

TABLE 5-2

Graduate students, postdoctoral appointees, and doctorate-holding nonfaculty researchers in science, engineering, and health broad fields at HBCUs: 2021

(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	760,156	0.9	466,613	1.0	293,543	0.7	63,328	0.3	30,548	0.5
Male	387,277	0.7	226,856	0.7	160,421	0.6	36,520	0.3	17,630	0.5
Female	372,879	1.1	239,757	1.2	133,122	0.9	26,808	0.3	12,918	0.5
U.S. citizens and permanent residents ^a	515,597	1.1	337,655	1.2	177,942	0.8	29,755	0.4	na	na
Hispanic or Latino	69,174	0.3	48,681	0.3	20,493	0.3	2,142	0.4	na	na
Not Hispanic or Latino										
American Indian or Alaska Native	2,105	1.2	1,356	1.4	749	0.8	80	2.5	na	na
Asian	60,203	0.5	40,607	0.5	19,596	0.5	6,014	0.5	na	na
Black or African American	45,302	8.8	33,129	8.8	12,173	8.9	1,138	4.7	na	na
Native Hawaiian or Other Pacific Islander	792	0.1	597	0.2	195	0.0	40	5.0	na	na
White	294,198	0.2	184,608	0.3	109,590	0.1	16,369	0.1	na	na
More than one race	19,471	0.7	12,301	0.7	7,170	0.8	687	0.0	na	na
Unknown ethnicity and race	24,352	0.9	16,376	1.0	7,976	0.8	3,285	0.2	na	na
Temporary visa holders	244,559	0.5	128,958	0.4	115,601	0.6	33,573	0.2	na	na
Science	509,784	0.9	305,796	1.0	203,988	0.7	37,189	0.3	18,728	0.6
Agricultural and veterinary sciences	11,244	2.5	6,801	3.5	4,443	1.0	1,595	1.9	902	0.9
Biological and biomedical sciences	100,883	1.0	42,728	1.5	58,155	0.6	20,245	0.2	8,187	0.3
Computer and information sciences	121,730	0.7	102,199	0.7	19,531	0.6	880	0.3	457	0.2
Geosciences, atmospheric sciences, and ocean sciences	12,290	0.6	5,520	1.0	6,770	0.3	1,797	0.2	2,308	1.8
Mathematics and statistics	34,258	0.4	20,639	0.4	13,619	0.5	1,112	0.2	235	0.9
Multidisciplinary and interdisciplinary studies	15,768	0.3	11,994	0.1	3,774	0.8	878	0.8	816	0.0
Natural resources and conservation	13,922	1.5	10,012	1.0	3,910	2.6	889	0.4	620	1.5
Physical sciences	44,141	0.8	6,409	2.2	37,732	0.6	6,823	0.6	2,895	0.5
Psychology	73,325	1.1	51,878	1.1	21,447	1.0	1,325	0.0	803	0.0
Social sciences	82,223	1.0	47,616	1.2	34,607	0.7	1,645	0.1	1,505	0.5
Engineering	168,050	0.6	95,126	0.5	72,924	0.6	8,340	0.2	3,992	0.3
Aerospace, aeronautical, and astronautical engineering	7,838	0.0	5,065	0.0	2,773	0.0	277	0.0	144	0.0
Biological, biomedical, and biosystems engineering	14,059	0.2	5,192	0.4	8,867	*	1,616	0.0	589	0.0
Chemical, petroleum, and chemical-related engineering	10,696	0.2	2,983	0.8	7,713	*	1,167	0.3	307	0.0
Civil, environmental, transportation and related engineering fields	19,608	0.2	11,730	0.2	7,878	0.2	968	0.6	479	0.4

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	All graduate students		Master's		Doctoral					
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Electrical, electronics, communications and computer engineering	45,265	0.5	27,695	0.4	17,570	0.8	1,275	0.4	755	0.1
Industrial, manufacturing, systems engineering and operations research	15,870	0.4	11,949	0.2	3,921	1.0	127	0.8	107	0.0
Mechanical engineering	27,258	0.3	15,718	0.3	11,540	0.3	1,200	0.1	529	0.0
Metallurgical, mining, materials and related engineering fields	7,422	0.2	2,518	0.2	4,904	0.1	562	0.0	259	0.0
Other engineering	20,034	2.3	12,276	2.0	7,758	2.8	1,148	0.3	823	1.2
Health	82,322	1.4	65,691	1.4	16,631	1.5	17,799	0.3	7,828	0.4
Clinical medicine ^b	39,633	1.3	34,021	1.1	5,612	2.7	15,561	0.0	6,751	0.2
Other health	42,689	1.5	31,670	1.7	11,019	0.9	2,238	2.4	1,077	1.8
Black or African American individuals										
Male	16,615	8.1	11,878	7.9	4,737	8.6	433	4.8	na	na
Female	28,687	9.3	21,251	9.3	7,436	9.2	705	4.7	na	na
Science	31,021	9.3	22,257	9.4	8,764	9.1	564	3.0	na	na
Agricultural and veterinary sciences	407	33.9	306	39.2	101	17.8	27	18.5	na	na
Biological and biomedical sciences	6,587	10.2	4,067	12.2	2,520	6.9	287	3.5	na	na
Computer and information sciences	5,922	7.3	5,390	7.2	532	8.8	9	0.0	na	na
Geosciences, atmospheric sciences, and ocean sciences	303	10.2	159	15.7	144	4.2	17	0.0	na	na
Mathematics and statistics	742	9.0	535	9.3	207	8.2	12	0.0	na	na
Multidisciplinary and interdisciplinary studies	981	1.3	754	0.7	227	3.5	24	0.0	na	na
Natural resources and conservation	519	22.9	335	12.8	184	41.3	16	6.3	na	na
Physical sciences	1,145	17.0	334	24.6	811	13.9	43	2.3	na	na
Psychology	7,639	7.9	5,808	7.9	1,831	8.0	50	0.0	na	na
Social sciences	6,776	9.0	4,569	9.1	2,207	8.8	79	0.0	na	na
Engineering	4,847	8.3	3,141	8.8	1,706	7.4	73	2.7	na	na
Aerospace, aeronautical, and astronautical engineering	170	0.0	114	0.0	56	0.0	3	0.0	na	na
Biological, biomedical, and biosystems engineering	544	3.3	230	6.5	314	1.0	24	0.0	na	na
Chemical, petroleum, and chemical-related engineering	247	4.0	109	9.2	138	0.0	10	0.0	na	na
Civil, environmental, transportation and related engineering fields	577	2.3	409	2.7	168	1.2	8	12.5	na	na

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Electrical, electronics, communications and computer engineering	990	7.8	691	5.9	299	12.0	10	0.0	na	na
Industrial, manufacturing, systems engineering and operations research	642	5.6	506	3.4	136	14.0	1	100.0	na	na
Mechanical engineering	603	6.5	373	6.7	230	6.1	5	0.0	na	na
Metallurgical, mining, materials and related engineering fields	172	1.2	75	1.3	97	1.0	3	0.0	na	na
Other engineering	902	22.9	634	24.4	268	19.4	9	0.0	na	na
Health	9,434	7.7	7,731	7.3	1,703	9.5	501	7.0	na	na
Clinical medicine ^b	6,017	6.8	5,275	5.7	742	14.4	406	0.0	na	na
Other health	3,417	9.2	2,456	10.6	961	5.7	95	36.8	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 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):**

"Field" refers to the field of the unit that reports postdoctoral appointees 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.