

TABLE 5-2

Graduate students, postdoctoral appointees, and doctorate-holding nonfaculty researchers in science, engineering, and health broad fields at HBCUs: 2023

(Number and percent)

Sex, citizenship, ethnicity, race, and broad field	Graduate students						Postdoctoral appointees		Doctorate-holding nonfaculty researchers	
	All graduate students		Master's		Doctoral		Total number	Percent in HBCUs	Total number	Percent in HBCUs
	Total number	Percent in HBCUs	Total number	Percent in HBCUs	Total number	Percent in HBCUs				
All individuals	818,095	0.9	510,866	1.1	307,229	0.7	65,850	0.5	34,342	0.5
Male	422,321	0.8	258,675	0.8	163,646	0.6	37,458	0.4	19,495	0.5
Female	395,774	1.1	252,191	1.3	143,583	0.8	28,392	0.5	14,847	0.5
U.S. citizens and permanent residents ^a	495,808	1.2	313,609	1.4	182,199	0.9	27,701	0.8	na	na
Hispanic or Latino	70,428	0.3	48,099	0.3	22,329	0.3	2,352	0.6	na	na
Not Hispanic or Latino										
American Indian or Alaska Native	1,984	1.1	1,211	1.3	773	0.6	111	0.9	na	na
Asian	62,549	0.7	40,930	0.8	21,619	0.5	5,631	1.0	na	na
Black or African American	46,276	9.2	31,764	9.8	14,512	7.9	1,230	7.7	na	na
Native Hawaiian or Other Pacific Islander	754	0.7	544	0.9	210	*	57	1.8	na	na
White	269,477	0.2	163,247	0.3	106,230	0.1	14,585	0.2	na	na
More than one race	20,004	0.7	12,120	0.8	7,884	0.7	694	0.3	na	na
Unknown ethnicity and race	24,336	1.7	15,694	2.3	8,642	0.7	3,041	0.5	na	na
Temporary visa holders	322,287	0.5	197,257	0.4	125,030	0.6	38,149	0.2	na	na
Science	561,489	1.0	348,520	1.2	212,969	0.7	37,982	0.5	20,600	0.6
Agricultural and veterinary sciences	11,755	3.2	6,901	4.0	4,854	2.0	1,993	1.8	1,238	2.1
Biological and biomedical sciences	105,566	1.0	44,703	1.5	60,863	0.6	19,520	0.5	8,589	0.2
Computer and information sciences	166,014	0.8	143,530	0.8	22,484	0.6	987	0.2	631	0.5
Geosciences, atmospheric, and ocean sciences	11,594	0.7	4,793	1.1	6,801	0.4	1,919	0.4	2,455	2.1
Mathematics and statistics	33,893	0.4	20,105	0.3	13,788	0.5	1,220	0.2	307	0.3
Multidisciplinary and interdisciplinary sciences	26,429	0.2	21,928	0.2	4,501	*	988	0.2	818	0.1
Natural resources and conservation	13,490	1.5	9,486	1.4	4,004	1.8	937	0.6	663	1.1
Physical sciences	44,329	1.0	6,000	3.1	38,329	0.7	7,220	0.4	3,095	0.2
Psychology	73,828	1.5	49,474	1.8	24,354	0.9	1,344	*	950	0.4
Social sciences	74,591	1.0	41,600	1.3	32,991	0.8	1,854	0.2	1,854	0.4
Engineering	175,559	0.7	100,567	0.6	74,992	0.7	9,051	0.4	4,575	0.4
Aerospace, aeronautical, and astronautical engineering	8,264	*	5,380	*	2,884	*	254	*	166	*
Biological, biomedical, and biosystems engineering	15,203	0.1	5,204	0.3	9,999	0.1	1,594	*	674	*
Chemical, petroleum, and chemical-related engineering	10,546	0.2	2,658	0.6	7,888	0.1	1,501	0.3	349	*
Civil, environmental, transportation and related engineering fields	19,934	0.2	12,082	0.2	7,852	0.2	1,070	0.3	654	0.3
Electrical, electronics, communications and computer engineering	48,799	0.9	31,093	0.8	17,706	0.9	1,339	0.5	799	0.1
Industrial, manufacturing, systems engineering and operations research	15,762	0.5	11,873	0.2	3,889	1.4	170	1.2	221	*
Mechanical engineering	27,014	0.3	15,335	0.4	11,679	0.3	1,317	0.2	560	0.5
Metallurgical, mining, materials and related engineering fields	7,244	0.2	2,462	0.3	4,782	0.1	557	0.5	249	*

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(Number and percent)

Sex, citizenship, ethnicity, race, and broad field	Graduate students						Postdoctoral appointees		Doctorate-holding nonfaculty researchers	
	All graduate students		Master's		Doctoral		Total number	Percent in HBCUs	Total number	Percent in HBCUs
	Total number	Percent in HBCUs	Total number	Percent in HBCUs	Total number	Percent in HBCUs				
Other engineering	22,793	2.0	14,480	1.6	8,313	2.7	1,249	1.0	903	1.2
Health	81,047	1.2	61,779	1.2	19,268	1.3	18,817	0.4	9,167	0.4
Clinical medicine ^b	34,658	1.2	28,484	1.0	6,174	2.3	16,393	*	7,798	0.2
Other health	46,389	1.2	33,295	1.3	13,094	0.8	2,424	3.1	1,369	1.2
Black or African American individuals										
Male	16,945	8.6	11,554	8.7	5,391	8.3	520	7.1	na	na
Female	29,331	9.5	20,210	10.4	9,121	7.6	710	8.2	na	na
Science	32,482	9.8	22,048	10.7	10,434	7.7	646	5.0	na	na
Agricultural and veterinary sciences	422	40.5	323	46.7	99	20.2	60	15.0	na	na
Biological and biomedical sciences	6,510	9.2	3,905	11.2	2,605	6.3	301	5.0	na	na
Computer and information sciences	6,351	7.4	5,529	7.4	822	7.5	18	11.1	na	na
Geosciences, atmospheric, and ocean sciences	311	11.6	143	17.5	168	6.5	30	*	na	na
Mathematics and statistics	768	9.0	548	8.8	220	9.5	13	*	na	na
Multidisciplinary and interdisciplinary sciences	1,458	2.6	1,206	3.2	252	*	21	9.5	na	na
Natural resources and conservation	464	23.5	306	16.3	158	37.3	11	*	na	na
Physical sciences	1,133	18.2	315	30.2	818	13.6	54	5.6	na	na
Psychology	8,765	9.9	5,722	12.5	3,043	4.9	47	*	na	na
Social sciences	6,300	9.7	4,051	9.9	2,249	9.3	91	1.1	na	na
Engineering	4,730	9.8	2,894	10.3	1,836	9.0	102	9.8	na	na
Aerospace, aeronautical, and astronautical engineering	181	*	117	*	64	*	1	*	na	na
Biological, biomedical, and biosystems engineering	587	2.9	225	5.8	362	1.1	23	*	na	na
Chemical, petroleum, and chemical-related engineering	222	3.6	65	6.2	157	2.5	15	13.3	na	na
Civil, environmental, transportation and related engineering fields	500	2.4	338	1.5	162	4.3	9	*	na	na
Electrical, electronics, communications and computer engineering	1,067	13.5	756	13.4	311	13.8	10	20.0	na	na
Industrial, manufacturing, systems engineering and operations research	542	7.7	391	4.1	151	17.2	2	*	na	na
Mechanical engineering	586	7.7	365	7.9	221	7.2	14	14.3	na	na
Metallurgical, mining, materials and related engineering fields	181	3.3	74	2.7	107	3.7	4	25.0	na	na
Other engineering	864	22.0	563	22.7	301	20.6	24	12.5	na	na
Health	9,064	6.8	6,822	6.5	2,242	7.6	482	11.0	na	na
Clinical medicine ^b	5,120	6.7	4,190	5.6	930	11.5	372	0.8	na	na
Other health	3,944	6.9	2,632	7.9	1,312	4.9	110	45.5	na	na

* = value < 0.05%; na = not applicable.

HBCU = historically Black college or university.

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

^b Clinical medicine includes graduate students in public health and in medical clinical sciences and clinical and medical laboratory sciences. Clinical medicine includes postdoctoral appointees and nonfaculty researchers in medical clinical sciences, clinical and medical laboratory sciences, anesthesiology, cardiology, endocrinology, gastroenterology, hematology, neurology, obstetrics and gynecology, oncology and cancer research, ophthalmology, otorhinolaryngology, pediatrics, psychiatry, public health, pulmonary disease, radiological sciences, surgery, and clinical medicine not elsewhere classified.

Note(s):

For postdoctoral appointees and doctorate-holding nonfaculty researchers, "field" refers to the field of the unit that reports information on these groups 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. 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.