

TABLE 4-4a

Citizenship, ethnicity, and race of graduate students, by detailed field: 2021

(Number and percent)

Detailed 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	
All detailed fields	760,156	100.0	69,174	100.0	2,105	100.0	60,203	100.0	45,302	100.0	792	100.0	294,198	100.0	19,471	100.0	24,352	100.0	244,559	100.0
Science	509,784	67.1	48,343	69.9	1,443	68.6	39,413	65.5	31,021	68.5	561	70.8	201,768	68.6	13,468	69.2	17,432	71.6	156,335	63.9
Agricultural and veterinary sciences	11,244	1.5	926	1.3	34	1.6	389	0.6	407	0.9	13	1.6	5,772	2.0	244	1.3	224	0.9	3,235	1.3
Agricultural sciences	9,696	1.3	796	1.2	32	1.5	305	0.5	353	0.8	12	1.5	4,943	1.7	197	1.0	193	0.8	2,865	1.2
Veterinary biomedical and clinical sciences	1,548	0.2	130	0.2	2	0.1	84	0.1	54	0.1	1	0.1	829	0.3	47	0.2	31	0.1	370	0.2
Biological and biomedical sciences	100,883	13.3	10,508	15.2	253	12.0	10,250	17.0	6,587	14.5	140	17.7	46,065	15.7	3,109	16.0	3,205	13.2	20,766	8.5
Biochemistry	5,833	0.8	651	0.9	20	1.0	506	0.8	231	0.5	8	1.0	2,562	0.9	176	0.9	138	0.6	1,541	0.6
Biology	15,694	2.1	1,771	2.6	46	2.2	1,038	1.7	935	2.1	26	3.3	8,208	2.8	499	2.6	404	1.7	2,767	1.1
Biomedical sciences	10,620	1.4	1,139	1.6	21	1.0	1,636	2.7	1,323	2.9	16	2.0	4,200	1.4	309	1.6	341	1.4	1,635	0.7
Biophysics	979	0.1	85	0.1	1	*	118	0.2	23	0.1	0	0.0	408	0.1	27	0.1	22	0.1	295	0.1
Biostatistics and bioinformatics	7,110	0.9	356	0.5	9	0.4	988	1.6	230	0.5	4	0.5	2,128	0.7	169	0.9	216	0.9	3,010	1.2
Biotechnology	3,523	0.5	400	0.6	8	0.4	523	0.9	362	0.8	5	0.6	1,282	0.4	114	0.6	130	0.5	699	0.3
Botany and plant biology	1,632	0.2	150	0.2	2	0.1	68	0.1	43	0.1	3	0.4	793	0.3	53	0.3	46	0.2	474	0.2
Cell, cellular biology, and anatomical sciences	6,500	0.9	767	1.1	22	1.0	678	1.1	273	0.6	10	1.3	2,857	1.0	210	1.1	230	0.9	1,453	0.6
Ecology and population biology	3,991	0.5	361	0.5	15	0.7	153	0.3	119	0.3	9	1.1	2,411	0.8	132	0.7	144	0.6	647	0.3
Epidemiology	5,785	0.8	610	0.9	10	0.5	766	1.3	549	1.2	8	1.0	2,207	0.8	175	0.9	187	0.8	1,273	0.5
Genetics	3,167	0.4	287	0.4	11	0.5	305	0.5	125	0.3	3	0.4	1,626	0.6	103	0.5	70	0.3	637	0.3
Microbiological sciences and immunology	6,382	0.8	800	1.2	17	0.8	643	1.1	333	0.7	3	0.4	3,170	1.1	207	1.1	222	0.9	987	0.4
Molecular biology	1,670	0.2	205	0.3	3	0.1	186	0.3	78	0.2	2	0.3	705	0.2	46	0.2	52	0.2	393	0.2
Neurobiology and neuroscience	6,349	0.8	782	1.1	15	0.7	636	1.1	316	0.7	5	0.6	3,073	1.0	248	1.3	184	0.8	1,090	0.4
Nutrition science	3,864	0.5	400	0.6	9	0.4	292	0.5	196	0.4	2	0.3	2,114	0.7	109	0.6	146	0.6	596	0.2
Pathology and experimental pathology	949	0.1	81	0.1	3	0.1	87	0.1	46	0.1	2	0.3	430	0.1	22	0.1	50	0.2	228	0.1
Pharmacology and toxicology	3,300	0.4	312	0.5	7	0.3	393	0.7	206	0.5	2	0.3	1,399	0.5	92	0.5	119	0.5	770	0.3
Physiology	5,939	0.8	537	0.8	15	0.7	622	1.0	461	1.0	10	1.3	2,809	1.0	185	1.0	223	0.9	1,077	0.4
Zoology and animal biology	2,140	0.3	168	0.2	6	0.3	59	0.1	68	0.2	0	0.0	1,329	0.5	69	0.4	66	0.3	375	0.2
Biological and biomedical sciences nec	5,456	0.7	646	0.9	13	0.6	553	0.9	670	1.5	22	2.8	2,354	0.8	164	0.8	215	0.9	819	0.3
Computer and information sciences	121,730	16.0	5,603	8.1	142	6.7	12,837	21.3	5,922	13.1	87	11.0	26,802	9.1	2,059	10.6	3,487	14.3	64,791	26.5
Artificial intelligence, informatics, and computer and information science topics	5,191	0.7	245	0.4	17	0.8	526	0.9	247	0.5	1	0.1	1,333	0.5	84	0.4	123	0.5	2,615	1.1
Computer and information sciences	36,972	4.9	1,525	2.2	27	1.3	4,242	7.0	980	2.2	22	2.8	8,203	2.8	577	3.0	619	2.5	20,777	8.5
Computer and information systems security	8,743	1.2	822	1.2	23	1.1	1,075	1.8	1,515	3.3	14	1.8	3,050	1.0	260	1.3	505	2.1	1,479	0.6

TABLE 4-4a

Citizenship, ethnicity, and race of graduate students, by detailed field: 2021

(Number and percent)

Detailed 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		
Computer science	40,717	5.4	1,022	1.5	26	1.2	3,776	6.3	692	1.5	15	1.9	6,318	2.1	555	2.9	1,109	4.6	27,204	11.1	
Information science and studies	14,449	1.9	924	1.3	21	1.0	1,657	2.8	1,438	3.2	19	2.4	4,169	1.4	277	1.4	552	2.3	5,392	2.2	
Information technology	7,994	1.1	520	0.8	18	0.9	824	1.4	545	1.2	9	1.1	1,585	0.5	151	0.8	194	0.8	4,148	1.7	
Computer and information sciences nec	7,664	1.0	545	0.8	10	0.5	737	1.2	505	1.1	7	0.9	2,144	0.7	155	0.8	385	1.6	3,176	1.3	
Geosciences, atmospheric sciences, and ocean sciences	12,290	1.6	1,068	1.5	32	1.5	418	0.7	303	0.7	8	1.0	7,118	2.4	403	2.1	384	1.6	2,556	1.0	
Atmospheric sciences and meteorology	1,389	0.2	75	0.1	1	*	40	0.1	35	0.1	1	0.1	768	0.3	44	0.2	40	0.2	385	0.2	
Geological and earth sciences	7,871	1.0	714	1.0	29	1.4	283	0.5	191	0.4	2	0.3	4,487	1.5	226	1.2	209	0.9	1,730	0.7	
Ocean and marine sciences	3,030	0.4	279	0.4	2	0.1	95	0.2	77	0.2	5	0.6	1,863	0.6	133	0.7	135	0.6	441	0.2	
Geosciences, atmospheric sciences, and ocean sciences nec	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne
Mathematics and statistics	34,258	4.5	1,979	2.9	35	1.7	2,842	4.7	742	1.6	14	1.8	10,296	3.5	558	2.9	859	3.5	16,933	6.9	
Applied mathematics	11,154	1.5	512	0.7	6	0.3	794	1.3	198	0.4	4	0.5	2,374	0.8	149	0.8	233	1.0	6,884	2.8	
Mathematics	12,128	1.6	943	1.4	16	0.8	810	1.3	296	0.7	2	0.3	5,058	1.7	252	1.3	365	1.5	4,386	1.8	
Statistics	10,976	1.4	524	0.8	13	0.6	1,238	2.1	248	0.5	8	1.0	2,864	1.0	157	0.8	261	1.1	5,663	2.3	
Multidisciplinary and interdisciplinary studies	15,768	2.1	1,519	2.2	30	1.4	1,489	2.5	981	2.2	18	2.3	6,382	2.2	441	2.3	484	2.0	4,424	1.8	
Biological and physical sciences	1,761	0.2	146	0.2	4	0.2	186	0.3	99	0.2	6	0.8	716	0.2	53	0.3	72	0.3	479	0.2	
Computational science	2,435	0.3	155	0.2	4	0.2	233	0.4	82	0.2	3	0.4	878	0.3	58	0.3	50	0.2	972	0.4	
Data science and data analytics	2,404	0.3	229	0.3	2	0.1	325	0.5	103	0.2	2	0.3	960	0.3	51	0.3	68	0.3	664	0.3	
International and global studies	1,450	0.2	287	0.4	1	*	107	0.2	130	0.3	0	0.0	609	0.2	51	0.3	53	0.2	212	0.1	
Multidisciplinary and interdisciplinary studies nec	7,718	1.0	702	1.0	19	0.9	638	1.1	567	1.3	7	0.9	3,219	1.1	228	1.2	241	1.0	2,097	0.9	
Natural resources and conservation	13,922	1.8	1,304	1.9	129	6.1	472	0.8	519	1.1	33	4.2	8,619	2.9	479	2.5	433	1.8	1,934	0.8	
Environmental science and studies	6,807	0.9	768	1.1	58	2.8	303	0.5	265	0.6	26	3.3	3,908	1.3	214	1.1	227	0.9	1,038	0.4	
Forestry, natural resources, and conservation	7,115	0.9	536	0.8	71	3.4	169	0.3	254	0.6	7	0.9	4,711	1.6	265	1.4	206	0.8	896	0.4	
Physical sciences	44,141	5.8	3,287	4.8	72	3.4	2,720	4.5	1,145	2.5	20	2.5	18,104	6.2	1,036	5.3	1,049	4.3	16,708	6.8	
Astronomy and astrophysics	1,624	0.2	146	0.2	3	0.1	120	0.2	41	0.1	0	0.0	819	0.3	84	0.4	48	0.2	363	0.1	
Chemistry	23,215	3.1	1,894	2.7	41	1.9	1,543	2.6	693	1.5	18	2.3	9,507	3.2	529	2.7	529	2.2	8,461	3.5	
Materials sciences	1,441	0.2	83	0.1	1	*	119	0.2	49	0.1	1	0.1	459	0.2	20	0.1	35	0.1	674	0.3	
Physics	16,779	2.2	1,114	1.6	25	1.2	890	1.5	283	0.6	1	0.1	6,817	2.3	374	1.9	403	1.7	6,872	2.8	
Physical sciences nec	1,082	0.1	50	0.1	2	0.1	48	0.1	79	0.2	0	0.0	502	0.2	29	0.1	34	0.1	338	0.1	
Psychology	73,325	9.6	13,155	19.0	295	14.0	3,827	6.4	7,639	16.9	108	13.6	37,135	12.6	2,829	14.5	4,109	16.9	4,228	1.7	
Applied psychology	24,427	3.2	5,048	7.3	87	4.1	1,281	2.1	2,298	5.1	35	4.4	12,597	4.3	856	4.4	1,247	5.1	978	0.4	

TABLE 4-4a

Citizenship, ethnicity, and race of graduate students, by detailed field: 2021

(Number and percent)

Detailed 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		
Clinical psychology	7,556	1.0	1,750	2.5	24	1.1	470	0.8	572	1.3	24	3.0	3,596	1.2	487	2.5	329	1.4	304	0.1	
Counseling psychology	18,426	2.4	3,153	4.6	92	4.4	698	1.2	2,661	5.9	25	3.2	9,133	3.1	619	3.2	1,696	7.0	349	0.1	
Human development	2,363	0.3	329	0.5	11	0.5	95	0.2	250	0.6	2	0.3	1,278	0.4	85	0.4	81	0.3	232	0.1	
Psychology, general	13,883	1.8	2,095	3.0	61	2.9	735	1.2	1,408	3.1	20	2.5	7,314	2.5	563	2.9	575	2.4	1,112	0.5	
Research and experimental psychology	6,670	0.9	780	1.1	20	1.0	548	0.9	450	1.0	2	0.3	3,217	1.1	219	1.1	181	0.7	1,253	0.5	
Social sciences	82,223	10.8	8,994	13.0	421	20.0	4,169	6.9	6,776	15.0	120	15.2	35,475	12.1	2,310	11.9	3,198	13.1	20,760	8.5	
Agricultural and natural resource economics	1,194	0.2	59	0.1	4	0.2	32	0.1	34	0.1	0	0.0	436	0.1	14	0.1	18	0.1	597	0.2	
Anthropology	6,421	0.8	755	1.1	70	3.3	220	0.4	246	0.5	9	1.1	3,569	1.2	261	1.3	274	1.1	1,017	0.4	
Area, ethnic, cultural, gender, and group studies	5,093	0.7	973	1.4	111	5.3	323	0.5	598	1.3	30	3.8	1,682	0.6	209	1.1	168	0.7	999	0.4	
Criminal justice and safety studies	6,829	0.9	1,075	1.6	30	1.4	168	0.3	1,356	3.0	14	1.8	3,311	1.1	244	1.3	472	1.9	159	0.1	
Criminology	1,580	0.2	277	0.4	6	0.3	34	0.1	183	0.4	4	0.5	846	0.3	58	0.3	35	0.1	137	0.1	
Economics (except agricultural and natural resource)	15,148	2.0	746	1.1	13	0.6	856	1.4	358	0.8	13	1.6	3,853	1.3	185	1.0	371	1.5	8,753	3.6	
Geography and cartography	4,876	0.6	458	0.7	31	1.5	177	0.3	170	0.4	2	0.3	2,731	0.9	109	0.6	160	0.7	1,038	0.4	
International relations and national security studies	8,782	1.2	1,072	1.5	23	1.1	529	0.9	682	1.5	17	2.1	4,454	1.5	278	1.4	491	2.0	1,236	0.5	
Linguistics	2,840	0.4	246	0.4	30	1.4	181	0.3	79	0.2	2	0.3	1,219	0.4	77	0.4	97	0.4	909	0.4	
Political science and government	8,602	1.1	840	1.2	28	1.3	364	0.6	555	1.2	8	1.0	4,139	1.4	239	1.2	339	1.4	2,090	0.9	
Public policy analysis	10,030	1.3	1,038	1.5	40	1.9	755	1.3	1,072	2.4	6	0.8	4,471	1.5	267	1.4	418	1.7	1,963	0.8	
Sociology and population studies	7,206	0.9	1,100	1.6	23	1.1	355	0.6	917	2.0	9	1.1	3,104	1.1	258	1.3	222	0.9	1,218	0.5	
Urban studies and affairs	1,218	0.2	131	0.2	2	0.1	64	0.1	193	0.4	0	0.0	593	0.2	41	0.2	27	0.1	167	0.1	
Social sciences, other	2,404	0.3	224	0.3	10	0.5	111	0.2	333	0.7	6	0.8	1,067	0.4	70	0.4	106	0.4	477	0.2	
Engineering	168,050	22.1	10,821	15.6	286	13.6	13,412	22.3	4,847	10.7	98	12.4	52,168	17.7	3,478	17.9	3,555	14.6	79,385	32.5	
Aerospace, aeronautical, and astronautical engineering	7,838	1.0	688	1.0	17	0.8	767	1.3	170	0.4	11	1.4	3,961	1.3	276	1.4	184	0.8	1,764	0.7	
Biological, biomedical, and biosystems engineering	14,059	1.8	1,053	1.5	15	0.7	1,878	3.1	544	1.2	14	1.8	5,239	1.8	433	2.2	379	1.6	4,504	1.8	
Chemical, petroleum, and chemical-related engineering	10,696	1.4	568	0.8	21	1.0	879	1.5	247	0.5	3	0.4	3,310	1.1	216	1.1	190	0.8	5,262	2.2	
Chemical engineering	9,670	1.3	529	0.8	18	0.9	851	1.4	204	0.5	3	0.4	3,160	1.1	204	1.0	169	0.7	4,532	1.9	
Petroleum engineering	1,026	0.1	39	0.1	3	0.1	28	*	43	0.1	0	0.0	150	0.1	12	0.1	21	0.1	730	0.3	
Civil, environmental, transportation and related engineering fields	19,608	2.6	1,500	2.2	55	2.6	1,176	2.0	577	1.3	17	2.1	6,213	2.1	367	1.9	375	1.5	9,328	3.8	
Civil engineering	16,112	2.1	1,193	1.7	47	2.2	984	1.6	453	1.0	14	1.8	4,966	1.7	291	1.5	295	1.2	7,869	3.2	
Architectural, environmental, construction and surveying engineering	3,496	0.5	307	0.4	8	0.4	192	0.3	124	0.3	3	0.4	1,247	0.4	76	0.4	80	0.3	1,459	0.6	

TABLE 4-4a

Citizenship, ethnicity, and race of graduate students, by detailed field: 2021

(Number and percent)

Detailed 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		
Pediatrics	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne
Psychiatry	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne
Pulmonary disease	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne
Radiological sciences	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne
Surgery	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne
Clinical medicine nec	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne	ne
Other health	42,689	5.6	5,053	7.3	127	6.0	2,851	4.7	3,417	7.5	52	6.6	23,595	8.0	1,121	5.8	1,498	6.2	4,975	2.0				
Communication disorders sciences	18,198	2.4	2,614	3.8	70	3.3	871	1.4	866	1.9	21	2.7	12,219	4.2	476	2.4	705	2.9	356	0.1				
Dental sciences	1,719	0.2	101	0.1	1	*	272	0.5	71	0.2	2	0.3	725	0.2	43	0.2	87	0.4	417	0.2				
Kinesiology and exercise science	5,993	0.8	870	1.3	19	0.9	172	0.3	700	1.5	13	1.6	3,293	1.1	210	1.1	136	0.6	580	0.2				
Nursing science	5,174	0.7	429	0.6	16	0.8	317	0.5	662	1.5	4	0.5	3,018	1.0	110	0.6	170	0.7	448	0.2				
Pharmaceutical sciences	4,875	0.6	276	0.4	6	0.3	410	0.7	328	0.7	1	0.1	1,490	0.5	108	0.6	104	0.4	2,152	0.9				
Other health nec	6,730	0.9	763	1.1	15	0.7	809	1.3	790	1.7	11	1.4	2,850	1.0	174	0.9	296	1.2	1,022	0.4				

* = value < 0.05%; ne = not eligible.

nec = not elsewhere classified.

^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.

Source(s):

National Center for Science and Engineering Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering, 2021.