

**Table 1-4. Distribution of postdoctoral appointees across science, engineering, and health fields: 2017–24**

(Number)

Detailed field	2017	2018	2019	2020	2021	2022	2023	2024
All fields	64,733	64,783	66,247	65,681	63,328	62,750	65,850	69,877
Science	38,241	37,564	38,503	38,741	37,189	36,673	37,982	39,702
Agricultural and veterinary sciences <sup>a</sup>	1,024	1,072	1,079	1,678	1,595	1,705	1,993	2,177
Agricultural sciences	1,024	1,072	1,079	1,046	1,086	1,201	1,279	1,394
Veterinary biomedical and clinical sciences <sup>b</sup>	na	na	na	632	509	504	714	783
Biological and biomedical sciences <sup>a</sup>	21,781	21,533	21,847	21,902	20,245	19,585	19,520	20,234
Biochemistry	1,933	1,943	1,912	1,863	1,743	1,756	1,684	1,778
Biology	2,167	2,108	2,203	2,169	1,979	2,064	2,036	2,133
Biomedical sciences	1,870	1,941	1,942	1,879	1,906	1,553	1,602	1,538
Biophysics	144	151	164	147	156	126	151	161
Biostatistics and bioinformatics	695	699	721	830	733	691	739	900
Biotechnology	103	86	87	96	101	155	160	131
Botany and plant biology	586	620	667	579	520	507	490	511
Cell, cellular biology, and anatomical sciences	1,859	1,814	1,785	1,661	1,663	1,599	1,583	1,532
Ecology and population biology	468	446	414	467	430	438	461	471
Epidemiology	244	230	285	307	329	377	391	390
Genetics	1,529	1,428	1,472	1,485	1,384	1,288	1,329	1,306
Microbiological sciences and immunology	2,065	2,078	1,985	2,028	1,865	1,811	1,826	1,993
Molecular biology	477	521	570	722	634	549	507	428
Neurobiology and neuroscience	2,137	2,103	2,216	2,075	1,980	1,932	1,949	2,084
Nutrition science	177	180	192	191	152	146	156	163
Pathology and experimental pathology	1,106	1,145	1,302	1,263	1,043	925	904	984
Pharmacology and toxicology	1,140	1,012	1,021	1,026	884	915	886	1,005
Physiology	1,851	1,766	1,640	1,804	1,537	1,512	1,468	1,510
Zoology and animal biology	394	428	406	397	376	411	391	368
Biological and biomedical sciences nec	836	834	863	913	830	830	807	848
Computer and information sciences	854	879	878	823	880	859	987	1,042
Computer science	468	502	487	466	521	496	524	553
Computer and information sciences <sup>c</sup>	256	225	263	224	217	212	289	315
Computer and information sciences <sup>d</sup>	NA	NA	NA	187	185	166	237	255
Artificial intelligence, informatics, and computer and information science topics <sup>d</sup>	NA	NA	NA	37	32	46	52	60
Computer and information sciences nec <sup>c</sup>	130	152	128	133	142	151	174	174
Computer and information systems security <sup>d</sup>	NA	NA	NA	6	9	11	8	4
Information science and studies <sup>d</sup>	NA	NA	NA	40	56	65	66	58
Information technology <sup>d</sup>	NA	NA	NA	18	6	3	2	5
Computer and information sciences nec <sup>d</sup>	NA	NA	NA	69	71	72	98	107
Geosciences, atmospheric, and ocean sciences	2,089	1,726	1,778	1,790	1,797	1,787	1,919	2,043

**Table 1-4. Distribution of postdoctoral appointees across science, engineering, and health fields: 2017–24**

(Number)

Detailed field	2017	2018	2019	2020	2021	2022	2023	2024
Atmospheric sciences and meteorology	313	243	249	266	248	253	245	296
Geological and earth sciences	1,046	803	845	879	869	844	922	958
Ocean and marine sciences	433	401	393	360	373	414	444	477
Geosciences, atmospheric, and ocean sciences nec	297	279	291	285	307	276	308	312
Mathematics and statistics	991	982	1,070	1,076	1,112	1,110	1,220	1,238
Mathematics and applied mathematics <sup>c</sup>	860	833	892	924	923	910	1,016	1,034
Applied mathematics <sup>d</sup>	NA	NA	NA	207	202	221	203	211
Mathematics <sup>d</sup>	NA	NA	NA	717	721	689	813	823
Statistics	131	149	178	152	189	200	204	204
Multidisciplinary and interdisciplinary sciences <sup>c</sup>	1,131	980	972	832	878	840	988	1,061
Biological and physical sciences <sup>d</sup>	NA	NA	NA	119	125	56	48	55
Computational science <sup>d</sup>	NA	NA	NA	26	28	31	26	39
Data science and data analytics <sup>d</sup>	NA	NA	NA	57	50	48	98	113
International and global studies <sup>d</sup>	NA	NA	NA	13	21	27	27	48
Multidisciplinary and interdisciplinary sciences nec <sup>d</sup>	NA	NA	NA	617	654	678	789	806
Natural resources and conservation	731	764	806	845	889	936	937	969
Environmental science and studies	270	258	277	279	312	339	357	395
Forestry, natural resources, and conservation	461	506	529	566	577	597	580	574
Physical sciences	7,211	6,976	7,159	6,937	6,823	6,877	7,220	7,570
Astronomy and astrophysics	484	536	571	544	561	634	725	747
Chemistry	3,435	3,320	3,383	3,294	3,163	3,157	3,288	3,471
Materials sciences	300	264	259	225	213	246	247	255
Physics	2,645	2,619	2,721	2,676	2,677	2,618	2,723	2,800
Physical sciences nec	347	237	225	198	209	222	237	297
Psychology <sup>a</sup>	1,082	1,145	1,152	1,312	1,325	1,308	1,344	1,392
Clinical psychology	74	73	72	84	63	56	59	65
Counseling and applied psychology <sup>c</sup>	135	165	167	123	120	123	114	143
Applied psychology <sup>d</sup>	NA	NA	NA	92	110	109	105	127
Counseling psychology <sup>d</sup>	NA	NA	NA	31	10	14	9	16
Human development <sup>b</sup>	na	na	na	122	106	119	130	117
Psychology, general	696	674	663	722	705	735	768	760
Research and experimental psychology	177	233	250	261	331	275	273	307
Social sciences <sup>a</sup>	1,347	1,507	1,762	1,546	1,645	1,666	1,854	1,976
Agricultural and natural resource economics	57	53	52	33	42	53	72	77
Anthropology	136	137	148	153	149	150	152	173
Criminal justice and safety studies	4	12	16	17	16	15	19	12

**Table 1-4. Distribution of postdoctoral appointees across science, engineering, and health fields: 2017–24**

(Number)

Detailed field	2017	2018	2019	2020	2021	2022	2023	2024
Economics (except agricultural and natural resource)	94	108	132	123	165	152	147	181
Geography and cartography	81	120	128	140	127	131	141	134
Human development <sup>b</sup>	123	135	156	na	na	na	na	na
International relations and national security studies	38	51	85	68	117	98	119	95
Linguistics	33	39	39	41	50	58	51	66
Political science and government	142	137	170	148	164	162	173	172
Public policy analysis	162	191	220	229	213	241	305	350
Sociology and population studies	141	149	159	155	168	166	189	206
Social sciences nec <sup>c</sup>	336	375	457	439	434	440	486	510
Area, ethnic, cultural, gender, and group studies <sup>d</sup>	NA	NA	NA	226	230	235	273	280
Criminology <sup>d</sup>	NA	NA	NA	2	3	8	8	8
Urban studies and affairs <sup>d</sup>	NA	NA	NA	5	10	18	7	27
Social sciences, other <sup>d</sup>	na	na	na	206	191	179	198	195
History and philosophy of science and technology <sup>e</sup>	9	12	21	na	na	na	na	na
Social sciences nec <sup>c</sup>	327	363	436	na	na	na	na	na
Engineering	7,839	7,914	8,266	8,462	8,340	8,335	9,051	9,545
Aerospace, aeronautical, and astronautical engineering	196	207	227	233	277	244	254	246
Biological, biomedical, and biosystems engineering	1,476	1,529	1,602	1,696	1,616	1,540	1,594	1,685
Bioengineering and biomedical engineering <sup>e</sup>	1,398	1,433	1,515	na	na	na	na	na
Biological and biosystems engineering <sup>e</sup>	78	96	87	na	na	na	na	na
Chemical, petroleum, and chemical-related engineering	1,262	1,205	1,229	1,157	1,167	1,239	1,501	1,552
Chemical engineering	1,197	1,142	1,157	1,108	1,133	1,215	1,471	1,514
Petroleum engineering	65	63	72	49	34	24	30	38
Civil, environmental, transportation and related engineering fields <sup>c</sup>	804	739	865	1,006	968	1,018	1,070	1,166
Civil engineering <sup>d</sup>	804	739	865	904	879	929	960	1,063
Architectural, environmental, construction and surveying engineering <sup>d</sup>	NA	NA	NA	102	89	89	110	103
Electrical, electronics, communications and computer engineering	1,170	1,197	1,305	1,302	1,275	1,217	1,339	1,381
Electrical, electronics, and communications engineering <sup>c</sup>	1,170	1,197	1,305	1,242	1,186	1,129	1,257	1,288
Computer engineering <sup>d</sup>	NA	NA	NA	60	89	88	82	93
Industrial, manufacturing, systems engineering and operations research	127	156	167	194	127	143	170	162
Industrial and manufacturing engineering <sup>c</sup>	127	156	167	83	73	72	107	98
Systems engineering and operations research <sup>d</sup>	NA	NA	NA	111	54	71	63	64
Mechanical engineering	1,089	1,069	1,142	1,149	1,200	1,189	1,317	1,459
Metallurgical, mining, materials and related engineering fields	565	575	665	630	562	542	557	588
Metallurgical and materials engineering <sup>e</sup>	550	549	642	na	na	na	na	na
Mining engineering <sup>e</sup>	15	26	23	na	na	na	na	na

**Table 1-4. Distribution of postdoctoral appointees across science, engineering, and health fields: 2017–24**

(Number)

Detailed field	2017	2018	2019	2020	2021	2022	2023	2024
Other engineering	1,150	1,237	1,064	1,095	1,148	1,203	1,249	1,306
Agricultural engineering	111	113	112	122	112	136	154	162
Engineering mechanics, physics, and science	316	354	180	199	253	265	291	279
Nuclear engineering	94	106	80	81	99	82	103	112
Engineering, other	na	na	na	693	684	720	701	753
Engineering nec <sup>c</sup>	544	530	541	na	na	na	na	na
Nanotechnology <sup>e</sup>	85	134	151	na	na	na	na	na
Health	18,653	19,305	19,478	18,478	17,799	17,742	18,817	20,630
Clinical medicine	16,100	16,563	16,650	16,287	15,561	15,630	16,393	17,919
Medical clinical sciences and clinical and medical laboratory sciences	NA	NA	NA	430	345	450	521	650
Public health	767	791	843	914	880	796	848	887
Anesthesiology	422	436	494	466	414	313	366	453
Cardiology and cardiovascular disease	824	841	788	706	660	672	679	667
Endocrinology, diabetes, and metabolism	331	351	345	334	319	355	314	325
Gastroenterology	273	279	287	277	315	310	296	240
Hematology	338	316	434	429	362	379	354	359
Neurology and neurosurgery	1,202	1,437	1,466	1,491	1,522	1,618	1,715	1,890
Obstetrics and gynecology	294	313	312	289	230	218	274	303
Oncology and cancer research	1,974	2,012	1,830	1,541	1,504	1,391	1,512	1,595
Ophthalmology	513	517	523	456	464	476	537	618
Otorhinolaryngology	265	306	275	314	279	267	279	291
Pediatrics	1,270	1,264	1,264	1,337	1,143	1,125	1,134	1,306
Psychiatry	949	991	1,004	1,088	1,109	951	1,031	1,164
Pulmonary disease	290	286	275	296	232	238	258	278
Radiological sciences	996	1,090	1,152	1,180	1,100	1,218	1,359	1,465
Surgery	1,247	1,352	1,376	1,193	1,197	1,213	1,275	1,409
Clinical medicine nec	4,145	3,981	3,982	3,546	3,486	3,640	3,641	4,019
Other health <sup>a</sup>	2,553	2,742	2,828	2,191	2,238	2,112	2,424	2,711
Communication disorders sciences	79	83	75	82	88	72	94	105
Dental sciences	282	311	316	292	304	311	310	308
Nursing science	98	121	120	127	122	141	154	173
Pharmaceutical sciences	978	1,063	1,091	1,141	1,101	1,107	1,295	1,528
Veterinary biomedical and clinical sciences <sup>b</sup>	602	636	679	na	na	na	na	na
Other health nec <sup>c</sup>	na	na	na	549	623	481	571	597
Kinesiology and exercise science <sup>d</sup>	NA	NA	NA	84	67	71	83	83
Other health nec <sup>d</sup>	514	528	547	465	556	410	488	514

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

nec = not elsewhere classified.

<sup>a</sup> The following broad fields are not directly comparable between 2019 and 2020 due to changes in detailed fields: Agricultural and veterinary sciences, Biological and biomedical sciences, Psychology, Social sciences, and Other health.

<sup>b</sup> The following detailed fields moved between broad fields between 2019 and 2020: Veterinary biomedical and clinical sciences moved from Other health to Agricultural and veterinary sciences; Human development moved from Social sciences to Psychology.

<sup>c</sup> The following detailed fields from 2017 split into multiple fields in 2020; data after 2020 represent the aggregate counts of the new detailed fields split from the original detailed field: Computer and information sciences; Computer and information sciences nec; Mathematics and applied mathematics; Multidisciplinary and interdisciplinary sciences; Counseling and applied psychology; Social sciences nec; Civil, environmental, transportation and related engineering fields; Electrical, electronics, and communications engineering; Industrial and manufacturing engineering; Engineering nec; and Other health nec.

<sup>d</sup> The following detailed fields were added or significantly modified in 2020: Computer and information sciences; Artificial intelligence, informatics, and computer and information science topics; Computer and information systems security; Information science and studies; Information technology; Computer and information sciences nec; Applied mathematics; Mathematics; Biological and physical sciences; Computational science; Data science and data analytics; International and global studies; Multidisciplinary and interdisciplinary sciences nec; Applied psychology; Counseling psychology; Area, ethnic, cultural, gender, and group studies; Criminology; Urban studies and affairs; Social sciences, other; Civil engineering; Computer engineering; Systems engineering and operations research; Kinesiology and exercise science; and Other health nec.

<sup>e</sup> The following detailed fields from 2017 were moved or consolidated with other detailed fields starting in 2020: History and philosophy of science and technology; Bioengineering and biomedical engineering; Biological and biosystems engineering; Metallurgical and materials engineering; Mining engineering; and Nanotechnology.

**Note(s):**

Percentages may not add to total because of rounding. In the cases where field titles in the Survey of Graduate Students and Postdoctorates in Science and Engineering (GSS) changed between 2019 and 2020, the titles in this table match the GSS 2020 and later titles. 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 GSS, see table A-5 and table A-6.

**Source(s):**

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