

TABLE 45

Total and federally financed higher education R&D expenditures in the biological and biomedical sciences, ranked by FY 2021 total: FYs 2018–21

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2018	2019	2020	2021	2018	2019	2020	2021
All institutions	-	14,517,040	15,390,830	15,764,528	16,557,201	8,572,395	9,261,709	9,338,221	10,001,728
U. Pennsylvania	1	727,296	743,835	780,497	835,864	373,564	390,906	390,309	434,661
Harvard U.	2	486,362	536,371	534,656	539,289	299,638	337,304	325,366	308,919
Scripps Research Institute	3	396,839	427,734	444,964	485,435	267,088	267,122	243,502	272,181
Icahn School of Medicine at Mount Sinai	4	300,271	359,149	359,900	391,642	169,196	198,767	208,188	235,660
Washington U., Saint Louis	5	327,959	354,062	359,856	389,457	198,645	211,425	216,565	237,968
Johns Hopkins U. ^a	6	288,079	326,327	311,295	350,122	194,395	228,297	221,384	269,831
Baylor C. of Medicine	7	309,943	298,881	311,546	345,012	189,614	171,688	166,676	196,635
Rockefeller U.	8	319,636	318,581	322,734	325,035	76,714	75,507	78,153	87,220
U. Texas M. D. Anderson Cancer Center	9	283,074	289,848	304,198	320,834	72,068	74,738	64,702	73,202
Cornell U.	10	298,172	314,443	311,954	317,690	128,421	146,718	153,222	164,967
U. Pittsburgh, Pittsburgh	11	279,951	294,582	294,183	304,345	185,759	189,292	189,410	206,387
New York U.	12	241,316	250,281	250,446	297,690	132,039	138,450	147,771	177,500
Duke U.	13	221,378	237,097	245,327	291,851	172,875	189,808	195,787	236,697
U. Washington, Seattle	14	288,723	257,677	260,831	286,353	177,908	152,127	153,375	168,960
U. Wisconsin-Madison	15	220,658	261,715	277,654	273,356	138,453	161,268	162,347	159,456
U. Michigan, Ann Arbor	16	230,944	258,013	266,507	262,263	154,781	176,626	180,703	185,914
Stanford U.	17	188,026	189,727	228,842	242,245	148,089	150,221	179,023	185,954
U. Virginia, Charlottesville	18	199,462	212,843	230,231	229,238	104,569	118,802	128,995	130,255
Columbia U. in the City of New York	19	181,521	196,254	206,509	226,903	144,946	158,280	168,917	186,401
Yale U.	20	187,310	208,829	206,929	222,114	131,070	141,401	140,048	150,159
U. Arizona	21	174,310	200,691	212,741	221,774	72,873	96,689	101,105	115,658
U. Texas Southwestern Medical Center	22	161,587	177,357	214,795	219,742	72,589	75,227	88,551	100,990
Vanderbilt U. and Vanderbilt U. Medical Center	23	170,095	172,681	183,620	206,202	98,642	102,998	109,381	121,941
Emory U.	24	184,096	187,084	182,193	203,597	141,403	148,788	144,201	161,290
U. California, Davis	25	220,855	224,044	218,316	199,310	136,830	140,036	136,739	120,744
U. North Carolina, Chapel Hill	26	157,615	165,804	167,907	191,773	114,659	125,292	123,492	143,283
U. Maryland ^b	27	na	152,853	166,254	183,621	na	104,187	114,209	116,912
U. Kentucky	28	161,764	178,030	175,026	181,729	76,484	92,761	93,567	101,455
Boston U.	29	112,076	150,669	163,939	168,310	72,295	98,855	110,627	112,638
Northwestern U.	30	128,409	141,523	153,629	166,594	85,061	92,458	99,378	115,175
U. Georgia	31	135,348	140,018	143,796	156,208	67,061	72,403	78,657	90,936
U. Massachusetts, Medical School	32	83,615	134,842	137,103	145,417	60,397	98,979	96,954	100,459
U. Texas Medical Branch	33	129,408	130,473	137,316	139,580	72,829	79,850	86,048	85,905

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U. Iowa	34	127,863	122,729	126,870	134,116	71,337	73,711	78,419	80,979
U. Florida	35	135,774	143,488	125,655	134,050	71,623	70,530	61,336	66,696
U. Alabama, Birmingham	36	122,978	137,196	132,963	132,380	86,516	99,731	98,997	100,726
U. California, Berkeley	37	96,014	104,849	130,392	129,502	53,745	57,666	67,501	65,808
U. California, Irvine	38	87,482	103,711	114,449	125,642	51,035	61,632	64,157	75,077
Indiana U., Bloomington	39	111,097	116,176	124,207	122,903	66,112	79,405	80,025	82,191
North Carolina State U.	40	108,990	120,567	120,671	119,614	42,858	44,058	42,625	47,017
U. Minnesota, Twin Cities	41	108,847	101,129	111,883	118,493	53,029	55,639	63,674	75,180
Michigan State U.	42	113,287	119,653	117,715	117,739	55,685	60,584	61,131	62,624
U. Southern California	43	137,003	140,622	132,168	117,462	87,707	93,324	91,893	82,518
Cold Spring Harbor Laboratory	44	115,302	125,151	113,394	112,613	66,716	72,319	60,487	54,682
Pennsylvania State U., University Park and Hershey Medical Center	45	90,168	84,873	98,382	112,135	48,689	51,335	56,971	63,659
California Institute of Technology	46	76,044	84,558	89,580	100,578	54,071	60,603	65,017	67,730
U. Nebraska, Medical Center	47	87,765	103,618	105,620	99,830	60,538	70,813	70,536	71,474
Texas A&M U., College Station and Health Science Center	48	69,786	72,472	77,408	97,519	39,581	46,051	50,356	55,631
SUNY, U. Buffalo	49	76,477	82,365	88,070	95,200	40,689	42,370	47,604	51,230
U. South Florida ^c	50	116,411	115,159	90,898	93,020	83,905	85,703	64,867	64,801
Ohio State U.	51	68,305	76,202	83,715	92,910	46,189	51,272	58,581	65,420
U. Illinois, Urbana-Champaign	52	64,375	66,393	77,458	91,434	35,615	39,824	44,234	54,744
Tufts U.	53	34,372	80,921	92,119	91,403	25,340	58,033	69,674	71,168
Rutgers, State U. New Jersey, New Brunswick	54	76,998	91,356	113,712	90,875	54,571	52,365	57,418	54,432
Princeton U.	55	80,786	87,248	81,137	87,346	46,563	52,855	50,581	52,315
Case Western Reserve U.	56	79,653	77,957	82,470	86,328	64,236	65,059	69,339	71,246
Dartmouth C. and Dartmouth Hitchcock Medical Center	57	87,469	90,029	84,528	83,974	48,748	48,255	49,057	53,355
Medical C. Wisconsin	58	74,302	80,531	83,882	83,895	44,245	45,066	47,297	49,607
Thomas Jefferson U.	59	64,509	73,544	74,942	83,083	36,194	42,959	42,244	49,473
U. Chicago	60	81,872	86,619	83,295	82,092	61,084	66,862	67,334	66,653
U. Connecticut	61	62,683	69,141	75,806	79,715	39,866	46,453	49,480	52,731
U. Illinois, Chicago	62	71,150	74,126	81,071	77,533	43,533	45,838	42,919	41,820
U. Miami	63	53,646	67,787	78,338	75,792	40,358	56,865	64,201	62,744
U. Texas Health Science Center, San Antonio	64	61,000	62,855	67,851	74,729	39,389	42,261	49,214	48,445
Arizona State U.	65	96,535	67,597	63,293	73,598	52,837	31,588	35,741	40,918
Virginia Commonwealth U.	66	46,022	50,240	53,656	72,971	36,713	39,483	40,720	47,612

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		2018	2019	2020	2021	2018	2019	2020	2021
U. Texas, Austin	67	66,148	58,063	62,802	72,413	45,915	39,470	38,317	44,438
Colorado State U., Fort Collins	68	36,844	40,348	39,769	67,310	23,392	25,346	23,865	37,530
U. Louisville	69	56,117	55,219	60,608	66,095	36,162	39,225	39,447	44,936
Van Andel Research Institute	70	55,171	61,738	58,982	65,789	14,285	18,259	18,538	22,231
Medical U. South Carolina	71	65,313	67,708	62,475	64,300	48,808	51,154	49,032	51,796
SUNY, Stony Brook U.	72	52,172	60,050	61,121	64,217	37,236	37,657	39,569	40,518
U. Arkansas for Medical Sciences	73	43,473	52,686	67,447	64,136	31,028	32,967	38,357	34,745
U. California, San Diego	74	57,996	64,858	62,532	63,846	31,178	36,228	36,347	45,133
Massachusetts Institute of Technology	75	75,156	82,262	67,446	60,795	47,512	44,519	42,112	37,649
U. Louisiana, Lafayette	76	62,238	16,539	68,528	60,760	11,620	5,706	11,539	16,125
Louisiana State U., Baton Rouge	77	55,119	57,732	56,483	60,515	27,594	28,862	26,797	29,672
U. California, Riverside	78	56,847	58,738	60,674	60,318	18,234	19,808	25,037	24,845
U. Cincinnati	79	56,993	58,504	62,270	60,204	28,826	30,186	35,074	34,328
George Washington U.	80	56,145	54,126	52,902	58,491	35,501	35,141	33,137	39,381
Brown U.	81	44,244	51,017	57,280	57,160	33,537	37,878	41,143	43,126
U. Rochester	82	53,493	53,241	54,066	56,944	40,933	43,634	44,908	48,117
U. Texas Health Science Center, Houston	83	54,940	55,055	54,213	54,224	37,348	38,689	35,502	36,466
U. Hawaii, Manoa	84	53,826	54,997	53,100	52,760	17,957	18,542	16,953	19,052
Georgia State U.	85	51,668	48,140	50,131	52,370	23,612	23,302	24,615	26,909
U. Missouri, Columbia	86	57,829	55,276	50,323	51,630	39,559	41,455	39,472	35,810
U. Vermont	87	40,394	46,795	54,565	51,579	29,532	35,346	37,701	35,980
U. Oklahoma, Norman and Health Science Center	88	35,948	37,322	43,605	48,670	22,620	23,109	28,155	32,725
U. Kansas	89	58,052	62,491	62,277	46,912	36,574	38,434	38,670	30,741
Virginia Polytechnic Institute and State U.	90	51,145	46,123	40,276	46,515	19,187	18,532	15,769	18,558
U. Utah	91	20,288	16,890	40,013	44,662	14,047	10,592	24,860	28,068
Temple U.	92	49,745	47,651	43,913	44,630	36,353	34,253	34,298	29,114
Oregon State U.	93	34,352	34,305	38,938	44,339	24,323	24,413	27,860	32,710
U. Nevada, Reno	94	31,513	32,985	36,791	43,521	15,433	17,099	18,123	25,242
Iowa State U.	95	62,125	56,405	39,072	42,898	25,824	26,626	18,255	17,834
U. Colorado Boulder	96	30,851	41,686	41,081	42,368	24,907	35,165	34,958	36,680
Augusta U.	97	36,335	36,815	40,513	41,967	24,962	24,358	29,605	29,845
Cleveland State U.	98	42,253	40,075	43,464	41,447	38,203	35,061	40,320	37,018
Drexel U.	99	42,647	41,484	38,200	39,937	25,618	25,535	24,521	26,987
Florida International U.	100	31,331	33,053	39,760	37,940	16,457	16,837	19,181	17,524

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U. Oregon	101	34,474	34,751	33,631	37,907	25,062	28,993	28,932	28,980
George Mason U.	102	10,031	9,520	25,142	37,805	7,049	6,580	5,178	5,399
Tulane U.	103	33,655	30,686	39,053	36,099	21,809	22,410	26,219	25,730
Washington State U.	104	41,126	41,122	35,845	34,771	25,355	25,006	21,674	23,178
SUNY, Downstate Health Sciences U.	105	34,476	35,422	32,389	33,935	26,117	26,744	26,171	27,284
U. California, Los Angeles	106	38,362	38,154	34,022	33,765	24,572	24,564	22,266	21,562
West Virginia U.	107	17,860	18,919	25,158	30,824	9,954	9,967	12,150	16,135
U. Nebraska, Lincoln	108	28,530	29,626	30,234	30,317	10,914	11,404	12,887	14,327
U. Tennessee, Health Science Center	109	15,901	18,079	22,245	29,655	12,182	14,535	19,859	23,001
U. Notre Dame	110	25,857	26,385	27,095	29,214	11,043	13,259	11,155	12,920
SUNY, U. Albany	111	32,153	32,595	27,543	29,137	19,878	19,522	17,227	18,406
Saint Louis U.	112	23,071	25,209	27,623	28,234	12,310	13,370	13,489	13,620
U. Texas Health Science Center, Tyler	113	17,949	19,606	21,265	27,928	6,438	7,084	7,732	12,007
U. New Mexico	114	33,124	30,297	28,740	27,380	27,509	25,369	23,802	22,646
Kansas State U.	115	31,202	30,002	30,940	26,459	14,072	13,583	14,289	10,615
Wayne State U.	116	27,671	30,203	24,007	26,291	17,035	18,330	14,506	16,595
U. Tennessee, Knoxville ^d	117	16,939	17,425	22,643	26,252	8,247	8,087	10,968	13,709
Oklahoma State U., Stillwater	118	34,590	19,934	19,956	25,945	12,518	7,680	7,699	10,218
Northern Arizona U.	119	22,687	26,194	23,741	25,623	13,836	18,081	15,010	17,143
U. Massachusetts, Amherst	120	22,897	24,678	25,906	25,498	13,759	14,835	15,754	16,284
Purdue U., West Lafayette	121	20,819	25,238	34,790	25,488	12,874	12,048	13,534	13,625
U. Idaho	122	17,385	19,378	22,764	25,070	10,754	13,092	17,044	19,286
U. California, Santa Cruz	123	21,950	23,762	24,318	25,050	15,425	15,861	16,755	17,420
Clemson U.	124	24,282	25,381	28,361	24,231	7,421	8,049	8,494	7,601
U. Alaska, Fairbanks	125	6,607	7,064	12,603	24,022	4,621	4,540	10,426	19,159
U. Texas, San Antonio	126	15,062	20,972	23,733	23,479	7,819	11,309	9,925	10,784
U. Mississippi	127	29,293	33,394	15,866	22,359	20,648	26,331	11,028	19,215
U. California, Santa Barbara	128	28,520	27,718	24,077	22,132	14,665	15,351	12,288	11,506
Oregon Health and Science U.	129	154,478	150,395	26,551	21,651	114,716	122,388	20,651	17,330
U. Montana, Missoula	130	17,081	20,283	22,464	21,407	12,101	11,575	15,437	14,945
Georgia Institute of Technology	131	26,327	24,989	18,410	21,357	15,783	15,498	9,186	11,572
Florida State U.	132	22,880	24,383	22,836	21,063	12,366	13,487	12,479	10,937
Brandeis U.	133	24,400	22,063	26,272	20,813	19,117	19,823	20,298	16,190
Texas Tech U., Health Sciences Center	134	15,401	20,207	21,528	20,394	4,108	7,666	9,477	8,118

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Louisiana State U., Health Sciences Center, New Orleans	135	18,827	18,839	19,533	20,165	15,141	16,081	16,359	17,760
Florida Atlantic U.	136	11,013	13,061	16,997	18,879	2,372	3,616	6,357	6,611
Montana State U., Bozeman	137	16,600	19,659	19,994	18,017	13,148	14,355	14,059	12,653
U. Rhode Island	138	9,141	13,997	18,161	17,614	8,068	11,877	15,256	15,150
U. North Dakota	139	18,184	16,722	17,478	17,556	8,856	7,707	8,147	9,103
SUNY, Upstate Medical U.	140	14,971	15,003	14,671	16,959	8,467	11,886	10,783	12,320
Loyola U., Chicago	141	12,873	14,788	15,804	16,741	8,743	10,413	11,042	12,636
U. Texas, El Paso	142	17,475	20,446	16,280	16,281	9,515	9,607	8,015	10,380
Albany Medical C.	143	14,368	16,236	17,150	16,121	9,912	11,220	12,263	12,700
Meharry Medical C.	144	16,980	18,286	13,870	15,840	14,515	16,443	12,573	13,784
Rice U.	145	14,193	13,966	16,008	15,766	7,813	8,245	8,540	7,628
U. Central Florida	146	12,483	13,148	15,378	15,562	7,963	8,324	10,063	10,666
San Diego State U.	147	14,575	12,720	14,602	15,520	7,307	5,833	6,374	5,985
U. Wyoming	148	9,277	13,913	14,659	15,284	7,591	11,223	13,246	14,012
New Mexico State U.	149	7,214	7,688	9,867	15,045	6,004	6,605	8,253	13,212
U. North Texas, Health Science Center	150	19,354	20,989	13,197	14,592	7,239	8,378	6,661	8,634
U. Houston	151	10,112	12,863	12,625	14,588	5,297	8,037	7,235	8,294
U. South Carolina, Columbia	152	12,482	13,120	18,374	14,237	8,654	10,225	10,663	9,864
Texas Tech U.	153	12,545	14,796	12,709	14,152	1,556	2,663	1,723	1,621
Auburn U., Auburn	154	11,229	13,317	15,224	14,099	5,741	5,412	5,918	5,996
U. South Dakota	155	15,990	16,612	15,109	13,982	9,639	9,315	9,131	7,905
Northeastern U.	156	15,224	14,380	14,718	13,919	10,736	10,474	12,023	11,399
U. Nevada, Las Vegas	157	7,898	10,027	12,763	12,969	5,314	6,140	8,177	7,772
Carnegie Mellon U.	158	9,426	12,103	12,566	12,858	5,181	7,540	8,344	8,160
Georgetown U.	159	12,679	14,202	14,827	12,828	9,221	10,309	9,790	8,536
Rush U.	160	14,016	18,302	13,822	12,283	13,484	17,357	12,252	10,059
San Francisco State U.	161	10,879	12,038	11,246	11,694	7,807	8,627	7,490	7,566
Rosalind Franklin U. of Medicine and Science	162	14,266	14,625	12,825	11,434	8,626	8,135	7,651	7,942
Louisiana State U., Health Sciences Center, Shreveport	163	9,928	11,230	10,644	10,898	7,706	9,918	9,794	10,192
Texas State U.	164	7,920	6,761	7,213	10,644	1,191	1,230	1,103	3,400
East Carolina U.	165	5,632	3,075	2,842	10,397	3,914	1,419	1,150	5,749
U. New Hampshire	166	12,196	12,981	11,697	10,279	8,653	8,470	7,420	4,781
U. Maine	167	9,760	10,759	10,949	9,846	4,890	4,757	4,992	5,112
Boise State U.	168	7,428	7,701	8,089	9,570	4,908	4,907	5,371	6,566

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U. Nebraska, central administration	169	5,070	6,872	9,514	9,291	5,057	6,872	9,514	9,259
Eastern Virginia Medical School	170	6,470	8,746	9,968	9,234	4,271	6,015	6,821	6,620
Rutgers, State U. New Jersey, Newark	171	9,541	10,800	12,676	9,197	6,846	5,847	7,681	7,225
Portland State U.	172	2,835	2,702	7,666	9,159	2,557	2,389	7,166	8,523
U. Southern Mississippi	173	7,978	7,545	8,948	8,983	5,998	6,035	6,633	7,130
U. Maryland, Baltimore County	174	4,888	8,282	9,422	8,953	3,491	7,244	7,913	7,243
U. Colorado Anschutz Medical Campus ^e	175	na	na	na	8,948	na	na	na	4,008
East Tennessee State U.	176	5,091	i 7,316	i 5,949	i 8,912	i 3,735	5,555	4,219	6,103
Northeast Ohio Medical U.	177	7,606	8,481	8,678	8,853	5,675	6,336	7,209	7,210
U. Texas, Arlington	178	6,319	7,903	8,478	8,816	1,095	2,074	2,515	2,923
Delaware State U.	179	4,525	6,582	8,501	i 8,804	3,013	4,555	5,974	i 6,867
Old Dominion U.	180	9,337	9,952	9,611	8,798	2,138	1,929	1,867	1,749
Ohio U.	181	8,008	i 6,676	7,691	8,765	1,615	2,113	2,603	3,462
U. North Texas, Denton	182	9,685	10,319	10,805	7,908	2,626	2,780	2,197	1,789
Mississippi State U.	183	5,958	6,814	10,917	7,744	3,269	3,890	5,110	2,552
Utah State U.	184	4,616	5,064	4,657	7,716	1,984	2,335	1,868	2,911
Baylor U.	185	2,622	2,938	4,523	7,708	832	867	1,930	3,462
Boston C.	186	11,319	12,312	8,248	7,705	9,582	10,395	6,057	6,232
Indiana U.-Purdue U., Indianapolis	187	5,183	5,449	7,136	7,420	3,634	4,190	5,851	6,086
New York Medical C.	188	3,489	i 7,813	i 7,391	7,406	3,489	i 4,652	i 4,316	4,088
Uniformed Services U. of the Health Sciences	189	1,724	1,512	1,525	7,192	1,002	916	902	5,079
CUNY, Hunter C.	190	6,073	7,166	8,550	7,167	3,209	3,720	5,050	4,080
Creighton U.	191	5,948	i 7,033	i 5,976	i 7,059	i 1,811	i 2,648	i 2,430	i 2,775
Syracuse U.	192	6,507	7,738	7,080	7,028	3,188	3,545	3,734	3,858
Illinois Institute of Technology	193	7,583	8,645	8,046	6,978	6,932	8,004	7,375	6,735
U. Toledo	194	5,554	5,834	5,710	6,944	3,147	2,867	2,730	3,292
Rensselaer Polytechnic Institute	195	5,431	5,384	6,102	6,913	2,903	3,609	4,483	3,934
SUNY, C. of Environmental Science and Forestry	196	9,599	10,119	9,281	6,857	2,401	2,591	3,064	2,389
CUNY, City C.	197	5,059	3,655	2,752	6,634	4,484	2,864	2,012	5,275
Midwestern U.	198	6,344	6,387	6,539	6,633	1,016	548	448	775
Clark Atlanta U.	199	5,799	6,360	6,017	6,614	3,774	3,859	3,468	3,496
Wright State U.	200	8,199	8,443	7,780	6,556	5,247	5,665	4,918	4,572
Howard U.	201	4,231	5,089	5,312	6,350	1,601	2,174	1,798	2,527
Loma Linda U.	202	8,817	i 7,979	i 7,141	i 6,302	i 7,351	i 6,681	i 6,011	i 5,341

TABLE 45

Total and federally financed higher education R&D expenditures in the biological and biomedical sciences, ranked by FY 2021 total: FYs 2018–21

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2018	2019	2020	2021	2018	2019	2020	2021
U. Arkansas, Fayetteville	203	5,833	6,498	6,357	6,294	1,967	2,770	2,880	3,154
Southern Illinois U., Carbondale	204	5,952	4,686	4,876	6,268	2,334	2,197	2,290	1,824
U. Alaska, Anchorage	205	3,713	4,874	4,665	6,250	3,015	3,907	3,606	5,164
North Dakota State U.	206	3,262	3,364	5,106	6,187	1,349	1,854	2,235	4,056
Kent State U.	207	3,815	5,919	6,330	6,047	1,597	2,895	2,624	2,715
North Carolina Central U.	208	6,916	7,314	6,873	6,036	6,581	7,084	6,362	5,698
U. Massachusetts, Lowell	209	4,533	5,331	5,523	5,652	2,862	2,953	3,156	2,921
U. Alabama, Tuscaloosa	210	3,790	3,536	3,602	5,585	1,930	1,911	2,119	2,864
SUNY, Binghamton U.	211	4,482	4,529	4,595	5,382	1,258	910	954	752
U. North Carolina, Greensboro	212	2,972	4,561	4,352	5,376	2,038	3,347	3,013	3,761
Western Michigan U. and Homer Stryker M.D. School of Medicine	213	4,405	4,532	5,859	5,315	1,972	1,962	2,015	1,855
U. Texas, Dallas	214	6,117	3,900	6,377	5,280	2,236	2,314	3,035	2,713
U. Denver	215	3,682	4,137	4,591	5,277	1,946	2,284	2,441	3,273
U. Missouri, Kansas City	216	5,819	5,054	5,780	5,265	2,906	3,044	3,943	4,016
Marquette U.	217	6,753	7,863	5,871	5,143	4,501	5,003	3,443	2,967
U. California, Merced	218	5,880	8,620	7,563	5,096	1,548	3,282	3,335	2,895
Arkansas State U., Jonesboro	219	4,699	4,648	4,707	5,057	2,346	2,109	2,185	2,071
U. Delaware	220	3,928	4,551	5,344	5,050	2,689	3,234	4,094	3,996
Brigham Young U., Provo	221	6,548	5,135	5,643	5,012	2,545	2,742	3,131	3,353
Western U. of Health Sciences	222	2,662	2,921	4,010	4,966	1,815	2,102	3,585	4,511
CUNY, Advanced Science Research Center	223	1,709	3,130	3,733	4,949	1,231	2,749	3,304	4,115
Marshall U.	224	4,690	4,753	3,800	4,893	1,827	2,263	1,964	2,694
U. North Carolina, Wilmington	225	4,414	5,604	4,791	4,712	1,386	2,656	2,330	1,804
Texas A&M U.-Corpus Christi	226	4,278	5,218	6,377	4,643	3,439	4,676	4,191	2,629
Chapman U.	227	2,880	4,414	4,374	4,588	1,081	2,504	2,519	2,796
U. Massachusetts, Boston	228	3,996	5,118	4,610	4,438	2,908	3,211	2,827	2,827
U. Puerto Rico, Rio Piedras	229	2,396	3,657	3,590	4,234	1,296	2,897	2,884	3,234
Lehigh U.	230	2,814	4,448	4,073	4,088	2,152	3,846	3,834	3,767
Texas Southern U.	231	1,883	2,695	4,513	4,073	1,704	1,851	3,247	2,518
New Jersey Institute of Technology	232	2,500	3,051	2,459	4,038	936	1,384	1,109	966
U. New England	233	3,453	3,909	3,742	3,916	2,822	2,818	2,927	2,715
U. Memphis	234	5,330	5,032	4,754	3,805	3,407	2,960	2,339	2,036
Rowan U.	235	3,017	4,311	3,264	3,796	2,428	3,160	2,705	3,249
U. Wisconsin-Milwaukee	236	2,281	2,772	4,150	3,765	1,347	1,832	2,489	2,132

TABLE 45

Total and federally financed higher education R&D expenditures in the biological and biomedical sciences, ranked by FY 2021 total: FYs 2018–21

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2018	2019	2020	2021	2018	2019	2020	2021
U. Detroit Mercy	237	4,317	4,729	4,019	3,743	4,275	4,682	3,984	3,709
Oakland U.	238	1,369	3,678	3,323	3,703	979	1,598	1,664	1,710
Memorial Sloan Kettering Cancer Center, Louis V. Gerstner Jr. Graduate S. of Biomedical Sciences	239	3,379	3,624	3,587	3,660	177	148	297	354
California State U., Northridge	240	3,374	3,232	3,875	3,633	2,097	2,346	2,980	2,938
Desert Research Institute	241	3,232	2,993	3,539	3,574	246	188	43	33
Albany C. of Pharmacy and Health Sciences	242	1,296	3,033	2,732	3,562	692	1,476	1,111	1,856
Miami U.	243	5,152	6,078	5,852	3,528	4,055	4,578	3,760	1,968
U. Texas Rio Grande Valley	244	2,458	4,472	4,093	3,447	2,036	2,684	2,225	1,879
Philadelphia C. of Osteopathic Medicine	245	616	794	945	3,294	260	346	422	318
Texas Tech U., Health Sciences Center, El Paso	246	3,529	2,793	2,280	3,288	1,078	841	486	549
Wake Forest U.	247	2,369	3,042	3,538	3,260	2,123	1,856	2,459	2,321
Central Michigan U.	248	4,227	4,997	3,874	3,225	3,211	3,754	3,071	2,740
U. North Carolina, Charlotte	249	2,296	3,110	2,608	3,066	1,614	1,992	1,676	2,035
Idaho State U.	250	2,140	2,198	2,459	2,965	1,091	1,272	1,666	1,847
Murray State U.	251	2,345	3,048	2,399	2,962	1,317	2,149	1,496	2,117
Illinois State U.	252	2,158	2,992	2,008	2,936	1,672	2,500	1,692	2,649
Des Moines U.	253	1,056	1,377	2,809	2,931	691	647	4	4
South Dakota State U.	254	3,683	3,648	3,689	2,785	1,723	1,901	1,813	1,284
Wichita State U.	255	1,912	2,793	2,959	2,705	1,564	2,435	2,623	2,395
Touro U.	256	2,228	2,557	2,514	2,637	405	581	521	537
Tennessee State U.	257	1,179	1,133	2,425	2,551	1,065	934	2,266	2,396
U. California, San Francisco	258	1,247	2,267	2,358	2,520	357	750	681	433
Colorado School of Mines	259	2,185	1,948	1,549	2,458	1,662	1,423	1,513	1,927
Georgia Southern U.	260	1,202	452	5	2,442	91	129	5	338
San Jose State U.	261	1,014	1,130	1,542	2,431	821	1,002	1,268	1,047
SUNY, Polytechnic Institute	262	2,260	1,995	1,977	2,412	1,840	1,406	1,297	1,233
Alabama State U.	263	2,314	1,860	1,747	2,265	2,314	1,860	1,747	2,265
Tuskegee U.	264	151	2,230	2,274	2,263	151	1,719	1,753	1,850
Kennesaw State U.	265	1,646	1,431	4,759	2,202	698	653	618	609
Worcester Polytechnic Institute	266	2,049	1,791	2,104	2,188	1,257	1,087	954	1,065
Sam Houston State U.	267	1,198	1,994	1,382	2,145	177	250	379	869
Morgan State U.	268	2,680	3,643	2,906	2,121	2,624	3,552	2,890	2,121
Middle Tennessee State U.	269	1,033	1,005	1,359	2,096	555	610	599	766
Villanova U.	270	1,301	1,780	2,133	2,053	435	338	333	562

TABLE 45

Total and federally financed higher education R&D expenditures in the biological and biomedical sciences, ranked by FY 2021 total: FYs 2018–21

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2018	2019	2020	2021	2018	2019	2020	2021
Southern Illinois U., Edwardsville	271	34	208	1,047	2,023	7	123	271	467
U. West Florida	272	1,790	1,337	1,690	2,018	209	218	409	679
Southern Methodist U.	273	1,305	1,533	2,144	1,978	979	1,283	1,061	1,365
U. Arkansas, Little Rock	274	1,542	2,380	2,833	1,957	1,262	1,619	2,143	1,955
U. of the Virgin Islands	275	0	0	1,554	1,913	0	0	1,554	1,913
U. Missouri, Saint Louis	276	1,873	1,667	1,567	1,869	1,535	1,214	1,025	1,238
James Madison U.	277	957	771	1,099	1,865	503	629	533	952
California State U., Monterey Bay	278	2,115	2,116	2,006	1,861	2,042	1,993	1,859	1,817
Colorado State U., Pueblo	279	ne	1,223	1,676	1,845	ne	1,220	1,081	1,248
Indiana U. Pennsylvania	280	335	1,345	1,107	1,831	31	869	667	989
William & Mary	281	2,113	1,997	2,241	1,823	1,329	1,219	1,205	1,232
Michigan Technological U.	282	2,487	2,654	2,392	1,772	1,084	1,085	901	672
California State U., Fullerton	283	1,415	1,799	1,395	1,770	1,104	1,519	1,262	1,577
U. Massachusetts, Dartmouth	284	2,181	1,956	1,390	1,725	903	621	253	211
Bates C.	285	592	792	1,166	1,660	506	719	1,095	1,511
Oregon Institute of Technology	286	0	i 845	i 765	i 1,637	0	0	i 0	66
Reed C.	287	1,754	1,588	1,573	1,629	i 895	1,031	1,180	1,252
Fisk U.	288	1,889	4,520	3,427	1,601	1,889	4,473	3,427	1,579
CUNY, Queens C.	289	954	1,052	1,250	1,599	765	831	1,054	1,155
Alabama A&M U.	290	2,989	i 2,231	i 1,521	i 1,556	i 2,287	i 1,618	i 1,104	i 1,130
California State Polytechnic U., Pomona	291	1,949	1,602	1,818	1,555	1,009	992	1,365	1,216
Wellesley C.	292	1,099	1,330	1,454	1,554	1,032	1,021	1,326	1,418
Rochester Institute of Technology	293	871	903	1,238	1,551	590	594	668	763
Ball State U.	294	1,279	1,569	1,412	1,536	638	666	689	727
CUNY, Brooklyn C.	295	1,288	1,727	i 1,792	1,505	1,202	1,308	i 1,363	1,341
North Carolina Agricultural and Technical State U.	296	1,131	1,085	1,612	1,491	1,025	1,048	1,455	1,186
Wesleyan U.	297	1,744	1,810	909	1,469	682	954	382	581
U. Alabama, Huntsville	298	1,712	1,928	2,046	1,411	561	675	583	300
Texas A&M U.-Kingsville	299	1,297	1,115	1,386	1,328	993	898	1,120	1,157
Tennessee Technological U.	300	257	972	1,167	1,325	110	702	870	1,010
U.S. Military Academy	301	520	430	421	1,318	520	430	295	1,250
Smith C.	302	2,548	2,338	1,657	1,305	1,270	1,017	867	687
MGH Institute of Health Professions	303	1,212	1,537	1,427	1,300	1,212	1,537	1,427	1,300
U. Minnesota, Duluth	304	1,211	1,182	1,090	1,279	313	426	592	774

TABLE 45

Total and federally financed higher education R&D expenditures in the biological and biomedical sciences, ranked by FY 2021 total: FYs 2018–21

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2018	2019	2020	2021	2018	2019	2020	2021
Bowdoin C.	305	1,216	1,206	1,196	1,262	954	940	869	1,002
Amherst C.	306	667	1,419	1,064	1,259	408	606	608	527
U. North Florida	307	882	741	907	1,243	390	307	310	720
Duquesne U.	308	4,142	3,645	3,648	1,239	1,420	1,176	1,178	849
Northern Illinois U.	309	766	695	436	1,232	477	390	176	646
California State U., Stanislaus	310	958	836	1,163	1,222	400	449	752	702
South Carolina State U.	311	436	1,133	1,175	1,217	331	1,133	1,175	1,217
Fordham U.	312	2,382	1,819	1,435	1,207	996	995	883	717
California State U., Long Beach	313	2,714	2,389	2,110	1,201	2,242	2,109	1,849	947
U. Akron	314	1,623	1,915	1,699	1,180	527	793	694	397
Catholic U. of America	315	1,614	1,633	1,333	1,157	1,614	1,633	1,228	968
C. Charleston	316	762	1,009	882	1,147	615	661	561	843
Hope C.	317	698	477	629	1,130	408	407	282	408
Bowling Green State U.	318	813	696	909	1,125	159	330	376	631
Montclair State U.	318	717	1,152	1,422	1,125	654	810	948	861
Appalachian State U.	320	1,125	1,339	840	1,089	430	387	345	371
U. New Orleans	321	626	817	974	1,074	200	108	148	215
Trinity C., Hartford	322	387	777	908	1,062	209	745	861	884
Clark U.	323	1,107	1,288	1,134	1,059	576	827	705	649
St. John's U., New York	324	1,044	837	998	1,045	790	745	819	898
Rhode Island C.	325	437	528	540	1,041	425	510	504	1,021
Eastern Michigan U.	326	877	1,065	1,350	1,037	261	504	763	467
U. Maryland Center for Environmental Science	327	2,182	2,402	1,978	1,035	1,706	1,702	1,261	682
U. Nebraska, Omaha	328	948	1,165	2,254	1,034	609	1,020	2,192	952
Humboldt State U.	329	2,273	1,059	1,302	1,028	291	174	552	151
Middlebury C.	330	644	317	506	1,017	600	296	374	999
U. Colorado Denver ^e	331	na	na	na	1,012	na	na	na	942
U. Hawaii, Hilo	332	1,539	1,754	1,548	996	1,125	1,437	1,145	657
U. Nebraska, Kearney	333	858	842	775	995	485	469	405	545
California State U., San Marcos	334	2,021	1,439	1,451	978	1,332	639	642	197
U. Northern Colorado	335	857	999	896	963	334	377	389	457
U. Texas of the Permian Basin	336	0	ne	328	962	0	ne	328	962
U. of the Sciences Philadelphia	337	783	764	859	929	387	502	554	499
Western Kentucky U.	338	1,841	1,530	1,307	924	923	893	706	354

TABLE 45

Total and federally financed higher education R&D expenditures in the biological and biomedical sciences, ranked by FY 2021 total: FYs 2018–21

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2018	2019	2020	2021	2018	2019	2020	2021
Clarkson U.	339	894	765	902	920	592	417	442	565
California State U., San Bernardino	340	1,312	1,549	539	882	590	603	89	93
Florida Institute of Technology	341	1,360	1,384	667	875	878	965	423	538
Barnard C.	342	500	602	625	873	235	309	432	762
Hampton U.	343	886	794	783	872	886	794	783	872
U. Puerto Rico, Mayaguez	344	1,235	1,225	1,067	865	703	939	918	865
Missouri State U.	345	425	442	651	850	117	185	475	517
St. Edward's U.	346	641	1,010	825	825	550	1,000	800	800
Swarthmore C.	347	648	755	841	824	379	468	439	428
C. New Jersey	348	362	ne	649	819	352	ne	328	347
California State U., Channel Islands	349	756	779	707	807	0	0	0	0
Black Hills State U.	350	504	818	783	800	418	462	658	648
SUNY, Buffalo State	351	564	645	929	780	207	188	176	29
CUNY, Baruch C.	352	324	357	250	777	242	264	117	749
U. Texas, Tyler	353	561	470	541	774	327	261	259	540
U. Richmond	354	823	937	765	766	599	708	648	604
Elizabeth City State U.	355	1	ne	435	751	1	ne	428	751
Louisiana Tech U.	356	732	750	753	749	275	180	232	194
U. Tennessee, Chattanooga	357	688	749	843	746	429	564	552	594
California State U., Sacramento	358	658	682	682	735	1	17	125	126
U. Wisconsin-Oshkosh	358	723	i 728	i 731	i 735	643	i 639	i 635	i 630
Long Island U.	360	107	25	621	734	5	16	58	30
Morehead State U.	361	259	682	211	728	183	601	211	721
U. Colorado Colorado Springs	361	619	510	716	728	532	441	651	718
U. Alaska, Southeast	363	372	368	374	723	372	368	369	710
California State U., East Bay	364	ne	ne	439	720	ne	ne	58	291
American U.	365	1,168	1,225	1,235	719	359	505	476	282
Keck Graduate Institute	366	560	i 631	i 648	i 717	i 301	i 337	i 348	i 392
Bryn Mawr C.	367	1,018	781	640	709	298	212	100	194
California Polytechnic State U., San Luis Obispo	368	936	1,227	1,009	707	452	658	609	464
Jackson State U.	369	1,270	1,021	1,045	691	958	831	804	591
U. of the Pacific	370	787	803	641	687	683	674	326	434
Franklin and Marshall C.	371	709	745	572	677	565	593	502	584
Bucknell U.	372	1,069	608	743	i 674	305	245	361	i 354

TABLE 45

Total and federally financed higher education R&D expenditures in the biological and biomedical sciences, ranked by FY 2021 total: FYs 2018–21

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2018	2019	2020	2021	2018	2019	2020	2021
Montana Technological U.	373	907	1,006	708	661	483	478	339	305
U. South Carolina, Aiken	374	510	0	962	657	497	0	870	554
Northern Michigan U.	375	482	364	430	644	89	34	30	73
Loyola Marymount U.	376	162	488	407	637	22	272	233	243
Southeastern Louisiana U.	376	378	689	793	637	213	304	337	290
Doane U.	378	652	585	601	630	516	498	514	555
Grand Valley State U.	379	333	542	667	625	216	318	262	303
Seton Hall U.	380	724	810	138	607	724	810	138	607
U. Tulsa	380	645	785	500	607	349	357	267	330
U. Wisconsin-La Crosse	382	1,012	703	667	603	752	475	402	397
Northland C.	383	ne	ne	ne	602	ne	ne	ne	437
Williams C.	383	449	610	582	602	312	413	396	420
Davidson C.	385	414	507	322	595	240	272	200	259
Hofstra U.	386	334	412	337	590	300	360	308	358
Mercyhurst U.	387	ne	532	546	576	ne	215	222	233
William Paterson U.	388	545	442	512	571	23	32	81	201
Naval Postgraduate School	389	1,244	1,800	1,185	570	1,244	1,800	1,185	501
Northern Kentucky U.	390	253	450	458	562	130	282	257	330
Hawaii Pacific U.	391	637	560	594	557	523	459	570	557
Missouri U. of Science and Technology	392	956	921	970	553	152	143	130	97
Western Washington U.	393	502	718	721	548	270	249	243	175
Christopher Newport U.	394	428	584	644	536	101	132	160	70
Oklahoma State U., Center for Health Sciences	395	0	425	452	531	0	3	0	70
Gallaudet U.	396	1,463	818	853	525	102	0	0	0
U. North Carolina, general administration	397	45	263	0	522	0	0	0	0
West Virginia School of Osteopathic Medicine	397	ne	ne	629	522	ne	ne	52	59
Roger Williams U.	399	160	246	177	521	143	178	166	367
Saint Joseph's U.	400	376	434	726	517	103	116	460	362
Keene State C.	401	ne	542	956	510	ne	542	955	510
Langston U.	401	1,355	1,264	1,650	510	1,158	1,026	1,650	510
Colgate U.	403	737	726	478	507	293	246	84	331
Calvin U.	404	470	503	481	501	426	449	431	457
Carleton C.	404	339	532	256	501	42	108	82	115
Tougaloo C.	404	0	274	503	501	0	274	503	501

TABLE 45

Total and federally financed higher education R&D expenditures in the biological and biomedical sciences, ranked by FY 2021 total: FYs 2018–21

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2018	2019	2020	2021	2018	2019	2020	2021
U. Washington, Bothell	407	181	314	0	493	39	252	0	323
Clafin U.	408	242	350	857	492	242	350	854	482
CUNY, Graduate School of Public Health and Health Policy	408	0	413	688	492	0	413	688	492
Eastern Kentucky U.	410	671	774	609	488	496	473	334	335
Spelman C.	411	554	478	604	484	554	478	604	484
California State U., Los Angeles	412	1,394	2,424	1,949	476	1,394	1,715	1,512	319
Willamette U.	413	753	278	169	472	368	143	35	367
Dillard U.	414	486	1,270	1,099	470	270	414	500	70
U. Central Arkansas	415	378	412	398	462	153	205	242	303
Indiana State U.	416	526	709	690	456	346	450	327	78
Trinity U.	417	429	452	499	455	107	95	296	184
Towson U.	418	401	626	531	450	308	414	361	305
California State U., Fresno	419	1,517	614	449	448	1,265	596	362	440
Dordt U.	420	ne	ne	ne	427	ne	ne	ne	406
Grinnell C.	421	990	363	487	423	221	41	29	17
Western Carolina U.	422	296	358	279	421	49	91	66	205
Tarleton State U.	423	50	9	249	415	0	0	15	0
Providence C.	424	606	589	422	414	543	469	347	283
U. Guam	425	307	208	291	411	259	196	205	323
CUNY, C. Staten Island	426	306	295	554	407	145	177	377	347
National Defense U.	427	0	0	200	400	0	0	200	400
Mount Holyoke C.	428	71	142	359	398	20	87	333	376
Pepperdine U.	428	299	329	597	398	279	303	121	282
U. Puerto Rico, Cayey	430	0	404	601	392	0	0	237	145
Santa Clara U.	431	128	252	576	386	128	252	463	356
Salisbury U.	432	178	396	366	381	0	4	32	88
Xavier U. Louisiana	433	453	765	1,070	378	340	710	987	354
DePaul U.	434	470	332	296	371	231	267	264	281
Harvey Mudd C.	435	298	457	520	364	178	323	444	316
CUNY, New York City C. of Technology	436	609	631	496	362	458	487	394	311
Prairie View A&M U.	437	209	193	379	353	203	185	369	320
Fort Lewis C.	438	ne	289	231	352	ne	241	187	352
Northeastern Illinois U.	439	399	328	249	351	399	328	249	351
Skidmore C.	439	225	150	85	351	145	122	69	330

TABLE 45

Total and federally financed higher education R&D expenditures in the biological and biomedical sciences, ranked by FY 2021 total: FYs 2018–21

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2018	2019	2020	2021	2018	2019	2020	2021
West Chester U. Pennsylvania	441	430	659	459	350	193	414	337	240
Central Washington U.	442	580	517	428	336	254	206	179	122
U. Wisconsin-Green Bay	443	250 i	315 i	306 i	335 i	105 i	151 i	164 i	172 i
Western Illinois U.	444	1,068	1,195	852	334	833	969	653	274
Liberty U.	445	ne	861	247	333	ne	385	44	45
Biola U.	446	287 i	308 i	319 i	331 i	163 i	177 i	183 i	192 i
Minnesota State U., Mankato	447	138	187	63	329	78	136	0	300
U. North Carolina, Asheville	448	497	505	493	322	61	75	73	14
U.S. Air Force Academy	449	341	140	0	317	0	140	0	317
U. Central Oklahoma	450	314	303	303 i	316 i	270	231	229 i	240 i
Haverford C.	451	746 i	582 i	926 i	313 i	292	133	109	95
Furman U.	452	414	254	335	309	297	236	309	281
U. Louisiana, Monroe	453	300	326	410	298	288	305	409	298
Lincoln U., Jefferson City	454	253	252	227	297	253	252	227	297
Fort Hays State U.	455	ne	370	478	296	ne	321	388	226
Pace U.	455	372	532	431	296	184	476	386	288
Southern U. and A&M C., Agricultural Research and Extension Center	457	0	489	298	295	0	0	0	140
New Mexico Institute of Mining and Technology	458	226	395	260	290	226	387	255	244
Lewis and Clark C.	459	571	584	651	288	459	526	538	258
Pomona C.	459	282	296	338	288	95	81	180	202
Occidental C.	461	116	560	278	279	70	478	199	279
Claremont McKenna C.	462	364	337	396	274	364	337	396	274
Colby C.	463	651	639	304	270	538	538	243	186
St. Cloud State U.	463	1,031	833	349	270	312	386	126	6
U. of the Incarnate Word	465	32	197	327	268	0	56	14	81
Southern U. and A&M C., Baton Rouge	466	168	210	128	261	168	183	128	261
U. Hawaii, Maui C.	467	ne	ne	ne	253	ne	ne	ne	241
Purdue U., Fort Wayne	468	861	665	483	252	164	122	117	44
Texas Woman's U.	469	431	636	562	251	91	325	430	123
Mercer U.	470	233	239	235	250	0	0	0	0
Pennsylvania State U., Harrisburg	471	33	36	82	248	19	20	76	18
C. Wooster	472	375	483	242	242 i	168	84	76	81 i
Winthrop U.	473	384	254	100	240	235	100	64	103
Connecticut C.	474	663	348	275	232	192	95	48	89

TABLE 45

Total and federally financed higher education R&D expenditures in the biological and biomedical sciences, ranked by FY 2021 total: FYs 2018–21

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2018	2019	2020	2021	2018	2019	2020	2021
U. South Alabama	474	413	403	87	232	225	211	41	133
Oberlin C.	476	403	949	285	230	265	815	252	214
New York Institute of Technology	477	179	294	283	227	60	294	283	227
Eastern Connecticut State U.	478	76	300	376	205	17	169	177	107
U. Wisconsin-Stevens Point	478	190 i	202 i	214	205	1 i	2 i	2	2
U. Washington, Tacoma	480	0	24	1	203	0	0	0	203
Eastern Washington U.	481	67	66	186	193	0	0	155	188
U. Wisconsin-Platteville	482	ne	109 i	111 i	191 i	ne	41 i	41 i	53 i
California State U., Bakersfield	483	426	295	223	189	396	92	70	53
Winston-Salem State U.	483	579	449	684	189	579	449	677	189
Texas A&M International U.	485	494	64	9	185	398	0	0	65
St. Olaf C.	486	280	128	90	182	97	0	0	102
U. of St. Thomas (MN)	486	375	471	514	182	174	196	242	113
CUNY, Lehman C.	488	384	0	255	181	320	0	136	78
Saint John's U.	489	112	109 i	104 i	180 i	0	0 i	0 i	0 i
U. Southern Maine	489	276	143	195	180	122	16	60	63
C. of Saint Benedict	491	124	122 i	116 i	178 i	0	0 i	0 i	14 i
U. Ana G. Mendez, Gurabo	492	311	337	648	175	249	309	446	120
Azusa Pacific U.	493	173	259	126	174	0	0	0	0
U. Wisconsin-Eau Claire	493	101	86	80	174	30	35	30	42
Coastal Carolina U.	495	278	305	98	173	277	268	98	75
Vassar C.	496	60 i	34	197	172	60 i	13	16	87
Sonoma State U.	497	ne	ne	197	170	ne	ne	161	169
Central State U.	498	8	46	59	164	8	46	59	164
Fort Valley State U.	498	249	185	129	164	208	162	121	121
New Mexico Highlands U.	498	150	ne	171	164 i	0	ne	115	120 i
U. Northern Iowa	498	57	63	104	164	48	44	35	0
U. Dayton	502	202	168	217	163	167	145	205	163
U. of Mary Washington	503	12	100	132	155	7	64	85	119
Colorado C.	504	147	117	121	144	19	12	20	1
Central Connecticut State U.	505	ne	112	131	142	ne	31	73	97
Texas Christian U.	506	58	215	311	138	0	0	57	138
Southern Connecticut State U.	507	210	98	357	132	0	0	17	16
CUNY, York C.	508	ne	359	485	129	ne	340	450	71

TABLE 45

Total and federally financed higher education R&D expenditures in the biological and biomedical sciences, ranked by FY 2021 total: FYs 2018–21

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2018	2019	2020	2021	2018	2019	2020	2021
SUNY, Oswego	508	383	354	281	129	220	218	190	72
Ithaca C.	510	ne	ne	138	128	ne	ne	132	109
U. Virginia's C. Wise	511	ne	ne	ne	125	ne	ne	ne	111
Hamilton C.	512	251	180	81	122	12	51	26	86
Pacific U.	513	165	259	160	121	5	15	25	76
U. New Haven	513	121	74	35	121	27	24	9	25
U. Maryland, Eastern Shore	515	0	0	269	120	0	0	269	120
California State U., Chico	516	229	310	184	111	216	282	170	111
CUNY, Graduate Center	517	59	51	116	110	34	46	87	92
Pittsburg State U.	517	171	243	178	110	141	236	178	109
Elon U.	519	69	79	140	108	0	0	0	39
Macalester C.	519	290	343	297	108	79	108	121	10
SUNY, Geneseo	519	194	233	131	108	80	150	58	61
Citadel Military C. South Carolina	522	ne	ne	75	103	ne	ne	49	77
Abilene Christian U.	523	ne	ne	ne	101	ne	ne	ne	0
Bowie State U.	524	75	122	414	96	75	122	414	96
Albany State U.	525	254	253	143	94	254	253	143	94
Florida Gulf Coast U.	525	144	51	0	94	31	0	0	62
Stevens Institute of Technology	525	2	0	0	94	2	0	0	83
U. Wisconsin-River Falls	525	120	ne	99	94	95	ne	46	16
Lafayette C.	529	57	82	87	93	50	80	50	55
Marymount U.	529	ne	ne	ne	93	ne	ne	ne	0
Morehouse C.	531	80	98	120	90	80	98	120	90
Norfolk State U.	532	53	108	114	88	53	108	114	88
U. Puerto Rico, Humacao	533	233	284	229	86	233	284	229	86
Virginia State U.	534	0	15	24	83	0	15	24	38
U. San Francisco	535	160	88	65	81	24	19	0	19
Stephen F. Austin State U.	536	100	75	57	80	0	0	0	0
U. Michigan, Dearborn	537	204	152	121	75	174	69	112	75
Albion C.	538	125	98	76	74	0	0	0	0
SUNY, C. Brockport	539	302	263	299	67	278	193	291	61
Union C., Schenectady	540	53	80	45	64	29	14	13	4
U. of the District of Columbia	541	22	0	0	63	22	0	0	63
Saginaw Valley State U.	542	63	63	62	62	0	0	0	0

TABLE 45

Total and federally financed higher education R&D expenditures in the biological and biomedical sciences, ranked by FY 2021 total: FYs 2018–21

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2018	2019	2020	2021	2018	2019	2020	2021
Troy U.	542	ne	ne	176	62	ne	ne	157	37
Jacksonville State U.	544	192	114	44	61	11	14	16	31
Pennsylvania State U., Behrend	545	50	75	21	55	15	17	15	0
Austin Peay State U.	546	465	705	60	50	0	35	49	50
Indiana U., South Bend	547	75	ne	ne	49	0	ne	ne	0
Manhattan C.	547	ne	82	56	49	ne	0	0	0
Niagara U.	547	89	94	76	49	0	0	0	0
Hobart and William Smith Colleges	550	ne	150	79	45	ne	82	39	37
CUNY, John Jay C. of Criminal Justice	551	489	132	49	43	446	113	39	43
U. Houston-Clear Lake	552	211	52	44	42	179	9	20	38
New School	553	0	0	0	40	0	0	0	27
CUNY, system office	554	43	30	84	37	0	3	84	37
U. San Diego	554	200	106	92	37	22	22	31	19
Monmouth U.	556	ne	56	85	35	ne	0	0	0
Suffolk U.	557	ne	ne	29	33	ne	ne	29	33
Texas A&M U.-Commerce	558	868	265	144	31	66	0	8	0
U. North Georgia	558	0	52	16	31	0	2	16	31
Fayetteville State U.	560	416	328	408	30	416	328	408	30
Florida A&M U.	561	172	153	67	29	88	97	61	29
Purdue U., Northwest	561	53	52	18	29	28	39	5	28
Seattle U.	561	288	248	156	29	82	116	86	25
U. Michigan, Flint	564	100	41	32	28	1	0	0	0
U. Houston-Downtown	565	71	37	46	25	0	0	0	0
Wheaton C., Wheaton	566	35	5	23	24	0	0	0	0
Lamar U.	567	132	122	55	23	38	0	27	0
U. Minnesota, Morris	568	ne	40	59	20	ne	0	0	0
Drake U.	569	67	31	ne	17	32	10	ne	8
Fairfield U.	570	136	78	230	14	136	78	191	0
Youngstown State U.	570	6	69	74	14	0	0	0	0
Rutgers, State U. New Jersey, Camden	572	0	25	225	13	0	0	0	0
West Texas A&M U.	573	53	27	21	10	0	0	0	0
Kettering U.	574	19	26	53	8	19	21	4	0
Northwestern State U. Louisiana	575	16	50	131	7	0	0	0	0
La Sierra U.	576	64	132	101	5	43	32	4	0

TABLE 45

Total and federally financed higher education R&D expenditures in the biological and biomedical sciences, ranked by FY 2021 total: FYs 2018–21

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2018	2019	2020	2021	2018	2019	2020	2021
Savannah State U.	577	543	183	22	3	543	183	22	3
U. Illinois, Springfield	578	3	0	1	2	0	0	0	0
All other surveyed institutions	-	174,252	21,972	15,966	0	111,629	11,347	6,302	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 \$25,841 thousand imputed for total and \$24,564 thousand reported for federally financed R&D expenditures in biological and biomedical 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.

^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 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.

^d 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.

^e 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.

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.