

TABLE 42

**Higher education R&D expenditures in the life sciences, ranked by all FY 2021 life sciences: FYs 2018–21 and by subfield for FY 2021**

(Dollars in thousands)

Institution	Rank	2018	2019	2020	2021					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
All institutions	-	45,606,786	48,228,599	49,622,337	52,364,596	3,548,896	16,557,201	29,884,728	934,765	1,439,006
U. California, San Francisco	1	1,532,722	1,529,156	1,581,411	1,639,862	0	2,520	1,637,342	0	0
U. Pennsylvania	2	1,070,969	1,125,634	1,185,719	1,243,966	1,003	835,864	329,713	0	77,386
Johns Hopkins U. <sup>a</sup>	3	991,451 i	1,053,401 i	1,047,668 i	1,069,865 i	0 i	350,122 i	719,743 i	0 i	0 i
U. Texas M. D. Anderson Cancer Center	4	867,391	902,580	981,164	1,056,727	21,748	320,834	714,145	0	0
U. California, Los Angeles	5	917,899	925,447	989,602	1,053,540	0	33,765	1,019,775	0	0
Duke U.	6	971,355	1,018,199	990,897	1,040,786	0	291,851	721,730	10,570	16,635
U. Washington, Seattle	7	954,565	954,062	963,264	1,013,261	277	286,353	685,723	26,061	14,847
Yale U.	8	832,360	912,802	944,439	1,012,626	0	222,114	779,001	11,340	171
U. Pittsburgh, Pittsburgh	9	863,086	935,756	954,315	983,251	501	304,345	678,383	0	22
U. Michigan, Ann Arbor	10	873,031	955,653	967,660	931,174	2,142	262,263	604,587	17,964	44,218
U. North Carolina, Chapel Hill	11	826,287	846,630	868,276	925,380	0	191,773	733,607	0	0
Stanford U.	12	780,090	837,068	836,401	905,150	0	242,245	622,630	1,074	39,201
Washington U., Saint Louis	13	731,083	796,337	824,978	887,653	0	389,457	498,196	0	0
Ohio State U.	14	506,398	550,461	590,076	876,239	68,969	92,910	700,303	9,035	5,022
U. Wisconsin-Madison	15	740,883	814,119	839,302	861,558	114,940	273,356	467,332	997	4,933
Cornell U.	16	737,271	789,230	822,419	833,824	106,374	317,690	384,742	17,553	7,465
U. California, San Diego	17	782,882	819,167	828,401	827,370	0	63,846	762,778	593	153
Icahn School of Medicine at Mount Sinai	18	640,141	722,241	747,014	820,260	0	391,642	428,618	0	0
Vanderbilt U. and Vanderbilt U. Medical Center	19	560,124	581,939	625,549	806,323	0	206,202	599,247	13	861
Columbia U. in the City of New York	20	673,535	727,779	744,239	797,089	0	226,903	563,787	4,370	2,029
Emory U.	21	650,154	727,296	732,893	789,831	0	203,597	571,627	0	14,607
New York U.	22	609,745	630,246	643,638	771,663	0	297,690	469,714	0	4,259
U. Minnesota, Twin Cities	23	635,157	684,938	722,074	760,975	71,646	118,493	514,691	51,022	5,123
Baylor C. of Medicine	24	623,396	651,920	685,641	716,976	0	345,012	371,964	0	0
Harvard U.	25	656,790	704,460	684,127	714,069	26	539,289	133,571	8,023	33,160
U. Florida	26	656,347	689,605	688,091	706,987	210,062	134,050	344,705	18,170	0
Northwestern U.	27	555,160	604,875	619,270	659,195	0	166,594	474,272	0	18,329
U. Maryland <sup>b</sup>	28	na	601,632	594,114	633,517	51,847	183,621	390,634	2,293	5,122
U. Texas Southwestern Medical Center	29	474,260	496,697	595,939	632,134	0	219,742	408,377	0	4,015
U. Southern California	30	579,028	568,194	580,982	598,925	0	117,462	468,905	0	12,558
U. California, Davis	31	588,300	593,628	597,962	590,027	143,311	199,310	247,406	0	0

TABLE 42

**Higher education R&D expenditures in the life sciences, ranked by all FY 2021 life sciences: FYs 2018–21 and by subfield for FY 2021**

(Dollars in thousands)

Institution	Rank	2018	2019	2020	2021					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
U. Alabama, Birmingham	32	511,345	533,536	542,308	571,525	0	132,380	439,145	0	0
U. Colorado Anschutz Medical Campus <sup>c</sup>	33	na	na	na	559,348	299	8,948	550,101	0	0
Indiana U., Bloomington	34	401,303	470,583	502,210	501,125	0	122,903	369,296	0	8,926
Texas A&M U., College Station and Health Science Center	35	342,961	351,403	502,372	487,219	180,671	97,519	188,730	14,989	5,310
Scripps Research Institute	36	396,839	427,734	444,964	485,435	0	485,435	0	0	0
Rutgers, State U. New Jersey, New Brunswick	37	478,476	447,552	518,906	483,265	64,885	90,875	319,883	23	7,599
U. Cincinnati	38	390,071	437,494	440,721	456,847	0	60,204	380,364	0	16,279
U. Arizona	39	399,790	426,393	437,147	447,584	50,582	221,774	162,748	12,480	0
Boston U.	40	272,397	338,089	373,079	445,535	0	168,310	276,870	0	355
Oregon Health and Science U.	41	359,721	403,495	433,917	439,212	0	21,651	278,801	838	137,922
U. Utah	42	391,825	343,744	402,001	420,965	0	44,662	369,765	363	6,175
U. Iowa	43	386,776	385,909	414,459	415,734	0	134,116	278,735	0	2,883
U. Virginia, Charlottesville	44	352,154	385,793	420,679	402,376	0	229,238	172,524	614	0
Uniformed Services U. of the Health Sciences	45	298,517	406,726	316,838	366,610	0	7,192	359,418	0	0
Case Western Reserve U.	46	371,604	377,671	384,857	360,294	0	86,328	252,185	0	21,781
U. Massachusetts, Medical School	47	274,211	281,507	279,096	347,337	0	145,417	100,911	0	101,009
Rockefeller U.	48	334,048	332,899	337,377	339,729	0	325,035	14,694	0	0
U. Chicago	49	274,000	299,549	302,820	336,114	0	82,092	254,022	0	0
U. Illinois, Chicago	50	269,169	289,366	314,296	324,053	0	77,533	237,347	9,173	0
U. Kentucky	51	294,776	314,547	322,077	323,030	63,522	181,729	77,779	0	0
Michigan State U.	52	340,065	353,934	319,883	317,235	112,272	117,739	57,339	15,243	14,642
U. California, Irvine	53	239,122	266,485	289,422	315,900	0	125,642	190,252	0	6
U. Georgia	54	262,237	294,353	302,667	309,153	113,627	156,208	35,774	490	3,054
U. Texas Health Science Center, Houston	55	258,411	271,525	273,862	308,823	0	54,224	138,943	0	115,656
Albert Einstein C. of Medicine	56	297,328	298,824	288,654	301,715	0	0	301,715	0	0
U. Miami	57	274,934	284,045	302,160	297,764	0	75,792	215,596	911	5,465
Pennsylvania State U., University Park and Hershey Medical Center	58	280,091	266,143	291,299	291,733	79,424	112,135	91,303	8,871	0
Colorado State U., Fort Collins	59	161,006	211,774	231,734	288,731	50,785	67,310	28,615	136,967	5,054
Medical U. South Carolina	60	282,253	295,600	272,590	277,761	0	64,300	93,409	0	120,052
U. Rochester	61	244,380	248,086	259,224	271,630	0	56,944	214,686	0	0

TABLE 42

**Higher education R&D expenditures in the life sciences, ranked by all FY 2021 life sciences: FYs 2018–21 and by subfield for FY 2021**

(Dollars in thousands)

Institution	Rank	2018	2019	2020	2021					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
Medical C. Wisconsin	62	222,767	243,500	255,783	269,290	0	83,895	185,395	0	0
U. California, Berkeley	63	234,055	239,459	258,228	264,394	5,134	129,502	58,481	71,277	0
U. Illinois, Urbana-Champaign	64	206,379	222,994	241,661	258,253	70,763	91,434	4,630	91,426	0
SUNY, U. Buffalo	65	244,106	249,349	241,467	254,314	0	95,200	154,302	0	4,812
Wake Forest U.	66	188,702	230,592	236,154	253,797	0	3,260	250,518	19	0
U. New Mexico	67	161,209	148,618	148,158	243,730	14	27,380	213,149	2,622	565
U. Missouri, Columbia	68	198,676	210,550	220,890	237,728	86,679	51,630	79,594	13,304	6,521
North Carolina State U.	69	231,243	244,235	240,399	237,289	108,416	119,614	0	0	9,259
Purdue U., West Lafayette	70	211,371	237,317	243,953	237,182	122,841	25,488	88,853	0	0
Virginia Commonwealth U.	71	181,220	185,744	206,550	233,486	0	72,971	140,319	0	20,196
U. Kansas	72	202,119	212,241	226,786	230,059	0	46,912	168,897	1,779	12,471
Temple U.	73	206,129	218,527	216,388	223,136	47	44,630	94,116	0	84,343
U. Texas Health Science Center, San Antonio	74	179,219	188,483	202,572	219,734	0	74,729	126,181	0	18,824
Washington State U.	75	175,704	193,878	196,649	211,107	110,067	34,771	59,282	4,189	2,798
Virginia Polytechnic Institute and State U.	76	198,326	198,424	199,798	207,204	80,513	46,515	51,942	26,106	2,128
U. South Florida <sup>d</sup>	77	207,171	200,585	164,666	203,414	0	93,020	109,397	303	694
U. Nebraska, Medical Center	78	177,245	194,455	202,406	200,974	0	99,830	101,144	0	0
Thomas Jefferson U.	79	148,573	170,458	171,207	200,309	0	83,083	117,226	0	0
U. Arkansas for Medical Sciences	80	139,187	153,135	174,549	194,709	0	64,136	122,965	0	7,608
U. Texas Medical Branch	81	179,303	173,776	179,403	184,500	0	139,580	44,920	0	0
Georgetown U.	82	142,875	155,013	155,197	183,629	0	12,828	167,962	0	2,839
George Washington U.	83	173,664	175,830	179,803	180,965	0	58,491	122,447	0	27
Wayne State U.	84	179,692	186,531	182,757	175,847	0	26,291	146,425	0	3,131
U. Connecticut	85	155,958	165,087	157,618	175,232	10,683	79,715	74,770	3,616	6,448
U. Oklahoma, Norman and Health Science Center	86	140,602	148,621	164,967	165,745	0	48,670	116,506	0	569
Tulane U.	87	151,823	152,554	161,642	164,874	0	36,099	46,935	159	81,681
Dartmouth C. and Dartmouth Hitchcock Medical Center	88	179,025	176,231	170,704	163,702	0	83,974	78,745	691	292
Louisiana State U., Baton Rouge	89	154,348	160,443	155,187	158,608	88,218	60,515	566	9,309	0
U. Louisville	90	144,645	141,409	158,677	157,735	8	66,095	87,611	79	3,942
U. Nebraska, Lincoln	91	156,100	161,097	161,499	153,809	94,550	30,317	15,853	13,089	0
Oregon State U.	92	135,466	136,589	143,505	151,779	76,656	44,339	8,767	21,557	460

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Institution	Rank	2018	2019	2020	2021					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
Tufts U.	93	71,546	114,635	136,826	149,664	1,450	91,403	48,230	0	8,581
U. Texas, Austin	94	119,249	117,716	130,377	148,471	69	72,413	69,548	3,192	3,249
U. Vermont	95	107,706	111,873	142,081	142,622	21,096	51,579	63,210	6,737	0
Iowa State U.	96	151,654	149,764	123,853	142,283	51,837	42,898	19,767	0	27,781
Brown U.	97	122,607	130,419	134,751	139,126	0	57,160	46,024	0	35,942
SUNY, Stony Brook U.	98	106,832	117,953	121,070	127,257	0	64,217	63,040	0	0
Mississippi State U.	99	112,967	118,479	119,753	127,096	98,866	7,744	1,887	15,945	2,654
West Virginia U.	100	103,696	104,435	108,264	124,894	13,321	30,824	69,644	8,946	2,159
U. Hawaii, Manoa	101	129,544	130,373	123,649	123,962	14,116	52,760	45,709	1,469	9,908
Kansas State U.	102	134,291	133,246	127,024	119,328	92,231	26,459	638	0	0
Massachusetts Institute of Technology	103	138,075	143,017	126,648	118,283	79	60,795	21,012	378	36,019
Augusta U.	104	98,925	96,123	103,554	115,862	0	41,967	69,850	0	4,045
Cold Spring Harbor Laboratory	105	115,870	126,773	115,051	114,885	2,272	112,613	0	0	0
Arizona State U.	106	125,014	101,129	103,558	111,790	0	73,598	37,201	550	441
Auburn U., Auburn	107	101,567	104,935	110,768	111,491	70,134	14,099	15,343	986	10,929
U. Tennessee, Health Science Center	108	78,204	95,852	98,345	107,620	0	29,655	74,246	0	3,719
North Dakota State U.	109	100,736	104,204	101,693	106,163	82,590	6,187	7,484	9,902	0
Rush U.	110	86,277	93,701	92,494	104,999	0	12,283	92,716	0	0
California Institute of Technology	111	80,318	87,505	89,626	100,754	0	100,578	128	0	48
U. California, Riverside	112	85,128	91,835	95,431	98,539	22,645	60,318	15,576	0	0
Drexel U.	113	96,074	93,762	89,027	96,668	0	39,937	53,152	3,579	0
Princeton U.	114	86,341	95,882	91,903	95,938	0	87,346	0	8,592	0
U. Tennessee, Knoxville <sup>e</sup>	115	23,092	24,065	84,619	86,080	41,632	26,252	10,025	8,171	0
U. South Carolina, Columbia	116	77,248	70,689	98,789	84,069	0	14,237	69,832	0	0
U. Mississippi	117	91,251	103,882	86,130	82,916	191	22,359	56,848	0	3,518
U. Louisiana, Lafayette	118	62,543	73,146	87,621	80,528	240	60,760	18,818	704	6
U. Arkansas, Fayetteville	119	88,589	89,593	77,569	79,509	67,267	6,294	3,825	2,123	0
U. Nevada, Reno	120	61,782	64,307	71,378	78,218	6,648	43,521	20,341	6,640	1,068
Oklahoma State U., Stillwater	121	80,716	76,701	75,506	77,720	36,223	25,945	5,881	9,652	19
Montana State U., Bozeman	122	65,459	72,765	71,440	74,897	43,975	18,017	12,186	199	520
U. Idaho	123	68,744	71,656	73,933	73,435	34,593	25,070	97	13,612	63
U. Montana, Missoula	124	54,418	61,959	66,817	72,501	522	21,407	30,176	20,396	0

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**Higher education R&D expenditures in the life sciences, ranked by all FY 2021 life sciences: FYs 2018–21 and by subfield for FY 2021**

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U. Massachusetts, Amherst	125	66,052	67,652	64,246	69,519	17,175	25,498	9,953	7,248	9,645
Clemson U.	126	57,408	62,391	71,776	66,524	21,938	24,231	7,534	7	12,814
Saint Louis U.	127	50,538	54,582	58,836	65,928	0	28,234	37,487	207	0
Van Andel Research Institute	128	55,171	61,738	58,982	65,789	0	65,789	0	0	0
Georgia State U.	129	76,083	70,211	66,831	65,536	638	52,370	10,926	0	1,602
Florida State U.	130	54,515	61,515	64,315	61,377	175	21,063	35,745	3,310	1,084
U. Delaware	131	55,454	60,535	66,097	60,823	30,290	5,050	25,483	0	0
U. Oregon	132	36,242	35,644	35,936	56,791	0	37,907	817	531	17,536
Utah State U.	133	59,473	61,698	56,017	56,043	31,043	7,716	1,966	15,318	0
Texas Tech U.	134	51,017	52,335	49,230	55,930	30,966	14,152	5,392	5,420	0
Florida International U.	135	46,906	51,676	55,877	55,462	5	37,940	15,751	1,766	0
U. Colorado Boulder	136	41,637	51,990	52,074	53,211	2,077	42,368	4,708	1,446	2,612
U. New Hampshire	137	49,115	50,431	52,822	52,907	16,303	10,279	18,883	6,712	730
SUNY, U. Albany	138	93,050	101,768	60,025	52,135	0	29,137	22,998	0	0
U. North Texas, Health Science Center	139	49,029	49,099	41,900	50,692	0	14,592	36,100	0	0
New Mexico State U.	140	37,074	40,821	43,340	48,808	32,281	15,045	492	10	980
George Mason U.	141	17,982	16,438	33,163	47,800	168	37,805	8,558	1,269	0
Cleveland State U.	142	52,257	47,567	46,618	45,321	0	41,447	3,312	0	562
SUNY, Upstate Medical U.	143	36,674	38,091	41,557	44,870	0	16,959	27,911	0	0
Louisiana State U., Health Sciences Center, New Orleans	144	38,989	40,914	43,419	44,370	0	20,165	23,148	0	1,057
U. Puerto Rico, Medical Sciences Campus	145	41,216	44,985	37,081	43,846	0	0	43,846	0	0
U. Wyoming	146	41,272	41,934	47,073	43,538	8,607	15,284	3,903	7,606	8,138
U. California, Office of the President	147	38,811	53,460	46,725	42,520	1,957	0	40,336	214	13
Northern Arizona U.	148	31,974	36,245	38,862	41,082	2,169	25,623	5,522	6,457	1,311
Texas Tech U., Health Sciences Center	149	36,784	42,959	43,102	40,567	0	20,394	20,173	0	0
U. Maine	150	36,865	38,713	39,357	38,598	17,566	9,846	466	10,720	0
Loyola U., Chicago	151	34,087	33,699	35,073	38,592	0	16,741	21,272	579	0
South Dakota State U.	152	49,014	53,751	49,659	38,411	30,114	2,785	2,361	2,353	798
U. Alaska, Fairbanks	153	30,257	26,416	29,409	37,477	9,228	24,022	362	3,859	6
Southern Illinois U., Carbondale	154	38,104	32,432	33,480	37,448	13,088	6,268	17,958	0	134
SUNY, Downstate Health Sciences U.	155	34,661	36,015	33,204	34,459	0	33,935	524	0	0

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**Higher education R&D expenditures in the life sciences, ranked by all FY 2021 life sciences: FYs 2018–21 and by subfield for FY 2021**

(Dollars in thousands)

Institution	Rank	2018	2019	2020	2021					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
U. Houston	156	33,476	39,727	34,394	34,322	209	14,588	19,265	244	16
Georgia Institute of Technology	157	35,690	33,854	43,699	32,997	4,051	21,357	6,213	0	1,376
Morehouse School of Medicine	158	33,215	31,289	29,813	32,637	0	0	32,637	0	0
Northeastern U.	159	31,203	31,181	32,626	32,513	0	13,919	10,371	0	8,223
U. Nevada, Las Vegas	160	22,193	31,434	34,733	32,306	212	12,969	18,321	234	570
San Diego State U.	161	28,003	28,629	27,880	31,479	0	15,520	15,949	10	0
U. South Alabama	162	31,779	40,597	36,664	31,362	0	232	23,884	14	7,232
U. North Dakota	163	30,647	28,781	31,526	31,330	0	17,556	13,774	0	0
U. Central Florida	164	26,706	34,043	29,255	30,876	13	15,562	15,294	1	6
Howard U.	165	26,083	24,940	25,750	30,787	0	6,350	21,927	0	2,510
U. California, Santa Barbara	166	37,682	34,842	30,838	29,848	0	22,132	0	7,716	0
U. Notre Dame	167	27,327	27,517	27,750	29,599	222	29,214	163	0	0
U. Rhode Island	168	24,101	24,563	27,699	28,984	4,209	17,614	3,849	2	3,310
East Carolina U.	169	26,176	35,936	33,206	28,703	164	10,397	18,142	0	0
U. Texas Rio Grande Valley	170	15,776	25,619	28,351	28,556	1,404	3,447	19,785	30	3,890
U. California, Santa Cruz	171	25,002	26,486	27,565	28,302	3,252	25,050	0	0	0
Brandeis U.	172	24,400	22,063	28,345	27,969	0	20,813	7,156	0	0
U. Texas Health Science Center, Tyler	173	17,949	19,606	21,265	27,928	0	27,928	0	0	0
Florida Atlantic U.	174	23,880	25,420	28,725	27,748	0	18,879	8,431	0	438
U. Texas, Dallas	175	31,871	35,971	35,986	27,495	0	5,280	22,215	0	0
U. Texas, San Antonio	176	16,720	22,455	25,911	26,419	0	23,479	1,961	0	979
U. Toledo	177	23,752	27,889	27,748	25,012	35	6,944	17,417	0	616
Louisiana State U., Health Sciences Center, Shreveport	178	24,463	26,262	25,321	24,600	0	10,898	12,906	0	796
SUNY, C. of Environmental Science and Forestry	179	23,433	26,495	26,083	23,850	2,816	6,857	0	13,700	477
Florida A&M U.	180	18,634	21,837	21,450	23,507	9,700	29	10,567	205	3,006
U. Texas, El Paso	181	27,452	30,643	28,552	23,452	0	16,281	5,638	116	1,417
Indiana U.-Purdue U., Indianapolis	182	19,393	20,263	21,874	22,890	0	7,420	14,909	0	561
Albany Medical C.	183	21,187	23,028	23,510	22,443	0	16,121	6,322	0	0
New Jersey Institute of Technology	184	27,571	27,910	20,121	22,393	0	4,038	18,355	0	0
Ponce Health Sciences U.	185	7,857	11,390	13,566	22,009	0	0	22,009	0	0
Tennessee State U.	186	13,330	11,924	20,557	21,260	14,654	2,551	664	84	3,307

TABLE 42

**Higher education R&D expenditures in the life sciences, ranked by all FY 2021 life sciences: FYs 2018–21 and by subfield for FY 2021**

(Dollars in thousands)

Institution	Rank	2018	2019	2020	2021					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
North Carolina Agricultural and Technical State U.	187	17,349	16,756	16,663	20,086	14,708	1,491	989	2,898	0
Eastern Virginia Medical School	188	30,010	27,064	20,870	19,415	0	9,234	10,181	0	0
U. Texas, Arlington	189	12,100	18,118	18,430	19,246	0	8,816	9,984	446	0
U. Minnesota, Duluth	190	19,392	19,286	19,580	19,119	0	1,279	0	17,840	0
New York Medical C.	191	8,141	19,398	20,137	18,872	0	7,406	7,563	0	3,903
Marshall U.	192	16,410	15,738	16,302	18,296	0	4,893	13,300	0	103
U. Missouri, Kansas City	193	13,616	16,974	20,183	17,966	0	5,265	12,701	0	0
Creighton U.	194	14,925	17,527	14,845	17,512	0	7,059	10,453	0	0
Ohio U.	195	17,098	15,739	15,375	16,838	0	8,765	7,371	0	702
Texas A&M U.-Kingsville	196	14,907	16,431	16,722	16,283	14,886	1,328	0	69	0
U. South Dakota	197	18,390	18,568	17,172	15,920	0	13,982	1,576	221	141
Meharry Medical C.	198	16,980	18,286	13,870	15,840	0	15,840	0	0	0
Rice U.	199	14,193	13,966	16,008	15,766	0	15,766	0	0	0
Old Dominion U.	200	14,020	14,668	14,463	15,041	0	8,798	5,972	271	0
Central Michigan U.	201	8,240	8,603	9,145	14,879	9	3,225	10,781	864	0
U. Alabama, Tuscaloosa	202	7,297	8,452	8,985	14,565	0	5,585	8,980	0	0
Carnegie Mellon U.	203	12,376	15,366	14,696	14,273	256	12,858	895	0	264
Delaware State U.	204	11,406	13,791	14,368	14,196	2,426	8,804	2,245	721	0
Wichita State U.	204	1,918	2,850	2,980	14,196	0	2,705	11,491	0	0
CUNY, Graduate School of Public Health and Health Policy	206	7,290	7,882	10,899	14,025	0	492	13,481	0	52
East Tennessee State U.	207	9,373	10,721	10,103	13,835	0	8,912	4,923	0	0
Northeast Ohio Medical U.	208	17,846	17,625	15,579	13,823	0	8,853	4,451	0	519
Portland State U.	209	13,266	15,844	13,547	13,784	16	9,159	1,184	3,393	32
U. North Texas, Denton	210	10,703	12,644	12,745	13,582	2,085	7,908	3,360	52	177
Rosalind Franklin U. of Medicine and Science	211	16,685	16,011	14,516	13,478	0	11,434	1,893	0	151
Charles R. Drew U. of Medicine and Science	212	11,490	13,739	13,682	13,228	0	0	13,228	0	0
Loma Linda U.	213	18,715	16,874	15,033	13,191	0	6,302	6,889	0	0
San Francisco State U.	214	11,292	12,886	12,603	13,143	0	11,694	205	1,017	227
Boise State U.	215	8,838	9,858	10,616	12,908	603	9,570	1,723	1,005	7
Nova Southeastern U.	216	13,414	14,236	13,298	12,827	0	0	12,827	0	0

TABLE 42

**Higher education R&D expenditures in the life sciences, ranked by all FY 2021 life sciences: FYs 2018–21 and by subfield for FY 2021**

(Dollars in thousands)

Institution	Rank	2018	2019	2020	2021					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
U. Massachusetts, Lowell	217	9,600	8,730	12,056	12,821	0	5,652	6,255	264	650
SUNY, Binghamton U.	218	14,340	12,165	12,877	12,788	0	5,382	7,345	50	11
U. Nebraska, central administration	219	8,962	12,205	13,089	12,423	823	9,291	2,309	0	0
Marquette U.	220	10,388	13,155	11,696	12,236	88	5,143	5,545	0	1,460
Rutgers, State U. New Jersey, Newark	221	9,789	10,800	13,014	11,845	0	9,197	2,648	0	0
U. Guam	222	8,303	8,964	9,824	11,783	3,237	411	2,741	5,394	0
Texas State U.	223	10,089	11,304	12,417	11,708	544	10,644	0	0	520
Baylor U.	224	5,839	5,641	7,456	11,299	323	7,708	2,782	421	65
U. Southern Mississippi	225	10,079	10,316	11,248	11,218	0	8,983	2,235	0	0
Wright State U.	226	15,403	16,448	13,515	11,213	0	6,556	4,651	0	6
Midwestern U.	227	10,173	10,343	10,479	10,957	22	6,633	4,302	0	0
Syracuse U.	228	10,721	12,095	10,724	10,916	0	7,028	3,098	790	0
Rowan U.	229	7,700	11,107	11,115	10,849	0	3,796	6,962	0	91
Texas Tech U., Health Sciences Center, El Paso	230	12,145	11,649	10,294	10,555	0	3,288	7,267	0	0
CUNY, Queens C.	231	10,167	10,992	11,236	10,421	0	1,599	8,822	0	0
U. Maryland, Baltimore County	232	4,888	11,834	11,478	10,033	803	8,953	22	64	191
U. California, Merced	233	7,725	10,943	9,333	9,742	201	5,096	3,956	0	489
Miami U.	234	8,597	11,143	12,044	9,733	26	3,528	5,813	0	366
Brigham Young U., Provo	235	10,262	9,121	9,218	9,660	3,186	5,012	1,349	0	113
U. Memphis	236	11,041	10,521	10,395	9,537	179	3,805	5,201	4	348
Chapman U.	237	5,505	7,139	7,307	9,497	409	4,588	4,337	5	158
Boston C.	238	12,494	13,514	9,824	9,313	0	7,705	1,608	0	0
CUNY, City C.	239	9,336	8,010	7,167	9,192	30	6,634	2,112	0	416
U. Wisconsin-Milwaukee	240	7,828	8,637	10,279	9,109	0	3,765	5,344	0	0
Illinois Institute of Technology	241	11,310	11,618	9,993	9,053	604	6,978	1,465	0	6
Kent State U.	242	5,611	8,388	8,335	9,034	15	6,047	2,924	46	2
U. North Carolina, Greensboro	243	6,221	8,554	7,582	8,934	0	5,376	3,206	0	352
U. Maryland Center for Environmental Science	244	9,772	10,614	9,194	8,729	971	1,035	0	6,547	176
Mercer U.	245	8,058	8,298	8,624	8,627	0	250	5,592	0	2,785
U. Massachusetts, Boston	246	8,722	9,692	8,950	8,612	6	4,438	3,061	1,107	0
Kentucky State U.	247	8,606	8,139	7,806	8,546	8,546	0	0	0	0
U. Alaska, Anchorage	248	7,822	8,863	6,857	8,381	0	6,250	830	878	423



TABLE 42

## Higher education R&amp;D expenditures in the life sciences, ranked by all FY 2021 life sciences: FYs 2018–21 and by subfield for FY 2021

(Dollars in thousands)

Institution	Rank	2018	2019	2020	2021					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
Prairie View A&M U.	249	7,755	8,105	8,280	8,187	7,730	353	28	76	0
Tuskegee U.	250	7,564	8,427	8,145	8,136	5,873	2,263	0	0	0
Central State U.	251	2,816	2,923	5,451	8,134	7,645	164	0	206	119
Oakland U.	252	5,376	7,041	5,653	7,887	0	3,703	1,402	0	2,782
CUNY, Hunter C.	253	6,221	7,408	8,957	7,852	0	7,167	685	0	0
Georgia Southern U.	254	2,881	2,331	1,664	7,662	81	2,442	4,105	386	648
Tarleton State U.	255	6,262	6,594	6,429	7,521	6,338	415	482	269	17
Lincoln U., Jefferson City	256	3,709	4,089	5,404	7,345	6,283	297	107	551	107
Southern Illinois U., Edwardsville	257	8,931	10,357	8,190	7,333	345	2,023	4,878	71	16
U. Nebraska, Omaha	258	4,641	4,020	5,892	7,208	52	1,034	6,071	19	32
Virginia State U.	259	6,820	6,886	6,123	7,191	6,918	83	190	0	0
U. North Carolina, Wilmington	260	6,991	7,782	7,090	7,179	584	4,712	533	1,350	0
Long Island U.	261	1,648	4,561	6,526	7,162	0	734	6,428	0	0
Oklahoma State U., Center for Health Sciences	262	2,497	4,815	7,616	6,928	0	531	6,397	0	0
Rensselaer Polytechnic Institute	263	5,431	5,384	6,102	6,913	0	6,913	0	0	0
U. Arkansas, Pine Bluff	264	7,033	7,878	7,415	6,852	6,740	0	0	0	112
Alcorn State U.	265	8,877	8,664	7,918	6,826	6,532	0	294	0	0
Edward Via C. of Osteopathic Medicine	266	7,601	7,225	7,475	6,629	0	0	6,629	0	0
Clark Atlanta U.	267	6,172	6,360	6,017	6,614	0	6,614	0	0	0
California Polytechnic State U., San Luis Obispo	268	6,326	8,979	7,929	6,526	2,514	707	2,546	759	0
Arkansas State U., Jonesboro	269	6,184	6,659	6,636	6,436	1,343	5,057	36	0	0
West Virginia State U.	269	5,748	5,424	5,199	6,436	5,801	0	24	611	0
West Texas A&M U.	271	2,782	2,915	3,570	6,240	6,065	10	0	164	1
Southern U. and A&M C., Agricultural Research and Extension Center	272	5,296	5,448	4,475	6,164	4,822	295	765	282	0
Philadelphia C. of Osteopathic Medicine	273	3,059	3,162	3,360	6,131	0	3,294	2,837	0	0
U. Missouri, Saint Louis	274	4,163	6,824	7,254	6,118	0	1,869	4,141	108	0
North Carolina Central U.	275	6,916	8,401	7,233	6,109	0	6,036	73	0	0
Duquesne U.	276	10,603	9,595	9,914	6,085	0	1,239	4,846	0	0
Langston U.	277	10,417	10,287	13,843	6,062	4,333	510	1,219	0	0
U. of the Virgin Islands	278	10,251	9,712	7,103	6,045	3,251	1,913	587	239	55

TABLE 42

**Higher education R&D expenditures in the life sciences, ranked by all FY 2021 life sciences: FYs 2018–21 and by subfield for FY 2021**

(Dollars in thousands)

Institution	Rank	2018	2019	2020	2021					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
Western Michigan U. and Homer Stryker M.D. School of Medicine	279	5,854	5,488	6,999	5,982	0	5,315	663	4	0
Roseman U. of Health Sciences	280	3,973	4,176 i	4,380	5,893	0	0	5,893	0	0
Morgan State U.	281	4,027	4,197	5,061	5,810	416	2,121	3,273	0	0
Western U. of Health Sciences	282	4,063	3,936	4,866	5,598	597	4,966	35	0	0
Texas A&M U.-Corpus Christi	283	4,650	5,669	6,975	5,422	282	4,643	162	159	176
Alabama A&M U.	284	9,946 i	7,546 i	5,142 i	5,357 i	504 i	1,556 i	3,156 i	141 i	0 i
U. Denver	285	3,838	4,388	4,889	5,347	0	5,277	0	70	0
U. New England	286	5,530	5,864	5,904	5,340	0	3,916	1,366	58	0
U. of Health Sciences and Pharmacy in St. Louis	287	ne	ne	4,835	5,313	0	0	5,313	0	0
Humboldt State U.	288	7,549	7,570	7,291	5,303	85	1,028	129	4,057	4
Lehigh U.	289	2,814	4,448	4,121	5,271	0	4,088	0	0	1,183
CUNY, Advanced Science Research Center	290	1,709	3,935	4,679	5,261	0	4,949	0	312	0
Teachers C., Columbia U.	291	3,554	4,651	4,455	5,040	0	0	0	0	5,040
Texas Southern U.	292	2,035	2,695	6,206	5,033	0	4,073	0	0	960
U. North Carolina, Charlotte	293	4,314	5,534	4,512	4,701	0	3,066	1,635	0	0
Fort Valley State U.	294	3,593	4,321	4,581	4,620	4,456	164	0	0	0
U. Hawaii, Hilo	295	4,753	4,212	4,149	4,525	1,575	996	1,263	311	380
Illinois State U.	296	2,682	3,688	3,183	4,364	179	2,936	1,249	0	0
U. Maryland, Eastern Shore	297	201	721	2,572	4,310	3,516	120	635	39	0
U. Colorado Denver <sup>c</sup>	298	na	na	na	4,284	0	1,012	3,149	106	17
U. Puerto Rico, Rio Piedras	299	2,841	3,728	3,617	4,283	0	4,234	49	0	0
California State U., Fresno	300	4,719	4,404	4,306	4,197	2,994	448	752	0	3
Idaho State U.	301	4,054	3,638	3,936	4,167	0	2,965	1,202	0	0
U. Detroit Mercy	302	4,353	4,796	4,337	4,096	0	3,743	353	0	0
Middle Tennessee State U.	303	1,597	1,679	2,029	4,048	953	2,096	667	141	191
California State U., Northridge	304	8,561	10,053	6,822	4,020	0	3,633	0	0	387
U. Central del Caribe	305	4,111	3,953	3,931	3,831	0	0	3,831	0	0
Yeshiva U.	306	3,302	2,420	2,477	3,830	0	0	3,830	0	0
Des Moines U.	307	1,137	1,406	3,637	3,805 i	282 i	2,931 i	592 i	0 i	0 i
Memorial Sloan Kettering Cancer Center, Louis V. Gerstner Jr. Graduate S. of Biomedical Sciences	308	3,502	3,769	3,737	3,776	0	3,660	116	0	0

TABLE 42

## Higher education R&amp;D expenditures in the life sciences, ranked by all FY 2021 life sciences: FYs 2018–21 and by subfield for FY 2021

(Dollars in thousands)

Institution	Rank	2018	2019	2020	2021					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
U. Wisconsin-Stevens Point	309	3,492	3,903	4,317	3,716	857	205	2	2,652	0
California State U., Long Beach	310	5,238	5,335	4,816	3,700	0	1,201	2,499	0	0
Albany C. of Pharmacy and Health Sciences	311	2,730	3,381	3,765	3,687	0	3,562	125	0	0
San Jose State U.	312	1,073	1,133	1,542	3,655	0	2,431	1,224	0	0
Villanova U.	313	1,756	2,381	3,438	3,610	0	2,053	1,557	0	0
Desert Research Institute	314	3,232	2,993	3,539	3,574	0	3,574	0	0	0
California State Polytechnic U., Pomona	315	3,700	2,983	2,656	3,557	2,002	1,555	0	0	0
Winston-Salem State U.	316	884	650	2,400	3,530	0	189	3,341	0	0
Xavier U. Louisiana	317	3,986	3,255	3,929	3,511	0	378	3,133	0	0
Touro U.	318	3,233	3,543	3,539	3,475	0	2,637	0	0	838
SUNY, C. of Optometry	319	3,120	2,968	3,477	3,460	0	0	3,460	0	0
California State U., Monterey Bay	320	3,668	3,887	3,225	3,452	1,409	1,861	182	0	0
James Madison U.	321	1,130	1,146	1,844	3,372	0	1,865	1,429	77	1
U. of the Sciences Philadelphia	322	2,941	3,096	3,181	3,319	0	929	2,355	0	35
New York Institute of Technology	323	2,560	4,479	2,757	3,277	0	227	3,050	0	0
Montclair State U.	324	2,436	2,586	3,277	3,231	48	1,125	1,735	323	0
Pacific U.	325	3,124	5,294	3,852	3,186	0	121	2,745	24	296
Jackson State U.	326	2,140	1,902	2,129	3,183	0	691	2,492	0	0
Bowling Green State U.	327	1,146	1,268	1,766	3,158	312	1,125	1,535	186	0
Murray State U.	328	2,368	3,136	2,475	3,108	146	2,962	0	0	0
Colorado School of Mines	329	2,282	2,324	2,073	3,081	310	2,458	257	56	0
Kennesaw State U.	330	2,394	2,275	5,740	3,073	146	2,202	725	0	0
U. of the District of Columbia	331	1,804	2,600	2,157	3,054	2,726	63	0	0	265
Texas Woman's U.	332	2,451	2,121	2,259	3,053	0	251	2,802	0	0
Northern Illinois U.	333	3,552	4,306	2,319	3,011	0	1,232	1,660	119	0
Oregon Institute of Technology	334	59	1,940	1,741	2,894	0	1,637	780	477	0
Eastern Michigan U.	335	1,433	2,322	3,498	2,811	0	1,037	1,406	269	99
Sam Houston State U.	336	1,572	2,297	1,730	2,688	526	2,145	17	0	0
Ball State U.	337	2,615	2,880	2,738	2,674	0	1,536	1,042	96	0
William & Mary	338	3,463	2,775	2,694	2,669	827	1,823	19	0	0
U.S. Military Academy	339	720	578	421	2,642	0	1,318	1,324	0	0
Michigan Technological U.	340	3,788	4,323	3,804	2,621	0	1,772	849	0	0

TABLE 42

**Higher education R&D expenditures in the life sciences, ranked by all FY 2021 life sciences: FYs 2018–21 and by subfield for FY 2021**

(Dollars in thousands)

Institution	Rank	2018	2019	2020	2021					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
U. Alabama, Huntsville	341	2,528	2,815	3,170	2,620	9	1,411	1,179	0	21
Salisbury U.	342	1,850	2,004	2,366	2,598	0	381	2,120	97	0
SUNY, Polytechnic Institute	343	2,260	1,995	1,977	2,587	0	2,412	175	0	0
Tennessee Technological U.	344	1,202	2,025	2,306	2,510	228	1,325	143	791	23
California State U., Fullerton	345	2,515	2,843	2,440	2,507	136	1,770	537	64	0
MGH Institute of Health Professions	346	2,957	3,494	3,014	2,500	0	1,300	1,200	0	0
Western Illinois U.	347	1,214	1,413	1,914	2,346	2,012	334	0	0	0
U. Wisconsin-Superior	348	2,984	2,219	2,026	2,338	0	0	0	2,338	0
Western Kentucky U.	349	3,209	3,422	2,888	2,315	525	924	665	0	201
Alabama State U.	350	2,434	2,577	1,989	2,265	0	2,265	0	0	0
Louisiana Tech U.	351	2,303	2,565	2,510	2,242	824	749	370	0	299
Palmer C. of Chiropractic, Davenport	352	1,600	1,650	1,900	2,233	0	0	0	0	2,233
Southern Methodist U.	353	1,305	1,533	2,144	2,221	0	1,978	0	0	243
Florida Gulf Coast U.	354	274	153	760	2,209	0	94	897	1,218	0
Clark U.	355	1,225	2,057	1,953	2,197	295	1,059	0	11	832
St. John's U., New York	355	2,057	1,763	2,324	2,197	0	1,045	1,152	0	0
U. West Florida	357	2,129	1,511	2,081	2,192	0	2,018	45	0	129
Worcester Polytechnic Institute	358	2,049	1,791	2,104	2,188	0	2,188	0	0	0
Florida Institute of Technology	359	1,360	1,384	667	2,175	234	875	588	63	415
Framingham State U.	360	73	ne	2,060	2,132	0	0	2,132	0	0
Missouri State U.	361	1,468	1,646	1,812	2,109	572	850	0	626	61
U. Oklahoma, Tulsa	362	2,409	2,328	2,633	2,096	0	0	2,096	0	0
U. North Carolina, Asheville	363	1,713	1,271	1,559	2,045	0	322	1,014	317	392
Stephen F. Austin State U.	364	1,744	1,992	1,848	2,042	1,882	80	79	0	1
U. Nebraska, Kearney	365	1,439	1,810	1,953	2,021	211	995	394	421	0
U. Arkansas, Little Rock	366	1,647	2,483	2,878	1,997	17	1,957	21	2	0
New England C. of Optometry	367	1,026	1,223	1,150	1,978	0	0	1,978	0	0
Northern Kentucky U.	368	253	623	1,007	1,939	0	562	1,377	0	0
Indiana U. Pennsylvania	369	985	1,474	1,251	1,890	0	1,831	59	0	0
U. Louisiana, Monroe	370	1,805	1,795	2,104	1,885	28	298	1,559	0	0
Colorado State U., Pueblo	371	ne	1,693	1,703	1,845	0	1,845	0	0	0
U. Massachusetts, Dartmouth	372	2,304	2,062	1,467	1,834	0	1,725	109	0	0

TABLE 42

**Higher education R&D expenditures in the life sciences, ranked by all FY 2021 life sciences: FYs 2018–21 and by subfield for FY 2021**

(Dollars in thousands)

Institution	Rank	2018	2019	2020	2021					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
Grand Valley State U.	373	1,387	1,338	1,914	1,833	0	625	1,205	0	3
Bates C.	374	622	845	1,247	1,783	0	1,660	0	0	123
Keck Graduate Institute	375	1,367	1,537	1,578	1,765	0	717	1,048	0	0
California State U., East Bay	376	ne	ne	1,103	1,762	0	720	1,042	0	0
Appalachian State U.	377	1,573	1,663	1,879	1,745	60	1,089	269	327	0
Tougaloo C.	378	2,012	1,444	1,741	1,733	0	501	1,232	0	0
U. Puerto Rico, Mayaguez	379	2,027	2,526	1,881	1,729	864	865	0	0	0
Hampton U.	380	1,290	1,777	1,745	1,685	0	872	813	0	0
Hobart and William Smith Colleges	381	ne	1,335	1,563	1,664	0	45	0	1,619	0
Sul Ross State U.	382	2,011	1,578	1,595	1,654	127	0	0	1,527	0
Catholic U. of America	383	2,503	2,368	2,000	1,649	0	1,157	444	0	48
U. North Florida	384	1,347	1,373	1,388	1,647	0	1,243	404	0	0
Reed C.	385	1,754	1,588	1,573	1,629	0	1,629	0	0	0
Fisk U.	386	2,162	4,520	3,585	1,601	0	1,601	0	0	0
CUNY, Brooklyn C.	387	1,740	2,429	2,519	1,570	0	1,505	65	0	0
Wellesley C.	388	1,099	1,515	1,455	1,554	0	1,554	0	0	0
Rochester Institute of Technology	389	871	903	1,238	1,551	0	1,551	0	0	0
Naval Postgraduate School	390	1,313	1,939	1,655	1,537	0	570	270	0	697
Pennsylvania State U., Harrisburg	391	138	187	411	1,536	21	248	1,267	0	0
California State U., Chico	392	1,169	1,089	1,466	1,522	1,233	111	35	0	143
Western Carolina U.	393	550	1,095	1,128	1,484	136	421	927	0	0
Wesleyan U.	394	1,744	1,810	909	1,469	0	1,469	0	0	0
Smith C.	395	2,646	2,368	1,783	1,462	0	1,305	146	11	0
California State U., Sacramento	396	1,368	1,324	1,328	1,446	0	735	340	371	0
St. Edward's U.	397	1,038	2,210	1,620	1,445	150	825	0	470	0
Mercyhurst U.	398	ne	1,315	1,350	1,428	0	576	852	0	0
South Carolina State U.	399	6,234	1,318	1,367	1,416	0	1,217	199	0	0
Austin Peay State U.	400	826	912	1,333	1,404	0	50	1	1,063	290
U. Akron	401	1,633	1,928	1,882	1,390	0	1,180	210	0	0
C. Charleston	402	1,095	1,366	1,128	1,370	0	1,147	76	147	0
U. of the Incarnate Word	403	315	836	962	1,369	0	268	546	0	555
Dillard U.	404	4,889	1,776	1,323	1,356	0	470	534	0	352

TABLE 42

## Higher education R&amp;D expenditures in the life sciences, ranked by all FY 2021 life sciences: FYs 2018–21 and by subfield for FY 2021

(Dollars in thousands)

Institution	Rank	2018	2019	2020	2021						
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec	
Marshall B. Ketchum U.	405	1,451	i 1,430	i 1,357	i 1,351	i 0	i 0	i 1,351	i 0	i 0	i
Saginaw Valley State U.	406	998	1,381	1,229	1,282	i 19	i 62	i 1,199	i 0	i 2	i
U. Northern Colorado	407	1,856	1,679	1,239	1,263	0	963	156	0	144	
Bowdoin C.	408	1,473	1,476	1,196	1,262	0	1,262	0	0	0	
U. Texas, Tyler	409	979	1,378	1,302	1,260	0	774	332	154	0	
Amherst C.	410	869	1,570	1,064	1,259	i 0	i 1,259	i 0	i 0	i 0	i
West Virginia School of Osteopathic Medicine	411	ne	ne	1,303	1,245	0	522	721	0	2	
California State U., Stanislaus	412	1,027	910	1,169	1,232	0	1,222	10	0	0	
Hawaii Pacific U.	413	1,354	1,265	1,248	1,211	654	557	0	0	0	
Fordham U.	414	2,382	1,819	1,435	1,207	0	1,207	0	0	0	
Gallaudet U.	415	2,247	1,311	1,239	1,159	3	525	630	1	0	
Rhode Island C.	416	495	592	808	1,157	0	1,041	116	0	0	
Hope C.	417	708	477	636	1,152	0	1,130	22	0	0	
American U.	418	1,703	1,854	1,886	1,148	0	719	0	0	429	
California State U., San Marcos	419	2,540	1,950	1,888	1,120	0	978	128	0	14	
U. New Orleans	420	626	817	974	1,114	0	1,074	0	30	10	
Northeastern Illinois U.	421	1,343	1,325	1,122	1,111	27	351	724	0	9	
CUNY, C. Staten Island	422	1,163	i 923	1,277	1,109	0	407	690	0	12	
Trinity C., Hartford	423	529	983	975	1,077	0	1,062	0	0	15	
U. Wisconsin-Green Bay	424	823	i 1,173	i 1,114	i 1,065	i 0	i 335	i 730	i 0	i 0	i
Hofstra U.	425	433	472	575	1,062	0	590	359	113	0	
William Paterson U.	426	926	1,040	1,210	1,051	0	571	414	11	55	
Skidmore C.	427	1,489	1,221	937	1,042	0	351	691	0	0	
Azusa Pacific U.	428	2,685	995	2,002	1,022	0	174	848	0	0	
Middlebury C.	429	875	317	615	1,017	0	1,017	0	0	0	
California State U., San Bernardino	430	1,898	2,115	948	1,016	0	882	11	121	2	
Clarkson U.	431	1,401	1,163	999	1,014	0	920	93	0	1	
Barnard C.	432	701	660	692	1,008	135	873	0	0	0	
California State U., Channel Islands	433	889	942	901	1,001	0	807	153	41	0	
U. Texas of the Permian Basin	434	0	ne	335	983	0	962	8	0	13	
Purdue U., Northwest	435	775	615	988	974	0	29	945	0	0	
Fayetteville State U.	436	1,354	1,236	1,483	960	0	30	930	0	0	

TABLE 42

## Higher education R&amp;D expenditures in the life sciences, ranked by all FY 2021 life sciences: FYs 2018–21 and by subfield for FY 2021

(Dollars in thousands)

Institution	Rank	2018	2019	2020	2021					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
U. Houston-Clear Lake	437	211	279	347	942	0	42	92	808	0
Towson U.	438	710	914	836	914	0	450	432	32	0
U. Tennessee, Chattanooga	439	776	853	1,036	878	0	746	132	0	0
U. of the Pacific	440	1,267	1,187	982	870	0	687	183	0	0
C. New Jersey	441	371	ne	657	856	0	819	13	24	0
Northern Michigan U.	442	611	684	727	855	0	644	121	90	0
National U. of Natural Medicine	443	ne	1,245	1,428	850	0	0	850	0	0
Franklin and Marshall C.	444	730	815	578	840	0	677	163	0	0
U. Southern Maine	445	1,223	893	880	830	442	180	59	149	0
Swarthmore C.	446	648	755	841	824	0	824	0	0	0
Loyola Marymount U.	447	300	542	591	819	0	637	127	40	15
West Chester U. Pennsylvania	448	1,318	1,598	1,072	815	0	350	465	0	0
Biola U.	449	701 i	748 i	771 i	811 i	0 i	331 i	480 i	0 i	0 i
Black Hills State U.	450	504	847	824	806	0	800	0	6	0
Morehead State U.	451	276	697	299	802	23	728	0	51	0
Southeastern Louisiana U.	452	774	827	941	795	0	637	158	0	0
U. Alaska, Southeast	453	819	676	574	788	0	723	0	65	0
CUNY, Baruch C.	454	381	396	250	785	0	777	0	8	0
SUNY, Buffalo State	455	564	645	929	780	0	780	0	0	0
U. Richmond	456	823	937	765	766	0	766	0	0	0
U. Central Arkansas	457	986	682	785	755	0	462	293	0	0
U. Colorado Colorado Springs	457	634	528	845	755	0	728	0	0	27
Elizabeth City State U.	459	1	ne	435	752	0	751	0	0	1
California State U., Los Angeles	460	1,794	2,989 i	2,299	740	0	476	264	0	0
U. Wisconsin-Oshkosh	460	727 i	732 i	736 i	740	0	735	5	0	0
U. Tulsa	462	662	920	678	725	0	607	118	0	0
Western Washington U.	463	518	937	958	719	0	548	171	0	0
Bryn Mawr C.	464	1,018	829	705	709	0	709	0	0	0
Williams C.	465	600	720	686 i	703 i	0 i	602 i	0 i	0 i	101 i
Southern Connecticut State U.	466	598	841	1,308	689	49	132	452	56	0
U. Wisconsin-La Crosse	467	1,321	807	851	681	0	603	12	0	66
SUNY, C. Brockport	468	1,132	846	1,197	680	8	67	76	529	0

TABLE 42

## Higher education R&amp;D expenditures in the life sciences, ranked by all FY 2021 life sciences: FYs 2018–21 and by subfield for FY 2021

(Dollars in thousands)

Institution	Rank	2018	2019	2020	2021					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
Bucknell U.	469	1,103	608	743	i 674	0	674	0	0	0
U. Washington, Bothell	470	229	653	558	668	0	493	175	0	0
Montana Technological U.	471	907	1,006	708	661	0	661	0	0	0
U. South Carolina, Aiken	472	934	625	962	657	0	657	0	0	0
Haverford C.	473	754	i 582	i 926	i 647	i 0	i 313	i 334	i 0	i 0
U. Wisconsin-River Falls	474	199	ne	224	645	551	94	0	0	0
Pace U.	475	905	913	1,166	644	0	296	342	0	6
Spelman C.	476	684	536	624	633	0	484	149	0	0
Doane U.	477	652	585	601	i 630	i 0	i 630	i 0	i 0	i 0
Northland C.	478	ne	ne	ne	628	i 0	i 602	i 0	i 26	i 0
Marymount U.	479	ne	ne	ne	624	0	93	531	0	0
Seton Hall U.	480	724	810	138	607	0	607	0	0	0
Davidson C.	481	414	525	322	595	0	595	0	0	0
Pennsylvania State U., Behrend	482	120	124	21	593	125	55	29	384	0
Texas A&M U.-Commerce	483	1,140	1,040	924	587	463	31	86	0	7
Sonoma State U.	484	ne	ne	456	585	0	170	16	399	0
DePaul U.	485	783	479	465	573	0	371	60	0	142
Texas Christian U.	486	1,719	1,932	822	570	43	138	389	0	0
Pepperdine U.	487	350	358	623	564	0	398	161	0	5
U. Puerto Rico, Cayey	488	10	802	i 1,092	563	0	392	169	2	0
Missouri U. of Science and Technology	489	956	922	971	555	0	553	2	0	0
Saint Joseph's U.	490	413	477	761	547	0	517	30	0	0
Augustana U.	491	606	483	ne	546	0	0	546	0	0
Santa Clara U.	492	492	667	879	545	0	386	4	155	0
U. Dayton	493	1,002	818	632	544	0	163	210	171	0
Roger Williams U.	494	198	314	189	543	20	521	0	0	2
Christopher Newport U.	495	428	584	644	536	0	536	0	0	0
U. North Carolina, general administration	496	128	311	222	534	0	522	0	0	12
Clafin U.	497	242	350	857	515	0	492	23	0	0
Calvin U.	498	471	519	496	i 514	i 0	i 501	i 13	i 0	i 0
U. Wisconsin-Platteville	498	ne	389	i 396	i 514	i 172	i 191	i 98	i 53	i 0
Keene State C.	500	ne	549	967	510	0	510	0	0	0



TABLE 42

## Higher education R&amp;D expenditures in the life sciences, ranked by all FY 2021 life sciences: FYs 2018–21 and by subfield for FY 2021

(Dollars in thousands)

Institution	Rank	2018	2019	2020	2021					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
Eastern Kentucky U.	501	769	885	701	509	3	488	18	0	0
Colgate U.	502	737	726	478	507	0	507	0	0	0
Drake U.	503	338	260	ne	503	0	17	362	124	0
Occidental C.	503	288	739	368	503	88	279	86	50	0
Carleton C.	505	339	532	334	501	0	501	0	0	0
Liberty U.	506	ne	867	307	497	0	333	21	0	143
Southern U. and A&M C., Baton Rouge	507	357	430	338	492	112	261	19	100	0
Willamette U.	508	769	313	181	474	0	472	2	0	0
Saint John's U.	509	143	140	133	470	0	180	275	15	0
Indiana State U.	510	744	852	745	465	0	456	9	0	0
Dordt U.	511	ne	ne	ne	464	14	427	0	23	0
Trinity U.	512	448	452	505	461	0	455	6	0	0
Mount Holyoke C.	513	71	142	359	456	0	398	0	58	0
C. of Saint Benedict	514	159	157	149	450	0	178	259	13	0
Minnesota State U., Mankato	515	459	645	548	448	0	329	3	0	116
Providence C.	516	606	589	422	442	0	414	28	0	0
Johnson C. Smith U.	517	616	483	412	437	0	0	261	81	95
Eastern Washington U.	518	662	564	422	436	0	193	6	237	0
Grinnell C.	519	990	363	487	423	0	423	0	0	0
Lamar U.	519	381	685	285	423	0	23	32	0	368
Fort Lewis C.	521	ne	640	297	416	0	352	25	19	20
National Defense U.	522	0	0	200	400	0	400	0	0	0
U. San Francisco	523	492	456	308	398	0	81	284	32	1
U. Massachusetts, central office	524	381	329	545	392	0	0	392	0	0
U. Northern Iowa	525	256	215	306	387	219	164	4	0	0
Coastal Carolina U.	526	278	305	157	386	0	173	2	70	141
Colby C.	527	910	812	443	382	0	270	0	0	112
U. Central Oklahoma	527	314	367	366	382	0	316	66	0	0
Central Washington U.	529	613	517	449	380	0	336	31	13	0
St. Cloud State U.	530	1,048	887	441	379	85	270	16	0	8
U.S. Air Force Academy	531	341	140	0	369	0	317	19	33	0
Harvey Mudd C.	532	298	457	520	364	0	364	0	0	0

TABLE 42

## Higher education R&amp;D expenditures in the life sciences, ranked by all FY 2021 life sciences: FYs 2018–21 and by subfield for FY 2021

(Dollars in thousands)

Institution	Rank	2018	2019	2020	2021					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
CUNY, New York City C. of Technology	533	769	631	496	362	0	362	0	0	0
Furman U.	534	502	412	873	348	0	309	39	0	0
Fort Hays State U.	535	ne	371	483	334	37	296	0	0	1
St. Olaf C.	536	372	288	249	321	1	182	69	23	46
Vassar C.	537	60	34	197	307	0	172	0	21	114
Pittsburg State U.	538	212	393	360	293	0	110	7	176	0
U. Ana G. Mendez, Gurabo	538	437	438	779	293	0	175	8	0	110
New Mexico Institute of Mining and Technology	540	226	395	260	290	0	290	0	0	0
Elon U.	541	397	367	344	288	0	108	180	0	0
Lewis and Clark C.	541	577	584	651	288	0	288	0	0	0
Pomona C.	541	341	296	338	288	0	288	0	0	0
U. Washington, Tacoma	544	331	597	164	281	0	203	40	38	0
SUNY, C. Plattsburgh	545	735	398	465	279	0	0	279	0	0
Claremont McKenna C.	546	366	338	400	274	0	274	0	0	0
Albany State U.	547	683	1,145	654	272	0	94	0	79	99
Savannah State U.	548	581	320	234	268	0	3	178	0	87
Colorado C.	549	220	307	156	260	0	144	0	96	20
C. Wooster	550	400	509	257	257	15	242	0	0	0
Purdue U., Fort Wayne	551	2,355	680	488	255	0	252	3	0	0
U. Hawaii, Maui C.	552	ne	ne	ne	253	0	253	0	0	0
Winthrop U.	552	386	513	501	253	0	240	13	0	0
Troy U.	554	ne	ne	290	250	103	62	2	83	0
CUNY, Lehman C.	555	1,145	205	256	249	0	181	68	0	0
Stockton U.	556	158	78	195	247	0	0	25	152	70
Oberlin C.	557	447	971	295	239	0	230	9	0	0
Connecticut C.	558	663	348	275	232	0	232	0	0	0
U. Wisconsin-Eau Claire	558	138	145	126	232	0	174	58	0	0
Ithaca C.	560	ne	ne	459	230	0	128	95	0	7
U. Michigan, Dearborn	561	403	313	382	226	0	75	151	0	0
New Mexico Highlands U.	562	154	ne	226	222	0	164	0	58	0
Texas A&M International U.	563	3,150	3,569	333	216	0	185	8	23	0
Eastern Connecticut State U.	564	76	302	381	210	1	205	0	4	0

TABLE 42

## Higher education R&amp;D expenditures in the life sciences, ranked by all FY 2021 life sciences: FYs 2018–21 and by subfield for FY 2021

(Dollars in thousands)

Institution	Rank	2018	2019	2020	2021					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
Arcadia U.	565	ne	ne	ne	201	0	0	201	0	0
California State U., Bakersfield	566	430	316	245	197	8	189	0	0	0
New School	566	9	23	324	197	0	40	18	137	2
U. New Haven	568	182	91	40	190	0	121	11	58	0
U. of St. Thomas (MN)	569	375	471	514	182	0	182	0	0	0
U. Michigan, Flint	570	226	213	222	172	0	28	144	0	0
U. of Mary Washington	571	55	100	132	155	0	155	0	0	0
Central Connecticut State U.	572	ne	112	131	142	0	142	0	0	0
CUNY, York C.	572	ne	377	494	142	0	129	5	0	8
California State U., Dominguez Hills	574	380	244	144	140	61	0	64	0	15
SUNY, Oswego	575	393	359	286	135	0	129	6	0	0
Mills C.	576	0	121	95	129	0	0	0	0	129
U. Virginia's C. Wise	577	ne	ne	ne	125	0	125	0	0	0
Hamilton C.	578	251	180	81	122	0	122	0	0	0
U. North Georgia	578	120	286	91	122	2	31	2	8	79
U. Puerto Rico, Humacao	580	233	295	255	111	0	86	0	25	0
U. San Diego	580	417	357	217	111	0	37	74	0	0
CUNY, Graduate Center	582	59	51	116	110	0	110	0	0	0
Citadel Military C. South Carolina	583	ne	ne	109	108	0	103	5	0	0
Macalester C.	583	290	343	297	108	0	108	0	0	0
Northwest Indian C.	583	1,164	104	103	108	108	0	0	0	0
SUNY, Geneseo	583	194	233	131	108	0	108	0	0	0
Abilene Christian U.	587	ne	ne	ne	101	0	101	0	0	0
Bowie State U.	588	75	122	414	96	0	96	0	0	0
Albion C.	589	152	118	96	94	0	74	0	0	20
Lafayette C.	589	82	118	94	94	0	93	1	0	0
Stevens Institute of Technology	589	83	33	203	94	0	94	0	0	0
Morehouse C.	592	119	116	120	90	0	90	0	0	0
Northwestern State U. Louisiana	593	202	261	307	89	0	7	82	0	0
Norfolk State U.	594	53	108	114	88	0	88	0	0	0
Dakota State U.	595	10	7	48	80	80	0	0	0	0
U. Hartford	596	10	38	101	77	0	0	77	0	0

TABLE 42

**Higher education R&D expenditures in the life sciences, ranked by all FY 2021 life sciences: FYs 2018–21 and by subfield for FY 2021**

(Dollars in thousands)

Institution	Rank	2018	2019	2020	2021					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
Monmouth U.	597	ne	164	88	74	0	35	0	39	0
Union C., Schenectady	597	53	80	60	74	0	64	0	0	10
Indiana U., South Bend	599	84	ne	ne	62	0	49	13	0	0
Jacksonville State U.	600	192	114	44	61	0	61	0	0	0
Wheaton C., Wheaton	601	107	216	184	57	0	24	33	0	0
Kean U.	602	ne	ne	183	56	0	0	16	0	40
Manhattan C.	603	ne	91	66	49	0	49	0	0	0
Niagara U.	603	101	94	76	49	0	49	0	0	0
CUNY, John Jay C. of Criminal Justice	605	835	254	92	48	0	43	5	0	0
Youngstown State U.	606	34	100	101	42	0	14	28	0	0
CUNY, system office	607	43	30	84	37	0	37	0	0	0
Fairfield U.	608	1,015	146	279	36	0	14	22	0	0
Seattle U.	609	349	248	156	33	4	29	0	0	0
Suffolk U.	609	ne	ne	29	33	0	33	0	0	0
U. Minnesota, Morris	611	ne	53	72	31	0	20	0	11	0
Alaska Pacific U.	612	115	221	38	29	29	0	0	0	0
Sacred Heart U.	613	ne	ne	ne	26	0	0	24	0	2
U. Houston-Downtown	614	75	38	46	25	0	25	0	0	0
Rutgers, State U. New Jersey, Camden	615	0	32	225	13	0	13	0	0	0
Kettering U.	616	19	26	53	8	0	8	0	0	0
Andrews U.	617	ne	35	15	7	0	0	0	0	7
U. Illinois, Springfield	618	28	8	5	6	0	2	1	3	0
La Sierra U.	619	64	132	101	5	0	5	0	0	0
All other surveyed institutions	-	1,138,224	599,826	543,895	0	0	0	0	0	0

i = imputed. na = not applicable; institution did not exist or did not exist as a separate entity. ne = not eligible; institution did not meet the criteria for inclusion.

nec = not elsewhere classified.

<sup>a</sup> Johns Hopkins University includes the Applied Physics Laboratory (APL), with \$36,580 thousand in total R&D expenditures in life sciences in FY 2021. Total expenditures by field for Johns Hopkins University are flagged as imputed because APL was unable to distribute a portion of institutionally funded R&D by field.

<sup>b</sup> The University of Maryland includes expenditures from the University of Maryland, Baltimore and University of Maryland, College Park campuses. In FY 2019, the two campuses began reporting as one research unit to reflect their new strategic partnership. This relationship was codified through the University of Maryland Strategic Partnership Act passed by the Maryland General Assembly in 2016. Prior to FY 2019, both campuses reported to the survey as separate institutions.

<sup>c</sup> The University of Colorado Denver and University of Colorado Anschutz Medical Center report to the survey separately. Prior to FY 2021, expenditures were reported together under University of

Colorado Denver and Anschutz Medical Campus.

<sup>d</sup> The University of South Florida includes expenditures from the University of South Florida, Tampa; University of South Florida, Saint Petersburg; and University of South Florida, Sarasota-Manatee campuses. Due to the consolidation of the three campuses that occurred on 1 July 2020, University of South Florida, Saint Petersburg and University of South Florida, Sarasota-Manatee began reporting with the University of South Florida, Tampa as the University of South Florida. Prior to FY 2021, all three campuses reported to the survey as separate institutions.

<sup>e</sup> The University of Tennessee, Knoxville includes expenditures from the University of Tennessee Institute of Agriculture. Due to a reorganization within the University of Tennessee system, the Institute of Agriculture now falls under the leadership of the University of Tennessee, Knoxville chancellor. Prior to FY 2020, the University of Tennessee, Knoxville, Institute of Agriculture reported to the survey separately.

**Note(s):**

Institutions reporting zero expenditures in ranked total for FY 2021 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.