

TABLE 50

Total and federally financed higher education R&D expenditures in chemistry, ranked by FY 2023 total: FYs 2020–23

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2020	2021	2022	2023	2020	2021	2022	2023
All institutions	-	1,928,978	1,995,252	2,127,016	2,301,102	1,167,364	1,234,985	1,321,823	1,413,489
U. California, San Francisco	1	68,745	68,492	70,707	66,457	41,413	37,311	42,570	41,585
U. California, Berkeley	2	36,326	41,402	49,390	55,719	17,414	21,494	28,472	27,813
Northwestern U.	3	35,130	36,484	40,697	42,247	22,766	25,004	22,536	23,314
U. California, San Diego	4	27,429	27,339	33,116	39,537	16,704	21,719	27,997	30,706
U. Wisconsin-Madison	5	31,441	33,896	36,183	39,292	19,249	22,131	23,999	23,545
Purdue U., West Lafayette	6	22,953	26,272	30,984	36,491	12,344	14,122	16,510	18,651
U. Chicago	7	24,631	24,034	31,158	36,407	20,747	20,993	26,860	29,008
California Institute of Technology	8	40,638	37,366 i	36,223	36,142 i	26,664	22,573	21,863	22,744
Massachusetts Institute of Technology	9	32,375	37,408	35,819	35,918	19,258	22,959	22,375	23,384
U. Michigan, Ann Arbor	10	31,361	33,006	32,418	35,089	18,164	19,179	20,011	20,730
Harvard U.	11	33,675	37,078	37,601	34,728	19,149	22,149	20,608	19,797
U. Illinois, Urbana-Champaign	12	34,642	35,360	30,955	34,685	21,367	20,905	18,398	21,096
U. Notre Dame	13	29,216	30,859	29,610	34,516	18,246	19,720	18,107	22,306
Cornell U.	14	27,423	27,978	30,250	32,543	21,016	19,666	22,442	21,632
Princeton U.	15	25,095	29,163	28,604	32,016	13,611	13,984	13,432	13,834
Stanford U.	16	25,478	27,849	29,681	31,848	22,802	25,419	26,211	26,366
U. North Carolina, Chapel Hill	17	22,546	23,102	31,221	30,227	15,780	16,230	22,796	20,298
U. Washington, Seattle	18	24,008	23,508	25,922	29,048	21,802	21,211	23,761	26,560
Yale U.	19	21,309	21,464	23,376	28,905	10,663	12,340	16,105	19,638
Texas A&M U., College Station and Health Science Center	20	24,507	23,182	25,693	27,800	8,781	8,988	11,112	11,935
Johns Hopkins U. ^a	21	25,946 i	24,078 i	25,673 i	26,888 i	24,462	22,938	22,992	25,138
U. Pennsylvania	22	21,246	23,124	25,511	26,793	13,345	15,115	17,415	18,079
U. Florida	23	10,773	12,984	22,973	26,640	6,769	7,415	9,638	16,093
Emory U.	24	19,048	20,841	24,772	26,564	12,627	15,197	14,402	12,978
Florida International U.	25	18,412	22,439	28,705	25,467	7,623	12,085	16,674	16,789
U. California, Los Angeles	26	19,842	24,038	21,680	25,424	14,839	16,178	17,355	19,114
Georgia Institute of Technology	27	22,323	22,555	22,397	24,325	15,235	15,425	15,762	16,390
U. Texas, Austin	28	16,470	18,584	20,895	24,211	8,614	7,913	8,569	9,496
U. California, Irvine	29	21,988	18,924	21,156	24,009	15,738	12,676	15,716	17,070
Florida State U.	30	23,225	20,686	20,685	22,804	12,958	11,182	11,140	12,918
U. Minnesota, Twin Cities	31	22,061	20,661	19,860	21,704	14,721	15,439	13,989	13,527
Boston U.	32	14,230	17,695	17,896	21,277	9,210	11,004	10,572	11,916
Rice U.	33	16,251	15,332	13,489	20,909	5,909	7,002	6,657	8,899
U. Delaware	34	8,146	9,404	19,259	19,940	6,472	7,732	9,278	8,964

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		2020	2021	2022	2023	2020	2021	2022	2023
Michigan State U.	35	11,806	12,568	15,669	19,687	7,154	8,166	8,837	9,393
Columbia U. in the City of New York	36	11,983	16,528	17,944	19,577	9,611	14,024	14,752	12,365
Vanderbilt U. and Vanderbilt U. Medical Center	37	13,559	16,401	17,734	18,843	7,056	9,126	9,796	9,763
Pennsylvania State U., University Park and Hershey Medical Center	38	17,696	16,923	15,578	18,226	10,176	13,617	13,319	11,765
Indiana U., Bloomington	39	19,430	17,500	18,778	17,814	11,206	10,812	11,725	11,063
U. Pittsburgh, Pittsburgh	40	16,058	15,518	15,366	17,599	10,893	9,776	10,128	10,990
U. Utah	41	18,018	19,435	9,434	17,148	11,546	12,874	9,002	14,811
North Carolina State U.	42	11,821	16,108	12,623	16,370	6,645	7,120	7,854	8,771
Duke U.	43	9,809	11,536	12,672	16,182	8,398	10,066	11,135	13,439
Iowa State U.	44	12,374	11,950	14,302	15,985	8,055	9,139	11,116	12,091
U. Houston	45	40,835	43,502	50,262	15,585	2,981	3,476	5,173	4,355
New York U.	46	13,753	14,156	13,103	15,549	11,679	12,181	10,225	10,116
SUNY, Stony Brook U.	47	12,396	13,646	13,302	15,110	9,555	10,030	10,457	11,308
U. California, Davis	48	13,607	14,017	15,996	15,108	9,896	9,954	12,099	11,408
Louisiana State U., Baton Rouge	49	8,252	10,020	12,606	15,050	3,955	5,423	4,636	5,919
Arizona State U.	50	13,030	11,762	10,253	14,799	5,739	5,232	4,492	5,406
U. California, Santa Cruz	51	10,478	10,689	11,059	14,697	7,886	7,556	8,006	10,702
U. Arizona	52	14,511	15,246	9,869	13,846	8,089	7,395	6,142	6,796
U. Illinois, Chicago	53	7,868	9,326	10,467	13,743	4,659	6,060	6,233	7,331
Wayne State U.	54	10,163	12,458	13,568	13,686	6,426	8,355	9,016	8,923
U. Kansas	55	4,499	11,480	11,717	13,643	3,664	9,348	9,108	9,418
Northeastern U.	56	7,636	8,833	9,761	13,625	4,811	6,872	7,517	10,150
U. Colorado Boulder	57	9,041	9,383	12,345	13,610	6,537	7,132	9,696	9,936
Virginia Polytechnic Institute and State U.	58	14,242	14,389	13,810	13,571	8,991	8,643	9,174	9,822
U. Virginia, Charlottesville	59	11,980	12,853	12,214	13,274	6,608	8,676	7,895	8,202
SUNY, Binghamton U.	60	11,900	10,445	10,066	12,376	5,324	3,922	4,076	5,542
U. Oklahoma, Norman and Health Science Center	61	12,342	10,051	10,525	12,341	8,392	5,844	6,981	7,361
Washington U., Saint Louis	62	12,722	11,696	12,044	12,316	8,606	8,809	8,850	9,328
U. Nebraska, Lincoln and Medical Center ^b	63	na	na	na	12,286	na	na	na	8,922
Colorado State U., Fort Collins	64	8,042	8,806	9,951	12,002	5,324	6,716	7,643	9,720
Dartmouth C. and Dartmouth Hitchcock Medical Center	65	9,198	12,008	11,434	11,869	3,074	3,880	4,388	4,589
U. Massachusetts, Amherst	66	14,992	10,139	9,387	11,743	10,044	6,635	6,492	8,193
U. Southern California	67	14,232	12,687	11,475	11,653	7,570	6,787	7,494	8,521
Washington State U.	68	8,512	13,478	12,821	11,562	5,986	7,937	5,918	4,277
SUNY, U. Buffalo	69	7,461	10,122	9,376	11,496	4,783	5,756	6,337	7,601

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Carnegie Mellon U.	70	9,207	8,696	10,492	11,099	4,095	3,985	5,091	5,469
U. Southern Mississippi	71	11,328	12,382	11,978	10,393	8,520	11,026	11,271	9,325
U. Maryland ^c	72	10,389	9,419	8,290	10,334	6,777	6,858	5,326	6,534
U. California, Riverside	73	9,260	9,556	10,604	10,291	7,396	8,133	9,452	8,960
U. California, Santa Barbara	74	9,166	8,346	8,424	10,043	6,268	6,502	5,850	6,841
SUNY, U. Albany	75	5,292	4,814	4,520	9,793	3,384	3,054	2,388	3,039
Ohio State U.	76	28,972	15,540	13,382	9,661	23,166	12,211	6,883	6,686
U. Akron	77	8,576	6,703	8,686	9,524	4,238	4,026	4,811	4,844
U. Oregon	78	4,910	6,477	6,752	9,391	3,937	4,686	5,429	8,287
Boston C.	79	7,492	8,543	8,931	9,250	5,627	6,600	7,144	6,854
U. Tennessee, Knoxville	80	6,816	6,532	8,643	8,885	3,170	2,699	4,331	5,308
U. Texas, El Paso	81	4,620	6,291	6,399	8,656	3,233	2,978	3,402	4,691
Texas Tech U.	82	7,136	7,686	8,441	8,268	2,780	2,622	2,315	2,401
Auburn U., Auburn	83	7,222	5,463	7,242	8,154	1,737	1,645	2,214	2,635
Georgia State U.	84	9,304	9,032	8,645	8,045	6,834	5,193	4,929	4,782
U. Georgia	85	8,005	8,057	6,900	7,961	3,628	4,109	2,971	3,667
U. Alabama, Tuscaloosa	86	2,937	3,853	4,643	7,938	2,148	2,222	2,995	5,109
Montana State U., Bozeman	87	8,796	13,389	8,821	7,929	5,606	9,290	5,469	5,006
U. Connecticut	88	5,868	4,998	5,492	7,895	3,515	3,316	4,189	6,103
U. Rochester	89	5,309	5,705	6,758	7,859	4,136	4,519	5,306	6,196
Xavier U. Louisiana	90	7,186	8,440	7,491	7,701	7,077	8,325	7,426	7,608
U. Cincinnati	91	5,796	5,987	7,085	7,651	2,005	2,173	3,145	3,743
Tufts U.	92	10,325	7,178	8,074	7,629	4,517	6,470	7,192	5,982
U. Texas, San Antonio	93	6,980	7,037	8,005	7,586	1,685	2,248	3,062	2,356
Baylor U.	94	3,921	5,111	7,587	7,039	945	1,464	2,103	2,792
San Diego State U.	95	4,075	4,386	5,332	7,037	2,297	2,214	3,642	4,438
Rensselaer Polytechnic Institute	96	5,704	6,355	7,599	6,945	3,033	2,793	3,057	4,013
Temple U.	97	9,606	9,251	7,756	6,851	5,786	5,501	4,372	5,601
Rutgers, State U. New Jersey, New Brunswick	98	6,321	5,579	7,903	6,825	2,557	3,276	3,264	3,310
U. Texas, Arlington	99	5,740	5,631	5,006	6,773	1,807	2,204	2,520	2,466
Syracuse U.	100	4,276	4,742	4,893	6,723	1,370	2,036	2,465	3,413
U. North Texas, Denton	101	5,586	5,451	5,788	6,401	1,107	1,596	2,139	2,115
U. Missouri, Columbia	102	5,730	5,501	6,050	6,362	5,168	4,640	4,739	5,281
Brown U.	103	5,201	5,495	6,019	6,157	3,416	3,552	3,763	4,037
CUNY, City C.	104	5,164	4,978	5,494	6,064	3,803	3,808	4,496	5,331

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Oakland U.	105	2,521	2,777	4,597	6,058	966	854	1,206	1,135
U. Iowa	106	5,415	5,342	6,339	6,051	3,681	4,065	4,215	4,319
U. South Florida ^d	107	6,507	5,647	5,933	5,981	2,520	2,365	2,369	2,324
Oklahoma State U., Stillwater	108	5,180	4,341	4,588	5,788	1,513	1,179	1,536	2,020
Brandeis U.	109	4,239	4,505	6,801	5,785	1,679	2,257	4,076	3,148
U. Texas, Dallas	110	5,614	6,253	6,100	5,695	3,148	3,247	3,448	3,019
U. Arkansas, Fayetteville	111	5,478	4,668	5,361	5,658	2,160	2,301	2,586	2,635
U. Central Florida	112	4,614	4,027	4,808	5,554	1,876	1,645	2,548	2,608
West Virginia U.	113	4,868	4,509	5,184	5,502	3,040	2,965	3,118	3,148
U. Nevada, Reno	114	3,903	3,935	5,281	5,421	1,534	2,370	3,227	3,850
Southern Methodist U.	115	1,469	2,094	2,480	5,398	921	1,154	1,216	1,050
Colorado School of Mines	116	2,691	3,333	3,703	5,333	2,198	3,022	3,293	3,534
Clemson U.	117	4,327	3,121	4,367	5,323	2,337	1,749	3,076	2,897
Rockefeller U.	118	4,720	5,530	4,727	5,248	2,299	3,233	1,998	2,534
Mississippi State U.	119	6,041	4,790	5,159	5,085	1,111	1,175	1,419	1,498
Brigham Young U., Provo	120	3,234	4,020	3,638	5,015	2,457	2,487	2,836	1,783
U. Kentucky	121	4,802	5,598	5,609	4,968	3,669	4,627	4,657	4,205
U. Maryland, Baltimore County	122	1,558	2,106	2,934	4,802	1,233	1,723	1,987	3,075
U. Nevada, Las Vegas	123	5,140	5,482	3,601	4,792	2,828	2,582	2,869	3,165
Saint Louis U.	124	1,786	2,120	3,510	4,686	1,235	1,226	2,081	2,955
Howard U.	125	4,546	5,000	5,348	4,629	3,769	4,150	4,288	3,694
U. Mississippi	126	3,994	3,235	3,218	4,420	2,225	2,022	1,945	1,997
New Jersey Institute of Technology	127	3,891	2,846	3,690	4,408	939	836	757	1,039
Jackson State U.	128	8,452	7,071	5,322	4,351	7,991	6,614	5,101	4,213
California State U., Los Angeles	129	4,602	4,770	5,055	4,063	3,633	3,691	4,219	3,516
Old Dominion U.	130	2,297	2,470	3,241	4,024	1,091	1,123	1,609	2,362
North Dakota State U.	131	3,106	3,801	6,880	3,811	1,349	2,245	5,516	2,365
Utah State U.	132	3,101	2,926	3,098	3,714	1,636	1,974	2,204	2,046
CUNY, Hunter C.	133	3,003	4,412	3,392	3,656	2,579	3,842	3,002	3,048
Virginia Commonwealth U.	134	2,250	2,017	1,733	3,645	1,293	1,356	1,370	2,408
U. Puerto Rico, Rio Piedras	135	2,776	2,967	3,842	3,611	2,360	2,650	3,384	3,052
Miami U.	136	1,185	3,798	2,267	3,590	292	2,543	1,815	2,978
U. Rhode Island	137	2,081	1,957	2,246	3,553	1,726	1,344	1,629	2,057
U. Massachusetts, Lowell	138	4,475	5,555	5,369	3,538	1,064	1,387	1,527	1,278
U. California, Merced	139	2,630	2,919	3,759	3,343	2,041	1,588	2,372	1,783

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U. Toledo	140	1,935	3,069	3,783	3,251	1,367	2,290	3,024	2,384
George Washington U.	141	3,976	3,281	2,735	3,199	1,769	1,974	1,968	1,853
U. North Carolina, Charlotte	142	1,261	1,610	1,335	3,191	977	1,267	1,057	2,426
CUNY, Advanced Science Research Center	143	1,376	1,617	2,563	3,157	922	1,160	1,760	1,940
U. North Carolina, Greensboro	144	2,028	2,216	2,756	3,117	1,494	1,647	2,207	2,553
Rutgers, State U. New Jersey, Newark	145	1,976	2,296	2,414	3,098	1,175	1,704	1,979	2,320
Texas State U.	146	1,141	1,791	2,217	3,094	976	1,647	2,038	2,938
U. New Mexico	147	2,704	2,174	3,250	3,061	2,243	1,882	2,785	2,707
Clark Atlanta U.	148	978	1,139	2,432	3,034	760	951	2,195	2,826
Case Western Reserve U.	149	2,955	2,785	2,992	3,032	2,291	2,191	2,285	2,419
Georgetown U.	150	3,318	2,694	3,761	3,021	2,661	2,185	2,764	2,355
Kansas State U.	151	4,374	3,977	3,367	2,995	2,739	2,466	1,834	1,805
U. North Dakota	152	2,212	2,152	2,972	2,880	610	672	1,398	1,335
U. Vermont	153	2,415	3,250	2,951	2,849	1,327	1,445	1,649	1,201
Clarkson U.	154	1,829	945	2,867	2,815	523	283	1,188	935
U. Montana, Missoula	155	2,782	2,554	2,183	2,814	1,783	1,655	1,560	1,762
South Dakota State U.	156	1,941	1,857	1,562	2,781	1,026	1,365	1,267	2,295
Missouri U. of Science and Technology	157	2,315	2,605	2,572	2,775	1,833	1,769	2,243	2,300
Northern Illinois U.	158	1,536	1,579	2,789	2,619	1,146	1,208	1,879	1,903
U. Memphis	159	2,143	2,347	2,043	2,615	667	733	625	762
Rowan U.	160	388	676	605	2,596	213	613	462	1,655
Tulane U.	161	2,734	2,227	2,304	2,582	1,372	1,293	1,444	1,990
Boise State U.	162	857	745	1,379	2,575	509	440	209	774
California State U., Long Beach	163	2,474	2,188	3,191	2,516	2,328	2,059	2,420	2,122
Lehigh U.	164	2,147	2,065	2,679	2,508	1,298	1,432	1,702	1,757
U. South Dakota	165	2,499	2,022	2,380	2,506	992	726	623	1,158
U. Miami	166	1,437	1,318	1,605	2,481	1,011	1,129	1,355	1,971
U. Massachusetts, Dartmouth	167	1,601	1,934	2,435	2,378	200	444	363	485
Western Washington U.	168	1,037	1,218	1,790	2,360	743	846	1,196	1,506
South Dakota School of Mines and Technology	169	732	681	1,174	2,355	691	639	834	1,399
Indiana U.-Purdue U., Indianapolis	170	1,783	2,262	1,744	2,342	919	1,385	1,086	1,527
U. Hawaii, Manoa	171	2,401	1,722	1,488	2,333	1,732	1,204	1,205	2,033
Worcester Polytechnic Institute	172	1,422	1,613	1,523	2,305	1,021	1,035	925	1,408
Kent State U.	173	2,091	2,387	2,155	2,290	968	1,102	1,065	1,204
CUNY, Brooklyn C.	174	789	1,127	1,798	2,235	727	1,120	1,613	2,115

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Michigan Technological U.	175	1,925	1,867	2,382	2,225	642	695	1,095	977
Florida Atlantic U.	176	1,772	1,668	1,628	2,184	836	694	926	1,076
U. Wisconsin-Milwaukee	177	2,173	1,679	1,556	2,180	750	497	572	1,132
CUNY, Lehman C.	178	1,698	1,567	1,954	2,166	1,612	1,551	1,928	2,066
U. Alabama, Birmingham	179	1,018	2,415	1,560	2,164	925	1,082	933	1,511
U. Massachusetts, Boston	180	2,370	2,695	1,923	2,153	1,706	1,796	1,343	1,498
U. Louisville	181	1,820	1,813	2,879	2,149	1,012	1,049	1,124	1,002
U. Wyoming	182	554	625	1,894	2,130	554	614	814	1,036
California State U., San Bernardino	183	4	1,706	1,994	2,052	3	1,579	1,781	1,951
Wichita State U.	184	945	1,095	1,125	2,001	756	593	665	1,048
San Jose State U.	185	1,787	2,097	2,077	1,992	1,420	1,303	1,146	1,180
Oregon State U.	186	2,788	2,652	2,537	1,965	2,560	2,444	1,595	1,505
Seton Hall U.	187	401	396	592	1,942	401	396	571	708
Marquette U.	188	2,361	3,476	2,127	1,862	1,424	2,323	1,324	1,053
Montclair State U.	189	507	689	1,645	1,848	224	437	762	823
SUNY, C. of Environmental Science and Forestry	190	94	155	1,805	1,838	47	115	263	400
Southern Illinois U., Carbondale	191	1,318	1,441	1,393	1,823	934	824	721	729
Portland State U.	192	1,782	1,646	2,161	1,775	1,467	1,145	1,524	1,255
Villanova U.	193	2,371	1,884	1,719	1,771	834	540	390	430
U. New Hampshire	194	1,428	1,808	1,966	1,760	818	655	825	1,045
North Carolina A&T State U.	195	522	248	757	1,698	114	248	727	1,616
James Madison U.	196	766	941	938	1,697	168	397	554	817
New Mexico State U.	197	5,296	2,141	2,181	1,647	3,699	612	783	848
CUNY, Queens C.	198	955	1,289	1,698	1,625	870	1,197	1,135	1,148
Trinity U.	199	1,012	1,026	1,126	1,610	543	471	520	535
Loyola U., Chicago	200	711	860	1,316	1,575	610	570	903	990
Mercer U.	201	1,951	1,786	1,830	1,547	0	0	0	0
U. Puerto Rico, Mayaguez	202	980	616	1,166	1,539	612	394	913	1,214
Drexel U.	203	902	735	610	1,527	305	310	284	433
Georgia Southern U.	204	1,476	1,951	1,691	1,498	534	523	324	270
George Mason U.	205	304	1,062	1,211	1,470	125	447	746	1,022
U. Louisiana, Lafayette	206	1,256	1,029	1,327	1,461	158	82	63	70
Marshall U.	207	1,019	273	1,198	1,447	99	143	1,065	1,206
Delaware State U.	208	240	276	328	1,401	240	276	0	1,015
U. Colorado Denver ^e	209	na	1,157	1,187	1,400	na	1,144	1,090	1,301

TABLE 50

Total and federally financed higher education R&D expenditures in chemistry, ranked by FY 2023 total: FYs 2020–23

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2020	2021	2022	2023	2020	2021	2022	2023
U. New Orleans	210	1,595	1,903	1,468	1,387	231	702	393	426
East Carolina U.	211	1,354	1,193	1,266	1,365	830	986	946	1,004
California State U., Northridge	212	666	406	514	1,335	612	274	283	1,056
San Francisco State U.	213	1,735	1,871	1,708	1,321	405	409	413	350
Bowling Green State U.	214	1,477	1,561	1,758	1,317	741	753	843	744
Louisiana Tech U.	215	711	1,051	1,094	1,273	71	146	178	205
U. Denver	216	3,314	2,647	2,670	1,240	2,435	1,834	1,891	981
Middle Tennessee State U.	217	345	2,632	1,713	1,233	185	1,670	744	702
Furman U.	218	913	1,105	1,252	1,229	357	522	767	835
U. Maine	219	1,160	1,157	762	1,206	220	128	41	0
Illinois State U.	220	338	891	920	1,193	291	709	835	1,020
Texas Christian U.	221	377	168	732	1,187	213	167	136	274
CUNY, C. Staten Island	222	311	282	637	1,173	228	239	537	1,022
Wesleyan U.	222	776	827	1,377	1,173	487	525	819	822
Ball State U.	224	801	667	970	1,163	315	428	458	815
U. Missouri, Saint Louis	225	1,764	2,255	991	1,160	1,131	951	606	329
American U.	226	847	790	983	1,143	196	160	324	342
California State U., Fresno	227	748	1,129	2,043	1,125	616	1,014	1,557	1,035
Cleveland State U.	228	761	549	628	1,120	307	122	225	357
Grinnell C.	229	625	341	611	1,099	352	5	7	361
U. Alabama, Huntsville	230	1,300	1,165	1,023	1,065	218	219	165	28
Texas Southern U.	231	927	801	725	1,034	881	801	703	996
Hope C.	232	615	1,238	1,338	1,009	204	752	618	442
Fordham U.	233	747	1,067	1,532	1,003	294	251	642	212
U. Texas Rio Grande Valley	234	1,669	617	762	992	1,061	63	0	67
U. Idaho	235	613	683	719	985	51	127	112	152
U.S. Naval Academy	236	927	603	839	968	903	602	746	807
Ohio U.	237	1,399	1,432	1,055	941	582	1,073	647	360
Towson U.	238	246	420	455	926	120	168	184	196
California State U., Fullerton	239	166	159	440	900	0	6	138	120
U. North Florida	240	485	446	684	879	286	252	258	322
Creighton U.	241	626	670	816	844	277	310	434	458
Western Kentucky U.	242	1,360	772	888	824	783	401	462	302
Stevens Institute of Technology	243	10	548	127	817	0	258	69	735
Morgan State U.	244	177	389	920	816	175	385	920	745

TABLE 50

Total and federally financed higher education R&D expenditures in chemistry, ranked by FY 2023 total: FYs 2020–23

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2020	2021	2022	2023	2020	2021	2022	2023
Long Island U.	245	675	845	616	812	0	69	96	136
William & Mary	246	501	494	990	801	379	366	655	561
Saint Joseph's U.	247	128	105	1,280	797	0	0	456	422
U. South Alabama	248	407	589	454	787	338	464	373	638
Florida Institute of Technology	249	469	466	218	783	154	204	48	203
U. South Carolina, Columbia	250	724	2,682	899	781	0	0	0	0
Barnard C.	251	341	495	846	776	276	432	736	690
Rochester Institute of Technology	252	522	492	494	774	382	246	304	560
Wellesley C.	253	283	277	208	766	251	263	157	722
Clark U.	254	594	317	543	753	161	74	250	285
Western Michigan U. and Homer Stryker M.D. School of Medicine	255	649	611	588	734	335	396	348	363
U. Arkansas, Pine Bluff	256	540	1,175	513	726	418	895	296	716
Prairie View A&M U.	257	421	623	1,708	718	392	622	1,708	687
U. Northern Iowa	258	825	841	747	705	710	777	680	666
Wake Forest U.	259	575	1,010	685	704	396	534	436	383
Amherst C.	260	782	580 i	743	698	289	35	88	165
Occidental C.	261	181	535	606 i	688 i	140	458	512 i	580 i
Reed C.	262	757	738 i	587 i	668 i	109	116 i	312 i	353 i
U. Tulsa	262	261	196	376	668	43	22	243	199
CUNY, Graduate Center	264	0	0	0	654	0	0	0	0
U. San Diego	265	578	498	375	653	341	256	171	283
Naval Postgraduate School	266	348	422	379	647	234	422	379	647
Franklin and Marshall C.	267	406	444	564	642	254	292	318	383
Spelman C.	268	713	523	391	640	713	523	391	640
Chapman U.	269	370	247	385	636	362	157	342	510
Appalachian State U.	270	226	124	372	631	74	5	43	337
Swarthmore C.	271	231	475	423	626	155	331	244	348
Whitman C.	272	246	ne	440	623	164	ne	191	234
Duquesne U.	273	2,204	569	506	608	621	392	358	410
Santa Clara U.	274	342	368	426	594	315	310	397	307
Macalester C.	275	206	179	421	593	118	163	352	507
Colgate U.	276	432	426	738	583	226	161	500	103
California Polytechnic State U., San Luis Obispo	277	456	460	622	571	265	274	385	451
Gustavus Adolphus C.	278	ne	ne	ne	568	ne	ne	ne	279
Bryn Mawr C.	279	758	657	599	567	130	68	268	112

TABLE 50

Total and federally financed higher education R&D expenditures in chemistry, ranked by FY 2023 total: FYs 2020–23

(Dollars in thousands)

Institution	Rank	Total				Federally financed				
		2020	2021	2022	2023	2020	2021	2022	2023	
Winston-Salem State U.	280	437	673	704	551	410	590	586	551	
U. Nebraska, Kearney	281	281	630	468	538	118	130	74	130	
North Carolina Central U.	282	149	656	481	537	i 54	634	345	382	i
Chicago State U.	283	ne	ne	690	531	ne	ne	688	531	
Alabama A&M U.	284	305	i 314	i 344	i 529	i 222	i 269	i 334	i 442	i
Northern Arizona U.	285	799	780	287	522	324	270	99	46	
Harvey Mudd C.	286	259	169	155	521	201	109	55	121	
U. Wisconsin-Eau Claire	287	457	577	400	507	355	500	351	474	
West Chester U. Pennsylvania	288	255	162	79	504	35	56	17	392	
Williams C.	289	156	i 152	i 442	i 503	i 0	i 0	i 154	i 174	i
Pomona C.	290	446	112	403	483	212	64	305	308	
CUNY, John Jay C. of Criminal Justice	291	220	165	191	455	167	165	185	383	
Bowdoin C.	292	77	177	236	440	43	158	202	258	
Skidmore C.	292	314	647	433	440	209	523	318	353	
Murray State U.	294	165	195	240	439	155	141	205	401	
U. Puerto Rico, Humacao	295	200	81	50	434	192	71	50	420	
U. Richmond	296	318	363	431	424	188	202	265	270	
Kean U.	297	39	0	1,576	415	0	0	1	52	
Tarleton State U.	298	257	357	365	409	0	0	0	0	
Butler U.	299	ne	ne	154	406	ne	ne	105	317	
Eastern Kentucky U.	300	55	60	ne	399	26	51	ne	273	
Morehouse C.	301	177	298	463	390	177	298	463	390	
Tougaloo C.	302	280	278	i 340	i 386	i 280	278	i 340	i 385	i
U. Missouri, Kansas City	303	591	353	333	385	273	236	223	319	
U. Arkansas, Little Rock	304	1,088	685	279	383	828	590	271	361	
Tennessee Technological U.	305	583	374	201	380	426	270	128	216	
Winthrop U.	306	150	161	444	378	64	95	350	264	
Florida Gulf Coast U.	307	257	197	207	376	204	106	166	177	
Hamilton C.	307	164	73	99	376	0	0	33	46	
Idaho State U.	309	564	959	364	367	429	628	187	245	
California State U., Channel Islands	310	39	301	406	357	0	73	77	14	
U. Central Arkansas	311	505	298	265	355	414	184	141	325	
California State U., Monterey Bay	312	0	57	446	349	0	57	431	333	
Salisbury U.	313	169	392	278	343	21	148	40	102	
Arkansas State U., Jonesboro	314	840	647	885	342	720	523	706	221	

TABLE 50

Total and federally financed higher education R&D expenditures in chemistry, ranked by FY 2023 total: FYs 2020–23

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2020	2021	2022	2023	2020	2021	2022	2023
Hampton U.	314	0	0	657	342	0	0	657	342
Bucknell U.	316	494	i 456	706	341	298	i 292	633	220
St. John's U., New York	317	329	344	497	340	325	304	418	280
U. of St. Thomas (MN)	318	94	126	319	338	49	58	52	43
U. Central Oklahoma	319	139	i 146	i 302	i 336	i 139	i 146	i 111	i 123
California State U., Sacramento	320	89	62	133	335	44	5	63	254
Sam Houston State U.	321	407	333	168	326	342	151	77	246
C. Wooster	322	160	311	i 422	324	91	229	i 331	221
C. New Jersey	323	54	184	169	323	48	118	110	270
SUNY, Geneseo	324	102	269	483	322	82	256	460	240
Clafin U.	325	208	104	75	320	208	104	75	320
Oberlin C.	326	213	157	ne	317	71	58	ne	238
Texas A&M U.-Corpus Christi	327	181	268	261	307	107	59	46	49
U. Wisconsin-River Falls	328	155	48	ne	306	84	24	ne	286
Southeastern Louisiana U.	329	213	140	388	305	135	107	145	153
Purdue U., Northwest	330	207	110	202	302	168	102	160	175
Utah Valley U.	331	ne	ne	495	301	ne	ne	178	240
Colby C.	332	302	180	287	299	225	143	147	156
California State Polytechnic U., Pomona	333	110	205	289	296	108	160	225	205
Northern Kentucky U.	334	431	497	707	293	251	353	532	199
Smith C.	334	217	246	342	293	167	97	234	188
Davidson C.	336	154	162	266	292	112	138	107	192
Middlebury C.	337	253	201	286	289	238	201	286	274
U. Minnesota, Duluth	337	717	374	285	289	286	162	163	114
Lamar U.	339	54	66	71	288	20	0	0	57
Southern Illinois U., Edwardsville	340	911	849	165	287	231	193	100	259
Texas Woman's U.	341	0	0	581	285	0	0	0	0
SUNY, Oswego	342	291	282	439	278	182	228	377	222
Nova Southeastern U.	343	0	0	0	276	0	0	0	0
Grand Valley State U.	344	364	244	305	275	341	172	247	253
Union C., Schenectady	344	38	150	108	275	21	96	56	53
Central State U.	346	6	16	954	270	6	16	954	270
Calvin U.	347	252	i 275	i 298	i 267	i 202	i 202	i 203	178
Vassar C.	348	18	57	219	261	13	49	61	89
Illinois Institute of Technology	349	319	334	353	259	296	257	188	131

TABLE 50

Total and federally financed higher education R&D expenditures in chemistry, ranked by FY 2023 total: FYs 2020–23

(Dollars in thousands)

Institution	Rank	Total				Federally financed							
		2020	2021	2022	2023	2020	2021	2022	2023				
U. Northern Colorado	350	53	82	15	254	0	61	3	19				
U. Alaska, Anchorage	351	59	984	260	249	59	898	94	116				
West Texas A&M U.	352	211	200	258	247	166	169	218	183				
Carleton C.	353	488	244	183	244	i	142	110	157	229	i		
Trinity C., Hartford	354	46	112	143	242	5	86	85	143				
Eastern Michigan U.	355	410	97	348	238	1	28	25	165				
Haverford C.	356	394	i	357	i	393	i	237	i	187	273	286	131
Providence C.	357	370	74	ne	233	352	42	ne	228				
Texas A&M U.-Commerce	358	129	212	175	221	58	156	150	96				
U. Wisconsin-La Crosse	359	228	144	194	220	54	0	1	46				
Lewis and Clark C.	360	151	194	180	210	53	55	127	139				
Texas A&M U.-Kingsville	361	163	180	319	208	108	87	60	76				
U. Tennessee, Chattanooga	362	52	22	40	206	0	0	0	113				
California State U., Bakersfield	363	91	447	322	202	29	159	105	98				
U. San Francisco	363	45	56	55	202	0	0	0	0				
Norwich U.	365	ne	ne	ne	200	ne	ne	ne	196				
U. Colorado Colorado Springs	366	0	57	219	197	0	57	149	142				
Ursinus C.	366	ne	ne	ne	197	ne	ne	ne	85				
U. Louisiana, Monroe	368	55	17	247	195	55	10	125	163				
U. North Carolina, Wilmington	369	208	126	140	193	169	110	99	85				
Gettysburg C.	370	55	ne	ne	192	0	ne	ne	137				
Augusta U.	371	29	172	266	187	0	0	187	82				
CUNY, York C.	371	331	61	167	187	329	61	152	172				
Hofstra U.	373	4	6	606	178	0	0	538	24				
Loyola Marymount U.	374	231	218	383	176	140	104	99	124				
Willamette U.	375	161	86	60	172	62	4	0	114				
Ithaca C.	376	76	172	161	171	70	101	135	150				
U. South Carolina, Aiken	377	51	6	292	165	8	4	8	0				
California State U., Chico	378	26	10	59	159	6	4	51	0				
Ferris State U.	379	ne	ne	ne	158	ne	ne	ne	117				
U. North Carolina, Asheville	380	180	86	218	155	146	33	179	155				
Lafayette C.	381	156	75	248	153	94	37	201	84				
Southern U. and A&M C., Baton Rouge	382	101	133	132	150	39	65	118	112				
U. Wisconsin-Oshkosh	382	261	i	262	360	150	224	i	222	316	98		
Benedict C.	384	146	ne	ne	149	146	ne	ne	142				

TABLE 50

Total and federally financed higher education R&D expenditures in chemistry, ranked by FY 2023 total: FYs 2020–23

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2020	2021	2022	2023	2020	2021	2022	2023
Indiana U., South Bend	385	ne	33	ne	148	ne	12	ne	14
U. of the Incarnate Word	386	226	238	299	146	176	238	228	97
California State U., East Bay	387	296	359	364	145	164	242	248	0
Sonoma State U.	387	88	268	62	145	8	188	28	1
Connecticut C.	389	350	271	678	144	113	97	229	67
Virginia State U.	389	0	0	80	144	0	0	80	144
Pepperdine U.	391	54	101	68	138	0	0	0	0
Texas A&M International U.	392	0	112	155	136	0	64	66	101
U. West Florida	393	88	515	146	134	0	392	0	0
Rutgers, State U. New Jersey, Camden	394	322	39	269	131	0	0	13	2
U. Wisconsin-Stevens Point	395	62	45	124	125	42	7	86	102
St. Olaf C.	396	75	78	ne	123	6	3	ne	0
Fort Valley State U.	397	72	76	83	118	72	76	83	118
U. Puget Sound	398	156	ne	85	116	124	ne	60	86
Albany State U.	399	54	102	ne	111	54	102	ne	108
California State U., Stanislaus	400	12	72	108	110	0	60	101	99
East Tennessee State U.	401	91 i	59 i	126 i	108	27	1	0	101
Pace U.	402	138	226	93	106	0	0	31	16
Coastal Carolina U.	403	0	20	55	105	0	0	0	0
Wheaton C., Wheaton	404	57	98	ne	104	0	19	ne	81
Roger Williams U.	405	3	2	17	102	0	0	14	35
Saint John's U.	406	99 i	76 i	88 i	100 i	0 i	0 i	0 i	0 i
C. of Saint Benedict	407	130 i	75 i	87 i	99 i	20 i	6 i	7 i	8 i
Fisk U.	407	0	160	116	99	0	158	116	80
U. Texas, Tyler	407	33	46	29	99	0	0	0	75
SUNY, C. Brockport	410	69	66	38	98	39	19	30	27
Florida A&M U.	411	39	23	14	97	39	23	13	83
Purdue U., Fort Wayne	412	123	82	61	95	123	82	56	53
U. Scranton	413	ne	ne	ne	92	ne	ne	ne	68
Virginia Military Institute	413	ne	ne	95	92	ne	ne	55	50
California State U., Dominguez Hills	415	531	418	608	91	390	317	426	0
Pennsylvania State U., Harrisburg	415	0	0	7	91	0	0	7	91
Pennsylvania State U., Behrend	417	22	61	70	90	16	26	32	20
Kennesaw State U.	418	731	880	935	89	393	267	220	0
Fort Lewis C.	419	44	394	38	86	9	345	32	60

TABLE 50

Total and federally financed higher education R&D expenditures in chemistry, ranked by FY 2023 total: FYs 2020–23

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2020	2021	2022	2023	2020	2021	2022	2023
Savannah State U.	420	0	34	53	85	0	34	53	85
Elon U.	421	39	38	26	84	0	0	0	44
Montana Technological U.	422	123	216	375	83	97	133	309	31
Central Connecticut State U.	423	78	66	101	82	60	41	64	17
Claremont McKenna C.	423	85	56	81	82	85	56	81	82
Seattle U.	425	86	2	105	81	0	0	0	0
U. Wisconsin-Green Bay	425	62 i	55 i	77 i	81 i	33 i	30 i	36 i	42 i
California State Polytechnic U., Humboldt	427	39	64	74	80	0	0	0	0
Manhattan C.	428	71	112	140	79	71	112	140	79
Eastern Washington U.	429	0	0	0	75	0	0	0	75
Azusa Pacific U.	430	137	129	111	74	12	9	6	9
U. Alaska, Fairbanks	431	57	87	67	73	57	87	67	73
Colorado C.	432	38	107	263	70	0	0	178	0
St. Edward's U.	432	750	865	391	70	735	850	271	0
Sacred Heart U.	434	ne	0	ne	69	ne	0	ne	0
Central Washington U.	435	197	256	41	68	152	186	20	52
Western Illinois U.	436	39	52	47	67	21	47	47	67
Central Michigan U.	437	31	52	630	66	0	0	314	34
Youngstown State U.	437	182	171	204	66	166	158	194	52
U. Hawaii, Hilo	439	179	32	119	63	178	31	111	62
Stephen F. Austin State U.	440	33	28	112	60	0	0	0	0
U. Maryland Center for Environmental Science	441	416	413	875	56	102	195	67	56
U. Wisconsin-Platteville	441	101 i	43 i	51 i	56 i	36 i	21 i	26 i	28 i
U. Detroit Mercy	443	5	6	0	55	0	0	0	18
U.S. Coast Guard Academy	444	ne	ne	ne	54	ne	ne	ne	21
Wright State U.	444	390	222	91	54	221	153	49	18
Abilene Christian U.	446	ne	0	85	53	ne	0	0	0
Fairfield U.	446	84	52	ne	53	41	7	ne	0
Missouri State U.	446	22	27	65	53	20	0	0	0
U. of the Pacific	449	144	91	123	51	144	91	123	51
Citadel Military C. South Carolina	450	23	52	104	50	0	0	9	25
CUNY, New York City C. of Technology	451	0	5	187	47	0	5	187	44
Bates C.	452	211	238	78	43	185	190	49	37
C. Charleston	453	131	57	54	41	88	26	29	0
New Mexico Institute of Mining and Technology	454	287	167	149	40	287	167	102	0

TABLE 50

Total and federally financed higher education R&D expenditures in chemistry, ranked by FY 2023 total: FYs 2020–23

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2020	2021	2022	2023	2020	2021	2022	2023
Tuskegee U.	454	134	134	97	40	134	134	97	40
U. North Georgia	454	0	0	13	40	0	0	13	40
Pittsburg State U.	457	19	24	27	39	19	24	27	39
Hobart and William Smith Colleges	458	30	31	102	37	0	0	6	10
New C. Florida	459	ne	ne	ne	34	ne	ne	ne	0
Indiana U. Pennsylvania	460	207	175	238	33	93	84	132	0
Kenyon C.	460	9	ne	32	33	0	ne	0	0
Marian U., Indianapolis	460	ne	ne	ne	33	ne	ne	ne	0
Mount Holyoke C.	460	114	28	23	33	111	18	0	0
Marymount U.	464	ne	0	2	32	ne	0	0	0
U. Puerto Rico, Cayey	465	155	65	2	30	137	65	2	0
Southern Connecticut State U.	466	118	38	219	26	0	0	0	0
Lake Superior State U.	467	ne	ne	21	25	ne	ne	0	7
Tennessee State U.	468	57	0 i	0	23	39	0 i	0	23
Western Carolina U.	468	253	45	0	23	118	0	0	23
Christopher Newport U.	470	63	26	48	22	53	20	43	20
St. Mary's C. Maryland	470	ne	ne	ne	22	ne	ne	ne	0
U. Texas of the Permian Basin	470	0	0	6	22	0	0	0	0
U. Wisconsin-Superior	473	0	0	0	19	0	0	0	19
U.S. Military Academy	473	419	150	30	19	419	150	23	19
U. Dayton	475	8	194	344	18	0	108	148	18
U. New Haven	475	122	49	8	18	0	0	0	0
U. Virginia's C. Wise	475	ne	18	23	18	ne	18	23	18
DePaul U.	478	38	47	13	15	2	24	0	0
U. New England	478	20	17	14	15	0	0	0	0
Oregon Health and Science U.	480	0	0	0	14	0	0	0	13
Minnesota State U., Mankato	481	48	17	21	13	0	0	11	0
Drake U.	482	ne	0	9	12	ne	0	0	0
New Mexico Highlands U.	482	541	6 i	9 i	12	541	6 i	9 i	12
Northern Michigan U.	484	9	7	42	11	0	0	0	0
Merrimack C.	485	0	ne	ne	9	0	ne	ne	0
U. Puerto Rico, Ponce	485	ne	ne	ne	9	ne	ne	ne	9
Troy U.	487	0	0	0	8	0	0	0	0
Florida Polytechnic U.	488	17	42	4	7	0	0	0	0
Pacific U.	488	71	268	431	7	0	207	346	0

TABLE 50

Total and federally financed higher education R&D expenditures in chemistry, ranked by FY 2023 total: FYs 2020–23

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2020	2021	2022	2023	2020	2021	2022	2023
U. Hartford	488	0	0	4	7	0	0	0	0
U. of the District of Columbia	488	0	0	0	7	0	0	0	0
Eastern Connecticut State U.	492	0	4	4	6	0	0	0	0
Lipscomb U.	492	0 i	0	ne	6	0 i	0	ne	0
Framingham State U.	494	247	205 i	105 i	5	169	0 i	0 i	0
St. Cloud State U.	494	3	4	5	5	0	0	0	0
Andrews U.	496	0	0	ne	3	0	0	ne	0
Catholic U. of America	496	659	101	18	3	523	84	12	3
U. of Mary Washington	498	57	68	78	2	49	50	56	0
Austin Peay State U.	499	2	0	0	1	0	0	0	0
Monmouth U.	499	19	29	11	1	0	0	0	0
William Paterson U.	499	267	116	98	1	0	0	0	1
All other surveyed institutions	-	17,252	14,546	11,412	0	10,252	9,637	7,683	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 \$15,250 thousand imputed for total and \$14,722 thousand reported for federally financed R&D expenditures in chemistry in FY 2023. 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 Nebraska, Lincoln and Medical Center includes expenditures from the University of Nebraska, Lincoln; University of Nebraska, Medical Center; and University of Nebraska, Central Administration campuses. Due to a realignment within the University of Nebraska system that occurred on 22 June 2023, the three campuses fall under the leadership of one president. Prior to FY 2023, these three campuses reported to the survey as separate institutions.

^c 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.

^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 2023 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.