

TABLE 15

## Doctorate recipients, by sex and major field of study: 2009–18

(Number and percent)

Sex and major field of study	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	% change 2009–18
All doctorate recipients <sup>a</sup>	49,552	48,028	48,910	50,943	52,703	53,989	54,889	54,798	54,559	55,195	11.4
Life sciences	11,403	11,319	11,535	11,964	12,207	12,484	12,493	12,536	12,555	12,780	12.1
Agricultural sciences and natural resources	1,283	1,100	1,206	1,255	1,324	1,338	1,434	1,378	1,494	1,445	12.6
Biological and biomedical sciences	8,025	8,046	8,152	8,322	8,354	8,868	8,783	8,861	8,566	8,801	9.7
Health sciences	2,095	2,173	2,177	2,387	2,529	2,278	2,276	2,297	2,495	2,534	21.0
Physical sciences and earth sciences	5,160	4,995	5,271	5,419	5,584	5,910	5,917	6,251	6,084	6,335	22.8
Chemistry	2,391	2,304	2,432	2,416	2,484	2,673	2,667	2,703	2,701	2,810	17.5
Geosciences, atmospheric sciences, and ocean sciences	877	862	852	941	989	1,098	1,057	1,227	1,169	1,185	35.1
Physics and astronomy	1,892	1,829	1,987	2,062	2,111	2,139	2,193	2,321	2,214	2,340	23.7
Mathematics and computer sciences	3,163	3,223	3,273	3,496	3,660	3,862	3,818	3,954	3,842	4,030	27.4
Computer and information sciences	1,610	1,633	1,667	1,793	1,843	1,988	2,003	2,082	1,998	2,004	24.5
Mathematics and statistics	1,553	1,590	1,606	1,703	1,817	1,874	1,815	1,872	1,844	2,026	30.5
Psychology and social sciences	7,945	7,882	8,221	8,498	8,580	8,751	9,075	9,035	9,036	8,899	12.0
Psychology	3,472	3,420	3,576	3,599	3,592	3,724	3,775	3,910	3,926	3,837	10.5
Anthropology	503	507	553	547	550	523	492	460	446	424	-15.7
Economics	1,118	1,073	1,121	1,243	1,183	1,196	1,255	1,235	1,239	1,247	11.5
Political science and government	682	728	685	724	803	777	859	745	743	734	7.6
Sociology	662	639	657	633	636	679	742	613	683	669	1.1
Other social sciences	1,508	1,515	1,629	1,752	1,816	1,852	1,952	2,072	1,999	1,988	31.8
Engineering	7,642	7,578	8,032	8,469	9,000	9,626	9,875	9,458	9,777	10,183	33.3
Aerospace, aeronautical, and astronautical engineering	297	252	262	307	348	386	361	370	379	383	29.0
Bioengineering and biomedical engineering	834	824	898	943	1,039	1,046	1,125	1,089	1,032	1,134	36.0
Chemical engineering	807	822	823	840	824	973	1,002	921	931	981	21.6
Civil engineering	707	643	634	495	542	617	632	564	713	677	-4.2
Electrical, electronics, and communications engineering	1,693	1,778	1,886	1,938	1,897	1,952	1,997	1,822	1,880	1,951	15.2
Industrial and manufacturing engineering	251	215	258	226	241	298	243	256	249	272	8.4
Materials science engineering	625	670	662	743	815	832	871	984	937	995	59.2
Mechanical engineering	1,095	983	1,084	1,220	1,277	1,331	1,466	1,297	1,399	1,504	37.4
Other engineering	1,333	1,391	1,525	1,757	2,017	2,191	2,178	2,155	2,257	2,286	71.5
Education	6,528	5,287	4,670	4,802	4,934	4,789	5,098	5,143	4,826	4,834	-25.9
Education administration	2,146	1,439	924	1,057	965	893	920	823	922	898	-58.2
Education research	2,663	2,443	2,438	2,568	2,703	2,560	2,772	2,383	2,418	2,507	-5.9
Teacher education	332	245	204	156	109	152	156	180	114	97	-70.8
Teaching fields	906	799	805	757	892	915	953	1,165	925	963	6.3
Other education	481	361	299	264	265	269	297	592	447	369	-23.3
Humanities and arts	4,904	5,015	5,225	5,561	5,715	5,524	5,594	5,480	5,286	5,145	4.9
Foreign languages and literature	598	601	644	684	701	674	656	599	618	617	3.2
History	1,045	1,005	1,065	1,086	1,148	1,186	1,146	1,148	1,058	948	-9.3
Letters	1,413	1,516	1,513	1,638	1,606	1,551	1,583	1,529	1,462	1,442	2.1
Other humanities and arts	1,848	1,893	2,003	2,153	2,260	2,113	2,209	2,204	2,148	2,138	15.7
Other <sup>b</sup>	2,807	2,729	2,683	2,734	3,023	3,043	3,019	2,941	3,153	2,989	6.5
Business management and administration	1,405	1,366	1,327	1,404	1,551	1,584	1,582	1,509	1,565	1,481	5.4
Communication	627	638	650	595	645	663	667	672	622	631	0.6

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Sex and major field of study	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	% change 2009–18
Non-S&E fields nec	775	725	706	735	827	796	770	760	962	877	13.2
Unknown field	0	0	0	0	0	0	0	0	4	0	0.0
Male	26,331	25,524	26,188	27,362	28,326	29,009	29,535	29,568	29,085	29,798	13.2
Life sciences	5,183	5,101	5,243	5,335	5,492	5,514	5,564	5,626	5,613	5,659	9.2
Agricultural sciences and natural resources	722	609	652	698	702	691	746	755	756	746	3.3
Biological and biomedical sciences	3,834	3,823	3,878	3,891	3,941	4,088	4,101	4,152	4,056	4,089	6.7
Health sciences	627	669	713	746	849	735	717	719	801	824	31.4
Physical sciences and earth sciences	3,533	3,379	3,629	3,684	3,717	3,968	3,929	4,285	4,069	4,214	19.3
Chemistry	1,490	1,440	1,508	1,521	1,497	1,642	1,593	1,712	1,668	1,743	17.0
Geosciences, atmospheric sciences, and ocean sciences	539	496	522	538	539	622	600	716	644	659	22.3
Physics and astronomy	1,504	1,443	1,599	1,625	1,681	1,704	1,736	1,857	1,757	1,812	20.5
Mathematics and computer sciences	2,327	2,409	2,456	2,638	2,792	2,912	2,877	2,994	2,867	3,043	30.8
Computer and information sciences	1,260	1,286	1,312	1,419	1,502	1,580	1,581	1,662	1,548	1,568	24.4
Mathematics and statistics	1,067	1,123	1,144	1,219	1,290	1,332	1,296	1,332	1,319	1,475	38.2
Psychology and social sciences	3,297	3,357	3,332	3,539	3,501	3,508	3,758	3,740	3,670	3,641	10.4
Psychology	991	1,031	1,003	1,040	997	1,063	1,057	1,133	1,123	1,097	10.7
Anthropology	195	201	223	187	188	195	185	171	155	126	-35.4
Economics	735	703	734	840	767	785	821	819	812	850	15.6
Political science and government	409	434	389	420	469	434	527	462	449	429	4.9
Sociology	263	250	254	230	259	247	284	257	263	250	-4.9
Other social sciences	704	738	729	822	821	784	884	898	868	889	26.3
Engineering	6,006	5,829	6,242	6,565	6,946	7,401	7,578	7,266	7,342	7,726	28.6
Aerospace, aeronautical, and astronautical engineering	255	215	228	268	293	330	308	314	336	337	32.2
Bioengineering and biomedical engineering	525	509	563	608	684	660	698	686	605	688	31.0
Chemical engineering	591	574	566	583	566	682	685	624	659	688	16.4
Civil engineering	559	473	486	388	417	465	457	437	508	507	-9.3
Electrical, electronics, and communications engineering	1,433	1,462	1,579	1,594	1,616	1,614	1,704	1,528	1,525	1,606	12.1
Industrial and manufacturing engineering	186	159	180	164	176	209	154	185	168	204	9.7
Materials science engineering	466	495	496	556	598	617	648	721	688	720	54.5
Mechanical engineering	942	858	934	1,042	1,081	1,126	1,265	1,096	1,160	1,286	36.5
Other engineering	1,049	1,084	1,210	1,362	1,515	1,698	1,659	1,675	1,693	1,690	61.1
Education	2,161	1,661	1,432	1,500	1,570	1,468	1,605	1,545	1,519	1,496	-30.8
Education administration	838	547	349	389	372	371	344	304	344	323	-61.5
Education research	819	706	699	761	826	723	849	718	772	764	-6.7
Teacher education	92	59	38	43	22	35	36	43	21	18	-80.4
Teaching fields	275	233	250	229	275	265	294	313	263	272	-1.1
Other education	137	116	96	78	75	74	82	167	119	119	-13.1
Humanities and arts	2,404	2,462	2,571	2,741	2,829	2,760	2,763	2,639	2,580	2,567	6.8
Foreign languages and literature	224	218	248	238	271	248	238	228	237	247	10.3
History	608	556	586	602	632	664	632	621	594	513	-15.6
Letters	524	625	615	659	665	657	647	600	591	585	11.6
Other humanities and arts	1,048	1,063	1,122	1,242	1,261	1,191	1,246	1,190	1,158	1,222	16.6
Other <sup>b</sup>	1,420	1,326	1,283	1,360	1,479	1,478	1,461	1,473	1,425	1,452	2.3

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Sex and major field of study	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	% change 2009–18
Business management and administration	872	814	792	837	909	909	934	932	872	869	-0.3
Communication	263	247	233	244	244	277	256	261	197	234	-11.0
Non-S&E fields nec	285	265	258	279	326	292	271	280	353	349	22.5
Unknown field	0	0	0	0	0	0	0	0	3	0	0.0
Female	23,187	22,488	22,700	23,526	24,365	24,815	25,347	25,215	25,452	25,368	9.4
Life sciences	6,210	6,213	6,289	6,614	6,712	6,930	6,928	6,907	6,937	7,114	14.6
Agricultural sciences and natural resources	559	490	554	554	622	646	688	622	736	696	24.5
Biological and biomedical sciences	4,185	4,219	4,272	4,422	4,410	4,747	4,681	4,707	4,508	4,709	12.5
Health sciences	1,466	1,504	1,463	1,638	1,680	1,537	1,559	1,578	1,693	1,709	16.6
Physical sciences and earth sciences	1,618	1,615	1,640	1,730	1,864	1,924	1,987	1,963	2,014	2,118	30.9
Chemistry	895	864	922	894	985	1,021	1,074	991	1,032	1,067	19.2
Geosciences, atmospheric sciences, and ocean sciences	338	366	330	403	449	475	457	510	525	526	55.6
Physics and astronomy	385	385	388	433	430	428	456	462	457	525	36.4
Mathematics and computer sciences	832	814	813	855	868	934	939	959	974	983	18.1
Computer and information sciences	349	347	353	374	341	400	422	420	450	435	24.6
Mathematics and statistics	483	467	460	481	527	534	517	539	524	548	13.5
Psychology and social sciences	4,646	4,524	4,888	4,955	5,077	5,219	5,316	5,294	5,362	5,256	13.1
Psychology	2,481	2,389	2,573	2,558	2,594	2,648	2,718	2,776	2,803	2,740	10.4
Anthropology	308	306	330	360	362	328	307	289	291	298	-3.2
Economics	382	369	387	402	416	404	434	416	425	397	3.9
Political science and government	272	294	296	303	333	342	332	283	294	304	11.8
Sociology	399	389	403	402	377	432	458	356	419	419	5.0
Other social sciences	804	777	899	930	995	1,065	1,067	1,174	1,130	1,098	36.6
Engineering	1,631	1,746	1,782	1,887	2,052	2,184	2,297	2,189	2,429	2,453	50.4
Aerospace, aeronautical, and astronautical engineering	41	37	34	39	55	55	53	56	43	46	12.2
Bioengineering and biomedical engineering	308	315	335	335	355	384	427	403	427	445	44.5
Chemical engineering	216	248	256	256	258	290	317	296	271	293	35.6
Civil engineering	148	169	147	106	125	147	175	127	203	170	14.9
Electrical, electronics, and communications engineering	260	315	301	336	279	325	293	293	355	345	32.7
Industrial and manufacturing engineering	65	55	78	62	65	89	89	71	80	68	4.6
Materials science engineering	159	175	166	184	217	211	223	262	249	275	73.0
Mechanical engineering	152	125	150	177	196	197	201	201	239	216	42.1
Other engineering	282	307	315	392	502	486	519	480	562	595	111.0
Education	4,366	3,624	3,234	3,298	3,364	3,311	3,492	3,598	3,305	3,337	-23.6
Education administration	1,308	892	574	665	593	522	576	519	578	575	-56.0
Education research	1,844	1,736	1,736	1,807	1,877	1,828	1,922	1,665	1,645	1,742	-5.5
Teacher education	240	186	166	113	87	117	120	137	92	79	-67.1
Teaching fields	630	566	555	527	617	649	659	852	662	691	9.7
Other education	344	244	203	186	190	195	215	425	328	250	-27.3
Humanities and arts	2,499	2,552	2,654	2,818	2,885	2,760	2,830	2,840	2,705	2,575	3.0
Foreign languages and literature	374	382	396	446	430	424	418	371	381	370	-1.1
History	437	449	479	484	516	521	514	527	464	435	-0.5
Letters	888	891	898	978	941	894	936	929	871	856	-3.6
Other humanities and arts	800	830	881	910	998	921	962	1,013	989	914	14.3

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(Number and percent)

Sex and major field of study	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	% change 2009–18
Other <sup>b</sup>	1,385	1,400	1,400	1,369	1,543	1,553	1,558	1,465	1,726	1,532	10.6
Business management and administration	533	550	535	564	641	669	648	575	692	609	14.3
Communication	364	390	417	350	401	383	411	410	425	396	8.8
Non-S&E fields nec	488	460	448	455	501	501	499	480	609	527	8.0
Unknown field	0	0	0	0	0	0	0	0	0	0	0.0

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

<sup>a</sup> Includes respondents who did not report sex.<sup>b</sup> 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.