

TABLE 41

Federally financed higher education R&D expenditures in the geosciences, atmospheric sciences, and ocean sciences, ranked by all FY 2022 geosciences, atmospheric sciences, and ocean sciences: FYs 2019–22 and by subfield for FY 2022

(Dollars in thousands)

Institution	Rank	2019	2020	2021	2022					
					All geosciences, atmospheric sciences, and ocean sciences	Atmospheric science and meteorology	Geological and earth sciences	Ocean sciences and marine sciences	Geosciences, atmospheric sciences, and ocean sciences nec	
All institutions	-	2,067,218	2,108,685	2,144,257	2,478,702	528,068	875,493	785,545	289,596	
U. Washington, Seattle	1	100,000	114,555	105,493	131,461	52,098	10,364	66,250	2,749	
Woods Hole Oceanographic Institution	2	112,979	115,744	129,085	129,264	26,210	53,953	40,093	9,008	
U. Colorado Boulder	3	119,659	116,177	116,175	126,188	28,214	15,253	2,816	79,905	
U. California, San Diego	4	120,294	128,962	107,137	122,993	554	21,045	101,311	83	
U. Alaska, Fairbanks	5	50,566	54,408	76,984	102,308	10,585	62,956	28,148	619	
Texas A&M U., College Station and Health Science Center	6	86,781	82,072	81,667	97,109	5,556	6,276	81,325	3,952	
Johns Hopkins U. ^a	7	37,235	59,766	73,509	90,660	13,406	38,852	29,684	8,718	
U. New Hampshire	8	36,870	41,304	44,691	74,212	27,666	5,485	41,061	0	
U. Oklahoma, Norman and Health Science Center	9	54,007	64,742	69,382	71,650	69,024	2,626	0	0	
U. Maryland ^b	10	46,763	51,008	55,924	68,050	14,724	46,857	733	5,736	
Columbia U. in the City of New York	11	61,544	54,388	53,955	59,425	6,810	18,699	33,916	0	
U. Miami	12	36,297	39,430	44,559	50,038	37,038	0	12,393	607	
U. Hawaii, Manoa	13	58,526	47,728	45,399	48,908	1,501	11,306	33,862	2,239	
Arizona State U.	14	59,778	54,650	49,889	47,652	0	47,652	0	0	
Colorado State U., Fort Collins	15	70,266	55,722	46,601	44,116	38,327	4,878	32	879	
U. Rhode Island	16	32,874	25,349	33,815	42,342	0	3,662	31,018	7,662	
Oregon State U.	17	34,363	33,730	37,629	41,103	1,594	8,284	20,159	11,066	
U. Utah	18	15,150	11,112	30,710	40,026	984	23,881	0	15,161	
U. Wisconsin-Madison	19	36,615	35,879	35,050	38,120	25,315	7,751	0	5,054	
U. California, Los Angeles	20	24,970	27,134	31,060	37,619	8,260	27,790	0	1,569	
California Institute of Technology	21	25,436	27,071	25,067	34,882	1,792	29,600	208	3,282	
Harvard U.	22	27,835	28,723	24,827	25,109	4,245	4,089	308	16,467	
Pennsylvania State U., University Park and Hershey Medical Center	23	28,218	24,605	20,062	24,690	10,323	11,460	2,907	0	
U. Southern Mississippi	24	21,324	21,092	20,411	21,980	0	5,620	2,802	13,558	
Princeton U.	25	15,933	16,105	21,115	20,940	11,780	4,172	0	4,988	
U. California, Santa Cruz	26	12,725	15,234	15,976	20,767	0	4,597	10,431	5,739	
U. Texas, Austin	27	19,745	20,523	20,837	19,312	0	13,619	3,578	2,115	
U. Delaware	28	10,066	10,785	11,596	19,133	0	2,723	9,059	7,351	
Massachusetts Institute of Technology	29	22,382	20,477	20,764	18,567	6,985	6,466	3,912	1,204	

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					All geosciences, atmospheric sciences, and ocean sciences	Atmospheric science and meteorology	Geological and earth sciences	Ocean sciences and marine sciences	Geosciences, atmospheric sciences, and ocean sciences nec	
U. Alabama, Huntsville	30	12,920	14,123	14,376	18,414	16,642	1,537	207	28	
Desert Research Institute	31	16,557	15,748	16,608	17,341	3,707	13,634	0	0	
U. California, Santa Barbara	32	14,799	16,190	16,253	17,150	0	7,824	9,326	0	
U. Maryland, Baltimore County	33	10,807	12,497	12,883	16,989	8,517	7,306	881	285	
William & Mary	34	14,272	12,158	12,138	15,166	0	273	14,893	0	
U. North Carolina, Chapel Hill	35	11,158	12,873	11,575	14,864	0	4,058	6,007	4,799	
U. Arizona	36	13,372	13,625	13,788	14,396	2,529	10,662	932	273	
SUNY, Stony Brook U.	37	11,996	10,824	12,214	14,178	0	4,492	9,681	5	
North Carolina State U.	38	12,946	13,202	12,866	14,124	7,156	0	1,185	5,783	
Mississippi State U.	39	7,793	13,635	11,429	13,476	771	9,507	3,089	109	
U. Southern California	40	10,664	9,079	8,192	13,278	0	7,226	6,052	0	
Stanford U.	41	7,690	8,906	8,901	13,060	0	11,261	1,459	340	
George Mason U.	42	9,912	9,390	11,636	12,644	5,368	6,374	595	307	
Rutgers, State U. New Jersey, New Brunswick	43	11,993	16,060	12,836	12,612	1,456	33	10,834	289	
Michigan Technological U.	44	8,715	8,015	9,646	12,460	2,994	0	4,880	4,586	
U. South Florida ^c	45	10,880	10,327	9,935	12,202	168	2,299	9,735	0	
U. Hawaii, system office	46	10,531	11,673	11,375	11,996	11,996	0	0	0	
U. Wyoming	47	5,473	10,107	8,601	10,884	6,619	4,116	149	0	
Florida International U.	48	7,987	9,463	9,569	10,615	2,334	241	8,040	0	
Louisiana State U., Baton Rouge	49	7,883	8,178	7,740	10,240	0	1,389	7,591	1,260	
U. Maine	50	9,385	9,064	8,996	10,119	0	2,057	8,062	0	
U. Florida	51	9,497	8,484	8,334	9,729	0	7,278	2,451	0	
U. Chicago	52	8,639	8,514	8,384	9,530	0	9,530	0	0	
U. California, Davis	53	6,459	7,014	5,881	9,146	1,444	2,070	1,885	3,747	
U. Nevada, Reno	54	6,263	6,910	6,038	9,087	368	8,049	44	626	
Georgia Institute of Technology	55	7,822	7,862	7,744	8,730	0	8,093	637	0	
Florida State U.	56	8,123	8,871	7,904	8,711	1,246	1,846	4,806	813	
U. of the Virgin Islands	57	713	2,990	5,241	8,544	0	157	6,000	2,387	
U. Pittsburgh, Pittsburgh	58	8,568	7,374	7,431	8,410	0	1,763	0	6,647	
U. Michigan, Ann Arbor	59	8,070	8,059	7,910	8,308	0	8,308	0	0	

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U. California, Irvine	60	9,510	9,301	9,271	8,168	0	8,168	0	0	
U. Minnesota, Twin Cities	61	8,058	7,624	8,548	8,067	0	8,067	0	0	
New Mexico Institute of Mining and Technology	62	6,235	6,328	6,427	7,855	0	7,855	0	0	
U. Connecticut	63	6,674	7,020	7,650	7,812	0	864	6,948	0	
U. Maryland Center for Environmental Science	64	8,301	8,462	7,217	7,586	0	154	7,393	39	
U. Georgia	65	6,855	6,304	7,051	7,577	0	347	7,230	0	
Boston C.	66	3,209	3,871	5,459	7,552	6,235	1,317	0	0	
Boston U.	67	5,898	6,447	6,053	7,310	0	7,310	0	0	
San Jose State U.	68	8,618	7,847	6,871	7,076	1,358	217	5,501	0	
U. New Mexico	69	6,674	6,249	6,164	6,868	338	6,508	0	22	
U. Guam	70	2,620	2,585	5,001	6,841	0	418	6,259	164	
U. Kansas	71	3,873	4,622	4,531	6,530	782	5,748	0	0	
Texas Tech U.	72	2,843	3,340	4,463	6,462	340	3,455	0	2,667	
Washington State U.	73	4,767	5,323	5,103	6,455	0	785	0	5,670	
Florida A&M U.	74	4,945	5,329	5,255	6,246	0	0	5,936	310	
Brown U.	75	2,488	3,436	5,321	6,164	13	1,034	218	4,899	
U. California, Berkeley	76	5,638	5,816	5,198	6,156	0	6,156	0	0	
U. Massachusetts, Dartmouth	77	2,297	2,680	4,040	6,132	0	0	6,132	0	
U. California, Riverside	78	4,237	4,821	4,764	6,008	0	2,275	0	3,733	
U. Illinois, Urbana-Champaign	79	5,967	5,419	4,965	5,897	4,834	1,063	0	0	
Washington U., Saint Louis	80	5,192	5,000	5,585	5,869	0	5,869	0	0	
SUNY, U. Albany	81	6,728	6,953	6,809	5,828	5,600	228	0	0	
Ohio State U.	82	6,216	6,489	5,685	5,813	0	5,813	0	0	
Duke U.	83	7,079	6,194	5,406	5,542	0	1,106	4,436	0	
Morgan State U.	84	3,955	3,351	3,298	5,512	0	5,512	0	0	
Purdue U., West Lafayette	85	3,042	4,079	3,938	5,251	5,251	0	0	0	
U. Oregon	86	4,038	5,073	5,371	5,204	0	4,683	521	0	
Cornell U.	87	4,796	6,428	4,852	5,066	22	4,921	123	0	
U. Virginia, Charlottesville	88	3,896	4,059	3,582	4,842	0	0	0	4,842	
Colorado School of Mines	89	4,981	4,424	3,708	4,590	0	4,411	0	179	

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Nova Southeastern U.	90	3,515	5,381	5,135	4,514	0	0	4,514	0	
Naval Postgraduate School	91	5,268	6,300	6,195	4,481	1,507	195	2,524	255	
Northern Arizona U.	92	6,805	5,975	4,968	4,468	183	2,888	7	1,390	
Texas A&M U.-Corpus Christi	93	4,273	3,609	3,075	4,463	287	541	2,559	1,076	
U. Alaska, Anchorage	94	4,476	6,432	4,761	4,424	322	2,717	1,385	0	
U. Puerto Rico, Mayaguez	95	3,975	3,896	2,014	3,870	0	627	2,743	500	
U. North Dakota	96	3,056	3,730	2,794	3,816	3,609	207	0	0	
U. Maryland, Eastern Shore	97	4,369	3,454	4,182	3,743	0	0	3,743	0	
Southern Methodist U.	98	4,100	4,026	3,893	3,697	0	3,697	0	0	
U. Houston	99	2,213	2,948	3,418	3,403	3,403	0	0	0	
Montana State U., Bozeman	100	4,215	3,123	3,609	3,353	0	2,719	0	634	
Rice U.	101	1,929	2,747	2,546	3,342	0	3,342	0	0	
U. Arkansas, Fayetteville	102	3,009	2,460	3,326	3,266	0	3,266	0	0	
U. South Carolina, Columbia	103	983	3,889	3,288	3,255	0	0	3,255	0	
New Mexico State U.	104	2,797	3,870	3,286	3,216	10	779	0	2,427	
Northeastern U.	105	3,174	2,235	2,358	3,160	0	1,128	2,032	0	
Indiana U., Bloomington	106	1,630	1,602	2,420	3,155	1,293	1,365	0	497	
U. Washington, Tacoma	107	1,443	1,861	2,290	3,103	0	0	3,103	0	
U. Montana, Missoula	108	2,967	3,195	3,391	3,072	0	1,532	1,540	0	
SUNY, U. Buffalo	109	2,286	2,537	2,325	3,066	0	3,066	0	0	
U. Idaho	110	2,451	1,662	1,924	3,065	97	2,899	0	69	
Iowa State U.	111	1,776	2,890	2,725	3,061	0	3,061	0	0	
Michigan State U.	112	2,983	2,792	3,071	3,028	0	3,028	0	0	
Tulane U.	113	1,478	1,796	2,074	2,954	0	2,954	0	0	
U. Vermont	114	606	1,471	1,824	2,946	1,551	1,395	0	0	
West Virginia U.	115	6,255	6,352	1,749	2,844	0	2,728	0	116	
U. Texas, San Antonio	116	617	991	2,037	2,814	0	742	0	2,072	
Yale U.	117	3,053	2,704	2,553	2,789	0	2,789	0	0	
U. Wisconsin-Milwaukee	118	1,903	1,862	2,323	2,767	802	2	1,963	0	
Texas State U.	119	3,137	2,870	2,168	2,759	12	1,521	0	1,226	

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U. Central Florida	120	1,654	1,768	1,498	2,753	2,753	0	0	0	
U. Toledo	121	3,474	3,227	3,371	2,642	0	2,642	0	0	
U. South Alabama	122	1,499	2,048	1,883	2,641	0	183	2,458	0	
Hampton U.	123	3,779	3,454	2,881	2,576	1,710	0	864	2	
U. Massachusetts, Amherst	124	4,021	2,803	2,117	2,553	0	2,553	0	0	
U. Nevada, Las Vegas	125	2,543	3,541	3,096	2,540	209	2,311	0	20	
Virginia Polytechnic Institute and State U.	126	2,251	1,619	1,732	2,538	98	2,422	0	18	
East Carolina U.	127	851	1,051	1,198	2,494	0	796	1,698	0	
U. California, Merced	128	1,391	1,783	1,948	2,364	239	400	12	1,713	
C. Charleston	129	1,064	857	918	2,328	47	1,840	441	0	
U. Rochester	130	2,112	2,392	2,207	2,157	0	2,157	0	0	
Boise State U.	131	2,556	2,730	2,250	2,061	91	1,382	41	547	
Old Dominion U.	132	3,290	2,793	2,096	2,057	0	0	2,057	0	
Dartmouth C. and Dartmouth Hitchcock Medical Center	133	1,234	1,203	1,085	2,054	0	2,054	0	0	
CUNY, City C.	134	2,103	1,578	1,460	2,024	0	1,468	556	0	
San Francisco State U.	135	1,442	1,755	1,773	1,988	0	145	1,713	130	
U. Puerto Rico, Rio Piedras	136	1,932	3,108	2,639	1,978	0	1,669	309	0	
Western Washington U.	137	1,153	760	1,041	1,971	0	1,282	689	0	
Emory U.	138	801	684	1,856	1,947	0	0	0	1,947	
U. Texas, El Paso	139	1,550	1,251	1,512	1,927	0	1,927	0	0	
Ohio U.	140	351	677	1,120	1,925	27	1,898	0	0	
Florida Gulf Coast U.	141	615	1,344	1,329	1,896	0	0	1,896	0	
U. Louisiana, Lafayette	142	1,089	1,050	3,772	1,843	0	1,032	811	0	
U. Tennessee, Knoxville ^d	143	3,160	2,644	2,558	1,799	0	1,799	0	0	
Auburn U., Auburn	144	1,026	1,003	1,675	1,743	60	878	77	728	
U. Memphis	145	1,605	1,887	1,590	1,724	0	1,694	0	30	
Sonoma State U.	146	ne	529	1,412	1,675	0	49	148	1,478	
U. Massachusetts, Lowell	147	1,218	1,399	1,789	1,672	642	1,030	0	0	
Portland State U.	148	1,895	1,784	1,510	1,660	392	1,189	79	0	
U. Hawaii, Hilo	149	796	871	1,157	1,597	0	1,091	470	36	

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San Diego State U.	150	1,433	1,093	1,091	1,569	0	416	626	527	
U. North Carolina, Wilmington	151	1,398	1,369	1,318	1,541	0	18	1,523	0	
U. Mississippi	152	614	617	1,220	1,524	226	914	363	21	
Rensselaer Polytechnic Institute	153	1,111	1,673	1,299	1,521	0	1,521	0	0	
Idaho State U.	154	710	1,248	1,136	1,460	0	1,030	0	430	
Rutgers, State U. New Jersey, Newark	155	2,921	1,372	1,587	1,450	0	1,450	0	0	
Bowling Green State U.	156	640	1,330	1,495	1,443	0	196	1,247	0	
U. Kentucky	157	862	1,466	1,652	1,429	0	1,429	0	0	
Embry-Riddle Aeronautical U.	158	307	807	575	1,338	1,338	0	0	0	
Central Washington U.	159	1,650	1,161	1,066	1,289	0	1,289	0	0	
California Polytechnic State U., San Luis Obispo	160	1,089	963	973	1,249	0	0	1,249	0	
U. Alabama, Tuscaloosa	161	499	1,168	822	1,239	0	1,239	0	0	
Montana Technological U.	162	788	725	1,056	1,177	0	1,177	0	0	
U. Iowa	163	636	673	348	1,168	0	1,052	0	116	
Carleton C.	164	1,330	670	759	1,112	0	1,112	0	0	
SUNY, Buffalo State	165	819	821	834	1,061	0	367	0	694	
Florida Institute of Technology	166	612	780	1,326	1,051	458	0	398	195	
California State U., Monterey Bay	167	785	867	837	1,021	0	0	960	61	
California State U., Northridge	168	1,393	1,514	663	1,015	0	460	395	160	
U. New Orleans	169	969	897	680	1,005	0	1,004	1	0	
Lehigh U.	170	1,004	1,258	939	989	0	989	0	0	
Indiana U.-Purdue U., Indianapolis	171	518	679	583	972	0	972	0	0	
Oklahoma State U., Stillwater	172	554	763	801	949	0	949	0	0	
U. Missouri, Columbia	173	1,252	924	729	930	0	930	0	0	
U. Massachusetts, Boston	174	2,573	1,478	984	924	0	453	471	0	
Georgia State U.	175	681	575	682	912	0	912	0	0	
CUNY, York C.	176	85	462	472	888	0	888	0	0	
U. Texas Rio Grande Valley	177	1,060	745	605	879	0	90	573	216	
Baylor U.	178	607	496	408	873	289	387	181	16	
Utah State U.	179	642	67	690	867	365	502	0	0	

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Syracuse U.	180	1,616	1,334	1,073	846	0	846	0	0	
Northwestern U.	181	1,003	730	782	835	0	835	0	0	
Northern Illinois U.	182	309	375	676	805	18	556	0	231	
U. Dayton	183	400	352	461	798	565	233	0	0	
Hawaii Pacific U.	184	288	183	252	793	0	793	0	0	
Air Force Institute of Technology	185	876	490	175	778	778	0	0	0	
U. Nebraska, Lincoln	186	2,140	1,331	640	776	0	776	0	0	
Vanderbilt U. and Vanderbilt U. Medical Center	187	838	966	852	746	0	746	0	0	
Montclair State U.	188	825	499	508	723	0	482	184	57	
South Dakota State U.	189	1,485	602	604	721	0	721	0	0	
Tufts U.	190	120	230	215	702	0	560	142	0	
Savannah State U.	191	633	728	815	694	131	0	476	87	
U. North Carolina, Charlotte	192	422	666	573	673	0	673	0	0	
California State U., Sacramento	193	802	716	700	672	0	672	0	0	
Southern Illinois U., Carbondale	193	557	593	772	672	3	166	0	503	
Carnegie Mellon U.	195	791	440	360	665	194	425	0	46	
U. Colorado Denver ^e	196	na	na	330	642	601	41	0	0	
Miami U.	197	521	872	496	616	0	616	0	0	
Delaware State U.	198	155	215	247	615	0	180	435	0	
American U.	199	215	216	493	604	0	0	0	604	
California State U., Chico	200	110	395	414	590	0	590	0	0	
Southern Illinois U., Edwardsville	201	562	461	546	587	0	443	0	144	
SUNY, C. of Environmental Science and Forestry	202	483	493	551	583	82	175	158	168	
Central Michigan U.	203	86	177	316	582	244	130	208	0	
U. Illinois, Chicago	203	381	567	553	582	0	582	0	0	
Western Michigan U. and Homer Stryker M.D. School of Medicine	203	433	346	453	582	0	582	0	0	
Pennsylvania State U., Behrend	206	899	104	706	573	0	5	568	0	
Case Western Reserve U.	207	567	478	493	572	0	572	0	0	
Occidental C.	208	480	630	510	570	0	77	493	0	
Towson U.	209	542	667	481	554	0	554	0	0	

TABLE 41

Federally financed higher education R&D expenditures in the geosciences, atmospheric sciences, and ocean sciences, ranked by all FY 2022 geosciences, atmospheric sciences, and ocean sciences: FYs 2019–22 and by subfield for FY 2022

(Dollars in thousands)

Institution	Rank	2019	2020	2021	2022				
					All geosciences, atmospheric sciences, and ocean sciences	Atmospheric science and meteorology	Geological and earth sciences	Ocean sciences and marine sciences	Geosciences, atmospheric sciences, and ocean sciences nec
U. Akron	209	171	202	194	554	0	554	0	0
U. Pennsylvania	211	1,255	872	749	542	0	542	0	0
Brigham Young U., Provo	212	260	122	287	537	0	537	0	0
Clark U.	213	410	306	271	534	63	127	278	66
Rockefeller U.	214	272	466	334	524	0	0	0	524
Alaska Pacific U.	215	88	83	158	522	0	35	210	277
U.S. Naval Academy	216	1,074	771	613	516	0	0	516	0
Middlebury C.	217	256	239	413	509	0	303	0	206
U. Cincinnati	218	339	304	303	506	0	506	0	0
Colgate U.	219	363	295	580	501	0	451	0	50
Kansas State U.	219	1,259	627	444	501	0	501	0	0
Grand Valley State U.	221	328	287	331	484	0	0	0	484
Coastal Carolina U.	222	862	998	509	478	323	43	112	0
Duquesne U.	223	12	290	241	470	0	470	0	0
Wesleyan U.	223	314	531	322	470	0	470	0	0
Western Kentucky U.	223	290	254	284	470	0	470	0	0
Temple U.	226	536	410	449	458	0	458	0	0
SUNY, C. Plattsburgh	227	488	391	400	446	0	46	400	0
Des Moines U.	228	77	1	285	444	0	444	0	0
Colorado C.	229	58	52	96	440	0	440	0	0
Stockton U.	230	493	578	239	420	0	0	420	0
Illinois State U.	231	263	394	381	394	0	394	0	0
U. Alaska, Southeast	232	254	145	176	393	0	281	112	0
Plymouth State U.	233	ne	ne	ne	373	111	0	0	262
California State U., Long Beach	234	73	492	220	370	0	370	0	0
U. Richmond	235	25	43	217	365	0	365	0	0
Kent State U.	236	412	439	296	357	6	299	38	14
North Dakota State U.	237	277	139	164	355	0	355	0	0
U. Washington, Bothell	238	310	371	331	351	347	0	4	0
Colby C.	239	122	175	144	349	0	349	0	0

TABLE 41

Federally financed higher education R&D expenditures in the geosciences, atmospheric sciences, and ocean sciences, ranked by all FY 2022 geosciences, atmospheric sciences, and ocean sciences: FYs 2019–22 and by subfield for FY 2022

(Dollars in thousands)

Institution	Rank	2019	2020	2021	2022					
					All geosciences, atmospheric sciences, and ocean sciences	Atmospheric science and meteorology	Geological and earth sciences	Ocean sciences and marine sciences	Geosciences, atmospheric sciences, and ocean sciences nec	
Florida Atlantic U.	240	387	307	638	348	164	0	0	184	
U. Texas, Dallas	241	167	163	128	316	0	316	0	0	
Roger Williams U.	242	300	369	466	314	3	0	311	0	
Howard U.	243	248	225	289	305	0	0	305	0	
West Texas A&M U.	243	326	62	676	305	0	305	0	0	
CUNY, Queens C.	245	311	322	251	295	0	295	0	0	
Monmouth U.	246	91	109	86	294	0	0	294	0	
Missouri State U.	247	33	72	146	280	40	240	0	0	
U. New England	248	1,080	681	411	278	0	0	278	0	
U. Minnesota, Duluth	249	1,993	1,609	199	277	0	277	0	0	
U. Puerto Rico, Medical Sciences Campus	250	29	136	265	264	0	264	0	0	
Heidelberg U.	251	159	188	308	262	0	0	262	0	
Long Island U.	251	26	15	150	262	0	262	0	0	
Chapman U.	253	193	206	242	258	0	0	0	258	
Texas Christian U.	253	178	197	121	258	0	0	258	0	
Amherst C.	255	0	0	41	251	0	251	0	0	
CUNY, Hunter C.	255	160	219	162	251	0	251	0	0	
U. Texas, Arlington	255	547	322	254	251	0	251	0	0	
California State U., East Bay	258	ne	63	70	249	201	22	26	0	
U. North Texas, Denton	259	428	873	847	240	0	240	0	0	
Hobart and William Smith Colleges	260	83	127	19	237	237	0	0	0	
Bowdoin C.	261	356	493	310	230	0	44	186	0	
Indiana U. Pennsylvania	262	481	107	32	229	0	229	0	0	
Western Carolina U.	263	320	255	233	226	0	3	223	0	
Saint Louis U.	264	733	774	278	224	0	224	0	0	
Hofstra U.	265	11	3	50	222	0	1	24	197	
Tarleton State U.	266	221	428	431	219	0	219	0	0	
SUNY, Binghamton U.	267	411	196	207	215	0	215	0	0	
Lewis and Clark C.	268	201	164	278	208	0	208	0	0	
U. Missouri, Kansas City	268	224	151	96	208	0	208	0	0	

TABLE 41

Federally financed higher education R&D expenditures in the geosciences, atmospheric sciences, and ocean sciences, ranked by all FY 2022 geosciences, atmospheric sciences, and ocean sciences: FYs 2019–22 and by subfield for FY 2022

(Dollars in thousands)

Institution	Rank	2019	2020	2021	2022				
					All geosciences, atmospheric sciences, and ocean sciences	Atmospheric science and meteorology	Geological and earth sciences	Ocean sciences and marine sciences	Geosciences, atmospheric sciences, and ocean sciences nec
Austin Peay State U.	270	0	52	136	206	0	206	0	0
California State U., Los Angeles	271	0	0	23	202	0	202	0	0
Georgia Southern U.	272	207	115	253	199	0	138	61	0
George Washington U.	273	213	243	59	190	0	6	0	184
North Carolina Central U.	274	233	264	171	185	0	185	0	0
New Mexico Highlands U.	275	ne	189	198 i	184 i	0 i	184 i	0 i	0 i
U. San Francisco	276	170	67	113	179	53	61	0	65
Texas Southern U.	277	119	184	79	173	0	0	0	173
CUNY, Advanced Science Research Center	278	3	56	877	172	0	156	16	0
Marshall U.	279	100	201	233	170	0	0	0	170
Villanova U.	280	405	460	162	165	0	78	87	0
Virginia Commonwealth U.	281	516	280	200	164	0	0	0	164
Union C., Schenectady	282	125	130	198	158	0	158	0	0
Skidmore C.	283	743	577	202	157	0	157	0	0
Wellesley C.	283	154	154	77	157	0	157	0	0
C. Wooster	285	12	21	107 i	155	0	155	0	0
U. Northern Colorado	286	72	247	120	151	0	151	0	0
U. Colorado Colorado Springs	287	68	150	127	150	111	15	0	24
New York U.	288	55	133	71	148	0	148	0	0
William Paterson U.	289	211	414	309	144	0	144	0	0
Illinois Institute of Technology	290	236	356	217	142	10	132	0	0
Macalester C.	290	310	268	172	142	0	142	0	0
Northern Michigan U.	292	65	81	100	141	0	141	0	0
Utah Valley U.	293	ne	ne	ne	140	0	140	0	0
California State Polytechnic U., Humboldt	294	376	450	334	139	16	53	70	0
U. Louisville	295	106	169	171	138	102	15	21	0
California State U., Fullerton	296	189	145	94	136	0	67	69	0
Rowan U.	296	308	227	158	136	0	136	0	0
U. San Diego	298	150	152	101	134	0	0	134	0
Appalachian State U.	299	266	242	144	132	0	132	0	0

TABLE 41

Federally financed higher education R&D expenditures in the geosciences, atmospheric sciences, and ocean sciences, ranked by all FY 2022 geosciences, atmospheric sciences, and ocean sciences: FYs 2019–22 and by subfield for FY 2022

(Dollars in thousands)

Institution	Rank	2019	2020	2021	2022					
					All geosciences, atmospheric sciences, and ocean sciences	Atmospheric science and meteorology	Geological and earth sciences	Ocean sciences and marine sciences	Geosciences, atmospheric sciences, and ocean sciences nec	
Wayne State U.	299	154	129	63	132	0	132	0	0	
Wright State U.	299	161	127	104	132	0	132	0	0	
Murray State U.	302	17	19	35	131	0	131	0	0	
New School	302	373	414	143	131	0	0	0	131	
U. New Haven	304	0	104	80	128	81	0	47	0	
Indiana State U.	305	137	103	73	125	0	125	0	0	
Central State U.	306	163	125	102	124	0	124	0	0	
U. North Carolina, Greensboro	307	0	0	0	121	0	121	0	0	
Tennessee State U.	308	0	297	166	120	0	120	0	0	
Sam Houston State U.	309	0	0	85	118	0	118	0	0	
Pomona C.	310	100	103	42	108	0	108	0	0	
Whitman C.	311	3	0	ne	107	0	107	0	0	
Clafin U.	312	259	37	26	105	16	89	0	0	
U. Louisiana, Monroe	313	307	39	61	103	103	0	0	0	
CUNY, Brooklyn C.	314	17	i	18	102	0	102	0	0	
Winston-Salem State U.	315	0	0	0	100	0	100	0	0	
Furman U.	316	16	7	33	99	0	99	0	0	
U.S. Air Force Academy	317	0	0	34	97	0	97	0	0	
Williams C.	317	104	99	i	105	i	97	i	0	i
U. North Carolina, Asheville	319	126	36	93	96	87	9	0	0	
U. of the District of Columbia	320	84	41	82	95	0	95	0	0	
U. Puerto Rico, Humacao	321	0	0	17	92	0	0	0	92	
U. Tulsa	321	39	76	151	92	0	92	0	0	
Trinity U.	323	28	3	14	90	0	90	0	0	
Dillard U.	324	0	0	87	89	0	89	0	0	
Salisbury U.	324	145	91	57	89	0	0	0	89	
DePaul U.	326	22	76	246	88	0	63	25	0	
Willamette U.	327	0	0	0	85	0	85	0	0	
Nevada State C.	328	ne	ne	ne	82	0	0	0	82	
Fort Valley State U.	329	0	0	18	79	0	79	0	0	

TABLE 41

Federally financed higher education R&D expenditures in the geosciences, atmospheric sciences, and ocean sciences, ranked by all FY 2022 geosciences, atmospheric sciences, and ocean sciences: FYs 2019–22 and by subfield for FY 2022

(Dollars in thousands)

Institution	Rank	2019	2020	2021	2022				
					All geosciences, atmospheric sciences, and ocean sciences	Atmospheric science and meteorology	Geological and earth sciences	Ocean sciences and marine sciences	Geosciences, atmospheric sciences, and ocean sciences nec
James Madison U.	329	317	508	125	79	0	79	0	0
Barnard C.	331	0	45	156	70	70	0	0	0
SUNY, Geneseo	332	140	104	115	68	0	68	0	0
Troy U.	333	ne	47	31	67	0	0	67	0
Northland C.	334	ne	ne	56 i	63 i	0 i	54 i	0 i	9 i
U. Alabama, Birmingham	335	702	438	188	62	62	0	0	0
U. North Georgia	335	48	55	59	62	0	62	0	0
California State U., San Bernardino	337	110	86	51	61	0	61	0	0
Northwest Indian C.	338	1,043	43 i	52 i	60	0	0	60	0
Sul Ross State U.	339	0	0	0 i	59 i	0 i	59 i	0 i	0 i
U. Wisconsin-Green Bay	340	49 i	53 i	48 i	57 i	0 i	57 i	0 i	0 i
SUNY, Oswego	341	42	43	58	55	31	24	0	0
Northeastern Illinois U.	342	131	50	68	54	0	54	0	0
U. West Florida	342	34	322	0	54	0	54	0	0
U. of the Pacific	344	0	0	43	53	0	53	0	0
California State U., Maritime Academy	345	0	0	0	51	0	0	51	0
Hamilton C.	346	3	6	0	49	0	49	0	0
U. Baltimore	347	0	0	0	48	0	0	0	48
Albion C.	348	0	0	0 i	47 i	0 i	47 i	0 i	0 i
California State U., Bakersfield	348	147	118	40	47	0	47	0	0
Eastern Michigan U.	348	285	18	64	47	0	35	0	12
U. Denver	348	154	145	31	47	0	47	0	0
CUNY, Lehman C.	352	0	35	0	44	0	44	0	0
Bates C.	353	83	91	26	41	0	41	0	0
U. Puget Sound	353	ne	0	ne	41	10	0	0	31
U. Southern Maine	355	0	0	7	39	0	18	21	0
U. Wisconsin-Stevens Point	356	3 i	3	57	37	0	37	0	0
Virginia State U.	356	157	0	8	37	37	0	0	0
U. Wisconsin-Eau Claire	358	5	4	5	35	0	35	0	0
Oregon Institute of Technology	359	75 i	56	24 i	32 i	0 i	0 i	0 i	32 i

TABLE 41

Federally financed higher education R&D expenditures in the geosciences, atmospheric sciences, and ocean sciences, ranked by all FY 2022 geosciences, atmospheric sciences, and ocean sciences: FYs 2019–22 and by subfield for FY 2022

(Dollars in thousands)

Institution	Rank	2019	2020	2021	2022					
					All geosciences, atmospheric sciences, and ocean sciences	Atmospheric science and meteorology	Geological and earth sciences	Ocean sciences and marine sciences	Geosciences, atmospheric sciences, and ocean sciences nec	
Haverford C.	360	160	103	79	31	0	16	15	0	
Lincoln U., Jefferson City	361	0	0	60	28	28	0	0	0	
U. of Mary Washington	361	16	38	29	28	0	28	0	0	
U. Wisconsin-Superior	361	25	30	11	28	0	28	0	0	
U. North Florida	364	0	0	11	25	0	0	0	25	
U.S. Military Academy	364	111	98	2	25	0	0	0	25	
U. Wisconsin-Oshkosh	366	116 i	115 i	114	24	0	24	0	0	
Southern Connecticut State U.	367	9	1	63	23	2	0	21	0	
Stephen F. Austin State U.	367	25	1	0	23	0	23	0	0	
U. Colorado Anschutz Medical Campus ^e	369	na	na	212	19	19	0	0	0	
Brandeis U.	370	0	12	0	17	17	0	0	0	
Babson C.	371	0	0	0	16	0	0	16	0	
Eastern Washington U.	371	30	58	46	16	0	16	0	0	
U. Nebraska, Omaha	373	0	0	16	15	0	15	0	0	
Suffolk U.	374	ne	28	28	14	0	14	0	0	
Bentley U.	375	ne	ne	ne	13	0	10	3	0	
Ithaca C.	375	ne	4	20	13	0	0	13	0	
Tennessee Technological U.	375	43	22	21	13	0	13	0	0	
Winthrop U.	378	5	0	0	10	0	0	10	0	
Clarkson U.	379	0	21	77	9	0	0	9	0	
U. Wisconsin-La Crosse	379	4	6	1	9	0	9	0	0	
Texas A&M U.-San Antonio	381	ne	ne	ne	7	0	0	0	7	
U. of St. Thomas (MN)	381	0	0	222	7	0	7	0	0	
Eastern Connecticut State U.	383	0	0	0	6	0	0	6	0	
Loyola Marymount U.	384	25	32	24	5	0	5	0	0	
Minnesota State U., Mankato	384	0	0	6	5	0	5	0	0	
Smith C.	384	38	0	5	5	0	5	0	0	
Claremont McKenna C.	387	173	29	17	4	0	0	4	0	
U. Houston-Downtown	387	0	82	35	4	0	4	0	0	
CUNY, Graduate Center	389	0	0	0	3	0	3	0	0	

TABLE 41

Federally financed higher education R&D expenditures in the geosciences, atmospheric sciences, and ocean sciences, ranked by all FY 2022 geosciences, atmospheric sciences, and ocean sciences: FYs 2019–22 and by subfield for FY 2022

(Dollars in thousands)

Institution	Rank	2019	2020	2021	2022					
					All geosciences, atmospheric sciences, and ocean sciences	Atmospheric science and meteorology	Geological and earth sciences	Ocean sciences and marine sciences	Geosciences, atmospheric sciences, and ocean sciences nec	
Fort Lewis C.	389	10	34	24	3	0	0	0	3	
Pennsylvania State U., Harrisburg	389	5	3	22	3	3	0	0	0	
Franklin and Marshall C.	392	442	37	0	2	0	2	0	0	
Vassar C.	392	0	0	0	2	0	2	0	0	
Alfred U.	394	0	1	1	1	0	0	0	1	
California State Polytechnic U., Pomona	394	202	38	118	1	0	1	0	0	
Kean U.	394	ne	105	61	1	0	1	0	0	
All other surveyed institutions	-	11,950	7,099	2,118	0	0	0	0	0	

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

nec = not elsewhere classified.

^a Johns Hopkins University includes the Applied Physics Laboratory, with \$77,562 thousand in federally financed R&D expenditures in geosciences, atmospheric sciences, and ocean sciences in FY 2022.

^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 2022 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.