

TABLE 42

## Federally financed higher education R&amp;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	-	21,789,011	22,743,367	23,858,579	25,443,994	989,573	9,260,282	14,185,253	367,864	641,022
Johns Hopkins U. <sup>a</sup>	1	642,503	650,087	667,885	706,853	0	228,297	478,556	0	0
U. Washington, Seattle	2	606,984	632,917	672,737	664,192	0	152,127	486,924	13,468	11,673
U. California, San Francisco	3	570,616	570,478	634,003	632,556	0	750	631,806	0	0
U. Pittsburgh, Pittsburgh	4	487,976	522,710	558,941	585,348	0	189,292	396,027	0	29
U. Pennsylvania	5	526,677	540,710	555,651	582,252	150	390,906	153,088	0	38,108
Duke U.	6	452,815	497,621	515,536	568,773	0	189,808	355,135	5,576	18,254
U. Michigan, Ann Arbor	7	430,022	467,851	501,174	548,206	0	176,626	339,982	9,692	21,906
Columbia U. in the City of New York	8	400,867	435,032	488,041	539,940	0	158,280	379,363	1,413	884
Stanford U.	9	452,230	481,780	488,675	519,870	0	150,221	349,539	1,197	18,913
U. North Carolina, Chapel Hill	10	455,663	472,136	489,297	513,100	0	125,292	387,808	0	0
Yale U.	11	426,712	455,347	470,751	497,350	0	141,401	350,340	5,609	0
Washington U., Saint Louis	12	384,600	414,779	444,153	476,233	0	211,425	264,808	0	0
Icahn School of Medicine at Mount Sinai	13	342,104	367,522	398,656	443,745	0	198,767	244,978	0	0
Harvard U.	14	367,866	373,441	389,289	423,934	0	337,304	62,263	2,135	22,232
U. California, Los Angeles	15	326,881	328,895	392,520	417,741	0	24,564	393,177	0	0
U. California, San Diego	16	362,621	378,779	393,698	408,818	0	36,228	372,590	0	0
Emory U.	17	336,033	358,117	367,597	393,978	0	148,788	236,157	0	9,033
Vanderbilt U. and Vanderbilt U. Medical Center	18	316,307	370,386	382,263	391,543	0	102,998	287,597	4	944
U. Maryland <sup>b</sup>	19	na	na	na	377,610	28,732	104,187	237,875	2,289	4,527
Northwestern U.	20	300,832	317,695	339,676	370,062	0	92,458	270,784	668	6,152
U. Wisconsin-Madison	21	295,170	305,361	330,313	366,311	19,490	161,268	185,312	34	207
U. Alabama, Birmingham	22	303,853	308,882	319,449	345,887	0	99,731	246,156	0	0
U. Colorado Denver and Anschutz Medical Campus	23	284,043	300,551	318,122	338,009	12	1,071	336,438	70	418
New York U.	24	267,917	296,101	318,869	335,764	0	138,450	196,303	0	1,011
Cornell U.	25	255,773	259,662	278,645	321,219	33,439	146,718	137,876	3,186	0
Case Western Reserve U.	26	277,964	281,390	304,739	314,870	0	65,059	237,106	0	12,705
U. Minnesota, Twin Cities	27	308,898	289,172	290,484	312,158	16,638	55,639	225,592	10,176	4,113
Baylor C. of Medicine	28	267,849	292,806	300,098	309,354	0	171,688	137,666	0	0
U. Southern California	29	233,209	251,662	280,016	304,604	0	93,324	198,583	0	12,697
Uniformed Services U. of the Health Sciences	30	164,360	196,161	211,620	289,658	0	916	288,742	0	0
Ohio State U.	31	263,359	270,201	270,596	289,023	16,632	51,272	211,721	5,732	3,666
U. California, Davis	32	247,298	258,236	277,842	287,847	34,738	140,036	113,073	0	0

TABLE 42

## Federally financed higher education R&amp;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
Oregon Health and Science U.	33	210,927	223,779	255,794	287,578	0	122,388	134,016	0	31,174
Scripps Research Institute	34	242,489	250,090	267,088	267,122	0	267,122	0	0	0
U. Florida	35	206,442	223,811	247,852	261,847	41,031	70,530	143,967	6,215	104
Indiana U., Bloomington	36	158,091	173,986	185,135	235,383	0	79,405	154,864	0	1,114
U. Cincinnati	37	209,748	218,631	225,026	228,266	0	30,186	191,320	0	6,760
Boston U.	38	178,534	175,702	175,980	217,748	0	98,855	118,893	0	0
U. Chicago	39	194,166	194,758	188,680	212,983	0	66,862	146,121	0	0
Rutgers, State U. New Jersey, New Brunswick	40	193,097	219,679	238,865	205,955	27,297	52,365	122,619	0	3,674
U. Texas Southwestern Medical Center	41	185,263	200,085	197,910	203,544	0	75,227	128,317	0	0
Albert Einstein C. of Medicine	42	188,521	188,259	196,457	202,513	0	0	202,513	0	0
U. Massachusetts, Medical School	43	181,446	200,232	194,953	197,388	0	98,979	62,020	0	36,389
U. Iowa	44	184,707	184,184	186,334	192,564	0	73,711	118,355	0	498
U. Arizona	45	126,999	139,722	157,629	177,953	14,380	96,689	61,132	5,752	0
U. Rochester	46	163,470	160,836	171,199	172,698	0	43,634	129,064	0	0
U. Virginia, Charlottesville	47	128,868	139,653	154,913	167,585	0	118,802	48,783	0	0
U. Utah	48	141,553	151,578	213,459	164,525	0	10,592	151,742	0	2,191
Wake Forest U.	49	137,615	145,170	151,899	163,236	0	1,856	161,380	0	0
U. Illinois, Chicago	50	143,233	153,240	152,074	162,930	0	45,838	116,209	883	0
U. Miami	51	135,172	135,319	138,701	159,479	0	56,865	97,927	1,025	3,662
Michigan State U.	52	127,276	138,923	143,557	155,127	52,627	60,584	32,480	2,070	7,366
U. Texas M. D. Anderson Cancer Center	53	135,072	146,757	153,711	154,878	0	74,738	80,140	0	0
Medical U. South Carolina	54	124,212	134,072	142,639	153,226	0	51,154	43,635	0	58,437
U. Kentucky	55	105,798	120,508	124,665	146,907	13,561	92,761	40,585	0	0
Colorado State U., Fort Collins	56	146,445	78,952	101,725	144,035	18,884	25,346	24,560	66,838	8,407
Pennsylvania State U., University Park and Hershey Medical Center	57	140,548	134,317	131,739	134,964	37,503	51,335	46,064	62	0
U. Texas Health Science Center, Houston	58	121,098	124,461	128,232	132,647	0	38,689	51,093	0	42,865
U. California, Irvine	59	103,276	103,628	115,983	128,408	0	61,632	66,776	0	0
Texas A&M U., College Station and Health Science Center	60	97,188	106,590	112,702	127,756	42,001	46,051	29,277	8,435	1,992
Temple U.	61	106,186	112,783	110,881	122,159	194	34,253	63,267	0	24,445
U. California, Berkeley	62	104,332	108,037	112,538	115,309	155	57,666	33,036	24,452	0
U. Georgia	63	105,196	113,776	108,494	114,935	30,966	72,403	10,985	0	581
George Washington U.	64	108,081	109,968	117,015	114,065	0	35,141	78,924	0	0

TABLE 42

## Federally financed higher education R&amp;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
Medical C. Wisconsin	65	108,529	108,276	106,409	113,007	0	45,066	67,941	0	0
Dartmouth C. and Dartmouth Hitchcock Medical Center	66	102,709	99,646	100,337	110,949	0	48,255	60,631	602	1,461
U. Texas Medical Branch	67	98,815	103,732	103,263	107,395	0	79,850	27,545	0	0
U. South Florida, Tampa	68	141,743	157,613	103,580	105,807	0	85,703	20,003	0	101
U. Nebraska, Medical Center	69	76,221	84,814	93,463	102,604	0	70,813	31,791	0	0
U. Kansas	70	80,288	85,392	94,896	102,440	240	38,434	59,800	3,128	838
SUNY, U. Buffalo	71	107,002	105,530	102,258	102,425	0	42,370	58,617	0	1,438
Virginia Commonwealth U.	72	106,456	105,606	100,472	101,127	0	39,483	51,872	0	9,772
U. Illinois, Urbana-Champaign	73	79,454	84,273	81,037	97,918	19,709	39,824	8,907	29,478	0
U. New Mexico	74	96,701	99,280	107,957	96,789	14	25,369	68,059	2,796	551
U. Texas Health Science Center, San Antonio	75	89,742	85,455	86,956	96,502	0	42,261	54,241	0	0
Brown U.	76	69,141	76,256	89,486	94,797	0	37,878	34,347	0	22,572
U. Connecticut	77	90,592	90,872	84,253	94,232	3,289	46,453	43,145	1,345	0
Wayne State U.	78	87,759	88,338	88,216	92,845	0	18,330	74,502	0	13
Tulane U.	79	77,659	80,943	89,243	90,615	0	22,410	14,594	130	53,481
Washington State U.	80	73,917	82,888	78,651	86,617	26,750	25,006	34,114	131	616
U. Missouri, Columbia	81	78,151	82,164	80,938	85,391	14,064	41,183	23,483	6,661	0
Tufts U.	82	78,655	110,859	48,260	83,149	197	58,033	14,964	0	9,955
Rockefeller U.	83	76,187	81,732	82,864	81,326	0	75,507	5,819	0	0
Massachusetts Institute of Technology	84	68,350	75,247	80,693	80,200	71	44,519	14,181	0	21,429
Georgetown U.	85	71,609	79,254	74,985	77,391	0	10,309	64,256	0	2,826
Thomas Jefferson U.	86	58,866	62,029	64,869	74,816	0	42,959	31,857	0	0
U. Vermont	87	66,120	62,350	70,687	74,193	6,847	35,346	31,802	198	0
Cold Spring Harbor Laboratory	88	50,478	54,260	67,139	73,854	1,535	72,319	0	0	0
Purdue U., West Lafayette	89	69,056	71,258	74,981	73,576	36,973	12,048	24,555	0	0
U. Louisville	90	60,990	61,281	67,365	71,330	0	39,225	29,886	0	2,219
SUNY, U. Albany	91	52,571	53,211	65,947	71,179	0	19,522	51,657	0	0
U. Texas, Austin	92	52,666	56,797	71,862	70,469	35	39,470	29,182	453	1,329
North Carolina State U.	93	59,241	67,975	68,297	70,069	17,763	44,058	0	0	8,248
Oregon State U.	94	59,894	61,316	64,925	68,066	27,710	24,413	5,839	9,931	173
Virginia Polytechnic Institute and State U.	95	73,010	62,211	62,829	67,390	19,431	18,532	19,397	9,885	145
U. Oklahoma, Norman and Health Science Center	96	67,437	66,701	64,447	66,880	0	23,109	41,090	0	2,681

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Rush U.	97	46,345	48,442	61,445	66,527	0	17,357	49,170	0	0
U. Hawaii, Manoa	98	67,652	65,001	65,897	66,036	6,690	18,542	36,629	998	3,177
U. Arkansas for Medical Sciences	99	48,999	51,298	57,523	63,498	0	32,967	30,247	0	284
SUNY, Stony Brook U.	100	53,170	56,047	62,230	63,440	0	37,657	25,783	0	0
California Institute of Technology	101	44,444	52,373	54,071	60,735	0	60,603	0	0	132
U. Mississippi	102	51,451	49,446	51,426	57,460	0	26,331	29,781	0	1,348
Princeton U.	103	37,280	42,993	47,385	55,044	0	52,855	0	2,189	0
Iowa State U.	104	58,398	54,681	54,201	54,905	17,610	26,626	7,414	3,255	0
U. South Carolina, Columbia	105	50,430	51,715	48,945	53,489	0	10,225	39,967	3,297	0
Drexel U.	106	34,471	39,000	47,522	51,968	0	25,535	26,328	105	0
U. Nebraska, Lincoln	107	43,389	46,486	46,984	48,939	25,138	11,404	7,719	4,678	0
Louisiana State U., Baton Rouge	108	49,049	47,443	44,434	47,731	7,781	28,862	8,877	2,211	0
Arizona State U.	109	51,423	59,205	64,121	47,334	0	31,588	15,503	6	237
Augusta U.	110	50,260	48,869	48,749	46,970	0	24,358	22,378	0	234
Kansas State U.	111	43,163	47,445	47,740	46,819	23,652	13,583	9,584	0	0
U. Colorado Boulder	112	23,623	31,000	33,518	42,813	302	35,165	3,747	116	3,483
U. Tennessee, Health Science Center	113	38,346	39,073	38,895	42,347	0	14,535	27,654	0	158
U. Montana, Missoula	114	27,139	35,648	39,026	40,114	0	11,575	19,683	8,856	0
West Virginia U.	115	38,432	35,201	35,726	39,527	4,791	9,967	20,341	3,905	523
Cleveland State U.	116	38,221	41,832	44,887	38,942	0	35,061	3,819	0	62
U. Massachusetts, Amherst	117	34,643	34,509	34,641	36,775	5,090	14,835	12,576	4,245	29
Mississippi State U.	118	32,663	33,309	31,543	35,061	26,606	3,890	135	4,383	47
U. Puerto Rico, Medical Sciences Campus	119	33,348	29,869	30,597	34,541	0	0	34,541	0	0
Montana State U., Bozeman	120	23,256	26,881	27,955	33,739	11,038	14,355	8,195	151	0
Georgia State U.	121	21,937	32,818	34,958	33,247	54	23,302	9,780	0	111
U. California, Riverside	122	29,392	28,876	28,846	31,966	5,489	19,808	6,568	0	101
Florida State U.	123	17,872	20,198	25,178	31,905	65	13,487	17,293	527	533
Louisiana State U., Health Sciences Center, New Orleans	124	31,526	27,543	26,988	31,290	0	16,081	14,317	0	892
U. Nevada, Reno	125	26,204	28,310	30,829	31,278	3,172	17,099	9,170	1,348	489
U. Idaho	126	28,321	26,700	27,029	30,467	14,649	13,092	87	2,544	95
U. Delaware	127	31,371	32,768	26,620	30,421	8,129	3,234	19,058	0	0
Saint Louis U.	128	24,044	24,870	25,030	30,144	0	13,370	16,774	0	0

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U. Wyoming	129	30,280	28,555	23,848	29,891	7,174	11,223	2,900	8,594	0
U. Oregon	130	27,563	28,384	26,484	29,759	0	28,993	107	659	0
U. New Hampshire	131	26,067	27,437	32,492	27,400	4,461	8,470	9,133	5,336	0
Utah State U.	132	27,481	28,177	25,380	27,195	15,262	2,335	1,398	8,200	0
SUNY, Downstate Medical Center	133	25,941	22,496	26,302	26,914	0	26,744	170	0	0
U. North Texas, Health Science Center	134	27,163	26,368	27,188	26,489	0	8,378	18,111	0	0
U. Tennessee, Knoxville, Institute of Agriculture	135	12,047	20,341	20,541	25,245	11,316	4,066	1,306	5,073	3,484
Auburn U., Auburn	136	20,309	21,548	24,809	24,883	11,485	5,412	1,615	682	5,689
Northern Arizona U.	137	13,155	18,043	16,929	22,912	274	18,081	1,178	2,889	490
South Dakota State U.	138	19,571	18,512	18,857	22,888	11,450	1,901	1,947	2,400	5,190
Morehouse School of Medicine	139	28,678	28,792	24,326	22,461	0	0	22,461	0	0
SUNY, Upstate Medical U.	140	18,942	19,991	20,391	22,028	0	11,886	9,786	0	356
Florida International U.	141	19,789	21,264	21,098	21,908	54	16,837	3,190	1,827	0
U. Arkansas, Fayetteville	142	19,430	19,754	23,231	21,808	12,120	2,770	5,617	1,301	0
Loyola U., Chicago	143	23,542	21,028	19,379	20,625	0	10,413	9,742	470	0
Brandeis U.	144	22,475	23,702	19,117	19,823	0	19,823	0	0	0
New Jersey Institute of Technology	145	3,009	14,184	23,006	19,806	0	1,384	18,422	0	0
Eastern Virginia Medical School	146	21,459	21,209	21,356	19,408	0	6,015	13,393	0	0
Northeastern U.	147	18,362	18,037	18,944	18,983	0	10,474	4,454	0	4,055
U. Rhode Island	148	17,782	17,620	17,752	18,557	1,254	11,877	1,847	0	3,579
U. Houston	149	14,476	14,326	14,971	18,470	22	8,037	10,244	131	36
Florida A&M U.	150	17,455	17,628	15,164	18,275	8,343	97	6,874	418	2,543
Van Andel Research Institute	151	11,970	13,108	14,285	18,259	0	18,259	0	0	0
U. Louisiana, Lafayette	152	3,015	7,479	11,620	18,209	213	5,706	12,290	0	0
U. Maine	153	10,652	10,966	17,333	18,122	8,533	4,757	0	4,832	0
Clemson U.	154	11,685	18,867	17,577	18,084	6,713	8,049	1,387	0	1,935
North Dakota State U.	155	15,789	16,384	17,948	17,721	7,844	1,854	6,703	1,320	0
Oklahoma State U., Stillwater	156	20,185	17,804	18,207	17,380	5,061	7,680	1,248	3,391	0
Loma Linda U.	157	16,118	15,192	15,790	16,909	0	8,819	8,090	0	0
San Diego State U.	158	21,027	16,650	16,474	16,844	0	5,833	10,733	278	0
Meharry Medical C.	159	13,528	15,613	14,515	16,443	0	16,443	0	0	0
U. California, Santa Barbara	160	11,905	16,536	16,706	16,345	0	15,351	0	994	0
Howard U.	161	16,998	18,735	18,013	16,333	0	2,174	13,134	0	1,025

TABLE 42

## Federally financed higher education R&amp;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
New Mexico State U.	162	15,422	12,649	13,510	15,987	7,971	6,605	536	37	838
U. California, Santa Cruz	163	15,636	16,359	15,431	15,946	85	15,861	0	0	0
Georgia Institute of Technology	164	10,509	11,347	16,020	15,691	166	15,498	0	0	27
U. Texas, Dallas	165	6,825	8,237	10,606	13,916	0	2,314	11,546	0	56
U. North Dakota	166	10,086	14,068	14,405	13,647	0	7,707	5,940	0	0
U. Notre Dame	167	11,626	11,737	11,043	13,259	0	13,259	0	0	0
U. Toledo	168	12,806	10,584	11,602	13,213	82	2,867	9,880	229	155
U. Nevada, Las Vegas	169	7,710	9,530	13,165	12,545	32	6,140	6,120	117	136
Portland State U.	170	7,922	9,227	10,857	12,530	82	2,389	7,816	1,839	404
East Carolina U.	171	10,501	9,347	9,773	12,382	0	1,419	10,963	0	0
U. South Alabama	172	12,667	11,591	10,329	12,364	0	211	8,150	0	4,003
U. Texas, El Paso	173	12,263	12,990	12,056	12,223	0	9,607	1,958	658	0
Louisiana State U., Health Sciences Center, Shreveport	174	6,478	7,055	9,235	12,185	0	9,918	2,267	0	0
U. Texas, San Antonio	175	8,403	8,482	8,553	12,135	0	11,309	826	0	0
U. Nebraska, central administration	176	ne	ne	8,817	11,875	1,935	6,872	3,068	0	0
Albany Medical C.	177	10,714	11,040	10,243	11,827	0	11,220	607	0	0
U. Central Florida	178	8,893	9,870	11,036	11,466	0	8,324	2,848	0	294
Boston C.	179	8,366	11,429	10,440	11,274	0	10,395	879	0	0
Texas Tech U., Health Sciences Center	180	9,943	8,995	7,477	11,262	0	7,666	3,596	0	0
U. Tennessee, Knoxville	181	11,147	10,044	10,634	11,210	0	8,087	3,123	0	0
New York Medical C.	182	10,772	9,000	8,141	11,061	0	4,652	6,143	0	266
Charles R. Drew U. of Medicine and Science	183	12,089	14,461	10,198	10,427	0	0	10,427	0	0
U. Alaska, Fairbanks	184	14,832	17,239	14,540	10,218	3,075	4,540	2,517	86	0
Illinois Institute of Technology	185	7,337	9,356	9,514	10,066	1,147	8,004	847	0	68
Northeast Ohio Medical U.	186	9,128	9,994	9,634	10,029	0	6,336	3,673	0	20
Indiana U.-Purdue U., Indianapolis	187	8,853	7,260	8,368	9,805	0	4,190	5,579	0	36
Wright State U.	188	9,155	9,035	9,512	9,735	0	5,665	4,070	0	0
Carnegie Mellon U.	189	7,568	6,876	7,061	9,677	685	7,540	885	0	567
U. South Dakota	190	6,462	9,052	10,007	9,660	0	9,315	328	0	17
George Mason U.	191	10,678	11,814	11,332	9,658	60	6,580	2,767	230	21
Southern Illinois U., Carbondale	192	11,102	9,570	9,252	9,580	2,946	2,197	4,437	0	0
CUNY, Queens C.	193	9,384	8,129	8,502	9,569	0	831	0	0	8,738

TABLE 42

## Federally financed higher education R&amp;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 Atlantic U.	194	7,560	7,624	7,668	9,452	249	3,616	3,572	0	2,015
U. Maryland, Baltimore County	195	1,924	2,419	3,491	9,297	412	7,244	1,400	0	241
San Francisco State U.	196	6,560	7,745	7,900	8,950	0	8,627	94	146	83
Rosalind Franklin U. of Medicine and Science	197	8,284	8,794	9,203	8,765	0	8,135	630	0	0
U. Texas Rio Grande Valley	198	10,433	7,979	7,147	8,649	846	2,684	4,808	48	263
Marshall U.	199	8,326	7,854	7,953	8,481	0	2,263	6,218	0	0
Ponce Health Sciences U.	200	6,951	7,108	6,386	8,339	0	0	8,339	0	0
Rice U.	201	7,727	7,686	7,813	8,245	0	8,245	0	0	0
California State U., Northridge	202	1,594	4,700	6,478	8,190	273	2,346	0	0	5,571
Delaware State U.	203	7,706	8,126	6,946	8,139	3,414	4,555	170	0	0
U. of the Virgin Islands	204	20,951	9,333	9,146	8,079	2,669	0	143	23	5,244
North Carolina Central U.	205	5,309	5,484	6,581	8,027	0	7,084	943	0	0
U. Maryland Center for Environmental Science	206	2,365	4,556	6,873	8,003	506	1,702	0	5,681	114
North Carolina Agricultural and Technical State U.	207	7,966	9,141	7,924	7,118	3,829	1,048	0	2,241	0
East Tennessee State U.	208	5,051	5,329	5,827	7,011	0	5,555	1,456	0	0
Tennessee State U.	209	8,415	6,352	6,778	6,743	4,511	934	43	186	1,069
Tuskegee U.	210	4,648	4,648	4,648	6,703	4,984	1,719	0	0	0
SUNY, C. of Environmental Science and Forestry	211	6,827	6,350	5,771	6,664	919	2,591	0	3,154	0
U. Southern Mississippi	212	4,600	4,765	6,110	6,662	0	6,035	627	0	0
U. Missouri, Kansas City	213	9,859	8,229	6,419	6,617	0	3,037	3,580	0	0
Marquette U.	214	4,525	4,948	5,377	6,572	92	5,003	1,477	0	0
Boise State U.	215	5,111	6,149	5,847	6,384	405	4,907	670	402	0
U. Alaska, Anchorage	216	4,281	5,188	5,625	6,313	177	3,907	1,116	0	1,113
Langston U.	217	8,743	7,921	7,111	6,300	5,274	1,026	0	0	0
U. Guam	218	4,026	5,378	5,841	6,201	1,570	196	1,837	2,598	0
Texas Tech U.	219	5,215	5,756	5,172	6,199	2,181	2,663	597	758	0
Creighton U.	220	8,164	6,109	4,250	6,159	0	2,648	3,497	14	0
Rowan U.	221	3,351	4,192	5,347	6,069	0	3,160	2,909	0	0
Rutgers, State U. New Jersey, Newark	222	7,734	8,700	6,954	5,847	0	5,847	0	0	0
U. North Carolina, Greensboro	223	5,148	4,103	4,212	5,771	0	3,347	2,424	0	0
U. Texas Health Science Center, Tyler	224	3,757	5,792	5,395	5,626	1,687	3,939	0	0	0
U. Texas, Arlington	225	1,122	2,328	2,409	5,586	0	2,074	3,508	4	0
Prairie View A&M U.	226	5,575	5,492	4,968	5,363	5,117	185	0	61	0

TABLE 42

## Federally financed higher education R&amp;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
CUNY, City C.	227	8,999	7,511	6,990	5,293	0	2,864	2,429	0	0
Texas A&M U.-Kingsville	228	4,307	4,291	4,317	5,248	4,350	898	0	0	0
Syracuse U.	229	5,463	5,571	4,930	5,223	185	3,545	841	652	0
Miami U.	230	4,306	3,485	4,355	4,944	0	4,578	365	0	1
Central Michigan U.	231	3,310	3,774	4,921	4,898	98	3,754	1,046	0	0
Texas A&M U.-Corpus Christi	232	1,229	1,846	3,552	4,889	34	4,676	0	103	76
Alabama A&M U.	233	10,866 i	8,860 i	6,853 i	4,847 i	307 i	1,618 i	2,810 i	112 i	0 i
Alcorn State U.	234	4,215	5,803	4,915	4,833	4,360	0	81	392	0
U. Detroit Mercy	235	2,459	2,188	4,308	4,728	0	4,682	46	0	0
Nova Southeastern U.	236	3,022	3,649	3,540	4,725	0	0	4,725	0	0
U. Massachusetts, Boston	237	4,375	4,613	4,589	4,620	0	3,211	1,403	6	0
Ohio U.	238	4,151	4,668	3,725	4,619	0	2,113	2,215	0	291
Brigham Young U., Provo	239	8,075	6,078	4,321	4,516	1,274	2,742	482	0	18
U. Wisconsin-Milwaukee	240	3,150	2,503	3,311	4,503	0	1,832	2,671	0	0
Fisk U.	241	4,205	845	2,162	4,473	0	4,473	0	0	0
California State U., Long Beach	242	2,406	1,906	4,183	4,444	0	2,109	2,262	0	73
Kentucky State U.	243	4,930	4,885 i	5,099	4,398	4,301	0	0	97	0
Tarleton State U.	244	3,663	3,759	4,016	4,293	4,253	0	0	40	0
West Virginia State U.	245	3,803	4,585	4,629	4,282	2,165	1,446	80	411	180
Fort Valley State U.	246	4,590	4,797	3,382	4,228	4,066	162	0	0	0
U. New England	247	4,454	4,685	4,227	4,189	0	2,818	1,344	27	0
Virginia State U.	248	3,482	3,413	3,852	4,100	4,029	15	9	0	47
Chapman U.	249	1,317	1,784	2,507	4,091	0	2,504	1,587	0	0
U. Minnesota, Duluth	250	4,342	4,313	3,722	4,019	0	426	0	3,593	0
Old Dominion U.	251	4,185	5,648	5,535	4,018	0	1,929	2,081	8	0
U. Memphis	252	2,460	3,253	4,686	4,013	0	2,960	1,053	0	0
CUNY, Hunter C.	253	6,827	5,373	3,351	3,958	0	3,720	238	0	0
U. Arkansas, Pine Bluff	254	3,235	3,392	3,240	3,947	3,746	136	0	0	65
Morgan State U.	255	4,333	3,902	3,656	3,939	68	3,552	0	0	319
CUNY, Graduate School of Public Health and Health Policy	256	na	na	3,757	3,933	0	413	3,439	0	81
U. California, Merced	257	2,044	1,700	2,060	3,916	0	3,282	634	0	0
U. Massachusetts, Lowell	258	7,078	7,224	4,645	3,898	0	2,953	945	0	0

TABLE 42

## Federally financed higher education R&amp;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
Clark Atlanta U.	259	4,149	3,881	4,134	3,859	0	3,859	0	0	0
Lehigh U.	260	666	1,269	2,152	3,846	0	3,846	0	0	0
U. Missouri, Saint Louis	261	2,523	2,282	3,079	3,728	1	1,210	2,316	201	0
California Polytechnic State U., San Luis Obispo	262	2,821	3,168	3,225	3,672	617	658	2,207	190	0
Rensselaer Polytechnic Institute	263	2,256	2,812	2,903	3,609	0	3,609	0	0	0
U. North Carolina, Wilmington	264	2,064	2,546	2,532	3,558	769	2,656	108	25	0
U. Alabama, Tuscaloosa	265	2,298	2,104	2,807	3,525	0	1,911	1,589	25	0
MGH Institute of Health Professions	266	2,228	1,839	2,957	3,494	0	1,537	1,957	0	0
CUNY, Advanced Science Research Center	267	ne	488	1,231	3,452	23	2,749	0	680	0
Oakland U.	268	2,873	3,088	2,732	3,351	0	1,598	215	0	1,538
Arkansas State U., Jonesboro	269	2,830	2,349	3,126	3,346	1,237	2,109	0	0	0
Duquesne U.	270	3,859	4,025	3,954	3,265	0	1,176	2,089	0	0
U. Nebraska, Omaha	271	3,695	4,238	3,648	3,243	0	1,020	1,989	4	230
Kent State U.	272	1,352	1,441	1,752	3,094	0	2,895	110	0	89
Southern U. and A&M C., Agricultural Research and Extension Center	273	2,415	2,736	3,057	3,057	3,057	0	0	0	0
U. Hawaii, Hilo	274	8,283	4,202	3,364	2,996	813	1,437	591	22	133
U. North Texas, Denton	275	3,078	2,268	2,626	2,969	189	2,780	0	0	0
U. Puerto Rico, Rio Piedras	276	3,148	1,883	1,739	2,968	0	2,897	71	0	0
Illinois State U.	277	1,450	1,595	1,715	2,873	30	2,500	343	0	0
U. North Carolina, Charlotte	278	2,350	2,426	2,044	2,720	0	1,992	728	0	0
U. Central del Caribe	279	6,290	4,866	2,937	2,705	0	0	2,705	0	0
California State U., Monterey Bay	280	2,652	2,723	2,797	2,695	506	1,993	196	0	0
Texas State U.	281	2,657	2,302	2,257	2,579	296	1,230	457	0	596
Alabama State U.	282	2,372	2,253	2,434	2,577	0	1,860	0	0	717
Western U. of Health Sciences	283	2,299	2,714	2,562	2,573	430	2,102	41	0	0
SUNY, Binghamton U.	284	739	1,428	2,480	2,526	0	910	1,490	0	126
U. Denver	285	524	1,352	2,061	2,505	0	2,284	0	221	0
Wichita State U.	286	404	628	1,567	2,435	0	2,435	0	0	0
Pacific U.	287	299	1,505	1,257	2,366	13	15	2,338	0	0
Lincoln U., Jefferson City	288	3,977	3,481	2,118	2,319	1,434	252	0	64	569
California State U., Fullerton	289	1,824	1,969	2,053	2,270	296	1,519	336	44	75
Texas Tech U., Health Sciences Center, El Paso	290	2,953	2,329	2,489	2,238	0	841	1,397	0	0

TABLE 42

## Federally financed higher education R&amp;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., Los Angeles	291	904	847	1,794	2,205	0	1,715	490	0	0
Murray State U.	292	459	961	1,317	2,201	52	2,149	0	0	0
New York Institute of Technology	293	980	516	684	2,194	0	294	1,900	0	0
Catholic U. of America	294	2,374	1,925	2,277	2,174	0	1,633	541	0	0
St. Edward's U.	295	2,500	2,230	759	2,150	600	1,000	200	350	0
Baylor U.	296	854	1,041	1,717	2,096	58	867	1,098	73	0
Western Michigan U. and Homer Stryker M.D. School of Medicine	297	1,453	2,101	2,299	2,063	0	1,962	100	1	0
Naval Postgraduate School	298	135	369	1,244	1,939	0	1,800	55	0	84
Xavier U. Louisiana	299	2,744	2,405	2,606	1,890	0	710	1,180	0	0
Texas Southern U.	300	2,152	2,172	1,843	1,851	0	1,851	0	0	0
SUNY, C. of Optometry	301	2,487	2,073	1,944	1,823	0	0	1,823	0	0
Colorado School of Mines	302	0	2,339	1,721	1,799	288	1,423	88	0	0
Hampton U.	303	1,053	2,095	1,290	1,777	0	794	983	0	0
U. Puerto Rico, Mayaguez	303	1,048	1,002	968	1,777	838	939	0	0	0
Michigan Technological U.	305	1,296	1,832	1,650	1,714	0	1,085	629	0	0
Texas A&M International U.	306	600	1,514	1,814	1,710	12	0	1,698	0	0
U. Arkansas, Little Rock	307	1,580	1,809	1,330	1,693	0	1,619	53	21	0
Albany C. of Pharmacy and Health Sciences	308	380	566	1,092	1,690	0	1,476	214	0	0
Jackson State U.	309	3,311	3,136	1,824	1,686	0	831	855	0	0
Mercer U.	310	1,877	1,619	1,969	1,677	0	0	1,233	0	444
Central State U.	311	444	700	1,500	1,674	1,532	46	0	90	6
Idaho State U.	312	3,095	2,449	1,990	1,624	0	1,272	352	0	0
Western Kentucky U.	313	1,623	1,702	1,237	1,607	334	893	170	0	210
William & Mary	314	1,457	1,630	1,663	1,585	366	1,219	0	0	0
Humboldt State U.	315	1,816	1,233	1,564	1,556	137	174	0	1,176	69
Clark U.	316	459	397	682	1,553	711	827	0	0	15
Touro U.	317	1,199	1,196	1,410	1,540	0	581	0	0	959
Teachers C., Columbia U.	318	1,648	1,280	1,293	1,525	0	0	0	0	1,525
CUNY, Brooklyn C.	319	1,554	1,389	1,447	1,509	0	1,254	255	0	0
U. Wisconsin-Superior	320	ne	ne	1,884	1,498	0	97	0	1,401	0
Tougaloo C.	321	1,747	2,120	2,012	1,444	0	274	1,170	0	0
SUNY, Polytechnic Institute	322	3,165	2,675	1,840	1,406	0	1,406	0	0	0

TABLE 42

## Federally financed higher education R&amp;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
Long Island U.	323	210	1,101	1,338	1,397	0	16	1,381	0	0
U. Louisiana, Monroe	324	1,794	1,582	1,497	1,393	0	305	1,088	0	0
Eastern Michigan U.	325	258	236	330	1,349	0	504	799	46	0
Northeastern Illinois U.	326	ne	380	1,343	1,325	0	328	997	0	0
South Carolina State U.	327	2,758 i	5,867	6,129 i	1,318	0	1,133	185	0	0
St. John's U., New York	328	635	806	1,323	1,284	0	745	539	0	0
Southern Methodist U.	329	981	857	979	1,283	0	1,283	0	0	0
California State Polytechnic U., Pomona	330	906	1,223	1,344	1,279	287	992	0	0	0
Saginaw Valley State U.	331	5	406	868	1,278	0	0	1,278	0	0
Fayetteville State U.	332	1,202	909	1,354	1,236	0	328	368	150	390
Colorado State U., Pueblo	333	ne	ne	ne	1,220	0	1,220	0	0	0
Wellesley C.	334	1,274	852	1,032	1,179	0	1,021	0	111	47
Southern Illinois U., Edwardsville	335	1,310	791	748	1,171	0	123	1,048	0	0
Hawaii Pacific U.	336	1,485	1,230	1,235	1,159	700	459	0	0	0
Ball State U.	337	1,632	1,115	1,138	1,120	0	666	454	0	0
Palmer C. of Chiropractic, Davenport	338	1,485	1,189	1,100	1,100	0	0	100	0	1,000
Tennessee Technological U.	339	412	411	454	1,092	92	702	0	298	0
Western Illinois U.	340	ne	648	905	1,089	81	969	0	39	0
Worcester Polytechnic Institute	341	479	932	1,257	1,087	0	1,087	0	0	0
Bowdoin C.	342	1,192	1,120	1,120	1,083	0	940	143	0	0
U. of the District of Columbia	342	1,443	941	916	1,083	1,083	0	0	0	0
Dine C.	344	ne	ne	1,238	1,074	310	4	734	20	6
Missouri State U.	345	1,129	900	1,115	1,070	478	185	0	407	0
Skidmore C.	345	482	977	1,217	1,070	0	122	948	0	0
California State U., San Bernardino	347	1,127	1,088	1,034	1,055	447	603	5	0	0
Montclair State U.	348	1,012	406	1,151	1,053	72	810	133	38	0
Midwestern U.	349	1,060	1,184	1,278	1,045	6	548	491	0	0
Reed C.	350	1,162	354	895	1,031	0	1,031	0	0	0
Georgia Southern U.	351	1,633	1,917	1,057	1,024	11	129	774	62	48
Smith C.	352	964	1,298	1,270	1,017	0	1,017	0	0	0
California State U., San Marcos	353	1,730	2,319	1,767	1,011	0	639	372	0	0
California State U., Fresno	354	1,417	1,407	1,749	1,010	405	596	9	0	0
San Jose State U.	355	635	644	831	1,005	0	1,002	3	0	0

TABLE 42

## Federally financed higher education R&amp;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
Fordham U.	356	1,166	1,285	996	995	0	995	0	0	0
Middle Tennessee State U.	357	1,040	1,161	907	972	362	610	0	0	0
Florida Institute of Technology	358	1,997	1,238	878	965	0	965	0	0	0
Wesleyan U.	359	786	966	682	954	0	954	0	0	0
U. of the Pacific	360	1,071	734	1,099	953	0	674	278	0	1
U. Nebraska, Kearney	361	722	764	800	936	193	469	47	227	0
New England C. of Optometry	362	618	ne	837	928	0	0	928	0	0
Dillard U.	363	5,856	3,932	4,404	920	0	414	506	0	0
Trinity C., Hartford	364	541	520	341	886	0	745	0	0	141
Indiana U. Pennsylvania	365	82	656	568	869	0	869	0	0	0
American Samoa Community C.	366	793	ne	ne	860	860	0	0	0	0
Oklahoma State U., Center for Health Sciences	367	529	729	959	851	0	3	848	0	0
Texas Christian U.	368	193	1,527	1,431	850	0	0	844	0	6
Grand Valley State U.	369	304	258	320	845	0	318	527	0	0
U. of the Sciences Philadelphia	370	1,041	799	827	820	0	502	318	0	0
Oberlin C.	371	160	197	265	815	0	815	0	0	0
Seton Hall U.	372	825	850	724	810	0	810	0	0	0
U. Akron	373	558	432	527	793	0	793	0	0	0
Keck Graduate Institute	374	949	969	705	781	0	337	444	0	0
C. Charleston	375	1,793	1,286	720	761	0	661	25	75	0
National U. of Natural Medicine	376	ne	427	ne	760	0	0	760	0	0
Amherst C.	377	415	381	610	757	0	606	151	0	0
Edward Via C. of Osteopathic Medicine	378	88	94	195	749	0	0	749	0	0
Albany State U.	379	580	764	509	737	0	253	0	484	0
Kennesaw State U.	380	499	528	704	722	19	653	50	0	0
Bates C.	381	801	521	506	720	0	719	0	0	1
Saint Michael's C.	382	1,247	1,042	1,016	708	0	698	0	0	10
U. Richmond	382	451	482	599	708	0	708	0	0	0
U. Wisconsin-Oshkosh	384	ne	623	651	707	0	258	449	0	0
Hobart and William Smith Colleges	385	ne	144	ne	700	13	82	0	605	0
James Madison U.	386	650	562	503	698	0	629	0	69	0
Salus U.	387	1,571	1,375	1,190	696	0	388	308	0	0
Western Carolina U.	388	365	202	259	682	98	91	493	0	0

TABLE 42

## Federally financed higher education R&amp;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. Alabama, Huntsville	389	275	282	561	681	0	675	6	0	0
U. Dayton	390	408	349	765	676	0	145	319	212	0
New Jersey City U.	391	ne	394	805	665	0	665	0	0	0
Des Moines U.	392	234	732	732	657	0	647	10	0	0
Occidental C.	392	874	406	242	657	179	478	0	0	0
Winston-Salem State U.	394	595	866	884	650	0	449	201	0	0
Clarkson U.	395	311	1,004	960	636	0	417	219	0	0
U. Alaska, Southeast	396	249	454	819	625	91	368	84	82	0
U. Massachusetts, Dartmouth	397	821	844	903	621	0	621	0	0	0
U. Maryland, Eastern Shore	398	4,663	1,999	193	616	382	0	5	229	0
U. South Carolina, Aiken	399	176	1,052	904	610	105	0	0	0	505
Louisiana Tech U.	400	643	666	595	608	361	180	67	0	0
American U.	401	936	717	439	605	0	505	0	0	100
Texas Woman's U.	402	198	320	304	604	50	325	229	0	0
U. Texas, Tyler	402	201	347	489	604	0	261	343	0	0
U. Wisconsin-Stevens Point	402	521 i	540 i	571 i	604 i	0 i	215 i	374 i	15 i	0 i
Morehead State U.	405	161	222	193	601	0	601	0	0	0
Northern Illinois U.	405	1,181	826	883	601	0	390	211	0	0
U. Northern Colorado	407	1,124	990	880	600	0	377	179	5	39
CUNY, Medgar Evers C.	408	ne	647	619	595	0	588	1	6	0
Rochester Institute of Technology	409	427	418	590	594	0	594	0	0	0
Franklin and Marshall C.	410	358	688	565	593	0	593	0	0	0
Stephen F. Austin State U.	411	803	757	568	590	589	0	1	0	0
U. North Carolina, Asheville	411	407	500	568	590	0	75	486	29	0
Colby C.	413	655	656	613	581	0	538	0	0	43
U.S. Military Academy	414	328	671	720	578	0	430	148	0	0
U. of the Incarnate Word	415	ne	ne	160	576	0	56	520	0	0
U. Tennessee, Chattanooga	416	318	279	429	564	0	564	0	0	0
Rhode Island C.	417	665	522	466	555	0	510	45	0	0
Keene State C.	418	ne	162	ne	549	0	542	0	7	0
Eastern Kentucky U.	419	858	482	498	547	0	473	74	0	0
West Chester U. Pennsylvania	420	294	462	309	540	0	414	126	0	0
Fort Lewis C.	421	ne	ne	ne	538	0	241	0	0	297

TABLE 42

## Federally financed higher education R&amp;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
Spelman C.	422	681	759	684	536	0	478	58	0	0
Sam Houston State U.	423	370	266	255	533	283	250	0	0	0
Lewis and Clark C.	424	228	286	459	526	0	526	0	0	0
California State U., Stanislaus	425	175	366	469	514	65	449	0	0	0
Towson U.	426	308	326	388	503	76	414	13	0	0
Indiana State U.	427	457	302	430	502	0	450	42	0	10
Doane U.	428	ne	ne	516	498	0	498	0	0	0
Mercyhurst U.	428	18	0 i	ne	498 i	0 i	215 i	283 i	0 i	0 i
U. Oklahoma, Tulsa	430	644	344	864	496	0	0	496	0	0
U. Wisconsin-La Crosse	431	870	825	774	492	0	475	0	0	17
Black Hills State U.	432	625	368	418	489	0	462	27	0	0
CUNY, New York City C. of Technology	433	ne	ne	618	487	0	487	0	0	0
Appalachian State U.	434	513	809	649	486	46	387	0	53	0
Eastern Washington U.	435	974	873	580	484	0	0	0	281	203
Kenyon C.	435	ne	ne	501	484	0	484	0	0	0
Augustana U.	437	ne	415	606	483	0	0	483	0	0
Bowling Green State U.	438	281	227	332	478	5	330	67	76	0
Montana Technological U.	438	296	316	483	478	0	478	0	0	0
Pace U.	440	157	168	193	477	0	476	1	0	0
Providence C.	441	637	503	543	469	0	469	0	0	0
Swarthmore C.	442	354	342	379	468	0	468	0	0	0
California State U., Chico	443	294	311	395	458	166	282	0	0	10
Santa Clara U.	444	588	490	329	456	198	252	6	0	0
U. Washington, Bothell	445	127	0	87	455	0	252	203	0	0
U. Wisconsin-Green Bay	446	304 i	220 i	301 i	452 i	29 i	151 i	262 i	10 i	0 i
Calvin U.	447	450	301	426	449	0	449	0	0	0
U. Colorado Colorado Springs	448	315	454	547	441	0	441	0	0	0
Lamar U.	449	28	0	53	440	0	0	440	0	0
A. T. Still U.	450	2,041	177	ne	434	0	223	211	0	0
Southeastern Louisiana U.	451	502	768	572	422	0	304	118	0	0
Northern Kentucky U.	452	366	364	130	420	0	282	138	0	0
Williams C.	453	380	365	312	413	0	413	0	0	0
Biola U.	454	358 i	367 i	382 i	410 i	0 i	177 i	233 i	0 i	0 i

TABLE 42

## Federally financed higher education R&amp;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
Gallaudet U.	455	976	1,376	811	408	0	0	388	5	15
Hope C.	456	193	294	408	407	0	407	0	0	0
Southern U. and A&M C., Baton Rouge	457	209	223	352	401	156	183	8	54	0
New Mexico Institute of Mining and Technology	458	724	56	226	387	0	387	0	0	0
St. Cloud State U.	459	368	529	312	386	0	386	0	0	0
Liberty U.	460	ne	ne	ne	385	0	385	0	0	0
U. Washington, Tacoma	460	0	0	241	385	0	0	0	385	0
Yeshiva U.	462	30,266	816	683	380	0	0	380	0	0
SUNY, C. Plattsburgh	463	56	146	681	373	0	0	281	0	92
Johnson C. Smith U.	464	360	440	380	362	0	132	230	0	0
Hofstra U.	465	237	285	311	360	0	360	0	0	0
SUNY, C. Brockport	465	515	622	667	360	6	193	0	161	0
Winthrop U.	467	245	281	235	359	0	100	259	0	0
U. Tulsa	468	255	357	349	357	0	357	0	0	0
Barnard C.	469	329	331	436	356	10	309	0	0	37
Bethune-Cookman U.	470	ne	ne	810	354	0	163	94	97	0
Claflin U.	471	564	416	242	350	0	350	0	0	0
U. Ana G. Mendez, Gurabo	472	233	419	274	347	0	309	0	0	38
Philadelphia C. of Osteopathic Medicine	473	150	260	260	346	0	346	0	0	0
CUNY, York C.	474	ne	ne	ne	340	0	340	0	0	0
Villanova U.	475	944	844	435	338	0	338	0	0	0
Whitman C.	475	ne	ne	ne	338	0	338	0	0	0
Claremont McKenna C.	477	433	389	364	337	0	337	0	0	0
Marshall B. Ketchum U.	478	375	368 i	354 i	336 i	0 i	0 i	336 i	0 i	0 i
Sul Ross State U.	479	272	439	504	330	0	0	0	330	0
Furman U.	480	248	329	376	328	0	236	52	3	37
Harvey Mudd C.	481	112	162	178	323	0	323	0	0	0
Fort Hays State U.	482	ne	ne	ne	322	0	321	1	0	0
Savannah State U.	483	659	450	581	320	0	183	92	0	45
U. California, Office of the President	484	295	276	313	319	117	0	202	0	0
West Texas A&M U.	485	432	466	382	313	201	0	0	112	0
Loyola Marymount U.	486	388	494	105	310	0	272	0	0	38
U. North Florida	487	242	309	390	307	0	307	0	0	0

TABLE 42

## Federally financed higher education R&amp;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
Pepperdine U.	488	132	193	279	303	0	303	0	0	0
DePaul U.	489	125	397	404	299	0	267	1	1	30
Pittsburg State U.	490	104	84	155	297	0	236	50	11	0
Middlebury C.	491	772	645	831	296	0	296	0	0	0
U. West Florida	491	276	317	317	296	0	218	0	0	78
California State U., Sacramento	493	322	17	279	294	0	17	9	268	0
U. Central Oklahoma	494	316	231	270	291	0	231	60	0	0
U. Puerto Rico, Humacao	495	ne	ne	233	286	0	284	0	2	0
CUNY, Baruch C.	496	1	148	261	284	0	264	0	20	0
U. South Florida, Saint Petersburg	497	169	153	333	275	0	5	0	270	0
Davidson C.	498	483	385	240	272	0	272	0	0	0
Coastal Carolina U.	499	0	198	277	268	0	268	0	0	0
U. Central Arkansas	500	372	417	285	263	0	205	58	0	0
Western Washington U.	501	383	500	270	249	0	249	0	0	0
Colgate U.	502	202	363	293	246	0	246	0	0	0
Bucknell U.	503	330 i	317 i	305	245	0	245	0	0	0
SUNY, Oswego	504	ne	194	220	218	0	218	0	0	0
Alaska Pacific U.	505	0	54	100	216	49	19	0	22	126
Salish Kootenai C.	506	171	116	94	213	141	0	0	72	0
Bryn Mawr C.	507	222	382	298	212	0	212	0	0	0
Southern Connecticut State U.	507	0	67	194	212	68	0	144	0	0
Central Washington U.	509	218	287	254	206	0	206	0	0	0
U. Massachusetts, central office	510	201	267	246	198	0	0	198	0	0
U. Ana G. Mendez, Cupey	511	47	180	178	197	0	104	0	0	93
U. of St. Thomas (MN)	512	20	47	174	196	0	196	0	0	0
Memorial Sloan Kettering Cancer Center, Louis V. Gerstner Jr. Graduate S. of Biomedical Sciences	513	643	206	201	191	0	148	43	0	0
Desert Research Institute	514	103	208	246	188	0	188	0	0	0
SUNY, Buffalo State	514	53	137	207	188	0	188	0	0	0
Dickinson C.	516	60	196	ne	187	11	2	84	90	0
Northern Michigan U.	517	93	60	89	184	0	34	150	0	0
Oregon Institute of Technology	518	1,268	189 i	59	181 i	0 i	85 i	49 i	0 i	47 i
Roger Williams U.	519	80	78	143	178	0	178	0	0	0

TABLE 42

## Federally financed higher education R&amp;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							
CUNY, C. Staten Island	520	0	479	145	i	177	0	177	0	0	0						
Rhode Island School of Design	520	0	i	0	i	174	i	177	i	0	i	177	i	0	i		
U. Michigan, Dearborn	522	10	45	248	172	0	69	103	0	0							
Eastern Connecticut State U.	523	9	8	17	169	0	169	0	0	0							
California State U., Dominguez Hills	524	137	85	236	162	0	162	0	0	0							
CUNY, John Jay C. of Criminal Justice	525	331	203	500	156	0	113	2	0	41							
SUNY, Geneseo	526	69	37	80	150	0	150	0	0	0							
Missouri U. of Science and Technology	527	24	178	152	143	0	143	0	0	0							
Willamette U.	527	443	460	368	143	0	143	0	0	0							
U.S. Air Force Academy	529	155	0	0	140	0	140	0	0	0							
Benedict C.	530	138	136	101	139	0	139	0	0	0							
Wheaton C., Wheaton	531	ne	60	27	137	0	0	137	0	0							
Minnesota State U., Mankato	532	268	155	95	136	0	136	0	0	0							
Haverford C.	533	314	273	292	133	0	133	0	0	0							
Christopher Newport U.	534	384	38	101	132	0	132	0	0	0							
Bowie State U.	535	318	164	75	122	0	122	0	0	0							
Purdue U., Fort Wayne	535	391	284	448	122	0	122	0	0	0							
U. Northern Iowa	535	210	107	115	122	78	44	0	0	0							
U. Wisconsin-Platteville	538	ne	116	i	ne	118	i	59	i	41	i	0	i	18	i	0	i
Morehouse C.	539	114	126	119	116	0	98	0	0	18	0						
Saint Joseph's U.	539	0	51	103	116	0	116	0	0	0							
Seattle U.	539	169	114	138	116	0	116	0	0	0							
Colorado C.	542	118	99	51	115	0	12	0	103	0							
C. Wooster	543	ne	183	193	110	26	84	0	0	0							
Purdue U., Northwest	543	na	106	125	110	0	39	71	0	0							
Alfred U.	545	8	20	18	108	98	10	0	0	0							
Carleton C.	545	128	11	42	108	0	108	0	0	0							
Macalester C.	545	122	210	79	108	0	108	0	0	0							
Norfolk State U.	545	109	163	53	108	0	108	0	0	0							
U. New Orleans	545	390	336	200	108	0	108	0	0	0							
California Lutheran U.	550	ne	ne	ne	107	0	107	0	0	0							
Northwest Indian C.	551	ne	ne	1,164	104	104	0	0	0	0							
Connecticut C.	552	268	333	192	95	0	95	0	0	0							

TABLE 42

## Federally financed higher education R&amp;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 U.	552	274	100	115	95	0	95	0	0	0
California State U., Bakersfield	554	151	447	396	92	0	92	0	0	0
Embry-Riddle Aeronautical U.	554	0	0	0	92	0	0	0	0	92
U. North Georgia	554	ne	0	2	92	0	2	74	16	0
Austin Peay State U.	557	179	157	328	88	25	35	0	0	28
Mount Holyoke C.	558	822	800	20	87	0	87	0	0	0
Pomona C.	559	304	168	95	81	0	81	0	0	0
Lafayette C.	560	65	0	50	80	0	80	0	0	0
Fairfield U.	561	208	547	1,015	78	0	78	0	0	0
Florida Gulf Coast U.	562	814	703	51	73	0	0	51	22	0
St. Olaf C.	563	285	181	97	68	68	0	0	0	0
California State U., Channel Islands	564	71	21	107	64	0	0	0	64	0
U. of Mary Washington	564	ne	ne	7	64	0	64	0	0	0
Gettysburg C.	566	ne	46	51	60	0	60	0	0	0
U. Portland	566	ne	ne	ne	60	0	0	0	0	60
Chicago State U.	568	910	ne	172	52	0	52	0	0	0
Drake U.	568	250	113	66	52	0	10	42	0	0
Hamilton C.	570	16	0	12	51	0	51	0	0	0
Stockton U.	571	42	ne	138	50	0	50	0	0	0
Azusa Pacific U.	572	134	134	111	49	0	0	49	0	0
CUNY, Graduate Center	573	56	46	34	46	0	46	0	0	0
U. Puerto Rico, Cayey	574	97	47	10	45	0	0	0	45	0
U. San Diego	575	76	40	68	44	0	22	22	0	0
Emerson C.	576	329	343	284	42	0	0	42	0	0
Grinnell C.	577	154	339	221	41	0	41	0	0	0
Rider U.	578	130	98	89	39	0	39	0	0	0
U. Hartford	579	184	97	10	38	38	0	0	0	0
Bradley U.	580	43	55	53	36	0	36	0	0	0
U. Wisconsin-Eau Claire	581	44	39	30	35	0	35	0	0	0
Augsburg U.	582	33	30	67	34	0	34	0	0	0
Northwestern State U. Louisiana	582	0	0	4	34	0	0	34	0	0
Stevens Institute of Technology	584	257	97	83	33	0	0	0	0	33
La Sierra U.	585	12	23	43	32	0	32	0	0	0

TABLE 42

## Federally financed higher education R&amp;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
William Paterson U.	585	231	57	23	32	0	32	0	0	0
Central Connecticut State U.	587	7	0	ne	31	0	31	0	0	0
U. New Haven	588	0	27	56	30	0	24	0	6	0
U. Southern Maine	589	138	97	131	28	12	16	0	0	0
Pennsylvania State U., Harrisburg	590	0	2	76	25	0	20	0	5	0
U. North Carolina, general administration	591	74	63	49	24	0	0	24	0	0
Kettering U.	592	0	0	19	21	0	21	0	0	0
U. San Francisco	593	87	152	24	19	0	19	0	0	0
Allegheny C.	594	16	20	25	18	0	18	0	0	0
Pennsylvania State U., Behrend	595	284	27	15	17	0	17	0	0	0
Roseman U. of Health Sciences	595	0	0	18	17	i	0	i	17	i
Texas A&M U.-Commerce	597	111	154	91	15	15	0	0	0	0
Jacksonville State U.	598	59	12	i	11	14	0	14	0	0
Union C., Schenectady	598	394	23	29	14	0	14	0	0	0
Vassar C.	600	0	300	60	i	13	0	13	0	0
Manhattan C.	601	ne	ne	ne	9	0	0	0	0	9
U. Houston-Clear Lake	601	94	180	179	9	0	9	0	0	0
U. Michigan, Flint	601	ne	45	8	9	0	0	9	0	0
Florida Polytechnic U.	604	ne	ne	ne	6	0	6	0	0	0
Heidelberg U.	605	243	12	1	5	0	5	0	0	0
Salisbury U.	606	467	500	77	4	0	4	0	0	0
CUNY, system office	607	40	0	0	3	0	3	0	0	0
All other surveyed institutions	-	286,167	292,377	336,812	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, with \$43,273 thousand in federally financed R&D expenditures in life sciences in FY 2019.

<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.

**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.