

TABLE 1-11d

**Doctorate holding nonfaculty researcher counts, by detailed field, aligned to the 2020 broad fields, 2017–22**

(Number)

Detailed field	2017	2018	2019	2020	2021	2022
All fields	28,180	29,284	30,349	29,661	30,548	32,279
Science	17,268	18,278	18,819	18,212	18,728	19,423
Agricultural and veterinary sciences <sup>a</sup>	496	565	645	964	902	1,068
Agricultural sciences	496	565	645	650	602	755
Veterinary biomedical and clinical sciences <sup>b</sup>	na	na	na	314	300	313
Biological and biomedical sciences <sup>a</sup>	8,203	8,250	8,229	8,112	8,187	8,207
Biochemistry	757	723	755	800	822	843
Biology	847	897	766	776	784	754
Biomedical sciences	533	588	622	406	419	571
Biophysics	46	25	36	66	77	79
Biostatistics and bioinformatics	357	393	400	380	338	357
Biotechnology	91	102	91	95	87	87
Botany and plant biology	228	343	314	258	230	218
Cell, cellular biology, and anatomical sciences	600	610	579	548	533	590
Ecology and population biology	242	248	183	230	250	221
Epidemiology	107	99	99	126	128	122
Genetics	510	405	501	545	591	551
Microbiological sciences and immunology	863	773	764	750	711	708
Molecular biology	133	186	233	225	239	210
Neurobiology and neuroscience	852	732	726	789	795	800
Nutrition science	113	165	136	143	137	98
Pathology and experimental pathology	444	398	422	401	382	308
Pharmacology and toxicology	436	372	377	394	433	387
Physiology	616	681	723	731	663	714
Zoology and animal biology	127	160	168	137	174	187
Biological and biomedical sciences nec	301	350	334	312	394	402
Computer and information sciences	476	515	510	458	457	507
Computer science	279	261	274	218	209	192
Computer and information sciences <sup>c</sup>	134	143	137	147	150	174
Computer and information sciences <sup>d</sup>	NA	NA	NA	104	111	134
Artificial intelligence, informatics, and computer and information science topics <sup>d</sup>	NA	NA	NA	43	39	40
Computer and information sciences nec <sup>c</sup>	63	111	99	93	98	141
Computer and information systems security <sup>d</sup>	NA	NA	NA	2	18	18
Information science and studies <sup>d</sup>	NA	NA	NA	21	19	30
Information technology <sup>d</sup>	NA	NA	NA	14	13	11
Computer and information sciences nec <sup>d</sup>	NA	NA	NA	56	48	82
Geosciences, atmospheric sciences, and ocean sciences	1,794	2,106	2,177	2,150	2,308	2,448
Atmospheric sciences and meteorology	402	426	434	461	471	515
Geological and earth sciences	603	991	1,104	1,046	1,121	1,127
Ocean and marine sciences	399	365	321	330	360	385
Geosciences, atmospheric sciences, and ocean sciences nec	390	324	318	313	356	421
Mathematics and statistics	240	266	305	201	235	251
Mathematics and applied mathematics <sup>c</sup>	195	207	226	144	176	198
Applied mathematics <sup>d</sup>	NA	NA	NA	50	66	73
Mathematics <sup>d</sup>	NA	NA	NA	94	110	125
Statistics	45	59	79	57	59	53
Multidisciplinary and interdisciplinary sciences <sup>c</sup>	806	832	820	679	816	931
Biological and physical sciences <sup>d</sup>	NA	NA	NA	56	38	43
Computational science <sup>d</sup>	NA	NA	NA	38	56	62

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Detailed field	2017	2018	2019	2020	2021	2022
Data science and data analytics <sup>d</sup>	NA	NA	NA	22	26	32
International and global studies <sup>d</sup>	NA	NA	NA	16	14	17
Multidisciplinary and interdisciplinary sciences nec <sup>d</sup>	NA	NA	NA	547	682	777
Natural resources and conservation	364	580	582	573	620	605
Environmental science and studies	147	217	215	167	204	201
Forestry, natural resources, and conservation	217	363	367	406	416	404
Physical sciences	2,871	3,056	3,316	2,890	2,895	2,894
Astronomy and astrophysics	494	472	602	569	558	573
Chemistry	931	974	983	906	848	876
Materials sciences	82	73	64	73	64	77
Physics	1,306	1,354	1,458	1,151	1,235	1,162
Physical sciences nec	58	183	209	191	190	206
Psychology <sup>a</sup>	494	507	576	749	803	786
Clinical psychology	40	9	11	16	23	9
Counseling and applied psychology <sup>c</sup>	47	38	120	90	75	81
Applied psychology <sup>d</sup>	NA	NA	NA	64	60	70
Counseling psychology <sup>d</sup>	NA	NA	NA	26	15	11
Human development <sup>b</sup>	na	na	na	137	110	148
Psychology, general	247	302	328	348	389	417
Research and experimental psychology	160	158	117	158	206	131
Social sciences <sup>a</sup>	1,524	1,601	1,659	1,436	1,505	1,726
Agricultural and natural resource economics	44	62	51	52	41	31
Anthropology	85	76	99	81	79	74
Criminal justice and safety studies	5	10	13	12	8	21
Economics (except agricultural and natural resource)	166	156	155	176	164	152
Geography and cartography	98	105	110	103	106	100
Human development <sup>b</sup>	160	130	164	na	na	na
International relations and national security studies	45	59	50	51	76	92
Linguistics	46	37	29	39	40	55
Political science and government	72	72	83	64	74	87
Public policy analysis	292	311	337	361	358	468
Sociology and population studies	143	154	164	148	145	168
Social sciences, nec <sup>c</sup>	368	429	404	349	414	478
Area, ethnic, cultural, gender, and group studies <sup>d</sup>	NA	NA	NA	134	122	96
Criminology <sup>d</sup>	NA	NA	NA	7	11	15
Urban studies and affairs <sup>d</sup>	NA	NA	NA	18	28	37
Social sciences, other <sup>d</sup>	na	na	na	190	253	330
History and philosophy of science and technology <sup>e</sup>	9	1	3	na	na	na
Social sciences, nec <sup>c</sup>	359	428	401	na	na	na
Engineering	3,274	3,570	3,909	3,921	3,992	4,355
Aerospace, aeronautical, and astronautical engineering	102	115	124	149	144	153
Biological, biomedical, and biosystems engineering	451	491	545	525	589	685
Bioengineering and biomedical engineering	415	440	492	na	na	na
Biological and biosystems engineering	36	51	53	na	na	na
Chemical, petroleum, and chemical-related engineering	340	337	410	330	307	313
Chemical engineering	281	257	328	274	257	265
Petroleum engineering	59	80	82	56	50	48
Civil, environmental, transportation and related engineering fields <sup>c</sup>	422	414	492	488	479	569

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Detailed field	2017	2018	2019	2020	2021	2022
Civil engineering <sup>d</sup>	422	414	492	451	446	497
Architectural, environmental, construction and surveying engineering <sup>d</sup>	NA	NA	NA	37	33	72
Electrical, electronics, communications and computer engineering	557	588	637	706	755	734
Electrical, electronics, and communications engineering <sup>c</sup>	557	588	637	647	684	673
Computer engineering <sup>d</sup>	NA	NA	NA	59	71	61
Industrial, manufacturing, systems engineering and operations research	119	105	137	155	107	197
Industrial and manufacturing engineering <sup>c</sup>	119	105	137	53	53	74
Systems engineering and operations research <sup>d</sup>	NA	NA	NA	102	54	123
Mechanical engineering	458	489	531	469	529	527
Metallurgical, mining, materials and related engineering fields	233	267	303	299	259	280
Metallurgical and materials engineering <sup>e</sup>	181	215	242	na	na	na
Mining engineering <sup>e</sup>	52	52	61	na	na	na
Other engineering	592	764	730	800	823	897
Agricultural engineering	52	60	55	54	55	48
Engineering mechanics, physics, and science	200	220	186	177	193	199
Nuclear engineering	22	41	41	45	40	41
Engineering, other	na	na	na	524	535	609
Engineering, nec	285	400	372	na	na	na
Nanotechnology	33	43	76	na	na	na
Health	7,638	7,436	7,621	7,528	7,828	8,501
Clinical medicine <sup>a</sup>	6,448	6,159	6,273	6,500	6,751	7,351
Medical clinical sciences and clinical and medical laboratory sciences	NA	NA	NA	167	134	128
Public health	611	646	687	616	656	742
Anesthesiology	147	139	155	122	108	129
Cardiology and cardiovascular disease	248	238	200	182	215	227
Endocrinology, diabetes, and metabolism	98	102	107	91	103	109
Gastroenterology	96	92	98	96	112	105
Hematology	111	114	160	164	180	199
Neurology and neurosurgery	493	425	496	469	527	580
Obstetrics and gynecology	117	94	104	93	106	107
Oncology and cancer research	620	637	630	644	549	648
Ophthalmology	377	297	261	287	259	303
Otorhinolaryngology	116	142	121	125	119	119
Pediatrics	657	624	597	643	632	742
Psychiatry	236	235	241	307	279	351
Pulmonary disease	144	136	107	119	100	116
Radiological sciences	395	436	391	401	381	444
Surgery	505	523	527	507	561	572
Clinical medicine nec	1,477	1,279	1,391	1,467	1,730	1,730
Other health	1,190	1,277	1,348	1,028	1,077	1,150
Communication disorders sciences	66	68	46	49	83	86
Dental sciences	78	92	110	103	123	140
Nursing science	101	96	97	103	117	166
Pharmaceutical sciences	368	344	392	377	372	379
Veterinary biomedical and clinical sciences <sup>b</sup>	260	330	290	na	na	na
Other health nec <sup>c</sup>	na	na	na	396	382	379
Kinesiology and exercise science <sup>d</sup>	NA	NA	NA	46	31	49
Other health nec <sup>d</sup>	317	347	413	350	351	330

na = not applicable; NA = not available (data not collected at this level of detail).

nec = not elsewhere classified.

<sup>a</sup> Broad field is not comparable between 2019 and 2020 due to changes in detailed fields.

<sup>b</sup> Detailed field moved between broad fields between 2019 and 2020.

<sup>c</sup> Detailed field split into multiple fields in 2020; data after 2020 represent the aggregate counts of all the new detailed fields.

<sup>d</sup> New detailed field in 2020.

<sup>e</sup> Code reported under a different detailed field code in 2020 and later years.

**Note(s):**

Percentages may not add to total because of rounding. Field titles match the 2020 and later titles in the few cases where field titles changed. Prior to 2020, there were no broad fields in engineering. All fields have been moved to match the current broad field organization. For information on the current of fields and codes in the Survey of Graduate Students and Postdoctorates in Science and Engineering, see technical tables A-16 and A-17.

**Source(s):**

National Center for Science and Engineering Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.