

TABLE 41

Higher education R&D expenditures in the life sciences, ranked by all FY 2019 life sciences: FYs 2016–19 and by subfield for FY 2019

(Dollars in thousands)

Institution	Rank	2016	2017	2018	2019					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
All institutions	-	40,853,687	43,093,254	45,603,136	48,230,138	3,428,585	15,386,607	27,274,318	837,959	1,302,669
U. California, San Francisco	1	1,237,736	1,346,383	1,532,722	1,529,156	0	2,267	1,526,889	0	0
U. Pennsylvania	2	942,243	1,022,472	1,070,969	1,125,634	926	743,835	301,611	0	79,262
Johns Hopkins U. ^a	3	904,527 i	954,186 i	991,451 i	1,053,401 i	0 i	326,327 i	727,074 i	0 i	0 i
Duke U.	4	888,830	950,245	971,355	1,018,199	0	237,097	749,965	9,051	22,086
U. Michigan, Ann Arbor	5	784,654	826,506	873,031	955,653	2,065	258,013	632,969	21,749	40,857
U. Washington, Seattle	6	832,215	891,558	954,565	954,062	319	257,677	655,372	25,301	15,393
U. Pittsburgh, Pittsburgh	7	747,123	789,050	863,086	935,756	0	294,582	641,144	0	30
U. California, Los Angeles	8	724,967	761,824	917,899	925,447	0	38,154	887,293	0	0
Yale U.	9	740,937	796,670	832,360	912,802	0	208,829	691,959	11,773	241
U. Texas M. D. Anderson Cancer Center	10	792,743	825,102	867,391	902,580	0	289,848	612,732	0	0
U. North Carolina, Chapel Hill	11	765,284	798,649	826,287	846,630	0	165,804	680,788	38	0
Stanford U.	12	700,514	745,123	780,090	837,068	0	189,727	614,159	3,933	29,249
U. California, San Diego	13	650,484	667,478	782,882	819,167	0	64,858	754,309	0	0
U. Wisconsin-Madison	14	654,896	707,668	740,883	814,119	74,783	261,715	472,274	626	4,721
Washington U., Saint Louis	15	661,793	672,672	731,083	796,337	0	354,062	442,275	0	0
Cornell U.	16	676,105	678,247	737,271	789,230	118,509	314,443	336,554	19,673	51
Columbia U. in the City of New York	17	570,751	608,053	673,535	727,779	0	196,254	524,495	3,793	3,237
Emory U.	18	559,020	609,481	650,154	727,296	0	187,084	524,939	0	15,273
Icahn School of Medicine at Mount Sinai	19	540,296	575,448	640,141	722,241	0	359,149	363,092	0	0
Harvard U.	20	599,596	633,462	656,790	704,460	0	536,371	137,745	3,435 i	26,909 i
U. Florida	21	561,894	589,755	656,347	689,605	182,978	143,488	342,498	20,221	420
U. Minnesota, Twin Cities	22	610,920	607,864	635,157	684,938	64,132	101,129	461,261	52,659	5,757
Baylor C. of Medicine	23	572,527	604,952	623,396	651,920	0	298,881	353,039	0	0
New York U.	24	598,566	633,746	609,745	630,246	0	250,281	377,195	0	2,770
Northwestern U.	25	481,869	515,893	555,160	604,875	0	141,523	446,421	2,242	14,689
U. Maryland ^b	26	na	na	na	601,632	62,507	152,853	378,537	2,678	5,057
U. California, Davis	27	525,165	540,861	588,300	593,628	153,739	224,044	215,845	0	0
Vanderbilt U. and Vanderbilt U. Medical Center	28	495,654	542,857	560,124	581,939	0	172,681	408,035	4	1,219
U. Southern California	29	422,781	471,334	579,028	568,194	0	140,622	408,849	0	18,723
Ohio State U.	30	473,816	503,648	506,398	550,461	50,853	76,202	406,318	11,731	5,357
U. Alabama, Birmingham	31	472,114	491,477	511,345	533,536	0	137,196	396,340	0	0
U. Colorado Denver and Anschutz Medical Campus	32	421,365	463,907	506,173	523,713	12	7,381	515,832	70	418

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U. Texas Southwestern Medical Center	33	442,666	461,797	474,260	496,697	0	177,357	310,308	0	9,032
Indiana U., Bloomington	34	344,005	364,265	401,303	470,583	0	116,176	341,217	0	13,190
Rutgers, State U. New Jersey, New Brunswick	35	364,978	446,329	478,476	447,552	55,587	91,356	294,976	0	5,633
U. Cincinnati	36	340,897	365,532	390,071	437,494	0	58,504	362,786	1	16,203
Scripps Research Institute	37	364,670	354,582	396,839	427,734	0	427,734	0	0	0
U. Arizona	38	323,076	348,497	399,790	426,393	51,474	200,691	161,471	12,754	3
Uniformed Services U. of the Health Sciences	39	237,851	286,621	298,517	406,726	0	1,512	405,214	0	0
Oregon Health and Science U.	40	301,894	317,049	359,721	403,495	0	150,395	177,687	0	75,413
U. Iowa	41	348,075	368,252	386,776	385,909	0	122,729	260,702	0	2,478
U. Virginia, Charlottesville	42	245,218	301,356	352,154	385,793	0	212,843	172,559	391	0
Case Western Reserve U.	43	346,525	348,315	371,604	377,671	0	77,957	284,229	0	15,485
Michigan State U.	44	292,851	323,754	340,065	353,934	136,723	119,653	65,910	15,462	16,186
Texas A&M U., College Station and Health Science Center	45	329,855	349,570	342,961	351,403	184,299	72,472	77,896	13,067	3,669
U. Utah	46	209,924	229,488	391,825	343,744	0	16,890	321,728	0	5,126
Boston U.	47	260,922	265,371	272,397	338,089	0	150,669	187,252	0	168
Rockefeller U.	48	316,356	329,655	334,048	332,899	0	318,581	14,318	0	0
U. Kentucky	49	250,625	275,761	294,776	314,547	62,898	178,030	73,619	0	0
U. Chicago	50	270,358	279,975	274,000	299,549	0	86,619	212,930	0	0
Albert Einstein C. of Medicine	51	289,660	289,685	297,328	298,824	0	0	298,824	0	0
Medical U. South Carolina	52	260,098	262,267	282,253	295,600	0	67,708	99,495	0	128,397
U. Georgia	53	253,828	285,274	262,237	294,353	100,006	140,018	50,860	53	3,416
U. Illinois, Chicago	54	243,697	277,145	269,169	289,366	0	74,126	207,754	7,486	0
U. Miami	55	262,779	271,203	274,934	284,045	0	67,787	210,762	1,403	4,093
U. Massachusetts, Medical School	56	253,099	279,884	274,211	281,507	0	134,842	92,702	0	53,963
U. Texas Health Science Center, Houston	57	237,016	246,060	258,411	271,525	0	55,055	114,095	0	102,375
U. California, Irvine	58	192,789	201,661	239,122	266,485	0	103,711	162,497	0	277
Pennsylvania State U., University Park and Hershey Medical Center	59	261,912	260,627	280,091	266,143	95,580	84,873	84,968	722	0
SUNY, U. Buffalo	60	232,401	241,186	244,106	249,349	0	82,365	164,551	0	2,433
U. Rochester	61	231,254	232,649	244,380	248,086	0	53,241	194,845	0	0
North Carolina State U.	62	227,500	234,319	231,243	244,235	111,537	120,567	0	0	12,131
U. California, Berkeley	63	212,963	224,599	234,055	239,459	5,966	104,849	61,002	67,642	0
Purdue U., West Lafayette	64	206,928	213,713	211,371	237,317	138,419	25,238	73,660	0	0

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Institution	Rank	2016	2017	2018	2019					
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Medical C. Wisconsin	65	199,925	209,618	222,767	236,978	0	77,916	159,062	0	0
Wake Forest U.	66	165,939	179,098	188,702	230,592	0	3,042	227,411	0	139
U. Illinois, Urbana-Champaign	67	202,597	199,917	206,379	222,994	59,210	66,393	25,462	71,929	0
Temple U.	68	186,222	202,822	206,129	218,527	194	47,651	95,903	0	74,779
U. Kansas	69	179,404	187,893	202,119	212,241	858	62,491	142,295	5,670	927
Colorado State U., Fort Collins	70	212,291	131,900	161,006	211,774	50,080	40,348	37,787	73,680	9,879
Washington State U.	71	185,075	187,072	188,496	205,564	105,278	42,051	54,571	1,676	1,988
U. South Florida, Tampa	72	306,387	349,420	207,171	200,585	0	115,159	83,200	0	2,226
Virginia Polytechnic Institute and State U.	73	221,801	198,911	198,326	198,424	73,691	46,123	49,883	26,604	2,123
Dartmouth C. and Dartmouth Hitchcock Medical Center	74	162,794	178,006	179,025	195,353	0	90,029	99,814	949	4,561
U. Nebraska, Medical Center	75	150,694	171,491	177,245	194,455	0	103,618	90,837	0	0
U. Missouri, Columbia	76	176,502	181,306	181,993	193,977	64,824	54,765	53,354	14,707	6,327
U. Texas Health Science Center, San Antonio	77	194,885	169,200	179,219	188,483	0	62,855	104,703	0	20,925
Wayne State U.	78	167,690	175,917	179,692	186,531	0	30,203	153,084	0	3,244
Virginia Commonwealth U.	79	167,768	167,275	181,220	185,744	0	50,240	121,490	0	14,014
George Washington U.	80	152,988	160,836	173,664	175,830	0	54,126	121,699	0	5
U. Texas Medical Branch	81	176,427	183,773	179,303	173,776	0	130,473	43,303	0	0
Thomas Jefferson U.	82	122,396	142,569	148,573	170,458	0	73,544	96,914	0	0
U. Connecticut	83	162,256	160,162	155,958	165,087	10,079	69,141	76,662	2,905	6,300
U. Nebraska, Lincoln	84	156,112	152,195	156,100	161,097	97,932	29,626	18,492	15,047	0
Louisiana State U., Baton Rouge	85	162,566	147,917	154,348	160,443	67,304	57,732	26,509	8,898	0
Georgetown U.	86	126,786	141,872	142,875	155,013	0	14,202	136,787	0	4,024
U. Arkansas for Medical Sciences	87	125,378	128,508	139,187	153,135	0	52,686	99,586	0	863
Tulane U.	88	126,733	137,828	151,823	152,554	0	30,686	36,399	384	85,085
Iowa State U.	89	159,880	143,406	151,654	149,764	58,811	56,405	26,137	8,411	0
U. Oklahoma, Norman and Health Science Center	90	140,303	145,939	140,602	148,621	0	37,322	107,128	0	4,171
U. New Mexico	91	144,397	149,828	161,209	148,618	18	30,297	113,308	4,400	595
Massachusetts Institute of Technology	92	124,982	129,735	138,075	143,017	2,114	82,262	19,499	891	38,251
Oregon State U.	93	128,013	131,061	135,466	136,589	75,734	34,305	8,154	17,872	524
U. Louisville	94	138,699	144,917	144,645	135,671	4	56,822	75,188	0	3,657
Kansas State U.	95	127,293	129,924	134,291	133,246	85,363	30,002	17,881	0	0
Brown U.	96	105,618	104,671	122,607	130,419	0	51,017	45,463	0	33,939

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U. Hawaii, Manoa	97	120,669	121,878	129,544	130,373	15,200	54,997	52,177	1,588	6,411
Cold Spring Harbor Laboratory	98	88,943	97,288	115,870	126,773	1,622	125,151	0	0	0
Mississippi State U.	99	115,691	118,441	112,967	118,479	95,384	6,814	1,535	14,508	238
SUNY, Stony Brook U.	100	92,464	99,548	106,832	117,953	0	60,050	57,903	0	0
U. Texas, Austin	101	78,582	94,334	119,249	117,716	83	58,063	56,232	1,467	1,871
Tufts U.	102	119,885	173,969	71,546	114,635	1,048	80,921	19,295	0	13,371
U. Vermont	103	93,995	96,175	107,706	111,873	13,453	46,795	48,324	3,215	86
Auburn U., Auburn	104	85,307	85,135	101,567	104,935	54,306	13,317	28,160	1,280	7,872
West Virginia U.	105	102,088	109,929	103,696	104,435	14,302	18,919	60,670	9,557	987
North Dakota State U.	106	103,685	103,145	100,736	104,204	73,697	3,364	17,936	9,207	0
U. Mississippi	107	72,498	83,983	91,251	103,882	0	33,394	60,209	0	10,279
SUNY, U. Albany	108	73,513	74,020	93,050	101,768	0	32,595	68,363	0	810
Arizona State U.	109	89,938	106,171	125,014	101,129	0	67,597	31,611	764	1,157
Augusta U.	110	71,304	99,383	98,925	96,123	0	36,815	56,610	0	2,698
Princeton U.	111	66,251	75,292	86,341	95,882	0	87,248	0	8,634	0
U. Tennessee, Health Science Center	112	70,805	72,682	78,204	95,852	0	18,079	74,555	0	3,218
Drexel U.	113	72,577	81,990	96,074	93,762	0	41,484	49,628	2,650	0
Rush U.	114	69,286	70,846	86,277	93,701	0	18,302	75,399	0	0
U. California, Riverside	115	77,607	81,455	85,128	91,835	22,199	58,738	10,797	0	101
U. Arkansas, Fayetteville	116	82,829	84,423	88,589	89,593	70,041	6,498	11,026	2,003	25
California Institute of Technology	117	65,679	77,964	80,318	87,505	0	84,558	2,815	0	132
Oklahoma State U., Stillwater	118	90,083	71,053	80,716	76,701	37,016	19,934	9,576	10,175	0
U. Louisiana, Lafayette	119	30,582	40,408	62,543	73,146	1,647	16,539	51,140	0	3,820
Montana State U., Bozeman	120	48,622	65,910	65,459	72,765	40,178	19,659	11,971	302	655
U. Idaho	121	64,623	67,050	68,744	71,656	43,426	19,378	169	8,567	116
U. South Carolina, Columbia	122	112,848	99,356	77,248	70,689	0	13,120	52,099	5,470	0
Georgia State U.	123	54,393	75,634	76,083	70,211	592	48,140	11,424	0	10,055
U. Massachusetts, Amherst	124	83,957	74,257	66,052	67,652	10,311	24,678	19,940	8,213	4,510
U. Nevada, Reno	125	49,879	54,031	61,782	64,307	8,118	32,985	18,515	4,098	591
U. Tennessee, Knoxville, Institute of Agriculture	126	54,083	60,073	59,827	64,074	41,602	6,185	3,720	9,083	3,484
Clemson U.	127	46,900	53,479	57,408	62,391	24,150	25,381	5,822	33	7,005
U. Montana, Missoula	128	44,638	57,185	54,418	61,959	311	20,283	24,465	16,900	0
Van Andel Research Institute	129	40,040	44,578	55,171	61,738	0	61,738	0	0	0

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Utah State U.	130	61,078	57,750	59,473	61,698	38,695	5,064	1,737	16,202	0
Florida State U.	131	37,909	47,724	54,515	61,515	207	24,383	32,890	2,221	1,814
U. Delaware	132	59,725	62,222	55,454	60,535	29,062	4,551	26,922	0	0
Saint Louis U.	133	35,925	48,824	50,538	54,582	0	25,209	29,373	0	0
South Dakota State U.	134	42,500	46,219	49,014	53,751	35,585	3,648	4,896	4,070	5,552
U. California, Office of the President	135	22,793	26,556	38,811	53,460	2,552	0	50,092	0	816
Texas Tech U.	136	41,678	48,789	51,017	52,335	26,680	14,796	6,365	4,494	0
U. Colorado Boulder	137	29,536	37,296	41,637	51,990	342	41,686	5,714	497	3,751
Florida International U.	138	39,780	46,662	46,906	51,676	62	33,053	16,019	2,542	0
U. New Hampshire	139	44,280	46,616	49,115	50,431	15,181	12,981	14,712	7,241	316
U. North Texas, Health Science Center	140	50,567	48,476	49,029	49,099	0	20,989	28,110	0	0
Cleveland State U.	141	46,418	50,247	52,257	47,567	0	40,075	6,578	0	914
U. Puerto Rico, Medical Sciences Campus	142	46,232	42,423	41,216	44,985	0	0	44,985	0	0
Texas Tech U., Health Sciences Center	143	38,717	38,657	36,784	42,959	0	20,207	22,752	0	0
U. Wyoming	144	46,064	46,842	41,272	41,934	10,856	13,913	4,206	12,959	0
Louisiana State U., Health Sciences Center, New Orleans	145	43,067	40,310	38,989	40,914	0	18,839	20,974	0	1,101
New Mexico State U.	146	39,139	35,258	37,074	40,821	31,352	7,688	628	49	1,104
U. South Alabama	147	33,736	31,113	31,779	40,597	0	403	13,406	0	26,788
U. Houston	148	28,866	31,631	33,476	39,727	22	12,863	20,004	131	6,707
U. Maine	149	26,079	35,527	36,865	38,713	18,217	10,759	417	9,320	0
SUNY, Upstate Medical U.	150	31,892	35,551	36,674	38,091	0	15,003	22,363	0	725
Northern Arizona U.	151	23,649	32,258	31,974	36,245	2,275	26,194	2,807	4,301	668
SUNY, Downstate Medical Center	152	33,735	31,873	34,661	36,015	0	35,422	593	0	0
U. Texas, Dallas	153	23,869	30,484	31,871	35,971	0	3,900	31,036	0	1,035
East Carolina U.	154	20,731	20,221	26,176	35,936	0	3,075	32,861	0	0
U. Oregon	155	32,078	33,718	36,242	35,644	0	34,751	115	778	0
U. California, Santa Barbara	156	29,415	35,439	37,682	34,842	0	27,718	0	7,124	0
U. Central Florida	157	23,499	24,620	26,706	34,043	0	13,148	17,034	1	3,860
Georgia Institute of Technology	158	23,915	22,394	35,690	33,854	3,831	24,989	4,846	0	188
Loyola U., Chicago	159	38,258	35,112	34,087	33,699	0	14,788	17,674	616	621
Southern Illinois U., Carbondale	160	40,786	36,848	38,104	32,432	10,750	4,686	16,778	184	34
U. Nevada, Las Vegas	161	15,916	17,404	22,193	31,434	32	10,027	20,056	162	1,157

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Morehouse School of Medicine	162	38,774	35,454	33,215	31,289	0	0	31,289	0	0
Northeastern U.	163	32,881	30,366	31,203	31,181	0	14,380	10,429	0	6,372
U. Texas, El Paso	164	27,388	27,585	27,452	30,643	0	20,446	7,504	1,457	1,236
U. North Dakota	165	14,007	31,523	30,647	28,781	0	16,722	12,059	0	0
San Diego State U.	166	32,682	29,409	28,003	28,629	0	12,720	15,226	683	0
New Jersey Institute of Technology	167	7,213	16,473	27,571	27,910	0	3,051	24,859	0	0
U. Toledo	168	23,360	23,303	23,752	27,889	109	5,834	20,923	229	794
U. Notre Dame	169	28,458	28,427	27,327	27,517	993	26,385	139	0	0
Eastern Virginia Medical School	170	32,550	28,671	30,010	27,064	0	8,746	18,318	0	0
SUNY, C. of Environmental Science and Forestry	171	20,665	22,681	23,433	26,495	2,982	10,119	0	13,332	62
U. California, Santa Cruz	172	23,177	25,493	25,002	26,486	2,724	23,762	0	0	0
U. Alaska, Fairbanks	173	26,194	28,705	30,257	26,416	14,651	7,064	2,751	1,860	90
Louisiana State U., Health Sciences Center, Shreveport	174	23,353	22,560	24,463	26,262	0	11,230	14,390	0	642
U. Texas Rio Grande Valley	175	18,089	18,141	15,776	25,619	883	4,472	17,789	238	2,237
Florida Atlantic U.	176	15,877	25,082	23,880	25,420	249	13,061	7,432	0	4,678
Howard U.	177	21,237	26,573	26,083	24,940	0	5,089	17,872	0	1,979
U. Rhode Island	178	23,299	22,192	24,101	24,563	2,546	13,997	2,944	0	5,076
Loma Linda U.	179	22,950	21,843	22,919	24,405	0	9,447	14,497	0	461
U. Tennessee, Knoxville	180	17,529	16,142	23,092	24,065	45	17,425	6,503	92	0
Albany Medical C.	181	20,166	20,443	21,187	23,028	0	16,236	6,792	0	0
U. Texas, San Antonio	182	13,205	17,353	16,720	22,455	0	20,972	1,483	0	0
Brandeis U.	183	25,824	30,140	24,400	22,063	0	22,063	0	0	0
Florida A&M U.	184	21,178	21,747	18,634	21,837	10,801	153	7,880	443	2,560
Indiana U.-Purdue U., Indianapolis	185	20,695	18,607	19,393	20,263	0	5,449	14,273	0	541
New York Medical C.	186	17,311	15,637	8,141	19,398	0	7,813	11,126	0	459
U. Minnesota, Duluth	187	19,978	19,522	19,392	19,286	0	1,182	1	18,103	0
U. South Dakota	188	13,453	16,539	18,390	18,568	0	16,612	1,631	0	325
Meharry Medical C.	189	14,768	16,782	16,980	18,286	0	18,286	0	0	0
U. Texas, Arlington	190	18,761	18,039	12,100	18,010	0	7,826	9,699	485	0
Northeast Ohio Medical U.	191	18,355	18,425	17,846	17,625	0	8,481	9,108	0	36
Creighton U.	192	17,707	18,227	14,925	17,527	0	7,033	10,406	88	0
North Carolina Agricultural and Technical State U.	193	17,970	18,980	17,349	16,756	13,060	1,085	0	2,611	0

TABLE 41

Higher education R&D expenditures in the life sciences, ranked by all FY 2019 life sciences: FYs 2016–19 and by subfield for FY 2019

(Dollars in thousands)

Institution	Rank	2016	2017	2018	2019					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
U. Texas Health Science Center, Tyler	194	11,799	16,292	15,451	16,538	1,687	14,851	0	0	0
Wright State U.	195	17,525	16,237	15,403	16,448	0	8,443	8,004	1	0
George Mason U.	196	18,620	18,574	17,982	16,438	69	9,520	6,467	333	49
Texas A&M U.-Kingsville	197	15,155	15,082	14,907	16,431	15,316	1,115	0	0	0
Rosalind Franklin U. of Medicine and Science	198	16,491	16,928	16,685	16,011	0	14,625	1,386	0	0
Portland State U.	199	10,548	11,670	13,266	15,844	111	2,702	9,112	3,515	404
Ohio U.	200	21,079	21,365	17,098	15,739	0	6,676	7,681	0	1,382
Marshall U.	201	13,674	13,445	16,410	15,738	0	4,753	10,844	0	141
Carnegie Mellon U.	202	11,817	13,125	12,376	15,366	774	12,103	1,191	0	1,298
Old Dominion U.	203	11,212	13,104	14,020	14,668	0	9,952	4,708	8	0
Nova Southeastern U.	204	9,130	12,411	13,414	14,236	0	0	14,236	0	0
Rice U.	205	13,400	13,593	14,193	13,966	0	13,966	0	0	0
Delaware State U.	206	11,451	11,479	11,406	13,791	6,823	6,582	265	1	120
Charles R. Drew U. of Medicine and Science	207	13,360	15,652	11,490	13,739	0	0	13,739	0	0
Boston C.	208	10,996	13,811	12,494	13,514	0	12,312	1,202	0	0
Marquette U.	209	8,917	9,875	10,388	13,155	92	7,863	4,461	0	739
San Francisco State U.	210	11,708	11,163	11,292	12,886	0	12,038	184	581	83
U. North Texas, Denton	211	10,034	9,274	10,703	12,644	213	10,319	1,866	0	246
U. Missouri, Kansas City	212	16,378	14,461	13,616	12,252	0	5,034	7,217	0	1
U. Nebraska, central administration	213	ne	ne	8,962	12,205	2,074	6,872	3,259	0	0
SUNY, Binghamton U.	214	7,170	12,731	14,340	12,165	0	4,529	7,085	109	442
Syracuse U.	215	8,450	11,722	10,721	12,095	223	7,738	3,253	881	0
Tennessee State U.	216	13,626	12,075	13,330	11,924	9,282	1,133	167	261	1,081
U. Maryland, Baltimore County	217	3,748	3,498	4,888	11,834	738	8,282	2,446	0	368
California Polytechnic State U., San Luis Obispo	218	5,942	6,773	6,326	11,743	7,016	1,227	2,891	609	0
Texas Tech U., Health Sciences Center, El Paso	219	16,674	15,526	12,145	11,649	0	2,793	8,856	0	0
Illinois Institute of Technology	220	8,654	10,723	11,310	11,618	1,207	8,645	1,696	0	70
Ponce Health Sciences U.	221	7,992	8,664	7,857	11,390	0	0	11,390	0	0
Texas State U.	222	7,093	7,461	10,089	11,304	349	6,761	1,957	0	2,237
Miami U.	223	7,412	6,604	8,597	11,143	48	6,078	4,422	0	595
Rowan U.	224	5,905	6,569	7,700	11,107	0	4,311	6,652	0	144
CUNY, Queens C.	225	10,691	9,545	10,167	10,992	0	1,052	0	0	9,940
U. California, Merced	226	5,307	6,353	7,725	10,943	0	8,620	2,323	0	0

TABLE 41

Higher education R&D expenditures in the life sciences, ranked by all FY 2019 life sciences: FYs 2016–19 and by subfield for FY 2019

(Dollars in thousands)

Institution	Rank	2016	2017	2018	2019					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
Rutgers, State U. New Jersey, Newark	227	9,925	12,005	9,789	10,800	0	10,800	0	0	0
East Tennessee State U.	228	6,779	8,069	9,373	10,721	0	7,316	3,405	0	0
U. Maryland Center for Environmental Science	229	2,734	6,945	9,772	10,614	1,083	2,402	0	6,621	508
U. Memphis	230	8,812	9,160	11,041	10,521	0	5,032	5,463	26	0
Southern Illinois U., Edwardsville	231	10,635	7,443	8,931	10,357	8,783	208	1,066	26	274
Midwestern U.	232	7,730	9,207	10,173	10,343	6	6,387	3,950	0	0
U. Southern Mississippi	233	7,695	7,699	10,079	10,316	0	7,545	2,771	0	0
Langston U.	234	10,743	10,548	10,417	10,287	8,768	1,264	255	0	0
California State U., Northridge	235	2,815	6,196	8,561	10,053	273	3,232	0	0	6,548
Boise State U.	236	7,764	9,022	8,838	9,858	516	7,701	955	686	0
U. of the Virgin Islands	237	20,951	10,557	10,251	9,712	3,728	0	143	23	5,818
U. Massachusetts, Boston	238	10,872	11,478	8,722	9,692	0	5,118	3,766	808	0
Duquesne U.	239	10,378	11,088	10,603	9,595	0	3,645	5,950	0	0
Brigham Young U., Provo	240	10,704	10,858	10,262	9,121	2,583	5,135	1,354	0	49
U. Guam	241	4,558	5,994	8,303	8,964	2,405	208	2,145	4,206	0
U. Alaska, Anchorage	242	6,412	7,514	7,822	8,863	482	4,874	1,268	0	2,239
U. Massachusetts, Lowell	243	14,861	13,892	9,600	8,730	0	5,331	2,942	457	0
Alcorn State U.	244	5,452	10,484	8,877	8,664	8,141	0	86	437	0
U. Wisconsin-Milwaukee	245	8,248	7,690	7,828	8,637	0	2,772	5,839	26	0
Central Michigan U.	246	6,901	7,730	8,240	8,603	192	4,997	2,910	0	504
U. North Carolina, Greensboro	247	6,723	5,473	6,221	8,554	0	4,561	3,993	0	0
U. Alabama, Tuscaloosa	248	5,174	5,668	7,297	8,452	10	3,536	4,869	37	0
Tuskegee U.	249	9,308	9,308	7,564	8,427	5,756	2,230	0	0	441
North Carolina Central U.	250	6,021	6,468	6,916	8,401	0	7,314	1,087	0	0
Kent State U.	251	3,911	5,771	5,611	8,388	0	5,919	2,281	93	95
Mercer U.	252	5,440	5,172	8,058	8,298	0	239	5,294	0	2,765
Kentucky State U.	253	6,842	7,654	8,606	8,139	8,042	0	0	97	0
Prairie View A&M U.	254	8,193	8,106	7,755	8,105	7,851	193	0	61	0
CUNY, City C.	255	11,623	9,906	9,336	8,010	0	3,655	4,355	0	0
CUNY, Graduate School of Public Health and Health Policy	256	na	na	7,290	7,882	0	413	7,388	0	81
U. Arkansas, Pine Bluff	257	6,838	6,946	7,033	7,878	7,621	174	0	0	83
U. North Carolina, Wilmington	258	6,678	6,682	6,991	7,782	1,850	5,604	159	169	0

TABLE 41

Higher education R&D expenditures in the life sciences, ranked by all FY 2019 life sciences: FYs 2016–19 and by subfield for FY 2019

(Dollars in thousands)

Institution	Rank	2016	2017	2018	2019					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
Humboldt State U.	259	5,476	5,019	7,549	7,570	178	1,059	396	5,805	132
Alabama A&M U.	260	14,744 i	12,345 i	9,946 i	7,546 i	737 i	2,231 i	4,390 i	188 i	0 i
CUNY, Hunter C.	261	13,355	9,123	6,221	7,408	0	7,166	242	0	0
Edward Via C. of Osteopathic Medicine	262	5,692	8,119	7,601	7,225	0	0	7,225	0	0
Chapman U.	263	2,590	4,204	5,505	7,139	147	4,414	2,578	0	0
Oakland U.	264	6,337	5,823	5,376	7,041	0	3,678	1,805	0	1,558
Virginia State U.	265	4,928	5,807	6,820	6,886	6,814	15	9	0	48
Arkansas State U., Jonesboro	266	5,595	5,227	6,184	6,659	1,983	4,648	28	0	0
Tarleton State U.	267	5,718	6,081	6,262	6,594	6,409	9	115	61	0
Clark Atlanta U.	268	6,206	5,536	6,172	6,360	0	6,360	0	0	0
U. Missouri, Saint Louis	269	5,099	4,345	4,163	6,262	1	1,663	4,192	406	0
U. New England	270	6,297	6,248	5,530	5,864	5	3,909	1,870	80	0
Texas A&M U.-Corpus Christi	271	2,673	3,163	4,650	5,669	34	5,218	33	143	241
Baylor U.	272	4,522	5,503	5,839	5,641	64	2,938	2,127	512	0
U. North Carolina, Charlotte	273	2,861	3,451	4,314	5,534	0	3,110	2,424	0	0
Western Michigan U. and Homer Stryker M.D. School of Medicine	274	2,649	6,736	5,854	5,488	0	4,532	929	27	0
Southern U. and A&M C., Agricultural Research and Extension Center	275	4,704	5,000 i	5,296	5,448	4,014	489	418	527	0
West Virginia State U.	276	4,823	5,762	5,748	5,424	3,090	1,562	113	461	198
Rensselaer Polytechnic Institute	277	4,093	5,448	5,431	5,384	0	5,384	0	0	0
California State U., Long Beach	278	3,208	3,130	5,238	5,335	0	2,389	2,873	0	73
Pacific U.	279	896	3,747	3,124	5,294	15	259	4,463	554	3
Oklahoma State U., Center for Health Sciences	280	1,102	1,191	2,497	4,815	0	425	4,390	0	0
U. Detroit Mercy	281	3,142	2,418	4,353	4,796	0	4,729	67	0	0
Teachers C., Columbia U.	282	2,225	1,959	3,554	4,651	0	0	0	0	4,651
Long Island U.	283	460	1,499	1,648	4,561	0	25	4,536	0	0
Fisk U.	284	4,205	845	2,162	4,520	0	4,520	0	0	0
New York Institute of Technology	285	2,494	2,224	2,560	4,479	0	294	4,185	0	0
Lehigh U.	286	1,258	2,335	2,814	4,448	0	4,448	0	0	0
California State U., Fresno	287	4,944	4,331	4,719	4,404	3,686	614	104	0	0
U. Denver	288	2,179	2,836	3,838	4,388	0	4,137	0	251	0
Michigan Technological U.	289	3,405	3,947	3,788	4,323	0	2,654	1,460	209	0
Fort Valley State U.	290	4,877	5,085	3,593	4,321	4,136	185	0	0	0

TABLE 41

Higher education R&D expenditures in the life sciences, ranked by all FY 2019 life sciences: FYs 2016–19 and by subfield for FY 2019

(Dollars in thousands)

Institution	Rank	2016	2017	2018	2019					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
Northern Illinois U.	291	3,340	1,008	3,552	4,306	0	695	3,604	0	7
U. Hawaii, Hilo	292	9,728	5,546	4,753	4,212	1,463	1,754	746	111	138
Morgan State U.	293	4,689	4,505	4,027	4,197	139	3,643	6	0	409
Lincoln U., Jefferson City	294	4,850	4,497	3,709	4,089	2,822	252	0	125	890
U. Nebraska, Omaha	295	4,341	5,343	4,641	4,020	1	1,165	2,599	18	237
U. Central del Caribe	296	7,090	5,634	4,111	3,953	0	0	3,953	0	0
Western U. of Health Sciences	297	3,717	5,740	4,063	3,936	492	2,921	446	0	77
CUNY, Advanced Science Research Center	298	ne	698	1,709	3,935	23	3,130	0	782	0
Roseman U. of Health Sciences	299	3,433	4,167	3,973	3,916	0	0	3,916	0	0
California State U., Monterey Bay	300	3,480	3,490	3,668	3,887	1,501	2,116	262	0	8
Memorial Sloan Kettering Cancer Center, Louis V. Gerstner Jr. Graduate S. of Biomedical Sciences	301	3,177	3,285	3,502	3,769	0	3,624	145	0	0
U. Puerto Rico, Rio Piedras	302	4,216	3,705	2,841	3,728	0	3,657	71	0	0
Illinois State U.	303	1,961	2,275	2,682	3,688	50	2,992	646	0	0
Idaho State U.	304	4,880	4,051	4,054	3,638	0	2,198	1,237	0	203
Texas A&M International U.	305	903	2,244	3,150	3,569	12	64	3,439	54	0
Touro U.	306	3,466	3,122	3,233	3,543	0	2,557	0	0	986
MGH Institute of Health Professions	307	2,228	1,839	2,957	3,494	0	1,537	1,957	0	0
Kennesaw State U.	308	561	3,611	2,394	3,466	19	2,101	1,346	0	0
Western Kentucky U.	309	2,823	3,223	3,209	3,422	548	1,530	1,134	0	210
Albany C. of Pharmacy and Health Sciences	310	1,759	2,561	2,730	3,381	0	3,033	348	0	0
Xavier U. Louisiana	311	4,280	3,814	3,986	3,255	0	765	2,490	0	0
Philadelphia C. of Osteopathic Medicine	312	2,458	2,969	3,059	3,162	0	794	2,368	0	0
Murray State U.	313	1,740	1,975	2,368	3,136	88	3,048	0	0	0
U. of the Sciences Philadelphia	314	2,818	3,459	2,941	3,096	0	764	2,332	0	0
California State U., Los Angeles	315	958	869	1,794	3,023	0	2,402	621	0	0
Desert Research Institute	316	107	2,432	3,232	2,993	0	2,993	0	0	0
California State Polytechnic U., Pomona	317	3,326	3,182	3,700	2,983	1,381	1,602	0	0	0
SUNY, C. of Optometry	318	4,169	3,304	3,120	2,968	0	0	2,968	0	0
Central State U.	319	541	1,217	2,816	2,923	2,689	46	0	182	6
West Texas A&M U.	320	2,409	3,118	2,782	2,915	2,721	27	0	156	11
Ball State U.	321	2,166	2,572	2,615	2,880	0	1,569	1,232	79	0
Wichita State U.	322	884	1,339	1,918	2,850	0	2,793	57	0	0

TABLE 41

Higher education R&D expenditures in the life sciences, ranked by all FY 2019 life sciences: FYs 2016–19 and by subfield for FY 2019

(Dollars in thousands)

Institution	Rank	2016	2017	2018	2019					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
California State U., Fullerton	323	2,270	2,339	2,515	2,843	296	1,799	553	120	75
U. Alabama, Huntsville	324	2,004	1,864	2,528	2,815	0	1,928	887	0	0
William & Mary	325	2,417	2,365	3,463	2,775	778	1,997	0	0	0
Texas Southern U.	326	2,296	2,470	2,035	2,695	0	2,695	0	0	0
U. of the District of Columbia	327	2,294	1,872	1,804	2,600	2,538	0	0	0	62
Alabama State U.	328	2,372	2,253	2,434	2,577	0	1,860	0	0	717
Louisiana Tech U.	329	2,320	2,171	2,303	2,565	917	750	462	0	436
U. Puerto Rico, Mayaguez	330	3,198	2,725	2,027	2,526	1,301	1,225	0	0	0
U. Arkansas, Little Rock	331	2,023	2,295	1,647	2,483	0	2,380	80	23	0
Yeshiva U.	332	46,130	3,258	3,302	2,420	0	0	2,420	0	0
Villanova U.	333	2,341	2,524	1,756	2,381	0	1,780	601	0	0
Catholic U. of America	334	2,640	2,116	2,503	2,368	0	1,633	735	0	0
Smith C.	334	1,997	2,511	2,646	2,368	0	2,338	17	0	13
Georgia Southern U.	336	4,581	4,680	2,881	2,331	11	452	1,507	109	252
U. Oklahoma, Tulsa	337	1,925	1,626	2,409	2,328	0	0	2,325	0	3
Colorado School of Mines	338	0	3,033	2,282	2,324	288	1,948	88	0	0
Eastern Michigan U.	339	868	1,304	1,433	2,322	1	1,065	1,165	84	7
Sam Houston State U.	340	689	744	1,572	2,297	289	1,994	14	0	0
U. Wisconsin-Superior	341	ne	ne	2,984	2,219	0	97	0	2,122	0
St. Edward's U.	342	2,500	2,674	1,038	2,210	620	1,010	210	360	10
Texas Woman's U.	343	1,865	2,450	2,451	2,121	50	636	1,435	0	0
California State U., San Bernardino	344	1,987	2,123	1,898	2,115	509	1,549	57	0	0
U. Massachusetts, Dartmouth	345	2,537	2,217	2,304	2,062	0	1,956	106	0	0
Clark U.	346	1,041	739	1,225	2,057	711	1,288	0	13	45
Oregon Institute of Technology	347	1,268	189	59	2,031	0	930	908	0	193
Tennessee Technological U.	348	1,992	2,154	1,202	2,025	434	972	0	607	12
Salisbury U.	349	2,005	1,547	1,850	2,004	0	396	1,607	1	0
SUNY, Polytechnic Institute	350	3,986	3,218	2,260	1,995	0	1,995	0	0	0
Stephen F. Austin State U.	351	2,252	2,262	1,744	1,992	1,780	75	97	24	16
U. Wisconsin-Stevens Point	352	1,677	1,754	1,870	1,956	0	580	1,316	60	0
California State U., San Marcos	353	2,008	2,412	2,540	1,950	0	1,439	372	0	139
Naval Postgraduate School	354	250	518	1,313	1,939	0	1,800	55	0	84
Texas Christian U.	355	781	2,669	1,719	1,932	42	215	1,527	15	133

TABLE 41

Higher education R&D expenditures in the life sciences, ranked by all FY 2019 life sciences: FYs 2016–19 and by subfield for FY 2019

(Dollars in thousands)

Institution	Rank	2016	2017	2018	2019								
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec			
U. Akron	356	1,927	1,611	1,633	1,928	0	1,915	13	0	0			
Jackson State U.	357	3,642	3,549	2,140	1,902	0	1,021	881	0	0			
Montclair State U.	358	2,557	1,706	2,436	1,897	72	899	416	510	0			
American U.	359	2,645	2,314	1,703	1,854	0	1,225	0	0	629			
CUNY, Brooklyn C.	360	1,836	1,693	1,740	1,838	i	1,350	i	0	i	222	i	
Fordham U.	361	2,597	2,373	2,382	1,819	0	1,819	0	0	0	0		
U. Nebraska, Kearney	362	1,088	1,985	1,439	1,810	243	842	276	449	0	0		
Wesleyan U.	362	2,223	2,167	1,744	1,810	0	1,810	0	0	0	0		
U. Louisiana, Monroe	364	2,208	1,869	1,805	1,795	34	326	1,435	0	0	0		
Worcester Polytechnic Institute	365	1,214	1,873	2,049	1,791	0	1,791	0	0	0	0		
Hampton U.	366	1,053	2,095	1,290	1,777	0	794	983	0	0	0		
Dillard U.	367	7,046	4,529	4,889	1,776	0	1,270	506	0	0	0		
St. John's U., New York	368	982	1,117	2,057	1,763	0	837	926	0	0	0		
Colorado State U., Pueblo	369	ne	ne	ne	1,693	470	1,223	0	0	0	0		
Middle Tennessee State U.	370	1,377	2,065	1,597	1,679	640	1,005	34	0	0	0		
U. Northern Colorado	370	1,854	1,859	1,856	1,679	0	999	634	6	40	0		
Appalachian State U.	372	1,120	1,709	1,573	1,663	195	1,339	45	63	21	0		
Palmer C. of Chiropractic, Davenport	373	1,485	1,189	1,600	1,650	0	0	100	0	1,550	0		
Missouri State U.	374	1,483	1,226	1,468	1,646	602	442	3	597	2	0		
West Chester U. Pennsylvania	375	1,017	1,198	1,318	1,598	0	659	939	0	0	0		
Reed C.	376	1,770	803	1,754	1,588	0	1,588	0	0	0	0		
Sul Ross State U.	377	1,158	1,576	2,011	1,578	114	0	0	1,464	0	0		
Amherst C.	378	755	724	869	1,570	0	1,419	151	0	0	0		
Keck Graduate Institute	379	1,799	i	1,859	i	1,367	i	1,537	i	0	i	0	i
Southern Methodist U.	380	1,883	1,094	1,305	1,533	0	1,533	0	0	0	0		
Wellesley C.	381	1,291	862	1,099	1,515	0	1,330	0	133	52	0		
U. West Florida	382	1,984	2,531	2,129	1,511	0	1,337	88	0	86	0		
Bowdoin C.	383	1,511	1,344	1,473	1,476	0	1,206	270	0	0	0		
Indiana U. Pennsylvania	384	268	925	985	1,474	0	1,345	129	0	0	0		
Tougaloo C.	385	1,747	2,120	2,012	1,444	0	274	1,170	0	0	0		
Marshall B. Ketchum U.	386	1,491	i	1,512	i	1,451	i	1,430	i	0	i	0	i
Western Illinois U.	387	ne	910	1,214	1,413	177	1,195	0	39	2	0		
Des Moines U.	388	996	1,215	1,137	1,406	0	1,377	29	0	0	0		

TABLE 41

Higher education R&D expenditures in the life sciences, ranked by all FY 2019 life sciences: FYs 2016–19 and by subfield for FY 2019

(Dollars in thousands)

Institution	Rank	2016	2017	2018	2019					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
Florida Institute of Technology	389	2,884	3,880	1,360	1,384	0	1,384	0	0	0
Saginaw Valley State U.	390	163	539	998	1,381	20	63	1,296	0	2
U. Texas, Tyler	391	782	933	979	1,378	0	470	693	215	0
U. North Florida	392	716	1,137	1,347	1,373	0	741	632	0	0
C. Charleston	393	2,225	1,563	1,095	1,366	0	1,009	225	132	0
Grand Valley State U.	394	875	654	1,387	1,338	0	542	741	0	55
Hobart and William Smith Colleges	395	ne	392	ne	1,335	13	150	0	1,172	0
Northeastern Illinois U.	396	ne	380	1,343	1,325	0	328	997	0	0
California State U., Sacramento	397	1,102	1,072	1,368	1,324	0	682	356	286	0
South Carolina State U.	398	7,955 i	5,867	6,234 i	1,318	0	1,133	185	0	0
Mercyhurst U.	399	64	0 i	ne	1,315 i	0 i	532 i	783 i	0 i	0 i
Gallaudet U.	400	1,113	3,379	2,247	1,311	0	818	409	7	77
U. North Carolina, Asheville	401	534	1,014	1,713	1,271	0	505	515	222	29
Bowling Green State U.	402	1,591	1,257	1,146	1,268	294	696	109	169	0
Hawaii Pacific U.	403	1,544	1,327	1,354	1,265	700	560	5	0	0
National U. of Natural Medicine	404	ne	921	ne	1,245	0	0	1,245	0	0
Fayetteville State U.	405	1,202	909	1,354	1,236	0	328	368	150	390
U. South Florida, Saint Petersburg	406	578	830	1,459	1,233	0	426	308	499	0
New England C. of Optometry	407	980	ne	1,026	1,223	0	0	1,223	0	0
Skidmore C.	408	655	1,209	1,489	1,221	0	150	1,071	0	0
U. of the Pacific	409	1,258	871	1,267	1,187	0	803	381	0	3
U. Wisconsin-Green Bay	410	402 i	342 i	823 i	1,173 i	144 i	315 i	684 i	30 i	0 i
Clarkson U.	411	534	1,284	1,401	1,163	0	765	398	0	0
James Madison U.	412	847	822	1,130	1,146	2	771	295	78	0
Albany State U.	413	914	1,104	683	1,145	389	253	0	503	0
San Jose State U.	414	1,169	1,310	1,073	1,133	0	1,130	3	0	0
Western Carolina U.	415	600	502	550	1,095	116	358	621	0	0
California State U., Chico	416	1,193	808	1,169	1,089	759	310	1	0	19
Dine C.	417	ne	ne	1,238	1,074	310	4	734	20	6
Texas A&M U.-Commerce	418	594	1,514	1,140	1,040	688	265	87	0	0
William Paterson U.	418	382	425	926	1,040	0	442	598	0	0
Montana Technological U.	420	539	670	907	1,006	0	1,006	0	0	0
Azusa Pacific U.	421	2,671	2,291	2,685	995	0	259	736	0	0

TABLE 41

Higher education R&D expenditures in the life sciences, ranked by all FY 2019 life sciences: FYs 2016–19 and by subfield for FY 2019

(Dollars in thousands)

Institution	Rank	2016	2017	2018	2019					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
Trinity C., Hartford	422	586	591	529	983	0	777	0	0	206
Oberlin C.	423	196	297	447	971	0	949	22	0	0
U. Wisconsin-Oshkosh	424	ne	835	884	953	0	327	626	0	0
California State U., Channel Islands	425	946	807	889	942	0	779	6	157	0
U. Richmond	426	616	691	823	937	0	937	0	0	0
Western Washington U.	426	819	884	518	937	0	718	0	0	219
CUNY, C. Staten Island	428	283	1,087	1,163	923	0	295	628	0	0
U. Tulsa	429	553	648	662	920	0	785	135	0	0
Towson U.	430	579	761	710	914	76	626	212	0	0
Pace U.	431	875	795	905	913	0	532	366	7	8
Austin Peay State U.	432	434	590	826	912	60	705	3	116	28
California State U., Stanislaus	433	986	1,104	1,027	910	65	836	9	0	0
Rochester Institute of Technology	434	631	561	871	903	0	903	0	0	0
U. Southern Maine	435	524	1,243	1,223	893	628	143	0	122	0
St. Cloud State U.	436	806	1,211	1,048	887	0	833	36	10	8
Eastern Kentucky U.	437	1,047	638	769	885	6	774	105	0	0
CUNY, Medgar Evers C.	438	ne	928	898	883	0	876	1	6	0
Liberty U.	439	ne	ne	ne	867	0	861	6	0	0
American Samoa Community C.	440	793	ne	ne	860	860	0	0	0	0
Salus U.	441	1,641	1,566	1,286	854	0	425	429	0	0
U. Tennessee, Chattanooga	442	487	532	776	853	0	749	104	0	0
Indiana State U.	443	953	638	744	852	0	709	133	0	10
Black Hills State U.	444	924	602	504	847	0	818	29	0	0
SUNY, C. Brockport	445	1,050	986	1,132	846	141	263	26	416	0
Bates C.	446	947	765	622	845	0	792	0	30	23
Southern Connecticut State U.	447	36	237	598	841	68	98	672	3	0
U. of the Incarnate Word	448	ne	ne	315	836	0	197	520	0	119
Bryn Mawr C.	449	820	1,105	1,018	829	0	781	0	0	48
Southeastern Louisiana U.	450	973	1,103	774	827	0	689	138	0	0
U. Dayton	451	547	522	1,002	818	0	168	413	237	0
U. New Orleans	452	946	758	626	817	0	817	0	0	0
Franklin and Marshall C.	453	729	975	730	815	0	745	58	12	0
Colby C.	454	898	865	910	812	0	639	0	0	173

TABLE 41

Higher education R&D expenditures in the life sciences, ranked by all FY 2019 life sciences: FYs 2016–19 and by subfield for FY 2019

(Dollars in thousands)

Institution	Rank	2016	2017	2018	2019					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
Seton Hall U.	455	825	850	724	810	0	810	0	0	0
U. Wisconsin-La Crosse	456	1,213	1,178	1,321	807	0	703	8	0	96
U. Puerto Rico, Cayey	457	134	56	10	802	i 0	404	i 353	i 45	0
Saint Michael's C.	458	1,448	1,174	1,096	775	0	754	0	0	21
Swarthmore C.	459	597	691	648	755	0	755	0	0	0
Biola U.	460	648	i 672	i 701	i 748	i 0	i 308	i 440	i 0	i 0
Occidental C.	461	1,408	1,089	288	739	179	560	0	0	0
Colgate U.	462	637	709	737	726	0	726	0	0	0
U. Maryland, Eastern Shore	463	4,965	2,017	201	721	386	0	106	229	0
Williams C.	464	853	618	600	720	0	610	0	0	110
Morehead State U.	465	201	362	276	697	10	682	0	0	5
Lamar U.	466	213	288	381	685	0	122	563	0	0
Northern Michigan U.	467	323	255	611	684	0	364	320	0	0
U. Central Arkansas	468	825	973	986	682	0	412	270	0	0
Purdue U., Fort Wayne	469	2,606	2,119	2,355	680	0	665	15	0	0
U. Alaska, Southeast	470	249	508	819	676	91	368	84	133	0
New Jersey City U.	471	ne	394	805	675	0	675	0	0	0
Santa Clara U.	472	588	593	492	667	219	252	6	190	0
Barnard C.	473	427	451	701	660	21	602	0	0	37
U. Washington, Bothell	474	127	0	229	653	0	314	251	88	0
Winston-Salem State U.	475	595	866	884	650	0	449	201	0	0
Minnesota State U., Mankato	476	618	237	459	645	0	187	5	0	453
SUNY, Buffalo State	476	387	486	564	645	0	645	0	0	0
A. T. Still U.	478	2,873	782	ne	644	0	299	345	0	0
Fort Lewis C.	479	ne	ne	ne	640	0	289	0	0	351
CUNY, New York City C. of Technology	480	ne	ne	769	631	0	631	0	0	0
U. South Carolina, Aiken	481	176	1,052	934	625	105	0	0	0	520
Northern Kentucky U.	482	618	587	253	623	0	450	156	17	0
Purdue U., Northwest	483	na	793	775	615	0	52	563	0	0
Bucknell U.	484	954	i 1,028	i 1,103	608	0	608	0	0	0
Missouri U. of Science and Technology	485	321	596	956	601	0	600	1	0	0
U. Washington, Tacoma	486	158	120	331	597	0	24	10	563	0
Rhode Island C.	487	767	549	495	592	0	528	64	0	0

TABLE 41

Higher education R&D expenditures in the life sciences, ranked by all FY 2019 life sciences: FYs 2016–19 and by subfield for FY 2019

(Dollars in thousands)

Institution	Rank	2016	2017	2018	2019					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
Providence C.	488	733	572	606	589	0	589	0	0	0
Doane U.	489	ne	ne	652	585	0	585	0	0	0
Christopher Newport U.	490	596	281	428	584	0	584	0	0	0
Lewis and Clark C.	490	499	780	577	584	0	584	0	0	0
Haverford C.	492	773 i	812 i	754 i	582 i	0 i	582 i	0 i	0 i	0 i
U.S. Military Academy	493	328	671	720	578	0	430	148	0	0
Kenyon C.	494	ne	ne	574	569	0	569	0	0	0
Eastern Washington U.	495	1,040	946	662	564	0	66	14	281	203
Keene State C.	496	ne	167	ne	549	0	542	0	7	0
Loyola Marymount U.	497	1,329	1,153	300	542	0	488	13	0	41
Spelman C.	498	681	759	684	536	0	478	58	0	0
Carleton C.	499	128	140	339	532	0	532	0	0	0
U. Colorado Colorado Springs	500	363	466	634	528	0	510	18	0	0
Davidson C.	501	642	496	414	525	0	507	0	18	0
Calvin U.	502	586	380	471	519	0	503	16	0	0
Central Washington U.	503	492	670	613	517	0	517	0	0	0
Winthrop U.	504	397	368	386	513	0	254	259	0	0
C. Wooster	505	ne	378	400	509	26	483	0	0	0
Rhode Island School of Design	506	9 i	9 i	515 i	500 i	0 i	0 i	0 i	500 i	0 i
Augustana U.	507	ne	415	606	483	0	0	483	0	0
Johnson C. Smith U.	507	428	465	616	483	116	137	230	0	0
DePaul U.	509	429	773	783	479	0	332	27	19	101
Hope C.	510	403	428	708	477	0	477	0	0	0
Saint Joseph's U.	510	285	410	413	477	0	434	43	0	0
Hofstra U.	512	300	361	433	472	0	412	26	34	0
U. of St. Thomas (MN)	513	270	239	375	471	0	471	0	0	0
Whitman C.	514	ne	ne	ne	464	0	464	0	0	0
Harvey Mudd C.	515	177	279	298	457	0	457	0	0	0
U. San Francisco	516	302	406	492	456	0	88	321	31	16
Trinity U.	517	477	478	448	452	0	452	0	0	0
U. Ana G. Mendez, Gurabo	518	605	651	437	438	0	337	63	0	38
Gettysburg C.	519	ne	152	247	435	0	428	7	0	0
Southern U. and A&M C., Baton Rouge	520	266	381	357	430	156	210	10	54	0

TABLE 41

Higher education R&D expenditures in the life sciences, ranked by all FY 2019 life sciences: FYs 2016–19 and by subfield for FY 2019

(Dollars in thousands)

Institution	Rank	2016	2017	2018	2019					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
Furman U.	521	309	401	502	412	0	254	52	3	103
SUNY, C. Plattsburgh	522	56	186	735	398	0	0	306	0	92
CUNY, Baruch C.	523	116	202	381	396	0	357	0	39	0
New Mexico Institute of Mining and Technology	524	735	56	226	395	0	395	0	0	0
Pittsburg State U.	525	124	103	212	393	0	243	50	100	0
U. Wisconsin-Platteville	526	ne	380 i	ne	389 i	203 i	109 i	0 i	77 i	0 i
CUNY, York C.	527	ne	ne	ne	377	0	359	8	0	10
Fort Hays State U.	528	ne	ne	ne	371	0	370	1	0	0
Elon U.	529	296	337	397	367	0	79	268	0	20
U. Central Oklahoma	529	319	262	314	367	0	303	64	0	0
Grinnell C.	531	438	758	990	363	0	363	0	0	0
SUNY, Oswego	532	ne	294	393	359	0	354	5	0	0
Pepperdine U.	533	321	354	350	358	0	329	11	0	18
U. San Diego	534	204	392	417	357	0	106	219	0	32
Bethune-Cookman U.	535	ne	ne	810	354	0	163	94	97	0
Clafin U.	536	565	416	242	350	0	350	0	0	0
Connecticut C.	537	847	955	663	348	0	348	0	0	0
Macalester C.	538	328	378	290	343	0	343	0	0	0
Claremont McKenna C.	539	433	389	366	338	0	337	0	1	0
U. Massachusetts, central office	540	201	359	381	329	0	0	329	0	0
Savannah State U.	541	659	450	581	320	0	183	92	0	45
Middlebury C.	542	780	647	875	317	0	317	0	0	0
California State U., Bakersfield	543	358	616	430	316	0	295	21	0	0
Roger Williams U.	544	80	189	198	314	33	246	0	0	35
U. Michigan, Dearborn	545	158	178	403	313	18	152	143	0	0
Willamette U.	545	464	634	769	313	0	278	33	1	1
U. North Carolina, general administration	547	948	463	128	311	0	263	24	0	24
California Lutheran U.	548	ne	ne	ne	310	0	206	104	0	0
Colorado C.	549	408	319	220	307	0	117	0	190	0
Dickinson C.	549	112	281	ne	307	23	12	84	188	0
Coastal Carolina U.	551	0	206	278	305	0	305	0	0	0
Eastern Connecticut State U.	552	76	45	76	302	0	300	1	1	0
Pomona C.	553	837	548	341	296	0	296	0	0	0

TABLE 41

Higher education R&D expenditures in the life sciences, ranked by all FY 2019 life sciences: FYs 2016–19 and by subfield for FY 2019

(Dollars in thousands)

Institution	Rank	2016	2017	2018	2019					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
U. Puerto Rico, Humacao	554	ne	ne	233	295	0	284	0	11	0
St. Olaf C.	555	523	423	372	288	77	128	75	8	0
U. North Georgia	556	ne	1	120	286	0	52	128	106	0
U. Houston-Clear Lake	557	129	233	211	279	0	52	0	0	227
Northwestern State U. Louisiana	558	85	109	202	261	0	50	211	0	0
Drake U.	559	442	344	338	260	0	31	115	114	0
CUNY, John Jay C. of Criminal Justice	560	445	281	835	254	0	132	81	0	41
Seattle U.	561	438	397	349	248	0	248	0	0	0
California State U., Dominguez Hills	562	214	118	380	244	0	213	24	0	7
Emerson C.	563	334	375	1,024	241	0	0	227	14	0
SUNY, Geneseo	564	179	135	194	233	0	233	0	0	0
Southwest C. of Naturopathic Medicine and Health Sciences	565	ne	ne	ne	230	0	0	230	0	0
Alaska Pacific U.	566	80	54	115	221	49	24	0	22	126
Wheaton C., Wheaton	567	ne	124	107	216	0	5	211	0	0
U. Northern Iowa	568	347	227	256	215	152	63	0	0	0
Salish Kootenai C.	569	171	116	94	213	141	0	0	72	0
U. Michigan, Flint	569	ne	259	226	213	0	41	172	0	0
U. Ana G. Mendez, Cupey	571	48	193	189	209	0	110	0	0	99
CUNY, Lehman C.	572	1,019	1,036	1,145	205	205	0	0	0	0
Pennsylvania State U., Harrisburg	573	11	15	138	187	55	36	62	34	0
U. South Florida, Sarasota-Manatee	574	109	162	133	186	0	131	55	0	0
Hamilton C.	575	172	154	251	180	0	180	0	0	0
U. Portland	576	ne	ne	ne	179	0	76	6	0	97
Monmouth U.	577	79	ne	ne	164	0	56	0	93	15
Benedict C.	578	170	136	146	158	0	158	0	0	0
C. of Saint Benedict	579	162	191	159	157	i	122	15	0	20
Florida Gulf Coast U.	580	858	809	274	153	0	51	66	36	0
Fairfield U.	581	790	1,375	1,015	146	0	78	68	0	0
U. Wisconsin-Eau Claire	582	75	58	138	145	0	86	49	10	0
Mount Holyoke C.	583	856	822	71	142	0	142	0	0	0
Saint John's U., Collegeville	584	143	171	143	140	i	109	13	0	18
U.S. Air Force Academy	584	485	338	341	140	0	140	0	0	0

TABLE 41

Higher education R&D expenditures in the life sciences, ranked by all FY 2019 life sciences: FYs 2016–19 and by subfield for FY 2019

(Dollars in thousands)

Institution	Rank	2016	2017	2018	2019					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
La Sierra U.	586	277	96	64	132	0	132	0	0	0
Milwaukee School of Engineering	586	922	496	247	132	0	0	0	0	132
Pennsylvania State U., Behrend	588	694	139	120	124	0	75	0	49	0
Bowie State U.	589	318	164	75	122	0	122	0	0	0
Mills C.	590	9	22	0	121	2	0	0	17	102
Albion C.	591	ne	138	152	118	0	98	0	0	20
Lafayette C.	591	73	8	82	118	0	82	11	0	25
Morehouse C.	593	114	126	119	116	0	98	0	0	18
Jacksonville State U.	594	204	166	192	114	0	114	0	0	0
Central Connecticut State U.	595	79	76	ne	112	0	112	0	0	0
Alfred U.	596	8	20	18	108	98	10	0	0	0
Norfolk State U.	596	146	194	53	108	0	108	0	0	0
Northwest Indian C.	598	ne	ne	1,164	104	104	0	0	0	0
U. of Mary Washington	599	ne	ne	55	100	0	100	0	0	0
Youngstown State U.	599	79	94	34	100	0	69	31	0	0
Niagara U.	601	53	121	101	94	0	94	0	0	0
Bradley U.	602	81	93	111	92	0	89	3	0	0
Embry-Riddle Aeronautical U.	602	0	24	0	92	0	0	0	0	92
Manhattan C.	604	ne	ne	ne	91	0	82	0	0	9
U. New Haven	604	84	95	182	91	0	74	3	14	0
Union C., Schenectady	606	457	62	53	80	0	80	0	0	0
Stockton U.	607	42	ne	158	78	0	78	0	0	0
Rider U.	608	241	204	145	72	0	71	1	0	0
U. Minnesota, Morris	609	195	92	ne	53	0	40	0	13	0
Chicago State U.	610	910	ne	172	52	0	52	0	0	0
CUNY, Graduate Center	611	179	197	59	51	0	51	0	0	0
Florida Polytechnic U.	612	ne	ne	ne	50	0	50	0	0	0
Allegheny C.	613	17	24	32	39	0	24	3	0	12
U. Hartford	614	215	136	10	38	38	0	0	0	0
U. Houston-Downtown	614	87	135	75	38	1	37	0	0	0
Andrews U.	616	ne	ne	ne	35	3	10	0	0	22
Augsburg U.	617	33	30	67	34	0	34	0	0	0
Vassar C.	617	0	300	60	34	0	34	0	0	0

TABLE 41

Higher education R&D expenditures in the life sciences, ranked by all FY 2019 life sciences: FYs 2016–19 and by subfield for FY 2019

(Dollars in thousands)

Institution	Rank	2016	2017	2018	2019					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
Stevens Institute of Technology	619	257	97	83	33	0	0	0	0	33
Rutgers, State U. New Jersey, Camden	620	2,204	32	0	32	0	25	7	0	0
CUNY, system office	621	81	0	43	30	0	30	0	0	0
Kettering U.	622	36	32	19	26	0	26	0	0	0
New School	623	0	0	9	23	0	0	0	23	0
Heidelberg U.	624	1,230	1,199	369	15	10	5	0	0	0
U. Illinois, Springfield	625	46	20	28	8	0	0	4	4	0
Dakota State U.	626	41	13	10	7	3	0	0	4	0
All other surveyed institutions	-	508,316	533,376	561,431	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.

^a Johns Hopkins University includes the Applied Physics Laboratory (APL), with \$46,873 thousand in total R&D expenditures in life sciences in FY 2019. 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.

Note(s):

Institutions reporting zero expenditures in ranked total for FY 2019 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.