

TABLE 42

## Higher education R&amp;D expenditures in the life sciences, ranked by all FY 2022 life sciences: FYs 2019–22 and by subfield for FY 2022

(Dollars in thousands)

Institution	Rank	2019	2020	2021	2022					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
All institutions	-	48,226,684	49,614,879	52,349,524	56,498,207	3,935,731	18,161,442	31,869,957	1,012,919	1,518,158
U. California, San Francisco	1	1,529,156	1,581,411	1,639,862	1,734,339	0	2,517	1,731,822	0	0
U. Pennsylvania	2	1,125,634	1,185,719	1,243,966	1,364,745	1,000	936,939	352,904	0	73,902
Johns Hopkins U. <sup>a</sup>	3	1,053,401	1,047,668	1,069,865	1,179,546	0	358,980	820,566	0	0
Duke U.	4	1,018,199	990,897	1,040,786	1,174,640	0	289,829	857,681	10,004	17,126
U. California, Los Angeles	5	925,447	989,602	1,053,540	1,110,788	0	37,544	1,073,244	0	0
U. Texas M. D. Anderson Cancer Center	6	902,580	981,164	1,056,727	1,104,846	22,773	326,187	755,886	0	0
U. Pittsburgh, Pittsburgh	7	935,756	954,315	983,251	1,082,521	456	353,030	728,994	0	41
U. Washington, Seattle	8	954,062	963,264	1,013,261	1,045,014	76	322,882	679,546	25,597	16,913
Yale U.	9	912,802	944,439	1,012,626	1,044,120	0	226,285	809,589	7,514	732
U. North Carolina, Chapel Hill	10	846,630	868,276	925,380	1,020,666	0	222,099	798,512	55	0
U. Michigan, Ann Arbor	11	955,653	967,660	931,174	1,018,062	2,541	266,722	680,357	21,095	47,347
Stanford U.	12	837,068	836,401	905,150	999,214	0	265,253	695,772	1,699	36,490
U. Wisconsin-Madison	13	814,119	839,302	861,558	952,068	128,234	318,077	500,026	1,058	4,673
Washington U., Saint Louis	14	796,337	824,978	887,653	938,655	0	389,199	549,454	2	0
Cornell U.	15	789,230	822,419	833,824	929,175	114,152	356,105	429,280	21,287	8,351
U. California, San Diego	16	819,167	828,401	827,370	915,619	303	59,696	854,614	674	332
New York U.	17	630,246	643,638	771,663	909,144	0	321,462	584,887	0	2,795
Ohio State U.	18	550,461	590,076	876,239	897,954	81,771	128,503	666,812	14,700	6,168
Icahn School of Medicine at Mount Sinai	19	722,241	747,014	820,260	893,968	0	411,941	482,027	0	0
Columbia U. in the City of New York	20	727,779	744,239	797,089	893,199	0	249,393	637,456	5,324	1,026
Emory U.	21	727,296	732,893	789,831	874,729	0	228,756	628,633	0	17,340
U. Minnesota, Twin Cities	22	684,938	722,074	760,975	864,018	78,028	126,554	602,141	51,426	5,869
Vanderbilt U. and Vanderbilt U. Medical Center	23	581,939	625,549	806,323	846,605	0	194,205	651,870	0	530
Baylor C. of Medicine	24	651,920	685,641	716,976	827,005	0	400,058	426,947	0	0
U. Florida	25	689,605	688,091	706,987	797,710	228,726	148,797	400,250	19,937	0
Harvard U.	26	704,460	684,127	714,069	741,297	0	561,958	131,479	7,218	40,642
Northwestern U.	27	604,875	619,270	659,195	721,230	0	189,086	514,642	0	17,502
U. Texas Southwestern Medical Center	28	496,697	595,939	632,134	719,002	0	223,987	479,181	469	15,365
U. Southern California	29	568,194	580,982	598,925	680,873	0	398,478	262,080	0	20,315
U. Maryland <sup>b</sup>	30	601,632	594,114	633,517	655,867	56,383	193,170	400,555	1,889	3,870
U. Alabama, Birmingham	31	533,536	542,308	571,525	653,373	0	167,234	486,139	0	0
U. California, Davis	32	593,628	597,962	590,027	626,320	152,571	211,134	262,615	0	0

TABLE 42

## Higher education R&amp;D expenditures in the life sciences, ranked by all FY 2022 life sciences: FYs 2019–22 and by subfield for FY 2022

(Dollars in thousands)

Institution	Rank	2019	2020	2021	2022					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
U. Colorado Anschutz Medical Campus <sup>c</sup>	33	na	na	559,348	606,860	800	14,636	591,424	0	0
Indiana U., Bloomington	34	470,583	502,210	501,125	550,148	0	137,850	402,704	0	9,594
Rutgers, State U. New Jersey, New Brunswick	35	447,552	518,906	483,265	521,311	69,581	214,943	228,112	56	8,619
U. Cincinnati	36	437,494	440,721	456,847	508,639	0	63,666	428,068	0	16,905
Scripps Research Institute	37	427,734	444,964	485,435	492,639	0	492,639	0	0	0
Boston U.	38	338,089	373,079	445,535	485,379	0	189,654	295,414	0	311
U. Arizona	39	426,393	437,147	447,584	471,046	55,219	218,490	183,399	13,933	5
Oregon Health and Science U.	40	403,495	433,917	439,212	463,631	0	24,166	300,193	802	138,470
Texas A&M U., College Station and Health Science Center	41	351,403	502,372	487,219	435,563	210,583	99,831	103,670	17,297	4,182
U. Virginia, Charlottesville	42	385,793	420,679	402,376	432,700	0	249,817	182,321	562	0
U. Iowa	43	385,909	414,459	415,734	431,761	0	132,705	295,198	0	3,858
Case Western Reserve U.	44	377,671	384,857	360,294	406,880	0	91,552	292,264	0	23,064
U. Chicago	45	299,549	302,820	336,114	384,527	0	91,684	292,843	0	0
U. Utah	46	343,744	402,001	420,965	379,462	0	27,988	351,390	84	0
U. Massachusetts, Medical School	47	281,507	279,096	347,337	358,204	0	153,954	132,752	0	71,498
U. Kentucky	48	314,547	322,077	323,030	352,400	61,281	204,821	86,296	0	2
Michigan State U.	49	353,934	319,883	317,235	347,119	128,448	117,176	71,382	13,883	16,230
Rockefeller U.	50	332,899	337,377	339,729	344,493	0	328,999	15,494	0	0
U. Texas Health Science Center, Houston	51	271,525	273,862	308,823	342,633	0	59,833	152,507	0	130,293
U. Miami	52	284,045	302,160	297,764	342,103	0	89,556	247,302	1,166	4,079
U. Georgia	53	294,353	302,667	309,153	334,447	126,469	167,001	36,409	547	4,021
U. Illinois, Chicago	54	289,366	314,296	324,053	325,514	0	77,134	241,065	7,315	0
Thomas Jefferson U.	55	170,458	171,207	200,309	321,561	0	123,144	198,417	0	0
Pennsylvania State U., University Park and Hershey Medical Center	56	266,143	291,299	291,733	319,598	85,040	105,362	118,266	10,930	0
Albert Einstein C. of Medicine	57	298,824	288,654	301,715	318,314	0	0	318,314	0	0
U. California, Irvine	58	266,485	289,422	315,900	318,016	0	130,710	187,306	0	0
Medical C. Wisconsin	59	243,500	255,783	269,290	313,888	0	98,248	215,640	0	0
U. Rochester	60	248,086	259,224	271,630	291,673	0	61,720	229,953	0	0
Colorado State U., Fort Collins	61	211,774	231,734	288,731	289,050	55,140	74,575	26,764	127,234	5,337
Medical U. South Carolina	62	295,600	272,590	277,761	284,553	0	66,799	91,364	0	126,390
U. Missouri, Columbia	63	210,550	220,890	237,728	283,404	91,367	56,404	98,322	25,941	11,370
U. California, Berkeley	64	239,459	258,228	264,394	275,739	5,372	138,783	60,240	71,344	0
U. Illinois, Urbana-Champaign	65	222,994	241,661	258,253	270,361	67,828	93,256	5,483	103,794	0

TABLE 42

## Higher education R&amp;D expenditures in the life sciences, ranked by all FY 2022 life sciences: FYs 2019–22 and by subfield for FY 2022

(Dollars in thousands)

Institution	Rank	2019	2020	2021	2022					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
Virginia Commonwealth U.	66	185,744	206,550	233,486	269,742	0	72,614	175,197	0	21,931
North Carolina State U.	67	244,235	240,399	237,289	262,669	122,332	123,482	0	0	16,855
Uniformed Services U. of the Health Sciences	68	406,726	316,838	366,610	257,828	0	5,696	252,132	0	0
SUNY, U. Buffalo	69	249,349	241,467	254,314	257,060	0	95,707	159,310	0	2,043
Purdue U., West Lafayette	70	237,317	243,953	237,182	254,784	135,315	27,675	91,794	0	0
Wake Forest U.	71	230,592	236,154	253,797	253,966	0	3,339	250,627	0	0
U. Texas Health Science Center, San Antonio	72	188,483	202,572	219,734	238,510	0	80,739	132,856	0	24,915
U. Kansas	73	212,241	226,786	230,059	237,780	0	46,127	172,748	3,357	15,548
U. New Mexico	74	148,618	148,158	243,730	230,657	0	27,705	200,164	2,221	567
Virginia Polytechnic Institute and State U.	75	198,424	199,798	207,204	223,775	92,790	49,745	48,844	27,874	4,522
Temple U.	76	218,527	216,388	223,136	223,126	81	36,172	101,776	0	85,097
U. Connecticut	77	165,087	157,618	175,232	220,304	13,050	105,565	89,129	5,190	7,370
Washington State U.	78	193,878	196,649	211,107	211,742	108,785	32,110	64,128	3,094	3,625
U. Arkansas for Medical Sciences	79	153,135	174,549	194,709	205,493	0	58,106	145,560	0	1,827
U. Nebraska, Medical Center	80	194,455	202,406	200,974	205,253	0	102,327	102,926	0	0
U. South Florida <sup>d</sup>	81	200,585	164,666	184,291	203,592	0	103,543	99,029	146	874
U. Texas Medical Branch	82	173,776	179,403	184,500	202,875	0	154,731	48,144	0	0
Georgetown U.	83	155,013	155,197	183,629	190,912	0	12,526	176,598	0	1,788
U. Louisville	84	141,409	158,677	157,735	185,107	23	71,947	99,867	51	13,219
George Washington U.	85	175,830	179,803	180,965	184,091	0	69,589	114,499	0	3
Wayne State U.	86	186,531	182,757	175,847	183,074	0	28,121	152,350	23	2,580
Tulane U.	87	152,554	161,642	164,874	179,205	0	45,028	50,018	188	83,971
U. Oklahoma, Norman and Health Science Center	88	148,621	164,967	165,745	176,123	0	50,190	125,256	0	677
Louisiana State U., Baton Rouge	89	160,443	155,187	158,608	173,539	91,647	71,438	670	9,784	0
Dartmouth C. and Dartmouth Hitchcock Medical Center	90	176,231	170,704	163,702	171,185	0	89,693	80,239	1,252	1
U. Nebraska, Lincoln	91	161,097	161,499	158,894	170,212	103,125	30,056	17,663	18,273	1,095
Oregon State U.	92	136,589	143,505	151,779	162,192	85,445	43,217	7,475	25,869	186
Iowa State U.	93	149,764	123,853	142,283	160,235	85,319	42,147	402	0	32,367
U. Vermont	94	111,873	142,081	142,622	158,896	23,593	61,287	65,313	8,703	0
U. Texas, Austin	95	117,716	130,377	148,471	156,202	75	71,830	77,108	4,167	3,022
Brown U.	96	130,419	134,751	139,126	149,795	0	60,922	49,964	0	38,909
Arizona State U.	97	101,129	103,558	111,790	141,306	0	95,701	42,576	2,543	486
Mississippi State U.	98	118,479	119,753	127,096	140,283	104,790	11,727	2,544	18,183	3,039

TABLE 42

## Higher education R&amp;D expenditures in the life sciences, ranked by all FY 2022 life sciences: FYs 2019–22 and by subfield for FY 2022

(Dollars in thousands)

Institution	Rank	2019	2020	2021	2022					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
SUNY, Stony Brook U.	99	117,953	121,070	127,257	139,641	0	60,840	78,801	0	0
West Virginia U.	100	104,435	108,264	124,894	135,260	14,556	31,046	76,948	10,739	1,971
Tufts U.	101	114,635	136,826	149,664	134,584	3,836	102,498	19,825	0	8,425
Auburn U., Auburn	102	104,935	110,768	111,491	128,578	83,715	17,753	14,411	1,910	10,789
Massachusetts Institute of Technology	103	143,017	126,648	118,283	128,090	0	56,438	27,534	811	43,307
Kansas State U.	104	133,246	127,024	119,328	124,308	98,598	25,276	434	0	0
Augusta U.	105	96,123	103,554	115,862	123,587	0	45,192	73,958	0	4,437
U. Hawaii, Manoa	106	130,373	123,649	123,962	122,760	16,884	60,677	37,830	1,669	5,700
Cold Spring Harbor Laboratory	107	126,773	115,051	114,885	118,034	2,112	115,922	0	0	0
North Dakota State U.	108	104,204	101,693	106,163	115,027	92,009	4,972	7,540	10,506	0
U. Tennessee, Health Science Center	109	95,852	98,345	107,620	113,398	0	35,849	74,096	0	3,453
Princeton U.	110	95,882	91,903	95,938	112,932	0	102,181	0	10,751	0
Rush U.	111	93,701	92,494	104,999	111,165	0	11,598	99,567	0	0
U. California, Riverside	112	91,835	95,431	98,539	107,118	28,479	60,605	18,034	0	0
U. Tennessee, Knoxville <sup>e</sup>	113	24,065	84,619	86,080	100,488	48,003	33,638	10,264	8,583	0
California Institute of Technology	114	87,505	89,626	100,754	98,580	0	98,392	142	0	46
U. South Carolina, Columbia	115	70,689	93,409	84,069	97,376	0	19,230	78,146	0	0
U. Mississippi	116	103,882	86,130	82,916	93,555	239	26,692	65,860	0	764
U. Arkansas, Fayetteville	117	89,593	77,569	79,509	92,217	79,353	7,885	4,979	0	0
U. Louisiana, Lafayette	118	73,146	87,621	80,528	89,731	1,301	67,016	19,606	1,808	0
Drexel U.	119	93,762	89,027	96,668	87,434	0	40,343	44,108	2,983	0
Montana State U., Bozeman	120	72,765	71,440	74,897	82,986	51,177	16,954	13,878	118	859
U. Delaware	121	60,535	66,097	60,823	81,458	30,550	11,850	39,058	0	0
U. Nevada, Reno	122	64,307	71,378	78,218	78,928	8,509	39,371	20,416	8,968	1,664
Van Andel Research Institute	123	61,738	58,982	65,789	78,626	0	78,626	0	0	0
U. Idaho	124	71,656	73,933	73,435	78,351	39,305	24,647	280	14,111	8
Oklahoma State U., Stillwater	125	76,701	75,506	77,720	77,513	33,721	26,166	6,090	11,536	0
U. Massachusetts, Amherst	126	67,652	64,246	69,519	77,193	21,277	27,376	10,918	8,221	9,401
U. Montana, Missoula	127	61,959	66,817	72,501	76,032	653	23,548	31,740	20,091	0
Georgia State U.	128	70,211	66,831	65,536	73,616	488	59,500	8,380	0	5,248
Clemson U.	129	62,391	71,776	66,524	72,699	25,912	26,009	7,953	21	12,804
Florida State U.	130	61,515	64,315	61,377	67,760	125	22,715	39,431	3,922	1,567
Florida International U.	131	51,676	55,877	55,462	67,166	39	46,249	16,489	4,389	0

TABLE 42

## Higher education R&amp;D expenditures in the life sciences, ranked by all FY 2022 life sciences: FYs 2019–22 and by subfield for FY 2022

(Dollars in thousands)

Institution	Rank	2019	2020	2021	2022					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
U. Oregon	132	35,644	35,936	56,791	67,072	0	44,968	118	225	21,761
Saint Louis U.	133	54,582	58,836	65,928	66,726	0	25,694	40,671	361	0
Texas Tech U.	134	52,335	49,230	55,930	65,627	34,132	18,732	7,104	5,659	0
Utah State U.	135	61,698	56,017	56,043	60,940	33,056	8,134	1,797	17,953	0
U. Colorado Boulder	136	51,990	52,074	53,211	56,184	1,690	46,086	5,076	1,596	1,736
U. New Hampshire	137	50,431	52,822	52,907	55,600	21,849	9,521	16,527	7,703	0
Louisiana State U., Health Sciences Center, New Orleans	138	40,914	43,419	44,370	53,995	0	5,544	43,024	0	5,427
New Mexico State U.	139	40,821	43,340	48,808	53,389	32,727	18,584	903	159	1,016
U. Wyoming	140	41,934	47,073	43,538	52,377	15,138	22,214	6,761	7,397	867
Cleveland State U.	141	47,567	46,618	45,321	51,438	0	48,744	1,976	0	718
SUNY, Upstate Medical U.	142	38,091	41,557	44,870	50,586	0	17,483	33,103	0	0
SUNY, U. Albany	143	101,768	60,025	52,135	49,048	0	31,346	17,702	0	0
U. Puerto Rico, Medical Sciences Campus	144	44,985	37,081	43,846	47,314	0	0	47,314	0	0
U. California, Office of the President	145	53,460	46,725	42,520	45,843	2,071	0	43,487	276	9
Texas Tech U., Health Sciences Center	146	42,959	43,102	40,567	44,961	0	21,246	23,715	0	0
South Dakota State U.	147	53,751	49,659	38,411	44,606	35,767	3,167	2,977	2,643	52
Howard U.	148	24,940	25,750	30,787	44,152	0	9,045	28,888	0	6,219
Northern Arizona U.	149	36,245	38,862	41,082	43,147	1,129	30,320	4,639	5,807	1,252
Morehouse School of Medicine	150	31,289	29,813	32,637	42,489	0	0	42,489	0	0
U. Maine	151	38,713	39,357	38,598	41,542	19,721	10,501	1,006	10,314	0
U. Houston	152	39,727	34,394	34,322	40,187	232	8,119	31,836	0	0
Loyola U., Chicago	153	33,699	35,073	38,592	39,546	0	16,600	21,885	1,061	0
Southern Illinois U., Carbondale	154	32,432	33,480	37,448	38,470	13,997	5,789	18,528	0	156
Northeastern U.	155	31,181	32,626	32,513	37,639	0	17,086	11,477	0	9,076
Georgia Institute of Technology	156	33,854	43,699	32,997	37,289	4,307	25,448	6,060	0	1,474
San Diego State U.	157	28,629	27,880	31,479	36,057	0	14,527	20,885	645	0
U. Notre Dame	158	27,517	27,750	29,599	35,522	252	35,115	155	0	0
U. North Dakota	159	28,781	31,526	31,330	35,064	0	18,631	16,433	0	0
East Carolina U.	160	35,936	33,206	28,703	34,271	156	11,180	22,935	0	0
U. Texas Health Science Center, Tyler	161	19,606	21,265	27,928	33,872	0	33,872	0	0	0
U. Missouri, Kansas City	162	16,974	20,183	17,966	33,588	739	6,669	25,516	0	664
U. Central Florida	163	34,043	29,255	30,876	33,455	0	18,380	15,074	0	1
New Jersey Institute of Technology	164	27,910	20,121	22,393	31,619	0	10,240	21,379	0	0

TABLE 42

## Higher education R&amp;D expenditures in the life sciences, ranked by all FY 2022 life sciences: FYs 2019–22 and by subfield for FY 2022

(Dollars in thousands)

Institution	Rank	2019	2020	2021	2022					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
U. Nevada, Las Vegas	165	31,434	34,733	32,306	31,571	84	14,714	15,740	272	761
Florida Atlantic U.	166	25,420	28,725	27,748	31,522	28	18,712	9,696	0	3,086
U. Texas, Dallas	167	35,971	35,986	27,495	31,502	0	5,932	25,570	0	0
SUNY, Downstate Health Sciences U.	168	36,015	33,204	34,459	30,918	0	30,468	450	0	0
Brandeis U.	169	22,063	28,345	31,582	30,648	0	25,632	5,007	9	0
George Mason U.	170	16,438	33,163	47,800	30,410	352	20,571	8,513	973	1
U. Texas, El Paso	171	30,643	28,552	23,452	30,381	0	21,382	7,386	65	1,548
U. Toledo	172	27,889	27,748	25,012	30,176	5	8,546	21,521	0	104
U. California, Santa Cruz	173	26,486	27,565	28,302	30,133	3,304	26,829	0	0	0
U. Rhode Island	174	24,563	27,699	28,984	29,670	3,465	15,848	5,359	775	4,223
Louisiana State U., Health Sciences Center, Shreveport	175	26,262	25,321	24,600	29,502	0	14,437	14,239	0	826
U. Alaska, Fairbanks	176	26,416	29,409	37,477	28,235	3,606	16,875	2,018	5,709	27
SUNY, C. of Environmental Science and Forestry	177	26,495	26,083	23,850	27,321	i 3,275	i 7,202	i 1	i 16,263	i 580
U. Texas, San Antonio	178	22,455	25,911	26,419	27,073	0	22,618	2,527	0	1,928
U. Texas Rio Grande Valley	179	25,619	28,351	28,556	26,835	1,603	4,667	16,939	7	3,619
Florida A&M U.	180	21,837	21,450	23,507	26,175	11,714	113	10,961	1,259	2,128
U. South Alabama	181	40,597	36,664	31,362	25,738	0	376	19,345	0	6,017
U. Alabama, Tuscaloosa	182	8,452	8,985	14,565	22,348	0	7,565	14,749	0	34
Albany Medical C.	183	23,028	23,510	22,443	22,297	0	15,847	6,450	0	0
Eastern Virginia Medical School	184	27,064	20,870	19,415	22,165	0	12,924	9,241	0	0
Indiana U.-Purdue U., Indianapolis	185	20,263	21,874	22,890	21,631	0	6,436	14,064	0	1,131
East Tennessee State U.	186	10,721	i 10,103	i 13,835	i 21,542	i 0	i 7,172	i 14,370	i 0	i 0
Creighton U.	187	17,527	i 14,845	i 17,512	i 20,856	i 0	i 8,439	i 12,417	i 0	i 0
U. Texas, Arlington	188	18,118	18,430	19,246	20,310	0	9,659	10,059	592	0
U. California, Santa Barbara	189	34,842	30,838	29,848	19,387	0	16,733	0	2,654	0
U. Minnesota, Duluth	190	19,286	19,580	19,119	19,244	0	1,333	0	17,911	0
North Carolina A&T State U.	191	16,756	16,663	20,086	19,160	13,488	1,925	551	3,196	0
Rice U.	192	13,966	16,008	15,766	18,022	0	18,013	9	0	0
Marshall U.	193	15,738	16,302	18,296	17,965	0	6,734	11,141	0	90
Meharry Medical C.	194	18,286	13,870	15,840	17,895	0	17,895	0	0	0
Central Michigan U.	195	8,603	9,145	14,879	17,871	12	4,459	12,783	613	4
U. South Dakota	196	18,568	17,172	15,920	17,850	0	12,452	4,478	626	294
Texas State U.	197	11,304	12,417	11,708	17,849	957	11,937	1,716	0	3,239

TABLE 42

## Higher education R&amp;D expenditures in the life sciences, ranked by all FY 2022 life sciences: FYs 2019–22 and by subfield for FY 2022

(Dollars in thousands)

Institution	Rank	2019	2020	2021	2022					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
U. Massachusetts, Lowell	198	8,730	12,056	12,821	17,817	0	8,776	8,896	145	0
U. North Texas, Denton	199	12,644	12,745	13,582	17,731	1,547	10,612	4,943	0	629
Ohio U.	200	15,739	15,375	16,838	17,612	0	9,040	7,780	0	792
Texas A&M U.-Kingsville	201	16,431	16,722	16,283	17,132	14,303	1,782	0	815	232
New York Medical C.	202	19,398	20,137	18,872	16,461	0	7,095	6,552	0	2,814
Tennessee State U.	203	11,924	20,557	19,491	16,043	13,897	2,132	14	0	0
Delaware State U.	204	13,791	14,368	14,196	15,815	4,163	9,339	984	1,056	273
Wichita State U.	205	2,850	2,980	14,196	15,666	0	2,150	13,516	0	0
SUNY, Binghamton U.	206	12,165	12,877	12,788	15,476	0	5,965	9,414	24	73
Carnegie Mellon U.	207	15,366	14,696	14,273	15,109	211	13,497	1,006	23	372
Tuskegee U.	208	8,427	8,145	8,136	15,072	10,130	4,912	23	7	0
Loma Linda U.	209	16,874	15,033	13,191	14,632	0	7,013	7,619	0	0
Charles R. Drew U. of Medicine and Science	210	13,739	13,682	13,228	14,581	0	0	14,581	0	0
CUNY, Queens C.	211	10,992	11,236	10,421	14,572	0	2,738	11,834	0	0
Portland State U.	212	15,844	13,547	13,784	14,531	46	8,790	1,368	4,228	99
CUNY, Graduate School of Public Health and Health Policy	213	7,882	10,899	14,025	14,429	0	784	13,645	0	0
Nova Southeastern U.	214	14,236	13,298	12,827	14,336	0	0	14,319	0	17
U. Nebraska, central administration	215	12,205	13,089	12,423	13,754	772	9,970	2,810	0	202
U. Maryland, Baltimore County	216	11,834	11,478	10,033	13,643	693	12,314	259	190	187
Marquette U.	217	13,155	11,696	12,236	13,619	155	6,042	5,317	0	2,105
San Francisco State U.	218	12,886	12,603	13,143	13,356	0	11,857	267	931	301
Northeast Ohio Medical U.	219	17,625	15,579	13,823	13,150	0	7,274	5,248	0	628
Chapman U.	220	7,139	7,307	9,497	13,148	465	5,852	6,376	353	102
Baylor U.	221	5,641	7,456	11,299	13,144	523	8,488	3,041	823	269
Texas Tech U., Health Sciences Center, El Paso	222	11,649	10,294	10,555	13,073	0	4,440	8,633	0	0
Rosalind Franklin U. of Medicine and Science	223	16,011	14,516	13,478	12,579	0	11,566	1,013	0	0
U. Guam	224	8,964	9,824	11,783	12,397	3,527	573	3,139	5,158	0
U. Southern Mississippi	225	10,316	11,248	11,218	12,031	0	9,825	2,111	0	95
Old Dominion U.	226	14,668	14,463	15,041	12,010	0	4,660	7,244	106	0
Boise State U.	227	9,858	10,616	12,908	12,000	769	8,027	2,279	884	41
Wright State U.	228	16,448	13,515	11,213	11,782	0	7,364	4,418	0	0
Syracuse U.	229	12,095	10,724	10,916	11,393	0	6,304	3,918	1,171	0
U. North Carolina, Greensboro	230	8,554	7,582	8,934	11,226	0	6,836	4,390	0	0

TABLE 42

## Higher education R&amp;D expenditures in the life sciences, ranked by all FY 2022 life sciences: FYs 2019–22 and by subfield for FY 2022

(Dollars in thousands)

Institution	Rank	2019	2020	2021	2022					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
Lincoln U., Jefferson City	231	4,089	5,404	7,345	11,109	10,310	0	0	799	0
Midwestern U.	232	10,343	10,479	10,957	11,069	20	6,375	4,612	0	62
Rutgers, State U. New Jersey, Newark	233	10,800	13,014	11,845	10,990	0	10,822	168	0	0
Kent State U.	234	8,388	8,335	9,034	10,845	86	7,478	3,242	5	34
U. California, Merced	235	10,943	9,333	9,742	10,814	697	5,113	4,176	0	828
U. Memphis	236	10,521	10,395	9,537	10,731	0	3,665	5,848	174	1,044
U. North Texas, Health Science Center	237	49,099	41,900	50,692	10,439	0	3,299	7,140	0	0
U. Wisconsin-Milwaukee	238	8,637	10,279	9,109	10,207	0	3,770	6,437	0	0
Rowan U.	239	11,107	11,115	10,849	10,188	0	3,758	6,119	0	311
Brigham Young U., Provo	240	9,121	9,218	9,660	10,040	2,955	5,141	1,639	0	305
Long Island U.	241	4,561	6,526	7,162	10,025	37	2,155	7,833	0	0
Fort Valley State U.	242	4,321	4,581	4,620	9,807	9,623	184	0	0	0
Miami U.	243	11,143	12,044	9,733	9,782	27	5,808	3,856	0	91
Oakland U.	244	7,041	5,653	7,887	9,762	0	4,389	2,215	0	3,158
Illinois Institute of Technology	245	11,618	9,993	9,053	9,464	933	7,268	1,198	0	65
Prairie View A&M U.	246	8,105	8,280	8,187	9,381	9,006	258	27	90	0
Tarleton State U.	247	6,594	6,429	7,521	9,239	6,683	675	763	1,118	0
Kentucky State U.	248	8,139	7,806	8,546	9,156	9,156	0	0	0	0
Lehigh U.	249	4,448	4,121	5,271	9,078	0	7,035	14	0	2,029
California Polytechnic State U., San Luis Obispo	250	8,979	7,929	6,526	9,048	4,120	844	2,181	1,387	516
U. Massachusetts, Boston	251	9,692	8,950	8,612	8,974	84	5,026	3,063	801	0
Rensselaer Polytechnic Institute	252	5,384	6,102	6,913	8,885	0	8,885	0	0	0
U. Alaska, Anchorage	253	8,863	6,857	8,381	8,875	57	5,216	2,121	1,481	0
Central State U.	254	2,923	5,451	8,134	8,806	8,310	203	0	169	124
Mercer U.	255	8,298	8,624	8,627	8,473	0	253	5,466	0	2,754
Southern Illinois U., Edwardsville	256	10,357	8,190	7,333	8,447	6,908	589	803	147	0
U. Maryland Center for Environmental Science	257	10,614	9,194	8,729	8,403	954	1,088	0	6,151	210
Duquesne U.	258	9,595	9,914	6,085	8,351	0	1,627	6,724	0	0
Boston C.	259	13,514	9,824	9,313	8,226	0	6,239	1,987	0	0
U. of the Virgin Islands	260	9,712	7,103	6,045	8,130	3,126	2,708	0	0	2,296
Alcorn State U.	261	8,664	7,918	6,826	8,074	i 7,716	0	i 358	0	0
Texas Southern U.	262	2,695	6,206	5,033	8,033	0	6,427	0	0	1,606
U. Nebraska, Omaha	263	4,020	5,892	7,208	7,982	63	1,778	6,129	10	2



TABLE 42

## Higher education R&amp;D expenditures in the life sciences, ranked by all FY 2022 life sciences: FYs 2019–22 and by subfield for FY 2022

(Dollars in thousands)

Institution	Rank	2019	2020	2021	2022					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
CUNY, City C.	264	8,010	7,167	9,192	7,942	0	5,257	2,663	0	22
Morgan State U.	265	4,197	5,061	5,810	7,898	462	3,096	4,340	0	0
CUNY, Hunter C.	266	7,408	8,957	7,852	7,870	58	6,539	1,204	0	69
Virginia State U.	267	6,886	6,123	7,191	7,493	7,305	61	127	0	0
U. North Carolina, Wilmington	268	7,782	7,090	7,179	7,428	579	4,997	169	1,599	84
Edward Via C. of Osteopathic Medicine	269	7,225	7,475	6,629	7,121	0	0	7,121	0	0
Oklahoma State U., Center for Health Sciences	270	4,815	7,616	6,928	7,092	0	1,090	6,002	0	0
Southern U. and A&M C., Agricultural Research and Extension Center	271	5,448	4,475	6,164	7,048	5,614	306	803	325	0
Western U. of Health Sciences	272	3,936	4,866	5,598	7,043	577	6,309	144	0	13
Georgia Southern U.	273	2,331	1,664	7,662	6,734	103	2,483	3,584	266	298
West Virginia State U.	274	5,424	5,199	6,436	6,701	6,159	0	8	534	0
Philadelphia C. of Osteopathic Medicine	275	3,162	3,360	6,131	6,667	0	3,992	2,675	0	0
North Carolina Central U.	276	8,401	7,233	6,109	6,414	0	6,212	202	0	0
U. Arkansas, Pine Bluff	277	7,878	7,415	6,852	6,299	6,291	8	0	0	0
Roseman U. of Health Sciences	278	4,176	4,380	5,893	6,285	0	0	6,285	0	0
Idaho State U.	279	3,638	3,936	4,167	6,213	0	5,056	1,157	0	0
Western Michigan U. and Homer Stryker M.D. School of Medicine	280	5,488	6,999	5,982	6,080	0	5,019	1,016	45	0
Langston U.	281	10,287	13,843	6,062	6,074	4,294	1,402	378	0	0
West Texas A&M U.	282	2,915	3,570	6,240	6,054	5,722	0	0	241	91
Teachers C., Columbia U.	283	4,651	4,455	5,040	6,007	0	0	0	0	6,007
U. New England	284	5,864	5,904	5,340	5,953	0	4,749	1,106	98	0
Arkansas State U., Jonesboro	285	6,659	6,636	6,436	5,942	948	4,884	77	2	31
U. Missouri, Saint Louis	286	6,824	7,254	6,118	5,842	0	1,782	4,012	48	0
San Jose State U.	287	1,133	1,542	3,655	5,838	0	3,253	2,585	0	0
Xavier U. Louisiana	288	3,255	3,929	3,511	5,786	0	398	5,388	0	0
Kennesaw State U.	289	2,275	5,740	3,073	5,744	172	5,572	0	0	0
Alabama A&M U.	290	7,546	5,142	5,412	5,654	380	1,800	3,333	141	0
U. North Carolina, Charlotte	291	5,534	4,512	4,701	5,643	0	3,805	1,838	0	0
California State U., Northridge	292	10,053	6,822	4,020	5,528	0	4,439	0	0	1,089
U. Maryland, Eastern Shore	293	721	2,572	4,310	5,437	4,453	616	347	21	0
U. Denver	294	4,388	4,889	5,347	5,422	0	5,332	0	90	0
Clark Atlanta U.	295	6,360	6,017	6,614	5,400	0	5,400	0	0	0
Jackson State U.	296	1,902	2,129	3,183	5,257	0	750	4,507	0	0

TABLE 42

## Higher education R&amp;D expenditures in the life sciences, ranked by all FY 2022 life sciences: FYs 2019–22 and by subfield for FY 2022

(Dollars in thousands)

Institution	Rank	2019	2020	2021	2022					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
Saint Joseph's U.	297	477	761	547	5,199	0	1,608	3,591	0	0
Texas A&M U.-Corpus Christi	298	5,669	6,975	5,422	5,184	341	3,998	92	470	283
U. Central del Caribe	299	3,953	3,931	3,831	5,053	0	0	5,053	0	0
U. Hawaii, Hilo	300	4,212	4,149	4,525	4,995	2,700	560	1,018	359	358
Memorial Sloan Kettering Cancer Center, Louis V. Gerstner Jr. Graduate S. of Biomedical Sciences	301	3,769	3,737	3,776	4,954	0	4,954	0	0	0
Middle Tennessee State U.	302	1,679	2,029	4,048	4,950	1,430	2,188	734	331	267
California State U., Fresno	303	4,404	4,306	4,197	4,894	2,925	709	1,117	0	143
Ball State U.	304	2,880	2,738	2,674	4,876	0	1,644	3,086	146	0
California State U., Long Beach	305	5,335	4,816	3,700	4,858	0	1,834	3,023	1	0
MGH Institute of Health Professions	306	3,494	3,014	2,500	4,628	0	2,428	2,200	0	0
SUNY, C. of Optometry	307	2,968	3,477	3,460	4,497	0	0	4,497	0	0
CUNY, Advanced Science Research Center	308	3,935	4,679	5,261	4,493	0	3,752	0	741	0
Illinois State U.	309	3,688	3,183	4,364	4,488	84	3,513	758	0	133
U. Detroit Mercy	310	4,796	4,337	4,096	4,455	0	3,838	617	0	0
James Madison U.	311	1,146	1,844	3,372	4,434	12	2,228	2,138	56	0
U. of Health Sciences and Pharmacy in St. Louis	312	ne	4,835	5,313	4,271	0	0	4,271	0	0
U. Wisconsin-Superior	313	2,219	2,026	2,338	4,213	0	0	0	4,213	0
Des Moines U.	314	1,406	3,637	4,192	4,128	0	3,573	363	0	192
Bowling Green State U.	315	1,268	1,766	3,158	4,077	478	1,515	1,368	716	0
California State U., Fullerton	316	2,843	2,440	2,507	4,038	81	2,598	1,345	14	0
California State Polytechnic U., Humboldt	317	7,570	7,291	5,303	4,020	174	606	99	2,993	148
Villanova U.	318	2,381	3,438	3,610	3,993	0	1,743	2,250	0	0
California State U., Monterey Bay	319	3,887	3,225	3,452	3,977	1,637	2,127	192	0	21
New York Institute of Technology	320	4,479	2,757	3,277	3,871	0	372	3,499	0	0
Montclair State U.	321	2,586	3,277	3,231	3,830	146	688	2,715	281	0
Pacific U.	322	5,294	3,852	3,186	3,813	0	454	3,019	36	304
Yeshiva U.	323	2,420	2,477	3,830	3,741	63	0	3,678	0	0
Clark U.	324	2,057	1,953	2,197	3,706	100	1,052	1,021	0	1,533
Louisiana Tech U.	325	2,565	2,510	2,242	3,703	1,089	1,249	1,365	0	0
Desert Research Institute	326	2,993	3,539	3,574	3,674	0	3,674	0	0	0
Worcester Polytechnic Institute	327	1,791	2,104	2,188	3,538	0	3,538	0	0	0
California State Polytechnic U., Pomona	328	2,983	2,656	3,557	3,501	1,748	1,753	0	0	0

TABLE 42

## Higher education R&amp;D expenditures in the life sciences, ranked by all FY 2022 life sciences: FYs 2019–22 and by subfield for FY 2022

(Dollars in thousands)

Institution	Rank	2019	2020	2021	2022					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
U. Puerto Rico, Rio Piedras	329	3,728	3,617	4,283	3,500	0	3,349	151	0	0
Tennessee Technological U.	330	2,025	2,306	2,510	3,456	427	1,709	304	1,007	9
Oregon Institute of Technology	331	1,940	1,741	2,894	3,404	0	1,925	919	560	0
U. Central Oklahoma	332	367	366	382	3,393	0	2,255	1,138	0	0
Sam Houston State U.	333	2,297	1,730	2,688	3,358	186	2,162	1,010	0	0
U. West Florida	334	1,511	2,081	2,192	3,311	0	2,741	310	0	260
U. Wisconsin-Stevens Point	335	3,903	4,317	3,716	3,144	599	119	2	2,424	0
William & Mary	336	2,775	2,694	2,669	3,112	0	2,449	35	626	2
Appalachian State U.	337	1,663	1,879	1,745	3,066	254	1,906	404	276	226
Texas Woman's U.	338	2,121	2,259	3,053	3,015	0	977	2,038	0	0
Colorado School of Mines	339	2,324	2,073	3,081	2,918	188	2,627	67	31	5
U. of the District of Columbia	340	2,600	2,157	3,054	2,810	2,618	0	0	0	192
Michigan Technological U.	341	4,323	3,804	2,621	2,804	18	1,963	823	0	0
U. Colorado Denver <sup>C</sup>	341	na	na	4,284	2,804	29	1,076	1,635	50	14
Southern Methodist U.	343	1,533	2,144	2,221	2,765	0	2,648	0	0	117
Winston-Salem State U.	344	650	2,400	3,530	2,711	0	542	2,169	0	0
Smith C.	345	2,368	1,783	1,462	2,701	0	2,567	133	1	0
U. Alabama, Huntsville	346	2,815	3,170	2,620	2,695	24	1,508	1,159	0	4
Reed C.	347	1,588	1,573	1,629	2,626	0	1,319	1,307	0	0
Northern Illinois U.	348	4,306	2,319	3,011	2,620	0	839	1,628	153	0
U. Massachusetts, Dartmouth	348	2,062	1,467	1,834	2,620	0	2,225	395	0	0
Florida Gulf Coast U.	350	153	760	2,209	2,606	9	179	1,945	473	0
California State U., East Bay	351	ne	1,103	1,093	2,587	878	340	1,349	0	20
U. Louisiana, Monroe	352	1,795	2,104	1,885	2,583	34	291	2,258	0	0
Western Kentucky U.	353	3,422	2,888	2,315	2,547	462	815	1,005	0	265
Alabama State U.	354	2,577	1,989	2,265	2,471	0	1,929	0	0	542
Murray State U.	355	3,136	2,475	3,108	2,449	98	2,351	0	0	0
U. Nebraska, Kearney	356	1,810	1,953	2,021	2,409	462	910	552	485	0
U. North Florida	356	1,373	1,388	1,647	2,409	0	1,451	937	21	0
Hobart and William Smith Colleges	358	1,335	1,563	1,664	2,357	0	298	0	2,059	0
U. Oklahoma, Tulsa	359	2,328	2,633	2,096	2,351	0	0	2,351	0	0
Loyola Marymount U.	360	542	591	819	2,308	0	2,001	171	3	133
Touro U., California	361	3,543	3,539	3,475	2,290	0	1,564	0	0	726

TABLE 42

## Higher education R&amp;D expenditures in the life sciences, ranked by all FY 2022 life sciences: FYs 2019–22 and by subfield for FY 2022

(Dollars in thousands)

Institution	Rank	2019	2020	2021	2022					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
Albany C. of Pharmacy and Health Sciences	362	3,381	3,765	3,687	2,276	0	2,001	275	0	0
Williams C.	363	720	686	703	2,275	0	2,275	0	0	0
U. Texas, Tyler	364	1,378	1,302	1,260	2,233	318	653	1,233	29	0
Hope C.	365	477	636	1,152	2,230	0	2,209	3	0	18
Eastern Michigan U.	366	2,322	3,498	2,811	2,225	0	791	1,219	212	3
Chicago State U.	367	52	ne	ne	2,223	0	2,223	0	0	0
St. John's U., New York	368	1,763	2,324	2,197	2,213	0	856	1,357	0	0
Salisbury U.	369	2,004	2,366	2,598	2,182	0	381	1,710	91	0
Northern Kentucky U.	370	623	1,007	1,939	2,148	0	561	1,576	11	0
Texas A&M U.-Commerce	371	1,040	924	587	2,119	646	18	70	0	1,385
Dine C.	372	1,074	347	ne	2,091	329	0	1,762	0	0
DePaul U.	373	479	465	573	2,088	0	865	785	46	392
Palmer C. of Chiropractic, Davenport	374	1,650	1,900	2,233	2,050	0	0	0	0	2,050
Pepperdine U.	375	358	623	564	2,022	0	1,884	96	0	42
Lake Superior State U.	376	ne	ne	ne	1,988	0	892	0	1,001	95
Western Illinois U.	377	1,413	1,914	2,346	1,917	1,887	30	0	0	0
New England C. of Optometry	378	1,223	1,150	1,978	1,868	0	0	1,868	0	0
Saginaw Valley State U.	379	1,381	1,229	1,282	1,845	0	0	1,845	0	0
Wesleyan U.	380	1,810	909	1,469	1,833	0	1,833	0	0	0
Towson U.	381	914	836	914	1,816	0	824	839	151	2
Stephen F. Austin State U.	382	1,992	1,848	2,042	1,773	1,620	60	81	0	12
Grand Valley State U.	383	1,338	1,914	1,833	1,765	1	507	1,253	0	4
Indiana U. Pennsylvania	384	1,474	1,251	1,890	1,747	0	1,677	70	0	0
Bates C.	385	845	1,247	1,783	1,743	0	1,521	0	0	222
Amherst C.	386	1,570	1,064	1,259	1,741	0	1,741	0	0	0
Gallaudet U.	387	1,311	1,239	1,159	1,682	0	577	1,105	0	0
Missouri State U.	388	1,646	1,812	2,109	1,673	377	634	3	496	163
SUNY, Polytechnic Institute	388	1,995	1,977	2,587	1,673	0	1,529	144	0	0
Hampton U.	390	1,777	1,745	1,685	1,659	0	1,056	603	0	0
Austin Peay State U.	391	912	1,333	1,404	1,657	0	35	6	1,347	269
Rochester Institute of Technology	391	903	1,238	1,551	1,657	0	1,657	0	0	0
U. North Carolina, Asheville	393	1,271	1,559	2,045	1,605	0	53	606	0	946
U. Akron	394	1,928	1,882	1,390	1,587	0	1,303	284	0	0

TABLE 42

## Higher education R&amp;D expenditures in the life sciences, ranked by all FY 2022 life sciences: FYs 2019–22 and by subfield for FY 2022

(Dollars in thousands)

Institution	Rank	2019	2020	2021	2022														
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec									
Framingham State U.	395	ne	2,060	2,132	i	1,586	i	0	i	1,070	i	516	i	0	i	0	i		
Marshall B. Ketchum U.	396	1,430	i	1,357	i	1,351	i	1,559	i	0	i	0	i	1,559	i	0	i	0	i
U. Wisconsin-Green Bay	397	1,173	i	1,114	i	1,065	i	1,543	i	0	i	477	i	1,066	i	0	i	0	i
South Carolina State U.	398	1,318		1,367	i	1,416	i	1,537	i	0	i	1,321	i	216	i	0	i	0	i
C. Charleston	399	1,366		1,128		1,370		1,536		157		904		121		231		123	
U. Arkansas, Little Rock	400	2,483		2,878		1,997		1,519		17		1,502		0		0		0	
C. New Jersey	401	ne		657		856		1,502		0		1,116		199		187		0	
Pennsylvania State U., Behrend	402	124		21		593		1,484		93		532		253		606		0	
Bowie State U.	403	122		414		96		1,462		0		319		1,143		0		0	
California State U., San Marcos	404	1,950		1,888		1,120		1,456		0		1,283		30		0		143	
Northeastern Illinois U.	405	1,325		1,122		1,111		1,447		20		335		1,092		0		0	
California State U., Chico	406	1,089		1,466		1,522		1,445		1,348		63		10		0		24	
Pennsylvania State U., Harrisburg	407	187		411		1,536		1,433		43		607		783		0		0	
Hawaii Pacific U.	408	1,265		1,248		1,211		1,431		833		526		72		0		0	
Black Hills State U.	409	847		824		806		1,421		0		1,391		0		30		0	
California State U., Channel Islands	410	942		901		1,001		1,401		0		1,143		22		236		0	
U. of the Pacific	411	1,187		982		870		1,392		0		1,160		232		0		0	
William Paterson U.	412	1,040		1,210		1,051		1,379		0		821		507		2		49	
U. Northern Colorado	413	1,679		1,239		1,263		1,368		0		925		297		0		146	
Clarkson U.	414	1,163		999		1,014		1,339		0		1,235		101		0		3	
West Virginia School of Osteopathic Medicine	415	ne		1,303		1,245		1,327		0		666		659		0		2	
Western Carolina U.	416	1,095		1,128		1,484		1,326		175		332		796		23		0	
Barnard C.	417	660		692		1,008		1,322		25		1,297		0		0		0	
U. Houston-Clear Lake	417	279		347		942		1,322		0		134		351		837		0	
Florida Institute of Technology	419	1,384		667		2,175		1,313		223		949		42		35		64	
Sul Ross State U.	420	1,578		1,595		1,654	i	1,303	i	403	i	505	i	254	i	141	i	0	i
Swarthmore C.	421	755		841		824		1,295		0		1,295		0		0		0	
Fisk U.	422	4,520		3,585		1,601		1,289		0		1,289		0		0		0	
Keck Graduate Institute	423	1,474	i	1,412	i	1,350	i	1,282		0		1,282		0		0		0	
Butler U.	424	ne		ne		ne		1,276		55		583		638		0		0	
Bowdoin C.	425	1,476		1,196		1,262		1,275		0		1,275		0		0		0	
Bryn Mawr C.	426	829		705		709		1,259		0		1,132		0		127		0	
Bucknell U.	427	608		743	i	674		1,255		0		1,238		0		0		17	

TABLE 42

## Higher education R&amp;D expenditures in the life sciences, ranked by all FY 2022 life sciences: FYs 2019–22 and by subfield for FY 2022

(Dollars in thousands)

Institution	Rank	2019	2020	2021	2022					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
California State U., San Bernardino	428	2,115	948	1,016	1,251	0	1,187	63	1	0
Northern Michigan U.	429	684	727	855	1,248	0	974	201	73	0
Stevens Institute of Technology	430	33	203	94	1,245	0	1,245	0	0	0
Kean U.	431	ne	183	56	1,234	43	976	138	61	16
Hofstra U.	432	472	575	1,062	1,232	6	709	292	225	0
California State U., Los Angeles	433	2,989 i	2,299	740	1,229	0	773	439	0	17
Colorado State U., Pueblo	434	1,693	1,703	1,845	1,214	0	1,115	0	99	0
Fordham U.	435	1,819	1,435	1,207	1,213	0	1,213	0	0	0
U. Central Arkansas	436	682	785	755	1,209	0	612	512	85	0
Tougaloo C.	437	1,444	1,741	1,733 i	1,207 i	0 i	1,207 i	0 i	0 i	0 i
Dillard U.	438	1,776	1,323	1,356	1,199	0	609	424	0	166
U. South Carolina, Aiken	439	625	962	657	1,165	0	1,008	157	0	0
California State U., Sacramento	440	1,324	1,328	1,446	1,154	0	452	324	378	0
Haverford C.	441	582 i	926 i	647 i	1,153 i	0 i	604 i	549 i	0 i	0 i
Purdue U., Northwest	442	615	988	974	1,120	0	47	1,073	0	0
SUNY, C. Brockport	442	846	1,197	680	1,120	0	39	26	1,055	0
American U.	444	1,854	1,886	1,148	1,117	0	661	0	0	456
Nevada State C.	445	ne	ne	ne	1,109	0	1,016	0	93	0
California State U., Stanislaus	446	910	1,169	1,232	1,094	0	1,004	90	0	0
CUNY, C. Staten Island	447	923	1,277	1,109	1,070	0	548	520	2	0
Embry-Riddle Aeronautical U.	448	92	17	0	1,064	0	26	1,020	0	18
West Chester U. Pennsylvania	449	1,598	1,072	815	1,055	0	437	618	0	0
Wellesley C.	450	1,515	1,455	1,554	1,033	0	1,033	0	0	0
Southeastern Louisiana U.	451	827	941	795	1,022	0	918	104	0	0
U. New Orleans	452	817	974	1,114	1,016	0	1,014	0	2	0
U. Tulsa	453	920	678	725	1,008	0	828	180	0	0
Franklin and Marshall C.	454	815	578	840	1,001	0	860	138	0	3
Southern Connecticut State U.	454	841	1,308	689	1,001	98	323	567	13	0
U. Tennessee, Chattanooga	456	853	1,036	878	994	0	835	159	0	0
U. of the Incarnate Word	457	836	962	1,369	972	0	303	146	0	523
U. San Francisco	458	456	308	398	970	0	640	307	19	4
Furman U.	459	412	873	348	968	0	375	75	0	518
Trinity C., Hartford	460	983	975	1,077	965	0	965	0	0	0

TABLE 42

## Higher education R&amp;D expenditures in the life sciences, ranked by all FY 2022 life sciences: FYs 2019–22 and by subfield for FY 2022

(Dollars in thousands)

Institution	Rank	2019	2020	2021	2022					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
CUNY, Baruch C.	461	396	250	785	933	0	904	0	0	29
Vassar C.	462	34	197	307	918	0	897	0	21	0
U. Wisconsin-La Crosse	463	807	851	681	897	0	813	18	0	66
U. Texas of the Permian Basin	464	ne	335	983	887	0	844	43	0	0
Naval Postgraduate School	465	1,939	1,655	1,537	872	86	0	456	0	330
Southern U. and A&M C., Baton Rouge	466	430	338	492	837	27	605	120	85	0
U. Richmond	467	937	765	766	835	0	835	0	0	0
Willamette U.	468	313	181	474	833	0	832	1	0	0
Colby C.	469	812	443	382	831	0	528	0	0	303
Roger Williams U.	469	314	189	543	831	81	695	7	47	1
East Stroudsburg U. Pennsylvania	471	ne	ne	ne	828	0	0	54	86	688
U. Dayton	472	818	632	544	823	0	225	446	135	17
Minnesota State U., Mankato	473	645	548	448	813	145	437	0	0	231
Fort Lewis C.	474	640	297	416	806	112	499	32	163	0
CUNY, Brooklyn C.	475	2,429 i	2,519	1,570	802	0	630	172	0	0
Elizabeth City State U.	475	ne	435	752	802	0	628	0	174	0
U. Southern Maine	477	893	880	830	801	418	180	24	179	0
Missouri U. of Science and Technology	478	922	971	555	797	141	652	0	4	0
Kenyon C.	479	569	534	ne	788	0	753	0	35	0
Davidson C.	480	525	322	595	787	0	769	18	0	0
Fayetteville State U.	481	1,236	1,483	960	784	0	56	728	0	0
U. Washington, Bothell	481	653	558	668	784	0	254	530	0	0
U. Puget Sound	483	ne	379	ne	778	0	707	22	0	49
SUNY, Buffalo State	484	645	929	780	767	0	767	0	0	0
Trinity U.	485	452	505	461	756	0	735	21	0	0
Sonoma State U.	486	ne	456	585	748	0	349	10	389	0
St. Edward's U.	487	2,210	1,620	1,445	734	50	390	0	294	0
Northland C.	488	ne	ne	628 i	719 i	0 i	688 i	0 i	31 i	0 i
Robert Morris U.	489	ne	ne	ne	704 i	0 i	292 i	412 i	0 i	0 i
Middlebury C.	490	317	615	1,017	692	0	692	0	0	0
Azusa Pacific U.	491	995	2,002	1,022	691	0	240	451	0	0
New Mexico Institute of Mining and Technology	491	395	260	290	691	0	691	0	0	0
Spelman C.	493	536	624	633	685	242	347	96	0	0

TABLE 42

## Higher education R&amp;D expenditures in the life sciences, ranked by all FY 2022 life sciences: FYs 2019–22 and by subfield for FY 2022

(Dollars in thousands)

Institution	Rank	2019	2020	2021	2022					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
Colgate U.	494	726	478	507	676	0	676	0	0	0
New School	495	23	324	197	675	0	2	0	673	0
CUNY, John Jay C. of Criminal Justice	496	254	92	48	666	0	9	8	0	649
Montana Technological U.	497	1,006	708	661	656	0	656	0	0	0
U. Puerto Rico, Mayaguez	498	2,526	1,881	1,729	654	168	405	0	12	69
Bentley U.	499	ne	ne	ne	652	0	0	652	0	0
Lafayette C.	500	118	94	94	649	0	649	0	0	0
U. Wisconsin-Oshkosh	501	732 i	736 i	740	640	0	617	23	0	0
Catholic U. of America	502	2,368	2,000	1,649	637	0	607	30	0	0
Rhode Island C.	503	592	808	1,157	634	0	611	23	0	0
Christopher Newport U.	504	584	644	536	625	0	625	0	0	0
Pace U.	505	913	1,166	644	607	0	225	364	0	18
Harvey Mudd C.	506	457	520	364	605	0	605	0	0	0
U. Wisconsin-Platteville	506	389 i	396 i	514 i	605 i	203 i	224 i	116 i	62 i	0 i
Western Washington U.	508	937	958	719	600	0	455	145	0	0
Occidental C.	509	739	368	503	577 i	98 i	312 i	106 i	61 i	0 i
Texas Christian U.	510	1,932	822	570	558	26	248	284	0	0
Indiana State U.	511	852	745	465	548	0	335	213	0	0
Lewis and Clark C.	512	584	651	288	545	0	541	4	0	0
Santa Clara U.	513	667	879	545	543	0	308	0	235	0
Saint John's U.	514	140 i	133 i	470 i	542 i	0 i	208 i	317 i	17 i	0 i
St. Catherine U.	515	ne	ne	ne	537	0	42	383	0	112
Drake U.	516	260	ne	503	536	0	62	302	172	0
Texas A&M International U.	517	3,569	333	216	531	0	173	305	53	0
Pittsburg State U.	518	393	360	293	526	0	254	0	272	0
Mount Holyoke C.	519	142	359	456	520	0	425	0	75	20
Sonoran U. Health Sciences	519	230	ne	ne	520 i	0 i	208 i	312 i	0 i	0 i
C. of Saint Benedict	521	157 i	149 i	450 i	519 i	0 i	205 i	299 i	15 i	0 i
Morehead State U.	522	697	299	802	517	0	315	0	202	0
Northwest Indian C.	523	104	365 i	435 i	504	0	0	504	0	0
Coastal Carolina U.	524	305	157	386	497	0	368	11	118	0
Calvin U.	525	519	381 i	430 i	479 i	0 i	381 i	89 i	9 i	0 i
U. Alaska, Southeast	525	676	574	788	479	7	310	0	162	0



TABLE 42

## Higher education R&amp;D expenditures in the life sciences, ranked by all FY 2022 life sciences: FYs 2019–22 and by subfield for FY 2022

(Dollars in thousands)

Institution	Rank	2019	2020	2021	2022					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
Connecticut C.	527	348	275	232	477	0	477	0	0	0
Western New England U.	528	ne	ne	ne	467	0	333	134	0	0
Seton Hall U.	529	810	138	607	463	0	463	0	0	0
U. Washington, Tacoma	529	597	164	281	463	0	276	0	33	154
Clafin U.	531	350	857	515	458	0	382	76	0	0
Morehouse C.	532	116	120	90	451	0	263	0	0	188
Central Washington U.	533	517	449	380	437	0	266	135	36	0
Albion C.	534	118	96	94	430	0	182	248	0	0
C. Wooster	535	509	257	363	429	29	400	0	0	0
CUNY, York C.	535	377	494	142	429	0	288	139	0	2
St. Cloud State U.	537	887	441	379	417	27	348	18	17	7
Eastern Washington U.	538	564	422	436	410	0	79	114	217	0
Augustana U.	539	483	ne	546	403	0	0	403	0	0
National Defense U.	540	0	200	400	400	0	400	0	0	0
Marymount U.	541	ne	ne	624	394	0	15	379	0	0
Utah Valley U.	542	ne	ne	ne	380	0	380	0	0	0
U. Colorado Colorado Springs	543	528	845	755	379	0	332	43	0	4
CUNY, Lehman C.	544	205	256	249	371	0	335	32	0	4
Winthrop U.	545	513	501	253	352	0	314	38	0	0
U. New Haven	546	91	40	190	350	0	101	114	135	0
Texas A&M U.-San Antonio	547	ne	ne	ne	348	0	137	59	152	0
Purdue U., Fort Wayne	548	680	488	255	343	0	343	0	0	0
Pomona C.	549	296	338	288	338	0	318	0	20	0
U. Northern Iowa	550	215	306	387	337	223	104	10	0	0
California State U., Dominguez Hills	551	244	144	140	335	0	286	41	0	8
Carleton C.	552	532	334	501	330	0	246	0	84	0
Skidmore C.	553	1,221	937	1,042	329	0	111	218	0	0
Whitman C.	554	464	427	ne	325	0	284	0	41	0
CUNY, New York City C. of Technology	555	631	496	362	304	0	298	0	6	0
Ithaca C.	556	ne	459	230	303	0	190	111	2	0
Youngstown State U.	557	100	101	42	292	0	254	32	0	6
Stockton U.	558	78	195	247	291	0	62	0	202	27
Elon U.	559	367	344	288	287	0	49	238	0	0

TABLE 42

## Higher education R&amp;D expenditures in the life sciences, ranked by all FY 2022 life sciences: FYs 2019–22 and by subfield for FY 2022

(Dollars in thousands)

Institution	Rank	2019	2020	2021	2022					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
U. of St. Thomas (MN)	560	471	514	182	286	0	286	0	0	0
Eastern Connecticut State U.	561	302	381	210	281	1	157	123	0	0
Seattle U.	561	248	156	33	281	8	200	73	0	0
Rutgers, State U. New Jersey, Camden	563	32	225	13	275	0	275	0	0	0
U. Ana G. Mendez, Gurabo	564	438	779	293	274	0	144	0	0	130
Claremont McKenna C.	565	338	400	274	272	0	272	0	0	0
Grinnell C.	565	363	487	423	272	0	272	0	0	0
Savannah State U.	567	320	234	268	255	0	6	155	0	94
U. North Carolina, general administration	568	311	222	534	250	0	250	0	0	0
Lamar U.	569	685	285	423	248	0	131	117	0	0
U.S. Air Force Academy	570	140	0	369	244	0	194	0	0	50
U. San Diego	571	357	217	111	233	3	169	59	0	2
Citadel Military C. South Carolina	572	ne	109	108	225	0	196	29	0	0
U. Charleston	573	ne	ne	ne	217	0	217	0	0	0
U. Michigan, Dearborn	573	313	382	226	217	0	99	118	0	0
New Mexico Highlands U.	575	ne	226	222	207	85	93	0	29	0
SUNY, Oswego	576	359	286	135	194	0	151	1	42	0
U. of Mary Washington	577	100	132	155	190	0	190	0	0	0
Abilene Christian U.	578	ne	ne	101	185	0	185	0	0	0
Monmouth U.	578	164	88	74	185	0	98	0	87	0
Northwestern State U. Louisiana	580	261	307	89	183	0	19	164	0	0
Plymouth State U.	581	ne	ne	ne	182	0	133	0	49	0
CUNY, system office	582	30	84	37	180	0	38	5	0	137
Troy U.	582	ne	290	250	180	0	41	8	115	16
California Lutheran U.	584	310	316	ne	171	0	171	0	0	0
Biola U.	585	146	150	157	170	0	170	0	0	0
U. North Georgia	586	286	91	122	169	24	26	13	106	0
Macalester C.	587	343	297	108	158	0	142	16	0	0
SUNY, Geneseo	588	233	131	108	152	0	152	0	0	0
Norfolk State U.	589	108	114	88	148	0	93	55	0	0
Johnson C. Smith U.	590	483	412	160	146	0	146	0	0	0
Union C., Schenectady	591	80	60	74	143	0	143	0	0	0
U. Wisconsin-Eau Claire	592	145	126	232	138	0	111	27	0	0

TABLE 42

**Higher education R&D expenditures in the life sciences, ranked by all FY 2022 life sciences: FYs 2019–22 and by subfield for FY 2022**

(Dollars in thousands)

Institution	Rank	2019	2020	2021	2022					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
U. Houston-Downtown	593	38	46	25	135	0	135	0	0	0
U.S. Military Academy	594	578	421	2,642	132	0	132	0	0	0
Colorado C.	595	307	156	260	128	0	128	0	0	0
Central Connecticut State U.	596	112	131	142	121	0	121	0	0	0
Hamilton C.	597	180	81	122	116	0	116	0	0	0
U. Virginia's C. Wise	597	ne	ne	125	116	4	0	112	0	0
SUNY, C. Plattsburgh	599	398	465	279	112	0	0	112	0	0
Virginia Military Institute	600	ne	ne	ne	83	0	83	0	0	0
U. Hartford	601	38	101	77	82	0	10	72	0	0
California State U., Bakersfield	602	316	245	197	75	29	46	0	0	0
Dakota State U.	603	7	48	80	65	65	0	0	0	0
Mercyhurst U.	604	65 i	58 i	48 i	40	0	7	10	23	0
Manhattan C.	605	91	66	49	37	0	37	0	0	0
U. Illinois, Springfield	606	8	5	6	33	0	1	31	1	0
U. Puerto Rico, Cayey	607	802 i	1,092	563	30	0	30	0	0	0
Alaska Pacific U.	608	221	38	29	20	20	0	0	0	0
Suffolk U.	609	ne	29	33	19	0	19	0	0	0
La Sierra U.	610	132	101	5	7	0	7	0	0	0
CUNY, Graduate Center	611	51	116	110	6	0	6	0	0	0
U. Puerto Rico, Humacao	612	295	255	111	1	0	1	0	0	0
All other surveyed institutions	-	620,363	566,392	32,251	0	0	0	0	0	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.

nec = not elsewhere classified.

<sup>a</sup> Johns Hopkins University includes the Applied Physics Laboratory (APL), with \$41,213 thousand in total R&D expenditures in life sciences in FY 2022. Total expenditures by field for Johns Hopkins University are flagged as imputed because APL was unable to distribute a portion of institutionally funded R&D by field.

<sup>b</sup> 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.

<sup>c</sup> 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.

<sup>d</sup> 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.

<sup>e</sup> 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 2022 are not listed in this table. Tied institutions are ranked alphabetically. Ranked institutions are geographically separate campuses headed by a campus-level president or chancellor. Some campuses are part of large, multi-campus universities; some are part of state university systems. For a complete list of campuses that belong to a larger university or system and their aggregate R&D expenditures, see table 6.

**Source(s):**

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