

TABLE 45

Total and federally financed higher education R&D expenditures in the health sciences, ranked by FY 2019 total: FYs 2016–19

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2016	2017	2018	2019	2016	2017	2018	2019
All institutions	-	22,379,901	23,985,796	25,773,804	27,274,318	12,098,365	12,685,602	13,391,996	14,185,253
U. California, San Francisco	1	1,219,255	1,329,729	1,531,475	1,526,889	560,717	560,981	633,646	631,806
U. California, Los Angeles	2	694,199	727,928	879,537	887,293	304,882	305,734	367,948	393,177
U. California, San Diego	3	612,817	623,952	724,886	754,309	338,376	351,985	362,520	372,590
Duke U.	4	639,042	696,085	718,370	749,965	287,937	317,058	323,754	355,135
Johns Hopkins U. ^a	5	609,139	664,206	703,372	727,074	435,096	448,573	473,490	478,556
Yale U.	6	551,237	606,423	632,347	691,959	312,457	335,422	333,155	350,340
U. North Carolina, Chapel Hill	7	607,445	634,348	668,660	680,788	339,765	358,446	374,638	387,808
U. Washington, Seattle	8	541,890	583,219	620,609	655,372	408,326	433,509	465,210	486,924
U. Pittsburgh, Pittsburgh	9	509,666	533,779	583,096	641,144	327,155	346,257	373,157	396,027
U. Michigan, Ann Arbor	10	532,088	548,211	578,171	632,969	270,303	288,532	315,198	339,982
Stanford U.	11	490,594	518,631	553,597	614,159	293,159	309,625	318,415	349,539
U. Texas M. D. Anderson Cancer Center	12	492,035	515,115	584,317	612,732	68,680	75,715	81,643	80,140
Emory U.	13	373,278	410,773	451,672	524,939	192,289	203,654	216,736	236,157
Columbia U. in the City of New York	14	386,197	424,385	485,235	524,495	264,850	295,322	340,645	379,363
U. Colorado Denver and Anschutz Medical Campus	15	376,052	461,099	498,031	515,832	246,294	297,965	316,032	336,438
U. Wisconsin-Madison	16	388,222	427,141	440,649	472,274	164,212	171,345	171,827	185,312
U. Minnesota, Twin Cities	17	401,492	393,519	410,600	461,261	229,350	207,950	206,667	225,592
Northwestern U.	18	346,275	370,779	406,467	446,421	211,048	223,384	246,040	270,784
Washington U., Saint Louis	19	376,862	375,626	403,124	442,275	217,454	225,836	245,508	264,808
U. Southern California	20	293,690	334,385	428,328	408,849	148,218	160,048	183,001	198,583
Vanderbilt U. and Vanderbilt U. Medical Center	21	350,406	377,186	388,100	408,035	227,116	278,516	282,113	287,597
Ohio State U.	22	343,922	373,520	372,386	406,318	191,907	202,499	200,597	211,721
Uniformed Services U. of the Health Sciences	23	225,646	281,653	296,793	405,214	156,254	193,133	210,618	288,742
U. Alabama, Birmingham	24	351,658	370,391	388,367	396,340	217,211	222,532	232,933	246,156
U. Maryland ^b	25	na	na	na	378,537	na	na	na	237,875
New York U.	26	271,941	288,035	361,753	377,195	165,227	182,580	184,518	196,303
Icahn School of Medicine at Mount Sinai	27	276,421	299,743	339,870	363,092	197,477	207,630	229,460	244,978
U. Cincinnati	28	272,184	294,860	317,083	362,786	172,768	181,627	189,481	191,320
Baylor C. of Medicine	29	283,014	285,876	313,453	353,039	99,554	100,911	110,484	137,666
U. Florida	30	259,437	277,111	324,898	342,498	114,105	122,017	135,856	143,967
Indiana U., Bloomington	31	244,340	264,892	282,830	341,217	93,736	108,121	116,415	154,864
Cornell U.	32	237,962	265,474	309,881	336,554	94,423	99,175	117,383	137,876
U. Utah	33	141,740	168,137	345,008	321,728	86,527	107,234	182,554	151,742
U. Texas Southwestern Medical Center	34	258,215	300,916	294,403	310,308	104,180	125,217	125,321	128,317

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U. Pennsylvania	35	247,503	262,444	270,535	301,611	140,317	141,807	147,038	153,088
Albert Einstein C. of Medicine	36	289,660	289,685	297,328	298,824	188,521	188,259	196,457	202,513
Rutgers, State U. New Jersey, New Brunswick	37	154,460	294,485	347,582	294,976	90,132	149,545	152,341	122,619
Case Western Reserve U.	38	257,662	259,950	277,399	284,229	207,475	210,009	227,254	237,106
U. Iowa	39	233,618	245,202	255,499	260,702	120,964	113,744	114,237	118,355
Wake Forest U.	40	165,037	177,041	186,333	227,411	136,786	143,340	149,776	161,380
U. California, Davis	41	195,064	198,317	211,803	215,845	99,137	104,708	108,091	113,073
U. Chicago	42	183,919	196,083	192,128	212,930	122,333	129,641	127,596	146,121
U. Miami	43	204,153	214,355	214,208	210,762	93,837	95,677	94,426	97,927
U. Illinois, Chicago	44	183,831	201,986	193,010	207,754	106,927	110,026	107,797	116,209
U. Rochester	45	181,085	183,888	190,887	194,845	122,582	122,773	130,266	129,064
Boston U.	46	194,391	165,583	158,951	187,252	131,764	104,978	103,685	118,893
Oregon Health and Science U.	47	162,690	167,286	175,814	177,687	114,292	116,566	123,389	134,016
U. Virginia, Charlottesville	48	151,147	196,044	152,594	172,559	63,680	72,196	50,344	48,783
SUNY, U. Buffalo	49	163,179	167,111	165,515	164,551	63,667	62,279	60,158	58,617
U. California, Irvine	50	118,678	133,046	151,640	162,497	55,905	60,307	64,948	66,776
U. Arizona	51	126,669	146,236	167,652	161,471	45,315	56,116	68,196	61,132
Medical C. Wisconsin	52	137,219	140,924	148,465	159,062	67,182	63,959	62,164	67,941
Wayne State U.	53	135,288	139,847	148,674	153,084	71,163	68,776	71,133	74,502
U. Kansas	54	113,298	120,687	135,493	142,295	43,141	46,938	54,878	59,800
Harvard U.	55	145,780	121,625	136,254	137,745	95,303	64,591	64,248	62,263
Georgetown U.	56	112,206	125,558	127,918	136,787	61,213	67,033	64,369	64,256
George Washington U.	57	115,352	113,728	117,455	121,699	86,816	81,599	81,460	78,924
Virginia Commonwealth U.	58	106,156	110,178	124,616	121,490	58,732	60,868	56,725	51,872
U. Texas Health Science Center, Houston	59	97,744	104,716	103,889	114,095	42,556	46,253	45,982	51,093
U. New Mexico	60	106,006	110,134	123,881	113,308	71,359	74,005	77,576	68,059
U. Oklahoma, Norman and Health Science Center	61	92,600	106,024	98,313	107,128	40,655	43,840	37,111	41,090
U. Texas Health Science Center, San Antonio	62	115,908	96,806	97,257	104,703	51,722	47,774	47,567	54,241
Dartmouth C. and Dartmouth Hitchcock Medical Center	63	82,381	79,919	83,026	99,814	46,606	46,912	48,440	60,631
U. Arkansas for Medical Sciences	64	87,468	86,076	92,515	99,586	28,042	26,457	25,404	30,247
Medical U. South Carolina	65	102,525	88,994	92,240	99,495	39,990	38,402	38,607	43,635
Thomas Jefferson U.	66	69,341	85,314	84,064	96,914	26,441	27,531	28,675	31,857
Temple U.	67	83,874	91,376	85,549	95,903	55,009	58,345	56,284	63,267
U. Massachusetts, Medical School	68	107,202	109,214	106,512	92,702	72,853	75,092	74,526	62,020
U. Nebraska, Medical Center	69	66,213	77,953	89,480	90,837	33,976	33,850	32,925	31,791

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Pennsylvania State U., University Park and Hershey Medical Center	70	90,904	92,705	88,833	84,968	57,838	49,066	45,299	46,064
U. South Florida, Tampa	71	218,815	213,888	84,743	83,200	98,199	73,155	19,593	20,003
Texas A&M U., College Station and Health Science Center	72	94,790	96,928	78,732	77,896	29,969	32,046	26,916	29,277
U. Connecticut	73	76,743	77,275	72,241	76,662	44,831	44,752	40,200	43,145
Rush U.	74	54,779	56,880	72,261	75,399	33,263	35,518	47,961	49,170
U. Louisville	75	84,404	92,566	87,100	75,188	26,758	27,709	30,092	29,886
U. Tennessee, Health Science Center	76	52,924	56,195	61,918	74,555	24,455	26,092	26,501	27,654
Purdue U., West Lafayette	77	60,340	69,168	64,066	73,660	20,151	23,026	24,261	24,555
U. Kentucky	78	54,379	70,791	64,652	73,619	26,673	39,766	32,406	40,585
SUNY, U. Albany	79	5,223	46,039	60,653	68,363	4,115	35,317	46,069	51,657
Michigan State U.	80	50,413	53,993	59,646	65,910	21,315	23,512	26,398	32,480
U. California, Berkeley	81	67,652	71,943	65,785	61,002	31,102	35,299	34,645	33,036
West Virginia U.	82	59,642	65,835	62,055	60,670	17,837	15,747	16,777	20,341
U. Mississippi	83	49,738	56,449	55,582	60,209	34,691	31,401	29,177	29,781
SUNY, Stony Brook U.	84	52,588	59,809	54,660	57,903	25,690	27,566	24,994	25,783
Augusta U.	85	42,252	58,135	60,286	56,610	31,252	24,469	23,586	22,378
U. Texas, Austin	86	27,592	29,454	42,958	56,232	19,577	19,780	21,815	29,182
Washington State U.	87	30,409	37,032	43,936	54,571	14,458	20,494	24,820	34,114
U. Missouri, Columbia	88	40,532	43,353	41,954	53,354	17,722	20,153	20,830	23,483
U. Hawaii, Manoa	89	60,847	56,984	54,265	52,177	44,728	39,746	37,714	36,629
U. South Carolina, Columbia	90	65,311	60,213	57,608	52,099	34,127	36,612	36,380	39,967
U. Louisiana, Lafayette	91	745	19,103	0	51,140	64	18	0	12,290
U. Georgia	92	33,965	35,374	35,091	50,860	9,491	9,730	10,661	10,985
U. California, Office of the President	93	20,477	24,228	36,393	50,092	135	178	184	202
Virginia Polytechnic Institute and State U.	94	45,498	45,406	48,797	49,883	13,943	14,857	16,132	19,397
Drexel U.	95	31,456	35,915	45,559	49,628	12,151	14,080	21,707	26,328
U. Vermont	96	40,695	43,594	47,413	48,324	28,082	27,087	30,298	31,802
Brown U.	97	49,259	41,288	49,630	45,463	27,346	30,474	37,965	34,347
U. Puerto Rico, Medical Sciences Campus	98	46,232	42,423	41,216	44,985	33,348	29,869	30,597	34,541
U. Texas Medical Branch	99	57,657	50,384	49,895	43,303	28,682	30,375	30,434	27,545
Colorado State U., Fort Collins	100	58,517	54,686	46,652	37,787	35,354	35,296	30,361	24,560
Tulane U.	101	32,737	33,940	37,352	36,399	11,762	11,168	15,257	14,594
Florida State U.	102	12,787	21,095	25,392	32,890	4,473	7,564	11,696	17,293
East Carolina U.	103	9,600	12,871	20,478	32,861	3,209	4,491	5,831	10,963
Arizona State U.	104	15,900	20,346	26,836	31,611	5,780	7,619	10,933	15,503

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Morehouse School of Medicine	105	38,774	35,454	33,215	31,289	28,678	28,792	24,326	22,461
U. Texas, Dallas	106	19,246	25,367	25,181	31,036	5,117	6,221	8,370	11,546
Saint Louis U.	107	25,408	25,087	27,466	29,373	16,534	11,624	12,719	16,774
Auburn U., Auburn	108	6,358	20,321	26,623	28,160	322	890	2,159	1,615
U. North Texas, Health Science Center	109	26,645	28,971	29,675	28,110	15,585	17,332	19,949	18,111
U. Delaware	110	23,630	27,093	24,182	26,922	15,998	19,392	17,192	19,058
Louisiana State U., Baton Rouge	111	22,547	21,960	23,984	26,509	7,440	6,841	7,566	8,877
Iowa State U.	112	23,024	19,652	23,102	26,137	5,260	5,608	5,923	7,414
U. Illinois, Urbana-Champaign	113	14,045	20,194	19,229	25,462	4,475	6,345	5,617	8,907
New Jersey Institute of Technology	114	5,005	13,350	25,059	24,859	2,395	13,350	22,070	18,422
U. Montana, Missoula	115	14,183	19,631	20,846	24,465	8,648	14,366	18,053	19,683
Texas Tech U., Health Sciences Center	116	21,361	22,198	21,383	22,752	4,431	4,148	3,369	3,596
SUNY, Upstate Medical U.	117	18,234	20,749	21,703	22,363	11,361	11,295	11,924	9,786
Louisiana State U., Health Sciences Center, New Orleans	118	25,049	21,621	19,849	20,974	17,635	13,435	11,845	14,317
U. Toledo	119	15,055	16,761	17,191	20,923	7,107	6,380	8,210	9,880
U. Nevada, Las Vegas	120	12,125	14,550	12,751	20,056	5,526	7,520	6,542	6,120
U. Houston	121	15,318	19,533	22,924	20,004	10,052	9,610	9,597	10,244
U. Massachusetts, Amherst	122	18,693	20,827	19,867	19,940	9,855	11,467	10,708	12,576
Massachusetts Institute of Technology	123	18,016	24,566	22,812	19,499	3,106	10,410	11,679	14,181
Tufts U.	124	45,378	25,840	22,399	19,295	26,116	18,340	12,812	14,964
U. Nevada, Reno	125	4,687	5,873	17,682	18,515	1,712	2,083	10,176	9,170
U. Nebraska, Lincoln	126	21,260	20,948	19,422	18,492	10,108	10,927	8,627	7,719
Eastern Virginia Medical School	127	26,669	22,181	23,540	18,318	17,205	16,623	17,085	13,393
North Dakota State U.	128	11,642	14,616	15,894	17,936	2,329	4,869	5,834	6,703
Kansas State U.	129	21,554	21,208	19,289	17,881	8,794	10,311	9,103	9,584
Howard U.	130	19,253	20,483	19,482	17,872	15,784	16,141	15,474	13,134
U. Texas Rio Grande Valley	131	13,833	14,223	11,955	17,789	7,525	5,114	4,328	4,808
Loyola U., Chicago	132	22,794	19,881	20,136	17,674	13,781	11,101	10,130	9,742
U. Central Florida	133	7,972	7,824	10,783	17,034	1,429	1,624	2,857	2,848
Southern Illinois U., Carbondale	134	20,700	19,149	20,361	16,778	5,208	4,550	4,314	4,437
Florida International U.	135	12,256	15,433	12,635	16,019	4,176	4,935	3,010	3,190
San Diego State U.	136	15,222	13,651	12,874	15,226	11,678	9,419	8,935	10,733
U. New Hampshire	137	12,331	12,606	14,602	14,712	8,327	8,597	9,030	9,133
Loma Linda U.	138	12,684	12,954	13,649	14,497	8,700	7,269	7,555	8,090
Louisiana State U., Health Sciences Center, Shreveport	139	15,090	14,001	13,849	14,390	1,840	1,572	1,529	2,267
Rockefeller U.	140	14,664	14,739	14,412	14,318	7,339	6,539	6,150	5,819

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Indiana U.-Purdue U., Indianapolis	141	11,669	11,662	13,353	14,273	3,200	3,794	4,585	5,579
Nova Southeastern U.	142	9,130	12,404	13,414	14,236	3,022	3,649	3,540	4,725
Charles R. Drew U. of Medicine and Science	143	13,360	15,652	11,490	13,739	12,089	14,461	10,198	10,427
U. South Alabama	144	12,900	11,104	10,269	13,406	8,575	7,028	5,861	8,150
U. North Dakota	145	1,045	12,090	11,708	12,059	771	4,687	5,025	5,940
Montana State U., Bozeman	146	8,811	11,799	10,054	11,971	5,143	7,032	6,476	8,195
Georgia State U.	147	20,340	23,121	22,235	11,424	9,295	10,578	11,124	9,780
Ponce Health Sciences U.	148	7,992	8,664	7,857	11,390	6,951	7,108	6,386	8,339
New York Medical C.	149	9,986	9,141	4,188	11,126	5,542	4,630	4,188	6,143
U. Arkansas, Fayetteville	150	9,158	11,752	13,844	11,026	5,676	7,266	8,588	5,617
Marshall U.	151	7,463	9,088	11,238	10,844	4,371	5,159	5,808	6,218
U. California, Riverside	152	7,043	7,441	8,756	10,797	5,429	3,996	5,317	6,568
Northeastern U.	153	7,191	6,450	9,442	10,429	1,143	1,996	4,328	4,454
Creighton U.	154	10,010	10,322	8,887	10,406	4,580	3,427	2,429	3,497
U. Texas, Arlington	155	3,218	3,035	5,317	9,699	545	1,209	1,306	3,508
Oklahoma State U., Stillwater	156	0	5,529	10,329	9,576	0	1,242	2,222	1,248
Portland State U.	157	4,020	6,092	6,510	9,112	2,735	4,999	5,911	7,816
Northeast Ohio Medical U.	158	12,580	11,704	10,236	9,108	5,751	5,152	3,959	3,673
Texas Tech U., Health Sciences Center, El Paso	159	11,050	11,549	8,616	8,856	1,587	1,375	1,411	1,397
Oregon State U.	160	4,348	6,084	6,803	8,154	3,338	4,466	4,836	5,839
Wright State U.	161	14,354	8,029	7,204	8,004	7,614	3,679	4,265	4,070
Florida A&M U.	162	9,665	8,888	8,599	7,880	8,507	7,491	7,300	6,874
Ohio U.	163	8,207	11,504	8,579	7,681	1,927	2,544	1,955	2,215
U. Texas, El Paso	164	5,887	6,303	6,979	7,504	927	938	1,412	1,958
Florida Atlantic U.	165	3,601	8,322	7,705	7,432	1,958	2,831	2,597	3,572
CUNY, Graduate School of Public Health and Health Policy	166	na	na	7,290	7,388	na	na	3,757	3,439
Edward Via C. of Osteopathic Medicine	167	5,643	8,119	7,601	7,225	39	94	195	749
U. Missouri, Kansas City	168	8,767	8,783	7,796	7,217	3,487	3,702	3,513	3,580
SUNY, Binghamton U.	169	1,026	6,098	8,957	7,085	25	566	1,222	1,490
Albany Medical C.	170	6,306	6,063	6,819	6,792	255	240	331	607
Rowan U.	171	3,587	4,609	4,559	6,652	1,833	2,313	2,919	2,909
Cleveland State U.	172	5,708	4,156	8,610	6,578	3,900	3,200	6,628	3,819
U. Tennessee, Knoxville	173	3,818	3,307	6,020	6,503	2,176	2,015	2,387	3,123
George Mason U.	174	6,415	5,273	7,286	6,467	2,529	2,150	4,024	2,767
Texas Tech U.	175	3,550	4,946	5,879	6,365	264	311	445	597
Duquesne U.	176	7,185	8,129	6,461	5,950	2,969	3,197	2,534	2,089

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U. Wisconsin-Milwaukee	177	961	953	5,547	5,839	961	953	1,964	2,671
Clemson U.	178	1,935	2,307	2,625	5,822	680	1,256	1,198	1,387
U. Colorado Boulder	179	1,886	5,777	6,593	5,714	1,073	4,567	4,728	3,747
U. Memphis	180	3,173	4,852	5,681	5,463	928	1,395	1,279	1,053
Mercer U.	181	3,843	3,651	5,112	5,294	1,486	1,126	1,181	1,233
South Dakota State U.	182	5,556	5,295	4,642	4,896	2,705	2,859	2,252	1,947
U. Alabama, Tuscaloosa	183	1,925	2,262	3,507	4,869	665	623	877	1,589
Georgia Institute of Technology	184	3,201	0	4,671	4,846	1,511	0	0	0
Old Dominion U.	185	5,823	7,047	4,683	4,708	3,268	4,150	3,397	2,081
Long Island U.	186	353	1,349	1,541	4,536	172	1,025	1,333	1,381
Pacific U.	187	657	3,316	2,641	4,463	280	1,352	1,252	2,338
Marquette U.	188	3,538	4,000	3,223	4,461	1,006	873	840	1,477
Miami U.	189	1,085	804	2,802	4,422	135	97	214	365
Alabama A&M U.	190	8,570	i 7,176	i 5,785	i 4,390	i 6,300	i 5,136	i 3,974	i 2,810
Oklahoma State U., Center for Health Sciences	190	698	993	2,497	4,390	500	718	959	848
CUNY, City C.	192	3,100	3,756	4,277	4,355	3,100	2,108	2,506	2,429
U. Wyoming	193	13,636	20,121	17,664	4,206	i 11,168	11,379	7,804	2,900
U. Missouri, Saint Louis	194	1,629	1,713	2,069	4,192	1,141	996	1,528	2,316
New York Institute of Technology	195	2,449	1,953	2,381	4,185	935	460	624	1,900
U. North Carolina, Greensboro	196	3,661	2,728	3,249	3,993	3,124	2,229	2,174	2,424
U. Central del Caribe	197	7,090	5,634	4,111	3,953	6,290	4,866	2,937	2,705
Midwestern U.	198	3,162	3,625	3,778	3,950	218	276	262	491
Roseman U. of Health Sciences	199	3,433	4,167	3,973	3,916	i 0	0	18	17
U. Massachusetts, Boston	200	7,447	8,060	4,395	3,766	2,325	2,282	1,679	1,403
U. Tennessee, Knoxville, Institute of Agriculture	201	2,758	3,312	3,386	3,720	332	732	1,025	1,306
Northern Illinois U.	202	2,685	556	2,786	3,604	703	524	406	211
Texas A&M International U.	203	514	1,991	2,578	3,439	483	1,461	1,339	1,698
East Tennessee State U.	204	3,109	4,013	4,282	i 3,405	i 1,651	1,417	2,092	1,456
U. Nebraska, central administration	205	ne	ne	2,145	3,259	ne	ne	2,145	3,068
Syracuse U.	206	2,132	3,738	3,174	3,253	1,050	848	851	841
SUNY, C. of Optometry	207	4,169	3,304	3,120	2,968	2,487	2,073	1,944	1,823
U. Rhode Island	208	2,314	4,076	2,714	2,944	1,650	3,444	1,648	1,847
U. Massachusetts, Lowell	209	240	19	3,551	2,942	63	0	1,783	945
Central Michigan U.	210	2,410	3,113	3,219	2,910	212	751	1,421	1,046
California Polytechnic State U., San Luis Obispo	211	2,167	3,029	2,741	2,891	2,159	2,266	2,035	2,207
California State U., Long Beach	212	1,997	1,595	2,524	2,873	1,581	960	1,941	2,262

TABLE 45

Total and federally financed higher education R&D expenditures in the health sciences, ranked by FY 2019 total: FYs 2016–19

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2016	2017	2018	2019	2016	2017	2018	2019
California Institute of Technology	213	178	2,966	4,274	2,815	0	0	0	0
Northern Arizona U.	214	1,885	5,578	2,036	2,807	505	3,003	497	1,178
U. Southern Mississippi	215	566	380	2,101	2,771	0	4	112	627
U. Alaska, Fairbanks	216	5,751	5,005	6,324	2,751	5,507	4,680	5,129	2,517
U. Nebraska, Omaha	217	2,999	3,970	3,549	2,599	2,706	3,357	2,921	1,989
Chapman U.	218	1,646	2,913	2,384	2,578	411	983	1,240	1,587
Xavier U. Louisiana	219	2,976	3,011	3,533	2,490	1,753	1,727	2,266	1,180
U. Maryland, Baltimore County	220	0	0	0	2,446	0	0	0	1,400
U. North Carolina, Charlotte	221	1,388	1,549	2,018	2,424	1,016	668	430	728
Yeshiva U.	222	46,130	3,258	3,302	2,420	30,266	816	683	380
Philadelphia C. of Osteopathic Medicine	223	2,122	2,309	2,443	2,368	0	0	0	0
U. of the Sciences Philadelphia	224	1,551	2,298	2,133	2,332	423	544	434	318
U. Oklahoma, Tulsa	225	1,593	1,621	2,383	2,325	583	344	864	496
U. California, Merced	226	709	1,542	1,845	2,323	105	392	512	634
Kent State U.	227	238	1,330	1,559	2,281	3	10	51	110
U. Guam	228	1,095	2,238	1,928	2,145	857	1,976	1,581	1,837
Baylor U.	229	2,068	2,251	2,761	2,127	450	444	681	1,098
MGH Institute of Health Professions	230	1,303	1,076	1,745	1,957	1,303	1,076	1,745	1,957
Texas State U.	230	0	1,065	1,106	1,957	0	214	64	457
U. New England	232	2,935	2,591	2,038	1,870	1,923	1,862	1,402	1,344
U. North Texas, Denton	233	26	426	875	1,866	0	0	0	0
Oakland U.	234	1,459	1,611	1,374	1,805	755	771	567	215
Utah State U.	235	743	413	1,173	1,737	367	292	864	1,398
Illinois Institute of Technology	236	631	866	1,896	1,696	110	337	947	847
U. South Dakota	237	1,922	1,806	1,997	1,631	288	96	368	328
Salisbury U.	238	1,707	1,220	1,634	1,607	394	461	77	0
Mississippi State U.	239	2,126	2,341	1,376	1,535	511	757	126	135
Texas Christian U.	240	151	2,470	1,661	1,527	15	1,484	1,431	844
Georgia Southern U.	241	2,245	2,880	1,670	1,507	1,098	1,736	966	774
U. Texas, San Antonio	242	107	1,030	1,658	1,483	0	358	734	826
Michigan Technological U.	243	828	719	1,113	1,460	317	361	566	629
Texas Woman's U.	244	1,083	1,693	1,807	1,435	44	63	0	229
U. Louisiana, Monroe	244	1,654	1,414	1,483	1,435	1,273	1,176	1,209	1,088
Marshall B. Ketchum U.	246	1,491	1,512	1,451	1,430	375	368	354	336
Rosalind Franklin U. of Medicine and Science	247	1,256	1,542	2,419	1,386	418	415	577	630
Brigham Young U., Provo	248	315	515	837	1,354	17	0	156	482

TABLE 45

Total and federally financed higher education R&D expenditures in the health sciences, ranked by FY 2019 total: FYs 2016–19

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2016	2017	2018	2019	2016	2017	2018	2019
Kennesaw State U.	249	15	56	748	1,346	0	0	6	50
U. Wisconsin-Stevens Point	250	1,058 i	1,107 i	1,255 i	1,316 i	313 i	325 i	358 i	374 i
Saginaw Valley State U.	251	6	421	883	1,296	0	406	868	1,278
U. Alaska, Anchorage	252	1,472	1,472	1,757	1,268	1,277	1,384	1,523	1,116
National U. of Natural Medicine	253	ne	921	ne	1,245	ne	427	ne	760
Idaho State U.	254	2,001	1,791	1,697	1,237	1,400	1,211	899	352
Ball State U.	255	1,249	1,349	1,287	1,232	1,135	592	500	454
New England C. of Optometry	256	980	ne	1,026	1,223	618	ne	837	928
Boston C.	257	1,027	844	1,175	1,202	736	554	858	879
Carnegie Mellon U.	258	760	1,056	1,082	1,191	388	548	759	885
Tougaloo C.	259	1,213	1,755	2,012	1,170	1,213	1,755	2,012	1,170
Eastern Michigan U.	260	264	311	292	1,165	6	0	0	799
Western Kentucky U.	261	578	623	823	1,134	225	212	77	170
North Carolina Central U.	262	989	747	0	1,087	891	710	0	943
Skidmore C.	263	559	979	1,264	1,071	426	807	1,072	948
Southern Illinois U., Edwardsville	264	3,931	2,363	3,088	1,066	1,253	769	741	1,048
Northeastern Illinois U.	265	ne	0	944	997	ne	0	944	997
Hampton U.	266	672	1,139	404	983	672	1,139	404	983
Boise State U.	267	1,557	1,192	881	955	482	759	688	670
West Chester U. Pennsylvania	268	699	736	888	939	72	84	116	126
Western Michigan U. and Homer Stryker M.D. School of Medicine	269	1,540	2,127	1,368	929	812	802	287	100
St. John's U., New York	270	0	0	1,013	926	0	0	533	539
Oregon Institute of Technology	271	0	0 i	0 i	908 i	0	0 i	0	49 i
Keck Graduate Institute	272	308 i	322 i	807 i	906 i	0 i	0 i	404 i	444 i
U. Alabama, Huntsville	273	9	98	108	887	0	0	0	6
Jackson State U.	274	2,321	2,217	870	881	2,300	2,190	866	855
Mercyhurst U.	275	0	0 i	ne	783 i	0	0 i	ne	283 i
U. Hawaii, Hilo	276	5,071	1,749	1,476	746	4,364	1,222	1,029	591
Grand Valley State U.	277	31	79	803	741	0	0	104	527
Azusa Pacific U.	278	2,276	1,941	2,512	736	134	127	111	49
Catholic U. of America	279	580	424	889	735	349	270	663	541
Dine C.	280	ne	ne	647	734	ne	ne	647	734
U. Texas, Tyler	281	88	239	212	693	0	48	149	343
U. Wisconsin-Green Bay	282	139 i	124 i	549 i	684 i	95 i	69 i	189 i	262 i
Southern Connecticut State U.	283	0	98	328	672	0	13	147	144
Illinois State U.	284	90	70	268	646	49	22	20	343

TABLE 45

Total and federally financed higher education R&D expenditures in the health sciences, ranked by FY 2019 total: FYs 2016–19

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2016	2017	2018	2019	2016	2017	2018	2019
U. Northern Colorado	285	921	957	937	634	538	585	490	179
U. North Florida	286	236	500	465	632	14	0	0	0
CUNY, C. Staten Island	287	239	816	857	628	0	349	0	0
New Mexico State U.	287	112	418	626	628	93	292	543	536
U. Wisconsin-Oshkosh	289	ne	550	583	626	ne	399	417	449
California State U., Los Angeles	290	165	148	400	621	165	138	400	490
Western Carolina U.	290	11	158	168	621	9	58	137	493
Villanova U.	292	0	0	455	601	0	0	0	0
William Paterson U.	293	253	191	381	598	148	32	0	0
SUNY, Downstate Medical Center	294	575	1,361	185	593	529	1,361	185	170
Lamar U.	295	118	233	249	563	0	0	15	440
Purdue U., Northwest	295	na	728	722	563	na	104	97	71
California State U., Fullerton	297	92	582	574	553	0	467	451	336
U. of the Incarnate Word	298	ne	ne	160	520	ne	ne	160	520
U. North Carolina, Asheville	299	0	386	146	515	0	356	0	486
Dillard U.	300	6,599	4,246	4,403	506	5,629	3,686	4,134	506
Augustana U.	301	ne	415	606	483	ne	415	606	483
Louisiana Tech U.	302	414	432	357	462	28	47	0	67
Western U. of Health Sciences	303	590	1,403	1,034	446	238	154	537	41
Biola U.	304	382	396	411	440	207	212	218	233
Salus U.	305	0	0	572	429	0	0	541	308
Southern U. and A&M C., Agricultural Research and Extension Center	306	0	0	0	418	0	0	0	0
U. Maine	307	0	62	44	417	0	0	0	0
Montclair State U.	308	1,736	1,124	1,249	416	367	0	174	133
U. Dayton	309	0	229	346	413	0	108	207	319
Gallaudet U.	310	9	360	774	409	0	319	699	388
Clarkson U.	311	0	508	507	398	0	443	368	219
Humboldt State U.	312	463	160	214	396	247	0	0	0
U. of the Pacific	313	476	423	457	381	291	389	393	278
California State U., San Marcos	314	21	28	48	372	21	28	47	372
Fayetteville State U.	315	148	326	368	368	148	326	368	368
Pace U.	316	455	479	510	366	0	20	9	1
California State U., Sacramento	317	487	302	357	356	150	12	14	9
U. Puerto Rico, Cayey	318	0	0	0	353	0	0	0	0
Albany C. of Pharmacy and Health Sciences	319	111	168	1,434	348	28	58	400	214

TABLE 45

Total and federally financed higher education R&D expenditures in the health sciences, ranked by FY 2019 total: FYs 2016–19

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2016	2017	2018	2019	2016	2017	2018	2019
A. T. Still U.	320	2,743	650	ne	345	2,041	177	ne	211
U. Massachusetts, central office	321	85	359	381	329	85	267	246	198
U. San Francisco	322	206	86	280	321	0	0	0	0
Northern Michigan U.	323	150	116	129	320	80	0	0	150
U. South Florida, Saint Petersburg	324	0	77	495	308	0	0	0	0
SUNY, C. Plattsburgh	325	0	0	735	306	0	0	681	281
James Madison U.	326	93	132	133	295	0	0	0	0
U. Nebraska, Kearney	327	66	150	130	276	66	22	19	47
Bowdoin C.	328	219	234	257	270	215	172	166	143
U. Central Arkansas	328	232	570	539	270	59	173	132	58
Elon U.	330	0	204	307	268	0	0	0	0
CUNY, Brooklyn C.	331	318	373	255	266	i 297	326	245	255
Delaware State U.	332	189	30	197	265	189	27	7	170
California State U., Monterey Bay	333	120	155	278	262	70	122	205	196
Winthrop U.	334	0	0	2	259	0	0	0	259
Langston U.	335	889	168	i 211	i 255	889	0	i 0	i 0
U. Washington, Bothell	336	0	0	48	251	0	0	48	203
CUNY, Hunter C.	337	13	104	148	242	13	104	142	238
Johnson C. Smith U.	338	370	352	568	230	302	352	368	230
Southwest C. of Naturopathic Medicine and Health Sciences	338	ne	ne	ne	230	ne	ne	ne	0
Emerson C.	340	334	375	1,024	227	329	343	284	42
C. Charleston	341	15	29	177	225	0	0	0	25
U. San Diego	342	0	145	187	219	0	15	46	22
Towson U.	343	113	190	201	212	0	0	0	13
Northwestern State U. Louisiana	344	70	93	186	211	0	0	4	34
Wheaton C., Wheaton	344	ne	22	72	211	ne	0	27	137
St. Edward's U.	346	0	270	10	210	0	220	10	200
Winston-Salem State U.	347	79	218	305	201	79	218	305	201
South Carolina State U.	348	5,370	i 0	0	i 185	1,765	i 0	0	i 185
San Francisco State U.	349	455	83	63	184	7	41	0	94
U. Michigan, Flint	350	ne	227	126	172	ne	42	7	9
U. Idaho	351	1,028	50	88	169	11	0	58	87
Tennessee State U.	352	33	29	38	167	15	2	36	43
U. North Carolina, Wilmington	353	985	78	66	159	235	3	27	108
Northern Kentucky U.	354	0	0	0	156	0	0	0	138
Amherst C.	355	164	142	202	151	164	142	202	151

TABLE 45

Total and federally financed higher education R&D expenditures in the health sciences, ranked by FY 2019 total: FYs 2016–19

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2016	2017	2018	2019	2016	2017	2018	2019
U.S. Military Academy	356	0	210	200	148	0	210	200	148
Memorial Sloan Kettering Cancer Center, Louis V. Gerstner Jr. Graduate S. of Biomedical Sciences	357	413	312	123	145	104	44	24	43
U. Michigan, Dearborn	358	45	38	141	143	1	8	74	103
U. of the Virgin Islands	358	0	1,671	287	143	0	1,671	287	143
U. Notre Dame	360	316	202	65	139	0	0	0	0
Southeastern Louisiana U.	361	444	516	396	138	213	442	359	118
U. Tulsa	362	0	0	17	135	0	0	0	0
Indiana State U.	363	104	64	195	133	14	19	61	42
Indiana U. Pennsylvania	364	0	37	113	129	0	0	0	0
U. North Georgia	365	ne	0	118	128	ne	0	0	74
Drake U.	366	314	208	217	115	132	66	34	42
Tarleton State U.	366	126	104	3	115	0	0	0	0
U. Oregon	366	18,172	1,974	821	115	16,477	938	629	107
West Virginia State U.	369	0	44	85	113	0	44	45	80
Bowling Green State U.	370	66	392	236	109	29	92	124	67
U. Maryland, Eastern Shore	371	63	18	7	106	63	0	7	5
U. Massachusetts, Dartmouth	371	320	143	123	106	0	0	0	0
Eastern Kentucky U.	373	6	8	79	105	0	0	2	74
California Lutheran U.	374	ne	ne	ne	104	ne	ne	ne	0
California State U., Fresno	374	181	288	335	104	18	125	79	9
U. Tennessee, Chattanooga	374	63	67	88	104	0	0	0	0
Palmer C. of Chiropractic, Davenport	377	0	398	100	100	0	398	100	100
Stephen F. Austin State U.	378	16	0	99	97	0	0	4	1
Bethune-Cookman U.	379	ne	ne	505	94	ne	ne	505	94
Savannah State U.	380	0	144	38	92	0	144	38	92
Colorado School of Mines	381	0	67	68	88	0	8	30	88
U. West Florida	381	340	362	179	88	0	0	7	0
Texas A&M U.-Commerce	383	0	0	17	87	0	0	0	0
Alcorn State U.	384	400	844	186	86	341	670	186	81
Dickinson C.	385	52	0	ne	84	0	0	ne	84
U. Alaska, Southeast	385	208	55	176	84	208	55	176	84
CUNY, John Jay C. of Criminal Justice	387	50	0	346	81	50	0	54	2
U. Arkansas, Little Rock	388	8	276	93	80	0	0	66	53
St. Olaf C.	389	59	99	67	75	0	27	0	0
U. Puerto Rico, Rio Piedras	390	45	0	4	71	38	0	2	71

TABLE 45

Total and federally financed higher education R&D expenditures in the health sciences, ranked by FY 2019 total: FYs 2016–19

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2016	2017	2018	2019	2016	2017	2018	2019
Fairfield U.	391	0	702	0	68	0	357	0	0
U. Detroit Mercy	392	658	189	36	67	0	3	33	46
Florida Gulf Coast U.	393	0	20	20	66	0	17	20	51
Rhode Island C.	394	52	61	58	64	50	60	41	45
U. Central Oklahoma	394	0	56	0	64	0	56	0	60
U. Ana G. Mendez, Gurabo	396	146	56	101	63	0	0	0	0
Pennsylvania State U., Harrisburg	397	0	0	12	62	0	0	0	0
Franklin and Marshall C.	398	0	5	4	58	0	0	0	0
Spelman C.	398	140	171	130	58	140	171	130	58
California State U., San Bernardino	400	322	267	88	57	241	137	5	5
Wichita State U.	400	55	17	6	57	22	6	3	0
Naval Postgraduate School	402	0	0	0	55	0	0	0	55
U. South Florida, Sarasota-Manatee	402	14	64	35	55	0	0	0	0
Furman U.	404	65	99	88	52	59	91	79	52
Pittsburg State U.	405	4	3	14	50	0	0	14	50
U. Wisconsin-Eau Claire	406	14	12	37	49	0	0	0	0
Appalachian State U.	407	11	9	19	45	0	0	0	0
Saint Joseph's U.	408	14	45	37	43	0	0	0	0
St. Cloud State U.	409	52	85	4	36	0	0	0	0
Middle Tennessee State U.	410	39	101	131	34	0	65	79	0
Texas A&M U.-Corpus Christi	411	318	213	38	33	33	0	0	0
Willamette U.	411	0	7	7	33	0	0	0	0
Youngstown State U.	413	24	40	28	31	0	0	0	0
Black Hills State U.	414	0	0	0	29	0	0	0	27
Des Moines U.	414	209	117	81	29	99	50	41	10
Arkansas State U., Jonesboro	416	236	11	45	28	236	0	0	0
DePaul U.	417	0	15	29	27	0	8	8	1
Hofstra U.	418	10	79	96	26	0	47	8	0
SUNY, C. Brockport	418	0	21	47	26	0	11	26	0
California State U., Dominguez Hills	420	5	10	24	24	0	0	0	0
U. North Carolina, general administration	420	74	63	0	24	74	63	0	24
Oberlin C.	422	0	92	44	22	0	0	0	0
California State U., Bakersfield	423	0	10	4	21	0	0	0	0
U. Colorado Colorado Springs	424	4	0	15	18	4	0	15	0
Smith C.	425	6	6	98	17	0	0	0	0
Calvin U.	426	22	26	1	16	0	0	0	0

TABLE 45

Total and federally financed higher education R&D expenditures in the health sciences, ranked by FY 2019 total: FYs 2016–19

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2016	2017	2018	2019	2016	2017	2018	2019
C. of Saint Benedict	427	39	50	15	15	0	0	0	0
Purdue U., Fort Wayne	427	1,875	1,439	1,494	15	271	188	284	0
Eastern Washington U.	429	190	138	27	14	163	112	12	0
Sam Houston State U.	429	7	9	269	14	0	0	0	0
Loyola Marymount U.	431	137	80	0	13	0	0	0	0
Saint John's U., Collegetown	431	34	45	13	13	0	0	0	0
U. Akron	431	386	436	10	13	54	146	0	0
Lafayette C.	434	0	0	0	11	0	0	0	0
Pepperdine U.	434	0	57	11	11	0	0	0	0
Southern U. and A&M C., Baton Rouge	436	23	8	5	10	21	0	0	8
U. Washington, Tacoma	436	0	0	308	10	0	0	218	0
California State U., Stanislaus	438	0	0	0	9	0	0	0	0
Virginia State U.	438	0	22	0	9	0	22	0	9
CUNY, York C.	440	ne	ne	ne	8	ne	ne	ne	0
U. Wisconsin-La Crosse	440	45	90	8	8	9	0	0	0
Gettysburg C.	442	ne	103	22	7	ne	46	0	0
Rutgers, State U. New Jersey, Camden	442	0	32	0	7	0	0	0	0
California State U., Channel Islands	444	2	0	0	6	0	0	0	0
Liberty U.	444	ne	ne	ne	6	ne	ne	ne	0
Morgan State U.	444	2	0	93	6	2	0	0	0
Santa Clara U.	444	152	159	142	6	152	159	142	6
U. Portland	444	ne	ne	ne	6	ne	ne	ne	0
Hawaii Pacific U.	449	0	5	5	5	0	0	0	0
Minnesota State U., Mankato	449	0	0	6	5	0	0	0	0
SUNY, Oswego	449	ne	1	5	5	ne	0	0	0
U. Illinois, Springfield	452	0	0	6	4	0	0	0	0
Allegheny C.	453	0	0	0	3	0	0	0	0
Austin Peay State U.	453	0	0	0	3	0	0	0	0
Bradley U.	453	0	0	8	3	0	0	0	0
Missouri State U.	453	28	48	7	3	0	0	0	0
San Jose State U.	453	124	274	59	3	38	49	10	3
U. New Haven	453	0	0	0	3	0	0	0	0
California State U., Chico	459	176	1	6	1	28	0	0	0
CUNY, Medgar Evers C.	459	ne	0	0	1	ne	0	0	1
Eastern Connecticut State U.	459	0	0	0	1	0	0	0	0
Fort Hays State U.	459	ne	ne	ne	1	ne	ne	ne	1

TABLE 45

Total and federally financed higher education R&D expenditures in the health sciences, ranked by FY 2019 total: FYs 2016–19

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2016	2017	2018	2019	2016	2017	2018	2019
Missouri U. of Science and Technology	459	0	0	0	1	0	0	0	0
Rider U.	459	0	0	0	1	0	0	0	0
U. Minnesota, Duluth	459	0	0	0	1	0	0	0	0
All other surveyed institutions	-	314,550	337,805	357,654	0	158,129	162,903	208,610	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.

^a Johns Hopkins University includes the Applied Physics Laboratory (APL), with \$6,134 thousand imputed for total and \$5,568 thousand reported for federally financed R&D expenditures in health sciences in FY 2019. Total expenditures by field for Johns Hopkins University are flagged as imputed because APL was unable to distribute a portion of institutionally funded R&D by field.

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

Note(s):

Institutions reporting zero expenditures in ranked total for FY 2019 are not listed in this table. Tied institutions are ranked alphabetically. Ranked institutions are geographically separate campuses headed by a campus-level president or chancellor. Some campuses are part of large, multi-campus universities; some are part of state university systems. For a complete list of campuses that belong to a larger university or system and their aggregate R&D expenditures, see table 6.

Source(s):

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