

TABLE 1-11d

**Doctorate holding nonfaculty researcher counts, by detailed field, aligned to the 2020 broad fields, 2017–23**

(Number)

Detailed field	2017	2018	2019	2020	2021	2022	2023
All fields	28,180	29,284	30,349	29,661	30,548	32,279	34,342
Science	17,268	18,278	18,819	18,212	18,728	19,423	20,600
Agricultural and veterinary sciences <sup>a</sup>	496	565	645	964	902	1,068	1,238
Agricultural sciences	496	565	645	650	602	755	824
Veterinary biomedical and clinical sciences <sup>b</sup>	na	na	na	314	300	313	414
Biological and biomedical sciences <sup>a</sup>	8,203	8,250	8,229	8,112	8,187	8,207	8,589
Biochemistry	757	723	755	800	822	843	841
Biology	847	897	766	776	784	754	772
Biomedical sciences	533	588	622	406	419	571	571
Biophysics	46	25	36	66	77	79	79
Biostatistics and bioinformatics	357	393	400	380	338	357	366
Biotechnology	91	102	91	95	87	87	96
Botany and plant biology	228	343	314	258	230	218	227
Cell, cellular biology, and anatomical sciences	600	610	579	548	533	590	675
Ecology and population biology	242	248	183	230	250	221	236
Epidemiology	107	99	99	126	128	122	145
Genetics	510	405	501	545	591	551	557
Microbiological sciences and immunology	863	773	764	750	711	708	718
Molecular biology	133	186	233	225	239	210	222
Neurobiology and neuroscience	852	732	726	789	795	800	920
Nutrition science	113	165	136	143	137	98	100
Pathology and experimental pathology	444	398	422	401	382	308	329
Pharmacology and toxicology	436	372	377	394	433	387	358
Physiology	616	681	723	731	663	714	708
Zoology and animal biology	127	160	168	137	174	187	196
Biological and biomedical sciences nec	301	350	334	312	394	402	473
Computer and information sciences	476	515	510	458	457	507	631
Computer science	279	261	274	218	209	192	194
Computer and information sciences <sup>c</sup>	134	143	137	147	150	174	269
Computer and information sciences <sup>d</sup>	NA	NA	NA	104	111	134	217
Artificial intelligence, informatics, and computer and information science topics <sup>d</sup>	NA	NA	NA	43	39	40	52
Computer and information sciences nec <sup>c</sup>	63	111	99	93	98	141	168
Computer and information systems security <sup>d</sup>	NA	NA	NA	2	18	18	16
Information science and studies <sup>d</sup>	NA	NA	NA	21	19	30	44
Information technology <sup>d</sup>	NA	NA	NA	14	13	11	16

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Computer and information sciences nec <sup>d</sup>	NA	NA	NA	56	48	82	92
Geosciences, atmospheric, and ocean sciences	1,794	2,106	2,177	2,150	2,308	2,448	2,455
Atmospheric sciences and meteorology	402	426	434	461	471	515	512
Geological and earth sciences	603	991	1,104	1,046	1,121	1,127	1,247
Ocean and marine sciences	399	365	321	330	360	385	418
Geosciences, atmospheric, and ocean sciences nec	390	324	318	313	356	421	278
Mathematics and statistics	240	266	305	201	235	251	307
Mathematics and applied mathematics <sup>c</sup>	195	207	226	144	176	198	241
Applied mathematics <sup>d</sup>	NA	NA	NA	50	66	73	99
Mathematics <sup>d</sup>	NA	NA	NA	94	110	125	142
Statistics	45	59	79	57	59	53	66
Multidisciplinary and interdisciplinary sciences <sup>c</sup>	806	832	820	679	816	931	818
Biological and physical sciences <sup>d</sup>	NA	NA	NA	56	38	43	42
Computational science <sup>d</sup>	NA	NA	NA	38	56	62	58
Data science and data analytics <sup>d</sup>	NA	NA	NA	22	26	32	56
International and global studies <sup>d</sup>	NA	NA	NA	16	14	17	15
Multidisciplinary and interdisciplinary sciences nec <sup>d</sup>	NA	NA	NA	547	682	777	647
Natural resources and conservation	364	580	582	573	620	605	663
Environmental science and studies	147	217	215	167	204	201	226
Forestry, natural resources, and conservation	217	363	367	406	416	404	437
Physical sciences	2,871	3,056	3,316	2,890	2,895	2,894	3,095
Astronomy and astrophysics	494	472	602	569	558	573	600
Chemistry	931	974	983	906	848	876	845
Materials sciences	82	73	64	73	64	77	69
Physics	1,306	1,354	1,458	1,151	1,235	1,162	1,210
Physical sciences nec	58	183	209	191	190	206	371
Psychology <sup>a</sup>	494	507	576	749	803	786	950
Clinical psychology	40	9	11	16	23	9	20
Counseling and applied psychology <sup>c</sup>	47	38	120	90	75	81	126
Applied psychology <sup>d</sup>	NA	NA	NA	64	60	70	118
Counseling psychology <sup>d</sup>	NA	NA	NA	26	15	11	8
Human development <sup>b</sup>	na	na	na	137	110	148	158
Psychology, general	247	302	328	348	389	417	472
Research and experimental psychology	160	158	117	158	206	131	174

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(Number)

Detailed field	2017	2018	2019	2020	2021	2022	2023
Social sciences <sup>a</sup>	1,524	1,601	1,659	1,436	1,505	1,726	1,854
Agricultural and natural resource economics	44	62	51	52	41	31	51
Anthropology	85	76	99	81	79	74	70
Criminal justice and safety studies	5	10	13	12	8	21	22
Economics (except agricultural and natural resource)	166	156	155	176	164	152	152
Geography and cartography	98	105	110	103	106	100	118
Human development <sup>b</sup>	160	130	164	na	na	na	na
International relations and national security studies	45	59	50	51	76	92	139
Linguistics	46	37	29	39	40	55	59
Political science and government	72	72	83	64	74	87	93
Public policy analysis	292	311	337	361	358	468	475
Sociology and population studies	143	154	164	148	145	168	196
Social sciences, nec <sup>c</sup>	368	429	404	349	414	478	479
Area, ethnic, cultural, gender, and group studies <sup>d</sup>	NA	NA	NA	134	122	96	143
Criminology <sup>d</sup>	NA	NA	NA	7	11	15	10
Urban studies and affairs <sup>d</sup>	NA	NA	NA	18	28	37	21
Social sciences, other <sup>d</sup>	na	na	na	190	253	330	305
History and philosophy of science and technology <sup>e</sup>	9	1	3	na	na	na	na
Social sciences, nec <sup>c</sup>	359	428	401	na	na	na	na
Engineering	3,274	3,570	3,909	3,921	3,992	4,355	4,575
Aerospace, aeronautical, and astronautical engineering	102	115	124	149	144	153	166
Biological, biomedical, and biosystems engineering	451	491	545	525	589	685	674
Bioengineering and biomedical engineering	415	440	492	na	na	na	na
Biological and biosystems engineering	36	51	53	na	na	na	na
Chemical, petroleum, and chemical-related engineering	340	337	410	330	307	313	349
Chemical engineering	281	257	328	274	257	265	303
Petroleum engineering	59	80	82	56	50	48	46
Civil, environmental, transportation and related engineering fields <sup>c</sup>	422	414	492	488	479	569	654
Civil engineering <sup>d</sup>	422	414	492	451	446	497	571
Architectural, environmental, construction and surveying engineering <sup>d</sup>	NA	NA	NA	37	33	72	83
Electrical, electronics, communications and computer engineering	557	588	637	706	755	734	799
Electrical, electronics, and communications engineering <sup>c</sup>	557	588	637	647	684	673	731
Computer engineering <sup>d</sup>	NA	NA	NA	59	71	61	68
Industrial, manufacturing, systems engineering and operations research	119	105	137	155	107	197	221

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Industrial and manufacturing engineering <sup>c</sup>	119	105	137	53	53	74	83
Systems engineering and operations research <sup>d</sup>	NA	NA	NA	102	54	123	138
Mechanical engineering	458	489	531	469	529	527	560
Metallurgical, mining, materials and related engineering fields	233	267	303	299	259	280	249
Metallurgical and materials engineering <sup>e</sup>	181	215	242	na	na	na	na
Mining engineering <sup>e</sup>	52	52	61	na	na	na	na
Other engineering	592	764	730	800	823	897	903
Agricultural engineering	52	60	55	54	55	48	53
Engineering mechanics, physics, and science	200	220	186	177	193	199	190
Nuclear engineering	22	41	41	45	40	41	35
Engineering, other	na	na	na	524	535	609	625
Engineering, nec	285	400	372	na	na	na	na
Nanotechnology	33	43	76	na	na	na	na
Health	7,638	7,436	7,621	7,528	7,828	8,501	9,167
Clinical medicine	6,448	6,159	6,273	6,500	6,751	7,351	7,798
Medical clinical sciences and clinical and medical laboratory sciences	NA	NA	NA	167	134	128	477
Public health	611	646	687	616	656	742	911
Anesthesiology	147	139	155	122	108	129	129
Cardiology and cardiovascular disease	248	238	200	182	215	227	228
Endocrinology, diabetes, and metabolism	98	102	107	91	103	109	122
Gastroenterology	96	92	98	96	112	105	89
Hematology	111	114	160	164	180	199	168
Neurology and neurosurgery	493	425	496	469	527	580	533
Obstetrics and gynecology	117	94	104	93	106	107	121
Oncology and cancer research	620	637	630	644	549	648	587
Ophthalmology	377	297	261	287	259	303	295
Otorhinolaryngology	116	142	121	125	119	119	148
Pediatrics	657	624	597	643	632	742	743
Psychiatry	236	235	241	307	279	351	346
Pulmonary disease	144	136	107	119	100	116	118
Radiological sciences	395	436	391	401	381	444	465
Surgery	505	523	527	507	561	572	608
Clinical medicine nec	1,477	1,279	1,391	1,467	1,730	1,730	1,710
Other health <sup>a</sup>	1,190	1,277	1,348	1,028	1,077	1,150	1,369
Communication disorders sciences	66	68	46	49	83	86	85
Dental sciences	78	92	110	103	123	140	159

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(Number)

Detailed field	2017	2018	2019	2020	2021	2022	2023
Nursing science	101	96	97	103	117	166	187
Pharmaceutical sciences	368	344	392	377	372	379	469
Veterinary biomedical and clinical sciences <sup>b</sup>	260	330	290	na	na	na	na
Other health nec <sup>c</sup>	na	na	na	396	382	379	469
Kinesiology and exercise science <sup>d</sup>	NA	NA	NA	46	31	49	50
Other health nec <sup>d</sup>	317	347	413	350	351	330	419

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.