

TABLE 2-2b

Citizenship, ethnicity, and race of graduate students, postdoctoral appointees, and doctorate-holding nonfaculty researchers in engineering, by sex: 2021

(Number and percent)

Citizenship, ethnicity, race, and field	Graduate students						Postdoctoral appointees		Doctorate-holding nonfaculty researchers	
	All graduate students		Master's		Doctoral					
	Total number	Percent female	Total number	Percent female	Total number	Percent female	Total number	Percent female	Total number	Percent female
All surveyed fields	760,156	49.1	466,613	51.4	293,543	45.4	63,328	42.3	30,548	42.3
U.S. citizens and permanent residents ^a	515,597	54.2	337,655	56.0	177,942	50.6	29,755	48.0	na	na
Hispanic or Latino	69,174	57.4	48,681	59.5	20,493	52.4	2,142	51.7	na	na
Not Hispanic or Latino										
American Indian or Alaska Native	2,105	59.2	1,356	60.0	749	57.8	80	55.0	na	na
Asian	60,203	49.7	40,607	49.9	19,596	49.1	6,014	43.9	na	na
Black or African American	45,302	63.3	33,129	64.1	12,173	61.1	1,138	62.0	na	na
Native Hawaiian or Other Pacific Islander	792	55.3	597	54.3	195	58.5	40	57.5	na	na
White	294,198	52.9	184,608	55.0	109,590	49.3	16,369	48.0	na	na
More than one race	19,471	56.1	12,301	57.3	7,170	54.0	687	52.0	na	na
Unknown ethnicity and race	24,352	52.6	16,376	54.9	7,976	47.8	3,285	47.0	na	na
Temporary visa holders	244,559	38.3	128,958	39.2	115,601	37.2	33,573	37.3	na	na
Engineering	168,050	27.7	95,126	27.0	72,924	28.7	8,340	26.3	3,992	24.1
U.S. citizens and permanent residents ^a	88,665	28.3	57,033	26.4	31,632	31.6	2,907	30.8	na	na
Hispanic or Latino	10,821	28.4	7,612	26.6	3,209	32.5	173	34.7	na	na
Not Hispanic or Latino										
American Indian or Alaska Native	286	38.5	205	41.0	81	32.1	11	63.6	na	na
Asian	13,412	32.1	8,685	31.2	4,727	33.9	790	24.8	na	na
Black or African American	4,847	32.9	3,141	30.1	1,706	37.9	73	49.3	na	na
Native Hawaiian or Other Pacific Islander	98	28.6	70	21.4	28	46.4	5	40.0	na	na
White	52,168	26.5	32,987	24.5	19,181	29.9	1,504	32.2	na	na
More than one race	3,478	32.1	2,155	29.3	1,323	36.7	66	37.9	na	na
Unknown ethnicity and race	3,555	28.7	2,178	26.6	1,377	32.1	285	29.5	na	na
Temporary visa holders	79,385	27.1	38,093	27.8	41,292	26.4	5,433	24.0	na	na
Aerospace, aeronautical, and astronautical engineering	7,838	18.7	5,065	17.9	2,773	20.1	277	17.3	144	17.4
U.S. citizens and permanent residents ^a	6,074	18.7	4,402	17.7	1,672	21.4	84	20.2	na	na
Hispanic or Latino	688	17.3	545	17.1	143	18.2	5	40.0	na	na
Not Hispanic or Latino										
American Indian or Alaska Native	17	23.5	12	25.0	5	20.0	0	-	na	na
Asian	767	19.3	559	19.0	208	20.2	21	19.0	na	na
Black or African American	170	22.4	114	21.1	56	25.0	3	33.3	na	na
Native Hawaiian or Other Pacific Islander	11	27.3	8	25.0	3	33.3	1	100.0	na	na
White	3,961	18.5	2,840	17.3	1,121	21.6	46	17.4	na	na
More than one race	276	21.7	189	21.2	87	23.0	2	0.0	na	na

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(Number and percent)

Citizenship, ethnicity, race, and field	Graduate students						Postdoctoral appointees		Doctorate-holding nonfaculty researchers	
	All graduate students		Master's		Doctoral					
	Total number	Percent female	Total number	Percent female	Total number	Percent female	Total number	Percent female	Total number	Percent female
Unknown ethnicity and race	184	17.4	135	15.6	49	22.4	6	16.7	na	na
Temporary visa holders	1,764	18.5	663	19.0	1,101	18.3	193	16.1	na	na
Biological, biomedical, and biosystems engineering	14,059	46.5	5,192	48.7	8,867	45.2	1,616	37.1	589	36.3
U.S. citizens and permanent residents ^a	9,555	47.0	3,682	48.2	5,873	46.2	690	39.7	na	na
Hispanic or Latino	1,053	48.5	408	50.0	645	47.6	50	44.0	na	na
Not Hispanic or Latino										
American Indian or Alaska Native	15	53.3	4	50.0	11	54.5	2	50.0	na	na
Asian	1,878	47.0	795	50.2	1,083	44.7	187	36.4	na	na
Black or African American	544	52.0	230	50.0	314	53.5	24	50.0	na	na
Native Hawaiian or Other Pacific Islander	14	35.7	6	33.3	8	37.5	1	0.0	na	na
White	5,239	45.9	1,953	47.0	3,286	45.2	353	41.9	na	na
More than one race	433	49.7	168	42.9	265	54.0	13	61.5	na	na
Unknown ethnicity and race	379	47.2	118	52.5	261	44.8	60	25.0	na	na
Temporary visa holders	4,504	45.6	1,510	50.1	2,994	43.4	926	35.2	na	na
Chemical, petroleum, and chemical-related engineering	10,696	33.4	2,983	33.3	7,713	33.4	1,167	25.8	307	30.9
U.S. citizens and permanent residents ^a	5,434	33.8	1,779	33.3	3,655	34.0	407	29.7	na	na
Hispanic or Latino	568	35.2	244	32.0	324	37.7	21	42.9	na	na
Not Hispanic or Latino										
American Indian or Alaska Native	21	33.3	10	30.0	11	36.4	1	100.0	na	na
Asian	879	37.2	283	38.5	596	36.6	120	24.2	na	na
Black or African American	247	37.7	109	33.0	138	41.3	10	60.0	na	na
Native Hawaiian or Other Pacific Islander	3	33.3	0	-	3	33.3	0	-	na	na
White	3,310	32.1	988	31.5	2,322	32.3	214	30.8	na	na
More than one race	216	33.8	75	36.0	141	32.6	10	30.0	na	na
Unknown ethnicity and race	190	37.9	70	40.0	120	36.7	31	22.6	na	na
Temporary visa holders	5,262	33.0	1,204	33.4	4,058	32.9	760	23.7	na	na
Civil, environmental, transportation and related engineering fields	19,608	34.9	11,730	34.8	7,878	35.1	968	30.5	479	25.7
U.S. citizens and permanent residents ^a	10,280	38.8	7,705	36.8	2,575	44.6	343	35.0	na	na
Hispanic or Latino	1,500	39.4	1,196	36.9	304	49.3	23	30.4	na	na
Not Hispanic or Latino										
American Indian or Alaska Native	55	36.4	41	43.9	14	14.3	3	66.7	na	na

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(Number and percent)

Citizenship, ethnicity, race, and field	Graduate students						Postdoctoral appointees		Doctorate-holding nonfaculty researchers	
	All graduate students		Master's		Doctoral					
	Total number	Percent female	Total number	Percent female	Total number	Percent female	Total number	Percent female	Total number	Percent female
Asian	1,176	40.2	923	39.2	253	43.9	64	21.9	na	na
Black or African American	577	38.3	409	36.4	168	42.9	8	50.0	na	na
Native Hawaiian or Other Pacific Islander	17	35.3	12	33.3	5	40.0	2	0.0	na	na
White	6,213	38.3	4,604	36.3	1,609	44.2	194	38.7	na	na
More than one race	367	42.8	267	39.7	100	51.0	9	44.4	na	na
Unknown ethnicity and race	375	36.3	253	34.4	122	40.2	40	35.0	na	na
Temporary visa holders	9,328	30.7	4,025	30.8	5,303	30.5	625	28.0	na	na
Electrical, electronics, communications and computer engineering	45,265	22.8	27,695	24.0	17,570	20.7	1,275	18.7	755	14.2
U.S. citizens and permanent residents ^a	17,581	18.4	12,263	18.2	5,318	19.1	392	23.7	na	na
Hispanic or Latino	2,192	16.8	1,707	16.9	485	16.7	20	15.0	na	na
Not Hispanic or Latino										
American Indian or Alaska Native	52	42.3	45	46.7	7	14.3	2	50.0	na	na
Asian	3,619	26.1	2,643	27.2	976	23.4	121	14.9	na	na
Black or African American	990	20.9	691	19.1	299	25.1	10	50.0	na	na
Native Hawaiian or Other Pacific Islander	12	33.3	10	30.0	2	50.0	0	-	na	na
White	9,273	14.8	6,209	14.1	3,064	16.3	180	23.3	na	na
More than one race	652	23.2	464	20.5	188	29.8	10	30.0	na	na
Unknown ethnicity and race	791	21.4	494	19.2	297	24.9	49	42.9	na	na
Temporary visa holders	27,684	25.5	15,432	28.7	12,252	21.5	883	16.4	na	na
Industrial, manufacturing, systems engineering and operations research	15,870	29.9	11,949	29.1	3,921	32.2	127	26.8	107	24.3
U.S. citizens and permanent residents ^a	8,647	29.5	7,148	29.3	1,499	30.7	35	42.9	na	na
Hispanic or Latino	1,182	33.2	1,069	33.1	113	34.5	5	60.0	na	na
Not Hispanic or Latino										
American Indian or Alaska Native	27	40.7	21	42.9	6	33.3	0	-	na	na
Asian	1,112	33.5	919	33.6	193	32.6	5	20.0	na	na
Black or African American	642	33.6	506	32.4	136	38.2	1	100.0	na	na
Native Hawaiian or Other Pacific Islander	12	8.3	11	9.1	1	0.0	0	-	na	na
White	4,961	27.0	4,061	26.8	900	28.1	17	41.2	na	na
More than one race	285	35.1	229	32.8	56	44.6	1	0.0	na	na
Unknown ethnicity and race	426	27.9	332	28.0	94	27.7	6	50.0	na	na
Temporary visa holders	7,223	30.3	4,801	28.8	2,422	33.1	92	20.7	na	na

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	All graduate students		Master's		Doctoral					
	Total number	Percent female	Total number	Percent female	Total number	Percent female	Total number	Percent female	Total number	Percent female
Mechanical engineering	27,258	18.6	15,718	17.2	11,540	20.4	1,200	19.5	529	19.7
U.S. citizens and permanent residents ^a	15,106	20.6	10,255	19.1	4,851	23.6	382	22.3	na	na
Hispanic or Latino	2,055	20.2	1,490	19.2	565	22.8	22	22.7	na	na
Not Hispanic or Latino										
American Indian or Alaska Native	39	30.8	28	39.3	11	9.1	0	-	na	na
Asian	2,018	22.9	1,412	20.5	606	28.4	119	17.6	na	na
Black or African American	603	24.2	373	21.2	230	29.1	5	40.0	na	na
Native Hawaiian or Other Pacific Islander	11	18.2	9	11.1	2	50.0	0	-	na	na
White	9,167	19.4	6,158	18.1	3,009	22.1	193	22.3	na	na
More than one race	612	25.8	405	24.4	207	28.5	14	42.9	na	na
Unknown ethnicity and race	601	22.1	380	21.6	221	23.1	29	27.6	na	na
Temporary visa holders	12,152	16.1	5,463	13.6	6,689	18.1	818	18.2	na	na
Metallurgical, mining, materials and related engineering fields	7,422	31.7	2,518	32.8	4,904	31.2	562	23.0	259	23.6
U.S. citizens and permanent residents ^a	4,123	33.4	1,641	34.2	2,482	32.9	159	25.2	na	na
Hispanic or Latino	464	30.8	163	30.1	301	31.2	6	16.7	na	na
Not Hispanic or Latino										
American Indian or Alaska Native	16	37.5	8	37.5	8	37.5	2	100.0	na	na
Asian	549	39.7	198	40.9	351	39.0	51	25.5	na	na
Black or African American	172	41.9	75	49.3	97	36.1	3	33.3	na	na
Native Hawaiian or Other Pacific Islander	3	66.7	2	50.0	1	100.0	0	-	na	na
White	2,602	31.5	1,063	31.8	1,539	31.3	85	25.9	na	na
More than one race	199	37.2	83	38.6	116	36.2	2	0.0	na	na
Unknown ethnicity and race	118	38.1	49	42.9	69	34.8	10	10.0	na	na
Temporary visa holders	3,299	29.6	877	30.1	2,422	29.4	403	22.1	na	na
Other engineering	20,034	28.4	12,276	28.4	7,758	28.3	1,148	27.6	823	25.2
U.S. citizens and permanent residents ^a	11,865	28.3	8,158	27.7	3,707	29.8	415	31.1	na	na
Hispanic or Latino	1,119	29.3	790	29.4	329	29.2	21	38.1	na	na
Not Hispanic or Latino										
American Indian or Alaska Native	44	45.5	36	38.9	8	75.0	1	0.0	na	na
Asian	1,414	34.0	953	34.9	461	32.1	102	27.5	na	na
Black or African American	902	35.1	634	33.3	268	39.6	9	44.4	na	na
Native Hawaiian or Other Pacific Islander	15	26.7	12	8.3	3	100.0	1	100.0	na	na

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	All graduate students		Master's		Doctoral					
	Total number	Percent female	Total number	Percent female	Total number	Percent female	Total number	Percent female	Total number	Percent female
White	7,442	26.1	5,111	25.2	2,331	28.1	222	32.9	na	na
More than one race	438	29.7	275	31.3	163	27.0	5	20.0	na	na
Unknown ethnicity and race	491	27.7	347	25.9	144	31.9	54	25.9	na	na
Temporary visa holders	8,169	28.4	4,118	29.9	4,051	26.9	733	25.6	na	na

- = not calculable. na = not applicable; citizenship and race and ethnicity data are not collected for doctorate-holding nonfaculty researchers.

^a Ethnicity and race data are available only for U.S. citizens and permanent residents.

Note(s):

"Field" refers to the field of the unit that reports postdoctorates and doctorate-holding nonfaculty researchers to the Survey of Graduate Students and Postdoctorates in Science and Engineering (GSS). Percentages may not add to total because of rounding. For more information on the mapping of GSS 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.