

Table 15. Doctorate recipients, by sex and major field of study: 2006–16

Sex and major field of study	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	% change 2006–16
All doctorate recipients ^a	45,620	48,132	48,777	49,552	48,029	48,911	50,945	52,704	53,994	54,909	54,904	20.4
Life sciences	9,703	10,702	11,086	11,403	11,319	11,535	11,964	12,208	12,484	12,503	12,568	29.5
Agricultural sciences and natural resources	1,146	1,321	1,198	1,283	1,100	1,206	1,255	1,324	1,338	1,434	1,385	20.9
Biological and biomedical sciences	6,652	7,238	7,797	8,025	8,046	8,152	8,322	8,355	8,868	8,792	8,884	33.6
Health sciences	1,905	2,143	2,091	2,095	2,173	2,177	2,387	2,529	2,278	2,277	2,299	20.7
Physical sciences and earth sciences	4,686	4,956	4,946	5,160	4,995	5,271	5,419	5,584	5,911	5,918	6,252	33.4
Chemistry	2,364	2,318	2,246	2,391	2,304	2,432	2,416	2,484	2,673	2,668	2,704	14.4
Geosciences, atmospheric, and ocean sciences	757	875	865	877	862	852	941	989	1,099	1,057	1,227	62.1
Physics and astronomy	1,565	1,763	1,835	1,892	1,829	1,987	2,062	2,111	2,139	2,193	2,321	48.3
Mathematics and computer sciences	2,778	3,042	3,187	3,163	3,223	3,273	3,496	3,660	3,863	3,818	3,957	42.4
Computer and information sciences	1,453	1,654	1,787	1,610	1,633	1,667	1,793	1,843	1,989	2,003	2,085	43.5
Mathematics and statistics	1,325	1,388	1,400	1,553	1,590	1,606	1,703	1,817	1,874	1,815	1,872	41.3
Psychology and social sciences	7,231	7,309	7,635	7,945	7,883	8,221	8,498	8,580	8,752	9,080	9,078	25.5
Psychology	3,260	3,276	3,357	3,472	3,421	3,576	3,599	3,592	3,724	3,779	3,946	21.0
Anthropology	472	512	483	503	507	553	547	550	524	492	460	-2.5
Economics	1,029	1,004	1,091	1,118	1,073	1,121	1,243	1,183	1,196	1,255	1,238	20.3
Political science and government	616	588	628	682	728	685	724	803	777	859	745	20.9
Sociology	579	576	601	662	639	657	633	636	679	742	615	6.2
Other social sciences	1,275	1,353	1,475	1,508	1,515	1,629	1,752	1,816	1,852	1,953	2,074	62.7
Engineering	7,186	7,749	7,864	7,642	7,578	8,032	8,469	9,000	9,628	9,878	9,469	31.8
Aerospace, aeronautical, and astronautical engineering	238	267	266	297	252	262	307	348	386	361	369	55.0
Bioengineering and biomedical engineering	525	637	762	834	824	898	943	1,039	1,046	1,127	1,089	107.4
Chemical engineering	799	817	873	807	822	823	840	824	973	1,002	923	15.5
Civil engineering	655	703	713	707	643	634	495	542	617	632	565	-13.7
Electrical, electronics, and communications engineering	1,786	1,967	1,888	1,693	1,778	1,886	1,938	1,897	1,953	1,998	1,827	2.3
Industrial and manufacturing engineering	234	279	280	251	215	258	226	241	298	243	256	9.4
Materials science engineering	583	646	636	625	670	662	743	815	833	871	985	69.0
Mechanical engineering	1,045	1,071	1,082	1,095	983	1,084	1,220	1,277	1,331	1,466	1,299	24.3
Other engineering	1,321	1,362	1,364	1,333	1,391	1,525	1,757	2,017	2,191	2,178	2,156	63.2
Education	6,122	6,448	6,561	6,528	5,287	4,670	4,803	4,934	4,789	5,098	5,153	-15.8
Education administration	2,051	2,161	2,238	2,146	1,439	924	1,057	965	893	920	829	-59.6
Education research	2,751	2,671	2,640	2,663	2,443	2,438	2,569	2,703	2,560	2,772	2,386	-13.3

Table 15. Doctorate recipients, by sex and major field of study: 2006–16

Sex and major field of study	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	% change 2006–16
Teacher education	250	297	274	332	245	204	156	109	152	156	181	-27.6
Teaching fields	707	873	912	906	799	805	757	892	915	953	1,167	65.1
Other education	363	446	497	481	361	299	264	265	269	297	590	62.5
Humanities and arts	5,332	5,085	4,736	4,904	5,015	5,226	5,562	5,715	5,524	5,594	5,484	2.9
Foreign languages and literature	614	607	627	598	601	644	684	701	674	656	599	-2.4
History	973	937	971	1,045	1,005	1,065	1,087	1,148	1,186	1,146	1,147	17.9
Letters	1,457	1,340	1,420	1,413	1,516	1,513	1,638	1,606	1,551	1,583	1,533	5.2
Other humanities and arts	2,288	2,201	1,718	1,848	1,893	2,004	2,153	2,260	2,113	2,209	2,205	-3.6
Other ^b	2,582	2,841	2,762	2,807	2,729	2,683	2,734	3,023	3,043	3,020	2,943	14.0
Business management and administration	1,311	1,506	1,421	1,405	1,366	1,327	1,404	1,551	1,584	1,583	1,510	15.2
Communication	510	560	557	627	638	650	595	645	663	667	673	32.0
Non-S&E fields not elsewhere classified	757	772	784	775	725	706	735	827	796	770	760	0.4
Unknown field	4	3	0	0	0	0	0	0	0	0	0	-100.0
Male	25,020	26,202	26,272	26,331	25,525	26,189	27,363	28,326	29,014	29,544	29,616	18.4
Life sciences	4,690	5,197	5,223	5,183	5,101	5,243	5,335	5,492	5,514	5,569	5,643	20.3
Agricultural sciences and natural resources	698	802	700	722	609	652	698	702	691	746	760	8.9
Biological and biomedical sciences	3,377	3,708	3,861	3,834	3,823	3,878	3,891	3,941	4,088	4,106	4,163	23.3
Health sciences	615	687	662	627	669	713	746	849	735	717	720	17.1
Physical sciences and earth sciences	3,321	3,447	3,505	3,533	3,379	3,629	3,684	3,717	3,969	3,930	4,286	29.1
Chemistry	1,551	1,486	1,479	1,490	1,440	1,508	1,521	1,497	1,642	1,594	1,713	10.4
Geosciences, atmospheric, and ocean sciences	490	542	548	539	496	522	538	539	623	600	716	46.1
Physics and astronomy	1,280	1,419	1,478	1,504	1,443	1,599	1,625	1,681	1,704	1,736	1,857	45.1
Mathematics and computer sciences	2,074	2,307	2,353	2,327	2,409	2,456	2,638	2,792	2,913	2,877	2,998	44.6
Computer and information sciences	1,142	1,322	1,387	1,260	1,286	1,312	1,419	1,502	1,581	1,581	1,666	45.9
Mathematics and statistics	932	985	966	1,067	1,123	1,144	1,219	1,290	1,332	1,296	1,332	42.9
Psychology and social sciences	3,072	3,028	3,171	3,297	3,358	3,332	3,539	3,501	3,509	3,757	3,749	22.0
Psychology	936	941	999	991	1,032	1,003	1,040	997	1,063	1,057	1,138	21.6
Anthropology	203	196	189	195	201	223	187	188	195	185	171	-15.8
Economics	717	684	717	735	703	734	840	767	786	821	820	14.4
Political science and government	396	345	367	409	434	389	420	469	434	527	462	16.7
Sociology	216	216	235	263	250	254	230	259	247	284	259	19.9

Table 15. Doctorate recipients, by sex and major field of study: 2006–16

Sex and major field of study	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	% change 2006–16
Other social sciences	604	646	664	704	738	729	822	821	784	883	899	48.8
Engineering	5,729	6,141	6,168	6,006	5,829	6,242	6,565	6,946	7,403	7,581	7,277	27.0
Aerospace, aeronautical, and aeronautical engineering	212	236	238	255	215	228	268	293	330	308	313	47.6
Bioengineering and biomedical engineering	345	412	477	525	509	563	608	684	660	700	687	99.1
Chemical engineering	583	620	641	591	574	566	583	566	682	685	626	7.4
Civil engineering	538	538	568	559	473	486	388	417	465	457	438	-18.6
Electrical, electronics, and communications engineering	1,535	1,662	1,568	1,433	1,462	1,579	1,594	1,616	1,615	1,705	1,532	-0.2
Industrial and manufacturing engineering	167	201	201	186	159	180	164	176	209	154	185	10.8
Materials science engineering	430	482	482	466	495	496	556	598	618	648	723	68.1
Mechanical engineering	901	940	930	942	858	934	1,042	1,081	1,126	1,265	1,097	21.8
Other engineering	1,018	1,050	1,063	1,049	1,084	1,210	1,362	1,515	1,698	1,659	1,676	64.6
Education	2,130	2,103	2,158	2,161	1,661	1,432	1,500	1,570	1,468	1,605	1,550	-27.2
Education administration	839	805	892	838	547	349	389	372	371	344	306	-63.5
Education research	866	816	763	819	706	699	761	826	723	849	719	-17.0
Teacher education	63	72	58	92	59	38	43	22	35	36	43	-31.7
Teaching fields	248	281	289	275	233	250	229	275	265	294	315	27.0
Other education	114	129	156	137	116	96	78	75	74	82	167	46.5
Humanities and arts	2,680	2,605	2,308	2,404	2,462	2,572	2,742	2,829	2,760	2,763	2,639	-1.5
Foreign languages and literature	235	237	220	224	218	248	238	271	248	238	228	-3.0
History	575	553	561	608	556	586	603	632	664	632	621	8.0
Letters	618	569	527	524	625	615	659	665	657	647	600	-2.9
Other humanities and arts	1,252	1,246	1,000	1,048	1,063	1,123	1,242	1,261	1,191	1,246	1,190	-5.0
Other ^b	1,324	1,374	1,386	1,420	1,326	1,283	1,360	1,479	1,478	1,462	1,474	11.3
Business management and administration	798	863	861	872	814	792	837	909	909	935	933	16.9
Communication	220	209	232	263	247	233	244	244	277	256	261	18.6
Non-S&E fields not elsewhere classified	305	302	293	285	265	258	279	326	292	271	280	-8.2
Unknown field	1	0	0	0	0	0	0	0	0	0	0	-100.0
Female	20,559	21,904	22,494	23,187	22,488	22,700	23,527	24,366	24,816	25,358	25,278	23.0
Life sciences	5,006	5,497	5,859	6,210	6,213	6,289	6,614	6,713	6,930	6,933	6,923	38.3
Agricultural sciences and natural resources	448	516	498	559	490	554	554	622	646	688	624	39.3

Table 15. Doctorate recipients, by sex and major field of study: 2006–16

Sex and major field of study	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	% change 2006–16
Biological and biomedical sciences	3,271	3,529	3,934	4,185	4,219	4,272	4,422	4,411	4,747	4,685	4,720	44.3
Health sciences	1,287	1,452	1,427	1,466	1,504	1,463	1,638	1,680	1,537	1,560	1,579	22.7
Physical sciences and earth sciences	1,360	1,508	1,440	1,618	1,615	1,640	1,730	1,864	1,924	1,987	1,963	44.3
Chemistry	810	832	767	895	864	922	894	985	1,021	1,074	991	22.3
Geosciences, atmospheric, and ocean sciences	266	333	316	338	366	330	403	449	475	457	510	91.7
Physics and astronomy	284	343	357	385	385	388	433	430	428	456	462	62.7
Mathematics and computer sciences	704	734	833	832	814	813	855	868	934	939	959	36.2
Computer and information sciences	311	332	400	349	347	353	374	341	400	422	419	34.7
Mathematics and statistics	393	402	433	483	467	460	481	527	534	517	540	37.4
Psychology and social sciences	4,154	4,278	4,464	4,646	4,524	4,888	4,955	5,077	5,220	5,322	5,329	28.3
Psychology	2,322	2,335	2,358	2,481	2,389	2,573	2,558	2,594	2,648	2,722	2,808	20.9
Anthropology	269	316	294	308	306	330	360	362	329	307	289	7.4
Economics	310	319	374	382	369	387	402	416	404	434	418	34.8
Political science and government	220	242	261	272	294	296	303	333	342	332	283	28.6
Sociology	363	360	366	399	389	403	402	377	432	458	356	-1.9
Other social sciences	670	706	811	804	777	899	930	995	1,065	1,069	1,175	75.4
Engineering	1,452	1,605	1,693	1,631	1,746	1,782	1,887	2,052	2,184	2,297	2,192	51.0
Aerospace, aeronautical, and astronautical engineering	25	31	28	41	37	34	39	55	55	53	56	124.0
Bioengineering and biomedical engineering	179	225	285	308	315	335	335	355	384	427	402	124.6
Chemical engineering	216	197	232	216	248	256	256	258	290	317	297	37.5
Civil engineering	117	165	145	148	169	147	106	125	147	175	127	8.5
Electrical, electronics, and communications engineering	250	304	319	260	315	301	336	279	325	293	295	18.0
Industrial and manufacturing engineering	67	78	79	65	55	78	62	65	89	89	71	6.0
Materials science engineering	152	164	154	159	175	166	184	217	211	223	262	72.4
Mechanical engineering	144	131	152	152	125	150	177	196	197	201	202	40.3
Other engineering	302	310	299	282	307	315	392	502	486	519	480	58.9
Education	3,985	4,344	4,402	4,366	3,624	3,234	3,299	3,364	3,311	3,492	3,603	-9.6
Education administration	1,211	1,356	1,346	1,308	892	574	665	593	522	576	523	-56.8
Education research	1,884	1,854	1,876	1,844	1,736	1,736	1,808	1,877	1,828	1,922	1,667	-11.5
Teacher education	186	225	216	240	186	166	113	87	117	120	138	-25.8

Table 15. Doctorate recipients, by sex and major field of study: 2006–16

Sex and major field of study	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	% change 2006–16
Teaching fields	457	592	623	630	566	555	527	617	649	659	852	86.4
Other education	247	317	341	344	244	203	186	190	195	215	423	71.3
Humanities and arts	2,647	2,478	2,428	2,499	2,552	2,654	2,818	2,885	2,760	2,830	2,843	7.4
Foreign languages and literature	379	370	407	374	382	396	446	430	424	418	371	-2.1
History	398	384	410	437	449	479	484	516	521	514	526	32.2
Letters	839	771	893	888	891	898	978	941	894	936	933	11.2
Other humanities and arts	1,031	953	718	800	830	881	910	998	921	962	1,013	-1.7
Other ^b	1,251	1,460	1,375	1,385	1,400	1,400	1,369	1,543	1,553	1,558	1,466	17.2
Business management and administration	507	638	560	533	550	535	564	641	669	648	576	13.6
Communication	290	351	325	364	390	417	350	401	383	411	410	41.4
Non-S&E fields not elsewhere classified	451	468	490	488	460	448	455	501	501	499	480	6.4
Unknown field	3	3	0	0	0	0	0	0	0	0	0	-100.0

S&E = science and engineering.

^a Includes respondents who did not report sex.

^b Non-science and engineering fields.

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

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