

TABLE 5-2

**Graduate students, postdoctoral appointees, and doctorate-holding nonfaculty researchers in science, engineering, and health broad fields at HBCUs: 2022**

(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	798,534	0.8	501,311	0.9	297,223	0.7	62,750	0.3	32,279	0.5
Male	412,109	0.7	251,531	0.7	160,578	0.6	36,038	0.3	18,533	0.5
Female	386,425	1.0	249,780	1.1	136,645	0.8	26,712	0.3	13,746	0.5
U.S. citizens and permanent residents <sup>a</sup>	500,299	1.1	322,005	1.2	178,294	0.8	27,289	0.4	na	na
Hispanic or Latino	69,621	0.3	48,303	0.3	21,318	0.2	2,192	*	na	na
Not Hispanic or Latino										
American Indian or Alaska Native	2,082	1.2	1,331	1.6	751	0.7	92	0.0	na	na
Asian	61,426	0.6	40,873	0.7	20,553	0.5	5,286	0.5	na	na
Black or African American	44,016	8.6	31,398	8.7	12,618	8.4	1,141	4.4	na	na
Native Hawaiian or Other Pacific Islander	738	0.1	541	0.2	197	0.0	34	2.9	na	na
White	279,657	0.2	172,212	0.3	107,445	0.1	15,221	0.1	na	na
More than one race	19,331	0.7	12,002	0.7	7,329	0.8	638	0.3	na	na
Unknown ethnicity and race	23,428	1.0	15,345	1.1	8,083	0.8	2,685	0.4	na	na
Temporary visa holders	298,235	0.4	179,306	0.3	118,929	0.6	35,461	0.2	na	na
Science	538,166	0.9	331,983	1.0	206,183	0.7	36,673	0.3	19,423	0.6
Agricultural and veterinary sciences	11,596	3.3	6,949	4.7	4,647	1.3	1,705	1.3	1,068	1.4
Biological and biomedical sciences	102,700	1.0	43,062	1.5	59,638	0.6	19,585	0.3	8,207	0.4
Computer and information sciences	150,555	0.6	129,972	0.6	20,583	0.7	859	0.2	507	0.2
Geosciences, atmospheric sciences, and ocean sciences	11,970	0.6	5,186	1.0	6,784	0.3	1,787	0.3	2,448	1.8
Mathematics and statistics	34,387	0.4	20,798	0.3	13,589	0.5	1,110	0.1	251	0.4
Multidisciplinary and interdisciplinary sciences	20,945	0.1	16,931	0.1	4,014	0.0	840	0.1	931	0.1
Natural resources and conservation	13,762	1.3	9,807	1.1	3,955	2.1	936	0.5	605	0.8
Physical sciences	44,092	0.9	6,256	2.2	37,836	0.6	6,877	0.3	2,894	0.3
Psychology	69,442	1.1	48,321	1.2	21,121	1.0	1,308	0.0	786	0.4
Social sciences	78,717	0.9	44,701	1.1	34,016	0.6	1,666	0.1	1,726	0.4
Engineering	176,000	0.6	103,020	0.5	72,980	0.7	8,335	0.2	4,355	0.4
Aerospace, aeronautical, and astronautical engineering	8,095	0.0	5,263	0.0	2,832	0.0	244	0.0	153	0.0
Biological, biomedical, and biosystems engineering	14,442	0.1	5,177	0.3	9,265	*	1,540	0.0	685	0.0
Chemical, petroleum, and chemical-related engineering	10,601	0.3	3,011	0.6	7,590	0.1	1,239	0.1	313	0.0
Civil, environmental, transportation and related engineering fields	20,375	0.2	12,621	0.2	7,754	0.2	1,018	0.3	569	0.4
Electrical, electronics, communications and computer engineering	49,901	0.5	32,316	0.4	17,585	0.9	1,217	0.4	734	0.0

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	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
Industrial, manufacturing, systems engineering and operations research	16,435	0.4	12,579	0.2	3,856	1.2	143	0.0	197	0.0
Mechanical engineering	27,552	0.3	16,029	0.3	11,523	0.3	1,189	0.3	527	0.0
Metallurgical, mining, materials and related engineering fields	7,118	0.2	2,545	0.2	4,573	0.2	542	0.0	280	0.0
Other engineering	21,481	2.2	13,479	1.9	8,002	2.7	1,203	0.3	897	1.8
Health	84,368	1.2	66,308	1.2	18,060	1.2	17,742	0.3	8,501	0.4
Clinical medicine <sup>b</sup>	39,217	1.1	33,251	1.0	5,966	1.5	15,630	*	7,351	0.1
Other health	45,151	1.3	33,057	1.5	12,094	1.0	2,112	2.0	1,150	1.7
Black or African American individuals										
Male	16,111	8.1	11,295	8.0	4,816	8.6	467	4.3	na	na
Female	27,905	8.9	20,103	9.2	7,802	8.2	674	4.5	na	na
Science	29,714	9.2	20,810	9.4	8,904	8.7	572	3.0	na	na
Agricultural and veterinary sciences	457	44.9	364	50.5	93	22.6	33	3.0	na	na
Biological and biomedical sciences	6,413	9.4	3,807	11.2	2,606	6.9	271	4.1	na	na
Computer and information sciences	5,590	7.4	4,989	7.1	601	10.5	12	8.3	na	na
Geosciences, atmospheric sciences, and ocean sciences	313	10.5	161	15.5	152	5.3	20	0.0	na	na
Mathematics and statistics	737	8.0	514	8.2	223	7.6	21	0.0	na	na
Multidisciplinary and interdisciplinary sciences	1,218	0.5	1,009	0.6	209	0.0	19	0.0	na	na
Natural resources and conservation	478	22.8	306	13.7	172	39.0	11	9.1	na	na
Physical sciences	1,143	17.4	314	27.1	829	13.8	55	3.6	na	na
Psychology	6,991	8.6	5,173	8.8	1,818	8.0	47	0.0	na	na
Social sciences	6,374	7.9	4,173	8.4	2,201	7.1	83	1.2	na	na
Engineering	4,752	9.0	2,983	9.1	1,769	8.9	85	3.5	na	na
Aerospace, aeronautical, and astronautical engineering	176	0.0	114	0.0	62	0.0	1	0.0	na	na
Biological, biomedical, and biosystems engineering	562	2.7	217	5.5	345	0.9	24	0.0	na	na
Chemical, petroleum, and chemical-related engineering	238	6.3	94	10.6	144	3.5	7	0.0	na	na
Civil, environmental, transportation and related engineering fields	562	2.5	398	1.5	164	4.9	8	12.5	na	na
Electrical, electronics, communications and computer engineering	1,018	9.2	703	6.4	315	15.6	15	0.0	na	na

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Industrial, manufacturing, systems engineering and operations research	560	7.5	415	4.3	145	16.6	1	0.0	na	na
Mechanical engineering	587	6.3	362	6.1	225	6.7	8	12.5	na	na
Metallurgical, mining, materials and related engineering fields	163	1.8	65	1.5	98	2.0	2	0.0	na	na
Other engineering	886	23.6	615	25.7	271	18.8	19	5.3	na	na
Health	9,550	6.6	7,605	6.7	1,945	6.5	484	6.2	na	na
Clinical medicine <sup>b</sup>	5,843	5.5	5,050	5.2	793	7.1	396	0.3	na	na
Other health	3,707	8.4	2,555	9.4	1,152	6.2	88	33.0	na	na

\* = value &lt; 0.05%; na = not applicable.

HBCU = historically Black college or university.

<sup>a</sup> Ethnicity and race data are available only for U.S. citizens and permanent residents.<sup>b</sup> 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, 2022.