

TABLE 42

Higher education R&D expenditures in the life sciences, ranked by all FY 2023 life sciences: FYs 2020–23 and by subfield for FY 2023

(Dollars in thousands)

Institution	Rank	2020	2021	2022	2023						
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec	
All institutions	-	49,615,561	52,350,164	56,475,813	62,204,360	4,285,689	19,526,385		35,724,571	1,079,516	1,588,199
U. California, San Francisco	1	1,581,411	1,639,862	1,734,339	1,978,891	0	3,559		1,975,332	0	0
U. Pennsylvania	2	1,185,719	1,243,966	1,364,745	1,497,834	1,109	1,053,560		412,203	0	30,962
Duke U.	3	990,897	1,040,786	1,174,640	1,266,314	0	317,434		922,346	9,756	16,778
Johns Hopkins U. ^a	4	1,047,668	1,069,865	1,179,546	1,264,589	0	379,802		884,787	0	0
U. California, Los Angeles	5	989,602	1,053,540	1,110,788	1,222,724	0	39,697		1,183,024	0	3
U. Pittsburgh, Pittsburgh	6	954,315	983,251	1,082,521	1,205,739	531	364,789		840,307	0	112
U. Washington, Seattle	7	963,264	1,013,261	1,045,014	1,175,596	150	358,634		772,288	26,473	18,051
U. Texas M. D. Anderson Cancer Center	8	981,164	1,056,727	1,104,846	1,166,465	28,775	353,135		784,555	0	0
Yale U.	9	944,439	1,012,626	1,044,120	1,154,182	0	245,250		899,612	9,041	279
U. North Carolina, Chapel Hill	10	868,276	925,380	1,020,666	1,141,727	0	231,074		910,610	43	0
Stanford U.	11	836,401	905,150	999,214	1,119,445	0	280,092		795,985	1,985	41,383
U. Michigan, Ann Arbor	12	967,660	931,174	1,018,062	1,116,866	2,872	298,094		739,926	24,573	51,401
New York U.	13	643,638	771,663	909,144	1,065,030	0	338,972		723,188	0	2,870
U. Wisconsin-Madison	14	839,302	861,558	952,068	1,058,529	144,969	347,583		560,021	1,009	4,947
U. California, San Diego	15	828,401	827,370	915,619	1,043,913	0	68,124		975,237	552	0
Washington U., Saint Louis	16	824,978	887,653	938,655	1,043,446	0	424,528		618,911	7	0
Cornell U.	17	822,419	833,824	929,175	1,020,982	124,227	347,213		509,376	25,621	14,545
Emory U.	18	732,893	789,831	874,729	998,674	4	252,403		721,234	0	25,033
Columbia U. in the City of New York	19	744,239	797,089	893,199	980,046	0	272,728		702,609	3,842	867
Ohio State U.	20	590,076	876,239	897,954	977,520	82,811	132,029		744,235	13,189	5,256
Icahn School of Medicine at Mount Sinai	21	747,014	820,260	893,968	972,476	0	458,822		513,654	0	0
Vanderbilt U. and Vanderbilt U. Medical Center	22	625,549	806,323	846,605	958,220	0	221,265		729,531	0	7,424
U. Minnesota, Twin Cities	23	722,074	760,975	864,018	948,410	88,091	138,086		657,293	57,494	7,446
U. Florida	24	688,091	706,987	797,710	922,704	238,803	230,400		430,438	23,063	0
Baylor C. of Medicine	25	685,641	716,976	827,005	847,305	0	399,742		447,563	0	0
Northwestern U.	26	619,270	659,195	721,230	816,739	0	205,479		596,679	0	14,581
U. Texas Southwestern Medical Center	27	595,939	632,134	719,002	800,391	0	221,855		540,934	0	37,602
Harvard U.	28	684,127	714,069	741,297	793,236	0	647,908		140,426	4,068	834
U. Southern California	29	580,982	598,925	680,873	744,073	0	382,074		342,531	0	19,468
U. Alabama, Birmingham	30	542,308	571,525	653,373	721,450	0	198,509		522,941	0	0
U. Maryland ^b	31	594,114	633,517	655,867	719,375	68,319	202,787		442,549	2,515	3,205
U. California, Davis	32	597,962	590,027	626,320	682,290	170,896	228,212		283,182	0	0

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					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec	
U. Colorado Anschutz Medical Campus ^c	33	na	559,348	606,860	676,151	827	7,738		667,024	0	562
Indiana U., Bloomington	34	502,210	501,125	550,148	623,240	0	148,161		472,182	0	2,897
Rutgers, State U. New Jersey, New Brunswick	35	518,906	483,265	521,311	619,096	65,222	246,404		293,805	2,392	11,273
U. Cincinnati	36	440,721	456,847	508,639	567,982	0	66,301		481,243	0	20,438
U. Arizona	37	437,147	447,584	471,046	522,916	66,914	241,895		199,768	14,324	15
Oregon Health and Science U.	38	433,917	439,212	463,631	502,768	0	28,310		312,876	214	161,368
Scripps Research Institute	39	444,964	485,435	492,639	494,946	0	494,946		0	0	0
Boston U.	40	373,079	445,535	485,379	486,968	0	211,743		275,110	0	115
U. Iowa	41	414,459	415,734	431,761	478,820	0	148,336		327,000	0	3,484
Texas A&M U., College Station and Health Science Center	42	502,372	487,219	435,563	464,675	234,915	111,681		94,371	18,959	4,749
Case Western Reserve U.	43	384,857	360,294	406,880	462,781	0	105,990		333,191	0	23,600
U. Utah	44	402,001	i 420,965	i 379,462	453,037	0	28,019		409,503	0	15,515
Uniformed Services U. of the Health Sciences	45	316,838	366,610	257,828	448,540	0	4,784		443,756	0	0
U. Virginia, Charlottesville	46	420,679	402,376	432,700	418,932	4	151,637		267,291	0	0
U. Nebraska, Lincoln and Medical Center ^d	47	na	na	na	413,555	106,723	145,976		137,215	20,777	2,864
U. Miami	48	302,160	297,764	342,103	398,810	0	93,560		298,538	1,824	4,888
U. Chicago	49	302,820	336,114	384,527	395,289	0	91,330		303,959	0	0
U. Kentucky	50	322,077	323,030	352,400	381,193	66,265	216,881		98,047	0	0
Michigan State U.	51	319,883	317,235	347,119	377,253	142,085	126,462		76,888	15,616	16,202
U. Texas Health Science Center, Houston	52	273,862	308,823	342,633	374,105	0	66,009		172,565	0	135,531
U. California, Irvine	53	289,422	315,900	318,016	369,735	0	152,147		217,588	0	0
Rockefeller U.	54	337,377	339,729	344,493	369,447	0	354,022		15,425	0	0
U. Illinois, Chicago	55	314,296	324,053	325,514	347,162	0	89,704		256,515	943	0
Pennsylvania State U., University Park and Hershey Medical Center	56	291,299	291,733	319,598	346,482	76,450	110,439		144,332	15,261	0
U. Georgia	57	302,667	309,153	334,447	343,271	132,030	169,728		36,426	1,022	4,065
Medical C. Wisconsin	58	255,783	269,290	301,817	338,863	0	104,865		233,998	0	0
Albert Einstein C. of Medicine	59	288,654	301,715	318,314	336,238	0	0		336,238	0	0
Medical U. South Carolina	60	272,590	277,761	284,553	333,826	i 0	i 73,477	i	108,793	i 0	i 151,556
U. Massachusetts, Medical School	61	279,096	347,337	358,204	326,731	0	157,353		118,862	0	50,516
Virginia Commonwealth U.	62	206,550	233,486	272,134	320,557	0	81,364		214,270	0	24,923
Colorado State U., Fort Collins	63	231,734	288,731	289,050	313,226	68,745	74,873		29,427	136,031	4,150
U. Missouri, Columbia	64	220,890	237,728	283,404	309,601	122,054	51,453		114,187	20,041	1,866
U. Rochester	65	259,224	271,630	291,673	304,786	0	71,596		233,190	0	0

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					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
Wake Forest U.	66	236,154	253,797	253,966	291,310	0	5,132	286,149	29	0
U. California, Berkeley	67	258,228	264,394	275,739	290,429	6,615	140,918	64,238	78,657	1
North Carolina State U.	68	240,399	237,289	262,669	284,651	141,251	131,103	0	0	12,297
Purdue U., West Lafayette	69	243,953	237,182	254,784	282,174	147,520	30,264	103,811	0	579
U. Texas Health Science Center, San Antonio	70	202,572	219,734	238,510	281,078	0	95,103	158,518	0	27,457
SUNY, U. Buffalo	71	241,467	254,314	257,060	263,888	563	105,597	156,207	0	1,521
U. Kansas	72	226,786	230,059	237,780	258,443	0	46,438	195,349	3,261	13,395
Thomas Jefferson U.	73	171,207	200,309	246,129	258,291	0	101,200	157,091	0	0
U. Illinois, Urbana-Champaign	74	241,661	258,253	270,361	245,437	81,241	107,346	7,433	49,417	0
U. South Florida ^e	75	164,666	184,291	203,592	232,123	0	111,401	119,355	53	1,314
Temple U.	76	216,388	223,136	223,126	227,767	0	34,273	104,767	0	88,727
U. Texas Medical Branch	77	179,403	184,500	202,875	225,795	0	177,578	48,217	0	0
U. Connecticut	78	157,618	175,232	220,304	222,563	15,498	93,727	97,728	7,435	8,175
Virginia Polytechnic Institute and State U.	79	199,798	207,204	223,775	221,029	84,682	45,172	51,779	28,412	10,984
Washington State U.	80	196,649	211,107	211,742	220,515	105,370	43,833	63,075	4,426	3,811
Tulane U.	81	161,642	164,874	179,205	209,699	0	53,913	54,390	761	100,635
U. Arkansas for Medical Sciences	82	174,549	194,709	205,493	209,409	0	62,081	146,264	0	1,064
U. New Mexico	83	148,158	243,730	230,657	204,109	17	32,536	168,318	3,049	189
Georgetown U.	84	155,197	183,629	190,912	198,724	0	13,318	182,374	0	3,032
U. Texas, Austin	85	130,377	148,471	156,202	188,258	167	83,405	94,347	5,220	5,119
George Washington U.	86	179,803	180,965	184,091	186,518	0	75,627	109,594	0	1,297
Wayne State U.	87	182,757	175,847	183,074	182,874	0	28,196	151,640	0	3,038
Louisiana State U., Baton Rouge	88	155,187	158,608	173,539	181,370	94,162	75,146	1,532	10,530	0
Arizona State U.	89	103,558	111,790	141,306	179,408	130	108,327	50,218	6,252	14,481
Dartmouth C. and Dartmouth Hitchcock Medical Center	90	170,704	163,702	171,185	179,246	0	93,530	84,151	1,523	42
Brown U.	91	134,751	139,126	149,795	176,938	0	70,926	61,080	0	44,932
Oregon State U.	92	143,505	151,779	162,192	175,883	90,915	43,176	10,346	31,156	290
U. Oklahoma, Norman and Health Science Center	93	164,967	165,745	176,123	174,395	0	42,895	130,968	0	532
Iowa State U.	94	123,853	142,283	160,235	172,991	85,524	46,701	0	0	40,766
U. Louisville	95	158,677	157,735	185,107	171,778	119	62,107	98,442	44	11,066
U. Vermont	96	142,081	142,622	158,896	167,760	30,263	59,063	69,915	8,519	0
West Virginia U.	97	108,264	124,894	135,260	153,092	16,080	40,246	83,852	11,010	1,904
Auburn U., Auburn	98	110,768	111,491	128,578	147,192	81,428	24,327	27,593	2,238	11,606

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					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
Mississippi State U.	99	119,753	127,096	140,283	145,647	108,551	11,824	2,029	20,906	2,337
Tufts U.	100	136,826	149,664	134,584	138,203	4,674	104,627	16,148	10,100	2,654
SUNY, Stony Brook U.	101	121,070	127,257	139,641	136,089	0	63,418	72,671	0	0
Augusta U.	102	103,554	115,862	123,587	134,668	0	41,090	89,163	0	4,415
U. Hawaii, Manoa	103	123,649	123,962	122,760	133,335	18,600	66,938	39,684	1,689	6,424
Kansas State U.	104	127,024	119,328	124,308	129,457	103,613	23,719	2,125	0	0
U. Tennessee, Health Science Center	105	98,345	107,620	113,398	128,251	0	40,611	84,104	0	3,536
Rush U.	106	92,494	104,999	111,165	128,200	0	16,566	111,634	0	0
Princeton U.	107	91,903	95,938	112,932	128,054	0	112,622	0	15,432	0
Massachusetts Institute of Technology	108	126,648	118,283	128,090	127,959	801	49,814	34,612	836	41,896
North Dakota State U.	109	101,693	106,163	115,027	122,001	96,881	5,733	9,502	9,795	90
Cold Spring Harbor Laboratory	110	115,051	114,885	118,034	117,483	2,938	114,545	0	0	0
U. Tennessee, Knoxville	111	84,619	86,080	100,488	110,556	54,420	36,768	9,423	9,914	31
U. South Carolina, Columbia	112	93,409	84,069	97,376	108,934	0	23,497	85,437	0	0
U. California, Riverside	113	95,431	98,539	107,118	108,803	25,563	63,568	19,672	0	0
U. Mississippi	114	86,130	82,916	93,555	106,290	426	26,272	78,100	0	1,492
California Institute of Technology	115	89,626	100,754	98,580	102,066	0	102,066	0	0	0
Touro U., New York ^f	116	ne	ne	ne	100,542	0	99,676	866	0	0
U. Louisiana, Lafayette	117	87,621	80,528	89,731	98,792	1,433	73,783	21,586	1,990	0
U. Arkansas, Fayetteville	118	77,569	79,509	92,217	96,316	72,798	8,563	174	12,228	2,553
Drexel U.	119	89,027	96,668	87,434	94,232	0	43,441	48,152	2,639	0
U. North Texas, Health Science Center	120	41,900	50,692	71,775	93,494	0	7,742	85,752	0	0
U. Idaho	121	73,933	73,435	78,351	93,469	52,219	25,376	438	15,422	14
Oklahoma State U., Stillwater	122	75,506	77,720	77,513	92,203	34,453	29,350	12,631	15,769	0
U. Delaware	123	66,097	60,823	81,458	89,502	34,194	17,302	38,006	0	0
Georgia State U.	124	66,831	65,536	73,616	84,391	0	71,207	11,730	0	1,454
Clemson U.	125	71,776	66,524	72,699	81,964	29,632	31,352	4,455	21	16,504
U. Montana, Missoula	126	66,817	72,501	76,032	81,610	421	25,568	35,268	20,353	0
Montana State U., Bozeman	127	71,440	74,897	82,986	81,492	54,025	15,576	11,100	156	635
Van Andel Research Institute	128	58,982	65,789	78,626	80,748	0	80,748	0	0	0
U. Massachusetts, Amherst	129	64,246	69,519	77,193	79,726	23,426	26,929	13,087	9,541	6,743
U. Nevada, Reno	130	71,378	78,218	78,928	77,346	8,697	35,893	20,603	10,188	1,965
Florida State U.	131	64,315	61,377	67,760	75,107	104	24,154	45,584	3,982	1,283

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Texas Tech U.	132	49,230	55,930	65,627	74,439	44,566	16,883	6,749	6,241	0
Florida International U.	133	55,877	55,462	67,166	71,169	76	50,113	17,697	3,283	0
Louisiana State U., Health Sciences Center, New Orleans	134	43,419	44,370	53,995	68,707	0	1,737	56,216	0	10,754
Utah State U.	135	56,017	56,043	60,940	66,338	35,549	9,477	1,306	20,006	0
U. Oregon	136	35,936	56,791	67,072	63,107	0	40,483	345	392	21,887
U. Colorado Boulder	137	52,074	53,211	56,184	61,853	1,466	53,109	4,666	1,804	808
U. Puerto Rico, Medical Sciences Campus	138	37,081	43,846	47,314	60,985	0	0	60,985	0	0
U. Wyoming	139	47,073	43,538	52,377	57,427	18,589	21,047	7,519	8,336	1,936
Morehouse School of Medicine	140	29,813	32,637	42,489	57,125	0	0	57,125	0	0
Saint Louis U.	141	58,836	65,928	66,726	56,051	0	20,068	35,488	0	495
New Mexico State U.	142	43,340	48,808	53,389	55,765	37,545	16,067	1,106	103	944
SUNY, U. Albany	143	60,025	52,135	49,048	55,543	0	33,695	21,848	0	0
South Dakota State U.	144	49,659	38,411	44,606	55,010	44,565	2,901	3,741	3,748	55
U. California, Office of the President	145	46,725	42,520	45,843	54,407	1,004	0	53,397	6	0
U. New Hampshire	146	52,822	52,907	55,600	54,290	17,902	9,896	17,761	8,393	338
SUNY, Upstate Medical U.	147	41,557	44,870	50,586	53,219	0	20,237	32,982	0	0
Cleveland State U.	148	46,618	45,321	51,438	52,377	0	51,303	866	0	208
Howard U.	149	25,750	30,787	44,152	48,554	0	5,231	39,400	0	3,923
Northern Arizona U.	150	38,862	41,082	43,147	48,110	1,922	29,577	6,108	9,456	1,047
Texas Tech U., Health Sciences Center	151	43,102	40,567	44,961	47,072	0	21,535	25,537	0	0
U. Maine	152	39,357	38,598	41,542	46,999	21,727	12,393	1,721	11,158	0
San Diego State U.	153	27,880	31,479	38,307	46,665	0	18,866	27,205	594	0
Northeastern U.	154	32,626	32,513	37,639	46,459	0	20,438	13,240	0	12,781
U. Houston	155	34,394	34,322	40,187	46,297	307	14,160	31,615	180	35
Loyola U., Chicago	156	35,073	38,592	39,546	44,733	0	20,227	23,373	1,127	6
East Carolina U.	157	33,206	28,703	34,271	43,941	173	9,967	33,801	0	0
Georgia Institute of Technology	158	43,699	32,997	37,289	42,645	4,395	26,908	10,247	0	1,095
U. Texas, Dallas	159	35,986	27,495	31,502	39,684	0	15,328	24,356	0	0
U. Central Florida	160	29,255	30,876	33,455	39,523	0	22,276	17,247	0	0
Southern Illinois U., Carbondale	161	33,480	37,448	38,470	38,745	14,740	5,231	18,341	266	167
U. Alaska, Fairbanks	162	29,409	37,477	28,235	38,729	4,041	23,753	3,956	6,714	265
U. Texas Rio Grande Valley	163	28,351	28,556	26,835	37,668	1,952	5,279	26,827	88	3,522
George Mason U.	164	33,163	47,800	30,410	37,589	313	23,000	13,168	1,101	7

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U. North Dakota	165	31,526	31,330	35,064	36,939	0	18,742	18,197	0	0
U. Rhode Island	166	27,699	28,984	29,670	36,874	5,436	22,967	2	0	8,469
U. Nevada, Las Vegas	167	34,733	32,306	31,571	36,005	51	16,544	17,845	966	599
Florida Atlantic U.	168	28,725	27,748	31,522	35,633	0	21,354	12,783	0	1,496
Louisiana State U., Health Sciences Center, Shreveport	169	25,321	24,600	29,502	35,624	0	16,255	18,404	0	965
SUNY, Downstate Health Sciences U.	170	33,204	34,459	30,918	35,600	0	35,600	0	0	0
U. Texas, El Paso	171	28,552	23,452	30,381	35,325	0	24,121	10,288	62	854
U. Notre Dame	172	27,750	29,599	35,522	35,232	282	34,922	28	0	0
U. California, Santa Cruz	173	27,565	28,302	30,133	34,549	3,576	30,973	0	0	0
Brandeis U.	174	28,345	31,582	30,648	32,578	234	29,283	2,965	20	76
U. Toledo	175	27,748	25,012	30,176	32,455	0	7,625	24,273	60	497
U. Texas Health Science Center, Tyler	176	21,265	27,928	33,872	32,077	1,210	30,867	0	0	0
Florida A&M U.	177	21,450	23,507	26,175	31,768	14,011	1,396	13,209	752	2,400
U. Texas, San Antonio	178	25,911	26,419	27,073	31,428	0	26,481	2,193	0	2,754
Indiana U.-Purdue U., Indianapolis	179	21,874	22,890	21,631	27,536	0	8,927	17,881	0	728
U. Missouri, Kansas City	180	20,183	17,966	33,588	27,493	938	9,801	16,546	1	207
Brigham Young U., Provo	181	9,218	9,660	10,040	27,160	4,942	15,754	5,894	13	557
Nova Southeastern U.	182	13,298	12,827	14,336	26,746	53	1,651	25,042	0	0
U. South Alabama	183	36,664	31,362	25,738	26,117	0	221	21,011	0	4,885
CUNY, Graduate School of Public Health and Health Policy	184	10,899	14,025	14,429	25,876	0	1,439	24,437	0	0
New Jersey Institute of Technology	185	20,121	22,393	31,619	24,332	0	3,301	21,031	0	0
Eastern Virginia Medical School	186	20,870	19,415	22,165	23,991	0	9,447	14,544	0	0
U. Alabama, Tuscaloosa	187	8,985	14,565	22,348	23,853	11	10,055	13,736	0	51
U. Texas, Arlington	188	18,430	19,246	20,310	23,340	0	10,440	12,347	553	0
Albany Medical C.	189	23,510	22,443	22,297	23,259	0	17,693	5,566	0	0
North Carolina A&T State U.	190	16,663	20,086	19,160	22,995	16,641	2,855	175	3,324	0
SUNY, C. of Environmental Science and Forestry	191	26,083	23,850	22,969	22,461	1,198	2,693	0	18,307	263
Marshall U.	192	16,302	18,296	17,965	21,925	0	8,804	12,952	0	169
Creighton U.	193	14,845	17,512	20,856	21,496	0	8,703	12,793	0	0
Meharry Medical C.	194	13,870	15,840	17,895	21,494	0	21,494	0	0	0
Loma Linda U.	195	15,033	13,191	14,632	20,844	0	9,069	11,775	0	0
Delaware State U.	196	14,368	14,196	15,815	20,808	6,702	11,167	1,641	1,162	136
Ohio U.	197	15,375	16,838	17,612	20,740	0	9,779	9,920	0	1,041

TABLE 42

Higher education R&D expenditures in the life sciences, ranked by all FY 2023 life sciences: FYs 2020–23 and by subfield for FY 2023

(Dollars in thousands)

Institution	Rank	2020	2021	2022	2023					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
U. Minnesota, Duluth	198	19,580	19,119	19,244	20,530	0	1,341	3	19,186	0
Texas State U.	199	12,417	11,708	17,849	20,212	2,165	11,577	4,980	0	1,490
Rice U.	200	16,008	15,766	18,022	19,778	13	19,765	0	0	0
Charles R. Drew U. of Medicine and Science	201	13,682	13,228	14,581	19,551	0	0	19,551	0	0
East Tennessee State U.	202	10,103	13,835	21,542	19,166	0	4,011	15,155	0	0
Syracuse U.	203	10,724	10,916	11,393	18,677	0	7,849	9,169	1,659	0
Central Michigan U.	204	9,145	14,879	17,871	18,284	0	4,202	13,508	573	1
Texas A&M U.-Kingsville	205	16,722	16,283	17,132	18,205	14,713	1,833	116	1,306	237
Tuskegee U.	206	8,145	8,136	15,072	18,189	11,670	4,517	1,879	0	123
Chapman U.	207	7,307	9,497	13,148	17,909	473	6,646	9,403	646	741
Marquette U.	208	11,696	12,236	13,619	17,556	24	8,334	8,724	0	474
U. South Dakota	209	17,172	15,920	17,850	17,382	0	14,545	1,953	540	344
U. Massachusetts, Lowell	210	12,056	12,821	17,817	17,363	0	7,299	10,015	0	49
New York Medical C.	211	20,137	18,872	16,461	17,113	0	7,196	7,136	0	2,781
Tennessee State U.	212	20,557	19,491	16,043	16,921	16,690	218	13	0	0
Carnegie Mellon U.	213	14,696	14,273	15,109	16,878	60	15,116	1,102	45	555
CUNY, Queens C.	214	11,236	10,421	14,572	16,586	0	2,914	13,637	0	35
U. North Texas, Denton	215	12,745	13,582	17,731	16,228	175	11,793	3,765	0	495
SUNY, Binghamton U.	216	12,877	12,788	15,476	15,773	0	5,338	10,081	301	53
Fort Valley State U.	217	4,581	4,620	9,807	15,331	15,331	0	0	0	0
U. Maryland, Baltimore County	218	11,478	10,033	13,643	14,790	449	12,972	320	764	285
San Francisco State U.	219	12,603	13,143	13,356	14,372	0	12,529	297	1,253	293
Portland State U.	220	13,547	13,784	14,531	14,371	0	8,533	1,639	4,049	150
Baylor U.	221	7,456	11,299	13,144	13,879	250	7,235	5,797	391	206
U. Guam	222	9,824	11,783	12,397	13,548	4,937	528	3,036	5,047	0
Old Dominion U.	223	14,463	15,041	12,010	13,232	0	4,710	7,926	596	0
U. California, Santa Barbara	224	30,838	29,848	19,387	13,211	0	13,211	0	0	0
U. North Carolina, Greensboro	225	7,582	8,934	11,226	13,196	0	8,384	4,812	0	0
Wright State U.	226	13,515	11,213	11,782	13,117	0	8,985	4,132	0	0
Boise State U.	227	10,616	12,908	12,000	12,924	1,039	8,101	2,373	1,370	41
Midwestern U.	228	10,479	10,957	11,069	12,725	6	7,040	5,630	0	49
Northeast Ohio Medical U.	229	15,579	13,823	13,150	12,577	15	8,273	3,550	0	739
Illinois Institute of Technology	230	9,993	9,053	9,464	12,293	1,245	9,135	1,759	0	154

TABLE 42

Higher education R&D expenditures in the life sciences, ranked by all FY 2023 life sciences: FYs 2020–23 and by subfield for FY 2023

(Dollars in thousands)

Institution	Rank	2020	2021	2022	2023					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
U. Massachusetts, Boston	231	8,950	8,612	8,974	12,213	200	6,104	3,457	2,452	0
Southern Illinois U., Edwardsville	232	8,190	7,333	8,447	12,048	10,933	711	380	24	0
Texas Tech U., Health Sciences Center, El Paso	233	10,294	10,555	13,073	11,829	0	3,964	7,865	0	0
Rowan U.	234	11,115	10,849	10,188	11,750	0	6,937	4,376	0	437
Boston C.	235	9,824	9,313	8,226	11,638	0	8,994	2,644	0	0
Oakland U.	236	5,653	7,887	9,762	11,634	0	5,693	1,568	0	4,373
Kentucky State U.	237	7,806	8,546	9,156	11,578	11,460	0	0	118	0
Rutgers, State U. New Jersey, Newark	238	13,014	11,845	10,990	11,575	0	11,051	524	0	0
Kent State U.	239	8,335	9,034	10,845	11,557	91	7,579	3,773	96	18
U. North Carolina, Charlotte	240	4,512	4,701	5,643	11,443	0	8,217	3,226	0	0
Alcorn State U.	241	7,918	6,826	9,929	11,432	11,084	0	348	0	0
Michigan Technological U.	242	3,804	2,621	2,804	11,201	0	1,836	1,370	7,803	192
Rosalind Franklin U. of Medicine and Science	243	14,516	13,478	12,579	11,116	0	9,687	1,429	0	0
Texas Southern U.	244	6,206	5,033	8,033	11,092	0	10,156	0	0	936
California Polytechnic State U., San Luis Obispo	245	7,929	6,526	9,048	10,928	4,586	423	2,570	2,409	940
Tarleton State U.	246	6,429	7,521	9,239	10,879	7,186	789	1,399	1,505	0
Morgan State U.	247	5,061	5,810	7,898	10,795	1,772	3,835	5,188	0	0
U. Wisconsin-Milwaukee	248	10,279	9,109	10,207	10,761	0	3,938	6,823	0	0
U. Memphis	249	10,395	9,537	10,731	10,618	18	4,174	6,260	154	12
U. Southern Mississippi	250	11,248	11,218	12,031	10,616	0	8,112	2,504	0	0
Duquesne U.	251	9,914	6,085	8,351	10,506	0	2,010	8,496	0	0
Prairie View A&M U.	252	8,280	8,187	9,381	10,328	9,816	204	11	297	0
CUNY, Hunter C.	253	8,957	7,852	7,870	10,272	31	6,227	4,014	0	0
Central State U.	254	5,451	8,134	8,806	10,270	9,809	133	51	225	52
U. California, Merced	255	9,333	9,742	10,814	10,265	621	5,554	3,520	0	570
Langston U.	256	13,843	6,062	6,074	9,676	8,150	964	562	0	0
Long Island U.	257	6,526	7,162	10,025	9,621	4,002	1,779	3,840	0	0
U. Alaska, Anchorage	258	6,857	8,381	8,875	9,605	9	3,910	2,859	2,827	0
Oklahoma State U., Center for Health Sciences	259	7,616	6,928	7,092	9,376	340	962	8,074	0	0
Alabama A&M U.	260	5,142	5,412	5,654	9,197	760	2,780	5,419	238	0
U. Maryland Center for Environmental Science	261	9,194	8,729	8,403	9,006	1,054	1,390	0	5,511	1,051
Virginia State U.	262	6,123	7,191	7,493	8,961	8,871	52	38	0	0
Lehigh U.	263	4,121	5,271	9,078	8,884	0	6,525	23	0	2,336

TABLE 42

Higher education R&D expenditures in the life sciences, ranked by all FY 2023 life sciences: FYs 2020–23 and by subfield for FY 2023

(Dollars in thousands)

Institution	Rank	2020	2021	2022	2023					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
CUNY, City C.	264	7,167	9,192	7,942	8,800	0	5,377	1,792	1,631	0
Western Michigan U. and Homer Stryker M.D. School of Medicine	265	6,999	5,982	6,080	8,797	0	6,290	2,506	1	0
Mercer U.	266	8,624	8,627	8,473	8,788	0	255	8,533	0	0
U. of the Virgin Islands	267	7,103	6,045	8,130	8,130	3,126	2,708	0	0	2,296
Rensselaer Polytechnic Institute	268	6,102	6,913	8,885	8,077	0	8,077	0	0	0
Miami U.	269	12,044	9,733	9,782	7,968	0	5,120	2,729	0	119
Southern U. and A&M C., Agricultural Research and Extension Center	270	4,475	6,164	7,048	7,764	6,298	178	858	430	0
U. Denver	271	4,889	5,347	5,422	7,747	47	7,068	576	56	0
Georgia Southern U.	272	1,664	7,662	6,734	7,695	47	3,125	3,848	388	287
Edward Via C. of Osteopathic Medicine	273	7,475	6,629	7,121	7,597	0	0	7,597	0	0
U. North Carolina, Wilmington	273	7,090	7,179	7,428	7,597	372	5,072	149	1,765	239
Philadelphia C. of Osteopathic Medicine	275	3,360	6,131	6,667	7,459	0	4,611	2,848	0	0
West Texas A&M U.	276	3,570	6,240	6,054	7,434	6,974	15	0	8	437
Wichita State U.	277	2,980	14,196	15,666	7,402	0	2,030	5,372	0	0
California State U., Long Beach	278	4,816	3,700	4,858	7,345	0	2,504	4,697	144	0
U. Maryland, Eastern Shore	279	2,572	4,310	5,437	7,264	5,675	1,148	427	14	0
U. Nebraska, Omaha	280	5,892	7,208	7,982	7,248	273	1,737	5,212	26	0
California State U., Northridge	281	6,822	4,020	5,528	7,147	0	5,295	375	0	1,477
North Carolina Central U.	282	7,233	6,109	6,414	7,115	i	6,885	230	i	0
Kennesaw State U.	283	5,740	3,073	5,744	7,045	0	6,567	29	0	449
Xavier U. Louisiana	284	3,929	3,511	5,786	7,030	0	400	6,630	0	0
Lincoln U., Jefferson City	285	5,404	7,345	11,109	6,626	i	6,626	0	i	0
Teachers C., Columbia U.	286	4,455	5,040	6,007	6,595	0	0	0	0	6,595
California State Polytechnic U., Humboldt	287	7,291	5,303	4,020	6,526	731	316	45	5,205	229
San Jose State U.	288	1,542	3,655	5,838	6,431	0	2,474	3,957	0	0
Pacific U.	289	3,852	3,186	3,813	6,401	0	292	5,409	127	573
U. New England	290	5,904	5,340	5,953	6,282	0	5,008	1,180	94	0
MGH Institute of Health Professions	291	3,014	2,500	4,628	6,200	0	3,900	2,300	0	0
Jackson State U.	292	2,129	3,183	5,257	6,183	0	733	5,450	0	0
California State U., Fresno	293	4,306	4,197	4,894	6,128	3,848	1,028	1,252	0	0
U. Arkansas, Pine Bluff	294	7,415	6,852	6,299	6,081	5,468	47	0	566	0
Roseman U. of Health Sciences	295	4,380	5,893	6,285	6,065	0	0	6,065	0	0
Idaho State U.	296	3,936	4,167	6,213	5,984	0	4,971	1,013	0	0

TABLE 42

Higher education R&D expenditures in the life sciences, ranked by all FY 2023 life sciences: FYs 2020–23 and by subfield for FY 2023

(Dollars in thousands)

Institution	Rank	2020	2021	2022	2023					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
Ball State U.	297	2,738	2,674	4,876	5,898	0	2,251	3,476	171	0
Clark Atlanta U.	298	6,017	6,614	5,400	5,873	0	5,873	0	0	0
Arkansas State U., Jonesboro	299	6,636	6,436	5,942	5,853	421	5,379	48	5	0
U. Missouri, Saint Louis	300	7,254	6,118	5,842	5,767	0	1,691	3,980	96	0
CUNY, Advanced Science Research Center	301	4,679	5,261	4,493	5,548	0	5,063	0	485	0
California State U., Fullerton	302	2,440	2,507	4,038	5,538	55	2,999	2,469	15	0
Montclair State U.	303	3,277	3,231	3,830	5,509	54	1,638	2,991	317	509
Memorial Sloan Kettering Cancer Center, Louis V. Gerstner Jr. Graduate S. of Biomedical Sciences	304	3,737	3,776	4,954	5,324	0	5,324	0	0	0
U. Colorado Denver ^c	305	na	4,284	2,804	5,291	0	799	4,468	24	0
California State U., Monterey Bay	306	3,225	3,452	3,977	5,232	2,195	2,957	24	56	0
West Virginia State U.	307	5,199	6,436	6,701	5,203	5,203	0	0	0	0
Saint Joseph's U.	308	761	547	5,199	5,186	0	1,435	3,751	0	0
Illinois State U.	309	3,183	4,364	4,488	5,174	202	4,449	523	0	0
Western U. of Health Sciences	310	4,866	5,598	7,043	4,946	589	4,119	234	0	4
U. Hawaii, Hilo	311	4,149	4,525	4,995	4,929	2,481	461	1,039	729	219
U. Central del Caribe	312	3,931	3,831	5,053	4,878	0	0	4,878	0	0
Texas A&M U.-Corpus Christi	313	6,975	5,422	5,184	4,745	435	3,397	304	489	120
Tennessee Technological U.	314	2,306	2,510	3,456	4,713	866	2,525	312	943	67
Villanova U.	315	3,438	3,610	3,993	4,709	0	2,029	2,680	0	0
William & Mary	316	2,694	2,669	3,112	4,618	0	2,035	0	2,583	0
New York Institute of Technology	317	2,757	3,277	3,871	4,431	0	939	3,492	0	0
SUNY, C. of Optometry	318	3,477	3,460	4,497	4,423	0	0	4,423	0	0
James Madison U.	319	1,844	3,372	4,434	4,300	0	2,432	1,834	34	0
U. of Health Sciences and Pharmacy in St. Louis	320	4,835	5,313	4,271	4,284	0	0	4,284	0	0
Texas Woman's U.	321	2,259	3,053	3,015	4,253	0	1,105	2,611	0	537
California State Polytechnic U., Pomona	322	2,656	3,557	3,501	4,204	1,745	2,459	0	0	0
Appalachian State U.	323	1,879	1,745	3,066	4,134	400	2,101	468	398	767
U.S. Air Force Academy	324	0	369	244	4,130	0	4,130	0	0	0
Bowling Green State U.	325	1,766	3,158	4,077	4,114	541	995	1,720	858	0
Yeshiva U.	326	2,477	3,830	3,741	4,003	129	0	3,874	0	0
Keck Graduate Institute	327	1,412	1,350	1,282	3,930	0	3,868	62	0	0
U. Detroit Mercy	328	4,337	4,096	4,455	3,885	0	3,484	401	0	0
U. Wisconsin-Stevens Point	329	4,317	3,716	3,144	3,851	689	30	6	3,126	0

TABLE 42

Higher education R&D expenditures in the life sciences, ranked by all FY 2023 life sciences: FYs 2020–23 and by subfield for FY 2023

(Dollars in thousands)

Institution	Rank	2020	2021	2022	2023					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
U. Central Oklahoma	330	366	382	3,393	3,778	0	2,511	1,267	0	0
Clark U.	331	1,953	2,197	3,706	3,733	148	1,359	1,143	0	1,083
Louisiana Tech U.	332	2,510	2,242	3,703	3,732	962	1,045	1,725	0	0
CUNY, Graduate Center	333	116	110	6	3,725	173	1,359	240	558	1,395
Texas Christian U.	334	822	570	558	3,632	133	1,126	2,364	9	0
Western Kentucky U.	335	2,888	2,315	2,547	3,615	785	1,166	1,505	0	159
DePaul U.	336	465	573	2,088	3,609	0	1,313	1,928	55	313
Des Moines U.	337	3,637	4,192	4,128	3,560	0	3,041	303	0	216
Oregon Institute of Technology	338	1,741	2,894	3,404	3,543	0	1,988	995	560	0
U. Puerto Rico, Rio Piedras	339	3,617	4,283	3,500	3,451	0	3,448	3	0	0
South Carolina State U.	340	2,402	2,720	3,041	3,360	577	1,284	490	828	181
Gallaudet U.	341	1,239	1,159	1,682	3,261	0	939	2,289	0	33
U. Massachusetts, Dartmouth	342	1,467	1,834	2,620	3,229	0	1,935	1,294	0	0
Southern Methodist U.	343	2,144	2,221	2,765	3,187	0	3,002	0	0	185
U. West Florida	343	2,081	2,192	3,311	3,187	0	2,634	275	0	278
Worcester Polytechnic Institute	345	2,104	2,188	3,538	3,170	0	3,170	0	0	0
Towson U.	346	836	914	1,816	3,100	0	1,709	1,167	152	72
U. Alabama, Huntsville	346	3,170	2,620	2,695	3,100	23	1,982	1,091	0	4
Eastern Michigan U.	348	3,498	2,811	2,225	3,091	0	1,122	1,413	415	141
Reed C.	349	1,573	1,629	2,626	2,991	0	1,500	1,491	0	0
Desert Research Institute	350	3,539	3,574	3,674	2,974	0	2,974	0	0	0
Pepperdine U.	351	623	564	2,022	2,953	0	2,603	256	61	33
Winston-Salem State U.	352	2,400	3,530	2,711	2,928	0	399	2,529	0	0
Touro U., California	353	3,539	3,475	2,290	2,877	0	1,908	0	0	969
Seton Hall U.	354	138	607	463	2,862	0	1,059	1,778	25	0
Northern Illinois U.	355	2,319	3,011	2,620	2,809	0	638	1,922	249	0
Azusa Pacific U.	356	2,002	1,022	691	2,795	0	1,616	1,179	0	0
Florida Gulf Coast U.	357	760	2,209	2,606	2,748	4	386	975	1,383	0
California State U., Chico	358	1,466	1,522	1,445	2,734	1,985	661	88	0	0
U. North Florida	359	1,388	1,647	2,409	2,718	0	1,666	905	147	0
Pennsylvania State U., Behrend	360	21	593	1,484	2,704	221	545	283	1,655	0
Albany C. of Pharmacy and Health Sciences	361	3,765	3,687	2,276	2,594	0	2,281	313	0	0
Williams C.	362	686	703	2,275	2,592	0	2,592	0	0	0

TABLE 42

Higher education R&D expenditures in the life sciences, ranked by all FY 2023 life sciences: FYs 2020–23 and by subfield for FY 2023

(Dollars in thousands)

Institution	Rank	2020	2021	2022	2023					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
Alabama State U.	363	1,989	2,265	2,471	2,579	0	2,579	0	0	0
St. John's U., New York	364	2,324	2,197	2,213	2,577	0	659	1,918	0	0
Dine C.	365	347	ne	2,091	2,551	221	453	1,367	510	0
California State U., East Bay	366	1,103	1,093	2,587	2,537	504	754	1,126	0	153
Western Illinois U.	367	1,914	2,346	1,917	2,533	2,523	10	0	0	0
Colby C.	368	443	382	831	2,502	0	707	0	0	1,795
New England C. of Optometry	369	1,150	1,978	1,868	2,491	0	0	2,491	0	0
Lake Superior State U.	370	ne	ne	1,988	2,477	0	1,015	0	1,034	428
Sul Ross State U.	371	1,595	1,563	2,009	2,458	484	1,974	0	0	0
SUNY, Polytechnic Institute	372	1,977	2,587	1,673	2,369	0	2,209	160	0	0
Texas A&M U.-Commerce	373	924	587	2,119	2,368	831	82	318	0	1,137
Hope C.	374	636	1,152	2,230	2,289	0	2,212	77	0	0
Middle Tennessee State U.	375	2,029	4,048	4,950	2,229	1,011	1,049	169	0	0
Austin Peay State U.	376	1,333	1,404	1,657	2,220	0	530	28	1,662	0
Hawaii Pacific U.	377	1,248	1,211	1,431	2,196	1,278	883	35	0	0
Hofstra U.	378	575	1,062	1,232	2,155	34	1,288	586	247	0
U. North Carolina, Asheville	379	1,559	2,045	1,605	2,138	0	143	818	30	1,147
U. Wisconsin-River Falls	380	224	645	ne	2,125	1,972	153	0	0	0
California State U., San Marcos	381	1,888	1,120	1,456	2,102	0	1,791	89	0	222
East Stroudsburg U. Pennsylvania	382	ne	ne	828	2,082	0	89	1,896	97	0
Stephen F. Austin State U.	383	1,848	2,042	1,773	2,028	1,753	232	39	0	4
Saginaw Valley State U.	384	1,229	1,282	1,845	2,025	0	0	2,025	0	0
Smith C.	385	1,783	1,462	2,701	2,023	0	1,883	139	1	0
Rochester Institute of Technology	386	1,238	1,551	1,657	2,005	0	1,731	274	0	0
Wesleyan U.	387	909	1,469	1,833	1,998	0	1,998	0	0	0
Chicago State U.	388	ne	ne	2,223	1,984	0	1,984	0	0	0
Salisbury U.	389	2,366	2,598	2,182	1,962	0	484	1,439	38	1
Colorado School of Mines	390	2,073	3,081	2,918	1,960	0	1,925	35	0	0
U. Texas, Tyler	391	1,302	1,260	2,233	1,957	0	397	1,519	0	41
U. Northern Colorado	392	1,239	1,263	1,368	1,925	0	1,026	688	0	211
Indiana U. Pennsylvania	393	1,251	1,890	1,747	1,909	0	1,799	110	0	0
Murray State U.	394	2,475	3,108	2,449	1,908	40	1,868	0	0	0
Northern Kentucky U.	395	1,007	1,939	2,148	1,864	0	773	1,091	0	0

TABLE 42

Higher education R&D expenditures in the life sciences, ranked by all FY 2023 life sciences: FYs 2020–23 and by subfield for FY 2023

(Dollars in thousands)

Institution	Rank	2020	2021	2022	2023					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
U. Nebraska, Kearney	396	1,953	2,021	2,409	1,862	37	698	683	444	0
California State U., Channel Islands	397	901	1,001	1,401	1,854	0	1,469	58	258	69
Sam Houston State U.	398	1,730	2,688	3,358	1,829	108	1,721	0	0	0
U. Arkansas, Little Rock	399	2,878	1,997	1,519	1,821	6	1,771	21	23	0
New Mexico Highlands U.	400	226	983	1,393	1,803	0	467	0	1,336	0
U. San Francisco	401	308	398	970	1,782	0	552	959	271	0
Marshall B. Ketchum U.	402	1,357	1,351	1,559	1,777	0	0	1,777	0	0
Marian U., Indianapolis	403	ne	ne	ne	1,774	0	1,296	431	47	0
Pennsylvania State U., Harrisburg	403	411	1,536	1,433	1,774	8	450	1,316	0	0
Hampton U.	405	1,745	1,685	1,659	1,745	0	1,252	493	0	0
Clarkson U.	406	999	1,014	1,339	1,725	0	1,192	201	0	332
Palmer C. of Chiropractic, Davenport	406	1,900	2,233	2,050	1,725	0	0	0	0	1,725
U. Dayton	408	632	544	823	1,695	0	206	1,273	216	0
Catholic U. of America	409	2,000	1,649	637	1,689	0	1,689	0	0	0
Florida Institute of Technology	410	667	2,175	1,313	1,682	208	887	114	473	0
U. Louisiana, Monroe	410	2,104	1,885	2,583	1,682	30	166	1,486	0	0
C. Charleston	412	1,128	1,370	1,536	1,677	2	1,500	88	81	6
Hobart and William Smith Colleges	413	1,563	1,664	2,357	1,653	16	158	0	1,479	0
U. Oklahoma, Tulsa	414	2,633	2,096	2,351	1,638	0	0	1,638	0	0
Lincoln Memorial U.	415	ne	ne	ne	1,622	1,319	235	68	0	0
Loyola Marymount U.	416	591	819	2,308	1,620	0	1,296	139	141	44
U. Wisconsin-Green Bay	417	1,114	1,065	1,543	1,590	0	498	1,092	0	0
American U.	418	1,886	1,148	1,117	1,584	0	979	0	0	605
Barnard C.	419	692	1,008	1,322	1,571	1	1,570	0	0	0
Fordham U.	420	1,435	1,207	1,213	1,566	0	1,566	0	0	0
California State U., San Bernardino	421	948	1,016	1,251	1,559	0	1,477	82	0	0
Haverford C.	422	926	647	1,153	1,556	0	997	559	0	0
Swarthmore C.	423	841	824	1,295	1,516	0	1,516	0	0	0
U. Tulsa	424	678	725	1,008	1,499	0	925	574	0	0
Dillard U.	425	1,323	1,356	1,199	1,498	0	484	818	0	196
Amherst C.	426	1,064	1,259	1,741	1,485	0	1,485	0	0	0
Kean U.	427	183	56	1,234	1,463	62	680	406	35	280
West Virginia School of Osteopathic Medicine	428	1,303	1,245	1,327	1,457	0	737	718	0	2

TABLE 42

Higher education R&D expenditures in the life sciences, ranked by all FY 2023 life sciences: FYs 2020–23 and by subfield for FY 2023

(Dollars in thousands)

Institution	Rank	2020	2021	2022	2023					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
U. of the Pacific	429	982	870	1,392	1,448	0	782	666	0	0
SUNY, C. Brockport	430	1,197	680	1,120	1,444	37	27	1	1,379	0
New School	431	324	197	675	1,440	0	0	5	775	660
Missouri State U.	432	1,812	2,109	1,673	1,438	265	382	4	784	3
Ferris State U.	433	ne	ne	ne	1,411	0	249	1,112	0	50
Grand Valley State U.	434	1,914	1,833	1,765	1,401	0	473	928	0	0
Black Hills State U.	435	824	806	1,421	1,400	0	1,399	0	1	0
Colorado State U., Pueblo	436	1,703	1,845	1,214	1,395	126	1,260	9	0	0
Bates C.	437	1,247	1,783	1,743	1,378	0	1,120	0	41	217
U. Houston-Clear Lake	438	347	942	1,322	1,369	0	135	411	823	0
Bucknell U.	439	743	674	1,255	1,368	0	1,360	0	0	8
Tougaloo C.	439	1,741	1,733	1,207	1,368	0	1,367	0	0	1
U. Washington, Bothell	441	558	668	784	1,365	0	234	1,131	0	0
Missouri U. of Science and Technology	442	971	555	797	1,359	189	1,168	0	2	0
Southeastern Louisiana U.	443	941	795	1,022	1,357	0	1,301	56	0	0
Merrimack C.	444	253	ne	ne	1,338	0	7	1,331	0	0
National U. of Natural Medicine	445	1,428	850	ne	1,336	0	0	1,336	0	0
U. of the Incarnate Word	446	962	1,369	972	1,324	0	577	92	0	655
Providence C.	447	422	442	ne	1,320	0	1,102	0	0	218
CUNY, C. Staten Island	448	1,277	1,109	1,070	1,300	0	509	744	47	0
Southern Connecticut State U.	449	1,308	689	1,001	1,275	124	418	706	27	0
California State U., Los Angeles	450	2,299	740	1,229	1,272	0	924	348	0	0
Northeastern Illinois U.	451	1,122	1,111	1,447	1,271	51	325	895	0	0
Bowdoin C.	452	1,196	1,262	1,275	1,258	0	1,258	0	0	0
Fisk U.	453	3,585	1,601	1,289	1,228	0	1,228	0	0	0
U. Central Arkansas	454	785	755	1,209	1,219	0	714	454	51	0
Southern U. and A&M C., Baton Rouge	455	338	492	837	1,211	12	882	148	169	0
U. Akron	456	1,882	1,390	1,587	1,185	0	1,022	151	0	12
California State U., Sacramento	457	1,328	1,446	1,154	1,182	0	444	409	329	0
U. New Orleans	458	974	1,114	1,016	1,181	0	1,181	0	0	0
Wellesley C.	459	1,455	1,554	1,033	1,171	0	1,104	41	26	0
U. Puget Sound	460	379	ne	778	1,166	0	1,086	14	0	66
Roger Williams U.	461	189	543	831	1,157	98	852	48	0	159

TABLE 42

Higher education R&D expenditures in the life sciences, ranked by all FY 2023 life sciences: FYs 2020–23 and by subfield for FY 2023

(Dollars in thousands)

Institution	Rank	2020	2021	2022	2023					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
Bryn Mawr C.	462	705	709	1,259	1,141	0	1,141	0	0	0
C. New Jersey	463	657	856	1,502	1,107	0	996	44	67	0
Grinnell C.	464	487	423	272	1,082	0	1,082	0	0	0
Northern Michigan U.	465	727	855	1,248	1,080	0	734	278	68	0
CUNY, Brooklyn C.	466	2,519	1,570	802	1,067	0	893	174	0	0
U. Tennessee, Chattanooga	467	1,036	878	994	1,055	0	880	174	1	0
Fort Lewis C.	468	297	416	806	1,054	275	574	45	123	37
West Chester U. Pennsylvania	469	1,072	815	1,055	1,053	0	415	638	0	0
U. Richmond	470	765	766	835	1,051	0	1,051	0	0	0
Purdue U., Northwest	471	988	974	1,120	1,035	0	162	873	0	0
Bowie State U.	472	414	96	1,462	1,002	0	485	181	0	336
Nevada State C.	473	ne	ne	1,109	995	0	890	0	105	0
Bentley U.	474	ne	ne	652	947	0	0	928	19	0
SUNY, Buffalo State U.	475	929	780	767	945	0	945	0	0	0
Trinity U.	476	505	461	756	934	0	927	7	0	0
Sacred Heart U.	477	ne	26	ne	931	0	136	593	82	120
St. Olaf C.	478	249	321	ne	908	0	496	69	0	343
Fayetteville State U.	479	1,483	960	784	872	0	62	810	0	0
Spelman C.	480	624	633	685	869	0	783	86	0	0
Western Washington U.	481	958	719	600	864	0	724	140	0	0
California State U., Dominguez Hills	482	144	140	335	845	0	763	78	0	4
Middlebury C.	483	615	1,017	692	827	0	827	0	0	0
Skidmore C.	484	937	1,042	329	825	0	341	484	0	0
Western Carolina U.	485	1,128	1,484	1,326	822	116	345	324	37	0
Butler U.	486	ne	ne	1,276	821	0	321	370	0	130
Northland C.	487	ne	628	719	818	0	783	0	35	0
California State U., Stanislaus	488	1,169	1,232	1,094	813	0	808	5	0	0
U. Wisconsin-Oshkosh	489	736	740	640	810	0	748	21	41	0
CUNY, Baruch C.	490	250	785	933	807	0	612	0	153	42
Montana Technological U.	491	708	661	656	803	0	803	0	0	0
Vassar C.	492	197	307	918	798	0	778	0	20	0
Marymount U.	493	ne	624	394	790	0	92	698	0	0
U. South Carolina, Aiken	494	962	657	1,165	784	0	783	1	0	0

TABLE 42

Higher education R&D expenditures in the life sciences, ranked by all FY 2023 life sciences: FYs 2020–23 and by subfield for FY 2023

(Dollars in thousands)

Institution	Rank	2020	2021	2022	2023					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
CUNY, Lehman C.	495	256	249	371	757	0	654	92	7	4
Trinity C., Hartford	496	975	1,077	965	749	0	706	0	0	43
Sonoma State U.	497	456	585	748	744	0	352	5	387	0
Texas A&M International U.	498	333	216	531	743	0	575	145	23	0
U. Wisconsin-La Crosse	499	851	681	897	729	0	631	10	0	88
Liberty U.	500	307	497	ne	728	0	495	233	0	0
New C. Florida	501	ne	ne	ne	720	0	656	0	64	0
Framingham State U.	502	2,060	763 i	736 i	710	0	10	0	0	700
Davidson C.	503	322	595	787	709	0	709	0	0	0
Minnesota State U., Mankato	504	548	448	813	702	4	434	0	0	264
Kenyon C.	505	534	ne	788	694	0	652	0	42	0
Colgate U.	506	478	507	676	692	0	692	0	0	0
St. Edward's U.	507	1,620	1,445	734	680	79	220	135	185	61
Seattle U.	508	156	33	281	676	40	286	348	0	2
Franklin and Marshall C.	509	578	840	1,001	672	0	533	136	0	3
Pace U.	510	1,166	644	607	667	0	217	399	0	51
United Tribes Technical C.	511	ne	ne	ne	666	0	0	76	31	559
U. Wisconsin-Platteville	512	396 i	514 i	605 i	665 i	224 i	246 i	127 i	68 i	0 i
Ursinus C.	512	ne	ne	ne	665	0	665	0	0	0
California State U., Bakersfield	514	245	197	75	661	99	553	9	0	0
Occidental C.	515	368	503	577 i	657 i	111 i	353 i	123 i	70 i	0 i
Lewis and Clark C.	516	651	288	545	647	0	647	0	0	0
U. Southern Maine	516	880	830	801	647	206	177	6	258	0
U. Wisconsin-Superior	518	2,026	2,338	4,213	646	0	0	0	626	20
Embry-Riddle Aeronautical U.	519	17	0	1,064	636	0	0	437	0	199
Christopher Newport U.	520	644	536	625	628	0	628	0	0	0
Mount Holyoke C.	521	359	456	520	618	0	618	0	0	0
Saint John's U.	521	133 i	470 i	542 i	618 i	1 i	237 i	361 i	19 i	0 i
Santa Clara U.	523	879	545	543	613	0	457	40	116	0
Pennsylvania State U., Altoona	524	ne	ne	ne	609	0	29	443	137	0
U. Texas of the Permian Basin	525	335	983	887	593	0	585	8	0	0
C. of Saint Benedict	526	149 i	450 i	519 i	592 i	0 i	234 i	341 i	17 i	0 i
Furman U.	527	873	348	968	574	0	468	99	0	7

TABLE 42

Higher education R&D expenditures in the life sciences, ranked by all FY 2023 life sciences: FYs 2020–23 and by subfield for FY 2023

(Dollars in thousands)

Institution	Rank	2020	2021	2022	2023						
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec	
Coastal Carolina U.	528	157	386	497	572	0	321		71	180	0
U. Alaska, Southeast	529	574	788	479	566	0	264		0	302	0
U. Colorado Colorado Springs	529	845	755	379	566	0	443		107	0	16
Clafin U.	531	857	515	458	562	0	337		225	0	0
New Mexico Institute of Mining and Technology	532	260	290	691	558	0	558		0	0	0
U. San Diego	533	217	111	233	541	24	432		75	0	10
U. Washington, Tacoma	533	164	281	463	541	0	442		78	21	0
Northwest Indian C.	535	365	i 435	i 504	539	i 0	i 0	i 539	i 0	i 0	i 536
Southern U., New Orleans	536	ne	ne	ne	536	0	0		0	0	536
Naval Postgraduate School	537	1,655	1,537	872	529	0	0		233	100	196
Harvey Mudd C.	538	520	364	605	524	0	524		0	0	0
Calvin U.	539	381	i 430	i 479	523	i 0	i 490	i 33	i 0	i 0	i 0
U. Hawaii, Maui C.	540	ne	253	ne	521	0	96		0	425	0
Connecticut C.	541	275	232	477	518	0	518		0	0	0
Pomona C.	542	338	288	338	500	0	500		0	0	0
Elizabeth City State U.	543	435	752	802	495	0	415		0	80	0
Lamar U.	544	285	423	248	488	0	255		233	0	0
Drake U.	545	ne	503	536	486	0	65		315	106	0
Central Washington U.	546	449	380	437	464	0	324		84	56	0
Indiana State U.	547	745	465	548	461	0	129		332	0	0
Eastern Kentucky U.	548	701	509	ne	458	46	212		5	195	0
Elon U.	549	344	288	287	457	0	102		196	0	159
Eastern Washington U.	550	422	436	410	454	0	244		0	210	0
U. Northern Iowa	551	306	387	337	446	227	219		0	0	0
Purdue U., Fort Wayne	552	488	255	343	438	0	431		7	0	0
Milwaukee School of Engineering	553	0	0	0	431	0	0		0	0	431
CUNY, York C.	554	494	142	429	430	0	282		139	0	9
Pittsburg State U.	554	360	293	526	430	0	100		0	330	0
Wheaton C., Wheaton	554	184	57	ne	430	0	209		160	61	0
CUNY, John Jay C. of Criminal Justice	557	92	48	666	419	0	0		3	0	416
Texas A&M U.-San Antonio	558	ne	ne	348	409	0	241		10	158	0
U. New Haven	559	40	190	350	404	0	151		212	41	0
U. Puerto Rico, Ponce	560	ne	ne	ne	401	0	401		0	0	0

TABLE 42

Higher education R&D expenditures in the life sciences, ranked by all FY 2023 life sciences: FYs 2020–23 and by subfield for FY 2023

(Dollars in thousands)

Institution	Rank	2020	2021	2022	2023					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
Morehouse C.	561	120	90	451	400	0	247	0	0	153
National Defense U.	561	200	400	400	400	0	400	0	0	0
Morehead State U.	563	299	802	517	389	0	242	1	146	0
St. Cloud State U.	564	441	379	417	387	63	183	26	105	10
Troy U.	565	290	250	180	373	270	27	0	76	0
U. Puerto Rico, Mayaguez	566	1,881	1,729	654	368	83	275	0	10	0
Rutgers, State U. New Jersey, Camden	567	225	13	275	363	0	363	0	0	0
Lipscomb U.	568	0	0	ne	360	0	17	343	0	0
Rhode Island C.	569	808	1,157	634	358	0	358	0	0	0
Benedict C.	570	45	ne	ne	354	354	0	0	0	0
Bryant U.	571	ne	ne	ne	353	0	353	0	0	0
Macalester C.	572	297	108	158	352	0	305	47	0	0
Oberlin C.	573	295	239	ne	351	0	351	0	0	0
Monmouth U.	574	88	74	185	337	15	233	0	89	0
Norfolk State U.	575	114	88	148	326	0	317	9	0	0
Savannah State U.	576	234	268	255	318	0	15	147	0	156
Western New England U.	576	ne	ne	467	318	0	0	318	0	0
Stockton U.	578	195	247	291	313	0	74	0	239	0
Whitman C.	579	427	ne	325	311	0	263	0	48	0
Winthrop U.	580	501	253	352	308	0	308	0	0	0
Norwich U.	581	ne	ne	ne	301	0	104	197	0	0
SUNY, C. Plattsburgh	582	465	279	112	292	0	0	292	0	0
U. South Carolina, Beaufort	582	ne	ne	ne	292	109	67	64	52	0
SUNY, Geneseo	584	131	108	152	286	0	286	0	0	0
Gettysburg C.	585	260	ne	ne	274	0	233	4	0	37
U. Michigan, Dearborn	586	382	226	217	270	0	78	192	0	0
Carleton C.	587	334	501	330	265	0	217	0	48	0
Colorado C.	588	156	260	128	263	0	107	0	156	0
Utah Valley U.	589	ne	ne	380	256	0	256	0	0	0
Radford U.	590	ne	ne	ne	255	0	186	69	0	0
U. Scranton	591	ne	ne	ne	251	0	238	13	0	0
U. Houston-Downtown	592	46	25	135	245	0	97	45	103	0
Willamette U.	593	181	474	833	243	0	235	8	0	0

TABLE 42

Higher education R&D expenditures in the life sciences, ranked by all FY 2023 life sciences: FYs 2020–23 and by subfield for FY 2023

(Dollars in thousands)

Institution	Rank	2020	2021	2022	2023					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
Claremont McKenna C.	594	400	274	272	239	0	239	0	0	0
Lincoln U.	595	ne	ne	ne	232	5	153	74	0	0
C. Wooster	596	257	363 i	429	224	29	195	0	0	0
U. of Mary Washington	597	132	155	190	213	0	104	4	105	0
Northwestern State U. Louisiana	598	307	89	183	204 i	0 i	21 i	183 i	0 i	0 i
Lafayette C.	599	94	94	649	197	0	197	0	0	0
Hamilton C.	600	81	122	116	190	0	190	0	0	0
SUNY, Oswego	601	286	135	194	188	3	80	6	99	0
U. Virginia's C. Wise	602	ne	125	116	180	41	139	0	0	0
Abilene Christian U.	603	ne	101	185	179	0	179	0	0	0
CUNY, system office	603	84	37	180	179	0	174	5	0	0
U.S. Military Academy	605	421	2,642	132	167	0	120	0	0	47
Biola U.	606	150 i	157 i	170	163	0	149	14	0	0
CUNY, New York City C. of Technology	607	496	362	304	162	0	162	0	0	0
Albany State U.	608	654	272	ne	158	0	158	0	0	0
Stevens Institute of Technology	609	203	94	1,245	157	0	157	0	0	0
Youngstown State U.	610	101	42	292	155	0	134	21	0	0
U. of St. Thomas (MN)	611	514	182	286	143	0	143	0	0	0
Indiana U., South Bend	612	ne	62	ne	141	0	57	84	0	0
SUNY, Cobleskill	613	ne	ne	0	140	0	0	0	140	0
U. Wisconsin-Eau Claire	614	126	232	138	139	0	98	41	0	0
Fairfield U.	615	279	36	ne	131	0	43	88	0	0
William Paterson U.	616	1,210	1,051	1,379	121	0	50	71	0	0
Grambling State U.	617	0	0	173 i	118	0	74	44	0	0
U. Puerto Rico, Humacao	618	255	111	1	117	0	55	0	62	0
U. Hartford	619	101	77	82	115	0	24	91	0	0
Manhattan C.	620	66	49	37	114	0	114	0	0	0
Union C., Schenectady	621	60	74	143	108	0	108	0	0	0
U. of the District of Columbia	622	2,157	3,054	2,810	107	27	24	0	15	41
Johnson C. Smith U.	623	412	160 i	146	98	0	0	98	0	0
Central Connecticut State U.	624	131	142	121	95	0	95	0	0	0
Virginia Military Institute	625	ne	ne	83	88	0	88	0	0	0
Eastern Connecticut State U.	626	381	210	281	83	4	78	0	1	0

TABLE 42

Higher education R&D expenditures in the life sciences, ranked by all FY 2023 life sciences: FYs 2020–23 and by subfield for FY 2023

(Dollars in thousands)

Institution	Rank	2020	2021	2022	2023					
					All life sciences	Agricultural sciences	Biological and biomedical sciences	Health sciences	Natural resources and conservation	Life sciences nec
Dakota State U.	627	48	80	65	81	0	81	0	0	0
U. Puerto Rico, Cayey	627	1,092	563	30	81	0	63	18	0	0
U. North Georgia	629	91	122	169	77	0	68	9	0	0
Ithaca C.	630	459	230	303	76	0	55	21	0	0
Andrews U.	631	15	7	ne	65	1	41	19	4	0
Citadel Military C. South Carolina	631	109	108	225	65	5	47	10	3	0
Gustavus Adolphus C.	633	ne	ne	ne	64	0	64	0	0	0
Robert Morris U.	634	ne	ne	43 i	48	0	17	31	0	0
Arcadia U.	635	ne	201	ne	43	0	0	43	0	0
Suffolk U.	636	29	33	19	31	0	30	1	0	0
Claremont Graduate U.	637	0	0	0	25	0	25	0	0	0
La Sierra U.	638	101	5	7	8 i	0 i	8 i	0 i	0 i	0 i
Alaska Pacific U.	639	38	29	20	7	7	0	0	0	0
U. Illinois, Springfield	640	5	6	33	3	0	3	0	0	0
Babson C.	641	0 i	0 i	0 i	2 i	0 i	0 i	0 i	2 i	0 i
All other surveyed institutions	-	939,188	401,675	391,813	0	0	0	0	0	0

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

nec = not elsewhere classified.

^a Johns Hopkins University includes the Applied Physics Laboratory (APL), with \$37,072 thousand in total R&D expenditures in life sciences in FY 2023. Total expenditures by field for Johns Hopkins University are flagged as imputed because APL was unable to distribute a portion of institutionally funded R&D by field.

^b The University of 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.

^c 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.

^d The University of Nebraska, Lincoln and Medical Center includes expenditures from the University of Nebraska, Lincoln; University of Nebraska, Medical Center; and University of Nebraska, Central Administration campuses. Due to a realignment within the University of Nebraska system that occurred on 22 June 2023, the three campuses fall under the leadership of one president. Prior to FY 2023, these three campuses reported to the survey as separate institutions.

^e 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.

^f Touro University, New York includes the Lovelace Biomedical Research Institute. In FY 2023, the Lovelace Biomedical Research Institute joined the Touro University System.

Note(s):

Institutions reporting zero expenditures in ranked total for FY 2023 are not listed in this table. Tied institutions are ranked alphabetically. Ranked institutions are geographically separate campuses headed by a campus-level president or chancellor. Some campuses are part of large, multi-campus universities; some are part of state university systems. For a complete list of campuses that belong to a larger university or system and their aggregate R&D expenditures, see table 6.

Source(s):

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