

Table 18**Doctorate recipients, by citizenship status and major field of study: 2010–20**

(Number and percent)

Citizenship status and field	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	% change 2010–20
All doctorate recipients ^a	48,028	48,909	50,943	52,703	53,986	54,886	54,809	54,552	55,085	55,614	55,283	15.1
Life sciences	11,319	11,535	11,964	12,207	12,484	12,493	12,539	12,554	12,755	12,753	12,561	11.0
Agricultural sciences and natural resources	1,100	1,206	1,255	1,324	1,338	1,434	1,379	1,493	1,442	1,488	1,472	33.8
Biological and biomedical sciences	8,046	8,152	8,322	8,354	8,868	8,783	8,863	8,566	8,782	8,681	8,418	4.6
Health sciences	2,173	2,177	2,387	2,529	2,278	2,276	2,297	2,495	2,531	2,584	2,671	22.9
Physical sciences and earth sciences	4,995	5,271	5,419	5,584	5,910	5,916	6,251	6,082	6,331	6,579	6,247	25.1
Chemistry	2,304	2,432	2,416	2,484	2,673	2,666	2,703	2,699	2,808	2,939	2,763	19.9
Geosciences, atmospheric sciences, and ocean sciences	862	852	941	989	1,098	1,057	1,227	1,169	1,185	1,272	1,243	44.2
Physics and astronomy	1,829	1,987	2,062	2,111	2,139	2,193	2,321	2,214	2,338	2,368	2,241	22.5
Mathematics and computer sciences	3,223	3,273	3,496	3,660	3,862	3,818	3,954	3,842	4,022	4,231	4,392	36.3
Computer and information sciences	1,633	1,667	1,793	1,843	1,988	2,003	2,082	1,998	2,000	2,221	2,361	44.6
Mathematics and statistics	1,590	1,606	1,703	1,817	1,874	1,815	1,872	1,844	2,022	2,010	2,031	27.7
Psychology and social sciences	7,882	8,220	8,498	8,580	8,748	9,073	9,037	9,034	8,877	9,043	8,946	13.5
Psychology	3,420	3,576	3,599	3,592	3,724	3,776	3,910	3,925	3,821	3,909	3,879	13.4
Anthropology	507	553	547	550	523	492	460	446	424	445	448	-11.6
Economics	1,073	1,121	1,243	1,183	1,196	1,255	1,236	1,239	1,245	1,247	1,216	13.3
Political science and government	728	685	724	803	775	859	745	743	734	707	637	-12.5
Sociology	639	656	633	636	678	741	613	683	668	632	607	-5.0
Other social sciences	1,515	1,629	1,752	1,816	1,852	1,950	2,073	1,998	1,985	2,103	2,159	42.5
Engineering	7,578	8,032	8,469	9,000	9,626	9,875	9,459	9,776	10,165	10,298	10,476	38.2
Aerospace, aeronautical, and astronautical engineering	252	262	307	348	386	361	370	379	383	379	399	58.3
Bioengineering and biomedical engineering	824	898	943	1,039	1,046	1,125	1,089	1,032	1,133	1,163	1,083	31.4
Chemical engineering	822	823	840	824	973	1,002	921	931	981	980	994	20.9
Civil engineering	643	634	495	542	617	632	564	713	675	700	796	23.8
Electrical, electronics, and communications engineering	1,778	1,886	1,938	1,897	1,952	1,997	1,823	1,879	1,943	1,799	1,973	11.0
Industrial and manufacturing engineering	215	258	226	241	298	243	256	249	272	234	304	41.4
Materials science engineering	670	662	743	815	832	871	984	937	992	992	880	31.3
Mechanical engineering	983	1,084	1,220	1,277	1,331	1,466	1,297	1,398	1,503	1,532	1,634	66.2
Other engineering	1,391	1,525	1,757	2,017	2,191	2,178	2,155	2,258	2,283	2,519	2,413	73.5
Education	5,287	4,670	4,802	4,934	4,789	5,098	5,146	4,826	4,818	4,633	4,716	-10.8
Education administration	1,439	924	1,057	965	893	920	824	922	895	839	927	-35.6
Education research	2,443	2,438	2,568	2,703	2,560	2,772	2,384	2,418	2,500	2,304	2,312	-5.4
Teacher education	245	204	156	109	152	156	180	114	96	104	113	-53.9
Teaching fields	799	805	757	892	915	953	1,166	925	959	957	940	17.6
Other education	361	299	264	265	269	297	592	447	368	429	424	17.5
Humanities and arts	5,015	5,225	5,561	5,715	5,524	5,594	5,482	5,286	5,139	5,051	4,939	-1.5
Foreign languages and literature	601	644	684	701	674	656	599	618	617	610	564	-6.2
History	1,005	1,065	1,086	1,148	1,186	1,146	1,148	1,058	948	912	887	-11.7
Letters	1,516	1,513	1,638	1,606	1,551	1,583	1,531	1,462	1,439	1,386	1,392	-8.2

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(Number and percent)

Citizenship status and field	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	% change 2010–20
Other humanities and arts	1,893	2,003	2,153	2,260	2,113	2,209	2,204	2,148	2,135	2,143	2,096	10.7
Other ^b	2,729	2,683	2,734	3,023	3,043	3,019	2,941	3,152	2,978	3,026	3,006	10.2
Business management and administration	1,366	1,327	1,404	1,551	1,584	1,582	1,509	1,565	1,474	1,532	1,466	7.3
Communication	638	650	595	645	663	667	672	622	630	543	593	-7.1
Non-S&E fields nec	725	706	735	827	796	770	760	965	874	951	947	30.6
U.S. citizen or permanent resident	31,602	31,725	32,981	33,964	34,003	35,071	35,678	35,735	35,351	35,232	34,492	9.1
Life sciences	7,812	7,892	8,184	8,352	8,390	8,470	8,683	8,827	9,029	9,040	8,707	11.5
Agricultural sciences and natural resources	618	697	675	737	754	774	771	822	792	821	796	28.8
Biological and biomedical sciences	5,585	5,614	5,790	5,768	5,993	6,029	6,215	6,147	6,396	6,371	6,008	7.6
Health sciences	1,609	1,581	1,719	1,847	1,643	1,667	1,697	1,858	1,841	1,848	1,903	18.3
Physical sciences and earth sciences	2,860	3,048	3,148	3,247	3,300	3,481	3,669	3,714	3,769	3,900	3,741	30.8
Chemistry	1,323	1,407	1,385	1,443	1,447	1,572	1,581	1,696	1,710	1,780	1,696	28.2
Geosciences, atmospheric sciences, and ocean sciences	573	555	623	654	722	704	803	790	760	808	811	41.5
Physics and astronomy	964	1,086	1,140	1,150	1,131	1,205	1,285	1,228	1,299	1,312	1,234	28.0
Mathematics and computer sciences	1,599	1,603	1,627	1,631	1,738	1,663	1,729	1,748	1,736	1,785	1,736	8.6
Computer and information sciences	761	790	785	758	807	774	783	801	742	799	808	6.2
Mathematics and statistics	838	813	842	873	931	889	946	947	994	986	928	10.7
Psychology and social sciences	5,803	6,070	6,319	6,464	6,389	6,685	6,798	6,843	6,691	6,702	6,605	13.8
Psychology	2,874	3,062	3,046	3,067	3,042	3,103	3,341	3,376	3,309	3,326	3,317	15.4
Anthropology	384	455	445	457	405	397	360	349	336	360	366	-4.7
Economics	459	428	517	505	469	552	522	547	483	491	459	0.0
Political science and government	522	488	536	593	574	621	579	572	544	504	460	-11.9
Sociology	519	511	512	516	544	596	506	562	557	511	488	-6.0
Other social sciences	1,045	1,126	1,263	1,326	1,355	1,416	1,490	1,437	1,462	1,510	1,515	45.0
Engineering	3,332	3,350	3,579	3,767	4,066	4,219	4,181	4,311	4,213	4,251	4,154	24.7
Aerospace, aeronautical, and astronautical engineering	141	145	181	194	246	216	233	241	221	212	221	56.7
Bioengineering and biomedical engineering	516	564	602	637	674	723	746	695	743	771	689	33.5
Chemical engineering	433	393	377	365	445	488	470	469	469	480	465	7.4
Civil engineering	231	216	159	182	229	231	219	231	200	200	245	6.1
Electrical, electronics, and communications engineering	627	617	614	603	575	632	548	581	543	518	552	-12.0
Industrial and manufacturing engineering	62	100	75	77	91	65	82	85	62	84	82	32.3
Materials science engineering	313	278	350	349	363	381	456	470	462	501	398	27.2
Mechanical engineering	403	440	505	547	558	620	585	591	608	600	601	49.1
Other engineering	606	597	716	813	885	863	842	948	905	885	901	48.7
Education	4,476	3,878	4,040	4,118	3,934	4,196	4,303	4,052	4,025	3,848	3,896	-13.0
Education administration	1,296	833	936	844	763	797	727	792	783	755	818	-36.9
Education research	2,059	1,989	2,143	2,216	2,104	2,273	1,981	2,029	2,056	1,909	1,872	-9.1
Teacher education	203	156	134	90	132	134	158	97	87	87	94	-53.7
Teaching fields	646	679	613	741	732	762	950	763	785	769	751	16.3

Table 18**Doctorate recipients, by citizenship status and major field of study: 2010–20**

(Number and percent)

Citizenship status and field	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	% change 2010–20
Other education	272	221	214	227	203	230	487	371	314	328	361	32.7
Humanities and arts	4,029	4,191	4,434	4,535	4,361	4,478	4,450	4,297	4,145	3,988	3,915	-2.8
Foreign languages and literature	389	426	472	467	469	463	399	430	405	383	349	-10.3
History	843	893	889	947	968	944	950	890	800	741	746	-11.5
Letters	1,287	1,289	1,383	1,354	1,304	1,353	1,314	1,277	1,232	1,187	1,165	-9.5
Other humanities and arts	1,510	1,583	1,690	1,767	1,620	1,718	1,787	1,700	1,708	1,677	1,655	9.6
Other ^b	1,691	1,693	1,650	1,850	1,825	1,879	1,865	1,943	1,743	1,718	1,738	2.8
Business management and administration	746	755	736	831	849	892	845	859	740	748	709	-5.0
Communication	468	473	426	471	473	479	472	458	434	349	412	-12.0
Non-S&E fields nec	477	465	488	548	503	508	548	626	569	621	617	29.4
Temporary visa holder	13,636	14,235	14,784	15,674	15,839	16,129	16,477	16,288	17,586	18,324	18,482	35.5
Life sciences	2,926	3,029	3,197	3,177	3,169	3,264	3,352	3,331	3,360	3,395	3,430	17.2
Agricultural sciences and natural resources	412	472	529	516	504	555	561	607	607	646	633	53.6
Biological and biomedical sciences	2,084	2,124	2,166	2,154	2,229	2,266	2,304	2,180	2,157	2,129	2,176	4.4
Health sciences	430	433	502	507	436	443	487	544	596	620	621	44.4
Physical sciences and earth sciences	1,884	1,955	1,959	2,032	2,196	2,099	2,313	2,160	2,374	2,484	2,311	22.7
Chemistry	847	907	880	888	1,000	929	1,000	919	1,022	1,071	994	17.4
Geosciences, atmospheric sciences, and ocean sciences	251	246	281	290	326	307	390	332	392	429	391	55.8
Physics and astronomy	786	802	798	854	870	863	923	909	960	984	926	17.8
Mathematics and computer sciences	1,446	1,449	1,617	1,833	1,850	1,917	2,053	1,926	2,128	2,304	2,475	71.2
Computer and information sciences	760	759	870	990	1,029	1,094	1,201	1,105	1,163	1,329	1,452	91.1
Mathematics and statistics	686	690	747	843	821	823	852	821	965	975	1,023	49.1
Psychology and social sciences	1,553	1,588	1,601	1,634	1,549	1,622	1,753	1,668	1,769	1,915	1,832	18.0
Psychology	270	238	254	282	249	260	305	286	284	339	257	-4.8
Anthropology	88	73	74	76	86	68	76	65	70	66	63	-28.4
Economics	556	623	656	615	627	606	656	641	707	708	691	24.3
Political science and government	162	150	150	163	145	178	128	140	159	173	152	-6.2
Sociology	95	113	85	92	90	101	89	93	88	104	101	6.3
Other social sciences	382	391	382	406	352	409	499	443	461	525	568	48.7
Engineering	3,866	4,164	4,355	4,759	4,961	5,108	4,842	5,037	5,576	5,680	5,955	54.0
Aerospace, aeronautical, and astronautical engineering	99	100	107	138	124	132	121	123	146	153	163	64.6
Bioengineering and biomedical engineering	290	291	292	352	318	348	301	300	362	359	364	25.5
Chemical engineering	359	379	414	409	482	461	401	426	478	478	482	34.3
Civil engineering	378	373	303	333	339	359	307	427	442	461	513	35.7
Electrical, electronics, and communications engineering	1,040	1,109	1,181	1,160	1,217	1,237	1,160	1,215	1,316	1,198	1,344	29.2
Industrial and manufacturing engineering	142	152	140	156	185	161	164	157	196	140	200	40.8
Materials science engineering	326	350	334	435	419	448	494	428	500	461	463	42.0
Mechanical engineering	519	568	631	664	686	783	652	741	831	879	983	89.4
Other engineering	713	842	953	1,112	1,191	1,179	1,242	1,220	1,305	1,551	1,443	102.4

Table 18**Doctorate recipients, by citizenship status and major field of study: 2010–20**

(Number and percent)

Citizenship status and field	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	% change 2010–20
Education	478	497	460	515	478	539	562	534	611	615	661	38.3
Education administration	35	41	46	44	39	35	33	51	52	54	59	68.6
Education research	277	294	278	319	265	327	279	308	366	317	387	39.7
Teacher education	19	26	13	17	14	13	13	12	8	16	18	-5.3
Teaching fields	112	96	101	116	134	145	181	132	155	165	163	45.5
Other education	35	40	22	19	26	19	56	31	30	63	34	-2.9
Humanities and arts	667	767	761	779	731	713	712	692	739	826	742	11.2
Foreign languages and literature	179	180	160	179	142	151	164	159	181	202	185	3.4
History	113	131	136	134	147	131	142	125	112	130	120	6.2
Letters	134	157	141	150	140	122	126	122	139	149	131	-2.2
Other humanities and arts	241	299	324	316	302	309	280	286	307	345	306	27.0
Other ^b	816	786	834	945	905	867	890	940	1,029	1,105	1,076	31.9
Business management and administration	499	477	542	600	589	546	553	588	643	688	658	31.9
Communication	131	132	107	133	137	137	160	122	165	163	154	17.6
Non-S&E fields nec	186	177	185	212	179	184	177	230	221	254	264	41.9

nec = not elsewhere classified; S&E = science and engineering.

^a Includes respondents who did not report citizenship status.^b Includes other non-S&E fields not shown separately.**Note(s):**

See table A-6 in the technical notes for a listing of major fields and their constituent subfields.

Source(s):

National Center for Science and Engineering Statistics, Survey of Earned Doctorates.