

Table 2-1. Distribution of graduate students, postdoctoral appointees, and doctorate-holding nonfaculty researchers across science, engineering, and health fields: 2024

(Number and percent)

Detailed field	Graduate students						Postdoctoral appointees		Doctorate-holding nonfaculty researchers	
	All graduate students		Master's		Doctoral					
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All detailed fields	818,078	100.0	505,930	100.0	312,148	100.0	69,877	100.0	35,142	100.0
Science	564,367	69.0	347,469	68.7	216,898	69.5	39,702	56.8	20,566	58.5
Agricultural and veterinary sciences	12,017	1.5	6,973	1.4	5,044	1.6	2,177	3.1	1,234	3.5
Agricultural sciences	10,838	1.3	6,316	1.2	4,522	1.4	1,394	2.0	900	2.6
Veterinary biomedical and clinical sciences	1,179	0.1	657	0.1	522	0.2	783	1.1	334	1.0
Biological and biomedical sciences	109,018	13.3	46,661	9.2	62,357	20.0	20,234	29.0	8,795	25.0
Biochemistry	5,883	0.7	862	0.2	5,021	1.6	1,778	2.5	913	2.6
Biology	15,713	1.9	7,937	1.6	7,776	2.5	2,133	3.1	827	2.4
Biomedical sciences	12,156	1.5	6,471	1.3	5,685	1.8	1,538	2.2	632	1.8
Biophysics	967	0.1	9	*	958	0.3	161	0.2	81	0.2
Biostatistics and bioinformatics	9,064	1.1	4,881	1.0	4,183	1.3	900	1.3	417	1.2
Biotechnology	4,762	0.6	4,591	0.9	171	0.1	131	0.2	85	0.2
Botany and plant biology	1,723	0.2	411	0.1	1,312	0.4	511	0.7	191	0.5
Cell, cellular biology, and anatomical sciences	6,664	0.8	1,073	0.2	5,591	1.8	1,532	2.2	681	1.9
Ecology and population biology	3,852	0.5	1,085	0.2	2,767	0.9	471	0.7	206	0.6
Epidemiology	6,210	0.8	3,914	0.8	2,296	0.7	390	0.6	168	0.5
Genetics	3,250	0.4	712	0.1	2,538	0.8	1,306	1.9	612	1.7
Microbiological sciences and immunology	6,640	0.8	1,930	0.4	4,710	1.5	1,993	2.9	761	2.2
Molecular biology	1,694	0.2	412	0.1	1,282	0.4	428	0.6	240	0.7
Neurobiology and neuroscience	6,839	0.8	606	0.1	6,233	2.0	2,084	3.0	802	2.3
Nutrition science	4,115	0.5	2,999	0.6	1,116	0.4	163	0.2	93	0.3
Pathology and experimental pathology	1,202	0.1	153	*	1,049	0.3	984	1.4	385	1.1
Pharmacology and toxicology	3,361	0.4	916	0.2	2,445	0.8	1,005	1.4	474	1.3
Physiology	6,684	0.8	3,398	0.7	3,286	1.1	1,510	2.2	702	2.0
Zoology and animal biology	2,150	0.3	941	0.2	1,209	0.4	368	0.5	138	0.4
Biological and biomedical sciences nec	6,089	0.7	3,360	0.7	2,729	0.9	848	1.2	387	1.1
Computer and information sciences	161,368	19.7	137,358	27.1	24,010	7.7	1,042	1.5	653	1.9
Artificial intelligence, informatics, and computer and information science topics	10,337	1.3	9,130	1.8	1,207	0.4	60	0.1	61	0.2
Computer and information sciences	48,547	5.9	40,902	8.1	7,645	2.4	255	0.4	249	0.7
Computer and information systems security	11,976	1.5	11,295	2.2	681	0.2	4	*	16	*
Computer science	53,245	6.5	41,018	8.1	12,227	3.9	553	0.8	181	0.5
Information science and studies	17,709	2.2	16,134	3.2	1,575	0.5	58	0.1	61	0.2
Information technology	12,065	1.5	11,479	2.3	586	0.2	5	*	18	0.1
Computer and information sciences nec	7,489	0.9	7,400	1.5	89	*	107	0.2	67	0.2
Geosciences, atmospheric, and ocean sciences	11,766	1.4	4,909	1.0	6,857	2.2	2,043	2.9	2,253	6.4
Atmospheric sciences and meteorology	1,501	0.2	480	0.1	1,021	0.3	296	0.4	425	1.2

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(Number and percent)

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	All graduate students		Master's		Doctoral					
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Geological and earth sciences	7,301	0.9	3,021	0.6	4,280	1.4	958	1.4	1,069	3.0
Ocean and marine sciences	2,964	0.4	1,408	0.3	1,556	0.5	477	0.7	359	1.0
Geosciences, atmospheric, and ocean sciences nec	ne	ne	ne	ne	ne	ne	312	0.4	400	1.1
Mathematics and statistics	33,979	4.2	19,948	3.9	14,031	4.5	1,238	1.8	199	0.6
Applied mathematics	11,340	1.4	9,172	1.8	2,168	0.7	211	0.3	64	0.2
Mathematics	12,041	1.5	3,738	0.7	8,303	2.7	823	1.2	100	0.3
Statistics	10,598	1.3	7,038	1.4	3,560	1.1	204	0.3	35	0.1
Multidisciplinary and interdisciplinary sciences	31,641	3.9	26,426	5.2	5,215	1.7	1,061	1.5	890	2.5
Biological and physical sciences	1,847	0.2	810	0.2	1,037	0.3	55	0.1	45	0.1
Computational science	3,267	0.4	2,880	0.6	387	0.1	39	0.1	72	0.2
Data science and data analytics	14,514	1.8	14,140	2.8	374	0.1	113	0.2	71	0.2
International and global studies	1,045	0.1	903	0.2	142	*	48	0.1	19	0.1
Multidisciplinary and interdisciplinary sciences nec	10,968	1.3	7,693	1.5	3,275	1.0	806	1.2	683	1.9
Natural resources and conservation	13,332	1.6	9,150	1.8	4,182	1.3	969	1.4	649	1.8
Environmental science and studies	6,291	0.8	4,240	0.8	2,051	0.7	395	0.6	234	0.7
Forestry, natural resources, and conservation	7,041	0.9	4,910	1.0	2,131	0.7	574	0.8	415	1.2
Physical sciences	45,337	5.5	6,008	1.2	39,329	12.6	7,570	10.8	3,093	8.8
Astronomy and astrophysics	1,750	0.2	112	*	1,638	0.5	747	1.1	635	1.8
Chemistry	23,476	2.9	2,764	0.5	20,712	6.6	3,471	5.0	877	2.5
Materials sciences	1,643	0.2	435	0.1	1,208	0.4	255	0.4	70	0.2
Physics	17,515	2.1	2,289	0.5	15,226	4.9	2,800	4.0	1,150	3.3
Physical sciences nec	953	0.1	408	0.1	545	0.2	297	0.4	361	1.0
Psychology	72,924	8.9	49,516	9.8	23,408	7.5	1,392	2.0	892	2.5
Applied psychology	24,915	3.0	20,306	4.0	4,609	1.5	127	0.2	104	0.3
Clinical psychology	7,814	1.0	4,477	0.9	3,337	1.1	65	0.1	17	*
Counseling psychology	16,074	2.0	13,289	2.6	2,785	0.9	16	*	8	*
Human development	2,000	0.2	1,295	0.3	705	0.2	117	0.2	156	0.4
Psychology, general	13,774	1.7	7,369	1.5	6,405	2.1	760	1.1	415	1.2
Research and experimental psychology	8,347	1.0	2,780	0.5	5,567	1.8	307	0.4	192	0.5
Social sciences	72,985	8.9	40,520	8.0	32,465	10.4	1,976	2.8	1,908	5.4
Agricultural and natural resource economics	708	0.1	451	0.1	257	0.1	77	0.1	41	0.1
Anthropology	5,763	0.7	2,023	0.4	3,740	1.2	173	0.2	75	0.2
Area, ethnic, cultural, gender, and group studies	4,793	0.6	2,421	0.5	2,372	0.8	280	0.4	183	0.5
Criminal justice and safety studies	6,432	0.8	4,924	1.0	1,508	0.5	12	*	23	0.1
Criminology	1,457	0.2	1,113	0.2	344	0.1	8	*	10	*
Economics (except agricultural and natural resource)	14,500	1.8	6,350	1.3	8,150	2.6	181	0.3	139	0.4

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	All graduate students		Master's		Doctoral					
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Geography and cartography	3,478	0.4	2,309	0.5	1,169	0.4	134	0.2	114	0.3
International relations and national security studies	7,316	0.9	6,996	1.4	320	0.1	95	0.1	103	0.3
Linguistics	2,552	0.3	952	0.2	1,600	0.5	66	0.1	53	0.2
Political science and government	7,437	0.9	2,506	0.5	4,931	1.6	172	0.2	94	0.3
Public policy analysis	7,154	0.9	4,491	0.9	2,663	0.9	350	0.5	518	1.5
Sociology and population studies	6,311	0.8	1,965	0.4	4,346	1.4	206	0.3	227	0.6
Urban studies and affairs	813	0.1	529	0.1	284	0.1	27	*	51	0.1
Social sciences, other	4,271	0.5	3,490	0.7	781	0.3	195	0.3	277	0.8
Engineering	176,012	21.5	99,571	19.7	76,441	24.5	9,545	13.7	4,436	12.6
Aerospace, aeronautical, and astronautical engineering	8,595	1.1	5,563	1.1	3,032	1.0	246	0.4	167	0.5
Biological, biomedical, and biosystems engineering	15,805	1.9	5,475	1.1	10,330	3.3	1,685	2.4	680	1.9
Chemical, petroleum, and chemical-related engineering	10,599	1.3	2,664	0.5	7,935	2.5	1,552	2.2	363	1.0
Chemical engineering	9,735	1.2	2,258	0.4	7,477	2.4	1,514	2.2	317	0.9
Petroleum engineering	864	0.1	406	0.1	458	0.1	38	0.1	46	0.1
Civil, environmental, transportation and related engineering fields	19,259	2.4	11,360	2.2	7,899	2.5	1,166	1.7	583	1.7
Civil engineering	15,425	1.9	8,685	1.7	6,740	2.2	1,063	1.5	497	1.4
Architectural, environmental, construction and surveying engineering	3,834	0.5	2,675	0.5	1,159	0.4	103	0.1	86	0.2
Electrical, electronics, communications and computer engineering	48,615	5.9	30,841	6.1	17,774	5.7	1,381	2.0	698	2.0
Electrical, electronics, and communications engineering	32,921	4.0	18,216	3.6	14,705	4.7	1,288	1.8	630	1.8
Computer engineering	15,694	1.9	12,625	2.5	3,069	1.0	93	0.1	68	0.2
Industrial, manufacturing, systems engineering and operations research	15,750	1.9	11,704	2.3	4,046	1.3	162	0.2	164	0.5
Industrial and manufacturing engineering	7,422	0.9	5,044	1.0	2,378	0.8	98	0.1	84	0.2
Systems engineering and operations research	8,328	1.0	6,660	1.3	1,668	0.5	64	0.1	80	0.2
Mechanical engineering	26,994	3.3	15,136	3.0	11,858	3.8	1,459	2.1	566	1.6
Metallurgical, mining, materials and related engineering fields	7,361	0.9	2,503	0.5	4,858	1.6	588	0.8	260	0.7
Other engineering	23,034	2.8	14,325	2.8	8,709	2.8	1,306	1.9	955	2.7
Agricultural engineering	1,062	0.1	387	0.1	675	0.2	162	0.2	51	0.1
Engineering mechanics, physics, and science	2,337	0.3	663	0.1	1,674	0.5	279	0.4	185	0.5
Nuclear engineering	1,707	0.2	566	0.1	1,141	0.4	112	0.2	32	0.1
Engineering, other	17,928	2.2	12,709	2.5	5,219	1.7	753	1.1	687	2.0
Health	77,699	9.5	58,890	11.6	18,809	6.0	20,630	29.5	10,140	28.9
Clinical medicine	33,044	4.0	26,645	5.3	6,399	2.0	17,919	25.6	8,618	24.5
Medical clinical sciences and clinical and medical laboratory sciences	2,037	0.2	1,307	0.3	730	0.2	650	0.9	383	1.1
Public health	31,007	3.8	25,338	5.0	5,669	1.8	887	1.3	799	2.3
Anesthesiology	ne	ne	ne	ne	ne	ne	453	0.6	181	0.5
Cardiology and cardiovascular disease	ne	ne	ne	ne	ne	ne	667	1.0	230	0.7

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	All graduate students		Master's		Doctoral		Number	Percent	Number	Percent
	Number	Percent	Number	Percent	Number	Percent				
Endocrinology, diabetes, and metabolism	ne	ne	ne	ne	ne	ne	325	0.5	123	0.4
Gastroenterology	ne	ne	ne	ne	ne	ne	240	0.3	76	0.2
Hematology	ne	ne	ne	ne	ne	ne	359	0.5	174	0.5
Neurology and neurosurgery	ne	ne	ne	ne	ne	ne	1,890	2.7	730	2.1
Obstetrics and gynecology	ne	ne	ne	ne	ne	ne	303	0.4	137	0.4
Oncology and cancer research	ne	ne	ne	ne	ne	ne	1,595	2.3	642	1.8
Ophthalmology	ne	ne	ne	ne	ne	ne	618	0.9	349	1.0
Otorhinolaryngology	ne	ne	ne	ne	ne	ne	291	0.4	180	0.5
Pediatrics	ne	ne	ne	ne	ne	ne	1,306	1.9	769	2.2
Psychiatry	ne	ne	ne	ne	ne	ne	1,164	1.7	424	1.2
Pulmonary disease	ne	ne	ne	ne	ne	ne	278	0.4	107	0.3
Radiological sciences	ne	ne	ne	ne	ne	ne	1,465	2.1	555	1.6
Surgery	ne	ne	ne	ne	ne	ne	1,409	2.0	697	2.0
Clinical medicine nec	ne	ne	ne	ne	ne	ne	4,019	5.8	2,062	5.9
Other health	44,655	5.5	32,245	6.4	12,410	4.0	2,711	3.9	1,522	4.3
Communication disorders sciences	17,716	2.2	16,986	3.4	730	0.2	105	0.2	103	0.3
Dental sciences	2,220	0.3	1,420	0.3	800	0.3	308	0.4	159	0.5
Kinesiology and exercise science	4,990	0.6	4,027	0.8	963	0.3	83	0.1	63	0.2
Nursing science	4,936	0.6	1,550	0.3	3,386	1.1	173	0.2	180	0.5
Pharmaceutical sciences	5,455	0.7	2,355	0.5	3,100	1.0	1,528	2.2	523	1.5
Other health nec	9,338	1.1	5,907	1.2	3,431	1.1	514	0.7	494	1.4

* = value < 0.05%; ne = not eligible.

nec = 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 table A-6. 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, 2024.