

TABLE 51

Total and federally financed higher education R&D expenditures in physics, ranked by FY 2022 total: FYs 2019–22

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2019	2020	2021	2022	2019	2020	2021	2022
All institutions	-	2,327,059	2,435,368	2,463,514	2,669,076	1,657,808	1,735,971	1,767,295	1,941,833
Johns Hopkins U. ^a	1	183,818 i	232,583 i	223,991 i	234,921 i	176,299	222,997	215,073	225,387
Michigan State U.	2	140,832	142,473	154,887	167,776	89,321	92,899	113,913	124,233
U. Rochester	3	106,277	95,695	93,851	105,517	102,405	90,436	88,161	98,439
California Institute of Technology	4	84,599	106,237	100,714 i	100,726	72,782	92,720	78,185	80,750
U. Colorado Boulder	5	66,848	69,967	70,498	79,823	62,321	64,624	64,351	69,385
Massachusetts Institute of Technology	6	43,880	48,695	57,207	68,994	33,496	38,758	45,000	53,744
Harvard U.	7	43,696	49,146	59,910	66,873	25,671	29,457	31,258	37,997
U. California, San Diego	8	52,798	66,169	56,983	58,691	25,547	32,298	32,711	38,163
Cornell U.	9	50,551	48,658	53,686	51,692	39,904	37,180	43,263	40,260
U. Iowa	10	18,463	17,099	26,404	48,303	16,600	14,623	24,381	45,461
Stanford U.	11	49,051	48,826	47,667	48,088	35,992	32,816	32,299	33,960
U. Maryland ^b	12	47,394	46,013	42,274	45,925	34,664	29,752	31,173	29,928
Florida State U.	13	39,877	41,870	38,309	40,478	23,281	26,260	22,154	25,129
U. Illinois, Urbana-Champaign	14	24,104	27,506	33,961	38,628	19,128	20,032	22,415	27,787
Princeton U.	15	38,060	40,161	35,249	37,325	25,639	28,224	23,204	23,951
U. California, Berkeley	16	29,261	32,085	33,755	37,089	17,665	17,480	18,480	22,296
U. Central Florida	17	26,198	29,759	33,116	34,327	16,665	16,961	19,270	19,961
U. Wisconsin-Madison	18	27,643	24,984	26,135	33,045	19,614	17,822	18,846	24,029
U. California, Santa Barbara	19	16,998	23,427	26,695	32,704	8,294	13,661	16,106	19,648
U. California, Los Angeles	20	34,460	33,263	30,227	30,682	23,350	22,591	20,068	24,786
SUNY, Stony Brook U.	21	27,697	26,615	26,964	30,296	21,289	19,742	20,764	22,447
Yale U.	22	32,019	27,884	29,911	28,927	17,859	16,547	16,119	16,466
U. Michigan, Ann Arbor	23	24,752	23,596	27,204	26,384	14,747	13,625	16,183	16,485
Ohio State U.	24	22,458	21,007	19,719	25,431	17,794	17,224	16,003	18,054
U. Pennsylvania	25	23,806	21,371	20,728	24,454	15,939	14,450	14,568	17,013
U. Texas, Austin	26	23,553	26,463	23,011	23,264	13,519	18,638	14,953	15,478
Pennsylvania State U., University Park and Hershey Medical Center	27	26,674	26,281	20,314	21,573	18,349	16,969	17,473	17,343
U. Washington, Seattle	28	19,123	19,281	18,479	21,238	17,410	17,789	17,655	19,998
Columbia U. in the City of New York	29	11,102	12,331	17,403	21,038	8,586	9,642	15,103	16,037
U. Minnesota, Twin Cities	30	22,848	19,948	19,162	20,446	18,504	16,693	15,816	16,437
U. Chicago	31	12,617	12,688	15,752	19,896	10,463	10,586	13,574	16,277
Northwestern U.	32	17,918	15,418	19,296	19,886	10,063	8,508	8,746	10,229
U. Texas M. D. Anderson Cancer Center	33	19,017	19,060	17,572	19,651	7,922	8,114	8,179	8,306
Catholic U. of America	34	11,192	12,213	13,988	19,597	10,760	11,952	13,555	19,597

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Institution	Rank	Total				Federally financed			
		2019	2020	2021	2022	2019	2020	2021	2022
Texas A&M U., College Station and Health Science Center	35	21,835	17,848	16,238	19,252	12,329	9,751	10,514	11,657
Purdue U., West Lafayette	36	15,318	19,417	16,391	18,954	8,498	9,235	10,082	11,398
U. California, Irvine	37	18,441	18,770	19,684	18,914	11,538	10,987	11,775	13,063
U. Nebraska, Lincoln	38	15,908	13,795	15,300	18,237	11,136	9,346	8,578	11,693
U. Notre Dame	39	16,720	15,639	16,473	17,906	11,107	10,607	10,256	11,319
Louisiana State U., Baton Rouge	40	14,926	13,851	12,979	17,419	8,553	9,293	8,305	8,020
Boston U.	41	14,758	14,002	15,143	17,312	9,580	9,963	10,572	12,340
Northeastern U.	42	11,698	12,711	15,248	16,743	7,954	8,026	9,014	9,555
Iowa State U.	43	16,586	14,842	14,746	16,138	10,808	9,760	11,324	12,524
Rutgers, State U. New Jersey, New Brunswick	44	11,380	12,903	13,193	15,686	7,578	6,212	6,736	7,519
Rice U.	45	16,234	16,107	14,466	15,651	9,712	9,200	8,273	10,243
Arizona State U.	46	11,934	12,338	14,980	15,121	5,865	6,395	8,833	10,119
U. Florida	47	11,707	13,128	13,180	14,892	8,198	9,258	9,375	11,210
U. Tennessee, Knoxville ^c	48	17,897	14,423	14,277	14,496	13,025	8,951	9,105	9,575
Dartmouth C. and Dartmouth Hitchcock Medical Center	49	10,632	12,021	14,279	13,327	3,832	4,677	5,301	6,023
New York U.	50	11,615	12,945	12,261	13,288	7,180	6,927	7,483	7,688
U. Texas, Arlington	51	9,378	10,782	10,373	12,897	6,027	6,615	6,574	9,048
U. Massachusetts, Lowell	52	13,871	14,669	12,753	12,817	7,738	10,138	9,661	9,585
U. Delaware	53	5,499	5,429	4,523	11,981	4,630	4,452	3,576	4,788
Air Force Institute of Technology	54	8,478	7,796	15,999	11,934	4,457	4,973	8,037	8,136
U. Virginia, Charlottesville	55	11,930	12,224	10,671	11,632	8,914	10,220	8,967	9,731
Carnegie Mellon U.	56	9,879	11,458	11,111	11,547	5,753	6,254	6,000	6,575
Georgia Institute of Technology	57	12,427	11,892	11,359	11,461	7,871	7,182	6,788	7,055
Kansas State U.	58	8,878	8,209	8,759	11,342	6,186	6,007	6,616	8,099
Vanderbilt U. and Vanderbilt U. Medical Center	59	15,954	14,458	13,676	11,203	8,777	8,139	6,510	6,825
U. California, Davis	60	10,672	10,195	9,032	11,138	7,553	7,160	6,595	8,529
North Carolina State U.	61	11,957	11,615	12,217	11,091	7,674	7,012	7,912	7,960
Indiana U., Bloomington	62	10,702	12,816	11,417	11,070	7,561	9,644	8,075	7,332
U. Pittsburgh, Pittsburgh	63	9,772	8,507	8,706	11,050	6,844	6,176	5,927	8,499
U. Illinois, Chicago	64	5,792	7,884	8,392	11,030	4,579	5,874	6,815	9,219
Montana State U., Bozeman	65	7,183	9,194	9,940	10,957	4,393	5,188	7,261	8,315
Duke U.	66	10,465	12,587	10,595	10,609	9,595	10,780	9,760	9,763
U. North Carolina, Chapel Hill	67	8,412	10,472	10,003	10,374	6,000	8,065	7,344	7,468
Georgetown U.	68	3,921	5,833	7,444	9,852	2,939	4,763	6,119	7,318
Washington State U.	69	16,288	12,549	10,978	9,653	7,330	6,837	8,560	7,274

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		2019	2020	2021	2022	2019	2020	2021	2022
Syracuse U.	70	11,440	9,629	9,184	9,393	7,811	5,770	6,037	5,790
Brown U.	71	7,636	7,968	8,542	9,155	4,358	3,718	5,221	5,729
U. Houston	72	7,839	8,637	7,385	9,044	3,366	2,775	2,809	3,255
Auburn U., Auburn	73	6,710	7,842	9,147	8,907	4,225	5,012	4,549	4,791
U. Massachusetts, Amherst	74	7,403	8,927	7,995	8,782	4,709	4,976	5,267	5,750
U. Mississippi	75	8,361	7,658	7,568	8,566	5,816	5,768	5,690	5,710
U. Oklahoma, Norman and Health Science Center	76	3,526	6,397	6,446	8,205	2,731	3,054	2,907	4,237
Virginia Polytechnic Institute and State U.	77	7,909	7,831	7,913	7,798	4,538	4,788	5,196	5,300
U. California, Riverside	78	6,917	7,777	8,003	7,334	5,889	6,880	6,534	6,196
U. California, Santa Cruz	79	7,057	6,991	6,919	6,876	5,048	4,865	4,666	5,534
Texas Tech U.	80	6,641	7,419	7,553	6,739	1,656	1,215	1,141	1,391
CUNY, Advanced Science Research Center	81	1,640	2,778	4,490	6,640	1,252	2,096	3,559	5,277
Washington U., Saint Louis	82	5,476	5,060	5,680	6,504	4,827	4,606	5,255	6,119
Clemson U.	83	5,861	5,747	5,915	6,199	3,703	3,820	4,288	4,752
Temple U.	84	5,717	6,708	6,242	6,046	4,069	3,720	3,387	3,258
U. Toledo	85	4,115	4,645	6,700	6,033	2,724	3,237	4,768	5,259
U. Arizona	86	8,970	9,230	9,072	5,890	5,354	5,464	5,685	4,432
U. Connecticut	87	6,330	6,034	5,482	5,753	3,691	4,609	4,030	4,284
Abilene Christian U.	88	ne	ne	4,209	5,746	ne	ne	712	905
Brandeis U.	89	7,551	9,118	7,813	5,693	5,958	5,523	4,522	1,577
U. Maine	90	5,457	5,267	5,645	5,637	1,844	1,648	2,161	2,237
West Virginia U.	91	8,707	7,810	4,887	5,551	6,067	5,765	3,757	4,282
Colorado School of Mines	92	4,841	5,398	5,336	5,455	4,336	5,059	4,957	4,850
William & Mary	93	5,788	5,280	5,491	5,421	3,752	4,049	3,774	4,291
U. Arkansas, Fayetteville	94	3,370	4,313	3,443	5,378	1,765	2,292	2,070	3,723
Old Dominion U.	95	4,709	4,731	4,551	5,169	3,606	3,510	3,352	3,424
U. Nevada, Las Vegas	96	3,765	3,807	4,851	5,075	1,321	982	1,428	1,638
U. New Mexico	97	3,989	4,272	4,044	4,943	3,620	3,846	3,524	4,363
U. Texas, Dallas	98	2,216	5,219	4,550	4,911	1,749	2,914	2,588	2,928
Wayne State U.	99	4,317	3,654	4,254	4,872	2,614	2,469	3,071	3,356
Ohio U.	100	3,859	3,971	4,088	4,837	2,386	2,885	3,070	3,723
U. Maryland, Baltimore County	101	2,742	2,753	2,869	4,686	2,261	2,300	2,570	3,621
Rochester Institute of Technology	102	3,369	3,504	3,585	4,681	2,219	2,160	2,165	2,990
SUNY, Binghamton U.	103	3,930	6,624	4,123	4,570	1,121	2,318	1,619	1,153
North Carolina Central U.	104	1,881	2,878	2,601	4,495	1,881	2,834	2,356	4,251

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Institution	Rank	Total				Federally financed			
		2019	2020	2021	2022	2019	2020	2021	2022
Florida International U.	105	5,911	8,185	5,218	4,440	3,113	3,976	2,345	2,262
U. Miami	106	4,465	3,713	3,682	4,334	4,041	3,161	3,353	4,060
Georgia State U.	107	4,948	5,727	4,705	4,220	4,548	5,143	2,893	2,425
Rensselaer Polytechnic Institute	108	4,936	2,554	2,883	4,177	1,913	1,151	1,240	1,281
New Jersey Institute of Technology	109	4,090	4,366	4,153	4,166	1,511	1,542	1,640	1,575
CUNY, City C.	110	3,207	3,361	3,553	4,153	2,179	2,626	3,228	3,771
U. South Florida ^d	111	4,440	4,213	3,623	4,127	2,225	2,114	1,867	2,196
Mississippi State U.	112	4,710	3,475	3,675	4,123	2,424	1,138	1,022	1,396
U. Texas, San Antonio	112	3,774	4,254	4,510	4,123	2,463	3,017	3,090	2,485
George Washington U.	114	4,108	4,334	3,752	4,105	3,354	3,597	2,898	3,669
Oklahoma State U., Stillwater	115	3,654	4,604	4,483	4,097	1,164	1,357	1,461	1,843
U. Hawaii, Manoa	116	4,040	4,021	4,291	4,063	3,914	3,792	3,763	3,488
Oakland U.	117	2,343	2,300	2,819	3,850	933	886	1,208	1,316
Emory U.	118	2,882	3,433	4,835	3,804	2,262	2,729	2,984	2,719
Baylor U.	119	2,866	2,968	2,955	3,786	1,213	1,136	1,158	1,586
U. Nevada, Reno	120	3,942	4,235	2,947	3,720	2,118	2,590	2,399	2,602
U. Kansas	121	2,269	2,108	3,264	3,660	2,233	1,983	2,365	2,908
Hampton U.	122	4,044	3,142	3,409	3,625	4,044	3,142	3,409	3,625
U. Texas, El Paso	123	1,068	2,155	2,801	3,622	648	1,024	1,559	1,675
Colorado State U., Fort Collins	124	2,837	2,855	2,956	3,551	2,140	2,101	2,460	3,053
U. Kentucky	125	2,937	3,751	3,124	3,509	2,534	3,116	2,434	3,240
U. Oregon	126	7,523	7,248	3,462	3,502	4,467	4,826	2,937	2,556
Northern Illinois U.	127	4,823	4,024	3,875	3,431	3,311	2,567	2,460	2,833
American U.	128	3,303	3,867	3,614	3,368	2,732	3,205	2,976	2,754
Illinois Institute of Technology	129	2,772	2,476	3,110	3,352	2,453	2,125	2,613	2,884
Boston C.	130	2,384	1,814	3,320	3,271	1,809	1,471	1,997	2,327
U. Cincinnati	131	3,673	3,078	3,202	3,250	2,483	2,036	2,328	2,151
U. Missouri, Columbia	132	6,020	3,443	3,221	3,198	2,544	2,486	2,070	1,925
U. Alabama, Birmingham	133	2,419	2,491	2,339	3,152	2,140	2,214	2,093	2,462
Southern Methodist U.	134	1,900	2,378	2,504	3,127	1,701	1,934	2,266	2,436
U. New Hampshire	135	1,717	2,672	2,786	3,124	1,119	2,283	1,461	1,577
U. North Texas, Denton	136	3,517	3,689	3,205	2,974	1,445	1,222	1,099	995
U. Alabama, Huntsville	137	1,724	1,767	2,284	2,957	741	886	1,172	1,722
U. Georgia	138	1,053	2,701	2,499	2,900	722	792	516	789
Oregon State U.	139	1,204	1,310	1,564	2,856	1,112	1,304	1,554	2,831

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SUNY, U. Albany	140	2,156	2,427	1,977	2,779	279	533	609	596
Naval Postgraduate School	141	6,126	6,244	4,070	2,751	5,302	6,178	3,899	2,674
Tufts U.	142	234	1,621	1,872	2,686	216	1,587	1,798	2,509
U. Alabama, Tuscaloosa	143	2,437	3,530	4,005	2,683	2,287	2,568	2,558	2,529
Kent State U.	144	2,205	2,591	2,378	2,666	1,355	1,617	1,282	1,717
U. California, Merced	145	2,190	3,101	2,344	2,663	1,387	2,119	871	1,571
Delaware State U.	146	3,716	1,313	1,340	2,640	1,158	873	1,003	2,175
U. South Carolina, Columbia	147	2,203	3,777	3,050	2,613	1,774	2,264	1,467	1,401
SUNY, U. Buffalo	148	4,236	3,526	3,283	2,610	2,998	2,412	2,319	1,751
Brigham Young U., Provo	149	2,696	2,034	2,337	2,586	2,216	1,676	1,927	2,487
Lehigh U.	150	1,195	1,348	1,577	2,478	845	868	1,102	1,620
Tulane U.	151	3,327	2,986	2,791	2,275	1,594	1,971	1,748	1,647
Utah State U.	151	2,318	2,462	2,172	2,275	1,586	1,661	1,421	1,633
Michigan Technological U.	153	2,215	2,169	2,218	2,218	440	640	553	564
California Polytechnic State U., San Luis Obispo	154	2,783	2,494	1,757	2,142	926	937	658	962
U. North Carolina, Charlotte	155	2,804	2,742	1,757	2,010	1,770	1,901	1,310	1,517
Worcester Polytechnic Institute	156	3,269	1,351	2,239	1,964	525	582	1,136	944
Jackson State U.	157	1,586	1,451	1,160	1,955	1,446	1,314	1,011	1,687
Case Western Reserve U.	158	2,476	1,767	1,702	1,940	2,170	1,610	1,476	1,695
Florida A&M U.	159	3,463	1,371	1,323	1,891	3,337	1,327	1,321	1,861
U. Louisiana, Lafayette	160	460	1,283	3,442	1,826	22	44	2,011	63
U. Wisconsin-Milwaukee	161	8,327	6,526	3,324	1,813	6,609	4,260	1,985	1,153
New Mexico State U.	162	1,762	1,386	1,675	1,792	1,532	1,132	1,322	1,355
U. Denver	163	1,147	1,456	1,230	1,750	641	795	598	986
San Jose State U.	164	461	626	1,301	1,728	455	615	822	1,198
U. South Dakota	165	2,089	1,555	1,691	1,727	1,313	976	1,028	1,254
South Dakota School of Mines and Technology	166	1,098	693	1,143	1,709	1,098	693	865	1,471
Drexel U.	167	1,663	258	1,339	1,696	1,303	0	1,119	1,313
Rutgers, State U. New Jersey, Newark	168	109	408	371	1,685	32	261	316	927
New Mexico Institute of Mining and Technology	169	1,520	1,074	984	1,649	1,478	1,061	972	1,543
U. Puerto Rico, Rio Piedras	170	2,639	1,653	1,919	1,614	1,587	1,067	1,454	1,002
Texas Christian U.	171	149	299	173	1,612	0	175	154	220
California State U., Northridge	172	2,397	2,567	1,525	1,605	2,312	2,373	1,508	1,574
Central Michigan U.	173	2,527	2,366	1,651	1,558	2,168	1,943	1,627	1,537
Virginia Commonwealth U.	174	1,086	1,249	1,379	1,548	983	901	992	1,190

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(Dollars in thousands)

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Embry-Riddle Aeronautical U.	175	724	1,787	2,244	1,508	490	902	873	512
CUNY, Hunter C.	176	1,625	1,194	1,015	1,446	1,186	973	954	1,189
San Diego State U.	177	1,422	1,561	1,594	1,420	507	440	517	644
Morgan State U.	178	34	234	385	1,394	30	218	374	1,305
Stevens Institute of Technology	179	2,045	1,824	1,518	1,376	1,960	1,648	1,242	1,188
North Carolina A&T State U.	180	1,263	1,116	910	1,296	1,211	1,049	877	1,269
Fisk U.	181	0	200	1,022	1,283	0	200	904	1,050
U. Texas Rio Grande Valley	182	285	595	807	1,280	283	594	683	917
Creighton U.	183	957 i	837 i	951 i	1,204 i	576 i	529 i	571 i	800 i
U. Vermont	184	793	2,441	1,104	1,199	646	1,383	616	653
Missouri U. of Science and Technology	185	1,017	3,792	1,873	1,162	620	2,758	883	595
U. Massachusetts, Boston	186	1,380	1,214	1,479	1,153	552	533	624	450
U. Washington, Bothell	187	256	156	681	1,152	215	156	681	1,152
U.S. Air Force Academy	188	2,603	2,714	1,846	1,150	2,603	2,714	1,796	1,110
San Francisco State U.	189	1,300	883 i	927	1,134	958	493 i	498	425
Idaho State U.	190	3,126	742	885	1,109	1,686	394	403	443
Wake Forest U.	191	1,680	1,366	1,080	1,087	1,344	1,103	936	874
Texas State U.	192	1,421	735	1,251	1,064	1,365	734	1,127	922
Florida Institute of Technology	193	650	1,364	2,513	1,051	428	1,193	1,887	490
Norfolk State U.	193	311	650	732	1,051	311	650	732	1,051
North Dakota State U.	195	764	732	970	1,023	288	197	514	441
Louisiana Tech U.	196	1,034	980	1,055	1,016	317	252	232	214
Indiana U.-Purdue U., Indianapolis	197	418	507	486	990	370	455	486	912
Rockefeller U.	198	2,607	2,464	1,305	966	350	583	348	187
Wesleyan U.	199	1,366	1,130	909	909	1,037	791	597	508
U. California, San Francisco	200	370	917	1,325	904	4	0	1	0
James Madison U.	201	126	298	516	893	126	182	266	223
Wright State U.	202	1,373	1,250	975	888	1,179	1,014	847	689
U. San Diego	203	573	918	879	862	353	496	402	272
California State U., Dominguez Hills	204	40	25	0	856	32	3	0	593
Texas A&M U.-Commerce	205	643	810	783	853	531	688	678	741
U. Massachusetts, Dartmouth	206	441	499	716	843	64	75	41	74
U.S. Naval Academy	207	1,468	1,217	1,001	840	1,370	1,193	897	769
California State Polytechnic U., Humboldt	208	115	144	14	825	48	76	7	32
Christopher Newport U.	209	656	766	705	803	470	518	526	647

TABLE 51

Total and federally financed higher education R&D expenditures in physics, ranked by FY 2022 total: FYs 2019–22

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2019	2020	2021	2022	2019	2020	2021	2022
Villanova U.	210	436	520	492	799	239	306	273	628
Howard U.	211	719	762	720	777	559	612	583	665
C. New Jersey	212	ne	312	239	754	ne	306	233	730
SUNY, Geneseo	213	843	683	928	751	663	542	632	648
Amherst C.	214	1,312	705	570	746	1,103	603	434	590
Clark U.	215	350	1,054	1,069	734	180	586	643	469
California State U., Los Angeles	216	745	639	395	721	720	622	394	691
U. New Orleans	217	757	803	749	713	605	551	469	378
U. Colorado Denver ^e	218	na	na	417	708	na	na	417	708
Rowan U.	219	576	276	752	689	465	194	695	658
Yeshiva U.	220	0	286	253	682	0	286	253	682
George Mason U.	221	445	842	646	671	311	700	466	434
U. North Dakota	222	887	1,123	812	669	96	129	31	142
Bryn Mawr C.	223	635	462	462	655	335	55	257	368
Chicago State U.	224	0	ne	ne	651	0	ne	ne	651
Western Michigan U. and Homer Stryker M.D. School of Medicine	225	571	660	537	639	465	509	442	393
Northern Arizona U.	226	538	941	858	633	212	352	373	369
Clarkson U.	227	198	388	1,005	629	148	244	139	157
U. Missouri, Kansas City	228	1,368	894	897	624	1,019	726	667	428
Appalachian State U.	229	87	115	320	611	73	98	166	391
Western Kentucky U.	230	553	425	433	600	349	289	316	394
Harvey Mudd C.	231	309	284	362	589	72	96	148	344
Wichita State U.	232	229	0	0	578	195	0	0	372
U. Puerto Rico, Humacao	233	695	0	419	574	390	0	245	286
CUNY, Queens C.	234	553	458	423	568	295	171	278	353
U. Colorado Anschutz Medical Campus ^e	235	na	na	391	566	na	na	344	353
Florida Atlantic U.	236	560	991	849	561	285	481	404	460
CUNY, New York City C. of Technology	237	347	212	326	540	314	200	314	523
Hope C.	238	614	560	615	534	598	444	524	329
California State U., Fullerton	239	392	481	448	530	315	396	316	325
Central Washington U.	240	178	109	29	500	170	103	27	497
California State U., San Marcos	241	225	841	339	482	225	841	336	482
East Carolina U.	242	591	814	621	474	133	305	401	270
Tennessee Technological U.	243	635	594	504	471	544	488	402	318
U. Wyoming	244	892	679	549	467	835	652	511	463

TABLE 51

Total and federally financed higher education R&D expenditures in physics, ranked by FY 2022 total: FYs 2019–22

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2019	2020	2021	2022	2019	2020	2021	2022
West Chester U. Pennsylvania	245	149	98	238	454	0	0	55	202
U. North Florida	246	179	197	162	450	100	88	100	178
Miami U.	247	199	142	142	434	153	116	95	263
Southern Illinois U., Carbondale	248	378	327	537	432	269	243	257	306
Georgia Southern U.	249	190	120	415	421	34	47	32	22
California State U., Fresno	250	341	283	178	418	341	252	178	345
Colgate U.	251	133	147	389	417	34	19	82	179
Alabama A&M U.	252	485 i	331 i	367 i	414 i	380 i	259 i	327 i	405 i
U. Puerto Rico, Mayaguez	252	380	367	386	414	287	292	293	367
Marquette U.	254	315	320	427	412	83	225	291	296
U. Memphis	255	578	791	770	404	230	353	341	0
Cleveland State U.	256	639	786	427	402	277	409	191	169
California State U., East Bay	257	ne	584	539	396	ne	221	301	197
U. Idaho	257	326	245	246	396	188	160	160	163
Prairie View A&M U.	259	783	932	692	388	225	97	185	130
Loyola U., Chicago	260	36	52	166	375	0	0	146	350
Middle Tennessee State U.	261	13	0	292	349	0	0	56	148
Bowling Green State U.	262	593	849	784	348	233	590	649	241
Boise State U.	263	256	202	131	342	214	94	79	263
U. Tulsa	263	268	163	207	342	181	71	103	288
Kenyon C.	265	410	291	ne	330	292	194	ne	279
Utah Valley U.	266	ne	ne	ne	320	ne	ne	ne	316
U. Dayton	267	539	438	511	312	525	428	507	312
CUNY, Baruch C.	268	375	276	256	306	330	275	253	298
Towson U.	268	446	191	278	306	401	50	115	246
Claremont McKenna C.	270	0	59	59	304	0	59	59	304
U. Louisville	271	291	426	702	297	105	57	81	68
U. Montana, Missoula	272	244	260	231	283	117	77	117	125
Morehouse C.	273	213	216	146	277	213	216	146	277
Reed C.	274	401	129	128 i	273 i	32	41	43 i	180 i
California State U., Sacramento	275	161	207	176	270	97	152	125	150
U. Central Oklahoma	275	561	557 i	583 i	270 i	517	512 i	537 i	89 i
U. Alaska, Fairbanks	277	0	0	0	263	0	0	0	6
Davidson C.	278	70	45	107	261	7	45	107	210
Southern Illinois U., Edwardsville	278	84	0	525	261	84	0	122	261

TABLE 51

Total and federally financed higher education R&D expenditures in physics, ranked by FY 2022 total: FYs 2019–22

(Dollars in thousands)

Institution	Rank	Total				Federally financed											
		2019	2020	2021	2022	2019	2020	2021	2022								
Grambling State U.	280	129	65	238	257	i	52	7	50	55	i						
Portland State U.	281	195	418	317	249		85	344	303	238							
Lafayette C.	282	183	227	211	235		182	205	194	206							
Bucknell U.	283	167	87	i	85		230	167	87	i	85	194					
Pomona C.	284	40	103		167		229	0	0	139	174						
Haverford C.	285	91	i	147	i	87	i	224	i	37	49	51	178				
Southern Connecticut State U.	285	92		13		91		224		53	0	0	13				
Illinois State U.	287	184		229		280		222		145	220	214	219				
Indiana U. Pennsylvania	288	126		218		189		218		82	175	171	181				
Southeastern Louisiana U.	288	25		113		107		218		7	44	38	118				
Drake U.	290	117		ne		221		211		109	ne	200	211				
C. Charleston	291	103		135		223		209		49	72	118	190				
Texas Southern U.	292	67		277		199		208		65	188	95	97				
U. Minnesota, Duluth	292	237		123		250		208		196	17	175	152				
Franklin and Marshall C.	294	122		78		156		206		54	48	96	141				
Seattle U.	294	73		79		84		206		50	58	79	126				
South Carolina State U.	296	175		182	i	189	i	205	i	175	182	i	189	i	205	i	
CUNY, Brooklyn C.	297	187	i	193		198		200		113	i	118	177	166			
U. Central Arkansas	297	149		80		255		200		136		76	176	132			
Tougaloo C.	299	0		81		81	i	197	i	0		81	81	i	197	i	
Middlebury C.	300	114		19		276		196		104		0	276	196			
Swarthmore C.	301	246		353		236		190		199		139	162	110			
Clark Atlanta U.	302	461		671		477		188		455		662	456	184			
Hobart and William Smith Colleges	302	122		95		116		188		120		82	99	179			
Williams C.	304	329		315	i	323	i	186	i	189		182	i	193	i	89	i
U. Colorado Colorado Springs	305	203		145		185		185		54		22	25	112			
St. Edward's U.	306	164		55		52		180		150		55	52	46			
U. of the Incarnate Word	307	0		0		60		179		0		0	60	179			
U. Northern Iowa	308	18		86		125		174		14		86	117	168			
Northern Kentucky U.	309	242		270		159		168		174		203	33	101			
U. Hawaii, Hilo	310	103		36		34		166		103		36	33	159			
Augustana U.	311	200		ne		298		165		148		ne	298	165			
Santa Clara U.	312	86		145		148		163		81		130	144	138			
Kennesaw State U.	313	189		288		253		161		100		165	160	161			
Winston-Salem State U.	314	0		86		0		160		0		86	0	100			

TABLE 51

Total and federally financed higher education R&D expenditures in physics, ranked by FY 2022 total: FYs 2019–22

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2019	2020	2021	2022	2019	2020	2021	2022
Bates C.	315	282	155	175	159	141	94	37	0
U. Nebraska, Kearney	316	65	17	16	157	8	9	0	57
Mount Holyoke C.	317	0	22	364	156	0	0	342	155
Dillard U.	318	606	959	205	155	122	646	205	155
U.S. Military Academy	318	35	269	144	155	35	269	144	155
Coastal Carolina U.	320	0	0	68	154	0	0	60	111
U. Nebraska, Omaha	320	167	58	73	154	130	0	47	99
Long Island U.	322	178	109	151	151	171	51	54	76
Seton Hall U.	322	0	0	0	151	0	0	0	151
Lawrence Technological U.	324	0	6	54	143	0	6	48	132
Trinity U.	324	194	218	139	143	43	61	115	97
Sam Houston State U.	326	78	74	170	140	69	72	147	112
Tarleton State U.	327	0	0	0	138	0	0	0	0
Chapman U.	328	55	81	88	135	0	71	86	95
Occidental C.	329	23	103	111	129	23	70	64	71
C. Wooster	330	179	75	103	127	100	35	42	60
Duquesne U.	331	135	122	46	123	56	43	34	83
Missouri State U.	331	296	305	208	123	278	289	184	88
Montclair State U.	333	0	43	19	121	0	0	0	38
Eastern Washington U.	334	34	66	63	118	34	66	62	118
Saint Joseph's U.	335	300	66	32	117	0	0	0	0
U. South Alabama	336	0	26	37	107	0	25	35	106
Bowdoin C.	337	250	131	79	106	89	125	78	106
California State U., Chico	338	156	150	162	105	150	144	162	104
U. Wisconsin-La Crosse	338	49	188	252	105	44	151	243	73
Indiana State U.	340	93	121	56	104	93	121	56	104
Smith C.	341	173	102	220	102	160	95	212	81
U. Rhode Island	341	95	100	20	102	85	79	20	86
Union C., Schenectady	341	201	110	6	102	170	81	6	22
Black Hills State U.	344	363	116	94	101	331	91	94	95
New York Institute of Technology	344	0	0	3	101	0	0	3	101
Monmouth U.	346	0	0	15	99	0	0	15	99
Ball State U.	347	22	9	65	98	2	0	21	39
Ithaca C.	347	ne	22	47	98	ne	0	13	42
CUNY, C. Staten Island	349	777	542	242	96	659	542	239	57

TABLE 51

Total and federally financed higher education R&D expenditures in physics, ranked by FY 2022 total: FYs 2019–22

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2019	2020	2021	2022	2019	2020	2021	2022
SUNY, C. Brockport	349	15	5	11	96	6	2	11	79
Mercer U.	351	83	87	92	95	0	0	0	0
Carleton C.	352	219	84	250	93	2	84	101	77
U. Richmond	353	132	112	91	88	99	98	78	81
Xavier U. Louisiana	354	0	0	0	87	0	0	0	78
New Mexico Highlands U.	355	ne	0	0 i	83 i	ne	0	0 i	82 i
Citadel Military C. South Carolina	356	ne	0	24	80	ne	0	7	73
U. Wisconsin-Green Bay	357	64 i	63 i	57 i	79 i	36 i	39 i	36 i	44 i
U. Maryland Center for Environmental Science	358	55	72	61	74	55	72	61	74
Saint Louis U.	359	205	156	11	69	67	67	11	7
Southern U. and A&M C., Baton Rouge	360	716	634	450	68	573	427	227	68
Lewis and Clark C.	361	141	598	55	66	108	441	55	66
Azusa Pacific U.	362	81	68	78	65	28	0	0	0
Furman U.	363	2	12	9	61	2	1	1	1
Gallaudet U.	364	0	0	92	60	0	0	92	59
U. Puerto Rico, Cayey	365	57	48	62	59	57	48	62	57
U. Northern Colorado	366	19	50	24	57	0	0	0	12
U. Missouri, Saint Louis	367	17	3	39	56	14	0	28	56
California State U., San Bernardino	368	5	0	80	55	0	0	62	46
Colorado C.	369	19	37	47	53	14	15	4	33
Lamar U.	369	24	26	49	53	0	0	49	30
Murray State U.	369	21	20	6	53	0	0	0	35
East Tennessee State U.	372	171 i	227 i	49 i	49 i	140	188	36	24
Salisbury U.	373	13	43	48	48	0	0	0	0
South Dakota State U.	373	53	33	86	48	53	32	83	45
U. Wisconsin-Platteville	375	0 i	0 i	39 i	47 i	0 i	0 i	16 i	20 i
Grinnell C.	376	364	58	231	46	0	0	0	0
Whitman C.	376	55	104	ne	46	40	77	ne	3
Texas A&M International U.	378	3	38	37	43	0	38	37	43
U. Alaska, Anchorage	379	0	0	32	42	0	0	32	42
Albion C.	380	69	84	86 i	40 i	50	50	53 i	17 i
Colby C.	381	67	89	65	39	37	74	41	31
U. of Mary Washington	381	16	5	32	39	16	5	25	28
Saint John's U.	383	35 i	33 i	32 i	37 i	0 i	0 i	0 i	0 i
Western Illinois U.	383	19	39	16	37	19	39	16	37

TABLE 51

Total and federally financed higher education R&D expenditures in physics, ranked by FY 2022 total: FYs 2019–22

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2019	2020	2021	2022	2019	2020	2021	2022
C. of Saint Benedict	385	39 i	37 i	32 i	36 i	0 i	0 i	3 i	3 i
Pacific U.	385	223	41	21	36	169	21	16	21
Pennsylvania State U., Behrend	387	75	22	17	35	16	15	17	35
Eastern Michigan U.	388	40	114	13	34	24	31	9	0
Roger Williams U.	389	0	0	0	30	0	0	0	30
St. Catherine U.	389	ne	ne	ne	30	ne	ne	ne	0
Kettering U.	391	62	285	24	29	27	241	14	2
Rutgers, State U. New Jersey, Camden	392	6	32	2	28	0	0	0	0
California State Polytechnic U., Pomona	393	0	89	40	27	0	89	40	27
Claflin U.	393	7	50	25	27	7	50	25	27
Mercyhurst U.	393	148 i	108 i	68 i	27	143 i	104 i	64 i	24
Austin Peay State U.	396	47	13	50	26	36	13	50	0
CUNY, John Jay C. of Criminal Justice	396	0	238	0	26	0	238	0	0
Grand Valley State U.	396	33	10	3	26	27	9	0	1
Marshall U.	396	5	11	22	26	0	0	12	3
Macalester C.	400	139	171	272	24	50	31	172	0
Hofstra U.	401	4	2	16	22	0	0	0	0
Pepperdine U.	402	11	2	10	21	0	0	0	0
Tuskegee U.	402	32	32	35	21	32	32	35	21
U. of St. Thomas (MN)	402	22	61	42	21	19	41	12	0
Elon U.	405	49	27	21	19	0	0	0	0
Spelman C.	405	0	0	0	19	0	0	0	19
Willamette U.	405	77	108	5	19	45	4	0	0
Virginia Military Institute	408	ne	ne	ne	17	ne	ne	ne	0
U. Wisconsin-Oshkosh	409	25 i	27 i	30	16	0 i	0 i	0	11
Dakota State U.	410	5	0	58	15	0	0	48	0
Purdue U., Fort Wayne	410	0	3	10	15	0	0	0	0
U. San Francisco	410	28	27	4	15	0	0	0	0
St. Cloud State U.	413	11	11	9	14	2	3	0	0
Vassar C.	413	113	232	121	14	109	147	89	0
St. John's U., New York	415	22	76	1	13	0	0	0	0
SUNY, C. Plattsburgh	415	369	126	65	13	259	110	41	13
U. Arkansas, Little Rock	415	0	0	0	13	0	0	0	13
Connecticut C.	418	0	0	0	12	0	0	0	0
Texas A&M U.-Corpus Christi	418	19	0	0	12	19	0	0	0

TABLE 51

Total and federally financed higher education R&D expenditures in physics, ranked by FY 2022 total: FYs 2019–22

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2019	2020	2021	2022	2019	2020	2021	2022
Calvin U.	420	137	6 i	8 i	11 i	123	0 i	0 i	0
SUNY, Oswego	420	3	23	46	11	0	0	0	0
California State U., Stanislaus	422	5	5	12	9	0	0	0	0
Hamilton C.	422	116	44	40	9	12	3	8	9
U. of Health Sciences and Pharmacy in St. Louis	422	ne	0	0	9	ne	0	0	9
U. Puget Sound	425	ne	96	ne	7	ne	50	ne	0
U. Wisconsin-Stevens Point	425	37 i	43	16	7	37 i	43	7	1
Texas A&M U.-Kingsville	427	48	1	33	4	46	0	0	0
U. Akron	427	72	0	0	4	0	0	0	0
U. Hartford	427	0	0	0	4	0	0	0	0
Central Connecticut State U.	430	17	4	7	3	0	0	0	0
Trinity C., Hartford	430	5	4	1	3	0	0	0	0
Stephen F. Austin State U.	432	0	3	1	2	0	0	0	0
La Sierra U.	433	1	1	1	1	0	0	0	0
Northern Michigan U.	433	0	26	3	1	0	0	0	0
Pennsylvania State U., Harrisburg	433	0	0	0	1	0	0	0	0
All other surveyed institutions	-	9,118	10,172	18,504	0	6,457	8,458	13,646	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 \$223,313 thousand imputed for total and \$217,077 thousand reported for federally financed R&D expenditures in physics in FY 2022. 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 2022 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.