

TABLE 2-4

Graduate students in science, engineering, and health broad fields, by degree program, citizenship, ethnicity, and race: 2023

(Number and percent)

Broad field	Total		U.S. citizens and permanent residents																	Temporary visa holders		
			Hispanic or Latino		Not Hispanic or Latino										Unknown ethnicity and race							
					American Indian or Alaska Native		Asian		Black or African American		Native Hawaiian or Other Pacific Islander		White				More than one race					
Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
All graduate students	818,095	100.0	70,428	100.0	1,984	100.0	62,549	100.0	46,276	100.0	754	100.0	269,477	100.0	20,004	100.0	24,336	100.0	322,287	100.0		
Science	561,489	68.6	49,494	70.3	1,412	71.2	41,873	66.9	32,482	70.2	572	75.9	185,527	68.8	13,966	69.8	16,700	68.6	219,463	68.1		
Agricultural and veterinary sciences	11,755	1.4	896	1.3	41	2.1	372	0.6	422	0.9	17	2.3	5,457	2.0	244	1.2	235	1.0	4,071	1.3		
Biological and biomedical sciences	105,566	12.9	11,037	15.7	284	14.3	10,603	17.0	6,510	14.1	112	14.9	44,088	16.4	3,444	17.2	3,242	13.3	26,246	8.1		
Computer and information sciences	166,014	20.3	6,059	8.6	168	8.5	14,432	23.1	6,351	13.7	87	11.5	24,437	9.1	2,166	10.8	3,959	16.3	108,355	33.6		
Geosciences, atmospheric, and ocean sciences	11,594	1.4	1,132	1.6	29	1.5	415	0.7	311	0.7	5	0.7	6,201	2.3	454	2.3	304	1.2	2,743	0.9		
Mathematics and statistics	33,893	4.1	1,958	2.8	38	1.9	2,563	4.1	768	1.7	15	2.0	9,075	3.4	595	3.0	819	3.4	18,062	5.6		
Multidisciplinary and interdisciplinary sciences	26,429	3.2	1,935	2.7	43	2.2	2,392	3.8	1,458	3.2	25	3.3	7,814	2.9	574	2.9	731	3.0	11,457	3.6		
Natural resources and conservation	13,490	1.6	1,240	1.8	120	6.0	448	0.7	464	1.0	26	3.4	8,051	3.0	449	2.2	341	1.4	2,351	0.7		
Physical sciences	44,329	5.4	3,263	4.6	46	2.3	2,821	4.5	1,133	2.4	19	2.5	16,702	6.2	1,124	5.6	974	4.0	18,247	5.7		
Psychology	73,828	9.0	13,803	19.6	303	15.3	4,066	6.5	8,765	18.9	153	20.3	34,623	12.8	2,696	13.5	3,579	14.7	5,840	1.8		
Social sciences	74,591	9.1	8,171	11.6	340	17.1	3,761	6.0	6,300	13.6	113	15.0	29,079	10.8	2,220	11.1	2,516	10.3	22,091	6.9		
Engineering	175,559	21.5	10,604	15.1	221	11.1	13,441	21.5	4,730	10.2	80	10.6	46,915	17.4	3,628	18.1	3,850	15.8	92,090	28.6		
Aerospace, aeronautical, and astronautical engineering	8,264	1.0	778	1.1	13	0.7	907	1.5	181	0.4	8	1.1	3,873	1.4	289	1.4	178	0.7	2,037	0.6		
Biological, biomedical, and biosystems engineering	15,203	1.9	1,220	1.7	20	1.0	1,972	3.2	587	1.3	9	1.2	4,942	1.8	440	2.2	434	1.8	5,579	1.7		
Chemical, petroleum, and chemical-related engineering	10,546	1.3	520	0.7	11	0.6	920	1.5	222	0.5	5	0.7	2,846	1.1	192	1.0	183	0.8	5,647	1.8		
Civil, environmental, transportation and related engineering fields	19,934	2.4	1,353	1.9	54	2.7	1,063	1.7	500	1.1	14	1.9	5,331	2.0	360	1.8	318	1.3	10,941	3.4		
Electrical, electronics, communications and computer engineering	48,799	6.0	2,124	3.0	31	1.6	3,692	5.9	1,067	2.3	18	2.4	8,610	3.2	752	3.8	969	4.0	31,536	9.8		
Industrial, manufacturing, systems engineering and operations research	15,762	1.9	1,121	1.6	13	0.7	970	1.6	542	1.2	4	0.5	4,084	1.5	280	1.4	484	2.0	8,264	2.6		
Mechanical engineering	27,014	3.3	1,839	2.6	33	1.7	2,045	3.3	586	1.3	11	1.5	8,051	3.0	673	3.4	506	2.1	13,270	4.1		
Metallurgical, mining, materials and related engineering fields	7,244	0.9	521	0.7	12	0.6	545	0.9	181	0.4	3	0.4	2,338	0.9	186	0.9	142	0.6	3,316	1.0		
Other engineering	22,793	2.8	1,128	1.6	34	1.7	1,327	2.1	864	1.9	8	1.1	6,840	2.5	456	2.3	636	2.6	11,500	3.6		
Health	81,047	9.9	10,330	14.7	351	17.7	7,235	11.6	9,064	19.6	102	13.5	37,035	13.7	2,410	12.0	3,786	15.6	10,734	3.3		
Clinical medicine ^a	34,658	4.2	4,538	6.4	226	11.4	3,953	6.3	5,120	11.1	57	7.6	13,548	5.0	1,207	6.0	1,981	8.1	4,028	1.2		
Other health	46,389	5.7	5,792	8.2	125	6.3	3,282	5.2	3,944	8.5	45	6.0	23,487	8.7	1,203	6.0	1,805	7.4	6,706	2.1		
Master's students	510,866	62.4	48,099	68.3	1,211	61.0	40,930	65.4	31,764	68.6	544	72.1	163,247	60.6	12,120	60.6	15,694	64.5	197,257	61.2		
Science	348,520	42.6	32,310	45.9	808	40.7	26,885	43.0	22,048	47.6	413	54.8	105,997	39.3	7,998	40.0	10,264	42.2	141,797	44.0		
Agricultural and veterinary sciences	6,901	0.8	653	0.9	27	1.4	236	0.4	323	0.7	16	2.1	3,702	1.4	169	0.8	165	0.7	1,610	0.5		
Biological and biomedical sciences	44,703	5.5	5,086	7.2	125	6.3	4,966	7.9	3,905	8.4	61	8.1	18,362	6.8	1,525	7.6	1,609	6.6	9,064	2.8		
Computer and information sciences	143,530	17.5	5,425	7.7	141	7.1	12,577	20.1	5,529	11.9	75	9.9	20,179	7.5	1,784	8.9	3,336	13.7	94,484	29.3		
Geosciences, atmospheric, and ocean sciences	4,793	0.6	582	0.8	19	1.0	159	0.3	143	0.3	3	0.4	2,985	1.1	189	0.9	129	0.5	584	0.2		
Mathematics and statistics	20,105	2.5	1,250	1.8	27	1.4	1,553	2.5	548	1.2	11	1.5	4,917	1.8	321	1.6	459	1.9	11,019	3.4		

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					American Indian or Alaska Native		Asian		Black or African American		Native Hawaiian or Other Pacific Islander		White		More than one race						
Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Multidisciplinary and interdisciplinary sciences	21,928	2.7	1,596	2.3	33	1.7	2,071	3.3	1,206	2.6	20	2.7	6,085	2.3	448	2.2	605	2.5	9,864	3.1	
Natural resources and conservation	9,486	1.2	953	1.4	76	3.8	295	0.5	306	0.7	23	3.1	6,091	2.3	350	1.7	215	0.9	1,177	0.4	
Physical sciences	6,000	0.7	716	1.0	5	0.3	418	0.7	315	0.7	6	0.8	2,601	1.0	182	0.9	179	0.7	1,578	0.5	
Psychology	49,474	6.0	10,496	14.9	190	9.6	2,544	4.1	5,722	12.4	120	15.9	23,337	8.7	1,708	8.5	2,253	9.3	3,104	1.0	
Social sciences	41,600	5.1	5,553	7.9	165	8.3	2,066	3.3	4,051	8.8	78	10.3	17,738	6.6	1,322	6.6	1,314	5.4	9,313	2.9	
Engineering	100,567	12.3	7,204	10.2	138	7.0	8,305	13.3	2,894	6.3	50	6.6	28,366	10.5	2,191	11.0	2,380	9.8	49,039	15.2	
Aerospace, aeronautical, and astronautical engineering	5,380	0.7	588	0.8	7	0.4	669	1.1	117	0.3	6	0.8	2,712	1.0	193	1.0	130	0.5	958	0.3	
Biological, biomedical, and biosystems engineering	5,204	0.6	459	0.7	8	0.4	770	1.2	225	0.5	3	0.4	1,663	0.6	156	0.8	111	0.5	1,809	0.6	
Chemical, petroleum, and chemical-related engineering	2,658	0.3	165	0.2	3	0.2	277	0.4	65	0.1	2	0.3	723	0.3	54	0.3	61	0.3	1,308	0.4	
Civil, environmental, transportation and related engineering fields	12,082	1.5	1,081	1.5	39	2.0	766	1.2	338	0.7	8	1.1	3,889	1.4	254	1.3	213	0.9	5,494	1.7	
Electrical, electronics, communications and computer engineering	31,093	3.8	1,617	2.3	25	1.3	2,610	4.2	756	1.6	13	1.7	5,657	2.1	512	2.6	663	2.7	19,240	6.0	
Industrial, manufacturing, systems engineering and operations research	11,873	1.5	1,006	1.4	10	0.5	756	1.2	391	0.8	3	0.4	3,220	1.2	222	1.1	404	1.7	5,861	1.8	
Mechanical engineering	15,335	1.9	1,288	1.8	21	1.1	1,389	2.2	365	0.8	9	1.2	5,193	1.9	450	2.2	302	1.2	6,318	2.0	
Metallurgical, mining, materials and related engineering fields	2,462	0.3	219	0.3	6	0.3	200	0.3	74	0.2	2	0.3	918	0.3	70	0.3	71	0.3	902	0.3	
Other engineering	14,480	1.8	781	1.1	19	1.0	868	1.4	563	1.2	4	0.5	4,391	1.6	280	1.4	425	1.7	7,149	2.2	
Health	61,779	7.6	8,585	12.2	265	13.4	5,740	9.2	6,822	14.7	81	10.7	28,884	10.7	1,931	9.7	3,050	12.5	6,421	2.0	
Clinical medicine ^a	28,484	3.5	3,867	5.5	173	8.7	3,400	5.4	4,190	9.1	46	6.1	11,240	4.2	1,000	5.0	1,794	7.4	2,774	0.9	
Other health	33,295	4.1	4,718	6.7	92	4.6	2,340	3.7	2,632	5.7	35	4.6	17,644	6.5	931	4.7	1,256	5.2	3,647	1.1	
Doctoral students	307,229	37.6	22,329	31.7	773	39.0	21,619	34.6	14,512	31.4	210	27.9	106,230	39.4	7,884	39.4	8,642	35.5	125,030	38.8	
Science	212,969	26.0	17,184	24.4	604	30.4	14,988	24.0	10,434	22.5	159	21.1	79,530	29.5	5,968	29.8	6,436	26.4	77,666	24.1	
Agricultural and veterinary sciences	4,854	0.6	243	0.3	14	0.7	136	0.2	99	0.2	1	0.1	1,755	0.7	75	0.4	70	0.3	2,461	0.8	
Biological and biomedical sciences	60,863	7.4	5,951	8.4	159	8.0	5,637	9.0	2,605	5.6	51	6.8	25,726	9.5	1,919	9.6	1,633	6.7	17,182	5.3	
Computer and information sciences	22,484	2.7	634	0.9	27	1.4	1,855	3.0	822	1.8	12	1.6	4,258	1.6	382	1.9	623	2.6	13,871	4.3	
Geosciences, atmospheric, and ocean sciences	6,801	0.8	550	0.8	10	0.5	256	0.4	168	0.4	2	0.3	3,216	1.2	265	1.3	175	0.7	2,159	0.7	
Mathematics and statistics	13,788	1.7	708	1.0	11	0.6	1,010	1.6	220	0.5	4	0.5	4,158	1.5	274	1.4	360	1.5	7,043	2.2	
Multidisciplinary and interdisciplinary sciences	4,501	0.6	339	0.5	10	0.5	321	0.5	252	0.5	5	0.7	1,729	0.6	126	0.6	126	0.5	1,593	0.5	
Natural resources and conservation	4,004	0.5	287	0.4	44	2.2	153	0.2	158	0.3	3	0.4	1,960	0.7	99	0.5	126	0.5	1,174	0.4	
Physical sciences	38,329	4.7	2,547	3.6	41	2.1	2,403	3.8	818	1.8	13	1.7	14,101	5.2	942	4.7	795	3.3	16,669	5.2	
Psychology	24,354	3.0	3,307	4.7	113	5.7	1,522	2.4	3,043	6.6	33	4.4	11,286	4.2	988	4.9	1,326	5.4	2,736	0.8	
Social sciences	32,991	4.0	2,618	3.7	175	8.8	1,695	2.7	2,249	4.9	35	4.6	11,341	4.2	898	4.5	1,202	4.9	12,778	4.0	
Engineering	74,992	9.2	3,400	4.8	83	4.2	5,136	8.2	1,836	4.0	30	4.0	18,549	6.9	1,437	7.2	1,470	6.0	43,051	13.4	
Aerospace, aeronautical, and astronautical engineering	2,884	0.4	190	0.3	6	0.3	238	0.4	64	0.1	2	0.3	1,161	0.4	96	0.5	48	0.2	1,079	0.3	

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					American Indian or Alaska Native		Asian		Black or African American		Native Hawaiian or Other Pacific Islander		White				More than one race			
Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
Biological, biomedical, and biosystems engineering	9,999	1.2	761	1.1	12	0.6	1,202	1.9	362	0.8	6	0.8	3,279	1.2	284	1.4	323	1.3	3,770	1.2
Chemical, petroleum, and chemical-related engineering	7,888	1.0	355	0.5	8	0.4	643	1.0	157	0.3	3	0.4	2,123	0.8	138	0.7	122	0.5	4,339	1.3
Civil, environmental, transportation and related engineering fields	7,852	1.0	272	0.4	15	0.8	297	0.5	162	0.4	6	0.8	1,442	0.5	106	0.5	105	0.4	5,447	1.7
Electrical, electronics, communications and computer engineering	17,706	2.2	507	0.7	6	0.3	1,082	1.7	311	0.7	5	0.7	2,953	1.1	240	1.2	306	1.3	12,296	3.8
Industrial, manufacturing, systems engineering and operations research	3,889	0.5	115	0.2	3	0.2	214	0.3	151	0.3	1	0.1	864	0.3	58	0.3	80	0.3	2,403	0.7
Mechanical engineering	11,679	1.4	551	0.8	12	0.6	656	1.0	221	0.5	2	0.3	2,858	1.1	223	1.1	204	0.8	6,952	2.2
Metallurgical, mining, materials and related engineering fields	4,782	0.6	302	0.4	6	0.3	345	0.6	107	0.2	1	0.1	1,420	0.5	116	0.6	71	0.3	2,414	0.7
Other engineering	8,313	1.0	347	0.5	15	0.8	459	0.7	301	0.7	4	0.5	2,449	0.9	176	0.9	211	0.9	4,351	1.4
Health	19,268	2.4	1,745	2.5	86	4.3	1,495	2.4	2,242	4.8	21	2.8	8,151	3.0	479	2.4	736	3.0	4,313	1.3
Clinical medicine ^a	6,174	0.8	671	1.0	53	2.7	553	0.9	930	2.0	11	1.5	2,308	0.9	207	1.0	187	0.8	1,254	0.4
Other health	13,094	1.6	1,074	1.5	33	1.7	942	1.5	1,312	2.8	10	1.3	5,843	2.2	272	1.4	549	2.3	3,059	0.9

^a Clinical medicine includes graduate students in public health and in medical clinical sciences and clinical and medical laboratory sciences.

Note(s):

Percentages may not add to total because of rounding. Ethnicity and race data are available only for U.S. citizens and permanent residents. For more information on the mapping of Survey of Graduate Students and Postdoctorates in Science and Engineering fields and codes, see technical table A-17. Graduate student data in this table include master's students in health sciences. For more information on the comparability of these counts to other data published by the National Center for Science and Engineering Statistics, see the "Technical Notes."

Source(s):

National Center for Science and Engineering Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering, 2023.