

TABLE 4-4a

Citizenship, ethnicity, and race of graduate students, by detailed field: 2019

(Number and percent)

Detailed field	Total		Hispanic or Latino		Not Hispanic or Latino														Unknown ethnicity and race		Temporary visa holders	
					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				
All detailed fields	690,117	100.0	54,467	100.0	2,077	100.0	48,844	100.0	38,048	100.0	744	100.0	272,545	100.0	15,613	100.0	24,166	100.0	233,613	100.0		
Science	453,691	65.7	38,193	70.1	1,526	73.5	31,482	64.5	26,450	69.5	542	72.8	186,405	68.4	10,902	69.8	16,868	69.8	141,323	60.5		
Agricultural sciences	9,518	1.4	636	1.2	33	1.6	267	0.5	329	0.9	16	2.2	5,003	1.8	186	1.2	181	0.7	2,867	1.2		
Biological and biomedical sciences	91,993	13.3	8,450	15.5	276	13.3	8,819	18.1	5,270	13.9	147	19.8	43,821	16.1	2,630	16.8	3,680	15.2	18,900	8.1		
Biochemistry	5,342	0.8	516	0.9	10	0.5	456	0.9	189	0.5	7	0.9	2,410	0.9	153	1.0	118	0.5	1,483	0.6		
Biology	15,801	2.3	1,690	3.1	61	2.9	994	2.0	855	2.2	20	2.7	8,531	3.1	455	2.9	479	2.0	2,716	1.2		
Biomedical sciences	9,820	1.4	952	1.7	30	1.4	1,380	2.8	1,033	2.7	39	5.2	4,073	1.5	320	2.0	586	2.4	1,407	0.6		
Biophysics	897	0.1	71	0.1	1	*	93	0.2	19	*	0	0.0	368	0.1	18	0.1	37	0.2	290	0.1		
Biostatistics and bioinformatics	6,228	0.9	267	0.5	7	0.3	760	1.6	173	0.5	5	0.7	1,929	0.7	139	0.9	232	1.0	2,716	1.2		
Biotechnology	3,255	0.5	307	0.6	2	0.1	447	0.9	336	0.9	5	0.7	1,177	0.4	101	0.6	182	0.8	698	0.3		
Botany and plant biology	1,687	0.2	136	0.2	4	0.2	76	0.2	37	0.1	4	0.5	801	0.3	48	0.3	52	0.2	529	0.2		
Cell, cellular biology, and anatomical sciences	5,902	0.9	615	1.1	17	0.8	598	1.2	204	0.5	7	0.9	2,728	1.0	169	1.1	199	0.8	1,365	0.6		
Ecology and population biology	3,510	0.5	286	0.5	11	0.5	121	0.2	95	0.2	7	0.9	2,260	0.8	100	0.6	129	0.5	501	0.2		
Epidemiology	4,692	0.7	399	0.7	13	0.6	612	1.3	322	0.8	5	0.7	1,874	0.7	164	1.1	194	0.8	1,109	0.5		
Genetics	2,663	0.4	213	0.4	11	0.5	240	0.5	83	0.2	3	0.4	1,432	0.5	69	0.4	77	0.3	535	0.2		
Microbiological sciences and immunology	5,307	0.8	553	1.0	21	1.0	458	0.9	257	0.7	3	0.4	2,779	1.0	161	1.0	219	0.9	856	0.4		
Molecular biology	1,531	0.2	165	0.3	4	0.2	167	0.3	76	0.2	0	0.0	665	0.2	46	0.3	58	0.2	350	0.1		
Neurobiology and neuroscience	5,500	0.8	580	1.1	19	0.9	557	1.1	232	0.6	1	0.1	2,832	1.0	173	1.1	190	0.8	916	0.4		
Nutrition science	3,333	0.5	260	0.5	6	0.3	221	0.5	108	0.3	6	0.8	2,008	0.7	93	0.6	116	0.5	515	0.2		
Pathology and experimental pathology	930	0.1	118	0.2	3	0.1	71	0.1	35	0.1	2	0.3	396	0.1	23	0.1	60	0.2	222	0.1		
Pharmacology and toxicology	3,074	0.4	251	0.5	8	0.4	338	0.7	211	0.6	4	0.5	1,338	0.5	96	0.6	120	0.5	708	0.3		
Physiology	5,297	0.8	399	0.7	19	0.9	550	1.1	397	1.0	8	1.1	2,639	1.0	137	0.9	241	1.0	907	0.4		
Zoology and animal biology	2,089	0.3	141	0.3	6	0.3	55	0.1	59	0.2	1	0.1	1,325	0.5	59	0.4	90	0.4	353	0.2		
Biological and biomedical sciences nec	5,135	0.7	531	1.0	23	1.1	625	1.3	549	1.4	20	2.7	2,256	0.8	106	0.7	301	1.2	724	0.3		
Computer and information sciences	101,284	14.7	4,203	7.7	119	5.7	9,343	19.1	5,247	13.8	69	9.3	23,620	8.7	1,587	10.2	2,921	12.1	54,175	23.2		
Computer science	33,274	4.8	802	1.5	17	0.8	2,667	5.5	601	1.6	9	1.2	5,264	1.9	406	2.6	901	3.7	22,607	9.7		
Computer and information sciences, general	40,650	5.9	1,694	3.1	55	2.6	4,161	8.5	1,616	4.2	25	3.4	10,137	3.7	620	4.0	786	3.3	21,556	9.2		
Computer and information sciences nec	27,360	4.0	1,707	3.1	47	2.3	2,515	5.1	3,030	8.0	35	4.7	8,219	3.0	561	3.6	1,234	5.1	10,012	4.3		
Geosciences, atmospheric sciences, and ocean sciences	11,878	1.7	882	1.6	39	1.9	377	0.8	258	0.7	9	1.2	7,080	2.6	320	2.0	361	1.5	2,552	1.1		
Atmospheric sciences and meteorology	1,339	0.2	63	0.1	1	*	28	0.1	31	0.1	0	0.0	761	0.3	26	0.2	39	0.2	390	0.2		
Geological and earth sciences	7,849	1.1	593	1.1	34	1.6	250	0.5	181	0.5	7	0.9	4,611	1.7	203	1.3	213	0.9	1,757	0.8		
Ocean and marine sciences	2,690	0.4	226	0.4	4	0.2	99	0.2	46	0.1	2	0.3	1,708	0.6	91	0.6	109	0.5	405	0.2		
Mathematics and statistics	33,159	4.8	1,679	3.1	57	2.7	2,391	4.9	716	1.9	7	0.9	9,913	3.6	486	3.1	1,001	4.1	16,909	7.2		
Mathematics and applied mathematics	22,241	3.2	1,268	2.3	30	1.4	1,366	2.8	503	1.3	2	0.3	7,246	2.7	356	2.3	731	3.0	10,739	4.6		
Statistics	10,918	1.6	411	0.8	27	1.3	1,025	2.1	213	0.6	5	0.7	2,667	1.0	130	0.8	270	1.1	6,170	2.6		

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	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent				
Multidisciplinary and interdisciplinary studies	11,181	1.6	935	1.7	36	1.7	880	1.8	788	2.1	20	2.7	4,807	1.8	292	1.9	356	1.5	3,067	1.3		
Natural resources and conservation	11,743	1.7	989	1.8	122	5.9	358	0.7	364	1.0	23	3.1	7,388	2.7	355	2.3	441	1.8	1,703	0.7		
Environmental science and studies	5,621	0.8	592	1.1	53	2.6	204	0.4	192	0.5	16	2.2	3,314	1.2	157	1.0	233	1.0	860	0.4		
Forestry, natural resources, and conservation	6,122	0.9	397	0.7	69	3.3	154	0.3	172	0.5	7	0.9	4,074	1.5	198	1.3	208	0.9	843	0.4		
Physical sciences	42,867	6.2	2,792	5.1	89	4.3	2,400	4.9	1,063	2.8	21	2.8	17,826	6.5	875	5.6	1,021	4.2	16,780	7.2		
Astronomy and astrophysics	1,450	0.2	115	0.2	6	0.3	105	0.2	34	0.1	0	0.0	764	0.3	52	0.3	42	0.2	332	0.1		
Chemistry	22,900	3.3	1,627	3.0	49	2.4	1,425	2.9	660	1.7	12	1.6	9,591	3.5	469	3.0	499	2.1	8,568	3.7		
Materials sciences	1,552	0.2	77	0.1	3	0.1	104	0.2	50	0.1	1	0.1	467	0.2	16	0.1	45	0.2	789	0.3		
Physics	16,115	2.3	916	1.7	28	1.3	738	1.5	276	0.7	8	1.1	6,570	2.4	314	2.0	410	1.7	6,855	2.9		
Physical sciences nec	850	0.1	57	0.1	3	0.1	28	0.1	43	0.1	0	0.0	434	0.2	24	0.2	25	0.1	236	0.1		
Psychology	61,069	8.8	9,931	18.2	276	13.3	3,016	6.2	6,184	16.3	111	14.9	32,160	11.8	2,117	13.6	3,649	15.1	3,625	1.6		
Clinical psychology	7,372	1.1	1,359	2.5	25	1.2	459	0.9	475	1.2	18	2.4	3,850	1.4	327	2.1	481	2.0	378	0.2		
Counseling and applied psychology	35,859	5.2	6,346	11.7	166	8.0	1,542	3.2	4,314	11.3	70	9.4	18,264	6.7	1,141	7.3	2,640	10.9	1,376	0.6		
Psychology, general	13,106	1.9	1,728	3.2	67	3.2	680	1.4	1,119	2.9	19	2.6	7,640	2.8	490	3.1	416	1.7	947	0.4		
Research and experimental psychology	4,732	0.7	498	0.9	18	0.9	335	0.7	276	0.7	4	0.5	2,406	0.9	159	1.0	112	0.5	924	0.4		
Social sciences	78,999	11.4	7,696	14.1	479	23.1	3,631	7.4	6,231	16.4	119	16.0	34,787	12.8	2,054	13.2	3,257	13.5	20,745	8.9		
Agricultural economics	1,506	0.2	55	0.1	1	*	48	0.1	27	0.1	0	0.0	500	0.2	14	0.1	29	0.1	832	0.4		
Anthropology	6,598	1.0	684	1.3	84	4.0	247	0.5	207	0.5	9	1.2	3,809	1.4	232	1.5	338	1.4	988	0.4		
Criminal justice and safety studies	5,817	0.8	835	1.5	24	1.2	109	0.2	1,261	3.3	17	2.3	2,814	1.0	180	1.2	424	1.8	153	0.1		
Economics (except agricultural)	14,129	2.0	539	1.0	12	0.6	692	1.4	324	0.9	7	0.9	3,464	1.3	154	1.0	329	1.4	8,608	3.7		
Geography and cartography	4,401	0.6	333	0.6	31	1.5	155	0.3	171	0.4	5	0.7	2,445	0.9	118	0.8	147	0.6	996	0.4		
History and philosophy of science	289	*	13	*	0	0.0	11	*	34	0.1	0	0.0	150	0.1	6	*	8	*	67	*		
Human development	2,070	0.3	244	0.4	7	0.3	84	0.2	219	0.6	4	0.5	1,174	0.4	64	0.4	62	0.3	212	0.1		
International relations and national security studies	7,070	1.0	814	1.5	16	0.8	371	0.8	513	1.3	7	0.9	3,513	1.3	190	1.2	462	1.9	1,184	0.5		
Linguistics	2,769	0.4	237	0.4	36	1.7	151	0.3	65	0.2	1	0.1	1,233	0.5	78	0.5	95	0.4	873	0.4		
Political science and government	8,385	1.2	741	1.4	25	1.2	326	0.7	528	1.4	11	1.5	4,197	1.5	207	1.3	351	1.5	1,999	0.9		
Public policy analysis	8,711	1.3	764	1.4	31	1.5	612	1.3	802	2.1	16	2.2	3,953	1.5	247	1.6	397	1.6	1,889	0.8		
Sociology	7,333	1.1	1,011	1.9	27	1.3	350	0.7	852	2.2	8	1.1	3,440	1.3	231	1.5	201	0.8	1,213	0.5		
Social sciences nec	9,921	1.4	1,426	2.6	185	8.9	475	1.0	1,228	3.2	34	4.6	4,095	1.5	333	2.1	414	1.7	1,731	0.7		
Engineering	164,004	23.8	8,643	15.9	242	11.7	11,390	23.3	4,220	11.1	95	12.8	48,892	17.9	2,773	17.8	3,727	15.4	84,022	36.0		
Aerospace, aeronautical, and astronautical engineering	6,255	0.9	420	0.8	13	0.6	478	1.0	114	0.3	10	1.3	3,081	1.1	195	1.2	137	0.6	1,807	0.8		
Agricultural engineering	1,156	0.2	38	0.1	2	0.1	54	0.1	26	0.1	1	0.1	399	0.1	24	0.2	13	0.1	599	0.3		
Bioengineering and biomedical engineering	12,050	1.7	862	1.6	20	1.0	1,586	3.2	392	1.0	14	1.9	4,582	1.7	341	2.2	361	1.5	3,892	1.7		
Biological and biosystems engineering	308	*	14	*	2	0.1	13	*	2	*	1	0.1	115	*	4	*	8	*	149	0.1		
Chemical engineering	9,689	1.4	400	0.7	10	0.5	789	1.6	205	0.5	2	0.3	2,992	1.1	171	1.1	159	0.7	4,961	2.1		

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Civil engineering	19,625	2.8	1,284	2.4	44	2.1	1,053	2.2	481	1.3	9	1.2	6,002	2.2	316	2.0	438	1.8	9,998	4.3
Electrical, electronics, and communications engineering	46,754	6.8	1,799	3.3	40	1.9	3,236	6.6	893	2.3	12	1.6	9,190	3.4	521	3.3	958	4.0	30,105	12.9
Engineering mechanics, physics, and science	2,299	0.3	87	0.2	6	0.3	153	0.3	47	0.1	3	0.4	805	0.3	44	0.3	60	0.2	1,094	0.5
Industrial and manufacturing engineering	15,674	2.3	995	1.8	23	1.1	877	1.8	625	1.6	13	1.7	4,425	1.6	208	1.3	465	1.9	8,043	3.4
Mechanical engineering	26,108	3.8	1,510	2.8	40	1.9	1,624	3.3	472	1.2	12	1.6	8,533	3.1	492	3.2	583	2.4	12,842	5.5
Metallurgical and materials engineering	6,590	1.0	359	0.7	7	0.3	469	1.0	114	0.3	2	0.3	2,111	0.8	135	0.9	120	0.5	3,273	1.4
Mining engineering	493	0.1	22	*	3	0.1	6	*	13	*	1	0.1	238	0.1	10	0.1	11	*	189	0.1
Nanotechnology	195	*	14	*	0	0.0	18	*	8	*	0	0.0	67	*	7	*	6	*	75	*
Nuclear engineering	1,449	0.2	103	0.2	2	0.1	55	0.1	25	0.1	0	0.0	757	0.3	31	0.2	35	0.1	441	0.2
Petroleum engineering	1,249	0.2	39	0.1	2	0.1	48	0.1	27	0.1	0	0.0	187	0.1	14	0.1	29	0.1	903	0.4
Engineering nec	14,110	2.0	697	1.3	28	1.3	931	1.9	776	2.0	15	2.0	5,408	2.0	260	1.7	344	1.4	5,651	2.4
Health	72,422	10.5	7,631	14.0	309	14.9	5,972	12.2	7,378	19.4	107	14.4	37,248	13.7	1,938	12.4	3,571	14.8	8,268	3.5
Clinical medicine ^a	30,822	4.5	3,433	6.3	177	8.5	3,119	6.4	4,393	11.5	56	7.5	13,614	5.0	971	6.2	1,793	7.4	3,266	1.4
Public health	29,594	4.3	3,343	6.1	173	8.3	2,941	6.0	4,325	11.4	55	7.4	13,042	4.8	939	6.0	1,728	7.2	3,048	1.3
Clinical medicine nec	1,228	0.2	90	0.2	4	0.2	178	0.4	68	0.2	1	0.1	572	0.2	32	0.2	65	0.3	218	0.1
Other health	41,600	6.0	4,198	7.7	132	6.4	2,853	5.8	2,985	7.8	51	6.9	23,634	8.7	967	6.2	1,778	7.4	5,002	2.1
Communication disorders sciences	17,257	2.5	2,136	3.9	60	2.9	825	1.7	753	2.0	19	2.6	11,954	4.4	422	2.7	738	3.1	350	0.1
Dental sciences	1,523	0.2	81	0.1	2	0.1	198	0.4	43	0.1	2	0.3	579	0.2	25	0.2	85	0.4	508	0.2
Nursing science	5,300	0.8	385	0.7	22	1.1	320	0.7	701	1.8	7	0.9	3,099	1.1	89	0.6	277	1.1	400	0.2
Pharmaceutical sciences	4,308	0.6	229	0.4	6	0.3	495	1.0	172	0.5	2	0.3	1,172	0.4	81	0.5	89	0.4	2,062	0.9
Veterinary biomedical and clinical sciences	1,573	0.2	91	0.2	4	0.2	66	0.1	46	0.1	1	0.1	846	0.3	43	0.3	120	0.5	356	0.2
Other health nec	11,639	1.7	1,276	2.3	38	1.8	949	1.9	1,270	3.3	20	2.7	5,984	2.2	307	2.0	469	1.9	1,326	0.6

* = value < 0.05%.

nec = not elsewhere classified.

^a Clinical medicine includes graduate students in public health and clinical medicine nec.

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.

Source(s):
National Center for Science and Engineering Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering, 2019.