

TABLE 49

Total and federally financed higher education R&D expenditures in chemistry, ranked by FY 2020 total: FYs 2017–20

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2017	2018	2019	2020	2017	2018	2019	2020
All institutions	-	1,791,311	1,865,955	1,965,712	1,926,772	1,097,830	1,129,872	1,182,460	1,166,743
U. California, San Francisco	1	62,673	62,661	65,572	68,745	36,290	35,467	38,487	41,413
U. Houston	2	21,216	25,126	34,730	40,835	2,457	2,511	2,298	2,981
California Institute of Technology	3	51,531	46,180	42,498	40,638	34,064	30,824	28,469	26,664
U. California, Berkeley	4	31,246	32,164	30,743	36,326	15,755	16,256	15,560	17,414
Northwestern U.	5	38,954	39,150	40,651	35,130	24,200	23,691	25,466	22,766
U. Illinois, Urbana-Champaign	6	28,988	31,819	35,411	34,642	18,268	19,818	21,926	21,367
Harvard U.	7	31,204	29,444	34,683	33,675	20,957	20,642	20,722	19,149
Massachusetts Institute of Technology	8	26,165	31,921	31,179	32,375	15,292	20,339	18,377	19,258
U. Wisconsin-Madison	9	23,685	24,620	26,369	31,441	14,400	15,032	17,502	19,249
U. Michigan, Ann Arbor	10	27,654	29,285	29,977	31,361	18,091	17,947	19,168	18,164
U. Notre Dame	11	26,177	26,254	28,342	29,216	16,340	16,038	17,970	18,246
Ohio State U.	12	14,696	15,804	18,579	28,972	12,169	12,628	14,421	23,166
U. California, San Diego	13	28,237	22,362	32,067	27,429	22,566	19,106	21,472	16,704
Cornell U.	14	25,643	25,958	26,542	27,423	19,658	15,966	19,679	21,016
Johns Hopkins U. ^a	15	23,404	23,237	24,180	25,946	22,193	21,621	22,678	24,462
Stanford U.	16	26,834	22,807	25,306	25,478	23,436	19,329	22,382	22,802
Princeton U.	17	18,701	21,060	22,317	25,095	9,306	10,722	11,066	13,611
U. Chicago	18	24,093	23,476	23,963	24,631	18,605	18,284	19,011	20,747
Texas A&M U., College Station and Health Science Center	19	26,392	24,441	24,066	24,507	7,369	6,994	7,711	8,781
U. Washington, Seattle	20	22,484	21,246	22,113	24,008	19,125	17,773	19,183	21,802
Florida State U.	21	21,256	22,901	20,708	23,225	9,591	12,016	11,289	12,958
Purdue U., West Lafayette	22	21,437	22,723	22,763	22,953	11,275	10,704	11,830	12,344
U. North Carolina, Chapel Hill	23	22,182	22,770	24,143	22,546	15,211	16,730	16,280	15,780
Georgia Institute of Technology	24	24,609	26,409	25,802	22,323	15,267	16,774	17,973	15,235
U. Minnesota, Twin Cities	25	18,708	18,303	21,094	22,061	11,791	12,370	14,112	14,721
U. California, Irvine	26	22,957	21,325	22,169	21,988	15,099	14,279	16,378	15,738
Yale U.	27	22,551	21,752	23,452	21,309	12,697	13,731	14,079	10,663
U. Pennsylvania	28	15,403	18,743	20,121	21,246	11,081	11,489	12,441	13,345
U. California, Los Angeles	29	17,222	18,893	23,711	19,842	12,045	12,928	16,506	14,839
Indiana U., Bloomington	30	18,262	17,613	19,039	19,310	9,961	11,681	12,357	11,206
Emory U.	31	18,470	19,743	20,261	19,048	11,878	12,453	13,433	12,627
Florida International U.	32	7,254	11,455	17,688	18,412	5,503	5,561	6,744	7,623
U. Utah	33	15,140	15,935	40,326	18,018	12,048	10,084	24,189	11,546

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Pennsylvania State U., University Park and Hershey Medical Center	34	17,085	18,013	18,532	17,696	10,279	9,695	11,300	10,176
U. Texas, Austin	35	15,040	15,216	15,321	16,470	7,646	7,278	7,452	8,614
Rice U.	36	15,323	13,430	16,975	16,251	7,371	5,433	6,163	5,909
U. Pittsburgh, Pittsburgh	37	19,075	17,627	17,222	16,058	9,138	9,569	11,279	10,893
U. Massachusetts, Amherst	38	11,433	12,489	19,452	14,992	7,149	7,795	8,431	10,044
U. Arizona	39	13,025	13,525	13,060	14,511	8,169	7,711	7,735	8,089
Virginia Polytechnic Institute and State U.	40	9,149	12,149	16,338	14,242	4,893	6,950	9,475	8,991
U. Southern California	41	12,856	12,180	14,258	14,232	7,625	7,703	7,884	7,570
Boston U.	42	11,420	13,092	13,712	14,230	7,468	7,975	8,686	9,210
New York U.	43	11,525	12,254	14,483	13,753	9,849	10,777	12,540	11,679
U. California, Davis	44	12,276	11,110	13,683	13,607	8,556	7,774	9,783	9,896
Vanderbilt U. and Vanderbilt U. Medical Center	45	17,906	14,798	12,997	13,559	9,304	7,581	5,760	7,056
Arizona State U.	46	12,588	11,314	14,026	13,030	5,546	5,827	5,870	5,739
Washington U., Saint Louis	47	11,152	11,486	14,244	12,722	7,603	7,419	9,548	8,606
SUNY, Stony Brook U.	48	15,342	10,403	12,052	12,396	7,739	7,694	9,174	9,555
Iowa State U.	49	10,338	14,074	12,549	12,374	4,715	8,084	7,048	8,055
U. Oklahoma, Norman and Health Science Center	50	8,491	10,818	11,836	12,342	6,654	7,849	9,760	8,392
Columbia U. in the City of New York	51	12,809	11,038	11,749	11,983	9,903	8,906	8,577	9,611
U. Virginia, Charlottesville	52	11,775	11,746	11,511	11,980	6,266	7,132	6,674	6,608
SUNY, Binghamton U.	53	11,800	13,084	10,839	11,900	4,981	4,588	4,990	5,324
North Carolina State U.	54	8,261	7,648	10,796	11,821	5,580	5,494	5,718	6,645
Michigan State U.	55	11,204	10,641	10,320	11,806	6,621	6,757	5,939	7,154
U. Nebraska, Lincoln	56	7,942	12,332	9,916	11,631	4,471	6,848	6,911	6,237
U. Southern Mississippi	57	11,125	11,054	13,266	11,328	7,350	8,358	9,050	8,520
U. Florida	58	10,424	11,850	12,084	10,773	5,749	6,292	6,722	6,769
U. California, Santa Cruz	59	6,322	6,840	10,719	10,478	4,568	4,219	7,835	7,886
U. Maryland ^b	60	na	na	9,888	10,389	na	na	7,246	6,777
Tufts U.	61	5,626	42,537	5,517	10,325	4,748	26,222	645	4,517
Wayne State U.	62	7,441	10,072	12,192	10,163	4,846	5,703	7,853	6,426
Duke U.	63	8,425	9,293	10,711	9,809	5,856	7,228	8,841	8,398
Temple U.	64	7,122	6,458	7,522	9,606	5,003	5,078	5,636	5,786
Georgia State U.	65	8,298	8,188	8,366	9,304	5,678	4,860	5,085	6,834
U. California, Riverside	66	9,142	8,602	9,249	9,260	7,249	6,557	7,019	7,396
Carnegie Mellon U.	67	8,706	9,028	8,868	9,207	3,057	3,122	3,818	4,095

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Dartmouth C. and Dartmouth Hitchcock Medical Center	68	8,605	8,435	8,125	9,198	2,146	2,619	2,471	3,074
U. California, Santa Barbara	69	10,179	11,676	17,290	9,166	6,814	7,982	10,287	6,268
U. Colorado Boulder	70	12,078	8,937	9,650	9,041	10,510	7,298	6,877	6,537
Montana State U., Bozeman	71	5,951	6,178	7,838	8,796	4,860	5,110	5,448	5,606
U. Akron	72	11,100	10,295	9,571	8,576	3,455	3,213	3,992	4,238
Washington State U.	73	7,840	9,476	10,768	8,512	5,472	6,544	7,003	5,986
Jackson State U.	74	5,813	7,222	7,573	8,452	5,281	6,848	7,017	7,991
Louisiana State U., Baton Rouge	75	7,054	9,652	8,558	8,252	3,440	4,119	4,312	3,955
U. Delaware	76	8,919	8,752	9,124	8,146	7,255	7,112	7,107	6,472
Colorado State U., Fort Collins	77	7,768	9,944	10,311	8,042	4,816	6,907	7,684	5,324
U. Georgia	78	8,403	15,528	10,042	8,005	3,667	3,512	5,325	3,628
U. Illinois, Chicago	79	8,130	7,653	8,664	7,868	5,002	4,506	5,362	4,659
Northeastern U.	80	5,716	6,270	7,067	7,636	2,962	4,218	4,258	4,811
Boston C.	81	6,137	6,530	7,188	7,492	4,412	4,805	5,597	5,627
SUNY, U. Buffalo	82	9,102	9,069	7,311	7,461	5,566	5,798	4,716	4,783
Auburn U., Auburn	83	4,441	4,298	6,440	7,222	1,179	1,355	1,833	1,737
Xavier U. Louisiana	84	8,007	6,921	5,878	7,186	7,956	6,697	5,796	7,077
Texas Tech U.	85	6,245	7,703	7,368	7,136	1,410	2,510	2,760	2,780
U. Texas, San Antonio	86	10,155	8,475	6,843	6,980	3,175	1,875	1,732	1,685
U. Tennessee, Knoxville ^c	87	8,162	8,481	7,780	6,816	5,244	4,300	3,649	3,170
U. South Florida, Tampa	88	6,711	6,843	8,838	6,507	3,256	3,201	2,686	2,520
Rutgers, State U. New Jersey, New Brunswick	89	9,066	4,606	7,258	6,321	4,188	3,529	2,680	2,557
Mississippi State U.	90	5,472	5,228	6,348	6,041	1,682	1,603	1,206	1,111
U. Connecticut	91	5,319	5,170	4,713	5,868	3,522	3,297	3,005	3,515
U. Cincinnati	92	4,672	4,704	5,968	5,796	2,655	2,199	2,241	2,005
U. Texas, Arlington	93	4,307	4,776	5,243	5,740	1,210	1,228	1,432	1,807
U. Missouri, Columbia	94	4,207	4,893	4,266	5,730	3,847	4,563	4,142	5,168
Rensselaer Polytechnic Institute	95	7,338	5,560	6,393	5,704	3,371	3,075	2,391	3,033
U. Texas, Dallas	96	4,784	3,306	4,093	5,614	1,156	1,048	2,499	3,148
U. North Texas, Denton	97	4,886	3,314	4,069	5,586	1,734	1,191	1,143	1,107
U. Arkansas, Fayetteville	98	5,123	6,092	6,084	5,478	1,942	2,262	2,548	2,160
U. Iowa	99	5,738	5,293	4,659	5,415	3,937	3,835	3,607	3,681
U. Rochester	100	4,601	4,195	5,111	5,309	3,668	3,568	4,115	4,136
New Mexico State U.	101	8,112	6,534	5,931	5,296	6,826	5,348	4,397	3,699
SUNY, U. Albany	102	4,460	5,947	5,655	5,292	1,338	2,759	3,266	3,384
Brown U.	103	3,498	5,160	5,250	5,201	2,087	3,230	3,932	3,416
Oklahoma State U., Stillwater	104	5,474	5,074	4,804	5,180	1,864	1,363	1,971	1,513
CUNY, City C.	105	5,920	5,779	6,308	5,164	4,115	4,351	4,502	3,803

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U. Nevada, Las Vegas	106	4,048	4,491	4,910	5,140	2,922	2,984	2,991	2,828
U. Oregon	107	4,720	6,286	5,867	4,910	3,030	3,605	3,621	3,937
West Virginia U.	108	2,742	4,761	5,632	4,868	1,641	2,691	3,616	3,040
U. Kentucky	109	4,092	4,703	5,236	4,802	2,579	3,001	4,073	3,669
Rockefeller U.	110	5,774	5,669	4,970	4,720	3,570	3,261	2,287	2,299
U. Central Florida	111	4,191	4,622	4,148	4,627	1,489	1,667	1,635	1,876
U. Texas, El Paso	112	5,735	6,456	6,519	4,620	3,524	4,026	3,736	3,233
California State U., Los Angeles	113	3,715	4,040	5,640	4,602	3,637	3,894	4,197	3,633
Howard U.	114	2,969	3,457	4,558	4,546	2,611	2,994	3,989	3,769
U. Kansas	115	6,746	4,670	5,932	4,499	5,945	3,761	4,395	3,664
U. Massachusetts, Lowell	116	2,671	3,948	4,105	4,475	771	422	469	1,064
Kansas State U.	117	3,002	4,750	5,535	4,374	2,164	3,037	3,641	2,739
Clemson U.	118	3,950	4,957	5,030	4,327	2,540	2,865	2,985	2,337
Syracuse U.	119	4,018	4,005	4,454	4,276	1,058	1,037	1,316	1,370
San Diego State U.	120	2,782	3,581	4,203	4,075	1,361	2,481	2,655	2,297
U. Mississippi	121	4,810	3,599	6,256	3,994	2,387	2,169	3,890	2,225
George Washington U.	122	3,440	3,492	3,526	3,976	2,296	2,048	2,256	1,769
Baylor U.	123	4,741	4,279	3,877	3,921	1,320	921	785	945
U. Nevada, Reno	124	2,049	4,285	4,373	3,903	833	1,888	2,004	1,534
New Jersey Institute of Technology	125	2,262	2,538	3,128	3,563	530	700	553	939
Georgetown U.	126	3,863	3,369	2,958	3,318	2,207	2,627	2,194	2,661
U. Denver	127	3,278	2,944	2,818	3,314	2,213	1,916	2,110	2,435
Brigham Young U., Provo	128	3,025	2,942	3,158	3,234	2,254	2,514	2,617	2,457
North Dakota State U.	129	4,865	4,067	3,713	3,106	2,769	1,806	1,889	1,349
Utah State U.	130	1,630	3,075	3,158	3,101	1,084	1,354	1,710	1,636
CUNY, Hunter C.	131	2,274	3,119	3,027	3,003	1,398	2,288	1,810	2,579
Case Western Reserve U.	132	3,387	2,868	3,471	2,955	2,597	2,233	2,735	2,291
U. Alabama, Tuscaloosa	133	3,795	4,382	3,315	2,937	2,563	2,500	2,435	2,148
Oregon State U.	134	2,550	2,916	3,811	2,788	2,055	2,378	3,214	2,560
U. Montana, Missoula	135	3,432	2,184	3,363	2,782	1,613	2,091	2,351	1,783
U. Puerto Rico, Rio Piedras	136	3,631	1,809	2,488	2,776	3,165	1,517	2,217	2,360
Tulane U.	137	2,337	1,866	3,121	2,734	1,480	1,231	1,939	1,372
U. New Mexico	138	3,145	3,678	2,112	2,704	2,710	3,006	1,716	2,243
Colorado School of Mines	139	3,794	3,576	2,839	2,691	2,604	3,080	2,379	2,198
U. California, Merced	140	3,087	2,280	3,653	2,630	2,408	1,630	2,250	2,041
Oakland U.	141	1,189	1,136	2,281	2,521	827	767	720	966
Brandeis U.	142	3,428	3,137	2,287	2,502	2,426	2,470	1,819	1,679
U. South Dakota	143	1,517	1,737	2,741	2,499	747	548	756	992
California State U., Long Beach	144	3,230	3,819	3,453	2,474	3,061	3,660	3,327	2,328
U. Vermont	145	1,298	1,368	2,438	2,415	514	1,187	1,279	1,327
U. Hawaii, Manoa	146	2,103	1,750	1,876	2,401	1,692	1,431	1,366	1,732

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Villanova U.	147	1,082	1,371	1,565	2,371	58	271	272	834
U. Massachusetts, Boston	148	858	1,252	1,983	2,370	548	735	1,193	1,706
Marquette U.	149	1,538	2,639	2,202	2,361	1,025	1,467	1,222	1,424
Missouri U. of Science and Technology	150	2,321	2,595	2,446	2,315	1,516	1,985	1,462	1,833
Old Dominion U.	151	3,249	2,687	2,838	2,297	2,314	2,126	1,654	1,091
Virginia Commonwealth U.	152	1,945	2,287	2,383	2,250	1,590	1,174	1,442	1,293
U. North Dakota	153	2,437	2,306	2,720	2,212	806	560	881	610
Duquesne U.	154	2,178	2,436	2,446	2,204	579	721	669	621
U. Wisconsin-Milwaukee	155	4,945	4,080	2,749	2,173	3,567	2,555	1,275	750
Lehigh U.	156	2,655	3,184	2,201	2,147	1,532	2,137	1,312	1,298
U. Memphis	157	1,055	1,409	1,579	2,143	657	713	809	667
Kent State U.	158	1,980	1,390	2,087	2,091	695	550	591	968
U. Rhode Island	159	2,726	2,469	2,020	2,081	2,272	1,855	1,682	1,726
U. North Carolina, Greensboro	160	2,984	2,701	2,612	2,028	2,616	2,291	2,301	1,494
Rutgers, State U. New Jersey, Newark	161	1,844	2,000	1,869	1,976	1,278	1,559	1,412	1,175
Mercer U.	162	20	1,613	2,106	1,951	0	0	0	0
South Dakota State U.	163	3,911	2,960	2,898	1,941	983	1,149	1,213	1,026
U. Toledo	164	1,604	2,367	2,703	1,935	1,359	1,355	1,713	1,367
Michigan Technological U.	165	1,446	1,556	1,507	1,925	214	402	288	642
Clarkson U.	166	837	772	2,300	1,829	291	343	504	523
U. Louisville	167	1,063	1,260	1,824	1,820	782	879	1,116	1,012
Indiana U.-Purdue U., Indianapolis	168	1,590	1,912	1,832	1,799	760	1,075	816	919
San Jose State U.	169	766	1,234	1,541	1,787	654	1,024	1,310	1,420
Saint Louis U.	170	952	1,580	2,179	1,786	566	830	877	1,235
Portland State U.	171	3,576	3,360	2,667	1,782	2,558	2,151	2,222	1,467
Florida Atlantic U.	172	2,827	2,181	2,184	1,772	1,447	1,258	968	836
U. Missouri, Saint Louis	173	1,607	1,985	2,412	1,764	1,077	1,363	1,741	1,131
CUNY, Lehman C.	174	1,562	1,821	1,495	1,698	1,558	1,821	1,495	1,612
U. Texas Rio Grande Valley	175	1,079	642	1,272	1,669	860	537	602	1,061
U. Massachusetts, Dartmouth	176	949	996	1,314	1,601	165	158	152	200
U. New Orleans	177	1,597	1,328	1,387	1,595	765	616	447	231
U. Maryland, Baltimore County	178	4,930	3,977	1,714	1,558	3,777	2,893	824	1,233
Northern Illinois U.	179	407	1,458	1,283	1,536	217	649	969	1,146
Bowling Green State U.	180	1,798	2,390	1,769	1,477	1,172	969	1,005	741
Georgia Southern U.	181	548	598	444	1,476	85	108	118	534
Southern Methodist U.	182	1,261	1,102	1,691	1,469	700	740	798	921

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San Francisco State U.	183	2,165	2,106	1,418	1,466	901	417	171	178
U. Miami	184	1,923	1,782	1,102	1,437	1,160	1,193	604	1,011
U. New Hampshire	185	1,212	1,677	1,625	1,428	811	828	740	818
Worcester Polytechnic Institute	186	2,342	2,035	1,722	1,422	1,602	1,589	1,481	1,021
Ohio U.	187	1,162	756	492	1,399	216	197	219	582
CUNY, Advanced Science Research Center	188	372	340	478	1,376	345	293	430	922
Western Kentucky U.	189	1,363	1,063	1,287	1,360	485	546	664	783
East Carolina U.	190	75	868	1,586	1,354	22	419	688	830
Southern Illinois U., Carbondale	191	2,050	2,118	901	1,318	1,212	1,178	592	934
U. Alabama, Huntsville	192	881	1,648	1,466	1,300	197	169	262	218
U. North Carolina, Charlotte	193	517	882	1,585	1,261	499	866	1,207	977
U. Louisiana, Lafayette	194	630	853	162	1,256	71	114	160	158
U. South Carolina, Columbia	195	8,779	1,723	1,394	1,205	4,997	0	1	0
Miami U.	196	1,694	1,786	847	1,185	428	521	14	292
Texas State U.	197	1,351	1,513	1,296	1,141	1,351	1,012	870	976
U. Arkansas, Little Rock	198	82	901	896	1,088	51	603	614	828
U. Maine	199	755	888	2,171	1,087	240	347	810	220
Western Washington U.	200	870	964	898	1,037	387	487	544	743
Marshall U.	201	642	483	679	1,019	226	258	462	99
U. Alabama, Birmingham	202	1,781	2,239	2,177	1,018	1,255	1,739	1,880	925
Trinity U.	203	808	1,237	1,175	1,012	202	673	452	543
U. Puerto Rico, Mayaguez	204	1,348	618	792	980	835	382	545	612
Clark Atlanta U.	205	1,351	992	804	978	1,068	960	680	760
CUNY, Queens C.	206	773	815	893	955	723	685	846	870
Wichita State U.	207	655	607	715	945	373	410	656	756
U.S. Naval Academy	208	1,613	1,223	1,324	927	1,590	1,157	1,284	903
Furman U.	209	1,286	1,146	981	913	746	527	556	357
Southern Illinois U., Edwardsville	210	547	1,026	502	911	175	299	306	231
Drexel U.	211	935	1,494	1,130	902	319	629	308	305
Boise State U.	212	299	900	1,182	857	113	417	619	509
American U.	213	651	1,300	1,864	847	234	738	190	196
Arkansas State U., Jonesboro	214	877	578	922	840	737	320	740	720
U. Colorado Denver and Anschutz Medical Campus	215	773	741	1,008	838	683	710	989	819
U. Northern Iowa	216	492	705	1,271	825	328	472	1,002	710
Ball State U.	217	384	677	963	801	256	361	576	315

TABLE 49

Total and federally financed higher education R&D expenditures in chemistry, ranked by FY 2020 total: FYs 2017–20

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2017	2018	2019	2020	2017	2018	2019	2020
Northern Arizona U.	218	922	1,355	1,387	799	576	1,094	271	324
CUNY, Brooklyn C.	219	1,551	1,168	760	i 789	1,445	1,049	699	i 727
Amherst C.	220	747	654	1,062	782	106	126	21	289
Wesleyan U.	221	681	1,371	960	776	398	695	395	487
James Madison U.	222	264	1,123	1,123	766	90	147	481	168
Cleveland State U.	223	1,314	763	733	761	0	109	211	307
Bryn Mawr C.	224	512	510	422	758	108	158	136	130
Reed C.	225	82	243	222	757	0	19	49	109
St. Edward's U.	226	650	345	272	750	520	230	250	735
California State U., Fresno	227	632	562	703	748	408	431	482	616
Fordham U.	228	260	63	333	747	113	0	107	294
South Dakota School of Mines and Technology	229	935	685	504	732	536	539	485	691
Kennesaw State U.	230	1,857	798	1,595	731	365	324	621	393
U. Minnesota, Duluth	231	627	775	828	717	242	254	302	286
Spelman C.	232	184	620	595	713	184	620	595	713
Louisiana Tech U.	233	637	853	732	711	119	243	86	71
Loyola U., Chicago	233	844	1,111	1,250	711	514	726	913	610
Long Island U.	235	0	0	20	675	0	0	0	0
California State U., Northridge	236	633	385	366	666	596	369	315	612
Texas Southern U.	237	126	196	144	661	99	139	114	527
Catholic U. of America	238	586	662	551	659	462	540	481	523
Western Michigan U. and Homer Stryker M.D. School of Medicine	239	631	587	650	649	501	273	258	335
Creighton U.	240	736	i 583	i 734	i 626	i 303	i 196	i 302	i 277
Grinnell C.	241	586	621	626	625	96	58	22	352
Hope C.	242	1,196	826	520	615	323	264	226	204
Delaware State U.	243	836	1,275	590	613	i 686	1,020	457	476
U. Idaho	243	1,336	881	1,068	613	781	315	501	51
Clark U.	245	91	243	539	594	0	74	204	161
U. Missouri, Kansas City	246	394	312	347	591	88	133	182	273
Tennessee Technological U.	247	653	820	653	583	403	549	498	426
U. San Diego	248	588	673	727	578	405	403	575	341
Wake Forest U.	249	606	391	1,370	575	593	389	397	396
Idaho State U.	250	330	418	583	564	309	363	505	429
U. Wyoming	251	907	2,484	933	554	902	679	915	554
New Mexico Highlands U.	252	724	714	ne	541	722	675	ne	541
U. Arkansas, Pine Bluff	253	326	405	448	540	250	315	352	418
U. of the Sciences Philadelphia	254	437	669	614	533	272	267	497	293
California State U., Dominguez Hills	255	722	778	781	531	523	581	603	390

TABLE 49

Total and federally financed higher education R&D expenditures in chemistry, ranked by FY 2020 total: FYs 2017–20

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2017	2018	2019	2020	2017	2018	2019	2020
North Carolina Agricultural and Technical State U.	256	154	917	626	522	134	462	306	114
Rochester Institute of Technology	256	950	929	651	522	662	632	395	382
Montclair State U.	258	187	256	245	507	167	242	106	224
U. Central Arkansas	259	341	356	476	505	295	289	440	414
William & Mary	260	462	699	766	501	371	592	497	379
Carleton C.	261	142	410	382	488	67	219	114	142
U. North Florida	262	349	343	345	485	59	143	248	286
Florida Institute of Technology	263	842	571	448	469	468	186	180	154
Grambling State U.	264	578	525	493	468	301	381	424	349
U. Wisconsin-Eau Claire	265	513	405	463	457	413	307	388	355
California Polytechnic State U., San Luis Obispo	266	409	348	385	456	218	252	198	265
Pomona C.	267	409	391	304	446	119	158	132	212
Winston-Salem State U.	268	309	180	193	437	309	180	193	410
Colgate U.	269	199	409	570	432	105	271	225	226
Northern Kentucky U.	270	275	292	369	431	196	176	258	251
Prairie View A&M U.	271	447	224	299	421	349	163	182	392
U.S. Military Academy	272	0	0	0	419	0	0	0	419
U. Maryland Center for Environmental Science	273	841	685	234	416	16	211	25	102
Eastern Michigan U.	274	240	150	176	410	0	0	0	1
Sam Houston State U.	275	361	353	472	407	258	239	351	342
U. South Alabama	275	262	278	471	407	234	239	355	338
Franklin and Marshall C.	277	411	780	533	406	237	579	187	254
Seton Hall U.	278	0	0	0	401	0	0	0	401
Haverford C.	279	424	320	315	394	339	221	201	187
Wright State U.	280	457	675	384	390	245	387	183	221
Rowan U.	281	509	560	614	388	139	139	422	213
Texas Christian U.	282	530	649	306	377	278	158	106	213
Chapman U.	283	607	491	584	370	152	346	334	362
Providence C.	283	150	175	93	370	85	94	71	352
Grand Valley State U.	285	432	599	243	364	398	571	219	341
U. Ana G. Mendez, Gurabo	286	235	362	1,007	362	0	144	29	25
West Virginia State U.	287	204	353	165	357	204	353	100	323
Connecticut C.	288	634	538	902	350	305	247	384	113
Naval Postgraduate School	289	395	299	104	348	395	299	104	234
Middle Tennessee State U.	290	679	299	386	345	426	198	124	185
Santa Clara U.	291	242	289	337	342	232	233	313	315
Barnard C.	292	443	361	606	341	389	361	561	276
Illinois State U.	293	457	501	702	338	378	390	545	291

TABLE 49

Total and federally financed higher education R&D expenditures in chemistry, ranked by FY 2020 total: FYs 2017–20

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2017	2018	2019	2020	2017	2018	2019	2020
CUNY, York C.	294	ne	ne	448	331	ne	ne	437	329
St. John's U., New York	295	826	248	251	329	118	142	221	325
Rutgers, State U. New Jersey, Camden	296	9	19	74	322	2	2	0	0
Illinois Institute of Technology	297	646	433	293	319	557	395	281	296
U. Richmond	298	517	411	318	318	384	232	88	188
Skidmore C.	299	175	241	256	314	70	128	115	209
CUNY, C. Staten Island	300	425	846 i	880	311	286	533 i	651	228
Calvin U.	301	551	422	325	310 i	500	372	265	254 i
Alabama A&M U.	302	751 i	600 i	447 i	305 i	594 i	460 i	325 i	222 i
George Mason U.	303	145	85	621	304	95	61	79	125
Colby C.	304	268	420	330	302	201	359	260	225
Johnson C. Smith U.	305	0	228	66	300	0	228	66	300
California State U., East Bay	306	ne	ne	ne	296	ne	ne	ne	164
SUNY, Oswego	307	498	525	385	291	407	351	266	182
New Mexico Institute of Mining and Technology	308	574	624	450	287	574	615	450	287
Wellesley C.	309	470	438	487	283	426	408	367	251
U. Nebraska, Kearney	310	562	162	493	281	0	101	146	118
Tougaloo C.	311	80	848	849	280	80	848	849	280
William Paterson U.	312	57	153	229	267	0	0	0	0
U. Tulsa	313	422	300	317	261	85	51	21	43
Harvey Mudd C.	314	260	803	217	259	82	584	88	201
Florida Gulf Coast U.	315	37	0	22	257	0	0	0	204
Tarleton State U.	315	92	70	227	257	0	0	0	0
West Chester U. Pennsylvania	317	475	229	262	255	28	0	62	35
Middlebury C.	318	192	153	245	253	188	131	213	238
Western Carolina U.	318	157	196	342	253	93	144	172	118
Bucknell U.	320	356 i	396	265	252 i	19 i	18	80	77 i
Framingham State U.	321	17	28	ne	247	0	17	ne	169
Towson U.	322	199	217	218	246	7	84	110	120
Whitman C.	322	ne	ne	392	246	ne	ne	301	164
Loyola Marymount U.	324	162	249	369	231	23	131	132	140
Swarthmore C.	324	514	628	552	231	169	245	222	155
U. Wisconsin-La Crosse	326	248	242	249	228	126	84	69	54
Appalachian State U.	327	127	162	108	226	96	147	78	74
U. of the Incarnate Word	327	ne	34	224	226	ne	0	178	176
Salish Kootenai C.	329	665	869	553	222	665	869	553	222
CUNY, John Jay C. of Criminal Justice	330	150	329	158	220	110	249	158	167
Smith C.	331	161	221	242	217	88	142	151	167
Oberlin C.	332	497	381	222	213	435	262	167	71

TABLE 49

Total and federally financed higher education R&D expenditures in chemistry, ranked by FY 2020 total: FYs 2017–20

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2017	2018	2019	2020	2017	2018	2019	2020
Southeastern Louisiana U.	332	130	216	81	213	31	54	28	135
Fayetteville State U.	334	0	0	0	212	0	0	0	212
Bates C.	335	302	291	209	211	209	252	166	185
West Texas A&M U.	335	41	43	121	211	3	0	71	166
Clafin U.	337	484	600	501	208	484	600	501	208
U. North Carolina, Wilmington	337	320	388	458	208	278	312	374	169
Indiana U. Pennsylvania	339	223	68	143	207	216	28	46	93
Purdue U., Northwest	339	229	305	115	207	212	284	111	168
Macalester C.	341	536	447	296	206	268	256	272	118
Albion C.	342	131	108	123	204	0	0	0	92
U. Puerto Rico, Humacao	343	ne	313	157	200	ne	287	104	192
Central Washington U.	344	183	115	51	197	146	71	12	152
Youngstown State U.	345	219	44	101	182	211	26	87	166
Occidental C.	346	76	191	170	181	45	177	151	140
Texas A&M U.-Corpus Christi	346	332	341	645	181	299	198	414	107
U. North Carolina, Asheville	348	167	201	13	180	145	190	0	146
U. Hawaii, Hilo	349	0	4	17	179	0	0	12	178
Morehouse C.	350	96	391	116	177	96	391	116	177
Morgan State U.	350	9	3	0	177	9	3	0	175
Bowie State U.	352	111	83	112	175	111	83	112	175
Salisbury U.	353	159	111	521	169	57	38	335	21
California State U., Fullerton	354	241	414	213	166	205	404	7	0
CUNY, Medgar Evers C.	354	313	339	355	166	281	304	301	129
Murray State U.	356	53	194	337	165	41	157	328	155
Hamilton C.	357	155	73	82	164	0	0	0	0
Texas A&M U.-Kingsville	358	84	48	148	163	11	0	83	108
Willamette U.	359	131	225	271	161	9	145	149	62
C. Wooster	360	200	554	389	160	67	379	151	91
U. of the Virgin Islands	361	0	0	0	159	0	0	0	159
Lafayette C.	362	125	177	176	156	113	152	151	94
U. Puget Sound	362	149	ne	ne	156	118	ne	ne	124
Williams C.	362	145	155	165	156	45	53	0	0
U. Puerto Rico, Cayey	365	231	41	83	155	213	41	83	137
U. Wisconsin-River Falls	365	130	103	ne	155	130	103	ne	84
Davidson C.	367	394	294	282	154	345	215	225	112
Lewis and Clark C.	368	294	160	127	151	129	50	45	53
Winthrop U.	369	213	254	287	150	52	95	100	64
North Carolina Central U.	370	416	128	120	149	409	0	75	54

TABLE 49

Total and federally financed higher education R&D expenditures in chemistry, ranked by FY 2020 total: FYs 2017–20

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2017	2018	2019	2020	2017	2018	2019	2020
Benedict C.	371	314	518	374	146	314	518	364	146
U. of the Pacific	372	58	114	257	144	58	114	257	144
U. Central Oklahoma	373	75	87	140	139	73	87	140	139
Pace U.	374	350	349	152	138	0	0	0	0
Azusa Pacific U.	375	229	250	98	137	40	44	0	12
Tuskegee U.	376	282	229	131	134	229	229	131	134
C. Charleston	377	198	245	200	131	81	103	154	88
C. of Saint Benedict	378	118	140	137	130	16	22	21	20
Texas A&M U.-Commerce	379	127	227	240	129	62	104	136	58
Saint Joseph's U.	380	176	194	208	128	9	0	0	0
Saint Michael's C.	381	36	146	168	125	2	0	0	0
Doane U.	382	ne	251	121	123	ne	166	60	62
Montana Technological U.	382	243	110	62	123	217	77	54	97
Purdue U., Fort Wayne	382	55	51	101	123	40	51	101	123
U. New Haven	385	0	178	264	122	0	1	1	0
Southern Connecticut State U.	386	55	8	98	118	0	0	0	0
Kettering U.	387	78	133	149	115	43	84	89	64
Mount Holyoke C.	388	152	263	210	114	142	260	183	111
California State Polytechnic U., Pomona	389	134	959	17	110	128	664	17	108
SUNY, Geneseo	390	68	63	59	102	0	0	0	82
Southern U. and A&M C., Baton Rouge	391	664	592	451	101	526	310	73	39
U. Wisconsin-Platteville	391	78	ne	99	101	40	ne	36	36
Saint John's U., Collegeville	393	91	106	104	99	0	0	0	0
Suffolk U.	394	97	ne	ne	97	33	ne	ne	97
California Lutheran U.	395	ne	ne	81	95	ne	ne	36	59
SUNY, C. of Environmental Science and Forestry	396	307	133	243	94	162	14	42	47
U. Minnesota, Morris	396	36	ne	14	94	0	ne	0	0
U. of St. Thomas (MN)	396	239	187	338	94	23	49	42	49
California State U., Bakersfield	399	88	5	94	91	0	0	0	29
East Tennessee State U.	399	8	35	78	91	1	11	11	27
California State U., Sacramento	401	177	156	183	89	99	92	102	44
Sonoma State U.	402	ne	ne	ne	88	ne	ne	ne	8
Seattle U.	403	32	63	84	86	1	8	0	0
Claremont McKenna C.	404	67	40	144	85	50	39	140	85
Fairfield U.	405	563	14	297	84	283	14	297	41
New Jersey City U.	406	126	130	40	82	126	130	35	82
Bradley U.	407	69	150	279	81	36	45	243	1

TABLE 49

Total and federally financed higher education R&D expenditures in chemistry, ranked by FY 2020 total: FYs 2017–20

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2017	2018	2019	2020	2017	2018	2019	2020
Central Connecticut State U.	408	42	ne	101	78	3	ne	78	60
Bowdoin C.	409	118	193	79	77	95	162	71	43
Ithaca C.	410	ne	ne	ne	76	ne	ne	ne	70
Norfolk State U.	410	110	404	508	76	93	404	508	76
St. Olaf C.	412	244	186	79	75	105	69	0	6
Weber State U.	413	ne	ne	ne	74	ne	ne	ne	74
Fort Hays State U.	414	ne	ne	73	72	ne	ne	32	64
Fort Valley State U.	414	102	88	104	72	102	88	104	72
Keene State C.	414	7	ne	52	72	0	ne	52	53
U. Houston-Downtown	414	52	73	77	72	0	0	0	0
Manhattan C.	418	ne	ne	55	71	ne	ne	55	71
Pacific U.	418	243	188	189	71	121	113	114	0
SUNY, C. Brockport	420	0	0	33	69	0	0	0	39
Christopher Newport U.	421	11	18	102	63	0	9	64	53
U. Wisconsin-Green Bay	422	44 i	42 i	63 i	62 i	37 i	19 i	30 i	33 i
U. Wisconsin-Stevens Point	422	41 i	48 i	55 i	62	24 i	30 i	36 i	42
California State U., San Marcos	424	0	0	118	61	0	0	118	61
U. Alaska, Anchorage	425	0	0	15	59	0	0	15	59
Mercyhurst U.	426	10 i	ne	55 i	57 i	10 i	ne	24 i	25 i
Tennessee State U.	426	21	14	19	57	19	14	1	39
U. Alaska, Fairbanks	426	1,085	11	75	57	267	11	48	57
U. of Mary Washington	426	ne	4	32	57	ne	4	32	49
Wheaton C., Wheaton	426	63	37	101	57	6	6	0	0
U. South Florida, Saint Petersburg	431	46	0	61	56	46	0	61	56
Eastern Kentucky U.	432	305	65	0	55	251	62	0	26
Gettysburg C.	432	45 i	149	66	55	9	112	0	0
U. Louisiana, Monroe	432	2	50	75	55	0	26	67	55
Albany State U.	435	78	137	150	54	78	137	150	54
C. New Jersey	435	4	27	ne	54	3	24	ne	48
Lamar U.	435	121	126	128	54	78	2	73	20
Niagara U.	435	144	145	78	54	0	0	0	0
Pepperdine U.	435	60	99	77	54	0	0	0	0
U. Northern Colorado	440	31	176	71	53	0	0	0	0
U. Tennessee, Chattanooga	441	61	10	35	52	13	0	0	0
U. Wisconsin-Oshkosh	441	43 i	45 i	50 i	52 i	35 i	36 i	40 i	42 i
U. South Carolina, Aiken	443	0	108	0	51	0	0	0	8
St. Bonaventure U.	444	ne	ne	ne	50	ne	ne	ne	38
Minnesota State U., Mankato	445	75	69	51	48	38	55	18	0
Trinity C., Hartford	446	207	275	154	46	166	129	92	5

TABLE 49

Total and federally financed higher education R&D expenditures in chemistry, ranked by FY 2020 total: FYs 2017–20

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2017	2018	2019	2020	2017	2018	2019	2020
U. San Francisco	447	55	73	55	45	0	0	0	0
Fort Lewis C.	448	ne	ne	1	44	ne	ne	0	9
California State U., Channel Islands	449	10	33	57	39	0	23	54	0
Elon U.	449	40	38	40	39	0	0	0	0
Florida A&M U.	449	5	1,628	25	39	5	1,628	21	39
Humboldt State U.	449	9	3	48	39	0	0	0	0
Indiana State U.	449	41	42	62	39	41	42	62	39
Kean U.	449	ne	ne	ne	39	ne	ne	ne	0
Western Illinois U.	449	8	12	38	39	3	0	17	21
Colorado C.	456	129	183	83	38	0	0	0	0
DePaul U.	456	0	58	42	38	0	0	1	2
Union C., Schenectady	456	73	41	408	38	1	17	352	21
Biola U.	459	31 i	34 i	33 i	35 i	19 i	21 i	20 i	21 i
Saginaw Valley State U.	459	49	42	300	35	21	25	294	21
Stephen F. Austin State U.	461	65	91	85	33	0	0	0	0
U. Texas, Tyler	461	41	33	44	33	0	0	0	0
Central Michigan U.	463	283	192	257	31	142	86	68	0
Hobart and William Smith Colleges	464	147	ne	92	30	93	ne	17	0
Augusta U.	465	102	43	48	29	0	0	0	0
Lipscomb U.	466	ne	ne	ne	28 i	ne	ne	ne	17 i
California State U., Chico	467	4	48	30	26	4	18	16	6
Lincoln U., Jefferson City	467	53	3	64	26	53	3	64	26
Stockton U.	467	ne	1	7	26	ne	1	2	0
U. Houston-Clear Lake	467	21	38	44	26	0	0	0	0
Citadel Military C. South Carolina	471	ne	ne	ne	23	ne	ne	ne	0
Missouri State U.	472	17	24	7	22	17	24	7	20
Pennsylvania State U., Behrend	472	56	49	76	22	27	15	17	16
CUNY, Baruch C.	474	2	0	0	21	0	0	0	21
U. Michigan, Flint	474	31	22	26	21	0	0	0	0
U. New England	476	20	27	23	20	0	0	0	0
Monmouth U.	477	ne	ne	18	19	ne	ne	0	0
Pittsburg State U.	477	23	21	28	19	23	21	28	19
Colorado State U., Pueblo	479	ne	ne	6	18	ne	ne	0	0
Vassar C.	479	159	175 i	38	18	159	175 i	38	13
Florida Polytechnic U.	481	ne	ne	0	17	ne	ne	0	0
Midwestern State U.	481	ne	ne	ne	17	ne	ne	ne	0
Dillard U.	483	70	12	0	16	0	0	0	16
U. Illinois, Springfield	484	0	0	12	14	0	0	12	12
California State U., Stanislaus	485	13	17	20	12	0	0	0	0

TABLE 49

Total and federally financed higher education R&D expenditures in chemistry, ranked by FY 2020 total: FYs 2017–20

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2017	2018	2019	2020	2017	2018	2019	2020
Stevens Institute of Technology	486	138	51	0	10	138	51	0	0
Kenyon C.	487	ne	131	34	9	ne	0	0	0
Northern Michigan U.	487	14	26	24	9	0	0	0	0
U. Dayton	489	146	12	8	8	25	0	0	0
Columbus State U.	490	ne	ne	ne	7	ne	ne	ne	0
U. Maryland, Eastern Shore	490	0	0	0	7	0	0	0	7
Central State U.	492	37	83	63	6	37	83	63	6
Dickinson C.	492	78	ne	14	6	57	ne	0	0
Gallaudet U.	494	66	54	15	5	66	54	11	0
U. Detroit Mercy	494	1	11	13	5	0	0	0	0
U. South Florida, Sarasota-Manatee	494	0	0	20	5	0	0	0	0
California State U., San Bernardino	497	51	20	23	4	30	0	0	3
Hofstra U.	497	15	8	6	4	0	0	0	0
Roger Williams U.	499	573	234	15	3	451	90	0	0
St. Cloud State U.	499	15	1	1	3	8	0	0	0
Austin Peay State U.	501	17	25	14	2	0	0	0	0
U. Nebraska, Omaha	501	75	34	2	2	38	15	0	0
All other surveyed institutions	-	14,947	15,712	2,774	0	10,348	9,098	1,970	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 \$15,621 thousand imputed for total and \$15,252 thousand reported for federally financed R&D expenditures in chemistry in FY 2020. 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.

Note(s):

Institutions reporting zero expenditures in ranked total for FY 2020 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.