,989	4,272	4,044	3,967	3,620	3,846	3,524
U. Alabama, Tuscaloosa	111	3,078	2,437	3,530	4,005	2,575	2,287	2,568	2,558
Northern Illinois U.	112	4,988	4,823	4,024	3,875	3,136	3,311	2,567	2,460
George Washington U.	113	3,699	4,108	4,334	3,752	2,771	3,354	3,597	2,898
U. Miami	114	4,079	4,465	3,713	3,682	3,451	4,041	3,161	3,353
Mississippi State U.	115	4,773	4,710	3,475	3,675	2,737	2,424	1,138	1,022
U. South Florida ^d	116	5,096	4,440	4,213	3,623	2,761	2,225	2,114	1,867
American U.	117	2,245	3,303	3,867	3,614	1,768	2,732	3,205	2,976
Rochester Institute of Technology	118	3,316	3,369	3,504	3,585	2,468	2,219	2,160	2,165
CUNY, City C.	119	4,213	3,207	3,361	3,553	3,260	2,179	2,626	3,228
U. Oregon	120	5,695	7,523	7,248	3,462	4,294	4,467	4,826	2,937
U. Arkansas, Fayetteville	121	3,575	3,370	4,313	3,443	1,747	1,765	2,292	2,070
U. Louisiana, Lafayette	122	2,146	460	1,283	3,442	159	22	44	2,011
Hampton U.	123	4,129	4,044	3,142	3,409	4,129	4,044	3,142	3,409
U. Wisconsin-Milwaukee	124	10,329	8,327	6,526	3,324	8,049	6,609	4,260	1,985
Boston C.	125	1,783	2,384	1,814	3,320	1,470	1,809	1,471	1,997
SUNY, U. Buffalo	126	4,227	4,236	3,526	3,283	2,949	2,998	2,412	2,319
U. Kansas	127	2,578	2,269	2,108	3,264	2,424	2,233	1,983	2,365
U. Missouri, Columbia	128	9,092	6,020	3,443	3,221	7,613	2,544	2,486	2,070
U. North Texas, Denton	129	2,044	3,517	3,689	3,205	1,240	1,445	1,222	1,099
U. Cincinnati	130	4,352	3,673	3,078	3,202	2,643	2,483	2,036	2,328
U. Kentucky	131	2,366	2,937	3,751	3,124	1,928	2,534	3,116	2,434
Illinois Institute of Technology	132	3,188	2,772	2,476	3,110	2,897	2,453	2,125	2,613
U. South Carolina, Columbia	133	2,941	2,203	2,806	3,050	2,335	1,774	2,264	1,467
Colorado State U., Fort Collins	134	2,772	2,837	2,855	2,956	2,649	2,140	2,101	2,460
Baylor U.	135	2,585	2,866	2,968	2,955	1,085	1,213	1,136	1,158

TABLE 51

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U. Nevada, Reno	136	4,126	3,942	4,235	2,947	2,695	2,118	2,590	2,399
Rensselaer Polytechnic Institute	137	4,705	4,936	2,554	2,883	2,699	1,913	1,151	1,240
U. Maryland, Baltimore County	138	2,037	2,742	2,753	2,869	1,654	2,261	2,300	2,570
Oakland U.	139	890	2,343	2,300	2,819	743	933	886	1,208
U. Texas, El Paso	140	1,385	1,068	2,155	2,801	731	648	1,024	1,559
Tulane U.	141	3,866	3,327	2,986	2,791	2,218	1,594	1,971	1,748
U. New Hampshire	142	1,423	1,717	2,672	2,786	900	1,119	2,283	1,461
North Carolina Central U.	143	2,850	1,881	2,878	2,601	2,850	1,881	2,834	2,356
Florida Institute of Technology	144	759	650	1,364	2,513	504	428	1,193	1,887
Southern Methodist U.	145	2,237	1,900	2,378	2,504	2,050	1,701	1,934	2,266
U. Georgia	146	3,331	1,053	2,701	2,499	538	722	792	516
Kent State U.	147	2,636	2,205	2,591	2,378	1,670	1,355	1,617	1,282
U. California, Merced	148	2,649	2,190	3,101	2,344	1,699	1,387	2,119	871
U. Alabama, Birmingham	149	2,675	2,419	2,491	2,339	2,340	2,140	2,214	2,093
Brigham Young U., Provo	150	1,963	2,696	2,034	2,337	1,851	2,216	1,676	1,927
U. Alabama, Huntsville	151	1,656	1,724	1,767	2,284	869	741	886	1,172
Embry-Riddle Aeronautical U.	152	631	724	1,787	2,244	265	490	902	873
Worcester Polytechnic Institute	153	1,061	3,269	1,351	2,239	551	525	582	1,136
Michigan Technological U.	154	1,930	2,215	2,169	2,218	299	440	640	553
Utah State U.	155	1,919	2,318	2,462	2,172	1,294	1,586	1,661	1,421
SUNY, U. Albany	156	1,911	2,156	2,427	1,977	224	279	533	609
U. Puerto Rico, Rio Piedras	157	1,930	2,639	1,653	1,919	1,197	1,587	1,067	1,454
Missouri U. of Science and Technology	158	1,019	1,017	3,792	1,873	978	620	2,758	883
Tufts U.	159	467	234	1,621	1,872	467	216	1,587	1,798
U.S. Air Force Academy	160	844	2,603	2,714	1,846	249	2,603	2,714	1,796
California Polytechnic State U., San Luis Obispo	161	1,536	2,783	2,494	1,757	572	926	937	658
U. North Carolina, Charlotte	161	2,282	2,804	2,742	1,757	1,454	1,770	1,901	1,310
Case Western Reserve U.	163	2,799	2,476	1,767	1,702	2,405	2,170	1,610	1,476
U. South Dakota	164	1,220	2,089	1,555	1,691	456	1,313	976	1,028
New Mexico State U.	165	1,656	1,762	1,386	1,675	1,493	1,532	1,132	1,322
Central Michigan U.	166	2,121	2,527	2,366	1,651	1,527	2,168	1,943	1,627
San Diego State U.	167	1,344	1,422	1,561	1,594	408	507	440	517
Lehigh U.	168	1,897	1,195	1,348	1,577	1,096	845	868	1,102
Oregon State U.	169	906	1,204	1,310	1,564	812	1,112	1,304	1,554

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California State U., Northridge	170	1,865	2,397	2,567	1,525	1,788	2,312	2,373	1,508
Stevens Institute of Technology	171	1,469	2,045	1,824	1,518	1,297	1,960	1,648	1,242
U. Massachusetts, Boston	172	1,021	1,380	1,214	1,479	502	552	533	624
Virginia Commonwealth U.	173	1,320	1,086	1,249	1,379	1,190	983	901	992
Delaware State U.	174	2,434	3,716	1,313	1,340	1,567	1,158	873	1,003
Drexel U.	175	2,312	1,663	258	1,339	1,733	1,303	0	1,119
U. California, San Francisco	176	349	370	917	1,325	0	4	0	1
Florida A&M U.	177	4,455	3,463	1,371	1,323	4,254	3,337	1,327	1,321
Rockefeller U.	178	2,870	2,607	2,464	1,305	595	350	583	348
San Jose State U.	179	397	461	626	1,301	391	455	615	822
Texas State U.	180	1,735	1,421	735	1,251	1,663	1,365	734	1,127
U. Denver	181	1,632	1,147	1,456	1,230	1,065	641	795	598
California State U., East Bay	182	ne	ne	584	1,177	ne	ne	221	744
Jackson State U.	183	1,637	1,586	1,451	1,160	1,417	1,446	1,314	1,011
South Dakota School of Mines and Technology	184	1,163	1,098	693	1,143	1,003	1,098	693	865
U. Vermont	185	912	793	2,441	1,104	496	646	1,383	616
Wake Forest U.	186	1,337	1,680	1,366	1,080	1,278	1,344	1,103	936
Clark U.	187	421	350	1,054	1,069	245	180	586	643
Louisiana Tech U.	188	1,038	1,034	980	1,055	362	317	252	232
Fisk U.	189	89	0	200	1,022	89	0	200	904
CUNY, Hunter C.	190	1,285	1,625	1,194	1,015	800	1,186	973	954
Clarkson U.	191	283	198	388	1,005	196	148	244	139
U.S. Naval Academy	192	950	1,468	1,217	1,001	791	1,370	1,193	897
U. of the Virgin Islands	193	0	0	749	989	0	0	749	989
New Mexico Institute of Mining and Technology	194	821	1,520	1,074	984	808	1,478	1,061	972
Wright State U.	195	2,045	1,373	1,250	975	1,511	1,179	1,014	847
North Dakota State U.	196	482	764	732	970	382	288	197	514
Creighton U.	197	644	957	837	951	326	576	529	571
SUNY, Geneseo	198	869	843	683	928	592	663	542	632
San Francisco State U.	199	1,169	1,300	883	927	769	958	493	498
North Carolina Agricultural and Technical State U.	200	891	1,263	1,116	910	855	1,211	1,049	877
Wesleyan U.	201	1,030	1,366	1,130	909	805	1,037	791	597
U. Missouri, Kansas City	202	1,637	1,368	894	897	1,075	1,019	726	667
Idaho State U.	203	4,072	3,126	742	885	2,413	1,686	394	403

TABLE 51

Total and federally financed higher education R&D expenditures in physics, ranked by FY 2021 total: FYs 2018–21

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2018	2019	2020	2021	2018	2019	2020	2021
U. San Diego	204	292	573	918	879	172	353	496	402
Northern Arizona U.	205	324	538	941	858	89	212	352	373
Florida Atlantic U.	206	472	560	991	849	236	285	481	404
U. North Dakota	207	813	887	1,123	812	78	96	129	31
U. Texas Rio Grande Valley	208	330	285	595	807	317	283	594	683
Bowling Green State U.	209	722	593	849	784	253	233	590	649
Texas A&M U.-Commerce	210	898	643	810	783	754	531	688	678
U. Memphis	211	474	578	791	770	182	230	353	341
Rowan U.	212	496	576	276	752	344	465	194	695
U. New Orleans	213	611	757	803	749	508	605	551	469
Norfolk State U.	214	396	311	650	732	396	311	650	732
Howard U.	215	601	719	762	720	525	559	612	583
U. Massachusetts, Dartmouth	216	212	441	499	716	39	64	75	41
Christopher Newport U.	217	368	656	766	705	344	470	518	526
U. Louisville	218	379	291	426	702	119	105	57	81
Prairie View A&M U.	219	1,517	783	932	692	248	225	97	185
U. Washington, Bothell	220	0	256	156	681	0	215	156	681
George Mason U.	221	487	445	842	646	408	311	700	466
East Carolina U.	222	596	591	814	621	214	133	305	401
Hope C.	223	398	614	560	615	343	598	444	524
U. Central Oklahoma	224	631	561	557	583	519	517	512	537
Amherst C.	225	809	1,312	705	570	590	1,103	603	434
U. Wyoming	226	1,385	892	679	549	1,118	835	652	511
CUNY, Graduate Center	227	0	353	630	547	0	330	435	518
Southern Illinois U., Carbondale	228	624	378	327	537	299	269	243	257
Western Michigan U. and Homer Stryker M.D. School of Medicine	228	679	571	660	537	530	465	509	442
Southern Illinois U., Edwardsville	230	694	84	0	525	217	84	0	122
James Madison U.	231	120	126	298	516	120	126	182	266
U. Dayton	232	1,030	539	438	511	1,013	525	428	507
Tennessee Technological U.	233	671	635	594	504	543	544	488	402
CUNY, Lehman C.	234	360	129	409	495	360	0	409	413
Villanova U.	235	255	436	520	492	123	239	306	273
Indiana U.-Purdue U., Indianapolis	236	205	418	507	486	165	370	455	486
Clark Atlanta U.	237	0	461	671	477	0	455	662	456

TABLE 51

Total and federally financed higher education R&D expenditures in physics, ranked by FY 2021 total: FYs 2018–21

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2018	2019	2020	2021	2018	2019	2020	2021
Bryn Mawr C.	238	775	635	462	462	306	335	55	257
Southern U. and A&M C., Baton Rouge	239	964	716	634	450	822	573	427	227
California State U., Fullerton	240	465	392	481	448	454	315	396	316
Western Kentucky U.	241	955	553	425	433	365	349	289	316
Cleveland State U.	242	555	639	786	427	174	277	409	191
Marquette U.	242	150	315	320	427	19	83	225	291
CUNY, Queens C.	244	648	553	458	423	409	295	171	278
U. Puerto Rico, Humacao	245	620	695	0	419	360	390	0	245
U. Colorado Denver ^e	246	na	na	na	417	na	na	na	417
Georgia Southern U.	247	244	190	120	415	65	34	47	32
California State U., Los Angeles	248	1,162	745	639	395	612	720	622	394
U. Colorado Anschutz Medical Campus ^e	249	na	na	na	391	na	na	na	344
Colgate U.	250	185	133	147	389	100	34	19	82
U. Puerto Rico, Mayaguez	251	1,121	380	367	386	754	287	292	293
Morgan State U.	252	113	34	234	385	113	30	218	374
Rutgers, State U. New Jersey, Newark	253	162	109	408	371	115	32	261	316
Mount Holyoke C.	254	0	0	22	364	0	0	0	342
Harvey Mudd C.	255	126	309	284	362	20	72	96	148
California State U., San Marcos	256	330	225	841	339	330	225	841	336
Alabama A&M U.	257	657	485	331	330	537	380	259	262
CUNY, New York City C. of Technology	258	30	347	212	326	18	314	200	314
Williams C.	259	197	329	315	323	189	189	182	193
Appalachian State U.	260	72	87	115	320	67	73	98	166
Portland State U.	261	90	195	418	317	38	85	344	303
Augustana U.	262	321	200	ne	298	186	148	ne	298
Middle Tennessee State U.	263	7	13	0	292	0	0	0	56
Illinois State U.	264	157	184	229	280	123	145	220	214
Towson U.	265	584	446	191	278	555	401	50	115
Middlebury C.	266	0	114	19	276	0	104	0	276
Macalester C.	267	11	139	171	272	11	50	31	172
CUNY, Baruch C.	268	241	375	276	256	241	330	275	253
U. Central Arkansas	269	266	149	80	255	232	136	76	176
Kennesaw State U.	270	146	189	288	253	42	100	165	160
Yeshiva U.	270	0	0	286	253	0	0	286	253

TABLE 51

Total and federally financed higher education R&D expenditures in physics, ranked by FY 2021 total: FYs 2018–21

(Dollars in thousands)

Institution	Rank	Total				Federally financed									
		2018	2019	2020	2021	2018	2019	2020	2021						
U. Wisconsin-La Crosse	272	164	49	188	252	126	44	151	243						
Carleton C.	273	78	219	84	250	64	2	84	101						
U. Minnesota, Duluth	273	230	237	123	250	188	196	17	175						
Indiana U., South Bend	275	219	ne	ne	248	22	ne	ne	244						
U. Idaho	276	210	326	245	246	157	188	160	160						
CUNY, C. Staten Island	277	701	i	777	542	242	540	i	659	542	239				
C. New Jersey	278	278	ne	312	239	278	ne	306	233						
Grambling State U.	279	267	129	65	238	137	52	7	50						
West Chester U. Pennsylvania	279	391	149	98	238	31	0	0	55						
Swarthmore C.	281	442	246	353	236	367	199	139	162						
Grinnell C.	282	419	364	58	231	0	0	0	0						
U. Montana, Missoula	282	318	244	260	231	295	117	77	117						
C. Charleston	284	88	103	135	223	17	49	72	118						
Drake U.	285	107	117	ne	221	105	109	ne	200						
Smith C.	286	170	173	102	220	157	160	95	212						
DePaul U.	287	185	187	267	211	111	111	205	211						
Lafayette C.	287	146	183	227	211	146	182	205	194						
Missouri State U.	289	93	296	305	208	78	278	289	184						
U. Tulsa	290	566	268	163	207	313	181	71	103						
Dillard U.	291	785	606	959	205	352	122	646	205						
Texas Southern U.	292	0	67	277	199	0	65	188	95						
CUNY, Brooklyn C.	293	72	187	i	193	198	28	113	i	118	177				
Indiana U. Pennsylvania	294	140	126	218	189	105	82	175	171						
South Carolina State U.	294	743	i	175	182	i	189	i	739	i	175	182	i	189	i
U. Colorado Colorado Springs	296	449	203	145	185	105	54	22	25						
California State U., Fresno	297	391	341	283	178	366	341	252	178						
California State U., Sacramento	298	104	161	207	176	78	97	152	125						
Bates C.	299	246	282	155	175	143	141	94	37						
Texas Christian U.	300	135	149	299	173	102	0	175	154						
Sam Houston State U.	301	37	78	74	170	23	69	72	147						
Pomona C.	302	109	40	103	167	20	0	0	139						
Loyola U., Chicago	303	17	36	52	166	0	0	0	146						
California State U., Chico	304	78	156	150	162	68	150	144	162						
U. North Florida	304	225	179	197	162	97	100	88	100						

TABLE 51

Total and federally financed higher education R&D expenditures in physics, ranked by FY 2021 total: FYs 2018–21

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2018	2019	2020	2021	2018	2019	2020	2021
Northern Kentucky U.	306	178	242	270	159	94	174	203	33
Franklin and Marshall C.	307	127	122	78	156	78	54	48	96
Long Island U.	308	60	178	109	151	60	171	51	54
Santa Clara U.	309	503	86	145	148	503	81	130	144
Morehouse C.	310	223	213	216	146	223	213	216	146
U.S. Military Academy	311	120	35	269	144	120	35	269	144
Miami U.	312	124	199	142	142	86	153	116	95
Oberlin C.	313	235	263	270	141	224	255	191	132
Trinity U.	314	79	194	218	139	35	43	61	115
Calvin U.	315	120	137	131	i 137	102	123	118	i 125
Boise State U.	316	219	256	202	131	167	214	94	79
CUNY, York C.	316	ne	123	214	131	ne	123	181	125
Reed C.	318	131	401	129	128	i 6	32	41	43
U. Northern Iowa	319	26	18	86	125	26	14	86	117
Vassar C.	320	501	i 113	232	121	501	i 109	147	89
U. North Carolina, Wilmington	321	90	52	110	118	47	51	110	118
Hobart and William Smith Colleges	322	ne	122	95	116	ne	120	82	99
Occidental C.	323	62	23	103	111	62	23	70	64
Fort Hays State U.	324	ne	82	86	108	ne	20	21	5
Davidson C.	325	0	70	45	107	0	7	45	107
Southeastern Louisiana U.	325	88	25	113	107	54	7	44	38
Black Hills State U.	327	388	363	116	94	370	331	91	94
Gallaudet U.	328	4	0	0	92	0	0	0	92
Mercer U.	328	81	83	87	92	0	0	0	0
Southern Connecticut State U.	330	327	92	13	91	279	53	0	0
U. Richmond	330	189	132	112	91	117	99	98	78
Chapman U.	332	86	55	81	88	0	0	71	86
Marymount U.	332	ne	ne	ne	88	ne	ne	ne	0
Haverford C.	334	54	i 91	i 147	i 87	17	37	49	51
Albion C.	335	72	69	84	86	i 31	50	50	53
South Dakota State U.	335	4	53	33	86	4	53	32	83
Bucknell U.	337	0	167	87	i 85	0	167	87	i 85
Seattle U.	338	139	73	79	84	129	50	58	79
Tougaloo C.	339	0	0	81	81	i 0	0	81	81

TABLE 51

Total and federally financed higher education R&D expenditures in physics, ranked by FY 2021 total: FYs 2018–21

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2018	2019	2020	2021	2018	2019	2020	2021
California State U., San Bernardino	340	1	5	0	80	0	0	0	62
Bowdoin C.	341	115	250	131	79	108	89	125	78
Mercyhurst U.	341	ne	74 i	75 i	79 i	ne	47 i	48 i	49 i
Azusa Pacific U.	343	82	81	68	78	0	28	0	0
C. Wooster	344	88	179	75	76 i	57	100	35	37 i
U. Nebraska, Omaha	345	189	167	58	73	179	130	0	47
Eastern Kentucky U.	346	0	0	40	71	0	0	35	64
Coastal Carolina U.	347	0	0	0	68	0	0	0	60
Ball State U.	348	11	22	9	65	0	2	0	21
Colby C.	348	92	67	89	65	68	37	74	41
SUNY, C. Plattsburgh	348	305	369	126	65	261	259	110	41
Eastern Washington U.	351	33	34	66	63	33	34	66	62
Fairfield U.	351	41	81	52	63	41	81	42	50
U. Puerto Rico, Cayey	353	97	57	48	62	4	57	48	62
U. Maryland Center for Environmental Science	354	17	55	72	61	17	55	72	61
U. of the Incarnate Word	355	309	0	0	60	309	0	0	60
Claremont McKenna C.	356	0	0	59	59	0	0	59	59
Dakota State U.	357	8	5	0	58	0	0	0	48
U. Wisconsin-Green Bay	358	45 i	64 i	63 i	57 i	24 i	36 i	39 i	36 i
Indiana State U.	359	126	93	121	56	126	93	121	56
Lewis and Clark C.	360	153	141	598	55	61	108	441	55
Lawrence Technological U.	361	0	0	6	54	0	0	6	48
Biola U.	362	44 i	49 i	50 i	52 i	34 i	38 i	39 i	40 i
St. Edward's U.	362	255	164	55	52	160	150	55	52
Central State U.	364	0	0	0	51	0	0	0	51
Loyola Marymount U.	364	17	54	2	51	0	0	0	0
Austin Peay State U.	366	155	47	13	50	142	36	13	50
Wheaton C., Wheaton	366	56	74	93	50	17	74	66	35
East Tennessee State U.	368	293 i	171 i	227 i	49 i	193	140	188	36
Lamar U.	368	32	24	26	49	21	0	0	49
Salisbury U.	370	17	13	43	48	4	0	0	0
Colorado C.	371	84	19	37	47	60	14	15	4
Ithaca C.	371	ne	ne	22	47	ne	ne	0	13
Duquesne U.	373	195	135	122	46	55	56	43	34

TABLE 51

Total and federally financed higher education R&D expenditures in physics, ranked by FY 2021 total: FYs 2018–21

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2018	2019	2020	2021	2018	2019	2020	2021
SUNY, Oswego	373	13	3	23	46	0	0	0	0
U. North Carolina, Greensboro	375	106	125	50	44	106	125	5	0
Skidmore C.	376	12	78	49	42	0	35	41	34
U. of St. Thomas (MN)	376	47	22	61	42	38	19	41	12
California State Polytechnic U., Pomona	378	0	0	89	40	0	0	89	40
Hamilton C.	378	165	116	44	40	3	12	3	8
U. of the Pacific	378	63	53	55	40	63	53	55	40
U. Missouri, Saint Louis	381	139	17	3	39	136	14	0	28
U. Wisconsin-Platteville	381	ne	0 i	0 i	39 i	ne	0 i	0 i	16 i
Texas A&M International U.	383	8	3	38	37	1	0	38	37
U. South Alabama	383	0	0	26	37	0	0	25	35
U. Wisconsin-River Falls	385	33	ne	175	36	0	ne	174	36
Tuskegee U.	386	154	32	32	35	154	32	32	35
U. Hawaii, Hilo	387	383	103	36	34	383	103	36	33
U. of the Sciences Philadelphia	387	61	30	47	34	1	1	25	0
Texas A&M U.-Kingsville	389	33	48	1	33	28	46	0	0
C. of Saint Benedict	390	39	39 i	37 i	32 i	0	0 i	0 i	3 i
Saint John's U.	390	35	35 i	33 i	32 i	0	0 i	0 i	0 i
Saint Joseph's U.	390	90	300	66	32	2	0	0	0
U. Alaska, Anchorage	390	0	0	0	32	0	0	0	32
U. of Mary Washington	390	136	16	5	32	0	16	5	25
U. Wisconsin-Oshkosh	395	23 i	25 i	27 i	30	0 i	0 i	0 i	0
Central Washington U.	396	125	178	109	29	118	170	103	27
Florida Polytechnic U.	396	ne	68	59	29	ne	0	0	0
Clafin U.	398	0	7	50	25	0	7	50	25
Youngstown State U.	398	27	12	23	25	18	5	20	24
Citadel Military C. South Carolina	400	ne	ne	0	24	ne	ne	0	7
Kettering U.	400	370	62	285	24	326	27	241	14
U. Northern Colorado	400	60	19	50	24	26	0	0	0
Wellesley C.	403	76	322	0	23	60	129	0	23
Marshall U.	404	16	5	11	22	2	0	0	12
Elon U.	405	108	49	27	21	0	0	0	0
Pacific U.	405	161	223	41	21	107	169	21	16
U. Rhode Island	407	104	95	100	20	89	85	79	20

TABLE 51

Total and federally financed higher education R&D expenditures in physics, ranked by FY 2021 total: FYs 2018–21

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2018	2019	2020	2021	2018	2019	2020	2021
Montclair State U.	408	0	0	43	19	0	0	0	0
Arkansas State U., Jonesboro	409	167	66	36	18	120	47	33	14
Milwaukee School of Engineering	410	49	69	85	17	49	69	0	0
Pennsylvania State U., Behrend	410	49	75	22	17	15	16	15	17
U. Wisconsin-Eau Claire	410	0	0	0	17	0	0	0	0
Hofstra U.	413	10	4	2	16	0	0	0	0
U. Nebraska, Kearney	413	7	65	17	16	5	8	9	0
U. Wisconsin-Stevens Point	413	31 i	37 i	43	16	31 i	37 i	43	7
Western Illinois U.	413	0	19	39	16	0	19	39	16
Monmouth U.	417	ne	0	0	15	ne	0	0	15
Humboldt State U.	418	106	115	144	14	69	48	76	7
Eastern Michigan U.	419	22	40	114	13	10	24	31	9
California State U., Stanislaus	420	0	5	5	12	0	0	0	0
Dordt U.	421	ne	ne	ne	11	ne	ne	ne	0
Saint Louis U.	421	105	205	156	11	89	67	67	11
SUNY, C. Brockport	421	4	15	5	11	0	6	2	11
Pepperdine U.	424	6	11	2	10	0	0	0	0
Purdue U., Fort Wayne	424	10	0	3	10	6	0	0	0
Furman U.	426	0	2	12	9	0	2	1	1
St. Cloud State U.	426	18	11	11	9	1	2	3	0
Central Connecticut State U.	428	ne	17	4	7	ne	0	0	0
Murray State U.	429	28	21	20	6	0	0	0	0
U. Michigan, Flint	429	31	14	8	6	19	1	0	0
Union C., Schenectady	429	268	201	110	6	193	170	81	6
Willamette U.	432	117	77	108	5	100	45	4	0
St. Olaf C.	433	30	0	31	4	0	0	7	0
U. San Francisco	433	16	28	27	4	0	0	0	0
Grand Valley State U.	435	35	33	10	3	26	27	9	0
Minnesota State U., Mankato	435	19	0	4	3	19	0	2	0
New York Institute of Technology	435	0	0	0	3	0	0	0	3
Northern Michigan U.	435	0	0	26	3	0	0	0	0
U. South Carolina, Aiken	435	0	0	0	3	0	0	0	0
Rutgers, State U. New Jersey, Camden	440	0	6	32	2	0	0	0	0
La Sierra U.	441	5	1	1	1	0	0	0	0

TABLE 51

Total and federally financed higher education R&D expenditures in physics, ranked by FY 2021 total: FYs 2018–21

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2018	2019	2020	2021	2018	2019	2020	2021
St. John's U., New York	441	63	22	76	1	0	0	0	0
Stephen F. Austin State U.	441	3	0	3	1	0	0	0	0
Suffolk U.	441	ne	ne	3	1	ne	ne	0	0
Trinity C., Hartford	441	3	5	4	1	0	0	0	0
U. New Haven	441	4	4	2	1	0	0	0	0
All other surveyed institutions	-	60,807	3,294	1,848	0	42,993	2,086	1,339	0

i = imputed. na = not applicable; institution did not exist or did not exist as a separate entity. ne = not eligible; institution did not meet the criteria for inclusion.

^a Johns Hopkins University includes the Applied Physics Laboratory (APL), with \$213,497 thousand imputed for total and \$207,606 thousand reported for federally financed R&D expenditures in physics in FY 2021. Total expenditures by field for Johns Hopkins University are flagged as imputed because APL was unable to distribute a portion of institutionally funded R&D by field.

^b The University of Maryland includes expenditures from the University of Maryland, Baltimore and University of Maryland, College Park campuses. In FY 2019, the two campuses began reporting as one research unit to reflect their new strategic partnership. This relationship was codified through the University of Maryland Strategic Partnership Act passed by the Maryland General Assembly in 2016. Prior to FY 2019, both campuses reported to the survey as separate institutions.

^c The University of Tennessee, Knoxville includes expenditures from the University of Tennessee Institute of Agriculture. Due to a reorganization within the University of Tennessee system, the Institute of Agriculture now falls under the leadership of the University of Tennessee, Knoxville chancellor. Prior to FY 2020, the University of Tennessee, Knoxville, Institute of Agriculture reported to the survey separately.

^d The University of South Florida includes expenditures from the University of South Florida, Tampa; University of South Florida, Saint Petersburg; and University of South Florida, Sarasota-Manatee campuses. Due to the consolidation of the three campuses that occurred on 1 July 2020, University of South Florida, Saint Petersburg and University of South Florida, Sarasota-Manatee began reporting with the University of South Florida, Tampa as the University of South Florida. Prior to FY 2021, all three campuses reported to the survey as separate institutions.

^e The University of Colorado Denver and University of Colorado Anschutz Medical Center report to the survey separately. Prior to FY 2021, expenditures were reported together under University of Colorado Denver and Anschutz Medical Campus.

Note(s):

Institutions reporting zero expenditures in ranked total for FY 2021 are not listed in this table. Tied institutions are ranked alphabetically. Ranked institutions are geographically separate campuses headed by a campus-level president or chancellor. Some campuses are part of large, multi-campus universities; some are part of state university systems. For a complete list of campuses that belong to a larger university or system and their aggregate R&D expenditures, see table 6.

Source(s):

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