

TABLE 54

Total and federally financed higher education R&D expenditures in engineering, 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	-	11,371,207	11,913,699	12,366,530	13,214,359	6,582,290	6,828,226	7,092,526	7,667,373
Johns Hopkins U. ^a	1	1,026,629	1,080,021	1,087,478	1,147,335	987,721	1,030,067	1,038,797	1,100,587
Georgia Institute of Technology	2	558,219	578,662	613,650	664,695	413,211	426,068	466,780	506,061
Massachusetts Institute of Technology	3	427,923	432,453	431,927	450,915	224,821	221,898	220,744	230,312
SUNY, Polytechnic Institute	4	312,224	305,576	255,033	350,793	17,745	38,545	39,897	36,816
Pennsylvania State U., University Park and Hershey Medical Center	5	288,234	312,341	325,002	350,391	213,997	233,587	244,868	258,324
Texas A&M U., College Station and Health Science Center	6	290,413	287,620	300,956	321,373	60,310	62,158	70,000	77,456
U. Michigan, Ann Arbor	7	293,930	286,094	299,072	291,887	200,321	180,969	178,020	175,137
Purdue U., West Lafayette	8	223,048	231,103	229,967	270,525	97,313	105,798	105,657	111,292
Virginia Polytechnic Institute and State U.	9	228,281	226,810	245,755	258,213	89,040	84,497	98,261	104,138
U. Texas, Austin	10	217,413	239,499	242,963	249,788	124,370	148,099	154,761	160,506
Utah State U.	11	99,090	111,780	140,407	202,345	88,123	100,965	124,950	183,794
U. Illinois, Urbana-Champaign	12	170,506	192,878	195,413	201,028	103,852	122,848	126,826	130,075
U. California, Berkeley	13	185,049	189,550	200,668	200,122	71,029	73,820	75,316	81,194
Ohio State U.	14	147,590	178,028	183,646	177,518	70,847	75,799	84,724	85,547
North Carolina State U.	15	147,704	158,389	166,680	174,590	75,449	83,799	84,304	91,264
U. California, San Diego	16	114,646	125,033	150,596	172,919	61,840	67,172	73,246	88,846
U. Maryland ^b	17	na	na	na	158,814	na	na	na	86,168
U. Dayton	18	105,879	122,338	139,036	157,016	94,680	109,805	127,079	146,841
U. Washington, Seattle	19	133,128	136,318	149,931	155,076	99,745	98,022	103,714	108,560
Arizona State U.	20	127,332	135,169	142,175	152,395	60,179	60,045	61,096	72,655
U. Colorado Boulder	21	132,146	176,988	171,965	152,391	84,300	85,054	86,829	92,099
Stanford U.	22	125,633	125,627	146,504	134,585	89,510	86,833	91,628	79,988
U. Wisconsin-Madison	23	147,315	148,949	118,576	126,587	91,722	87,881	63,684	68,617
U. Minnesota, Twin Cities	24	117,858	123,835	124,637	120,976	60,872	63,781	67,776	71,695
U. Tennessee, Knoxville	25	90,290	113,852	128,675	116,528	52,119	61,438	62,428	67,165
Cornell U.	26	88,512	85,162	92,590	110,545	52,214	51,604	55,763	63,696
Wichita State U.	27	50,448	62,444	63,328	109,248	6,452	17,734	13,677	22,954
U. Florida	28	94,548	97,826	93,580	107,598	51,459	49,985	49,486	60,844
Iowa State U.	29	92,088	95,306	99,214	104,798	35,948	40,035	43,677	43,241
Duke U.	30	74,746	80,554	92,715	100,379	61,757	63,439	64,601	72,560
New York U.	31	59,782	79,801	85,767	99,711	7,456	11,912	13,790	14,986
U. California, Los Angeles	32	78,962	80,153	91,799	95,797	41,637	44,469	50,048	52,488
Harvard U.	33	70,131	105,231	96,786	95,651	34,986	62,792	51,742	45,835
Carnegie Mellon U.	34	102,696	98,781	99,201	95,496	57,616	55,895	53,672	49,854

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SUNY, U. Buffalo	35	94,683	93,965	95,234	95,040	49,873	54,253	53,279	50,811
Vanderbilt U. and Vanderbilt U. Medical Center	36	66,481	83,560	87,250	94,340	47,065	44,770	47,036	52,742
Rutgers, State U. New Jersey, New Brunswick	37	74,092	75,760	104,371	92,937	36,015	38,224	35,299	35,917
U. California, Davis	38	89,188	85,557	89,128	92,277	36,680	34,594	35,375	37,549
U. Notre Dame	39	69,954	75,064	77,243	89,702	34,682	37,603	36,062	40,258
Woods Hole Oceanographic Institution	40	63,781	61,402	61,221	83,974	54,850	52,263	52,285	72,016
U. Virginia, Charlottesville	41	48,815	48,285	70,000	83,072	26,508	30,045	38,600	43,878
Northwestern U.	42	84,243	84,520	81,662	80,413	49,444	48,089	48,724	47,948
Northeastern U.	43	40,243	53,443	65,147	79,836	28,285	36,564	48,634	61,116
Michigan State U.	44	45,183	61,918	77,165	79,638	22,862	27,668	27,900	29,787
New Jersey Institute of Technology	45	61,979	59,726	69,735	78,455	47,314	37,648	41,611	53,994
U. Pennsylvania	46	61,366	64,279	67,574	78,444	35,847	35,965	36,750	39,422
Boston U.	47	60,000	64,275	83,013	78,154	34,196	36,082	42,903	45,017
Rice U.	48	69,113	73,297	67,934	77,299	38,286	36,165	34,520	37,781
Clemson U.	49	64,870	65,885	73,506	76,739	29,761	30,795	33,781	39,395
U. Southern California	50	65,883	69,226	72,961	76,180	36,169	39,663	46,803	52,737
U. Arizona	51	62,867	62,925	70,100	75,555	31,652	29,669	30,716	35,880
Columbia U. in the City of New York	52	63,596	67,996	72,301	72,596	52,135	57,636	61,834	59,672
U. California, Santa Barbara	53	95,026	73,594	77,535	67,395	52,124	36,323	35,964	33,589
U. Delaware	54	39,367	40,177	52,932	66,447	28,759	31,785	37,656	47,975
Princeton U.	55	58,887	70,261	67,450	65,000	42,517	47,262	42,147	41,480
U. Central Florida	56	62,983	55,792	62,734	62,258	25,758	23,499	33,002	33,413
Mississippi State U.	57	50,928	49,856	48,399	60,183	27,832	26,419	24,187	33,935
Rensselaer Polytechnic Institute	58	61,452	59,446	57,190	59,831	30,073	29,363	28,136	28,307
Auburn U., Auburn	59	45,572	56,657	56,233	59,742	24,592	23,274	21,497	25,694
Florida State U.	60	46,346	50,234	56,281	56,352	29,543	31,794	39,060	39,126
U. California, Irvine	61	55,020	53,016	70,449	55,995	23,992	26,637	26,914	24,021
U. Utah	62	38,353	39,993	42,053	55,478	29,629	30,543	25,847	32,365
U. North Dakota	63	38,153	43,485	52,960	54,760	19,542	20,059	30,506	28,684
U. Texas, Arlington	64	41,889	41,258	48,513	54,121	16,731	17,441	20,698	22,053
U. Nebraska, Lincoln	65	41,427	48,890	49,434	53,932	16,309	18,514	18,358	20,375
U. Houston	66	51,635	54,497	50,047	51,806	19,254	19,323	21,593	23,838
U. Kentucky	67	50,766	45,416	47,821	50,743	26,462	23,967	25,067	28,999
U. Iowa	68	47,097	54,200	50,848	50,377	22,426	23,137	22,494	21,473
U. Massachusetts, Amherst	69	47,257	53,718	54,219	49,745	23,889	27,264	27,568	26,896
Oregon State U.	70	43,990	51,184	49,271	49,587	29,203	33,223	34,437	36,090

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		2016	2017	2018	2019	2016	2017	2018	2019
U. Texas, Dallas	71	42,513	45,588	43,363	48,666	14,345	14,837	15,884	19,512
U. Alabama, Birmingham	72	43,359	47,730	48,102	47,555	30,928	36,558	38,086	37,724
Michigan Technological U.	73	41,399	39,627	45,745	47,435	17,197	16,068	19,638	21,801
California Institute of Technology	74	57,886	61,771	45,494	46,972	28,148	28,501	22,700	24,690
U. Cincinnati	75	34,412	33,618	44,588	46,889	9,506	11,038	10,598	12,015
U. Missouri, Columbia	76	40,947	40,865	42,403	46,142	11,256	9,308	11,057	13,466
U. Pittsburgh, Pittsburgh	77	41,382	43,801	44,995	46,075	24,414	27,229	27,599	31,347
Louisiana State U., Baton Rouge	78	42,710	41,065	44,604	45,803	10,738	9,822	11,227	11,587
U. South Florida, Tampa	79	42,590	46,796	45,487	45,508	22,438	24,425	24,747	22,743
Colorado School of Mines	80	34,840	32,824	35,504	44,195	20,479	20,764	23,277	31,066
Texas Tech U.	81	39,175	46,553	40,249	44,057	10,478	9,809	10,888	14,017
U. Connecticut	82	38,977	39,840	39,907	44,044	22,302	22,275	22,920	26,390
Colorado State U., Fort Collins	83	40,075	40,921	38,919	42,609	25,584	28,929	29,104	31,135
West Virginia U.	84	32,948	36,747	37,520	42,516	14,826	18,587	18,904	19,835
Washington State U.	85	46,133	50,463	48,384	42,273	17,976	19,209	19,156	18,943
Case Western Reserve U.	86	39,547	40,120	46,184	41,228	30,223	31,395	33,187	29,335
U. Alabama, Huntsville	87	35,151	32,555	34,105	40,733	24,249	22,595	24,961	31,957
Wright State U.	88	27,957	34,024	43,039	39,164	16,172	20,850	28,136	25,868
U. California, Santa Cruz	89	61,931	33,669	29,724	39,111	49,857	21,460	18,845	25,568
U. New Mexico	90	37,136	36,052	35,067	37,950	27,206	27,345	27,521	30,449
Yale U.	91	26,271	30,905	35,939	36,591	16,889	19,546	23,606	24,674
Montana State U., Bozeman	92	22,150	25,633	25,643	36,521	13,547	17,969	18,950	25,349
George Mason U.	93	10,826	11,185	15,785	36,101	8,063	8,870	13,550	31,276
Florida International U.	94	30,559	29,106	31,410	35,138	19,717	15,502	17,220	19,899
U. Arkansas, Fayetteville	95	32,205	32,981	36,132	34,590	13,397	14,228	15,886	14,659
Missouri U. of Science and Technology	96	28,438	31,077	33,241	33,895	14,287	15,125	16,249	17,711
U. Massachusetts, Lowell	97	17,428	20,422	27,676	33,128	6,688	7,695	11,828	13,443
Oklahoma State U., Stillwater	98	37,394	39,179	37,003	32,947	15,653	15,538	11,982	11,962
Mercer U.	99	26,049	23,942	23,532	32,624	19,243	18,153	17,021	25,358
U. Maine	100	16,880	22,065	27,459	32,368	4,784	7,708	10,014	13,614
U. Alabama, Tuscaloosa	101	18,394	19,382	24,667	31,845	9,038	8,986	10,874	16,390
U. North Carolina, Chapel Hill	102	29,576	29,932	28,509	31,825	18,186	18,086	19,456	19,251
U. South Carolina, Columbia	103	33,228	30,893	31,294	31,748	14,932	16,166	15,596	16,076
Tufts U.	104	22,131	20,037	27,130	31,630	17,154	13,858	22,470	26,143
Drexel U.	105	32,312	32,240	31,625	31,330	21,125	20,342	21,222	20,443
Dartmouth C. and Dartmouth Hitchcock Medical Center	106	28,324	29,893	31,903	31,110	18,954	20,668	21,403	21,279

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		2016	2017	2018	2019	2016	2017	2018	2019
SUNY, Binghamton U.	107	24,216	26,681	35,406	30,434	4,315	4,936	6,470	6,356
U. California, Riverside	108	26,118	29,971	29,206	29,020	12,606	15,932	16,293	16,217
SUNY, Stony Brook U.	109	25,366	32,483	28,015	28,632	13,850	15,587	15,013	15,637
U.S. Air Force Academy	110	37,015	33,831	28,645	28,489	34,703	31,629	26,453	28,489
U. Louisiana, Lafayette	111	7,792	9,569	13,188	28,397	780	845	783	4,247
CUNY, City C.	112	32,237	26,479	28,252	28,337	16,919	15,021	17,753	16,998
U. Illinois, Chicago	113	19,610	23,478	25,079	28,226	8,290	11,897	13,558	14,707
Kansas State U.	114	24,591	24,976	26,577	27,439	8,829	8,976	9,819	12,503
U. Texas, El Paso	115	25,328	27,643	27,260	26,586	12,708	14,621	15,228	11,995
U. Oklahoma, Norman and Health Science Center	116	24,935	24,840	23,293	26,569	13,101	12,372	12,084	13,783
Virginia Commonwealth U.	117	16,251	23,146	20,262	26,072	5,901	6,870	7,362	9,482
New Mexico State U.	118	40,221	26,947	23,067	25,892	30,245	18,248	14,388	17,202
Stevens Institute of Technology	119	23,970	24,180	22,396	25,832	18,251	17,298	16,994	18,945
Syracuse U.	120	18,332	23,081	22,145	25,412	7,548	8,408	9,100	7,616
U. New Hampshire	121	19,459	22,103	19,239	23,861	8,996	10,218	9,291	12,286
U. Chicago	122	11,155	12,066	16,388	23,773	10,001	10,546	12,919	17,275
U. Nevada, Reno	123	12,782	16,982	19,373	23,568	7,389	8,102	7,474	8,785
Brown U.	124	31,735	24,798	28,149	23,448	16,516	17,904	20,893	17,289
Lehigh U.	125	21,179	23,562	24,564	23,447	13,323	16,202	16,053	15,374
Washington U., Saint Louis	126	24,130	24,627	24,238	23,090	19,836	21,173	20,596	18,895
Naval Postgraduate School	127	18,726	18,739	19,675	22,498	17,053	16,272	17,019	20,124
George Washington U.	128	15,416	16,438	17,136	21,712	8,354	10,791	10,987	14,597
Worcester Polytechnic Institute	129	24,779	21,355	20,617	21,029	17,909	12,191	10,668	11,735
U. Kansas	130	17,001	17,856	17,481	20,869	8,945	11,002	10,149	14,177
Air Force Institute of Technology	131	19,693	26,096	22,908	20,525	12,129	18,736	16,075	14,015
Rochester Institute of Technology	132	17,894	21,517	18,611	20,264	8,930	9,880	8,298	8,136
U. Texas, San Antonio	133	14,397	17,717	17,781	19,928	5,500	6,534	5,947	5,949
U. Wyoming	134	37,752	39,901	36,672	19,550	12,628	8,326	4,369	6,075
Ohio U.	135	20,077	23,201	21,226	19,502	5,381	6,144	5,512	5,252
Old Dominion U.	136	18,815	19,086	17,074	19,294	7,440	10,931	7,601	8,179
U. Georgia	137	11,314	15,071	21,346	18,444	4,297	5,393	4,964	6,292
U. Louisville	138	18,924	17,536	17,321	17,640	6,376	5,943	6,949	8,248
U. Idaho	139	13,867	16,894	17,190	17,497	7,064	7,876	7,521	8,525
Cleveland State U.	140	14,719	15,635	15,184	17,278	10,440	9,469	8,971	11,036
U. Hawaii, Manoa	141	21,090	21,992	21,367	17,089	15,829	16,702	15,744	10,777
U. Akron	142	41,309	24,042	18,878	16,650	21,104	11,311	8,155	6,447

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U. Puerto Rico, Mayaguez	143	11,804	12,898	13,704	16,446	6,952	6,211	7,275	8,892
U. North Carolina, Charlotte	144	7,915	7,972	11,933	16,000	4,767	5,716	6,776	7,845
U. North Texas, Denton	145	9,125	12,485	13,114	15,773	3,024	5,943	7,918	5,962
U. Nevada, Las Vegas	146	13,046	12,018	16,192	15,736	7,496	6,582	7,839	6,161
Illinois Institute of Technology	147	11,299	12,117	12,976	15,241	8,274	9,160	10,861	12,061
U. Alaska, Fairbanks	148	20,493	17,627	14,027	14,922	5,559	5,140	7,642	9,090
U. Rochester	149	10,358	10,596	13,418	14,872	7,551	7,098	9,658	11,814
Wayne State U.	150	16,605	16,668	17,235	14,634	7,186	6,063	6,264	6,640
New Mexico Institute of Mining and Technology	151	10,043	11,260	13,245	14,043	8,286	10,048	12,044	13,004
Brigham Young U., Provo	152	13,972	14,904	14,827	14,001	8,752	8,940	8,727	9,188
U. California, Merced	153	9,814	11,823	12,912	13,852	4,132	5,221	4,957	4,652
U. Tulsa	154	14,930	13,770	14,054	13,213	1,972	1,760	1,647	1,520
Oregon Health and Science U.	155	12,372	16,233	11,941	12,134	7,055	8,665	8,694	10,649
North Dakota State U.	156	13,009	13,053	11,555	12,030	2,126	2,600	2,750	3,254
North Carolina Agricultural and Technical State U.	157	10,854	12,648	13,123	11,766	9,208	10,538	10,933	9,713
Boise State U.	158	9,394	9,717	11,907	11,688	3,827	4,824	6,297	6,377
Louisiana Tech U.	159	8,384	9,552	10,333	11,513	2,368	3,525	3,948	4,263
Florida Atlantic U.	160	4,929	8,585	12,099	11,450	3,605	4,384	6,467	7,007
Indiana U., Bloomington	161	3,164	6,194	7,928	11,265	2,983	4,043	3,649	4,864
U. Toledo	162	11,805	10,161	10,410	11,256	6,169	5,177	5,781	6,062
South Dakota School of Mines and Technology	163	12,917	13,572	13,111	11,226	8,413	9,199	8,581	7,570
Clarkson U.	164	10,210	10,487	12,058	10,889	4,679	4,371	5,553	5,883
U. Rhode Island	165	6,549	7,642	7,910	10,632	3,494	4,352	5,282	7,329
U. Wisconsin-Milwaukee	166	10,944	9,745	10,024	9,915	2,167	2,229	2,373	2,537
Emory U.	167	5,209	4,872	6,000	9,614	3,556	2,910	2,925	6,256
Villanova U.	168	7,291	7,988	9,293	9,612	1,972	1,571	1,535	1,543
U. Memphis	169	7,873	8,077	9,806	9,464	3,013	2,503	3,063	2,489
Southern Methodist U.	170	5,419	6,174	6,835	9,207	2,197	3,053	3,220	5,145
Portland State U.	171	7,091	7,488	9,010	9,160	3,693	4,107	4,531	4,887
Marquette U.	172	8,012	8,915	7,898	8,988	3,014	2,566	2,424	3,033
U. Mississippi	173	6,646	7,247	5,462	8,821	3,217	2,657	3,137	4,752
Rowan U.	174	2,639	4,062	5,541	8,447	1,488	2,300	3,386	4,229
U. Maryland, Baltimore County	175	15,256	14,075	8,715	8,429	11,896	10,509	6,204	4,862
Tulane U.	176	6,658	6,801	7,435	8,416	3,174	3,224	3,965	4,170
Howard U.	177	7,604	8,402	9,112	8,401	6,511	7,212	7,260	6,046
Embry-Riddle Aeronautical U.	178	14,947	11,223	12,926	8,374	12,722	9,113	10,728	6,291

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San Diego State U.	179	6,985	8,935	8,534	8,197	3,459	4,310	4,026	3,801
Temple U.	180	6,973	6,558	7,719	8,042	3,104	3,462	4,142	3,830
U. Vermont	181	9,788	8,743	7,712	7,864	7,592	7,027	5,683	5,190
Medical C. Wisconsin	182	0	0	6,669	7,774	0	0	4,864	6,029
U. Massachusetts, Dartmouth	183	6,710	7,666	7,404	7,764	2,240	2,598	2,751	2,696
California State U., Sacramento	184	9,110	7,527	7,196	7,507	2,748	2,969	3,282	3,443
U.S. Naval Academy	185	6,671	7,414	7,823	7,482	6,576	7,335	7,667	7,311
Tennessee Technological U.	186	5,154	5,927	7,301	7,267	1,940	2,451	2,539	2,402
Texas A&M U.-Corpus Christi	187	2,573	4,820	7,089	7,193	577	1,260	2,121	2,020
U. Missouri, Kansas City	188	2,724	3,314	4,385	7,087	624	1,011	2,105	5,349
U. Michigan, Dearborn	189	6,100	6,870	6,503	6,832	1,555	1,509	844	1,129
Indiana U.-Purdue U., Indianapolis	190	5,448	6,221	6,034	6,730	2,307	3,025	3,054	3,298
U. Tennessee, Knoxville, Institute of Agriculture	191	7,862	5,056	5,643	5,637	1,580	2,840	2,946	2,937
Western Michigan U. and Homer Stryker M.D. School of Medicine	192	5,062	5,921	5,810	5,595	2,757	2,715	2,590	1,945
South Dakota State U.	193	6,487	5,807	5,391	5,516	3,869	3,238	3,283	2,925
U. Miami	194	5,133	5,969	5,201	5,400	2,912	3,242	2,658	2,532
Tuskegee U.	195	6,532	6,532	5,297	5,372	5,197	5,197	5,197	4,097
Humboldt State U.	196	5,581	5,625	4,118	5,232	6	3	4	16
Prairie View A&M U.	197	2,386	3,359	3,835	5,121	1,675	2,151	2,641	3,183
Alfred U.	198	3,684	3,168	3,599	5,032	1,268	854	1,374	1,459
U. Colorado Denver and Anschutz Medical Campus	199	6,212	5,331	4,610	5,003	2,307	2,330	2,414	4,046
Florida Institute of Technology	200	4,697	6,593	5,427	4,782	2,311	2,379	2,306	2,391
Texas State U.	201	3,364	4,248	3,504	4,611	1,420	1,832	1,066	623
Florida A&M U.	202	2,590	2,485	2,844	4,477	2,147	2,117	2,298	4,057
Montana Technological U.	203	3,503	4,887	4,464	4,428	2,525	3,799	3,239	3,606
California State U., Long Beach	204	1,578	2,269	5,150	4,223	381	1,044	3,008	2,109
California Polytechnic State U., San Luis Obispo	205	6,694	4,196	3,542	4,116	5,368	2,707	2,136	1,566
Idaho State U.	206	6,271	5,660	4,725	4,039	3,616	2,575	1,815	1,203
U. Denver	207	4,287	4,940	3,992	4,010	1,992	1,524	1,558	1,879
Youngstown State U.	208	1,846	3,712	4,044	3,993	783	2,680	3,333	2,667
Morgan State U.	209	3,932	3,795	3,002	3,990	3,363	3,202	2,366	3,376
Oakland U.	210	4,237	3,651	3,709	3,836	1,133	1,040	1,076	720
Milwaukee School of Engineering	211	2,945	2,792	2,936	3,825	474	340	631	695
U.S. Military Academy	212	7,794	3,668	3,020	3,799	7,794	3,668	3,020	3,799
Baylor U.	213	3,233	4,938	4,494	3,720	627	1,297	1,189	1,440
U. Texas Rio Grande Valley	214	4,918	4,534	4,226	3,573	3,461	3,283	2,798	1,134

TABLE 54

Total and federally financed higher education R&D expenditures in engineering, 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. Southern Mississippi	215	824	1,521	1,214	3,371	794	1,521	1,214	3,286
Jackson State U.	216	4,364	4,298	3,385	3,354	3,779	3,546	2,806	2,908
U. South Dakota	217	3,841	3,443	3,198	3,243	546	586	663	1,280
Missouri State U.	218	842	1,198	2,200	3,234	832	1,120	2,200	3,176
SUNY, U. Albany	219	405	1,214	1,941	3,087	0	24	74	512
Miami U.	220	1,974	2,887	2,271	3,070	687	825	281	361
California State U., Maritime Academy	221	2,138	1,860	2,924	2,959	61	206	550	617
Southern Illinois U., Carbondale	222	4,959	3,427	3,381	2,905	1,067	674	386	392
New School	223	93	37	1,797	2,828	82	37	0	99
Northern Arizona U.	224	3,359	3,515	4,454	2,613	956	763	1,043	1,106
Catholic U. of America	225	1,441	1,937	1,973	2,587	1,031	1,549	1,610	1,961
U. Tennessee, Chattanooga	226	917	1,454	1,674	2,460	314	425	589	1,216
California State U., San Bernardino	227	1	4	1,133	2,434	1	0	0	0
U. South Alabama	228	2,033	2,852	1,956	2,411	1,042	1,025	1,098	1,467
U. Minnesota, Duluth	229	2,062	2,156	2,570	2,399	314	148	199	319
U. North Florida	230	1,968	2,320	2,832	2,392	561	581	439	360
U. New Orleans	231	3,741	3,422	2,447	2,376	663	524	392	344
Alabama A&M U.	232	4,656 i	3,888 i	3,122 i	2,354 i	3,545 i	2,890 i	2,236 i	1,581 i
Southern Illinois U., Edwardsville	233	2,182	4,334	2,666	2,348	644	1,425	611	475
Saint Louis U.	234	1,494	1,027	1,346	2,344	395	280	486	1,176
Kent State U.	235	1,152	1,492	1,857	2,330	707	920	1,183	1,860
U. Ana G. Mendez, Gurabo	236	706	620	501	2,324	96	4	0	575
Delaware State U.	237	0	962	1,807	2,248	0	760	1,500	1,218
U. North Carolina, general administration	238	2,511	2,313	2,311	2,239	84	78	49	189
U. Arkansas, Little Rock	239	2,358	1,852	1,921	2,116	1,459	1,206	1,060	1,224
California State U., Bakersfield	240	498	729	1,271	2,050	288	280	928	1,453
Kennesaw State U.	241	98	834	549	2,044	85	185	111	105
East Carolina U.	242	628	546	1,276	2,015	154	182	267	475
Pittsburg State U.	243	1,835	1,933	1,978	1,990	26	13	19	12
Norfolk State U.	244	1,839	1,819	1,501	1,940	1,688	1,791	1,501	1,940
Southern U. and A&M C., Baton Rouge	245	1,258	852	1,523	1,905	1,237	730	1,342	1,454
San Jose State U.	246	940	1,076	1,451	1,864	488	569	699	1,029
Texas A&M U.-Kingsville	247	1,757	2,337	1,906	1,827	716	1,261	964	1,187
Florida Polytechnic U.	248	ne	ne	ne	1,739	ne	ne	ne	283
U. Nebraska, central administration	249	ne	ne	2,800	1,687	ne	ne	2,800	1,687
Bucknell U.	250	1,522 i	1,628 i	1,733	1,632	605 i	585 i	561	533

TABLE 54

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

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2016	2017	2018	2019	2016	2017	2018	2019
Lamar U.	251	1,339	2,734	2,280	1,609	81	782	1,012	442
U. Texas Medical Branch	252	3,114	1,333	2,528	1,596	1,649	726	1,093	411
U. Oklahoma, Tulsa	253	992	938	1,432	1,549	319	477	667	919
U. South Carolina, Aiken	254	0	1,404	1,490	1,520	0	1,404	1,490	1,453
Pennsylvania State U., Behrend	255	1,960	1,151	1,112	1,508	859	225	277	408
California State U., Fresno	256	606	1,298	1,520	1,492	310	778	758	419
Minnesota State U., Mankato	257	2,192	616	1,204	1,472	397	121	80	174
Northern Illinois U.	258	3,508	1,215	1,072	1,418	2,725	332	334	222
U. Alaska, Anchorage	259	1,982	2,066	2,196	1,393	553	252	226	562
CUNY, Advanced Science Research Center	260	ne	1,019	1,564	1,379	ne	631	1,274	1,289
Kettering U.	261	2,248	2,271	1,516	1,354	576	689	454	184
Purdue U., Northwest	262	na	2,904	2,307	1,352	na	1,459	675	376
SUNY, C. of Environmental Science and Forestry	263	1,221	2,975	1,245	1,339	271	429	249	259
U. Hartford	264	1,131	1,304	440	1,300	857	957	42	791
San Francisco State U.	265	1,536	1,595	1,492	1,284	522	559	486	371
Georgia Southern U.	266	1,919	1,766	1,110	1,257	153	297	196	174
U. Massachusetts, Boston	267	798	1,549	1,220	1,255	594	477	609	533
U. North Carolina, Wilmington	268	329	778	1,659	1,226	247	222	531	484
North Carolina Central U.	269	0	0	0	1,212	0	0	0	789
Tennessee State U.	270	2,827	2,120	1,467	1,207	1,955	1,473	1,203	824
West Texas A&M U.	271	1,111	957	1,058	1,178	891	388	534	477
Marshall U.	272	2,416	1,341	1,011	1,158	342	451	271	502
California State Polytechnic U., Pomona	273	1,081	915	1,248	1,085	628	479	751	728
Hampton U.	274	903	1,730	1,296	1,049	903	1,730	1,296	1,049
New York Institute of Technology	275	1,313	315	698	1,045	517	315	422	697
Polytechnic U. Puerto Rico	276	ne	ne	ne	1,021	ne	ne	ne	1,021
U. New Haven	277	2,451	890	906	1,013	2,157	447	557	485
California State U., Los Angeles	278	809	787	762	1,009	523	414	642	688
CUNY, system office	279	0	0	2,245	1,001	0	0	1,419	912
U. Nebraska, Omaha	280	913	779	515	993	802	692	398	683
Bradley U.	281	1,322	1,560	885	945	386	343	180	236
Harvey Mudd C.	282	920	856	596	884	541	399	340	440
Lawrence Technological U.	283	1,378	1,470	996	882	260	552	386	210
Santa Clara U.	284	720	658	535	876	318	177	177	215
Western Washington U.	285	1,189	1,258	1,489	832	553	586	535	336
Manhattan C.	286	ne	ne	ne	809	ne	ne	ne	167

TABLE 54

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

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2016	2017	2018	2019	2016	2017	2018	2019
Morehead State U.	287	1,510	1,887	1,592	806	1,195	1,527	1,306	754
California State U., San Marcos	288	0	306	344	797	0	306	344	797
Virginia State U.	289	2,214	1,665	951	793	815	444	240	165
U. San Diego	290	246	695	898	776	212	503	756	633
Fort Lewis C.	291	ne	ne	ne	760	ne	ne	ne	702
California State U., Northridge	292	787	980	757	714	740	899	700	604
U. of the District of Columbia	293	864	1,371	721	708	749	1,311	721	708
U. Colorado Colorado Springs	294	892	992	763	694	547	819	656	649
South Carolina State U.	295	2,296 i	199	239 i	662	876 i	199	208 i	662
Oregon Institute of Technology	296	2,452	3,031 i	2,760 i	630 i	0	505 i	158	104 i
U. Tennessee, Health Science Center	297	702	625	598	610	0	0	0	0
California State U., Fullerton	298	762	582	563	609	562	470	352	288
Western Kentucky U.	299	387	600	783	597	75	136	93	2
U. Wisconsin-Stevens Point	300	481 i	503 i	545 i	584 i	165 i	171 i	180 i	197 i
Christopher Newport U.	301	0	332	536	575	0	332	536	575
California State U., Chico	302	306	337	305	567	47	20	35	179
Central Michigan U.	303	640	650	657	559	198	334	276	162
Arkansas State U., Jonesboro	304	612	496	490	553	318	140	142	180
Smith C.	304	775	674	563	553	636	588	477	463
U. Oregon	306	0	0	0	541	0	0	0	505
Franklin W. Olin C. of Engineering	307	1,706	1,079	789	534	726	448	425	111
Savannah State U.	308	593	302	429	526	593	302	429	526
Duquesne U.	309	778	651	588	525	272	275	208	179
Hofstra U.	310	1,480	959	717	521	1,479	957	717	506
CUNY, New York City C. of Technology	311	ne	ne	601	478	ne	ne	579	442
Pace U.	312	1,368	1,435	735	435	877	664	395	404
Western Illinois U.	313	ne	639	711	409	ne	444	530	321
U. of St. Thomas (MN)	314	174	203	617	407	0	5	29	25
Grand Valley State U.	315	37	246	40	400	3	0	0	0
U. Texas, Tyler	316	127	469	405	394	32	130	127	71
U. Portland	317	ne	ne	ne	393	ne	ne	ne	48
Wake Forest U.	318	0	0	49	385	0	0	49	148
Xavier U. Louisiana	319	392	152	241	376	392	152	241	376
Western Carolina U.	320	16	108	136	365	12	96	122	269
Maine Maritime Academy	321	1,902	1,763	1,093	358	1,207	1,370	773	282
U. Wisconsin-Green Bay	322	696 i	733 i	242 i	353 i	252 i	183 i	95 i	147 i

TABLE 54

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

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2016	2017	2018	2019	2016	2017	2018	2019
Alcorn State U.	323	287	656	496	343	283	620	496	330
Central State U.	324	519	112	100	340	519	112	100	340
Keck Graduate Institute	325	0 i	0 i	293 i	326 i	0 i	0 i	190 i	208 i
Swarthmore C.	326	504	311	377	314	393	205	141	55
James Madison U.	327	607	438	105	313	516	359	56	181
Pennsylvania State U., Harrisburg	328	675	278	223	312	139	174	132	15
Liberty U.	329	ne	ne	ne	311	ne	ne	ne	0
Oklahoma State U., Center for Health Sciences	330	47	100	0	309	0	62	0	54
Eastern Michigan U.	331	136	183	156	304	130	80	0	9
U. Wisconsin-Oshkosh	332	ne	260 i	275 i	300 i	ne	198 i	207 i	230 i
Seattle U.	333	778	392	336	283	301	319	185	72
Benedict C.	334	424	453	364	252	424	453	364	246
Saginaw Valley State U.	335	290	294	242	239	122	148	136	124
SUNY, Oswego	336	ne	215	300	231	ne	28	50	81
U. Detroit Mercy	337	191	73	103	227	1	0	4	59
Purdue U., Fort Wayne	338	630	537	533	221	39	40	93	160
Clark Atlanta U.	339	272	292	347	214	272	183	347	44
Lafayette C.	340	501	805	183	184	458	749	112	107
Colorado State U., Pueblo	341	ne	ne	ne	178	ne	ne	ne	51
Biola U.	342	144 i	146 i	153 i	162 i	99 i	101 i	103 i	109 i
U. Washington, Bothell	343	119	0	86	161	0	0	0	146
Loyola Marymount U.	344	121	158	553	160	6	9	4	0
U. Michigan, Flint	345	ne	199	140	152	ne	29	8	0
Claflin U.	346	0	5	56	145	0	5	42	144
U. Wisconsin-Platteville	346	ne	170 i	ne	145 i	ne	83 i	ne	68 i
Texas Southern U.	348	97	89	98	130	85	82	98	130
Hope C.	349	96	193	55	128	86	161	52	116
St. Cloud State U.	350	147	101	183	121	0	0	0	0
Central Connecticut State U.	351	123	130	ne	119	93	112	ne	87
Union C., Schenectady	352	191	145	119	118	151	29	32	10
Calvin U.	353	62	95	159	111	0	6	47	21
Trinity U.	354	116	108	108	103	2	7	0	0
CUNY, York C.	355	ne	ne	ne	91	ne	ne	ne	89
U. Maryland Center for Environmental Science	356	0	393	160	90	0	105	63	89
Elon U.	357	90	82	83	87	79	71	64	68
Trinity C., Hartford	358	42	62	86	86	24	3	19	19

TABLE 54

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

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2016	2017	2018	2019	2016	2017	2018	2019
Texas Christian U.	359	87	199	175	73	0	94	121	0
Central Washington U.	360	16	6	13	70	0	0	0	4
Texas A&M U.-Central Texas	360	ne	ne	378	70	ne	ne	143	45
U. of the Pacific	362	323	195	165	68	152	145	163	68
Tarleton State U.	363	0	0	0	61	0	0	0	0
U. of the Virgin Islands	363	0	0	87	61	0	0	87	61
Bowling Green State U.	365	26	20	10	60	12	20	0	0
Fairfield U.	365	444	267	375	60	31	31	22	0
Florida Gulf Coast U.	367	195	139	270	59	189	101	270	56
Middle Tennessee State U.	367	826	283	540	59	646	90	100	3
Azusa Pacific U.	369	21	179	38	50	0	0	0	0
Andrews U.	370	ne	ne	ne	47	ne	ne	ne	41
U. of the Incarnate Word	370	ne	ne	0	47	ne	ne	0	0
U. Houston-Downtown	372	47	2	7	42	43	0	0	0
Providence C.	373	24	42	23	41	24	29	23	40
U. Maryland, Eastern Shore	374	0	30	43	40	0	0	0	0
U. Puerto Rico, Rio Piedras	375	879	3,334	326	37	436	1,188	117	37
Roger Williams U.	376	60	103	94	36	0	0	0	0
West Virginia State U.	377	215	188	328	34	163	132	273	34
Texas A&M International U.	378	56	166	91	30	9	0	0	3
Texas A&M U.-Commerce	379	18	3	5	28	0	0	0	0
U. Southern Maine	380	59	113	3	23	21	20	0	0
Jacksonville State U.	381	5	8	8	22	0	8	8	22
Sam Houston State U.	382	0	0	29	21	0	0	0	0
U. Missouri, Saint Louis	382	1,161	441	389	21	166	78	20	0
U. West Florida	382	29	35	33	21	2	0	0	0
Albany State U.	385	0	0	3	16	0	0	3	16
Spelman C.	385	59	1	46	16	59	1	46	16
Stephen F. Austin State U.	387	0	4	14	15	0	4	14	15
Eastern Washington U.	388	0	27	9	14	0	27	9	14
Eastern Connecticut State U.	389	0	1	10	12	0	0	10	12
Long Island U.	389	0	0	0	12	0	0	0	12
U. Massachusetts, central office	389	0	11	9	12	0	10	8	11
Hawaii Pacific U.	392	0	0	0	10	0	0	0	10
U. North Carolina, Asheville	392	51	40	74	10	0	0	0	0
Dine C.	394	ne	ne	0	8	ne	ne	0	8

TABLE 54

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

(Dollars in thousands)

Institution	Rank	Total				Federally financed			
		2016	2017	2018	2019	2016	2017	2018	2019
Keene State C.	394	ne	0	ne	8	ne	0	ne	8
Appalachian State U.	396	0	0	0	5	0	0	0	0
U. Houston-Clear Lake	396	0	0	0	5	0	0	0	0
Stockton U.	398	0	ne	0	4	0	ne	0	4
U. Wisconsin-Superior	398	ne	ne	0	4	ne	ne	0	4
Southern Connecticut State U.	400	0	0	0	3	0	0	0	0
Wheaton C., Wheaton	400	ne	0	0	3	ne	0	0	0
East Tennessee State U.	402	0	0	0	2	0	0	0	2
CUNY, C. Staten Island	403	298	577	1	1	186	238	0	0
Indiana State U.	403	94	3	2	1	93	0	0	0
All other surveyed institutions	-	141,236	139,674	140,872	0	82,469	77,177	76,003	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 \$1,047,002 thousand imputed for total and \$1,018,314 thousand reported for federally financed R&D expenditures in engineering 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.