

TABLE 49

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

(Dollars in thousands)

Institution	Rank	2018	2019	2020	2021					
					All physical sciences	Astronomy and astrophysics	Chemistry	Materials science	Physics	Physical sciences nec
All institutions	-	3,472,575	3,691,480	3,790,522	3,852,415	509,733	1,239,825	174,331	1,767,740	160,786
Johns Hopkins U. <sup>a</sup>	1	229,887	306,572	372,067	321,641	59,051	22,938	4,438	215,073	20,141
California Institute of Technology	2	155,495	156,658	178,896	160,456	43,935	22,573	15,763	78,185	0
Michigan State U.	3	111,792	95,267	100,092	122,143	64	8,166	0	113,913	0
Massachusetts Institute of Technology	4	96,347	94,635	105,097	114,108	29,713	22,959	2,718	45,000	13,718
U. Colorado Boulder	5	78,424	99,527	106,414	111,234	33,677	7,132	0	64,351	6,074
Cornell U.	6	86,823	95,625	96,374	93,608	6,746	19,666	1,459	43,263	22,474
U. Rochester	7	88,080	106,520	94,572	92,680	0	4,519	0	88,161	0
U. California, Berkeley	8	81,410	86,349	84,023	90,707	46,314	21,494	0	18,480	4,419
U. Maryland <sup>b</sup>	9	na	82,395	81,584	83,425	36,372	6,858	1,665	31,173	7,357
U. Arizona	10	68,086	74,823	77,135	73,148	58,968	7,395	1,100	5,685	0
Stanford U.	11	63,318	71,817	68,199	72,190	2,951	25,419	7,789	32,299	3,732
U. Wisconsin-Madison	12	51,870	52,807	58,512	60,580	1,892	22,131	0	18,846	17,711
U. Texas, Austin	13	48,196	53,535	56,570	59,786	6,253	7,913	30,667	14,953	0
Harvard U.	14	52,414	53,614	55,363	59,262	5,025	22,149	0	31,258	830
Princeton U.	15	53,677	54,879	60,336	56,283	19,005	13,984	0	23,204	90
U. California, San Diego	16	43,134	47,019	49,002	54,485	5	21,719	0	32,711	50
Pennsylvania State U., University Park and Hershey Medical Center	17	53,057	56,943	54,776	53,869	9,125	13,617	13,654	17,473	0
U. Washington, Seattle	18	45,871	49,064	52,913	52,053	8,422	21,211	1,199	17,655	3,566
U. Illinois, Urbana-Champaign	19	47,691	48,539	49,164	49,944	6,624	20,905	0	22,415	0
Northwestern U.	20	48,305	49,120	46,669	49,661	1,705	25,004	12,128	8,746	2,078
U. Chicago	21	42,683	43,322	43,904	47,425	7,997	20,993	4,861	13,574	0
Columbia U. in the City of New York	22	27,308	29,085	31,519	40,994	7,577	14,024	4,290	15,103	0
U. Pennsylvania	23	36,065	38,518	38,206	39,630	0	15,115	9,947	14,568	0
U. Michigan, Ann Arbor	24	36,588	37,944	35,572	38,670	3,308	19,179	0	16,183	0
U. California, San Francisco	25	35,467	38,491	41,413	37,312	0	37,311	0	1	0
Florida State U.	26	38,693	35,376	42,211	37,224	593	11,182	2,984	22,154	311
U. California, Los Angeles	27	36,558	39,856	37,430	36,246	0	16,178	0	20,068	0
U. California, Santa Barbara	28	32,011	38,560	36,695	34,841	2,565	6,502	9,572	16,106	96
SUNY, Stony Brook U.	29	28,239	32,009	30,902	33,285	2,491	10,030	0	20,764	0
U. Minnesota, Twin Cities	30	29,565	33,493	32,576	32,702	1,447	15,439	0	15,816	0
Ohio State U.	31	31,707	35,564	44,079	30,584	2,324	12,211	46	16,003	0

TABLE 49

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

(Dollars in thousands)

Institution	Rank	2018	2019	2020	2021					
					All physical sciences	Astronomy and astrophysics	Chemistry	Materials science	Physics	Physical sciences nec
U. Notre Dame	32	26,977	29,077	28,853	29,976	0	19,720	0	10,256	0
Yale U.	33	35,815	33,736	28,840	29,641	1,182	12,340	0	16,119	0
U. Iowa	34	22,483	21,267	18,913	28,692	246	4,065	0	24,381	0
U. North Carolina, Chapel Hill	35	23,430	24,236	27,083	25,924	410	16,230	0	7,344	1,940
U. California, Irvine	36	24,213	27,916	26,725	24,451	0	12,676	0	11,775	0
Purdue U., West Lafayette	37	19,253	20,328	21,579	24,204	0	14,122	0	10,082	0
Boston U.	38	19,197	19,469	20,726	23,002	1,426	11,004	0	10,572	0
Texas A&M U., College Station and Health Science Center	39	18,933	21,954	21,208	22,946	1,315	8,988	1,681	10,514	448
Georgia Institute of Technology	40	23,459	25,844	22,417	22,213	0	15,425	0	6,788	0
U. Delaware	41	19,454	21,923	19,931	21,099	877	7,732	8,914	3,576	0
U. Central Florida	42	18,490	18,300	18,837	20,915	0	1,645	0	19,270	0
Iowa State U.	43	26,683	25,466	17,815	20,463	0	9,139	0	11,324	0
U. Virginia, Charlottesville	44	17,616	17,967	19,333	20,408	2,765	8,676	0	8,967	0
Washington U., Saint Louis	45	16,350	18,746	18,393	20,017	0	8,809	5,953	5,255	0
Duke U.	46	16,332	18,436	19,178	19,826	0	10,066	0	9,760	0
New York U.	47	17,870	19,720	18,606	19,664	0	12,181	0	7,483	0
U. Utah	48	15,844	31,461	19,006	19,543	0	12,874	1,288	5,381	0
Indiana U., Bloomington	49	19,047	20,230	21,233	19,340	453	10,812	0	8,075	0
Catholic U. of America	50	16,408	16,992	17,261	18,569	0	84	0	13,555	4,930
Emory U.	51	14,297	15,695	15,380	18,181	0	15,197	0	2,984	0
U. Florida	52	14,100	15,416	16,445	17,471	681	7,415	0	9,375	0
U. Maryland, Baltimore County	53	11,959	14,774	17,092	17,339	12,915	1,723	131	2,570	0
Rice U.	54	15,712	17,279	16,313	17,271	1,996	7,002	0	8,273	0
U. California, Davis	55	14,930	17,554	17,230	17,078	0	9,954	0	6,595	529
Washington State U.	56	16,798	18,436	14,813	16,946	124	7,937	320	8,560	5
Montana State U., Bozeman	57	9,333	9,841	10,794	16,551	0	9,290	0	7,261	0
U. Hawaii, Manoa	58	15,075	17,498	19,021	16,519	10,763	1,204	0	3,763	789
U. Pittsburgh, Pittsburgh	59	17,541	18,857	17,786	16,509	806	9,776	0	5,927	0
U. California, Santa Cruz	60	12,442	15,755	17,723	16,115	3,893	7,556	0	4,666	0
Northeastern U.	61	12,632	12,859	13,194	16,081	0	6,872	0	9,014	195
Vanderbilt U. and Vanderbilt U. Medical Center	62	14,724	14,537	15,195	15,636	0	9,126	0	6,510	0
U. Nebraska, Lincoln	63	17,422	18,047	15,583	15,445	0	6,867	0	8,578	0
U. Massachusetts, Amherst	64	14,703	16,405	18,261	15,054	3,152	6,635	0	5,267	0

TABLE 49

**Federally financed higher education R&D expenditures in the physical sciences, ranked by all FY 2021 physical sciences: FYs 2018–21 and by subfield for FY 2021**

(Dollars in thousands)

Institution	Rank	2018	2019	2020	2021					
					All physical sciences	Astronomy and astrophysics	Chemistry	Materials science	Physics	Physical sciences nec
North Carolina State U.	65	14,391	13,392	13,657	15,032	0	7,120	0	7,912	0
U. California, Riverside	66	13,554	12,908	14,276	14,667	0	8,133	0	6,534	0
New Mexico State U.	67	19,047	18,114	18,373	14,524	4,072	612	0	1,322	8,518
Florida International U.	68	8,984	9,893	11,642	14,476	0	12,085	0	2,345	46
Arizona State U.	69	11,911	11,735	12,385	14,065	0	5,232	0	8,833	0
Virginia Polytechnic Institute and State U.	70	10,816	14,250	13,854	13,944	97	8,643	0	5,196	8
Louisiana State U., Baton Rouge	71	12,376	12,967	13,295	13,940	0	5,423	0	8,305	212
U. Southern California	72	11,958	12,667	13,605	13,175	0	6,787	1,327	5,061	0
Rutgers, State U. New Jersey, New Brunswick	73	18,582	17,535	12,991	13,160	1,058	3,276	1,956	6,736	134
U. Illinois, Chicago	74	8,196	9,941	10,533	12,875	0	6,060	0	6,815	0
U. Kansas	75	6,763	7,110	6,488	12,448	735	9,348	0	2,365	0
Wayne State U.	76	9,469	11,130	9,101	12,051	0	8,355	0	3,071	625
U. Tennessee, Knoxville <sup>c</sup>	77	15,120	16,674	12,121	11,804	0	2,699	0	9,105	0
U. Southern Mississippi	78	8,639	9,357	8,527	11,564	223	11,026	0	0	315
Brown U.	79	12,878	14,103	11,133	11,410	0	3,552	0	5,221	2,637
Carnegie Mellon U.	80	9,606	10,233	11,165	11,139	0	3,985	592	6,000	562
U. Alaska, Fairbanks	81	8,928	9,634	9,919	11,116	11,024	87	0	0	5
U. Massachusetts, Lowell	82	7,204	8,207	11,202	11,048	0	1,387	0	9,661	0
U. Alabama, Huntsville	83	10,570	9,213	9,595	10,716	9,304	219	0	1,172	21
Temple U.	84	11,036	11,881	10,820	10,707	0	5,501	0	3,387	1,819
Colorado State U., Fort Collins	85	9,920	10,106	7,884	10,355	0	6,716	731	2,460	448
Georgia State U.	86	11,050	11,524	13,754	10,035	1,753	5,193	0	2,893	196
Colorado School of Mines	87	7,698	7,404	9,353	9,963	47	3,022	1,626	4,957	311
Brandeis U.	88	7,389	7,777	7,218	9,885	0	5,363	0	4,522	0
U. Oregon	89	8,467	8,572	9,034	9,747	0	4,686	120	2,937	2,004
U. Texas, Dallas	90	6,186	7,812	9,295	9,314	3,479	3,247	0	2,588	0
Dartmouth C. and Dartmouth Hitchcock Medical Center	91	5,824	6,303	7,751	9,181	0	3,880	0	5,301	0
Kansas State U.	92	9,103	9,827	8,746	9,082	0	2,466	0	6,616	0
West Virginia U.	93	9,185	9,683	8,805	8,900	2,178	2,965	0	3,757	0
U. Texas, Arlington	94	7,156	7,459	8,422	8,778	0	2,204	0	6,574	0
U. Oklahoma, Norman and Health Science Center	95	10,937	12,491	11,446	8,751	0	5,844	0	2,907	0
Boston C.	96	6,275	7,406	7,098	8,597	0	6,600	0	1,997	0
Rochester Institute of Technology	97	7,630	8,077	7,787	8,426	0	246	0	2,165	6,015

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Institution	Rank	2018	2019	2020	2021					
					All physical sciences	Astronomy and astrophysics	Chemistry	Materials science	Physics	Physical sciences nec
Xavier U. Louisiana	98	6,697	5,797	7,077	8,325	0	8,325	0	0	0
Georgetown U.	99	4,582	5,133	7,424	8,304	0	2,185	0	6,119	0
Tufts U.	100	43,589	2,102	6,118	8,268	0	6,470	0	1,798	0
U. Texas M. D. Anderson Cancer Center	101	6,607	7,922	8,114	8,179	0	0	0	8,179	0
New Jersey Institute of Technology	102	6,750	8,044	8,354	8,145	5,669	836	0	1,640	0
SUNY, U. Buffalo	103	8,747	7,714	7,195	8,075	0	5,756	0	2,319	0
Syracuse U.	104	7,255	9,127	7,140	8,073	0	2,036	0	6,037	0
Air Force Institute of Technology	105	4,241	4,457	4,973	8,037	0	0	0	8,037	0
U. Wisconsin-Milwaukee	106	10,604	7,884	5,010	7,800	5,318	497	0	1,985	0
U. Mississippi	107	7,140	9,706	7,993	7,712	0	2,022	0	5,690	0
U. Toledo	108	4,629	4,915	5,136	7,627	569	2,290	0	4,768	0
Jackson State U.	109	8,265	8,463	9,305	7,625	0	6,614	0	1,011	0
Case Western Reserve U.	110	4,669	8,213	7,203	7,538	213	2,191	3,658	1,476	0
U. Connecticut	111	6,968	6,696	8,124	7,346	0	3,316	0	4,030	0
CUNY, City C.	112	7,611	6,681	7,007	7,213	0	3,808	0	3,228	177
U. Kentucky	113	4,929	6,607	6,785	7,061	0	4,627	0	2,434	0
North Dakota State U.	114	3,369	3,546	2,853	6,937	0	2,245	4,178	514	0
U. Houston	115	5,978	6,147	6,336	6,931	85	3,476	308	2,809	253
U. Missouri, Columbia	116	12,176	6,686	7,654	6,710	0	4,640	0	2,070	0
California State U., Northridge	117	2,579	3,063	4,750	6,665	225	274	0	1,508	4,658
Auburn U., Auburn	118	4,937	6,107	6,866	6,649	19	1,645	360	4,549	76
U. Montana, Missoula	119	5,513	5,718	5,428	6,313	0	1,655	0	117	4,541
U. New Mexico	120	7,889	6,320	7,146	6,179	766	1,882	0	3,524	7
Clemson U.	121	6,044	6,692	6,157	6,037	0	1,749	0	4,288	0
Naval Postgraduate School	122	4,641	7,594	8,513	5,658	82	422	288	3,899	967
SUNY, Binghamton U.	123	5,684	6,111	7,642	5,541	0	3,922	0	1,619	0
U. Texas, San Antonio	124	3,733	4,195	4,702	5,338	0	2,248	0	3,090	0
Boise State U.	125	2,909	2,420	2,678	4,976	197	440	4,260	79	0
U. Georgia	126	4,403	6,362	4,815	4,936	311	4,109	0	516	0
U. Alabama, Tuscaloosa	127	5,116	4,785	4,720	4,913	133	2,222	0	2,558	0
U. Nevada, Reno	128	5,225	4,815	4,702	4,912	31	2,370	14	2,399	98
George Washington U.	129	4,819	5,610	5,366	4,872	0	1,974	0	2,898	0
CUNY, Hunter C.	130	3,122	3,024	3,552	4,840	44	3,842	0	954	0

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

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Institution	Rank	2018	2019	2020	2021					
					All physical sciences	Astronomy and astrophysics	Chemistry	Materials science	Physics	Physical sciences nec
U. South Florida <sup>d</sup>	131	6,653	5,648	5,306	4,803	0	2,365	0	1,867	571
Howard U.	132	3,519	4,548	4,381	4,733	0	4,150	0	583	0
CUNY, Advanced Science Research Center	133	525	2,115	3,018	4,719	0	1,160	0	3,559	0
U. Texas, El Paso	134	4,757	4,384	4,257	4,537	0	2,978	0	1,559	0
U. Cincinnati	135	4,842	4,724	4,041	4,501	0	2,173	0	2,328	0
U. Miami	136	4,644	4,645	4,172	4,482	0	1,129	0	3,353	0
Old Dominion U.	137	5,402	5,260	4,601	4,475	0	1,123	0	3,352	0
Oregon State U.	138	3,615	4,888	4,523	4,453	16	2,444	401	1,554	38
Brigham Young U., Provo	139	4,365	4,833	4,133	4,414	0	2,487	0	1,927	0
U. Arkansas, Fayetteville	140	4,009	4,313	4,452	4,371	0	2,301	0	2,070	0
U. Alabama, Birmingham	141	6,064	4,929	3,934	4,292	0	1,082	1,117	2,093	0
U. Nevada, Las Vegas	142	6,515	4,521	4,073	4,170	160	2,582	0	1,428	0
Ohio U.	143	2,570	2,605	3,467	4,143	0	1,073	0	3,070	0
William & Mary	144	4,192	4,249	4,428	4,140	0	366	0	3,774	0
U. Puerto Rico, Rio Piedras	145	2,714	3,804	3,427	4,104	0	2,650	0	1,454	0
California State U., Los Angeles	146	4,506	4,917	4,255	4,085	0	3,691	0	394	0
Texas Tech U.	147	3,838	4,426	4,217	4,067	0	2,622	304	1,141	0
Rensselaer Polytechnic Institute	148	5,774	4,304	4,184	4,033	0	2,793	0	1,240	0
U. Akron	149	3,213	3,992	4,238	4,026	0	4,026	0	0	0
Northern Arizona U.	150	2,490	2,688	3,147	3,885	2,960	270	187	373	95
Kent State U.	151	3,249	3,062	3,715	3,843	43	1,102	1,090	1,282	326
Northern Illinois U.	152	3,785	4,280	3,713	3,668	0	1,208	0	2,460	0
SUNY, U. Albany	153	2,983	3,545	3,917	3,663	0	3,054	0	609	0
Rockefeller U.	154	3,856	2,637	2,882	3,581	0	3,233	0	348	0
George Mason U.	155	4,515	4,738	4,656	3,561	1,424	447	1,077	466	147
Southern Methodist U.	156	2,790	2,499	2,855	3,420	0	1,154	0	2,266	0
Hampton U.	157	4,129	4,044	3,142	3,409	0	0	0	3,409	0
Utah State U.	158	3,175	4,133	3,982	3,395	0	1,974	0	1,421	0
U. Louisiana, Lafayette	159	273	336	208	3,392	103	82	1,196	2,011	0
American U.	160	2,506	2,922	3,401	3,136	0	160	0	2,976	0
Tulane U.	161	3,449	3,533	3,343	3,041	0	1,293	0	1,748	0
North Carolina Central U.	162	3,447	2,729	2,888	2,990	0	634	0	2,356	0
San Diego State U.	163	3,166	3,377	2,992	2,931	200	2,214	0	517	0

TABLE 49

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

(Dollars in thousands)

Institution	Rank	2018	2019	2020	2021					
					All physical sciences	Astronomy and astrophysics	Chemistry	Materials science	Physics	Physical sciences nec
Illinois Institute of Technology	164	3,492	3,253	2,734	2,909	0	257	39	2,613	0
U. California, Merced	165	3,952	4,304	4,891	2,865	0	1,588	0	871	406
Texas State U.	166	2,675	2,235	1,798	2,774	0	1,647	0	1,127	0
U. North Carolina, Greensboro	167	2,895	3,019	2,612	2,761	0	1,647	0	0	1,114
U. North Texas, Denton	168	2,431	2,588	2,329	2,696	0	1,596	1	1,099	0
Baylor U.	169	2,006	2,033	2,110	2,661	24	1,464	15	1,158	0
Missouri U. of Science and Technology	170	2,963	2,082	4,591	2,652	0	1,769	0	883	0
Oklahoma State U., Stillwater	171	2,238	3,135	2,870	2,640	0	1,179	0	1,461	0
Miami U.	172	607	167	408	2,638	0	2,543	0	95	0
Marquette U.	173	1,486	1,305	1,649	2,614	0	2,323	0	291	0
U. North Carolina, Charlotte	174	2,320	2,977	2,878	2,577	0	1,267	0	1,310	0
California State U., Long Beach	175	3,830	4,062	2,502	2,574	515	2,059	0	0	0
Lehigh U.	176	3,233	2,157	2,166	2,534	0	1,432	0	1,102	0
U. Denver	177	2,985	2,869	3,373	2,532	100	1,834	0	598	0
Embry-Riddle Aeronautical U.	178	1,320	1,623	1,859	2,482	0	0	0	873	1,609
Florida Institute of Technology	179	1,362	1,268	2,109	2,448	254	204	0	1,887	103
U. Massachusetts, Boston	180	1,237	1,745	2,239	2,420	0	1,796	0	624	0
Mississippi State U.	181	4,459	3,630	2,267	2,399	0	1,175	202	1,022	0
U. New Hampshire	182	2,857	1,859	3,335	2,355	0	655	239	1,461	0
U.S. Air Force Academy	183	295	2,933	2,714	2,348	0	552	0	1,796	0
Virginia Commonwealth U.	183	2,364	2,425	2,194	2,348	0	1,356	0	992	0
U. Maine	185	1,980	2,654	1,868	2,289	0	128	0	2,161	0
Haverford C.	186	1,047	1,862	2,259	2,216	340	273	1,552	51	0
U. Rhode Island	187	2,504	2,269	2,579	2,203	0	1,344	0	20	839
Worcester Polytechnic Institute	188	2,140	2,006	1,603	2,171	0	1,035	0	1,136	0
San Jose State U.	189	1,415	1,765	2,035	2,129	0	1,303	0	822	4
Oakland U.	190	1,510	1,679	1,852	2,062	0	854	0	1,208	0
U. Vermont	191	1,683	1,925	2,710	2,061	0	1,445	0	616	0
Rutgers, State U. New Jersey, Newark	192	1,674	1,444	1,436	2,020	0	1,704	0	316	0
CUNY, Lehman C.	193	2,181	1,495	2,021	1,964	0	1,551	0	413	0
Indiana U.-Purdue U., Indianapolis	194	1,240	1,186	1,374	1,871	0	1,385	0	486	0
Delaware State U.	195	2,587	1,615	1,595	1,833	0	276	9	1,003	545
Morehouse C.	196	2,740	1,704	1,517	1,831	0	298	0	146	1,387

TABLE 49

**Federally financed higher education R&D expenditures in the physical sciences, ranked by all FY 2021 physical sciences: FYs 2018–21 and by subfield for FY 2021**

(Dollars in thousands)

Institution	Rank	2018	2019	2020	2021					
					All physical sciences	Astronomy and astrophysics	Chemistry	Materials science	Physics	Physical sciences nec
Central Michigan U.	197	1,702	2,318	2,044	1,814	187	0	0	1,627	0
California State U., San Bernardino	198	1,260	1,153	1,448	1,809	0	1,579	168	62	0
Middle Tennessee State U.	199	271	142	412	1,769	43	1,670	0	56	0
U. South Dakota	200	1,004	2,205	1,968	1,754	0	726	0	1,028	0
U. Wyoming	201	2,560	1,750	1,206	1,748	166	614	0	511	457
California State U., East Bay	202	ne	ne	444	1,574	0	830	0	744	0
U. Colorado Denver <sup>e</sup>	203	na	na	na	1,561	0	1,144	0	417	0
Fisk U.	204	197	0	212	1,525	0	158	463	904	0
South Dakota School of Mines and Technology	205	1,542	1,583	1,384	1,504	0	639	0	865	0
Stevens Institute of Technology	206	1,348	1,960	1,648	1,500	0	258	0	1,242	0
U.S. Naval Academy	207	1,948	2,654	2,096	1,499	0	602	0	897	0
CUNY, Queens C.	208	1,094	1,141	1,041	1,475	0	1,197	0	278	0
Wake Forest U.	209	1,667	1,741	1,499	1,470	0	534	0	936	0
U. South Carolina, Columbia	210	3,554	3,103	2,264	1,467	0	0	0	1,467	0
Portland State U.	211	2,189	2,356	1,937	1,462	0	1,145	14	303	0
South Dakota State U.	212	1,153	1,266	1,058	1,448	0	1,365	0	83	0
Drexel U.	213	2,362	1,611	1,582	1,429	0	310	0	1,119	0
Wesleyan U.	213	1,960	1,784	1,540	1,429	307	525	0	597	0
Villanova U.	215	951	1,141	1,658	1,412	599	540	0	273	0
Clark Atlanta U.	216	960	1,135	1,422	1,407	0	951	0	456	0
U. Louisville	217	1,034	1,827	1,446	1,406	63	1,049	169	81	44
Rowan U.	218	483	887	407	1,404	0	613	0	695	96
Bowling Green State U.	219	1,222	1,238	1,331	1,402	0	753	0	649	0
East Carolina U.	220	633	821	1,135	1,387	0	986	0	401	0
Florida A&M U.	221	5,882	3,358	1,366	1,344	0	23	0	1,321	0
Western Washington U.	222	734	820	989	1,321	265	846	210	0	0
U. Memphis	223	895	1,039	1,100	1,309	104	733	0	341	131
CUNY, Brooklyn C.	224	1,077	812	845	1,297	0	1,120	0	177	0
Hope C.	225	607	824	648	1,276	0	752	0	524	0
Wright State U.	226	1,898	1,362	1,369	1,268	0	153	0	847	268
Michigan Technological U.	227	701	728	1,282	1,248	0	695	0	553	0
Barnard C.	228	516	928	805	1,246	814	432	0	0	0
Saint Louis U.	229	919	944	1,302	1,237	0	1,226	0	11	0

TABLE 49

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

(Dollars in thousands)

Institution	Rank	2018	2019	2020	2021					
					All physical sciences	Astronomy and astrophysics	Chemistry	Materials science	Physics	Physical sciences nec
San Francisco State U.	230	1,250	1,223	1,206	i 1,218	69	409	242	498	0
California State U., Fresno	231	797	823	868	1,192	0	1,014	0	178	0
U. New Orleans	232	1,124	1,052	782	1,171	0	702	0	469	0
New Mexico Institute of Mining and Technology	233	1,442	1,928	1,348	1,139	0	167	0	972	0
Florida Atlantic U.	234	1,494	1,253	1,317	1,135	37	694	0	404	0
North Carolina Agricultural and Technical State U.	235	1,317	1,517	1,163	1,125	0	248	0	877	0
California State Polytechnic U., Pomona	236	1,388	673	1,393	1,105	905	160	0	40	0
U. Missouri, Kansas City	237	1,340	1,407	1,102	1,104	128	236	0	667	73
Troy U.	238	ne	ne	1,216	1,094	0	0	1,094	0	0
U. Texas Rio Grande Valley	239	1,847	1,865	2,215	1,083	337	63	0	683	0
Southern Illinois U., Carbondale	240	1,707	1,020	1,270	1,081	0	824	0	257	0
U. of the Virgin Islands	241	0	0	908	1,069	0	80	0	989	0
California State U., San Marcos	242	1,106	901	1,667	1,060	0	33	0	336	691
California State U., Fullerton	243	1,133	897	1,003	1,058	702	6	34	316	0
Texas Southern U.	244	139	179	1,069	1,036	0	801	0	95	140
Idaho State U.	245	2,776	2,191	889	1,034	0	628	3	403	0
St. Edward's U.	246	445	400	994	1,021	119	850	0	52	0
U. West Florida	247	380	373	1,049	1,014	0	392	0	0	622
U. Alaska, Anchorage	248	17	16	154	1,010	80	898	0	32	0
U. Missouri, Saint Louis	249	1,615	1,896	1,229	1,007	28	951	0	28	0
South Carolina State U.	250	1,621	i 930	965	i 1,000	i 180	0	i 0	i 189	i 631
Chapman U.	251	699	824	1,655	936	0	157	0	86	693
California Polytechnic State U., San Luis Obispo	252	824	1,124	1,202	932	0	274	0	658	0
Illinois State U.	253	513	690	511	923	0	709	0	214	0
James Madison U.	254	320	653	531	919	20	397	0	266	236
U. Puerto Rico, Humacao	255	647	494	922	899	0	71	583	245	0
U. Arkansas, Pine Bluff	256	315	352	418	895	0	895	0	0	0
U. Northern Iowa	257	498	1,016	796	894	0	777	0	117	0
SUNY, Geneseo	258	592	663	624	888	0	256	0	632	0
Creighton U.	259	609	i 878	i 806	i 881	i 0	i 310	i 0	i 571	i 0
Winston-Salem State U.	260	255	320	496	871	0	590	0	0	281
Wichita State U.	261	434	851	912	853	0	593	0	0	260
C. Charleston	262	640	787	573	847	188	26	515	118	0



TABLE 49

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

(Dollars in thousands)

Institution	Rank	2018	2019	2020	2021					
					All physical sciences	Astronomy and astrophysics	Chemistry	Materials science	Physics	Physical sciences nec
Western Michigan U. and Homer Stryker M.D. School of Medicine	263	803	723	844	838	0	396	0	442	0
Texas A&M U.-Commerce	264	858	667	746	834	0	156	0	678	0
U. Idaho	265	1,153	1,249	771	831	532	127	12	160	0
U. Dayton	266	1,304	1,175	849	820	0	108	205	507	0
Texas A&M U.-Corpus Christi	267	198	1,062	1,250	808	0	59	0	0	749
Prairie View A&M U.	268	411	407	489	807	0	622	0	185	0
Fort Lewis C.	269	ne	0	435	786	0	345	441	0	0
Norfolk State U.	270	800	819	726	763	0	31	0	732	0
Morgan State U.	271	116	30	393	759	0	385	0	374	0
Clark U.	272	319	384	747	717	0	74	0	643	0
Western Kentucky U.	272	911	1,013	1,072	717	0	401	0	316	0
Loyola U., Chicago	274	726	913	610	716	0	570	0	146	0
Abilene Christian U.	275	ne	ne	ne	712	0	0	0	712	0
U. North Dakota	276	638	977	739	703	0	672	0	31	0
U. Puerto Rico, Mayaguez	277	1,136	832	904	687	0	394	0	293	0
U. Central Oklahoma	278	606	657	651	683	0	146	0	537	0
U. Washington, Bothell	279	0	215	156	681	0	0	0	681	0
Tennessee Technological U.	280	1,092	1,042	914	672	0	270	0	402	0
U. San Diego	281	575	928	837	658	0	256	0	402	0
Swarthmore C.	282	642	550	366	655	162	331	0	162	0
Middlebury C.	283	376	410	388	644	151	201	0	276	16
U. Wisconsin-Eau Claire	284	436	504	456	641	19	500	122	0	0
Bucknell U.	285	108	247	604	592	215	292	0	85	0
U. Arkansas, Little Rock	286	603	616	828	590	0	590	0	0	0
Trinity U.	287	708	495	604	586	0	471	0	115	0
Georgia Southern U.	288	173	164	607	580	25	523	0	32	0
New Mexico Highlands U.	289	675	ne	541	568	0	568	0	0	0
Skidmore C.	290	128	150	250	557	0	523	0	34	0
Christopher Newport U.	291	353	534	571	546	0	20	0	526	0
Arkansas State U., Jonesboro	292	440	787	753	537	0	523	0	14	0
Furman U.	293	527	558	358	523	0	522	0	1	0
Spelman C.	293	620	595	713	523	0	523	0	0	0

TABLE 49

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

(Dollars in thousands)

Institution	Rank	2018	2019	2020	2021					
					All physical sciences	Astronomy and astrophysics	Chemistry	Materials science	Physics	Physical sciences nec
Occidental C.	295	274	177	340	522	0	458	0	64	0
CUNY, Graduate Center	296	0	330	435	518	0	0	0	518	0
U. South Alabama	297	239	355	363	499	0	464	0	35	0
U. Massachusetts, Dartmouth	298	197	216	275	485	0	444	0	41	0
Alabama A&M U.	299	997 i	705 i	481 i	478 i	0 i	216 i	0 i	262 i	0 i
CUNY, C. Staten Island	299	1,073 i	1,310	770	478	0	239	0	239	0
Amherst C.	301	716	1,124	892	476	7	35	0	434	0
Montclair State U.	302	242	121	263	466	29	437	0	0	0
Augustana U.	303	375	301	ne	457	0	159	0	298	0
Santa Clara U.	304	736	394	445	454	0	310	0	144	0
Ball State U.	305	361	578	315	449	0	428	0	21	0
U. North Carolina, Asheville	306	273	418	687	443	13	33	0	0	397
Bowie State U.	307	293	246	272	438	0	389	0	0	49
Grambling State U.	308	518	476	356	436	0	386	0	50	0
Mount Holyoke C.	309	1,164	894	471	434	74	18	0	342	0
Kennesaw State U.	310	366	721	558	427	0	267	0	160	0
Duquesne U.	311	776	725	664	426	0	392	0	34	0
Clarkson U.	312	539	652	767	422	0	283	0	139	0
U. of the Sciences Philadelphia	313	268	498	318	420	0	420	0	0	0
U. North Carolina, Wilmington	314	406	512	336	419	0	110	0	118	191
Franklin and Marshall C.	315	737	279	350	415	27	292	0	96	0
Northern Kentucky U.	316	284	448	514	401	15	353	0	33	0
Seton Hall U.	317	0	0	401	396	0	396	0	0	0
Calvin U.	318	474	388	372 i	395 i	0 i	270 i	0 i	125 i	0 i
Louisiana Tech U.	319	696	403	323	378	0	146	0	232	0
U. Central Arkansas	320	521	576	490	375	0	184	0	176	15
Tougaloo C.	321	848	849	361	359 i	0 i	278 i	0 i	81 i	0 i
U. North Florida	322	240	348	374	352	0	252	0	100	0
C. New Jersey	323	302	ne	354	351	0	118	0	233	0
U. Colorado Anschutz Medical Campus <sup>e</sup>	324	na	na	na	344	0	0	0	344	0
U.S. Military Academy	325	120	35	814	338	0	150	44	144	0
U. Minnesota, Duluth	326	442	498	303	337	0	162	0	175	0
Macalester C.	327	267	322	149	335	0	163	0	172	0

TABLE 49

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

(Dollars in thousands)

Institution	Rank	2018	2019	2020	2021					
					All physical sciences	Astronomy and astrophysics	Chemistry	Materials science	Physics	Physical sciences nec
Smith C.	328	334	389	264	334	25	97	0	212	0
Southern Connecticut State U.	329	509	246	579	333	333	0	0	0	0
Bryn Mawr C.	330	464	471	388	325	0	68	0	257	0
U. Wisconsin-La Crosse	331	210	113	205	323	80	0	0	243	0
Texas Christian U.	332	260	341	388	321	0	167	0	154	0
Youngstown State U.	332	59	105	327	321	139	158	0	24	0
Rhode Island C.	334	100	120	356	320	0	0	0	0	320
CUNY, New York City C. of Technology	335	28	315	200	319	0	5	0	314	0
Johnson C. Smith U.	336	228	66	300	318	0	318	0	0	0
California State U., Dominguez Hills	337	626	635	393	317	0	317	0	0	0
Winthrop U.	338	199	256	231	316	0	95	221	0	0
Southern Illinois U., Edwardsville	339	516	390	231	315	0	193	0	122	0
Cleveland State U.	340	283	488	716	313	0	122	0	191	0
St. John's U., New York	341	142	221	325	304	0	304	0	0	0
SUNY, C. of Environmental Science and Forestry	342	32	52	136	303	141	115	0	0	47
Towson U.	343	710	564	187	300	17	168	0	115	0
Sam Houston State U.	344	262	420	414	298	0	151	0	147	0
U. of the Incarnate Word	344	568	372	176	298	0	238	0	60	0
Southern U. and A&M C., Baton Rouge	346	1,132	646	466	292	0	65	0	227	0
Albion C.	347	114	180	272	289	14	98	0	53	124
Wellesley C.	348	1,194	1,109	251	286	0	263	0	23	0
U. Richmond	349	349	187	286	280	0	202	0	78	0
Williams C.	350	382	263	253	268	75	0	0	193	0
Pomona C.	351	277	250	490	263	60	64	0	139	0
Colgate U.	352	389	278	248	259	16	161	0	82	0
Missouri State U.	353	150	336	380	258	74	0	0	184	0
Harvey Mudd C.	354	604	160	297	257	0	109	0	148	0
Indiana U., South Bend	355	22	ne	ne	256	0	12	0	244	0
U. Maryland Center for Environmental Science	355	228	80	174	256	0	195	0	61	0
Indiana U. Pennsylvania	357	133	128	268	255	0	84	0	171	0
CUNY, Baruch C.	358	241	330	296	253	0	0	0	253	0
Yeshiva U.	358	0	0	286	253	0	0	0	253	0
Bowdoin C.	360	285	177	184	252	0	158	0	78	16

TABLE 49

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

(Dollars in thousands)

Institution	Rank	2018	2019	2020	2021					
					All physical sciences	Astronomy and astrophysics	Chemistry	Materials science	Physics	Physical sciences nec
Dillard U.	360	352	122	662	252	0	0	47	205	0
Fordham U.	362	0	107	294	251	0	251	0	0	0
Ithaca C.	363	ne	ne	301	246	132	101	0	13	0
Davidson C.	364	215	232	157	245	0	138	0	107	0
CUNY, John Jay C. of Criminal Justice	365	249	222	405	235	0	165	0	0	70
DePaul U.	365	111	112	207	235	0	24	0	211	0
Pacific U.	367	220	283	29	233	10	207	0	16	0
Lafayette C.	368	298	333	299	231	0	37	0	194	0
Carleton C.	369	357	210	248	230	19	110	0	101	0
SUNY, Oswego	370	351	266	182	228	0	228	0	0	0
Bates C.	371	433	340	318	227	0	190	0	37	0
Keene State C.	372	ne	52	53	223	0	223	0	0	0
U. of the Pacific	372	247	422	307	223	92	91	0	40	0
U. Wisconsin-Oshkosh	374	227 i	225 i	224 i	222	0	222	0	0	0
U. New Haven	375	26	300	142	216	0	0	216	0	0
Central Washington U.	376	189	182	255	213	0	186	0	27	0
Sonoma State U.	377	ne	ne	123	209	0	188	0	0	21
U. Houston-Clear Lake	378	442	476	377	208	0	0	0	0	208
Drake U.	379	113	118	ne	200	0	0	0	200	0
Oberlin C.	380	486	422	262	190	0	58	0	132	0
CUNY, York C.	381	ne	862	510	186	0	61	0	125	0
Colby C.	382	427	297	299	184	0	143	0	41	0
Framingham State U.	383	17	ne	169	177 i	0 i	177 i	0 i	0 i	0 i
Andrews U.	384	ne	183	191	174	174	0	0	0	0
Canisius C.	385	163	191	ne	173	0	0	0	0	173
Grand Valley State U.	386	597	246	350	172	0	172	0	0	0
Appalachian State U.	387	303	211	172	171	0	5	0	166	0
Tuskegee U.	388	383	163	166	169	0	134	0	35	0
West Texas A&M U.	388	2	75	166	169	0	169	0	0	0
California State U., Chico	390	86	166	150	166	0	4	0	162	0
California State U., Bakersfield	391	0	313	29	159	0	159	0	0	0
Fort Hays State U.	391	ne	52	85	159	0	154	0	5	0
Reed C.	391	25	81	150	159 i	0 i	116 i	0 i	43 i	0 i

TABLE 49

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

(Dollars in thousands)

Institution	Rank	2018	2019	2020	2021					
					All physical sciences	Astronomy and astrophysics	Chemistry	Materials science	Physics	Physical sciences nec
Marshall U.	394	260	462	99	155	0	143	0	12	0
Salisbury U.	395	42	335	21	148	0	148	0	0	0
Fayetteville State U.	396	300	200	260	147	0	0	0	0	147
Southeastern Louisiana U.	397	108	35	179	145	0	107	0	38	0
Tennessee State U.	397	318	112	137	145	i 104	i 41	i 0	i 0	i 0
Murray State U.	399	157	328	155	141	0	141	0	0	0
Pennsylvania State U., Behrend	400	30	33	31	138	0	26	95	17	0
Vassar C.	400	773	i 168	160	138	0	49	0	89	0
Claremont McKenna C.	402	39	140	144	136	21	56	0	59	0
West Chester U. Pennsylvania	403	36	84	73	135	24	56	0	55	0
C. Wooster	404	436	251	126	134	i 0	i 97	i 0	i 37	i 0
East Tennessee State U.	404	281	249	315	134	97	1	0	36	0
Montana Technological U.	406	77	54	97	133	0	133	0	0	0
U. Colorado Colorado Springs	407	105	68	69	131	0	57	0	25	49
California State U., Sacramento	408	170	199	196	130	0	5	0	125	0
U. Nebraska, Kearney	408	158	248	142	130	0	130	0	0	0
Clafin U.	410	600	508	258	129	0	104	0	25	0
U. Puerto Rico, Cayey	411	45	140	185	127	0	65	0	62	0
U. Tulsa	412	364	202	114	125	0	22	0	103	0
Grinnell C.	413	127	44	410	124	119	5	0	0	0
Long Island U.	414	60	171	51	123	0	69	0	54	0
Union C., Schenectady	415	210	522	222	122	20	96	0	6	0
Eastern Kentucky U.	416	62	0	61	115	0	51	0	64	0
Manhattan C.	417	ne	55	71	112	0	112	0	0	0
Lewis and Clark C.	418	111	153	494	110	0	55	0	55	0
SUNY, C. Plattsburgh	419	333	259	110	107	0	66	0	41	0
Florida Gulf Coast U.	420	0	116	344	106	0	106	0	0	0
Hobart and William Smith Colleges	421	ne	186	132	104	0	0	0	99	5
Loyola Marymount U.	421	131	132	140	104	0	104	0	0	0
Black Hills State U.	423	395	371	91	103	0	0	0	94	9
Albany State U.	424	137	150	54	102	0	102	0	0	0
Purdue U., Northwest	424	284	111	168	102	0	102	0	0	0
Texas A&M International U.	426	1	0	38	101	0	64	0	37	0

TABLE 49

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

(Dollars in thousands)

Institution	Rank	2018	2019	2020	2021					
					All physical sciences	Astronomy and astrophysics	Chemistry	Materials science	Physics	Physical sciences nec
Eastern Michigan U.	427	155	185	126	98	43	28	18	9	0
Connecticut C.	428	249	384	113	97	0	97	0	0	0
Gallaudet U.	429	156	22	0	92	0	0	0	92	0
U. Houston-Downtown	430	0	0	0	88	0	65	0	0	23
Texas A&M U.-Kingsville	431	28	129	108	87	0	87	0	0	0
Indiana State U.	432	168	155	160	86	0	30	0	56	0
Trinity C., Hartford	432	129	92	5	86	0	86	0	0	0
U. Guam	432	0	0	0	86	86	0	0	0	0
U. San Francisco	435	0	0	0	84	84	0	0	0	0
U. Northern Colorado	436	26	20	19	83	22	61	0	0	0
Willamette U.	436	245	194	66	83	0	4	0	0	79
Purdue U., Fort Wayne	438	57	101	123	82	0	82	0	0	0
Seattle U.	439	137	50	58	79	0	0	0	79	0
Fort Valley State U.	440	88	104	72	76	0	76	0	0	0
Mercyhurst U.	441	ne	71 i	73 i	75 i	0 i	26 i	0 i	49 i	0 i
U. of Mary Washington	441	4	48	54	75	0	50	0	25	0
Fairfield U.	443	95	442	100	74	0	7	0	50	17
California State U., Channel Islands	444	23	54	0	73	0	73	0	0	0
U. of St. Thomas (MN)	445	87	61	90	70	0	58	0	12	0
Suffolk U.	446	ne	ne	97	69	0	69	0	0	0
Central State U.	447	83	63	6	67	0	16	0	51	0
Doane U.	447	166	60	62 i	67 i	0 i	67 i	0 i	0 i	0 i
Providence C.	447	94	71	372	67	25	42	0	0	0
U. Wisconsin-Green Bay	450	43 i	66 i	72 i	66 i	0 i	30 i	0 i	36 i	0 i
Sacred Heart U.	451	ne	ne	ne	64	64	0	0	0	0
U. Hawaii, Hilo	451	466	128	214	64	0	31	0	33	0
Western Illinois U.	453	0	36	60	63	0	47	0	16	0
Eastern Washington U.	454	212	152	66	62	0	0	0	62	0
Biola U.	455	55 i	58 i	60 i	61 i	0 i	21 i	0 i	40 i	0 i
California State U., Stanislaus	456	0	0	0	60	0	60	0	0	0
Coastal Carolina U.	456	0	0	0	60	0	0	0	60	0
U. Wisconsin-River Falls	456	345	ne	258	60	0	24	0	36	0
California State U., Monterey Bay	459	0	65	0	57	0	57	0	0	0

TABLE 49

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

(Dollars in thousands)

Institution	Rank	2018	2019	2020	2021					
					All physical sciences	Astronomy and astrophysics	Chemistry	Materials science	Physics	Physical sciences nec
SUNY, C. Brockport	460	0	6	41	54	24	19	0	11	0
Wheaton C., Wheaton	460	23	74	66	54	0	19	0	35	0
Austin Peay State U.	462	271	207	13	50	0	0	0	50	0
Lamar U.	463	23	101	20	49	0	0	0	49	0
Dakota State U.	464	0	0	0	48	0	0	0	48	0
Lawrence Technological U.	464	56	0	6	48	0	0	0	48	0
U. Alaska, Southeast	466	0	0	30	47	47	0	0	0	0
U. Nebraska, Omaha	466	194	130	0	47	0	0	0	47	0
U. Baltimore	468	36	34	45	45	0	0	0	0	45
Central Connecticut State U.	469	ne	78	60	41	0	41	0	0	0
U. Wisconsin-Platteville	470	ne	36 i	36 i	37 i	0 i	21 i	0 i	16 i	0 i
Northeastern Illinois U.	471	88	84	66	34	0	0	0	0	34
Savannah State U.	471	59	63	50	34	0	34	0	0	0
U. Ana G. Mendez, Gurabo	473	144	29	25	29	0	29	0	0	0
Langston U.	474	33 i	29	109	26	0	0	0	0	26
Pittsburg State U.	475	21	30	22	24	0	24	0	0	0
Saginaw Valley State U.	476	30	294	21	22 i	0 i	22 i	0 i	0 i	0 i
U. Virginia's C. Wise	477	ne	ne	ne	18	0	18	0	0	0
Monmouth U.	478	ne	0	0	15	0	0	0	15	0
U. Illinois, Springfield	478	0	12	12	15	0	15	0	0	0
Kettering U.	480	410	116	305	14	0	0	0	14	0
U. Wisconsin-Stevens Point	480	61 i	73 i	85	14	0	7	0	7	0
C. of Saint Benedict	482	22	21 i	20 i	10 i	0 i	6 i	1 i	3 i	0 i
U. Louisiana, Monroe	482	26	67	55	10	0	10	0	0	0
Azusa Pacific U.	484	44	28	12	9	0	9	0	0	0
Minnesota State U., Mankato	484	74	94	2	9	9	0	0	0	0
Hamilton C.	486	3	12	3	8	0	0	0	8	0
Citadel Military C. South Carolina	487	ne	ne	0	7	0	0	0	7	0
Humboldt State U.	487	69	48	76	7	0	0	0	7	0
Texas Woman's U.	487	7	0	49	7	0	0	0	0	7
U. Michigan, Dearborn	490	64	107	26	6	0	0	0	0	6
Alfred U.	491	11	13	7	5	5	0	0	0	0
Colorado C.	492	60	14	15	4	0	0	0	4	0

TABLE 49

**Federally financed higher education R&D expenditures in the physical sciences, ranked by all FY 2021 physical sciences: FYs 2018–21 and by subfield for FY 2021**

(Dollars in thousands)

Institution	Rank	2018	2019	2020	2021					
					All physical sciences	Astronomy and astrophysics	Chemistry	Materials science	Physics	Physical sciences nec
U. South Carolina, Aiken	492	0	0	8	4	0	4	0	0	0
New York Institute of Technology	494	174	0	0	3	0	0	0	3	0
St. Olaf C.	494	106	60	13	3	0	3	0	0	0
Hofstra U.	496	24	38	4	2	2	0	0	0	0
U. North Georgia	496	71	52	0	2	2	0	0	0	0
All other surveyed institutions	-	92,186	7,363	4,694	0	0	0	0	0	0

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

nec = not elsewhere classified.

<sup>a</sup> Johns Hopkins University includes the Applied Physics Laboratory, with \$291,354 thousand in federally financed R&D expenditures in physical sciences in FY 2021.

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

<sup>c</sup> The University of 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.

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

<sup>e</sup> The University of 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.