TABLE 1-11c

Postdoctoral appointees, by detailed fields: 2017−23

(Number)

Detailed field	2017	2018	2019	2020	2021	2022	2023
All fields	64,733	64,783	66,247	65,681	63,328	62,750	65,850
Science	38,241	37,564	38,503	38,741	37,189	36,673	37,982
Agricultural and veterinary sciences[a]	1,024	1,072	1,079	1,678	1,595	1,705	1,993
Agricultural sciences	1,024	1,072	1,079	1,046	1,086	1,201	1,279
Veterinary biomedical and clinical sciences[b]	na	na	na	632	509	504	714
Biological and biomedical sciences[a]	21,781	21,533	21,847	21,902	20,245	19,585	19,520
Biochemistry	1,933	1,943	1,912	1,863	1,743	1,756	1,684
Biology	2,167	2,108	2,203	2,169	1,979	2,064	2,036
Biomedical sciences	1,870	1,941	1,942	1,879	1,906	1,553	1,602
Biophysics	144	151	164	147	156	126	151
Biostatistics and bioinformatics	695	699	721	830	733	691	739
Biotechnology	103	86	87	96	101	155	160
Botany and plant biology	586	620	667	579	520	507	490
Cell, cellular biology, and anatomical sciences	1,859	1,814	1,785	1,661	1,663	1,599	1,583
Ecology and population biology	468	446	414	467	430	438	461
Epidemiology	244	230	285	307	329	377	391
Genetics	1,529	1,428	1,472	1,485	1,384	1,288	1,329
Microbiological sciences and immunology	2,065	2,078	1,985	2,028	1,865	1,811	1,826
Molecular biology	477	521	570	722	634	549	507
Neurobiology and neuroscience	2,137	2,103	2,216	2,075	1,980	1,932	1,949
Nutrition science	177	180	192	191	152	146	156
Pathology and experimental pathology	1,106	1,145	1,302	1,263	1,043	925	904
Pharmacology and toxicology	1,140	1,012	1,021	1,026	884	915	886
Physiology	1,851	1,766	1,640	1,804	1,537	1,512	1,468
Zoology and animal biology	394	428	406	397	376	411	391
Biological and biomedical sciences nec	836	834	863	913	830	830	807
Computer and information sciences	854	879	878	823	880	859	987
Computer science	468	502	487	466	521	496	524
Computer and information sciences[c]	256	225	263	224	217	212	289
Computer and information sciences[d]	NA	NA	NA	187	185	166	237
Artificial intelligence, informatics, and computer and information science topics[d]	NA	NA	NA	37	32	46	52
Computer and information sciences nec[c]	130	152	128	133	142	151	174
Computer and information systems security[d]	NA	NA	NA	6	9	11	8
Information science and studies[d]	NA	NA	NA	40	56	65	66
Information technology[d]	NA	NA	NA	18	6	3	2

TABLE 1-11c

Postdoctoral appointees, by detailed fields: 2017−23

(Number)

Detailed field	2017	2018	2019	2020	2021	2022	2023
Computer and information sciences nec[d]	NA	NA	NA	69	71	72	98
Geosciences, atmospheric, and ocean sciences	2,089	1,726	1,778	1,790	1,797	1,787	1,919
Atmospheric sciences and meteorology	313	243	249	266	248	253	245
Geological and earth sciences	1,046	803	845	879	869	844	922
Ocean and marine sciences	433	401	393	360	373	414	444
Geosciences, atmospheric, and ocean sciences nec	297	279	291	285	307	276	308
Mathematics and statistics	991	982	1,070	1,076	1,112	1,110	1,220
Mathematics and applied mathematics[c]	860	833	892	924	923	910	1,016
Applied mathematics[d]	NA	NA	NA	207	202	221	203
Mathematics[d]	NA	NA	NA	717	721	689	813
Statistics	131	149	178	152	189	200	204
Multidisciplinary and interdisciplinary sciences[c]	1,131	980	972	832	878	840	988
Biological and physical sciences[d]	NA	NA	NA	119	125	56	48
Computational science[d]	NA	NA	NA	26	28	31	26
Data science and data analytics[d]	NA	NA	NA	57	50	48	98
International and global studies[d]	NA	NA	NA	13	21	27	27
Multidisciplinary and interdisciplinary sciences nec[d]	NA	NA	NA	617	654	678	789
Natural resources and conservation	731	764	806	845	889	936	937
Environmental science and studies	270	258	277	279	312	339	357
Forestry, natural resources, and conservation	461	506	529	566	577	597	580
Physical sciences	7,211	6,976	7,159	6,937	6,823	6,877	7,220
Astronomy and astrophysics	484	536	571	544	561	634	725
Chemistry	3,435	3,320	3,383	3,294	3,163	3,157	3,288
Materials sciences	300	264	259	225	213	246	247
Physics	2,645	2,619	2,721	2,676	2,677	2,618	2,723
Physical sciences nec	347	237	225	198	209	222	237
Psychology[a]	1,082	1,145	1,152	1,312	1,325	1,308	1,344
Clinical psychology	74	73	72	84	63	56	59
Counseling and applied psychology[c]	135	165	167	123	120	123	114
Applied psychology[d]	NA	NA	NA	92	110	109	105
Counseling psychology[d]	NA	NA	NA	31	10	14	9
Human development[b]	na	na	na	122	106	119	130
Psychology, general	696	674	663	722	705	735	768
Research and experimental psychology	177	233	250	261	331	275	273

TABLE 1-11c

Postdoctoral appointees, by detailed fields: 2017−23

(Number)

Detailed field	2017	2018	2019	2020	2021	2022	2023
Social sciences[a]	1,347	1,507	1,762	1,546	1,645	1,666	1,854
Agricultural and natural resource economics	57	53	52	33	42	53	72
Anthropology	136	137	148	153	149	150	152
Criminal justice and safety studies	4	12	16	17	16	15	19
Economics (except agricultural and natural resource)	94	108	132	123	165	152	147
Geography and cartography	81	120	128	140	127	131	141
Human development[b]	123	135	156	na	na	na	na
International relations and national security studies	38	51	85	68	117	98	119
Linguistics	33	39	39	41	50	58	51
Political science and government	142	137	170	148	164	162	173
Public policy analysis	162	191	220	229	213	241	305
Sociology and population studies	141	149	159	155	168	166	189
Social sciences, nec[c]	336	375	457	439	434	440	486
Area, ethnic, cultural, gender, and group studies[d]	NA	NA	NA	226	230	235	273
Criminology[d]	NA	NA	NA	2	3	8	8
Urban studies and affairs[d]	NA	NA	NA	5	10	18	7
Social sciences, other[d]	na	na	na	206	191	179	198
History and philosophy of science and technology[e]	9	12	21	na	na	na	na
Social sciences, nec[c]	327	363	436	na	na	na	na
Engineering	7,839	7,914	8,266	8,462	8,340	8,335	9,051
Aerospace, aeronautical, and astronautical engineering	196	207	227	233	277	244	254
Biological, biomedical, and biosystems engineering	1,476	1,529	1,602	1,696	1,616	1,540	1,594
Bioengineering and biomedical engineering	1,398	1,433	1,515	na	na	na	na
Biological and biosystems engineering	78	96	87	na	na	na	na
Chemical, petroleum, and chemical-related engineering	1,262	1,205	1,229	1,157	1,167	1,239	1,501
Chemical engineering	1,197	1,142	1,157	1,108	1,133	1,215	1,471
Petroleum engineering	65	63	72	49	34	24	30
Civil, environmental, transportation and related engineering fields[c]	804	739	865	1,006	968	1,018	1,070
Civil engineering[d]	804	739	865	904	879	929	960
Architectural, environmental, construction and surveying engineering[d]	NA	NA	NA	102	89	89	110
Electrical, electronics, communications and computer engineering	1,170	1,197	1,305	1,302	1,275	1,217	1,339
Electrical, electronics, and communications engineering[c]	1,170	1,197	1,305	1,242	1,186	1,129	1,257
Computer engineering[d]	NA	NA	NA	60	89	88	82
Industrial, manufacturing, systems engineering and operations research	127	156	167	194	127	143	170

TABLE 1-11c

Postdoctoral appointees, by detailed fields: 2017−23

(Number)

Detailed field	2017	2018	2019	2020	2021	2022	2023
Industrial and manufacturing engineering[c]	127	156	167	83	73	72	107
Systems engineering and operations research[d]	NA	NA	NA	111	54	71	63
Mechanical engineering	1,089	1,069	1,142	1,149	1,200	1,189	1,317
Metallurgical, mining, materials and related engineering fields	565	575	665	630	562	542	557
Metallurgical and materials engineering[e]	550	549	642	na	na	na	na
Mining engineering[e]	15	26	23	na	na	na	na
Other engineering	1,150	1,237	1,064	1,095	1,148	1,203	1,249
Agricultural engineering	111	113	112	122	112	136	154
Engineering mechanics, physics, and science	316	354	180	199	253	265	291
Nuclear engineering	94	106	80	81	99	82	103
Engineering, other	na	na	na	693	684	720	701
Engineering, nec	544	530	541	na	na	na	na
Nanotechnology	85	134	151	na	na	na	na
Health	18,653	19,305	19,478	18,478	17,799	17,742	18,817
Clinical medicine	16,100	16,563	16,650	16,287	15,561	15,630	16,393
Medical clinical sciences and clinical and medical laboratory sciences	NA	NA	NA	430	345	450	521
Public health	767	791	843	914	880	796	848
Anesthesiology	422	436	494	466	414	313	366
Cardiology and cardiovascular disease	824	841	788	706	660	672	679
Endocrinology, diabetes, and metabolism	331	351	345	334	319	355	314
Gastroenterology	273	279	287	277	315	310	296
Hematology	338	316	434	429	362	379	354
Neurology and neurosurgery	1,202	1,437	1,466	1,491	1,522	1,618	1,715
Obstetrics and gynecology	294	313	312	289	230	218	274
Oncology and cancer research	1,974	2,012	1,830	1,541	1,504	1,391	1,512
Ophthalmology	513	517	523	456	464	476	537
Otorhinolaryngology	265	306	275	314	279	267	279
Pediatrics	1,270	1,264	1,264	1,337	1,143	1,125	1,134
Psychiatry	949	991	1,004	1,088	1,109	951	1,031
Pulmonary disease	290	286	275	296	232	238	258
Radiological sciences	996	1,090	1,152	1,180	1,100	1,218	1,359
Surgery	1,247	1,352	1,376	1,193	1,197	1,213	1,275
Clinical medicine nec	4,145	3,981	3,982	3,546	3,486	3,640	3,641
Other health[a]	2,553	2,742	2,828	2,191	2,238	2,112	2,424
Communication disorders sciences	79	83	75	82	88	72	94
Dental sciences	282	311	316	292	304	311	310

TABLE 1-11c

Postdoctoral appointees, by detailed fields: 2017–23

(Number)

Detailed field	2017	2018	2019	2020	2021	2022	2023
Nursing science	98	121	120	127	122	141	154
Pharmaceutical sciences	978	1,063	1,091	1,141	1,101	1,107	1,295
Veterinary biomedical and clinical sciences[b]	602	636	679	na	na	na	na
Other health nec[c]	na	na	na	549	623	481	571
Kinesiology and exercise science[d]	NA	NA	NA	84	67	71	83
Other health nec[d]	514	528	547	465	556	410	488

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

nec = not elsewhere classified.

[a] Broad field is not comparable between 2019 and 2020 due to changes in detailed fields.
[b] Detailed field moved between broad fields between 2019 and 2020.
[c] Detailed field split into multiple fields in 2020; data after 2020 represent the aggregate counts of all the new detailed fields.
[d] New detailed field in 2020.
[e] 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 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.