

TABLE 50

Total and federally financed higher education R&D expenditures in chemistry, 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	-	1,866,167	1,965,466	1,929,674	1,999,546	1,130,063	1,182,645	1,167,474	1,239,825
U. California, San Francisco	1	62,661	65,572	68,745	68,492	35,467	38,487	41,413	37,311
U. Houston	2	25,126	34,730	40,835	43,502	2,511	2,298	2,981	3,476
U. California, Berkeley	3	32,164	30,743	36,326	41,402	16,256	15,560	17,414	21,494
Massachusetts Institute of Technology	4	31,921	31,179	32,375	37,408	20,339	18,377	19,258	22,959
California Institute of Technology	5	46,180	42,498	40,638	37,366	30,824	28,469	26,664	22,573
Harvard U.	6	29,444	34,683	33,675	37,078	20,642	20,722	19,149	22,149
Northwestern U.	7	39,150	40,651	35,130	36,484	23,691	25,466	22,766	25,004
U. Illinois, Urbana-Champaign	8	31,819	35,411	34,642	35,360	19,818	21,926	21,367	20,905
U. Wisconsin-Madison	9	24,620	26,369	31,441	33,896	15,032	17,502	19,249	22,131
U. Michigan, Ann Arbor	10	29,285	29,977	31,361	33,006	17,947	19,168	18,164	19,179
U. Notre Dame	11	26,254	28,342	29,216	30,859	16,038	17,970	18,246	19,720
Princeton U.	12	21,060	22,317	25,095	29,163	10,722	11,066	13,611	13,984
Cornell U.	13	25,958	26,542	27,423	27,978	15,966	19,679	21,016	19,666
Stanford U.	14	22,807	25,306	25,478	27,849	19,329	22,382	22,802	25,419
U. California, San Diego	15	22,362	32,067	27,429	27,339	19,106	21,472	16,704	21,719
Purdue U., West Lafayette	16	22,723	22,763	22,953	26,272	10,704	11,830	12,344	14,122
Johns Hopkins U. ^a	17	23,237	24,180	25,946	24,078	21,621	22,678	24,462	22,938
U. California, Los Angeles	18	18,893	23,711	19,842	24,038	12,928	16,506	14,839	16,178
U. Chicago	19	23,476	23,963	24,631	24,034	18,284	19,011	20,747	20,993
U. Washington, Seattle	20	21,246	22,113	24,008	23,508	17,773	19,183	21,802	21,211
Texas A&M U., College Station and Health Science Center	21	24,441	24,066	24,507	23,182	6,994	7,711	8,781	8,988
U. Pennsylvania	22	18,743	20,121	21,246	23,124	11,489	12,441	13,345	15,115
U. North Carolina, Chapel Hill	23	22,770	24,143	22,546	23,102	16,730	16,280	15,780	16,230
Georgia Institute of Technology	24	26,409	25,802	22,323	22,555	16,774	17,973	15,235	15,425
Florida International U.	25	11,455	17,688	18,412	22,439	5,561	6,744	7,623	12,085
Yale U.	26	21,752	23,452	21,309	21,464	13,731	14,079	10,663	12,340
Emory U.	27	19,743	20,261	19,048	20,841	12,453	13,433	12,627	15,197
Florida State U.	28	22,901	20,708	23,225	20,686	12,016	11,289	12,958	11,182
U. Minnesota, Twin Cities	29	18,303	21,094	22,061	20,661	12,370	14,112	14,721	15,439
U. Utah	30	15,935	40,326	18,018	19,435	10,084	24,189	11,546	12,874
U. California, Irvine	31	21,325	22,169	21,988	18,924	14,279	16,378	15,738	12,676
U. Texas, Austin	32	15,216	15,321	16,470	18,584	7,278	7,452	8,614	7,913
Boston U.	33	13,092	13,712	14,230	17,695	7,975	8,686	9,210	11,004

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		2018	2019	2020	2021	2018	2019	2020	2021
Indiana U., Bloomington	34	17,613	19,039	19,430	17,500	11,681	12,357	11,206	10,812
Pennsylvania State U., University Park and Hershey Medical Center	35	18,013	18,532	17,696	16,923	9,695	11,300	10,176	13,617
Columbia U. in the City of New York	36	11,038	11,749	11,983	16,528	8,906	8,577	9,611	14,024
Vanderbilt U. and Vanderbilt U. Medical Center	37	14,798	12,997	13,559	16,401	7,581	5,760	7,056	9,126
North Carolina State U.	38	7,648	10,796	11,821	16,108	5,494	5,718	6,645	7,120
Ohio State U.	39	15,804	18,579	28,972	15,540	12,628	14,421	23,166	12,211
U. Pittsburgh, Pittsburgh	40	17,627	17,222	16,058	15,518	9,569	11,279	10,893	9,776
Rice U.	41	13,430	16,975	16,251	15,332	5,433	6,163	5,909	7,002
U. Arizona	42	13,525	13,060	14,511	15,246	7,711	7,735	8,089	7,395
Virginia Polytechnic Institute and State U.	43	12,149	16,338	14,242	14,389	6,950	9,475	8,991	8,643
New York U.	44	12,254	14,483	13,753	14,156	10,777	12,540	11,679	12,181
U. California, Davis	45	11,110	13,683	13,607	14,017	7,774	9,783	9,896	9,954
SUNY, Stony Brook U.	46	10,403	12,052	12,396	13,646	7,694	9,174	9,555	10,030
Washington State U.	47	9,476	10,768	8,512	13,478	6,544	7,003	5,986	7,937
Montana State U., Bozeman	48	6,178	7,838	8,796	13,389	5,110	5,448	5,606	9,290
U. Florida	49	11,850	12,084	10,773	12,984	6,292	6,722	6,769	7,415
U. Virginia, Charlottesville	50	11,746	11,511	11,980	12,853	7,132	6,674	6,608	8,676
U. Southern California	51	12,180	14,258	14,232	12,687	7,703	7,884	7,570	6,787
Michigan State U.	52	10,641	10,320	11,806	12,568	6,757	5,939	7,154	8,166
Wayne State U.	53	10,072	12,192	10,163	12,458	5,703	7,853	6,426	8,355
U. Southern Mississippi	54	11,054	13,266	11,328	12,382	8,358	9,050	8,520	11,026
Dartmouth C. and Dartmouth Hitchcock Medical Center	55	8,435	8,125	9,198	12,008	2,619	2,471	3,074	3,880
Iowa State U.	56	14,074	12,549	12,374	11,950	8,084	7,048	8,055	9,139
Arizona State U.	57	11,314	14,026	13,030	11,762	5,827	5,870	5,739	5,232
Washington U., Saint Louis	58	11,486	14,244	12,722	11,696	7,419	9,548	8,606	8,809
Duke U.	59	9,293	10,711	9,809	11,536	7,228	8,841	8,398	10,066
U. Kansas	60	4,670	5,932	4,499	11,480	3,761	4,395	3,664	9,348
U. California, Santa Cruz	61	6,840	10,719	10,478	10,689	4,219	7,835	7,886	7,556
SUNY, Binghamton U.	62	13,084	10,839	11,900	10,445	4,588	4,990	5,324	3,922
U. Nebraska, Lincoln	63	12,332	9,916	11,631	10,171	6,848	6,911	6,237	6,867
U. Massachusetts, Amherst	64	12,489	19,452	14,992	10,139	7,795	8,431	10,044	6,635
SUNY, U. Buffalo	65	9,069	7,311	7,461	10,122	5,798	4,716	4,783	5,756
U. Oklahoma, Norman and Health Science Center	66	10,818	11,836	12,342	10,051	7,849	9,760	8,392	5,844
Louisiana State U., Baton Rouge	67	9,652	8,558	8,252	10,020	4,119	4,312	3,955	5,423

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Institution	Rank	Total				Federally financed			
		2018	2019	2020	2021	2018	2019	2020	2021
U. California, Riverside	68	8,602	9,249	9,260	9,556	6,557	7,019	7,396	8,133
U. Maryland ^b	69	na	9,888	10,389	9,419	na	7,246	6,777	6,858
U. Delaware	70	8,752	9,124	8,146	9,404	7,112	7,107	6,472	7,732
U. Colorado Boulder	71	8,937	9,650	9,041	9,383	7,298	6,877	6,537	7,132
U. Illinois, Chicago	72	7,653	8,664	7,868	9,326	4,506	5,362	4,659	6,060
Temple U.	73	6,458	7,522	9,606	9,251	5,078	5,636	5,786	5,501
Georgia State U.	74	8,188	8,366	9,304	9,032	4,860	5,085	6,834	5,193
Northeastern U.	75	6,270	7,067	7,636	8,833	4,218	4,258	4,811	6,872
Colorado State U., Fort Collins	76	9,944	10,311	8,042	8,806	6,907	7,684	5,324	6,716
Carnegie Mellon U.	77	9,028	8,868	9,207	8,696	3,122	3,818	4,095	3,985
Boston C.	78	6,530	7,188	7,492	8,543	4,805	5,597	5,627	6,600
Xavier U. Louisiana	79	6,921	5,878	7,186	8,440	6,697	5,796	7,077	8,325
U. California, Santa Barbara	80	11,676	17,290	9,166	8,346	7,982	10,287	6,268	6,502
U. Georgia	81	15,528	10,042	8,005	8,057	3,512	5,325	3,628	4,109
Texas Tech U.	82	7,703	7,368	7,136	7,686	2,510	2,760	2,780	2,622
Brandeis U.	83	3,137	2,287	4,239	7,463	2,470	1,819	1,679	5,363
Tufts U.	84	42,537	5,517	10,325	7,178	26,222	645	4,517	6,470
Jackson State U.	85	7,222	7,573	8,452	7,071	6,848	7,017	7,991	6,614
U. Texas, San Antonio	86	8,475	6,843	6,980	7,037	1,875	1,732	1,685	2,248
U. Akron	87	10,295	9,571	8,576	6,703	3,213	3,992	4,238	4,026
U. Tennessee, Knoxville ^c	88	8,481	7,780	6,816	6,532	4,300	3,649	3,170	2,699
U. Oregon	89	6,286	5,867	4,910	6,477	3,605	3,621	3,937	4,686
Rensselaer Polytechnic Institute	90	5,560	6,393	5,704	6,355	3,075	2,391	3,033	2,793
U. Texas, El Paso	91	6,456	6,519	4,620	6,291	4,026	3,736	3,233	2,978
U. Texas, Dallas	92	3,306	4,093	5,614	6,253	1,048	2,499	3,148	3,247
U. Cincinnati	93	4,704	5,968	5,796	5,987	2,199	2,241	2,005	2,173
U. Rochester	94	4,195	5,111	5,309	5,705	3,568	4,115	4,136	4,519
U. South Florida ^d	95	6,843	8,838	6,507	5,647	3,201	2,686	2,520	2,365
U. Texas, Arlington	96	4,776	5,243	5,740	5,631	1,228	1,432	1,807	2,204
U. Kentucky	97	4,703	5,236	4,802	5,598	3,001	4,073	3,669	4,627
Rutgers, State U. New Jersey, New Brunswick	98	4,606	7,258	6,321	5,579	3,529	2,680	2,557	3,276
U. Massachusetts, Lowell	99	3,948	4,105	4,475	5,555	422	469	1,064	1,387
Rockefeller U.	100	5,669	4,970	4,720	5,530	3,261	2,287	2,299	3,233
U. Missouri, Columbia	101	4,893	4,266	5,730	5,501	4,563	4,142	5,168	4,640

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Institution	Rank	Total				Federally financed			
		2018	2019	2020	2021	2018	2019	2020	2021
Brown U.	102	5,160	5,250	5,201	5,495	3,230	3,932	3,416	3,552
U. Nevada, Las Vegas	103	4,491	4,910	5,140	5,482	2,984	2,991	2,828	2,582
Auburn U., Auburn	104	4,298	6,440	7,222	5,463	1,355	1,833	1,737	1,645
U. North Texas, Denton	105	3,314	4,069	5,586	5,451	1,191	1,143	1,107	1,596
U. Iowa	106	5,293	4,659	5,415	5,342	3,835	3,607	3,681	4,065
Baylor U.	107	4,279	3,877	3,921	5,111	921	785	945	1,464
Howard U.	108	3,457	4,558	4,546	5,000	2,994	3,989	3,769	4,150
U. Connecticut	109	5,170	4,713	5,868	4,998	3,297	3,005	3,515	3,316
CUNY, City C.	110	5,779	6,308	5,164	4,978	4,351	4,502	3,803	3,808
SUNY, U. Albany	111	5,947	5,655	5,292	4,814	2,759	3,266	3,384	3,054
Mississippi State U.	112	5,228	6,348	6,041	4,790	1,603	1,206	1,111	1,175
California State U., Los Angeles	113	4,040	5,640	4,602	4,770	3,894	4,197	3,633	3,691
Syracuse U.	114	4,005	4,454	4,276	4,742	1,037	1,316	1,370	2,036
U. Arkansas, Fayetteville	115	6,092	6,084	5,478	4,668	2,262	2,548	2,160	2,301
West Virginia U.	116	4,761	5,632	4,868	4,509	2,691	3,616	3,040	2,965
CUNY, Hunter C.	117	3,119	3,027	3,003	4,412	2,288	1,810	2,579	3,842
San Diego State U.	118	3,581	4,203	4,075	4,386	2,481	2,655	2,297	2,214
Oklahoma State U., Stillwater	119	5,074	4,804	5,180	4,341	1,363	1,971	1,513	1,179
U. Central Florida	120	4,622	4,148	4,614	4,027	1,667	1,635	1,876	1,645
Brigham Young U., Provo	121	2,942	3,158	3,234	4,020	2,514	2,617	2,457	2,487
Kansas State U.	122	4,750	5,535	4,374	3,977	3,037	3,641	2,739	2,466
U. Nevada, Reno	123	4,285	4,373	3,903	3,935	1,888	2,004	1,534	2,370
U. Alabama, Tuscaloosa	124	4,382	3,315	2,937	3,853	2,500	2,435	2,148	2,222
North Dakota State U.	125	4,067	3,713	3,106	3,801	1,806	1,889	1,349	2,245
Miami U.	126	1,786	847	1,185	3,798	521	14	292	2,543
Marquette U.	127	2,639	2,202	2,361	3,476	1,467	1,222	1,424	2,323
Colorado School of Mines	128	3,576	2,839	2,691	3,333	3,080	2,379	2,198	3,022
George Washington U.	129	3,492	3,526	3,976	3,281	2,048	2,256	1,769	1,974
U. Vermont	130	1,368	2,438	2,415	3,250	1,187	1,279	1,327	1,445
U. Mississippi	131	3,599	6,256	3,994	3,235	2,169	3,890	2,225	2,022
Clemson U.	132	4,957	5,030	4,327	3,121	2,865	2,985	2,337	1,749
U. Toledo	133	2,367	2,703	1,935	3,069	1,355	1,713	1,367	2,290
U. Puerto Rico, Rio Piedras	134	1,809	2,488	2,776	2,967	1,517	2,217	2,360	2,650
Utah State U.	135	3,075	3,158	3,101	2,926	1,354	1,710	1,636	1,974

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U. California, Merced	136	2,280	3,653	2,630	2,919	1,630	2,250	2,041	1,588
New Jersey Institute of Technology	137	2,538	3,128	3,891	2,846	700	553	939	836
Case Western Reserve U.	138	2,868	3,471	2,955	2,785	2,233	2,735	2,291	2,191
Oakland U.	139	1,136	2,281	2,521	2,777	767	720	966	854
U. Massachusetts, Boston	140	1,252	1,983	2,370	2,695	735	1,193	1,706	1,796
Georgetown U.	141	3,369	2,958	3,318	2,694	2,627	2,194	2,661	2,185
U. South Carolina, Columbia	142	1,723	1,394	1,205	2,682	0	1	0	0
Oregon State U.	143	2,916	3,811	2,788	2,652	2,378	3,214	2,560	2,444
U. Denver	144	2,944	2,818	3,314	2,647	1,916	2,110	2,435	1,834
Middle Tennessee State U.	145	299	386	345	2,632	198	124	185	1,670
Missouri U. of Science and Technology	146	2,595	2,446	2,315	2,605	1,985	1,462	1,833	1,769
U. Montana, Missoula	147	2,184	3,363	2,782	2,554	2,091	2,351	1,783	1,655
Old Dominion U.	148	2,687	2,838	2,297	2,470	2,126	1,654	1,091	1,123
U. Alabama, Birmingham	149	2,239	2,177	1,018	2,415	1,739	1,880	925	1,082
Kent State U.	150	1,390	2,087	2,091	2,387	550	591	968	1,102
U. Memphis	151	1,409	1,579	2,143	2,347	713	809	667	733
Rutgers, State U. New Jersey, Newark	152	2,000	1,869	1,976	2,296	1,559	1,412	1,175	1,704
Indiana U.-Purdue U., Indianapolis	153	1,912	1,832	1,783	2,262	1,075	816	919	1,385
U. Missouri, Saint Louis	154	1,985	2,412	1,764	2,255	1,363	1,741	1,131	951
Tulane U.	155	1,866	3,121	2,734	2,227	1,231	1,939	1,372	1,293
U. North Carolina, Greensboro	156	2,701	2,612	2,028	2,216	2,291	2,301	1,494	1,647
California State U., Long Beach	157	3,819	3,453	2,474	2,188	3,660	3,327	2,328	2,059
U. New Mexico	158	3,678	2,112	2,704	2,174	3,006	1,716	2,243	1,882
U. North Dakota	159	2,306	2,720	2,212	2,152	560	881	610	672
New Mexico State U.	160	6,534	5,931	5,296	2,141	5,348	4,397	3,699	612
Saint Louis U.	161	1,580	2,179	1,786	2,120	830	877	1,235	1,226
U. Maryland, Baltimore County	162	3,977	1,714	1,558	2,106	2,893	824	1,233	1,723
San Jose State U.	163	1,234	1,541	1,787	2,097	1,024	1,310	1,420	1,303
Southern Methodist U.	164	1,102	1,691	1,469	2,094	740	798	921	1,154
Lehigh U.	165	3,184	2,201	2,147	2,065	2,137	1,312	1,298	1,432
U. South Dakota	166	1,737	2,741	2,499	2,022	548	756	992	726
Virginia Commonwealth U.	167	2,287	2,383	2,250	2,017	1,174	1,442	1,293	1,356
U. Rhode Island	168	2,469	2,020	2,081	1,957	1,855	1,682	1,726	1,344
Georgia Southern U.	169	598	444	1,476	1,951	108	118	534	523

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U. Massachusetts, Dartmouth	170	996	1,314	1,601	1,934	158	152	200	444
U. New Orleans	171	1,328	1,387	1,595	1,903	616	447	231	702
Villanova U.	172	1,371	1,565	2,371	1,884	271	272	834	540
San Francisco State U.	173	2,106	1,418	1,735	1,871	417	171	405	409
Michigan Technological U.	174	1,556	1,507	1,925	1,867	402	288	642	695
South Dakota State U.	175	2,960	2,898	1,941	1,857	1,149	1,213	1,026	1,365
U. Louisville	176	1,260	1,824	1,820	1,813	879	1,116	1,012	1,049
U. New Hampshire	177	1,677	1,625	1,428	1,808	828	740	818	655
Texas State U.	178	1,513	1,296	1,141	1,791	1,012	870	976	1,647
Mercer U.	179	1,613	2,106	1,951	1,786	0	0	0	0
U. Hawaii, Manoa	180	1,750	1,876	2,401	1,722	1,431	1,366	1,732	1,204
California State U., San Bernardino	181	20	23	4	1,706	0	0	3	1,579
U. Wisconsin-Milwaukee	182	4,080	2,749	2,173	1,679	2,555	1,275	750	497
Florida Atlantic U.	183	2,181	2,184	1,772	1,668	1,258	968	836	694
Portland State U.	184	3,360	2,667	1,782	1,646	2,151	2,222	1,467	1,145
CUNY, Advanced Science Research Center	185	340	478	1,376	1,617	293	430	922	1,160
Worcester Polytechnic Institute	186	2,035	1,722	1,422	1,613	1,589	1,481	1,021	1,035
U. North Carolina, Charlotte	187	882	1,585	1,261	1,610	866	1,207	977	1,267
Northern Illinois U.	188	1,458	1,283	1,536	1,579	649	969	1,146	1,208
CUNY, Lehman C.	189	1,821	1,495	1,698	1,567	1,821	1,495	1,612	1,551
Bowling Green State U.	190	2,390	1,769	1,477	1,561	969	1,005	741	753
Southern Illinois U., Carbondale	191	2,118	901	1,318	1,441	1,178	592	934	824
Ohio U.	192	756	492	1,399	1,432	197	219	582	1,073
U. Miami	193	1,782	1,102	1,437	1,318	1,193	604	1,011	1,129
CUNY, Queens C.	194	815	893	955	1,289	685	846	870	1,197
Hope C.	195	826	520	615	1,238	264	226	204	752
Western Washington U.	196	964	898	1,037	1,218	487	544	743	846
East Carolina U.	197	868	1,586	1,354	1,193	419	688	830	986
U. Arkansas, Pine Bluff	198	405	448	540	1,175	315	352	418	895
U. Alabama, Huntsville	199	1,648	1,466	1,300	1,165	169	262	218	219
U. Colorado Denver ^e	200	na	na	na	1,157	na	na	na	1,144
U. Maine	200	888	2,171	1,160	1,157	347	810	220	128
Clark Atlanta U.	202	992	804	978	1,139	960	680	760	951
California State U., Fresno	203	562	703	748	1,129	431	482	616	1,014

TABLE 50

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

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2018	2019	2020	2021	2018	2019	2020	2021
CUNY, Brooklyn C.	204	1,168	760	i 789	1,127	1,049	699	i 727	1,120
Furman U.	205	1,146	981	913	1,105	527	556	357	522
Wichita State U.	206	607	715	945	1,095	410	656	756	593
Fordham U.	207	63	333	747	1,067	0	107	294	251
George Mason U.	208	85	621	304	1,062	61	79	125	447
Louisiana Tech U.	209	853	732	711	1,051	243	86	71	146
U. Louisiana, Lafayette	210	853	162	1,256	1,029	114	160	158	82
Trinity U.	211	1,237	1,175	1,012	1,026	673	452	543	471
Wake Forest U.	212	391	1,370	575	1,010	389	397	396	534
U. Alaska, Anchorage	213	0	15	59	984	0	15	59	898
Idaho State U.	214	418	583	564	959	363	505	429	628
California State U., East Bay	215	ne	ne	296	947	ne	ne	164	830
Clarkson U.	216	772	2,300	1,829	945	343	504	523	283
James Madison U.	217	1,123	1,123	766	941	147	481	168	397
Illinois State U.	218	501	702	338	891	390	545	291	709
Kennesaw State U.	219	798	980	731	880	324	621	393	267
St. Edward's U.	220	345	272	750	865	230	250	735	850
Loyola U., Chicago	221	1,111	1,250	711	860	726	913	610	570
Southern Illinois U., Edwardsville	222	1,026	502	911	849	299	306	231	193
Long Island U.	223	0	20	675	845	0	0	0	69
U. Northern Iowa	224	705	1,271	825	841	472	1,002	710	777
Wesleyan U.	225	1,371	960	776	827	695	395	487	525
Texas Southern U.	226	196	144	927	801	139	114	881	801
American U.	227	1,300	1,864	847	790	738	190	196	160
Northern Arizona U.	228	1,355	1,387	799	780	1,094	271	324	270
Western Kentucky U.	229	1,063	1,287	1,360	772	546	664	783	401
Grambling State U.	230	525	493	468	756	381	424	349	386
Boise State U.	231	900	1,182	857	745	417	619	509	440
Reed C.	232	243	222	757	738	i 19	49	109	116
Drexel U.	233	1,494	1,130	902	735	629	308	305	310
Montclair State U.	234	256	245	507	689	242	106	224	437
U. Arkansas, Little Rock	235	901	896	1,088	685	603	614	828	590
U. Idaho	236	881	1,068	613	683	315	501	51	127
South Dakota School of Mines and Technology	237	685	504	732	681	539	485	691	639

TABLE 50

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

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2018	2019	2020	2021	2018	2019	2020	2021
Rowan U.	238	560	614	388	676	139	422	213	613
Winston-Salem State U.	239	180	193	437	673	180	193	410	590
Creighton U.	240	583	734	626	670	196	302	277	310
Ball State U.	241	677	963	801	667	361	576	315	428
Bryn Mawr C.	242	510	422	758	657	158	136	130	68
North Carolina Central U.	243	128	120	149	656	0	75	54	634
U. of the Sciences Philadelphia	244	669	614	533	652	267	497	293	420
Arkansas State U., Jonesboro	245	578	922	840	647	320	740	720	523
Skidmore C.	245	241	256	314	647	128	115	209	523
U. Nebraska, Kearney	247	162	493	281	630	101	146	118	130
U. Wyoming	248	2,484	933	554	625	679	915	554	614
Prairie View A&M U.	249	224	299	421	623	163	182	392	622
U. Texas Rio Grande Valley	250	642	1,272	1,669	617	537	602	1,061	63
U. Puerto Rico, Mayaguez	251	618	792	980	616	382	545	612	394
Western Michigan U. and Homer Stryker M.D. School of Medicine	252	587	650	649	611	273	258	335	396
U.S. Naval Academy	253	1,223	1,324	927	603	1,157	1,284	903	602
U. South Alabama	254	278	471	407	589	239	355	338	464
Amherst C.	255	654	1,062	782	580	126	21	289	35
U. Wisconsin-Eau Claire	256	405	463	457	577	307	388	355	500
Duquesne U.	257	2,436	2,446	2,204	569	721	669	621	392
New Mexico Highlands U.	258	714	ne	541	568	675	ne	541	568
U.S. Air Force Academy	259	627	330	0	552	46	330	0	552
Cleveland State U.	260	763	733	761	549	109	211	307	122
Stevens Institute of Technology	261	51	0	10	548	51	0	0	258
Occidental C.	262	191	170	181	535	177	151	140	458
Spelman C.	263	620	595	713	523	620	595	713	523
U. West Florida	264	0	166	88	515	0	0	0	392
U. San Diego	265	673	727	578	498	403	575	341	256
Northern Kentucky U.	266	292	369	431	497	176	258	251	353
Barnard C.	267	361	606	341	495	361	561	276	432
William & Mary	268	699	766	501	494	592	497	379	366
Rochester Institute of Technology	269	929	651	522	492	632	395	382	246
Swarthmore C.	270	628	552	231	475	245	222	155	331
Florida Institute of Technology	271	571	448	469	466	186	180	154	204

TABLE 50

Total and federally financed higher education R&D expenditures in chemistry, 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 Polytechnic State U., San Luis Obispo	272	348	385	456	460	252	198	265	274
Bucknell U.	273	396	265	494	i 456	18	80	298	i 292
California State U., Bakersfield	274	5	94	91	447	0	0	29	159
U. North Florida	275	343	345	485	446	143	248	286	252
Franklin and Marshall C.	276	780	533	406	444	579	187	254	292
Colgate U.	277	409	570	432	426	271	225	226	161
Naval Postgraduate School	278	299	104	348	422	299	104	234	422
Towson U.	279	217	218	246	420	84	110	120	168
California State U., Dominguez Hills	280	778	781	531	418	581	603	390	317
U. Maryland Center for Environmental Science	281	685	234	416	413	211	25	102	195
California State U., Northridge	282	385	366	666	406	369	315	612	274
Seton Hall U.	283	0	0	401	396	0	0	401	396
Fort Lewis C.	284	ne	1	44	394	ne	0	9	345
Salisbury U.	285	111	521	169	392	38	335	21	148
Bowie State U.	286	83	112	175	389	83	112	175	389
Morgan State U.	286	3	0	177	389	3	0	175	385
Tennessee Technological U.	288	820	653	583	374	549	498	426	270
U. Minnesota, Duluth	288	775	828	717	374	254	302	286	162
Santa Clara U.	290	289	337	342	368	233	313	315	310
U. Richmond	291	411	318	318	363	232	88	188	202
Haverford C.	292	320	i 315	i 394	i 357	221	201	187	273
Tarleton State U.	292	70	227	257	357	0	0	0	0
U. Missouri, Kansas City	294	312	347	591	353	133	182	273	236
St. John's U., New York	295	248	251	329	344	142	221	325	304
Grinnell C.	296	621	626	625	341	58	22	352	5
Illinois Institute of Technology	297	433	293	319	334	395	281	296	257
Sam Houston State U.	298	353	472	407	333	239	351	342	151
Calvin U.	299	422	325	310	i 321	372	265	254	i 270
Johnson C. Smith U.	300	228	66	300	318	228	66	300	318
Clark U.	301	243	539	594	317	74	204	161	74
California State U., Channel Islands	302	33	57	39	301	23	54	0	73
Morehouse C.	303	391	116	177	298	391	116	177	298
U. Central Arkansas	303	356	476	505	298	289	440	414	184
Alabama A&M U.	305	600	i 447	i 305	i 297	i 460	i 325	i 222	i 216

TABLE 50

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

(Dollars in thousands)

Institution	Rank	Total				Federally financed				
		2018	2019	2020	2021	2018	2019	2020	2021	
CUNY, C. Staten Island	306	846	i 880	311	282	533	i 651	228	239	
SUNY, Oswego	306	525	385	291	282	351	266	182	228	
Tougaloo C.	308	848	849	280	278	i 848	849	280	278	i
Wellesley C.	309	438	487	283	277	408	367	251	263	
Delaware State U.	310	1,275	590	240	i 276	1,020	457	240	i 276	
Marshall U.	311	483	679	1,019	273	258	462	99	143	
Connecticut C.	312	538	902	350	271	247	384	113	97	
SUNY, Geneseo	313	63	59	102	269	0	0	82	256	
Pacific U.	314	188	189	71	268	113	114	0	207	
Sonoma State U.	314	ne	ne	88	268	ne	ne	8	188	
Texas A&M U.-Corpus Christi	314	341	645	181	268	198	414	107	59	
U. Wisconsin-Oshkosh	317	257	i 259	i 261	i 262	227	i 225	i 224	i 222	
Framingham State U.	318	28	ne	247	258	i 17	ne	169	177	i
Central Washington U.	319	115	51	197	256	71	12	152	186	
Keene State C.	320	ne	52	72	248	ne	52	53	223	
North Carolina Agricultural and Technical State U.	320	917	626	522	248	462	306	114	248	
Chapman U.	322	491	584	370	247	346	334	362	157	
Smith C.	323	221	242	217	246	142	151	167	97	
Carleton C.	324	410	382	488	244	219	114	142	110	
Grand Valley State U.	324	599	243	364	244	571	219	341	172	
Bates C.	326	291	209	211	238	252	166	185	190	
U. of the Incarnate Word	326	34	224	226	238	0	178	176	238	
Pace U.	328	349	152	138	226	0	0	0	0	
Wright State U.	329	675	384	390	222	387	183	221	153	
Loyola Marymount U.	330	249	369	231	218	131	132	140	104	
Montana Technological U.	331	110	62	123	216	77	54	97	133	
Texas A&M U.-Commerce	332	227	240	129	212	104	136	58	156	
Albion C.	333	108	123	204	207	i 0	0	92	98	i
California State Polytechnic U., Pomona	334	959	17	110	205	664	17	108	160	
Middlebury C.	335	153	245	253	201	131	213	238	201	
West Texas A&M U.	336	43	121	211	200	0	71	166	169	
Florida Gulf Coast U.	337	0	22	257	197	0	0	204	106	
U. Tulsa	338	300	317	261	196	51	21	43	22	
Murray State U.	339	194	337	165	195	157	328	155	141	

TABLE 50

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

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2018	2019	2020	2021	2018	2019	2020	2021
Lewis and Clark C.	340	160	127	151	194	50	45	53	55
U. Dayton	340	12	8	8	194	0	0	0	108
C. New Jersey	342	27	ne	54	184	24	ne	48	118
Colby C.	343	420	330	302	180	359	260	225	143
Texas A&M U.-Kingsville	343	48	148	163	180	0	83	108	87
Macalester C.	345	447	296	206	179	256	272	118	163
Bowdoin C.	346	193	79	77	177	162	71	43	158
Indiana U. Pennsylvania	347	68	143	207	175	28	46	93	84
Augusta U.	348	43	48	29	172	0	0	0	0
Ithaca C.	348	ne	ne	76	172	ne	ne	70	101
Youngstown State U.	350	44	101	182	171	26	87	166	158
Harvey Mudd C.	351	803	217	259	169	584	88	201	109
Texas Christian U.	352	649	306	377	168	158	106	213	167
New Mexico Institute of Mining and Technology	353	624	450	287	167	615	450	287	167
CUNY, John Jay C. of Criminal Justice	354	329	158	220	165	249	158	167	165
C. Wooster	355	554	389	160	164	379	151	91	97
Davidson C.	356	294	282	154	162	215	225	112	138
West Chester U. Pennsylvania	356	229	262	255	162	0	62	35	56
Winthrop U.	358	254	287	150	161	95	100	64	95
Fisk U.	359	108	0	0	160	108	0	0	158
Augustana U.	360	201	158	ne	159	189	153	ne	159
California State U., Fullerton	360	414	213	166	159	404	7	0	6
Fort Hays State U.	360	ne	73	72	159	ne	32	64	154
Oberlin C.	363	381	222	213	157	262	167	71	58
SUNY, C. of Environmental Science and Forestry	364	133	243	94	155	14	42	47	115
Williams C.	365	155	165	156	152	53	0	0	0
U.S. Military Academy	366	0	0	419	150	0	0	419	150
Union C., Schenectady	366	41	408	38	150	17	352	21	96
U. Central Oklahoma	368	87	140	139	146	87	140	139	146
U. Wisconsin-La Crosse	369	242	249	228	144	84	69	54	0
U. Ana G. Mendez, Gurabo	370	362	1,007	362	142	144	29	25	29
Southeastern Louisiana U.	371	216	81	213	140	54	28	135	107
U. Houston-Downtown	372	73	77	72	139	0	0	0	65
Tuskegee U.	373	229	131	134	134	229	131	134	134

TABLE 50

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

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2018	2019	2020	2021	2018	2019	2020	2021
Southern U. and A&M C., Baton Rouge	374	592	451	101	133	310	73	39	65
Azusa Pacific U.	375	250	98	137	129	44	0	12	9
U. North Carolina, Wilmington	376	388	458	208	126	312	374	169	110
U. of St. Thomas (MN)	376	187	338	94	126	49	42	49	58
Appalachian State U.	378	162	108	226	124	147	78	74	5
Doane U.	379	251	121	123	i 119	i 166	60	62	i 67
William Paterson U.	380	153	229	267	116	0	0	0	0
Manhattan C.	381	ne	55	71	112	ne	55	71	112
Pomona C.	381	391	304	446	112	158	132	212	64
Texas A&M International U.	381	4	1	0	112	0	0	0	64
Trinity C., Hartford	381	275	154	46	112	129	92	5	86
Purdue U., Northwest	385	305	115	207	110	284	111	168	102
U. Minnesota, Morris	386	ne	14	94	108	ne	0	0	0
Colorado C.	387	183	83	38	107	0	0	0	0
Saint Joseph's U.	388	194	208	128	105	0	0	0	0
Clafin U.	389	600	501	208	104	600	501	208	104
Albany State U.	390	137	150	54	102	137	150	54	102
Catholic U. of America	391	662	551	659	101	540	481	523	84
Pepperdine U.	391	99	77	54	101	0	0	0	0
Wheaton C., Wheaton	393	37	101	57	98	6	0	0	19
Eastern Michigan U.	394	150	176	410	97	0	0	1	28
U. of the Pacific	395	114	257	144	91	114	257	144	91
U. Alaska, Fairbanks	396	11	75	57	87	11	48	57	87
U. North Carolina, Asheville	397	201	13	180	86	190	0	146	33
Willamette U.	397	225	271	161	86	145	149	62	4
Purdue U., Fort Wayne	399	51	101	123	82	51	101	123	82
U. Northern Colorado	399	176	71	53	82	0	0	0	61
U. Puerto Rico, Humacao	401	313	157	200	81	287	104	192	71
U. of the Virgin Islands	402	0	0	159	80	0	0	159	80
St. Olaf C.	403	186	79	75	78	69	0	6	3
Fort Valley State U.	404	88	104	72	76	88	104	72	76
Saint John's U.	404	106	104	i 99	i 76	i 0	0	i 0	i 0
C. of Saint Benedict	406	140	i 137	i 130	i 75	22	21	i 20	i 6
Lafayette C.	406	177	176	156	75	152	151	94	37

TABLE 50

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

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2018	2019	2020	2021	2018	2019	2020	2021
Providence C.	408	175	93	370	74	94	71	352	42
Hamilton C.	409	73	82	164	73	0	0	0	0
California State U., Stanislaus	410	17	20	12	72	0	0	0	60
SUNY, C. Plattsburgh	410	88	7	0	72	72	0	0	66
Suffolk U.	412	ne	ne	97	69	ne	ne	97	69
U. of Mary Washington	413	4	32	57	68	4	32	49	50
Central Connecticut State U.	414	ne	101	78	66	ne	78	60	41
Lamar U.	414	126	128	54	66	2	73	20	0
SUNY, C. Brockport	414	0	33	69	66	0	0	39	19
U. Puerto Rico, Cayey	417	41	83	155	65	41	83	137	65
Humboldt State U.	418	3	48	39	64	0	0	0	0
California State U., Sacramento	419	156	183	89	62	92	102	44	5
CUNY, York C.	420	ne	448	331	61	ne	437	329	61
Pennsylvania State U., Behrend	420	49	76	22	61	15	17	16	26
Eastern Kentucky U.	422	65	0	55	60	62	0	26	51
East Tennessee State U.	423	35 i	78 i	91 i	59 i	11	11	27	1
Tennessee State U.	423	14	19	57	59 i	14	1	39	41 i
C. Charleston	425	245	200	131	57	103	154	88	26
California State U., Monterey Bay	425	0	65	0	57	0	65	0	57
U. Colorado Colorado Springs	425	0	0	0	57	0	0	0	57
Vassar C.	425	175 i	38	18	57	175 i	38	13	49
Claremont McKenna C.	429	40	144	85	56	39	140	85	56
U. San Francisco	429	73	55	45	56	0	0	0	0
Mercyhurst U.	431	ne	55 i	57 i	55 i	ne	24 i	25 i	26 i
U. Wisconsin-Green Bay	431	42 i	63 i	62 i	55 i	19 i	30 i	33 i	30 i
Kettering U.	433	133	149	115	53	84	89	64	0
Central Michigan U.	434	192	257	31	52	86	68	0	0
Citadel Military C. South Carolina	434	ne	ne	23	52	ne	ne	0	0
Fairfield U.	434	14	297	84	52	14	297	41	7
Western Illinois U.	434	12	38	39	52	0	17	21	47
U. New Haven	438	178	264	122	49	1	1	0	0
U. Wisconsin-River Falls	439	103	ne	155	48	103	ne	84	24
DePaul U.	440	58	42	38	47	0	1	2	24
U. Texas, Tyler	441	33	44	33	46	0	0	0	0

TABLE 50

Total and federally financed higher education R&D expenditures in chemistry, 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-Stevens Point	442	48	55	62	45	30	36	42	7
Western Carolina U.	442	196	342	253	45	144	172	118	0
U. Wisconsin-Platteville	444	ne	99	101	43	ne	36	36	21
Florida Polytechnic U.	445	ne	0	17	42	ne	0	0	0
Niagara U.	445	145	78	54	42	0	0	0	0
Rutgers, State U. New Jersey, Camden	447	19	74	322	39	2	0	0	0
Elon U.	448	38	40	39	38	0	0	0	0
Southern Connecticut State U.	448	8	98	118	38	0	0	0	0
Saginaw Valley State U.	450	42	300	35	36	25	294	21	22
Savannah State U.	451	63	63	0	34	59	63	0	34
Biola U.	452	34	33	35	33	21	20	21	21
California State U., San Marcos	452	0	118	61	33	0	118	61	33
Indiana State U.	452	42	62	39	33	42	62	39	30
Indiana U., South Bend	452	0	ne	ne	33	0	ne	ne	12
U. Hawaii, Hilo	456	4	17	179	32	0	12	178	31
Hobart and William Smith Colleges	457	ne	92	30	31	ne	17	0	0
Norfolk State U.	457	404	508	76	31	404	508	76	31
Monmouth U.	459	ne	18	19	29	ne	0	0	0
Mount Holyoke C.	460	263	210	114	28	260	183	111	18
Stephen F. Austin State U.	460	91	85	33	28	0	0	0	0
Missouri State U.	462	24	7	22	27	24	7	20	0
U. Houston-Clear Lake	462	38	44	26	27	0	0	0	0
Christopher Newport U.	464	18	102	63	26	9	64	53	20
Pittsburg State U.	465	21	28	19	24	21	28	19	24
Florida A&M U.	466	1,628	25	39	23	1,628	21	39	23
U. Tennessee, Chattanooga	467	10	35	52	22	0	0	0	0
Coastal Carolina U.	468	0	0	0	20	0	0	0	0
U. Illinois, Springfield	468	0	12	14	20	0	12	12	15
U. Virginia's C. Wise	470	ne	ne	ne	18	ne	ne	ne	18
Minnesota State U., Mankato	471	69	51	48	17	55	18	0	0
U. Louisiana, Monroe	471	50	75	55	17	26	67	55	10
U. New England	471	27	23	20	17	0	0	0	0
U. Southern Maine	471	36	11	0	17	21	11	0	0
Central State U.	475	83	63	6	16	83	63	6	16

TABLE 50

Total and federally financed higher education R&D expenditures in chemistry, 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., Chico	476	48	30	26	10	18	16	6	4
Colorado State U., Pueblo	477	ne	6	18	8	ne	0	0	0
Northern Michigan U.	478	26	24	9	7	0	0	0	0
Hofstra U.	479	8	6	4	6	0	0	0	0
U. Detroit Mercy	479	11	13	5	6	0	0	0	0
U. Michigan, Flint	479	22	26	21	6	0	0	0	0
U. South Carolina, Aiken	479	108	0	51	6	0	0	8	4
CUNY, New York City C. of Technology	483	13	1	0	5	10	1	0	5
Eastern Connecticut State U.	484	6	10	0	4	0	0	0	0
St. Cloud State U.	484	1	1	3	4	0	0	0	0
U. Nebraska, Omaha	486	34	2	2	3	15	0	0	0
Roger Williams U.	487	234	15	3	2	90	0	0	0
Seattle U.	487	63	84	86	2	8	0	0	0
Lawrence Technological U.	489	0	9	0	1	0	0	0	0
All other surveyed institutions	-	18,187	5,823	3,147	0	11,692	4,407	2,519	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 \$12,600 thousand imputed for total and \$12,263 thousand reported for federally financed R&D expenditures in chemistry 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.