

Table SHED-7

Doctoral degrees awarded, by sex, citizenship, race, ethnicity, and field: 2011–19

(Number)

Sex, citizenship, race, ethnicity, and field	2011	2012	2013	2014	2015	2016	2017	2018	2019
Both sexes									
All citizenships, races, and ethnicity									
All fields	59,847	62,181	64,887	67,591	69,115	69,836	71,142	72,332	74,015
S&E	38,470	39,864	41,563	43,995	44,521	44,845	45,729	46,798	47,753
Engineering	8,478	8,873	9,489	10,135	10,406	10,358	10,547	10,951	11,330
Aerospace	237	275	310	336	310	332	342	347	362
Chemical	951	969	1,001	1,169	1,197	1,181	1,169	1,211	1,298
Civil	894	922	1,036	1,154	1,230	1,166	1,246	1,232	1,431
Electrical	2,352	2,475	2,469	2,642	2,651	2,620	2,669	2,720	2,664
Industrial	319	348	389	400	354	375	380	397	402
Materials	651	715	757	734	810	842	877	891	903
Mechanical	1,172	1,277	1,384	1,454	1,586	1,534	1,498	1,665	1,713
Other	1,902	1,892	2,143	2,246	2,268	2,308	2,366	2,488	2,557
Science	29,992	30,991	32,074	33,860	34,115	34,487	35,182	35,847	36,423
Natural sciences	21,313	22,152	22,808	24,098	24,165	24,774	25,403	26,306	26,845
Agricultural sciences	1,053	1,144	1,218	1,228	1,381	1,343	1,364	1,345	1,442
Biological sciences	7,596	7,817	7,825	8,207	7,890	7,858	8,003	8,096	7,863
Earth, atmospheric, and ocean sciences	687	737	794	861	827	912	890	933	961
Atmospheric sciences	120	125	137	126	146	142	153	174	154
Earth sciences	467	497	530	606	575	631	629	648	669
Oceanography	100	115	127	129	106	139	108	111	138
Mathematics and computer sciences	3,152	3,360	3,633	3,799	3,753	3,791	3,859	3,987	4,183
Computer sciences	1,562	1,690	1,809	1,935	1,951	1,936	1,934	1,974	2,174
Mathematics and statistics	1,590	1,670	1,824	1,864	1,802	1,855	1,925	2,013	2,009
Medical and other health sciences	4,265	4,505	4,635	5,056	5,343	5,792	6,201	6,741	7,083
Medical sciences	1,497	1,716	1,867	2,148	2,433	2,597	2,853	3,150	3,281
Other health sciences	2,768	2,789	2,768	2,908	2,910	3,195	3,348	3,591	3,802
Physical sciences	4,560	4,589	4,703	4,947	4,971	5,078	5,086	5,204	5,313
Astronomy	166	170	174	179	153	169	196	211	185
Chemistry	2,685	2,630	2,730	2,921	2,906	3,002	2,990	3,059	3,179
Physics	1,670	1,752	1,740	1,768	1,840	1,833	1,826	1,879	1,873
Other physical sciences	39	37	59	79	72	74	74	55	76
Social and behavioral sciences	8,679	8,839	9,266	9,762	9,950	9,713	9,779	9,541	9,578
Psychology	3,952	3,867	4,280	4,574	4,533	4,526	4,486	4,325	4,297
Social sciences	4,727	4,972	4,986	5,188	5,417	5,187	5,293	5,216	5,281
Anthropology	596	585	595	606	577	591	581	573	560

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Sex, citizenship, race, ethnicity, and field	2011	2012	2013	2014	2015	2016	2017	2018	2019
Area and ethnic studies	257	274	272	316	309	302	323	316	352
Economics	1,152	1,271	1,227	1,212	1,283	1,298	1,325	1,326	1,375
History of science	27	24	29	41	31	31	30	27	36
Linguistics	235	249	237	240	266	259	229	258	258
Political science and public administration	1,314	1,402	1,507	1,537	1,622	1,518	1,557	1,489	1,531
Sociology	671	635	626	692	733	658	697	707	632
Other social sciences	475	532	493	544	596	530	551	520	537
Non-S&E	21,377	22,317	23,324	23,596	24,594	24,991	25,413	25,534	26,262
U.S. citizen or permanent resident									
All fields	43,514	45,313	47,233	49,267	50,859	51,317	52,258	52,594	53,680
S&E	25,296	26,093	27,209	28,785	29,338	29,622	30,137	30,617	31,154
Engineering	3,713	3,926	4,123	4,451	4,620	4,602	4,574	4,633	4,725
Aerospace	130	163	169	208	194	208	214	197	197
Chemical	440	442	428	520	564	559	563	564	607
Civil	353	366	410	465	535	468	470	449	476
Electrical	815	847	813	822	855	810	746	777	752
Industrial	124	124	133	136	111	126	142	111	137
Materials	283	363	348	348	374	415	437	434	453
Mechanical	505	556	614	643	683	680	654	698	667
Other	1,063	1,065	1,208	1,309	1,304	1,336	1,348	1,403	1,436
Science	21,583	22,167	23,086	24,334	24,718	25,020	25,563	25,984	26,429
Natural sciences	14,614	15,112	15,546	16,333	16,579	17,091	17,659	18,335	18,806
Agricultural sciences	660	694	770	755	888	849	825	841	892
Biological sciences	5,513	5,705	5,710	5,957	5,720	5,740	5,930	6,029	5,931
Earth, atmospheric, and ocean sciences	472	498	540	583	566	610	622	619	634
Atmospheric sciences	83	75	91	85	99	96	106	103	94
Earth sciences	312	339	363	395	391	411	427	434	442
Oceanography	77	84	86	103	76	103	89	82	98
Mathematics and computer sciences	1,621	1,671	1,761	1,823	1,764	1,798	1,827	1,824	1,878
Computer sciences	772	819	849	875	864	816	845	814	890
Mathematics and statistics	849	852	912	948	900	982	982	1,010	988
Medical and other health sciences	3,696	3,835	3,991	4,392	4,667	5,078	5,440	5,935	6,285
Medical sciences	1,108	1,248	1,393	1,656	1,945	2,090	2,319	2,572	2,706
Other health sciences	2,588	2,587	2,598	2,736	2,722	2,988	3,121	3,363	3,579
Physical sciences	2,652	2,709	2,774	2,823	2,974	3,016	3,015	3,087	3,186
Astronomy	108	124	120	131	118	124	140	163	131

Table SHED-7

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(Number)

Sex, citizenship, race, ethnicity, and field	2011	2012	2013	2014	2015	2016	2017	2018	2019
Chemistry	1,592	1,584	1,653	1,703	1,787	1,806	1,838	1,873	1,968
Physics	928	985	970	951	1,028	1,041	1,004	1,025	1,042
Other physical sciences	24	16	31	38	41	45	33	26	45
Social and behavioral sciences	6,969	7,055	7,540	8,001	8,139	7,929	7,904	7,649	7,623
Psychology	3,694	3,616	4,017	4,320	4,261	4,292	4,217	4,042	4,038
Social sciences	3,275	3,439	3,523	3,681	3,878	3,637	3,687	3,607	3,585
Anthropology	505	490	508	507	489	486	485	483	477
Area and ethnic studies	214	220	240	265	263	254	262	266	273
Economics	456	538	535	500	566	537	538	516	518
History of science	24	17	24	29	19	25	25	23	25
Linguistics	146	139	131	139	155	152	140	161	152
Political science and public administration	1,013	1,086	1,181	1,234	1,284	1,221	1,223	1,167	1,200
Sociology	555	536	517	580	623	552	591	592	518
Other social sciences	362	413	387	427	479	410	423	399	422
Non-S&E	18,218	19,220	20,024	20,482	21,521	21,695	22,121	21,977	22,526
Hispanic or Latino									
All fields	2,457	2,707	2,938	3,239	3,554	3,891	3,929	4,072	4,388
S&E	1,397	1,483	1,641	1,828	2,019	2,240	2,181	2,249	2,445
Engineering	182	191	202	247	286	285	306	284	321
Aerospace	8	9	11	16	8	15	9	15	13
Chemical	23	30	17	28	31	39	33	32	37
Civil	18	27	24	28	40	35	41	31	42
Electrical	41	36	34	41	54	49	52	37	41
Industrial	10	5	10	12	11	9	9	8	6
Materials	9	14	16	26	26	31	32	29	26
Mechanical	31	28	34	34	35	40	48	45	48
Other	42	42	56	62	81	67	82	87	108
Science	1,215	1,292	1,439	1,581	1,733	1,955	1,875	1,965	2,124
Natural sciences	692	741	820	874	1,014	1,092	1,102	1,209	1,300
Agricultural sciences	45	41	45	49	47	58	54	57	61
Biological sciences	324	329	393	379	425	454	440	472	526
Earth, atmospheric, and ocean sciences	14	18	24	21	31	27	38	42	39
Atmospheric sciences	1	2	2	3	2	8	7	9	7
Earth sciences	11	11	19	13	25	16	23	28	26
Oceanography	2	5	3	5	4	3	8	5	6
Mathematics and computer sciences	48	65	74	66	77	98	91	107	96

Table SHED-7

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(Number)

Sex, citizenship, race, ethnicity, and field	2011	2012	2013	2014	2015	2016	2017	2018	2019
Computer sciences	19	26	40	31	42	36	45	48	36
Mathematics and statistics	29	39	34	35	35	62	46	59	60
Medical and other health sciences	138	156	151	208	280	296	305	352	369
Medical sciences	67	65	79	100	150	135	148	181	168
Other health sciences	71	91	72	108	130	161	157	171	201
Physical sciences	123	132	133	151	154	159	174	179	209
Astronomy	5	5	3	3	9	6	7	11	7
Chemistry	79	76	89	100	100	109	109	115	149
Physics	37	51	41	48	44	43	57	53	50
Other physical sciences	2	0	0	0	1	1	1	0	3
Social and behavioral sciences	523	551	619	707	719	863	773	756	824
Psychology	335	342	408	483	488	590	530	502	527
Social sciences	188	209	211	224	231	273	243	254	297
Anthropology	40	36	36	51	33	40	32	31	41
Area and ethnic studies	14	21	24	23	26	34	33	32	39
Economics	16	17	37	23	35	37	22	28	29
History of science	1	1	0	2	1	1	0	0	0
Linguistics	3	3	5	7	4	13	9	12	7
Political science and public administration	50	58	49	61	54	73	64	70	93
Sociology	49	53	40	34	54	40	67	58	58
Other social sciences	15	20	20	23	24	35	16	23	30
Non-S&E	1,060	1,224	1,297	1,411	1,535	1,651	1,748	1,823	1,943
Not Hispanic or Latino									
All fields	41,057	42,606	44,295	46,028	47,305	47,426	48,329	48,522	49,292
S&E	23,899	24,610	25,568	26,957	27,319	27,382	27,956	28,368	28,709
Engineering	3,531	3,735	3,921	4,204	4,334	4,317	4,268	4,349	4,404
Aerospace	122	154	158	192	186	193	205	182	184
Chemical	417	412	411	492	533	520	530	532	570
Civil	335	339	386	437	495	433	429	418	434
Electrical	774	811	779	781	801	761	694	740	711
Industrial	114	119	123	124	100	117	133	103	131
Materials	274	349	332	322	348	384	405	405	427
Mechanical	474	528	580	609	648	640	606	653	619
Other	1,021	1,023	1,152	1,247	1,223	1,269	1,266	1,316	1,328
Science	20,368	20,875	21,647	22,753	22,985	23,065	23,688	24,019	24,305
Natural sciences	13,922	14,371	14,726	15,459	15,565	15,999	16,557	17,126	17,506

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(Number)

Sex, citizenship, race, ethnicity, and field	2011	2012	2013	2014	2015	2016	2017	2018	2019
Agricultural sciences	615	653	725	706	841	791	771	784	831
Biological sciences	5,189	5,376	5,317	5,578	5,295	5,286	5,490	5,557	5,405
Earth, atmospheric, and ocean sciences	458	480	516	562	535	583	584	577	595
Atmospheric sciences	82	73	89	82	97	88	99	94	87
Earth sciences	301	328	344	382	366	395	404	406	416
Oceanography	75	79	83	98	72	100	81	77	92
Mathematics and computer sciences	1,573	1,606	1,687	1,757	1,687	1,700	1,736	1,717	1,782
Computer sciences	753	793	809	844	822	780	800	766	854
Mathematics and statistics	820	813	878	913	865	920	936	951	928
Medical and other health sciences	3,558	3,679	3,840	4,184	4,387	4,782	5,135	5,583	5,916
Medical sciences	1,041	1,183	1,314	1,556	1,795	1,955	2,171	2,391	2,538
Other health sciences	2,517	2,496	2,526	2,628	2,592	2,827	2,964	3,192	3,378
Physical sciences	2,529	2,577	2,641	2,672	2,820	2,857	2,841	2,908	2,977
Astronomy	103	119	117	128	109	118	133	152	124
Chemistry	1,513	1,508	1,564	1,603	1,687	1,697	1,729	1,758	1,819
Physics	891	934	929	903	984	998	947	972	992
Other physical sciences	22	16	31	38	40	44	32	26	42
Social and behavioral sciences	6,446	6,504	6,921	7,294	7,420	7,066	7,131	6,893	6,799
Psychology	3,359	3,274	3,609	3,837	3,773	3,702	3,687	3,540	3,511
Social sciences	3,087	3,230	3,312	3,457	3,647	3,364	3,444	3,353	3,288
Anthropology	465	454	472	456	456	446	453	452	436
Area and ethnic studies	200	199	216	242	237	220	229	234	234
Economics	440	521	498	477	531	500	516	488	489
History of science	23	16	24	27	18	24	25	23	25
Linguistics	143	136	126	132	151	139	131	149	145
Political science and public administration	963	1,028	1,132	1,173	1,230	1,148	1,159	1,097	1,107
Sociology	506	483	477	546	569	512	524	534	460
Other social sciences	347	393	367	404	455	375	407	376	392
Non-S&E	17,158	17,996	18,727	19,071	19,986	20,044	20,373	20,154	20,583
American Indian or Alaska Native									
All fields	232	232	261	241	264	246	250	241	234
S&E	122	117	130	131	137	127	114	121	111
Engineering	15	11	7	13	12	10	12	10	16
Aerospace	0	1	0	1	0	0	0	0	2
Chemical	4	1	1	1	4	0	1	1	6
Civil	1	2	0	0	2	1	1	1	1

Table SHED-7

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(Number)

Sex, citizenship, race, ethnicity, and field	2011	2012	2013	2014	2015	2016	2017	2018	2019
Electrical	0	1	2	3	1	2	0	1	2
Industrial	0	1	1	0	0	0	2	0	0
Materials	3	1	0	2	0	0	1	0	1
Mechanical	4	2	1	0	3	1	3	3	2
Other	3	2	2	6	2	6	4	4	2
Science	107	106	123	118	125	117	102	111	95
Natural sciences	62	70	67	67	71	68	68	62	64
Agricultural sciences	5	9	4	5	8	6	3	5	8
Biological sciences	25	33	25	16	24	24	23	10	21
Earth, atmospheric, and ocean sciences	0	2	4	1	3	5	4	0	4
Atmospheric sciences	0	0	0	0	0	0	0	0	0
Earth sciences	0	1	4	0	3	4	2	0	4
Oceanography	0	1	0	1	0	1	2	0	0
Mathematics and computer sciences	8	2	3	8	5	5	5	4	3
Computer sciences	3	2	0	7	4	1	2	3	2
Mathematics and statistics	5	0	3	1	1	4	3	1	1
Medical and other health sciences	14	18	23	21	20	23	25	34	23
Medical sciences	5	5	7	9	6	9	9	19	10
Other health sciences	9	13	16	12	14	14	16	15	13
Physical sciences	10	6	8	16	11	5	8	9	5
Astronomy	0	1	2	1	0	0	0	0	0
Chemistry	7	4	4	12	5	4	7	7	3
Physics	3	1	2	3	5	1	1	2	2
Other physical sciences	0	0	0	0	1	0	0	0	0
Social and behavioral sciences	45	36	56	51	54	49	34	49	31
Psychology	23	21	31	20	21	22	14	18	17
Social sciences	22	15	25	31	33	27	20	31	14
Anthropology	4	6	6	7	8	6	4	6	2
Area and ethnic studies	6	6	10	6	10	7	4	12	3
Economics	1	0	0	1	3	0	1	0	0
History of science	0	0	0	0	0	0	0	0	0
Linguistics	0	0	2	1	1	1	2	2	2
Political science and public administration	4	2	5	8	7	5	3	4	2
Sociology	4	0	1	6	3	6	4	3	2
Other social sciences	3	1	1	2	1	2	2	4	3
Non-S&E	110	115	131	110	127	119	136	120	123

Table SHED-7

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(Number)

Sex, citizenship, race, ethnicity, and field	2011	2012	2013	2014	2015	2016	2017	2018	2019
Asian									
All fields	3,125	3,342	3,431	3,440	3,664	3,567	3,791	3,801	4,040
S&E	2,333	2,468	2,467	2,513	2,669	2,604	2,832	2,841	3,082
Engineering	599	573	589	637	664	661	687	664	743
Aerospace	16	15	16	18	12	20	26	13	22
Chemical	58	66	57	70	81	91	86	83	95
Civil	46	35	36	42	59	43	51	45	41
Electrical	179	184	167	179	157	155	163	153	177
Industrial	14	9	11	16	17	12	21	15	19
Materials	46	56	51	45	50	51	57	53	70
Mechanical	59	47	60	85	81	81	78	85	76
Other	181	161	191	182	207	208	205	217	243
Science	1,734	1,895	1,878	1,876	2,005	1,943	2,145	2,177	2,339
Natural sciences	1,327	1,450	1,458	1,425	1,521	1,502	1,685	1,691	1,862
Agricultural sciences	28	34	29	34	35	43	42	36	44
Biological sciences	596	659	656	646	667	632	686	654	715
Earth, atmospheric, and ocean sciences	22	19	13	21	17	28	29	27	26
Atmospheric sciences	6	5	2	3	6	5	9	9	2
Earth sciences	12	13	9	14	11	15	16	16	19
Oceanography	4	1	2	4	0	8	4	2	5
Mathematics and computer sciences	217	199	230	189	192	189	227	219	243
Computer sciences	128	129	128	110	112	88	100	108	139
Mathematics and statistics	89	70	102	79	80	101	127	111	104
Medical and other health sciences	260	302	294	295	354	360	425	451	526
Medical sciences	133	138	141	172	202	193	245	249	263
Other health sciences	127	164	153	123	152	167	180	202	263
Physical sciences	204	237	236	240	256	250	276	304	308
Astronomy	4	7	6	7	9	12	10	12	11
Chemistry	135	165	155	149	174	161	183	208	199
Physics	63	65	72	82	73	73	80	84	97
Other physical sciences	2	0	3	2	0	4	3	0	1
Social and behavioral sciences	407	445	420	451	484	441	460	486	477
Psychology	189	213	199	213	255	228	216	229	236
Social sciences	218	232	221	238	229	213	244	257	241
Anthropology	23	21	35	32	21	20	13	25	18
Area and ethnic studies	21	24	16	25	14	12	17	22	19

Table SHED-7

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(Number)

Sex, citizenship, race, ethnicity, and field	2011	2012	2013	2014	2015	2016	2017	2018	2019
Economics	55	60	58	60	65	57	65	60	73
History of science	1	1	0	2	1	0	2	1	0
Linguistics	14	19	9	8	12	9	17	11	16
Political science and public administration	58	57	70	51	59	67	71	72	63
Sociology	35	31	22	37	35	38	32	44	27
Other social sciences	11	19	11	23	22	10	27	22	25
Non-S&E	792	874	964	927	995	963	959	960	958
Black or African American									
All fields	3,759	4,065	4,331	4,780	5,050	5,265	5,709	5,568	6,173
S&E	1,426	1,486	1,637	1,816	1,855	2,024	2,151	2,157	2,356
Engineering	141	175	187	172	165	197	182	171	197
Aerospace	4	9	4	2	5	4	6	8	4
Chemical	15	11	13	17	11	18	15	12	31
Civil	14	13	14	19	26	17	23	17	15
Electrical	32	43	34	40	31	44	27	30	26
Industrial	13	18	23	10	10	9	21	1	13
Materials	10	14	20	12	8	15	12	26	21
Mechanical	13	21	29	17	21	21	16	19	19
Other	40	46	50	55	53	69	62	58	68
Science	1,285	1,311	1,450	1,644	1,690	1,827	1,969	1,986	2,159
Natural sciences	740	805	862	942	933	1,117	1,201	1,310	1,414
Agricultural sciences	21	38	33	32	31	38	43	42	37
Biological sciences	249	267	284	271	219	245	278	287	243
Earth, atmospheric, and ocean sciences	5	15	11	12	11	11	11	13	12
Atmospheric sciences	1	3	4	0	4	6	1	2	3
Earth sciences	3	10	5	9	6	4	7	10	8
Oceanography	1	2	2	3	1	1	3	1	1
Mathematics and computer sciences	54	60	79	79	77	105	83	85	92
Computer sciences	31	39	52	52	57	69	62	54	64
Mathematics and statistics	23	21	27	27	20	36	21	31	28
Medical and other health sciences	325	346	360	441	488	619	698	790	936
Medical sciences	132	156	157	233	262	335	415	447	513
Other health sciences	193	190	203	208	226	284	283	343	423
Physical sciences	86	79	95	107	107	99	88	93	94
Astronomy	1	0	0	1	1	1	1	1	0
Chemistry	67	58	78	81	88	72	66	79	77

Table SHED-7

Doctoral degrees awarded, by sex, citizenship, race, ethnicity, and field: 2011–19

(Number)

Sex, citizenship, race, ethnicity, and field	2011	2012	2013	2014	2015	2016	2017	2018	2019
Physics	17	21	15	21	18	24	19	12	9
Other physical sciences	1	0	2	4	0	2	2	1	8
Social and behavioral sciences	545	506	588	702	757	710	768	676	745
Psychology	275	238	299	362	414	406	388	332	372
Social sciences	270	268	289	340	343	304	380	344	373
Anthropology	18	14	20	21	17	21	30	19	23
Area and ethnic studies	30	36	38	42	39	39	49	49	52
Economics	19	15	21	18	11	17	18	21	15
History of science	0	0	1	1	1	0	0	3	2
Linguistics	5	3	2	4	3	3	2	1	5
Political science and public administration	121	126	143	176	184	146	191	156	190
Sociology	47	48	51	55	65	51	66	70	52
Other social sciences	30	26	13	23	23	27	24	25	34
Non-S&E	2,333	2,579	2,694	2,964	3,195	3,241	3,558	3,411	3,817
Native Hawaiian or Other Pacific Islander									
All fields	55	55	70	70	76	91	82	81	76
S&E	37	23	27	44	34	40	37	43	45
Engineering	4	2	7	8	1	3	5	0	5
Aerospace	0	0	0	1	0	0	0	0	0
Chemical	1	0	1	0	0	0	1	0	0
Civil	0	0	0	1	0	0	0	0	1
Electrical	0	0	2	1	0	1	0	0	0
Industrial	0	0	0	0	0	0	0	0	1
Materials	0	0	0	0	1	1	1	0	0
Mechanical	0	1	1	1	0	0	1	0	0
Other	3	1	3	4	0	1	2	0	3
Science	33	21	20	36	33	37	32	43	40
Natural sciences	26	20	12	28	25	24	23	33	22
Agricultural sciences	1	0	1	1	1	0	0	2	0
Biological sciences	12	10	7	12	8	11	11	7	12
Earth, atmospheric, and ocean sciences	0	1	0	0	1	0	0	1	0
Atmospheric sciences	0	1	0	0	0	0	0	0	0
Earth sciences	0	0	0	0	1	0	0	1	0
Oceanography	0	0	0	0	0	0	0	0	0
Mathematics and computer sciences	3	2	0	1	2	1	1	2	1
Computer sciences	2	0	0	0	0	1	1	0	0

Table SHED-7

Doctoral degrees awarded, by sex, citizenship, race, ethnicity, and field: 2011–19

(Number)

Sex, citizenship, race, ethnicity, and field	2011	2012	2013	2014	2015	2016	2017	2018	2019
Mathematics and statistics	1	2	0	1	2	0	0	2	1
Medical and other health sciences	4	3	4	11	8	10	10	14	7
Medical sciences	2	2	1	6	2	7	4	6	5
Other health sciences	2	1	3	5	6	3	6	8	2
Physical sciences	6	4	0	3	5	2	1	7	2
Astronomy	0	0	0	0	0	0	0	0	0
Chemistry	4	4	0	1	3	0	1	5	1
Physics	2	0	0	2	2	1	0	2	1
Other physical sciences	0	0	0	0	0	1	0	0	0
Social and behavioral sciences	7	1	8	8	8	13	9	10	18
Psychology	1	0	4	6	3	10	4	4	8
Social sciences	6	1	4	2	5	3	5	6	10
Anthropology	1	0	1	0	1	0	1	0	1
Area and ethnic studies	1	0	0	1	2	2	0	2	3
Economics	1	0	0	0	0	0	0	0	0
History of science	0	0	0	0	0	0	0	0	0
Linguistics	0	0	0	0	0	0	0	1	0
Political science and public administration	1	1	3	1	2	1	3	3	6
Sociology	2	0	0	0	0	0	0	0	0
Other social sciences	0	0	0	0	0	0	1	0	0
Non-S&E	18	32	43	26	42	51	45	38	31
White									
All fields	29,455	30,424	31,614	32,622	33,218	33,202	33,281	33,432	33,331
S&E	17,346	17,958	18,615	19,552	19,714	19,620	19,875	20,061	20,074
Engineering	2,393	2,592	2,701	2,928	3,023	2,967	2,882	2,957	3,008
Aerospace	93	112	128	156	150	153	155	153	142
Chemical	307	296	300	357	383	378	373	383	385
Civil	228	257	295	324	347	324	298	299	324
Electrical	468	486	474	453	494	469	398	443	413
Industrial	77	78	76	89	64	82	73	71	88
Materials	183	253	234	233	263	269	292	280	303
Mechanical	343	402	428	437	484	477	437	472	467
Other	694	708	766	879	838	815	856	856	886
Science	14,953	15,366	15,914	16,624	16,691	16,653	16,993	17,104	17,066
Natural sciences	10,333	10,605	10,919	11,446	11,501	11,702	11,968	12,296	12,373
Agricultural sciences	509	519	586	577	673	633	611	625	665

Table SHED-7

Doctoral degrees awarded, by sex, citizenship, race, ethnicity, and field: 2011–19

(Number)

Sex, citizenship, race, ethnicity, and field	2011	2012	2013	2014	2015	2016	2017	2018	2019
Biological sciences	3,787	3,859	3,860	4,067	3,886	3,881	3,951	4,057	3,880
Earth, atmospheric, and ocean sciences	385	404	450	483	444	480	486	477	492
Atmospheric sciences	67	61	75	77	82	73	82	78	72
Earth sciences	258	274	302	322	302	325	340	332	342
Oceanography	60	69	73	84	60	82	64	67	78
Mathematics and computer sciences	1,141	1,162	1,183	1,262	1,211	1,172	1,212	1,182	1,210
Computer sciences	514	526	531	554	535	516	529	494	533
Mathematics and statistics	627	636	652	708	676	656	683	688	677
Medical and other health sciences	2,598	2,703	2,799	3,055	3,155	3,318	3,505	3,717	3,838
Medical sciences	657	774	858	971	1,170	1,216	1,273	1,400	1,508
Other health sciences	1,941	1,929	1,941	2,084	1,985	2,102	2,232	2,317	2,330
Physical sciences	1,913	1,958	2,041	2,002	2,132	2,218	2,203	2,238	2,288
Astronomy	84	105	98	100	80	92	115	124	101
Chemistry	1,131	1,104	1,197	1,178	1,243	1,307	1,308	1,320	1,383
Physics	681	734	721	695	774	788	759	773	772
Other physical sciences	17	15	25	29	35	31	21	21	32
Social and behavioral sciences	4,620	4,761	4,995	5,178	5,190	4,951	5,025	4,808	4,693
Psychology	2,471	2,435	2,633	2,799	2,661	2,566	2,647	2,526	2,449
Social sciences	2,149	2,326	2,362	2,379	2,529	2,385	2,378	2,282	2,244
Anthropology	365	359	349	330	331	341	336	332	330
Area and ethnic studies	113	106	129	122	138	131	136	116	127
Economics	279	375	355	331	372	359	357	340	340
History of science	20	12	22	18	16	22	20	17	21
Linguistics	104	99	95	100	110	106	98	118	102
Political science and public administration	627	710	753	781	817	769	761	712	709
Sociology	375	355	360	391	401	362	355	367	324
Other social sciences	266	310	299	306	344	295	315	280	291
Non-S&E	12,109	12,466	12,999	13,070	13,504	13,582	13,406	13,371	13,257
More than one race									
All fields	337	397	522	643	777	980	1,161	1,243	1,452
S&E	202	252	328	434	502	636	776	804	924
Engineering	32	42	59	78	87	116	110	137	123
Aerospace	2	6	3	3	5	4	5	4	4
Chemical	2	2	5	10	4	11	15	13	10
Civil	3	3	4	8	14	8	13	15	12
Electrical	5	9	16	15	18	20	15	16	26

Table SHED-7

Doctoral degrees awarded, by sex, citizenship, race, ethnicity, and field: 2011–19

(Number)

Sex, citizenship, race, ethnicity, and field	2011	2012	2013	2014	2015	2016	2017	2018	2019
All fields	4,094	4,091	4,066	4,232	4,256	4,075	4,055	4,156	3,986
S&E	2,433	2,306	2,364	2,467	2,408	2,331	2,171	2,341	2,117
Engineering	347	340	371	368	382	363	390	410	312
Aerospace	7	11	7	11	14	12	13	4	10
Chemical	30	36	34	37	50	22	39	40	43
Civil	43	29	37	43	47	40	43	41	40
Electrical	90	88	84	90	100	70	91	97	67
Industrial	10	12	12	6	6	8	12	11	9
Materials	27	20	21	24	19	34	26	30	17
Mechanical	49	52	52	57	47	47	54	53	41
Other	91	92	124	100	99	130	112	134	85
Science	2,086	1,966	1,993	2,099	2,026	1,968	1,781	1,931	1,805
Natural sciences	1,333	1,292	1,230	1,319	1,244	1,223	1,145	1,281	1,221
Agricultural sciences	46	49	65	53	79	56	54	57	61
Biological sciences	476	489	423	467	381	366	345	380	332
Earth, atmospheric, and ocean sciences	45	33	33	36	51	45	41	36	42
Atmospheric sciences	7	2	7	2	5	4	5	4	8
Earth sciences	28	25	20	30	35	36	32	29	29
Oceanography	10	6	6	4	11	5	4	3	5
Mathematics and computer sciences	145	169	178	198	176	174	167	172	166
Computer sciences	72	94	95	114	98	86	92	83	88
Mathematics and statistics	73	75	83	84	78	88	75	89	78
Medical and other health sciences	337	287	308	304	294	361	338	455	445
Medical sciences	104	98	132	141	122	162	174	212	174
Other health sciences	233	189	176	163	172	199	164	243	271
Physical sciences	284	265	223	261	263	221	200	181	175
Astronomy	12	6	11	16	16	11	4	12	7
Chemistry	155	158	106	158	142	113	119	98	85
Physics	116	100	105	85	102	92	71	69	83
Other physical sciences	1	1	1	2	3	5	6	2	0
Social and behavioral sciences	753	674	763	780	782	745	636	650	584
Psychology	360	322	396	365	341	366	310	324	288
Social sciences	393	352	367	415	441	379	326	326	296
Anthropology	50	45	56	56	69	52	56	52	42
Area and ethnic studies	27	23	21	36	27	22	14	22	16
Economics	75	67	59	61	68	58	60	52	47

Table SHED-7

Doctoral degrees awarded, by sex, citizenship, race, ethnicity, and field: 2011–19

(Number)

Sex, citizenship, race, ethnicity, and field	2011	2012	2013	2014	2015	2016	2017	2018	2019
History of science	2	3	1	6	0	2	3	1	1
Linguistics	20	13	14	17	20	15	9	11	11
Political science and public administration	143	125	143	146	142	148	106	120	114
Sociology	40	42	34	49	54	46	51	32	32
Other social sciences	36	34	39	44	61	36	27	36	33
Non-S&E	1,661	1,785	1,702	1,765	1,848	1,744	1,884	1,815	1,869
Temporary visa holder									
All fields	16,333	16,868	17,654	18,324	18,256	18,519	18,884	19,738	20,335
S&E	13,174	13,771	14,354	15,210	15,183	15,223	15,592	16,181	16,599
Engineering	4,765	4,947	5,366	5,684	5,786	5,756	5,973	6,318	6,605
Aerospace	107	112	141	128	116	124	128	150	165
Chemical	511	527	573	649	633	622	606	647	691
Civil	541	556	626	689	695	698	776	783	955
Electrical	1,537	1,628	1,656	1,820	1,796	1,810	1,923	1,943	1,912
Industrial	195	224	256	264	243	249	238	286	265
Materials	368	352	409	386	436	427	440	457	450
Mechanical	667	721	770	811	903	854	844	967	1,046
Other	839	827	935	937	964	972	1,018	1,085	1,121
Science	8,409	8,824	8,988	9,526	9,397	9,467	9,619	9,863	9,994
Natural sciences	6,699	7,040	7,262	7,765	7,586	7,683	7,744	7,971	8,039
Agricultural sciences	393	450	448	473	493	494	539	504	550
Biological sciences	2,083	2,112	2,115	2,250	2,170	2,118	2,073	2,067	1,932
Earth, atmospheric, and ocean sciences	215	239	254	278	261	302	268	314	327
Atmospheric sciences	37	50	46	41	47	46	47	71	60
Earth sciences	155	158	167	211	184	220	202	214	227
Oceanography	23	31	41	26	30	36	19	29	40
Mathematics and computer sciences	1,531	1,689	1,872	1,976	1,989	1,993	2,032	2,163	2,305
Computer sciences	790	871	960	1,060	1,087	1,120	1,089	1,160	1,284
Mathematics and statistics	741	818	912	916	902	873	943	1,003	1,021
Medical and other health sciences	569	670	644	664	676	714	761	806	798
Medical sciences	389	468	474	492	488	507	534	578	575
Other health sciences	180	202	170	172	188	207	227	228	223
Physical sciences	1,908	1,880	1,929	2,124	1,997	2,062	2,071	2,117	2,127
Astronomy	58	46	54	48	35	45	56	48	54
Chemistry	1,093	1,046	1,077	1,218	1,119	1,196	1,152	1,186	1,211
Physics	742	767	770	817	812	792	822	854	831

Table SHED-7

Doctoral degrees awarded, by sex, citizenship, race, ethnicity, and field: 2011–19

(Number)

Sex, citizenship, race, ethnicity, and field	2011	2012	2013	2014	2015	2016	2017	2018	2019
Other physical sciences	15	21	28	41	31	29	41	29	31
Social and behavioral sciences	1,710	1,784	1,726	1,761	1,811	1,784	1,875	1,892	1,955
Psychology	258	251	263	254	272	234	269	283	259
Social sciences	1,452	1,533	1,463	1,507	1,539	1,550	1,606	1,609	1,696
Anthropology	91	95	87	99	88	105	96	90	83
Area and ethnic studies	43	54	32	51	46	48	61	50	79
Economics	696	733	692	712	717	761	787	810	857
History of science	3	7	5	12	12	6	5	4	11
Linguistics	89	110	106	101	111	107	89	97	106
Political science and public administration	301	316	326	303	338	297	334	322	331
Sociology	116	99	109	112	110	106	106	115	114
Other social sciences	113	119	106	117	117	120	128	121	115
Non-S&E	3,159	3,097	3,300	3,114	3,073	3,296	3,292	3,557	3,736
Male									
All citizenships, races, and ethnicity									
All fields	30,334	31,322	32,739	33,760	34,455	34,810	35,291	35,888	36,448
S&E	21,377	22,107	23,021	24,072	24,371	24,699	25,048	25,379	25,905
Engineering	6,580	6,867	7,312	7,824	7,980	7,929	8,037	8,265	8,539
Aerospace	207	235	261	283	263	283	304	305	308
Chemical	671	676	703	841	836	818	822	863	896
Civil	655	681	738	840	859	852	853	836	1,026
Electrical	1,965	2,051	2,105	2,229	2,261	2,202	2,213	2,231	2,219
Industrial	219	244	276	278	233	262	261	294	279
Materials	495	543	555	537	593	626	649	640	631
Mechanical	1,010	1,083	1,172	1,237	1,363	1,293	1,260	1,410	1,437
Other	1,358	1,354	1,502	1,579	1,572	1,593	1,675	1,686	1,743
Science	14,797	15,240	15,709	16,248	16,391	16,770	17,011	17,114	17,366
Natural sciences	11,305	11,631	12,003	12,512	12,487	12,879	13,106	13,331	13,518
Agricultural sciences	562	604	648	635	716	715	688	706	726
Biological sciences	3,609	3,665	3,658	3,832	3,711	3,722	3,823	3,788	3,781
Earth, atmospheric, and ocean sciences	420	418	429	487	468	539	510	522	564
Atmospheric sciences	84	76	79	85	91	91	85	108	93
Earth sciences	281	282	298	345	326	379	375	365	408
Oceanography	55	60	52	57	51	69	50	49	63
Mathematics and computer sciences	2,387	2,528	2,751	2,857	2,811	2,874	2,900	2,998	3,091
Computer sciences	1,251	1,329	1,458	1,532	1,512	1,547	1,497	1,548	1,677

Table SHED-7

Doctoral degrees awarded, by sex, citizenship, race, ethnicity, and field: 2011–19

(Number)

Sex, citizenship, race, ethnicity, and field	2011	2012	2013	2014	2015	2016	2017	2018	2019
Mathematics and statistics	1,136	1,199	1,293	1,325	1,299	1,327	1,403	1,450	1,414
Medical and other health sciences	1,185	1,271	1,330	1,328	1,457	1,522	1,671	1,804	1,789
Medical sciences	547	608	646	681	699	696	795	852	850
Other health sciences	638	663	684	647	758	826	876	952	939
Physical sciences	3,142	3,145	3,187	3,373	3,324	3,507	3,514	3,513	3,567
Astronomy	109	113	111	117	101	110	123	129	112
Chemistry	1,638	1,602	1,628	1,771	1,700	1,868	1,836	1,866	1,906
Physics	1,368	1,402	1,405	1,437	1,473	1,479	1,506	1,477	1,495
Other physical sciences	27	28	43	48	50	50	49	41	54
Social and behavioral sciences	3,492	3,609	3,706	3,736	3,904	3,891	3,905	3,783	3,848
Psychology	1,089	1,059	1,162	1,213	1,190	1,233	1,218	1,208	1,211
Social sciences	2,403	2,550	2,544	2,523	2,714	2,658	2,687	2,575	2,637
Anthropology	238	211	206	228	224	248	217	189	215
Area and ethnic studies	116	113	130	129	125	128	118	116	135
Economics	746	850	791	797	817	848	873	899	908
History of science	19	17	11	23	15	12	13	10	12
Linguistics	93	116	97	94	117	101	92	95	103
Political science and public administration	716	750	808	757	856	773	829	775	814
Sociology	252	233	259	257	292	281	274	259	233
Other social sciences	223	260	242	238	268	267	271	232	217
Non-S&E	8,957	9,215	9,718	9,688	10,084	10,111	10,243	10,509	10,543
U.S. citizen or permanent resident									
All fields	20,016	20,640	21,586	22,143	22,954	23,048	23,286	23,431	23,584
S&E	12,545	12,925	13,460	13,972	14,320	14,524	14,645	14,614	14,840
Engineering	2,793	2,925	3,104	3,349	3,456	3,475	3,409	3,360	3,413
Aerospace	115	139	142	172	164	177	188	170	168
Chemical	299	307	302	380	402	402	405	402	417
Civil	238	244	271	300	353	310	287	275	306
Electrical	685	689	708	704	743	698	620	641	620
Industrial	87	75	90	93	77	94	95	76	88
Materials	217	275	247	256	276	323	329	313	299
Mechanical	421	463	505	548	562	564	553	579	561
Other	731	733	839	896	879	907	932	904	954
Science	9,752	10,000	10,356	10,623	10,864	11,049	11,236	11,254	11,427
Natural sciences	7,184	7,364	7,557	7,803	7,946	8,133	8,346	8,442	8,633
Agricultural sciences	343	364	400	390	449	439	396	413	432

Table SHED-7

Doctoral degrees awarded, by sex, citizenship, race, ethnicity, and field: 2011–19

(Number)

Sex, citizenship, race, ethnicity, and field	2011	2012	2013	2014	2015	2016	2017	2018	2019
Biological sciences	2,597	2,609	2,641	2,767	2,687	2,710	2,842	2,821	2,856
Earth, atmospheric, and ocean sciences	282	274	284	306	314	344	345	318	359
Atmospheric sciences	61	52	55	58	70	64	58	60	61
Earth sciences	181	180	195	203	209	232	242	230	257
Oceanography	40	42	34	45	35	48	45	28	41
Mathematics and computer sciences	1,243	1,283	1,338	1,382	1,348	1,374	1,360	1,380	1,388
Computer sciences	624	655	668	688	675	644	631	622	664
Mathematics and statistics	619	628	670	694	673	730	729	758	724
Medical and other health sciences	927	982	1,036	1,041	1,143	1,200	1,331	1,451	1,440
Medical sciences	344	378	424	453	457	450	539	566	574
Other health sciences	583	604	612	588	686	750	792	885	866
Physical sciences	1,792	1,852	1,858	1,917	2,005	2,066	2,072	2,059	2,158
Astronomy	68	82	75	86	76	77	88	99	84
Chemistry	941	953	973	1,023	1,065	1,116	1,125	1,131	1,186
Physics	765	805	788	786	837	839	841	809	859
Other physical sciences	18	12	22	22	27	34	18	20	29
Social and behavioral sciences	2,568	2,636	2,799	2,820	2,918	2,916	2,890	2,812	2,794
Psychology	1,016	994	1,078	1,129	1,106	1,163	1,140	1,124	1,143
Social sciences	1,552	1,642	1,721	1,691	1,812	1,753	1,750	1,688	1,651
Anthropology	196	160	177	175	181	193	174	149	180
Area and ethnic studies	93	90	112	109	101	107	91	98	99
Economics	300	360	367	343	369	374	359	378	350
History of science	16	13	11	14	9	9	12	7	9
Linguistics	61	62	52	58	72	55	52	63	61
Political science and public administration	537	567	610	605	641	588	643	607	615
Sociology	194	196	215	209	235	231	224	218	183
Other social sciences	155	194	177	178	204	196	195	168	154
Non-S&E	7,471	7,715	8,126	8,171	8,634	8,524	8,641	8,817	8,744
Hispanic or Latino									
All fields	1,061	1,149	1,185	1,316	1,517	1,592	1,624	1,691	1,805
S&E	651	676	697	791	909	964	963	979	1,111
Engineering	135	132	135	178	214	209	222	212	230
Aerospace	6	8	8	12	6	10	8	14	12
Chemical	16	18	8	18	22	27	17	24	27
Civil	12	18	13	14	19	24	25	20	22
Electrical	35	29	29	34	50	41	48	31	35

Table SHED-7

Doctoral degrees awarded, by sex, citizenship, race, ethnicity, and field: 2011–19

(Number)

Sex, citizenship, race, ethnicity, and field	2011	2012	2013	2014	2015	2016	2017	2018	2019
All fields	18,955	19,491	20,401	20,827	21,437	21,456	21,662	21,740	21,779
S&E	11,894	12,249	12,763	13,181	13,411	13,560	13,682	13,635	13,729
Engineering	2,658	2,793	2,969	3,171	3,242	3,266	3,187	3,148	3,183
Aerospace	109	131	134	160	158	167	180	156	156
Chemical	283	289	294	362	380	375	388	378	390
Civil	226	226	258	286	334	286	262	255	284
Electrical	650	660	679	670	693	657	572	610	585
Industrial	83	73	84	85	68	86	90	72	83
Materials	211	268	236	238	252	300	308	289	281
Mechanical	400	440	479	518	533	533	511	542	521
Other	696	706	805	852	824	862	876	846	883
Science	9,236	9,456	9,794	10,010	10,169	10,294	10,495	10,487	10,546
Natural sciences	6,841	7,007	7,177	7,387	7,478	7,661	7,841	7,921	8,029
Agricultural sciences	322	344	381	362	427	410	371	391	400
Biological sciences	2,449	2,466	2,478	2,595	2,498	2,528	2,644	2,629	2,604
Earth, atmospheric, and ocean sciences	276	267	271	295	300	330	328	301	336
Atmospheric sciences	60	52	54	57	69	58	56	55	56
Earth sciences	177	175	186	194	198	225	231	218	241
Oceanography	39	40	31	44	33	47	41	28	39
Mathematics and computer sciences	1,204	1,234	1,279	1,333	1,287	1,292	1,291	1,301	1,319
Computer sciences	605	635	637	667	642	615	598	587	637
Mathematics and statistics	599	599	642	666	645	677	693	714	682
Medical and other health sciences	881	932	985	991	1,055	1,134	1,250	1,357	1,342
Medical sciences	317	350	396	428	412	418	504	519	532
Other health sciences	564	582	589	563	643	716	746	838	810
Physical sciences	1,709	1,764	1,783	1,811	1,911	1,967	1,957	1,942	2,028
Astronomy	65	79	74	83	68	72	83	93	79
Chemistry	892	913	932	962	1,014	1,060	1,066	1,062	1,103
Physics	736	760	755	744	803	801	791	767	819
Other physical sciences	16	12	22	22	26	34	17	20	27
Social and behavioral sciences	2,395	2,449	2,617	2,623	2,691	2,633	2,654	2,566	2,517
Psychology	924	898	993	1,023	988	1,011	1,012	995	1,003
Social sciences	1,471	1,551	1,624	1,600	1,703	1,622	1,642	1,571	1,514
Anthropology	182	150	166	163	166	175	161	141	162
Area and ethnic studies	89	82	102	98	93	96	78	87	85
Economics	289	345	343	327	350	350	343	353	329

Table SHED-7

Doctoral degrees awarded, by sex, citizenship, race, ethnicity, and field: 2011–19

(Number)

Sex, citizenship, race, ethnicity, and field	2011	2012	2013	2014	2015	2016	2017	2018	2019
History of science	15	12	11	13	9	9	12	7	9
Linguistics	61	60	50	56	70	48	48	60	58
Political science and public administration	507	535	585	580	612	552	612	568	563
Sociology	176	179	200	194	208	211	199	191	165
Other social sciences	152	188	167	169	195	181	189	164	143
Non-S&E	7,061	7,242	7,638	7,646	8,026	7,896	7,980	8,105	8,050
American Indian or Alaska Native									
All fields	97	91	110	100	106	103	98	90	94
S&E	53	55	53	54	53	55	52	44	47
Engineering	14	8	7	11	8	7	8	8	12
Aerospace	0	1	0	1	0	0	0	0	2
Chemical	4	1	1	1	3	0	0	1	2
Civil	1	1	0	0	2	1	1	1	1
Electrical	0	1	2	3	1	2	0	1	2
Industrial	0	0	1	0	0	0	1	0	0
Materials	3	1	0	2	0	0	0	0	1
Mechanical	4	1	1	0	1	1	2	2	2
Other	2	2	2	4	1	3	4	3	2
Science	39	47	46	43	45	48	44	36	35
Natural sciences	29	31	27	29	31	31	30	23	26
Agricultural sciences	1	5	1	3	2	3	1	3	5
Biological sciences	14	15	9	4	10	12	16	2	7
Earth, atmospheric, and ocean sciences	0	2	4	0	1	3	0	0	3
Atmospheric sciences	0	0	0	0	0	0	0	0	0
Earth sciences	0	1	4	0	1	3	0	0	3
Oceanography	0	1	0	0	0	0	0	0	0
Mathematics and computer sciences	7	1	2	5	5	3	4	3	2
Computer sciences	2	1	0	5	4	0	1	2	1
Mathematics and statistics	5	0	2	0	1	3	3	1	1
Medical and other health sciences	3	5	5	7	6	7	4	8	4
Medical sciences	1	1	1	3	0	2	0	5	2
Other health sciences	2	4	4	4	6	5	4	3	2
Physical sciences	4	3	6	10	7	3	5	7	5
Astronomy	0	1	1	1	0	0	0	0	0
Chemistry	2	2	3	7	2	3	4	5	3
Physics	2	0	2	2	5	0	1	2	2

Table SHED-7

Doctoral degrees awarded, by sex, citizenship, race, ethnicity, and field: 2011–19

(Number)

Sex, citizenship, race, ethnicity, and field	2011	2012	2013	2014	2015	2016	2017	2018	2019
Other physical sciences	0	0	0	0	0	0	0	0	0
Social and behavioral sciences	10	16	19	14	14	17	14	13	9
Psychology	2	8	8	5	5	6	4	3	3
Social sciences	8	8	11	9	9	11	10	10	6
Anthropology	1	3	2	2	3	3	3	1	1
Area and ethnic studies	2	4	4	1	2	1	1	3	0
Economics	1	0	0	1	2	0	1	0	0
History of science	0	0	0	0	0	0	0	0	0
Linguistics	0	0	1	0	0	1	1	1	1
Political science and public administration	2	1	3	3	1	3	2	1	0
Sociology	1	0	0	1	1	3	2	3	2
Other social sciences	1	0	1	1	0	0	0	1	2
Non-S&E	44	36	57	46	53	48	46	46	47
Asian									
All fields	1,445	1,485	1,556	1,523	1,638	1,654	1,767	1,740	1,835
S&E	1,175	1,153	1,186	1,195	1,275	1,302	1,415	1,375	1,502
Engineering	413	404	390	422	459	460	477	437	516
Aerospace	14	13	12	11	10	15	20	12	15
Chemical	30	36	32	42	47	61	61	43	66
Civil	34	23	25	23	39	26	29	23	28
Electrical	135	154	129	141	131	118	131	118	137
Industrial	9	8	4	6	11	4	11	11	12
Materials	29	39	28	25	35	36	36	32	37
Mechanical	49	33	42	70	60	57	55	67	60
Other	113	98	118	104	126	143	134	131	161
Science	762	749	796	773	816	842	938	938	986
Natural sciences	641	619	672	647	666	705	788	789	846
Agricultural sciences	12	13	16	15	18	12	20	11	14
Biological sciences	270	256	270	272	271	281	308	302	326
Earth, atmospheric, and ocean sciences	14	6	6	9	9	15	15	16	20
Atmospheric sciences	5	1	0	3	4	3	4	2	2
Earth sciences	6	4	5	5	5	8	9	13	15
Oceanography	3	1	1	1	0	4	2	1	3
Mathematics and computer sciences	145	140	167	123	129	131	156	151	163
Computer sciences	94	92	99	76	80	63	75	74	97
Mathematics and statistics	51	48	68	47	49	68	81	77	66

Table SHED-7

Doctoral degrees awarded, by sex, citizenship, race, ethnicity, and field: 2011–19

(Number)

Sex, citizenship, race, ethnicity, and field	2011	2012	2013	2014	2015	2016	2017	2018	2019
Medical and other health sciences	85	79	83	92	94	117	112	127	144
Medical sciences	55	38	46	60	45	66	69	70	74
Other health sciences	30	41	37	32	49	51	43	57	70
Physical sciences	115	125	130	136	145	149	177	182	179
Astronomy	2	3	3	4	6	5	6	7	6
Chemistry	67	80	68	70	83	88	109	109	103
Physics	46	42	57	61	56	53	61	66	70
Other physical sciences	0	0	2	1	0	3	1	0	0
Social and behavioral sciences	121	130	124	126	150	137	150	149	140
Psychology	46	39	48	39	58	51	51	51	52
Social sciences	75	91	76	87	92	86	99	98	88
Anthropology	8	5	9	7	9	7	3	7	3
Area and ethnic studies	8	7	5	11	9	5	4	6	5
Economics	23	33	28	26	30	29	36	33	37
History of science	1	1	0	0	0	0	1	0	0
Linguistics	2	5	0	2	5	1	2	4	5
Political science and public administration	24	25	28	24	26	22	29	31	28
Sociology	6	10	5	9	7	19	11	9	5
Other social sciences	3	5	1	8	6	3	13	8	5
Non-S&E	270	332	370	328	363	352	352	365	333
Black or African American									
All fields	1,257	1,371	1,420	1,588	1,578	1,656	1,805	1,832	1,976
S&E	501	540	591	621	618	653	725	713	727
Engineering	85	108	120	104	110	126	121	113	121
Aerospace	4	7	4	1	3	3	5	4	3
Chemical	8	6	8	10	7	9	8	11	19
Civil	6	8	9	10	22	10	12	10	9
Electrical	22	24	29	33	24	36	20	23	20
Industrial	8	10	14	6	6	5	16	1	4
Materials	6	10	10	4	3	12	8	18	11
Mechanical	10	18	22	15	14	14	13	15	14
Other	21	25	24	25	31	37	39	31	41
Science	416	432	471	517	508	527	604	600	606
Natural sciences	256	283	299	317	300	342	379	394	404
Agricultural sciences	13	13	12	14	15	15	18	22	15
Biological sciences	93	99	105	95	75	91	101	99	93

Table SHED-7

Doctoral degrees awarded, by sex, citizenship, race, ethnicity, and field: 2011–19

(Number)

Sex, citizenship, race, ethnicity, and field	2011	2012	2013	2014	2015	2016	2017	2018	2019
Materials	0	0	0	0	1	1	0	0	0
Mechanical	0	0	1	1	0	0	1	0	0
Other	1	1	2	3	0	1	2	0	3
Science	18	11	6	15	12	13	10	14	18
Natural sciences	16	10	4	13	8	11	9	11	11
Agricultural sciences	1	0	1	1	0	0	0	0	0
Biological sciences	4	5	2	4	2	5	6	1	5
Earth, atmospheric, and ocean sciences	0	0	0	0	0	0	0	1	0
Atmospheric sciences	0	0	0	0	0	0	0	0	0
Earth sciences	0	0	0	0	0	0	0	1	0
Oceanography	0	0	0	0	0	0	0	0	0
Mathematics and computer sciences	3	2	0	1	2	1	0	2	1
Computer sciences	2	0	0	0	0	1	0	0	0
Mathematics and statistics	1	2	0	1	2	0	0	2	1
Medical and other health sciences	3	1	1	6	1	3	3	4	3
Medical sciences	2	1	0	3	0	1	1	1	2
Other health sciences	1	0	1	3	1	2	2	3	1
Physical sciences	5	2	0	1	3	2	0	3	2
Astronomy	0	0	0	0	0	0	0	0	0
Chemistry	3	2	0	1	1	0	0	2	1
Physics	2	0	0	0	2	1	0	1	1
Other physical sciences	0	0	0	0	0	1	0	0	0
Social and behavioral sciences	2	1	2	2	4	2	1	3	7
Psychology	0	0	1	1	0	0	0	1	2
Social sciences	2	1	1	1	4	2	1	2	5
Anthropology	0	0	1	0	1	0	0	0	0
Area and ethnic studies	1	0	0	1	1	1	0	1	1
Economics	0	0	0	0	0	0	0	0	0
History of science	0	0	0	0	0	0	0	0	0
Linguistics	0	0	0	0	0	0	0	1	0
Political science and public administration	1	1	0	0	2	1	1	0	4
Sociology	0	0	0	0	0	0	0	0	0
Other social sciences	0	0	0	0	0	0	0	0	0
Non-S&E	5	11	18	14	17	21	10	15	15
White									
All fields	14,011	14,388	15,140	15,333	15,765	15,680	15,622	15,609	15,459

Table SHED-7

Doctoral degrees awarded, by sex, citizenship, race, ethnicity, and field: 2011–19

(Number)

Sex, citizenship, race, ethnicity, and field	2011	2012	2013	2014	2015	2016	2017	2018	2019
S&E	8,795	9,151	9,562	9,855	9,995	10,074	10,057	9,970	10,017
Engineering	1,844	1,985	2,105	2,293	2,316	2,309	2,204	2,197	2,230
Aerospace	83	95	108	134	129	136	137	133	124
Chemical	217	219	223	276	282	282	282	286	271
Civil	147	174	199	214	234	218	181	187	205
Electrical	420	409	431	407	446	420	335	382	358
Industrial	58	47	56	66	46	65	53	48	60
Materials	144	196	176	187	193	215	233	206	210
Mechanical	288	349	357	376	411	409	381	395	404
Other	487	496	555	633	575	564	602	560	598
Science	6,951	7,166	7,457	7,562	7,679	7,765	7,853	7,773	7,787
Natural sciences	5,167	5,310	5,454	5,603	5,702	5,803	5,864	5,880	5,918
Agricultural sciences	270	281	313	300	356	339	306	318	335
Biological sciences	1,812	1,838	1,860	1,953	1,890	1,906	1,955	1,963	1,926
Earth, atmospheric, and ocean sciences	231	227	232	256	254	280	276	244	274
Atmospheric sciences	49	47	45	53	59	53	46	48	47
Earth sciences	151	146	159	165	168	187	196	174	194
Oceanography	31	34	28	38	27	40	34	22	33
Mathematics and computer sciences	903	909	918	992	949	926	923	928	927
Computer sciences	431	436	436	463	434	427	402	393	408
Mathematics and statistics	472	473	482	529	515	499	521	535	519
Medical and other health sciences	612	673	714	702	764	776	849	905	854
Medical sciences	184	227	256	256	279	248	278	286	288
Other health sciences	428	446	458	446	485	528	571	619	566
Physical sciences	1,339	1,382	1,417	1,400	1,489	1,576	1,555	1,522	1,602
Astronomy	55	70	62	65	49	57	72	77	66
Chemistry	698	692	749	733	779	846	828	821	865
Physics	573	609	587	585	639	648	645	608	649
Other physical sciences	13	11	19	17	22	25	10	16	22
Social and behavioral sciences	1,784	1,856	2,003	1,959	1,977	1,962	1,989	1,893	1,869
Psychology	710	705	776	798	739	748	783	771	758
Social sciences	1,074	1,151	1,227	1,161	1,238	1,214	1,206	1,122	1,111
Anthropology	147	124	133	117	120	138	121	107	136
Area and ethnic studies	60	39	62	51	56	58	55	50	49
Economics	206	261	263	238	260	272	249	257	238
History of science	14	8	10	10	9	7	8	4	8

Table SHED-7

Doctoral degrees awarded, by sex, citizenship, race, ethnicity, and field: 2011–19

(Number)

Sex, citizenship, race, ethnicity, and field	2011	2012	2013	2014	2015	2016	2017	2018	2019
Linguistics	49	48	41	46	53	38	41	48	46
Political science and public administration	333	387	432	418	435	404	440	387	398
Sociology	139	136	147	148	156	153	140	137	120
Other social sciences	126	148	139	133	149	144	152	132	116
Non-S&E	5,216	5,237	5,578	5,478	5,770	5,606	5,565	5,639	5,442
More than one race									
All fields	152	185	240	268	351	432	486	529	588
S&E	97	126	157	205	241	308	346	385	395
Engineering	23	28	44	58	54	92	78	102	78
Aerospace	2	5	3	2	4	3	5	4	3
Chemical	0	1	3	10	2	7	11	10	6
Civil	2	2	1	6	8	5	7	9	8
Electrical	3	5	13	13	12	20	12	12	19
Industrial	0	1	0	2	2	6	2	4	1
Materials	3	4	5	3	5	11	12	12	11
Mechanical	5	2	9	11	8	12	12	18	8
Other	8	8	10	11	13	28	17	33	22
Science	74	98	113	147	187	216	268	283	317
Natural sciences	50	72	82	114	135	164	211	218	252
Agricultural sciences	2	4	4	0	5	6	4	10	5
Biological sciences	20	23	24	50	52	56	92	70	91
Earth, atmospheric, and ocean sciences	0	5	3	3	4	5	8	10	8
Atmospheric sciences	0	1	1	0	0	0	2	1	1
Earth sciences	0	4	2	2	4	4	5	7	7
Oceanography	0	0	0	1	0	1	1	2	0
Mathematics and computer sciences	3	8	10	15	18	38	33	36	51
Computer sciences	2	3	2	6	13	15	12	17	23
Mathematics and statistics	1	5	8	9	5	23	21	19	28
Medical and other health sciences	6	9	17	16	20	30	35	42	31
Medical sciences	2	6	6	9	5	10	12	19	16
Other health sciences	4	3	11	7	15	20	23	23	15
Physical sciences	19	23	24	30	36	29	39	50	66
Astronomy	0	0	0	1	3	0	3	1	2
Chemistry	11	12	12	16	23	18	25	24	41
Physics	7	11	12	13	9	11	11	24	22
Other physical sciences	1	0	0	0	1	0	0	1	1

Table SHED-7

Doctoral degrees awarded, by sex, citizenship, race, ethnicity, and field: 2011–19

(Number)

Sex, citizenship, race, ethnicity, and field	2011	2012	2013	2014	2015	2016	2017	2018	2019
Social and behavioral sciences	24	26	31	33	52	52	57	65	65
Psychology	11	13	11	16	19	32	19	21	33
Social sciences	13	13	20	17	33	20	38	44	32
Anthropology	2	3	2	3	3	3	3	5	1
Area and ethnic studies	0	1	0	4	3	1	2	2	7
Economics	4	1	4	4	8	7	10	11	8
History of science	0	0	0	0	0	0	0	1	0
Linguistics	0	1	3	1	2	1	0	3	2
Political science and public administration	5	2	5	4	11	4	13	14	7
Sociology	2	4	5	1	3	3	8	6	6
Other social sciences	0	1	1	0	3	1	2	2	1
Non-S&E	55	59	83	63	110	124	140	144	193
Other or unknown race or ethnicity									
All fields	1,968	1,948	1,905	1,980	1,969	1,894	1,860	1,911	1,789
S&E	1,253	1,212	1,202	1,230	1,216	1,152	1,073	1,134	1,018
Engineering	277	259	297	277	294	269	295	291	221
Aerospace	6	10	7	10	12	10	13	3	9
Chemical	23	26	26	23	39	16	25	27	26
Civil	36	18	24	33	29	26	32	25	32
Electrical	70	67	73	72	79	60	74	74	49
Industrial	8	7	9	5	3	6	7	8	5
Materials	26	18	17	17	15	25	19	21	11
Mechanical	44	37	47	45	39	40	47	45	33
Other	64	76	94	72	78	86	78	88	56
Science	976	953	905	953	922	883	778	843	797
Natural sciences	682	682	639	664	636	605	560	606	572
Agricultural sciences	23	28	34	29	31	35	22	27	26
Biological sciences	236	230	208	217	198	177	166	192	156
Earth, atmospheric, and ocean sciences	28	19	20	20	24	22	20	22	26
Atmospheric sciences	5	1	6	1	2	0	3	2	5
Earth sciences	18	15	13	15	17	20	15	18	19
Oceanography	5	3	1	4	5	2	2	2	2
Mathematics and computer sciences	110	140	128	143	132	126	122	123	116
Computer sciences	55	80	67	81	73	67	72	62	64
Mathematics and statistics	55	60	61	62	59	59	50	61	52
Medical and other health sciences	99	81	89	79	75	87	96	112	132

Table SHED-7

Doctoral degrees awarded, by sex, citizenship, race, ethnicity, and field: 2011–19

(Number)

Sex, citizenship, race, ethnicity, and field	2011	2012	2013	2014	2015	2016	2017	2018	2019
Medical sciences	41	30	47	39	32	41	56	53	59
Other health sciences	58	51	42	40	43	46	40	59	73
Physical sciences	186	184	160	176	176	158	134	130	116
Astronomy	8	5	8	11	10	9	1	7	5
Chemistry	84	99	65	99	84	73	71	63	44
Physics	93	79	86	64	79	73	57	58	67
Other physical sciences	1	1	1	2	3	3	5	2	0
Social and behavioral sciences	294	271	266	289	286	278	218	237	225
Psychology	98	89	93	102	83	99	72	79	83
Social sciences	196	182	173	187	203	179	146	158	142
Anthropology	19	13	16	24	27	21	17	17	16
Area and ethnic studies	10	15	11	18	10	13	4	8	3
Economics	43	40	35	44	42	31	37	36	36
History of science	0	3	1	3	0	2	3	1	0
Linguistics	9	5	4	5	8	7	4	3	4
Political science and public administration	91	65	67	59	63	73	49	68	62
Sociology	13	17	19	17	21	13	19	10	12
Other social sciences	11	24	20	17	32	19	13	15	9
Non-S&E	715	736	703	750	753	742	787	777	771
Temporary visa holder									
All fields	10,318	10,682	11,153	11,617	11,501	11,762	12,005	12,457	12,864
S&E	8,832	9,182	9,561	10,100	10,051	10,175	10,403	10,765	11,065
Engineering	3,787	3,942	4,208	4,475	4,524	4,454	4,628	4,905	5,126
Aerospace	92	96	119	111	99	106	116	135	140
Chemical	372	369	401	461	434	416	417	461	479
Civil	417	437	467	540	506	542	566	561	720
Electrical	1,280	1,362	1,397	1,525	1,518	1,504	1,593	1,590	1,599
Industrial	132	169	186	185	156	168	166	218	191
Materials	278	268	308	281	317	303	320	327	332
Mechanical	589	620	667	689	801	729	707	831	876
Other	627	621	663	683	693	686	743	782	789
Science	5,045	5,240	5,353	5,625	5,527	5,721	5,775	5,860	5,939
Natural sciences	4,121	4,267	4,446	4,709	4,541	4,746	4,760	4,889	4,885
Agricultural sciences	219	240	248	245	267	276	292	293	294
Biological sciences	1,012	1,056	1,017	1,065	1,024	1,012	981	967	925
Earth, atmospheric, and ocean sciences	138	144	145	181	154	195	165	204	205

Table SHED-7

Doctoral degrees awarded, by sex, citizenship, race, ethnicity, and field: 2011–19

(Number)

Sex, citizenship, race, ethnicity, and field	2011	2012	2013	2014	2015	2016	2017	2018	2019
Atmospheric sciences	23	24	24	27	21	27	27	48	32
Earth sciences	100	102	103	142	117	147	133	135	151
Oceanography	15	18	18	12	16	21	5	21	22
Mathematics and computer sciences	1,144	1,245	1,413	1,475	1,463	1,500	1,540	1,618	1,703
Computer sciences	627	674	790	844	837	903	866	926	1,013
Mathematics and statistics	517	571	623	631	626	597	674	692	690
Medical and other health sciences	258	289	294	287	314	322	340	353	349
Medical sciences	203	230	222	228	242	246	256	286	276
Other health sciences	55	59	72	59	72	76	84	67	73
Physical sciences	1,350	1,293	1,329	1,456	1,319	1,441	1,442	1,454	1,409
Astronomy	41	31	36	31	25	33	35	30	28
Chemistry	697	649	655	748	635	752	711	735	720
Physics	603	597	617	651	636	640	665	668	636
Other physical sciences	9	16	21	26	23	16	31	21	25
Social and behavioral sciences	924	973	907	916	986	975	1,015	971	1,054
Psychology	73	65	84	84	84	70	78	84	68
Social sciences	851	908	823	832	902	905	937	887	986
Anthropology	42	51	29	53	43	55	43	40	35
Area and ethnic studies	23	23	18	20	24	21	27	18	36
Economics	446	490	424	454	448	474	514	521	558
History of science	3	4	0	9	6	3	1	3	3
Linguistics	32	54	45	36	45	46	40	32	42
Political science and public administration	179	183	198	152	215	185	186	168	199
Sociology	58	37	44	48	57	50	50	41	50
Other social sciences	68	66	65	60	64	71	76	64	63
Non-S&E	1,486	1,500	1,592	1,517	1,450	1,587	1,602	1,692	1,799
Female									
All citizenships, races, and ethnicity									
All fields	29,513	30,859	32,148	33,831	34,660	35,026	35,851	36,444	37,567
S&E	17,093	17,757	18,542	19,923	20,150	20,146	20,681	21,419	21,848
Engineering	1,898	2,006	2,177	2,311	2,426	2,429	2,510	2,686	2,791
Aerospace	30	40	49	53	47	49	38	42	54
Chemical	280	293	298	328	361	363	347	348	402
Civil	239	241	298	314	371	314	393	396	405
Electrical	387	424	364	413	390	418	456	489	445
Industrial	100	104	113	122	121	113	119	103	123

Table SHED-7

Doctoral degrees awarded, by sex, citizenship, race, ethnicity, and field: 2011–19

(Number)

Sex, citizenship, race, ethnicity, and field	2011	2012	2013	2014	2015	2016	2017	2018	2019
Materials	156	172	202	197	217	216	228	251	272
Mechanical	162	194	212	217	223	241	238	255	276
Other	544	538	641	667	696	715	691	802	814
Science	15,195	15,751	16,365	17,612	17,724	17,717	18,171	18,733	19,057
Natural sciences	10,008	10,521	10,805	11,586	11,678	11,895	12,297	12,975	13,327
Agricultural sciences	491	540	570	593	665	628	676	639	716
Biological sciences	3,987	4,152	4,167	4,375	4,179	4,136	4,180	4,308	4,082
Earth, atmospheric, and ocean sciences	267	319	365	374	359	373	380	411	397
Atmospheric sciences	36	49	58	41	55	51	68	66	61
Earth sciences	186	215	232	261	249	252	254	283	261
Oceanography	45	55	75	72	55	70	58	62	75
Mathematics and computer sciences	765	832	882	942	942	917	959	989	1,092
Computer sciences	311	361	351	403	439	389	437	426	497
Mathematics and statistics	454	471	531	539	503	528	522	563	595
Medical and other health sciences	3,080	3,234	3,305	3,728	3,886	4,270	4,530	4,937	5,294
Medical sciences	950	1,108	1,221	1,467	1,734	1,901	2,058	2,298	2,431
Other health sciences	2,130	2,126	2,084	2,261	2,152	2,369	2,472	2,639	2,863
Physical sciences	1,418	1,444	1,516	1,574	1,647	1,571	1,572	1,691	1,746
Astronomy	57	57	63	62	52	59	73	82	73
Chemistry	1,047	1,028	1,102	1,150	1,206	1,134	1,154	1,193	1,273
Physics	302	350	335	331	367	354	320	402	378
Other physical sciences	12	9	16	31	22	24	25	14	22
Social and behavioral sciences	5,187	5,230	5,560	6,026	6,046	5,822	5,874	5,758	5,730
Psychology	2,863	2,808	3,118	3,361	3,343	3,293	3,268	3,117	3,086
Social sciences	2,324	2,422	2,442	2,665	2,703	2,529	2,606	2,641	2,644
Anthropology	358	374	389	378	353	343	364	384	345
Area and ethnic studies	141	161	142	187	184	174	205	200	217
Economics	406	421	436	415	466	450	452	427	467
History of science	8	7	18	18	16	19	17	17	24
Linguistics	142	133	140	146	149	158	137	163	155
Political science and public administration	598	652	699	780	766	745	728	714	717
Sociology	419	402	367	435	441	377	423	448	399
Other social sciences	252	272	251	306	328	263	280	288	320
Non-S&E	12,420	13,102	13,606	13,908	14,510	14,880	15,170	15,025	15,719
U.S. citizen or permanent resident									
All fields	23,498	24,673	25,647	27,124	27,905	28,269	28,972	29,163	30,096

Table SHED-7

Doctoral degrees awarded, by sex, citizenship, race, ethnicity, and field: 2011–19

(Number)

Sex, citizenship, race, ethnicity, and field	2011	2012	2013	2014	2015	2016	2017	2018	2019
S&E	12,751	13,168	13,749	14,813	15,018	15,098	15,492	16,003	16,314
Engineering	920	1,001	1,019	1,102	1,164	1,127	1,165	1,273	1,312
Aerospace	15	24	27	36	30	31	26	27	29
Chemical	141	135	126	140	162	157	158	162	190
Civil	115	122	139	165	182	158	183	174	170
Electrical	130	158	105	118	112	112	126	136	132
Industrial	37	49	43	43	34	32	47	35	49
Materials	66	88	101	92	98	92	108	121	154
Mechanical	84	93	109	95	121	116	101	119	106
Other	332	332	369	413	425	429	416	499	482
Science	11,831	12,167	12,730	13,711	13,854	13,971	14,327	14,730	15,002
Natural sciences	7,430	7,748	7,989	8,530	8,633	8,958	9,313	9,893	10,173
Agricultural sciences	317	330	370	365	439	410	429	428	460
Biological sciences	2,916	3,096	3,069	3,190	3,033	3,030	3,088	3,208	3,075
Earth, atmospheric, and ocean sciences	190	224	256	277	252	266	277	301	275
Atmospheric sciences	22	23	36	27	29	32	48	43	33
Earth sciences	131	159	168	192	182	179	185	204	185
Oceanography	37	42	52	58	41	55	44	54	57
Mathematics and computer sciences	378	388	423	441	416	424	467	444	490
Computer sciences	148	164	181	187	189	172	214	192	226
Mathematics and statistics	230	224	242	254	227	252	253	252	264
Medical and other health sciences	2,769	2,853	2,955	3,351	3,524	3,878	4,109	4,484	4,845
Medical sciences	764	870	969	1,203	1,488	1,640	1,780	2,006	2,132
Other health sciences	2,005	1,983	1,986	2,148	2,036	2,238	2,329	2,478	2,713
Physical sciences	860	857	916	906	969	950	943	1,028	1,028
Astronomy	40	42	45	45	42	47	52	64	47
Chemistry	651	631	680	680	722	690	713	742	782
Physics	163	180	182	165	191	202	163	216	183
Other physical sciences	6	4	9	16	14	11	15	6	16
Social and behavioral sciences	4,401	4,419	4,741	5,181	5,221	5,013	5,014	4,837	4,829
Psychology	2,678	2,622	2,939	3,191	3,155	3,129	3,077	2,918	2,895
Social sciences	1,723	1,797	1,802	1,990	2,066	1,884	1,937	1,919	1,934
Anthropology	309	330	331	332	308	293	311	334	297
Area and ethnic studies	121	130	128	156	162	147	171	168	174
Economics	156	178	168	157	197	163	179	138	168
History of science	8	4	13	15	10	16	13	16	16

Table SHED-7

Doctoral degrees awarded, by sex, citizenship, race, ethnicity, and field: 2011–19

(Number)

Sex, citizenship, race, ethnicity, and field	2011	2012	2013	2014	2015	2016	2017	2018	2019
Linguistics	85	77	79	81	83	97	88	98	91
Political science and public administration	476	519	571	629	643	633	580	560	585
Sociology	361	340	302	371	388	321	367	374	335
Other social sciences	207	219	210	249	275	214	228	231	268
Non-S&E	10,747	11,505	11,898	12,311	12,887	13,171	13,480	13,160	13,782
Hispanic or Latino									
All fields	1,396	1,558	1,753	1,923	2,037	2,299	2,305	2,381	2,583
S&E	746	807	944	1,037	1,110	1,276	1,218	1,270	1,334
Engineering	47	59	67	69	72	76	84	72	91
Aerospace	2	1	3	4	2	5	1	1	1
Chemical	7	12	9	10	9	12	16	8	10
Civil	6	9	11	14	21	11	16	11	20
Electrical	6	7	5	7	4	8	4	6	6
Industrial	6	3	4	4	2	1	4	4	1
Materials	3	7	5	8	2	8	11	5	8
Mechanical	10	5	8	4	6	9	6	8	8
Other	7	15	22	18	26	22	26	29	37
Science	699	748	877	968	1,038	1,200	1,134	1,198	1,243
Natural sciences	349	384	440	458	546	620	597	688	696
Agricultural sciences	24	21	26	21	25	29	29	35	29
Biological sciences	176	186	230	207	236	272	242	280	274
Earth, atmospheric, and ocean sciences	8	11	11	10	17	13	21	25	16
Atmospheric sciences	0	2	1	2	1	2	5	4	2
Earth sciences	7	6	10	4	14	9	12	16	10
Oceanography	1	3	0	4	2	2	4	5	4
Mathematics and computer sciences	9	16	15	17	16	16	22	28	27
Computer sciences	0	6	9	10	9	7	12	13	9
Mathematics and statistics	9	10	6	7	7	9	10	15	18
Medical and other health sciences	92	106	100	158	192	230	224	258	271
Medical sciences	40	37	51	75	105	103	113	134	126
Other health sciences	52	69	49	83	87	127	111	124	145
Physical sciences	40	44	58	45	60	60	59	62	79
Astronomy	2	2	2	0	1	1	2	5	2
Chemistry	30	36	48	39	49	53	50	46	66
Physics	8	6	8	6	10	5	7	11	10
Other physical sciences	0	0	0	0	0	1	0	0	1

Table SHED-7

Doctoral degrees awarded, by sex, citizenship, race, ethnicity, and field: 2011–19

(Number)

Sex, citizenship, race, ethnicity, and field	2011	2012	2013	2014	2015	2016	2017	2018	2019
Social and behavioral sciences	350	364	437	510	492	580	537	510	547
Psychology	243	246	323	377	370	438	402	373	387
Social sciences	107	118	114	133	122	142	135	137	160
Anthropology	26	26	25	39	18	22	19	23	23
Area and ethnic studies	10	13	14	12	18	23	20	21	25
Economics	5	2	13	7	16	13	6	3	8
History of science	0	0	0	1	1	1	0	0	0
Linguistics	3	1	3	5	2	6	5	9	4
Political science and public administration	20	26	24	36	25	37	33	31	41
Sociology	31	36	25	19	27	20	42	31	40
Other social sciences	12	14	10	14	15	20	10	19	19
Non-S&E	650	751	809	886	927	1,023	1,087	1,111	1,249
Not Hispanic or Latino									
All fields	22,102	23,115	23,894	25,201	25,868	25,970	26,667	26,782	27,513
S&E	12,005	12,361	12,805	13,776	13,908	13,822	14,274	14,733	14,980
Engineering	873	942	952	1,033	1,092	1,051	1,081	1,201	1,221
Aerospace	13	23	24	32	28	26	25	26	28
Chemical	134	123	117	130	153	145	142	154	180
Civil	109	113	128	151	161	147	167	163	150
Electrical	124	151	100	111	108	104	122	130	126
Industrial	31	46	39	39	32	31	43	31	48
Materials	63	81	96	84	96	84	97	116	146
Mechanical	74	88	101	91	115	107	95	111	98
Other	325	317	347	395	399	407	390	470	445
Science	11,132	11,419	11,853	12,743	12,816	12,771	13,193	13,532	13,759
Natural sciences	7,081	7,364	7,549	8,072	8,087	8,338	8,716	9,205	9,477
Agricultural sciences	293	309	344	344	414	381	400	393	431
Biological sciences	2,740	2,910	2,839	2,983	2,797	2,758	2,846	2,928	2,801
Earth, atmospheric, and ocean sciences	182	213	245	267	235	253	256	276	259
Atmospheric sciences	22	21	35	25	28	30	43	39	31
Earth sciences	124	153	158	188	168	170	173	188	175
Oceanography	36	39	52	54	39	53	40	49	53
Mathematics and computer sciences	369	372	408	424	400	408	445	416	463
Computer sciences	148	158	172	177	180	165	202	179	217
Mathematics and statistics	221	214	236	247	220	243	243	237	246
Medical and other health sciences	2,677	2,747	2,855	3,193	3,332	3,648	3,885	4,226	4,574

Table SHED-7

Doctoral degrees awarded, by sex, citizenship, race, ethnicity, and field: 2011–19

(Number)

Sex, citizenship, race, ethnicity, and field	2011	2012	2013	2014	2015	2016	2017	2018	2019
Medical sciences	724	833	918	1,128	1,383	1,537	1,667	1,872	2,006
Other health sciences	1,953	1,914	1,937	2,065	1,949	2,111	2,218	2,354	2,568
Physical sciences	820	813	858	861	909	890	884	966	949
Astronomy	38	40	43	45	41	46	50	59	45
Chemistry	621	595	632	641	673	637	663	696	716
Physics	155	174	174	159	181	197	156	205	173
Other physical sciences	6	4	9	16	14	10	15	6	15
Social and behavioral sciences	4,051	4,055	4,304	4,671	4,729	4,433	4,477	4,327	4,282
Psychology	2,435	2,376	2,616	2,814	2,785	2,691	2,675	2,545	2,508
Social sciences	1,616	1,679	1,688	1,857	1,944	1,742	1,802	1,782	1,774
Anthropology	283	304	306	293	290	271	292	311	274
Area and ethnic studies	111	117	114	144	144	124	151	147	149
Economics	151	176	155	150	181	150	173	135	160
History of science	8	4	13	14	9	15	13	16	16
Linguistics	82	76	76	76	81	91	83	89	87
Political science and public administration	456	493	547	593	618	596	547	529	544
Sociology	330	304	277	352	361	301	325	343	295
Other social sciences	195	205	200	235	260	194	218	212	249
Non-S&E	10,097	10,754	11,089	11,425	11,960	12,148	12,393	12,049	12,533
American Indian or Alaska Native									
All fields	135	141	151	141	158	143	152	151	140
S&E	69	62	77	77	84	72	62	77	64
Engineering	1	3	0	2	4	3	4	2	4
Aerospace	0	0	0	0	0	0	0	0	0
Chemical	0	0	0	0	1	0	1	0	4
Civil	0	1	0	0	0	0	0	0	0
Electrical	0	0	0	0	0	0	0	0	0
Industrial	0	1	0	0	0	0	1	0	0
Materials	0	0	0	0	0	0	1	0	0
Mechanical	0	1	0	0	2	0	1	1	0
Other	1	0	0	2	1	3	0	1	0
Science	68	59	77	75	80	69	58	75	60
Natural sciences	33	39	40	38	40	37	38	39	38
Agricultural sciences	4	4	3	2	6	3	2	2	3
Biological sciences	11	18	16	12	14	12	7	8	14
Earth, atmospheric, and ocean sciences	0	0	0	1	2	2	4	0	1

Table SHED-7

Doctoral degrees awarded, by sex, citizenship, race, ethnicity, and field: 2011–19

(Number)

Sex, citizenship, race, ethnicity, and field	2011	2012	2013	2014	2015	2016	2017	2018	2019
Atmospheric sciences	0	0	0	0	0	0	0	0	0
Earth sciences	0	0	0	0	2	1	2	0	1
Oceanography	0	0	0	1	0	1	2	0	0
Mathematics and computer sciences	1	1	1	3	0	2	1	1	1
Computer sciences	1	1	0	2	0	1	1	1	1
Mathematics and statistics	0	0	1	1	0	1	0	0	0
Medical and other health sciences	11	13	18	14	14	16	21	26	19
Medical sciences	4	4	6	6	6	7	9	14	8
Other health sciences	7	9	12	8	8	9	12	12	11
Physical sciences	6	3	2	6	4	2	3	2	0
Astronomy	0	0	1	0	0	0	0	0	0
Chemistry	5	2	1	5	3	1	3	2	0
Physics	1	1	0	1	0	1	0	0	0
Other physical sciences	0	0	0	0	1	0	0	0	0
Social and behavioral sciences	35	20	37	37	40	32	20	36	22
Psychology	21	13	23	15	16	16	10	15	14
Social sciences	14	7	14	22	24	16	10	21	8
Anthropology	3	3	4	5	5	3	1	5	1
Area and ethnic studies	4	2	6	5	8	6	3	9	3
Economics	0	0	0	0	1	0	0	0	0
History of science	0	0	0	0	0	0	0	0	0
Linguistics	0	0	1	1	1	0	1	1	1
Political science and public administration	2	1	2	5	6	2	1	3	2
Sociology	3	0	1	5	2	3	2	0	0
Other social sciences	2	1	0	1	1	2	2	3	1
Non-S&E	66	79	74	64	74	71	90	74	76
Asian									
All fields	1,680	1,857	1,875	1,917	2,026	1,913	2,024	2,061	2,205
S&E	1,158	1,315	1,281	1,318	1,394	1,302	1,417	1,466	1,580
Engineering	186	169	199	215	205	201	210	227	227
Aerospace	2	2	4	7	2	5	6	1	7
Chemical	28	30	25	28	34	30	25	40	29
Civil	12	12	11	19	20	17	22	22	13
Electrical	44	30	38	38	26	37	32	35	40
Industrial	5	1	7	10	6	8	10	4	7
Materials	17	17	23	20	15	15	21	21	33

Table SHED-7

Doctoral degrees awarded, by sex, citizenship, race, ethnicity, and field: 2011–19

(Number)

Sex, citizenship, race, ethnicity, and field	2011	2012	2013	2014	2015	2016	2017	2018	2019
Mechanical	10	14	18	15	21	24	23	18	16
Other	68	63	73	78	81	65	71	86	82
Science	972	1,146	1,082	1,103	1,189	1,101	1,207	1,239	1,353
Natural sciences	686	831	786	778	855	797	897	902	1,016
Agricultural sciences	16	21	13	19	17	31	22	25	30
Biological sciences	326	403	386	374	396	351	378	352	389
Earth, atmospheric, and ocean sciences	8	13	7	12	8	13	14	11	6
Atmospheric sciences	1	4	2	0	2	2	5	7	0
Earth sciences	6	9	4	9	6	7	7	3	4
Oceanography	1	0	1	3	0	4	2	1	2
Mathematics and computer sciences	72	59	63	66	63	58	71	68	80
Computer sciences	34	37	29	34	32	25	25	34	42
Mathematics and statistics	38	22	34	32	31	33	46	34	38
Medical and other health sciences	175	223	211	203	260	243	313	324	382
Medical sciences	78	100	95	112	157	127	176	179	189
Other health sciences	97	123	116	91	103	116	137	145	193
Physical sciences	89	112	106	104	111	101	99	122	129
Astronomy	2	4	3	3	3	7	4	5	5
Chemistry	68	85	87	79	91	73	74	99	96
Physics	17	23	15	21	17	20	19	18	27
Other physical sciences	2	0	1	1	0	1	2	0	1
Social and behavioral sciences	286	315	296	325	334	304	310	337	337
Psychology	143	174	151	174	197	177	165	178	184
Social sciences	143	141	145	151	137	127	145	159	153
Anthropology	15	16	26	25	12	13	10	18	15
Area and ethnic studies	13	17	11	14	5	7	13	16	14
Economics	32	27	30	34	35	28	29	27	36
History of science	0	0	0	2	1	0	1	1	0
Linguistics	12	14	9	6	7	8	15	7	11
Political science and public administration	34	32	42	27	33	45	42	41	35
Sociology	29	21	17	28	28	19	21	35	22
Other social sciences	8	14	10	15	16	7	14	14	20
Non-S&E	522	542	594	599	632	611	607	595	625
Black or African American									
All fields	2,502	2,694	2,911	3,192	3,472	3,609	3,904	3,736	4,197
S&E	925	946	1,046	1,195	1,237	1,371	1,426	1,444	1,629

Table SHED-7

Doctoral degrees awarded, by sex, citizenship, race, ethnicity, and field: 2011–19

(Number)

Sex, citizenship, race, ethnicity, and field	2011	2012	2013	2014	2015	2016	2017	2018	2019
Engineering	56	67	67	68	55	71	61	58	76
Aerospace	0	2	0	1	2	1	1	4	1
Chemical	7	5	5	7	4	9	7	1	12
Civil	8	5	5	9	4	7	11	7	6
Electrical	10	19	5	7	7	8	7	7	6
Industrial	5	8	9	4	4	4	5	0	9
Materials	4	4	10	8	5	3	4	8	10
Mechanical	3	3	7	2	7	7	3	4	5
Other	19	21	26	30	22	32	23	27	27
Science	869	879	979	1,127	1,182	1,300	1,365	1,386	1,553
Natural sciences	484	522	563	625	633	775	822	916	1,010
Agricultural sciences	8	25	21	18	16	23	25	20	22
Biological sciences	156	168	179	176	144	154	177	188	150
Earth, atmospheric, and ocean sciences	2	7	5	5	3	6	2	5	7
Atmospheric sciences	0	1	2	0	0	4	0	0	2
Earth sciences	1	5	2	2	3	1	1	5	5
Oceanography	1	1	1	3	0	1	1	0	0
Mathematics and computer sciences	21	26	25	25	25	38	30	27	33
Computer sciences	12	16	19	16	19	27	26	15	20
Mathematics and statistics	9	10	6	9	6	11	4	12	13
Medical and other health sciences	252	262	284	352	393	505	547	631	762
Medical sciences	100	109	117	175	211	285	327	362	422
Other health sciences	152	153	167	177	182	220	220	269	340
Physical sciences	45	34	49	49	52	49	41	45	36
Astronomy	1	0	0	0	1	0	0	0	0
Chemistry	40	32	43	45	46	40	37	41	31
Physics	4	2	4	2	5	9	3	4	1
Other physical sciences	0	0	2	2	0	0	1	0	4
Social and behavioral sciences	385	357	416	502	549	525	543	470	543
Psychology	218	194	243	300	330	331	305	263	300
Social sciences	167	163	173	202	219	194	238	207	243
Anthropology	13	12	17	11	14	18	16	15	18
Area and ethnic studies	22	20	18	30	27	22	37	32	32
Economics	7	5	8	4	3	6	8	5	5
History of science	0	0	1	1	1	0	0	2	1
Linguistics	4	2	1	2	1	3	2	1	5

Table SHED-7

Doctoral degrees awarded, by sex, citizenship, race, ethnicity, and field: 2011–19

(Number)

Sex, citizenship, race, ethnicity, and field	2011	2012	2013	2014	2015	2016	2017	2018	2019
Political science and public administration	70	72	93	104	110	101	113	89	126
Sociology	32	36	27	37	45	31	47	44	32
Other social sciences	19	16	8	13	18	13	15	19	24
Non-S&E	1,577	1,748	1,865	1,997	2,235	2,238	2,478	2,292	2,568
Native Hawaiian or Other Pacific Islander									
All fields	30	32	40	35	46	54	58	52	38
S&E	17	11	15	23	21	24	23	29	22
Engineering	2	1	1	2	0	0	1	0	0
Aerospace	0	0	0	0	0	0	0	0	0
Chemical	0	0	0	0	0	0	0	0	0
Civil	0	0	0	1	0	0	0	0	0
Electrical	0	0	0	0	0	0	0	0	0
Industrial	0	0	0	0	0	0	0	0	0
Materials	0	0	0	0	0	0	1	0	0
Mechanical	0	1	0	0	0	0	0	0	0
Other	2	0	1	1	0	0	0	0	0
Science	15	10	14	21	21	24	22	29	22
Natural sciences	10	10	8	15	17	13	14	22	11
Agricultural sciences	0	0	0	0	1	0	0	2	0
Biological sciences	8	5	5	8	6	6	5	6	7
Earth, atmospheric, and ocean sciences	0	1	0	0	1	0	0	0	0
Atmospheric sciences	0	1	0	0	0	0	0	0	0
Earth sciences	0	0	0	0	1	0	0	0	0
Oceanography	0	0	0	0	0	0	0	0	0
Mathematics and computer sciences	0	0	0	0	0	0	1	0	0
Computer sciences	0	0	0	0	0	0	1	0	0
Mathematics and statistics	0	0	0	0	0	0	0	0	0
Medical and other health sciences	1	2	3	5	7	7	7	10	4
Medical sciences	0	1	1	3	2	6	3	5	3
Other health sciences	1	1	2	2	5	1	4	5	1
Physical sciences	1	2	0	2	2	0	1	4	0
Astronomy	0	0	0	0	0	0	0	0	0
Chemistry	1	2	0	0	2	0	1	3	0
Physics	0	0	0	2	0	0	0	1	0
Other physical sciences	0	0	0	0	0	0	0	0	0
Social and behavioral sciences	5	0	6	6	4	11	8	7	11

Table SHED-7

Doctoral degrees awarded, by sex, citizenship, race, ethnicity, and field: 2011–19

(Number)

Sex, citizenship, race, ethnicity, and field	2011	2012	2013	2014	2015	2016	2017	2018	2019
Psychology	1	0	3	5	3	10	4	3	6
Social sciences	4	0	3	1	1	1	4	4	5
Anthropology	1	0	0	0	0	0	1	0	1
Area and ethnic studies	0	0	0	0	1	1	0	1	2
Economics	1	0	0	0	0	0	0	0	0
History of science	0	0	0	0	0	0	0	0	0
Linguistics	0	0	0	0	0	0	0	0	0
Political science and public administration	0	0	3	1	0	0	2	3	2
Sociology	2	0	0	0	0	0	0	0	0
Other social sciences	0	0	0	0	0	0	1	0	0
Non-S&E	13	21	25	12	25	30	35	23	16
White									
All fields	15,444	16,036	16,474	17,289	17,453	17,522	17,659	17,823	17,872
S&E	8,551	8,807	9,053	9,697	9,719	9,546	9,818	10,091	10,057
Engineering	549	607	596	635	707	658	678	760	778
Aerospace	10	17	20	22	21	17	18	20	18
Chemical	90	77	77	81	101	96	91	97	114
Civil	81	83	96	110	113	106	117	112	119
Electrical	48	77	43	46	48	49	63	61	55
Industrial	19	31	20	23	18	17	20	23	28
Materials	39	57	58	46	70	54	59	74	93
Mechanical	55	53	71	61	73	68	56	77	63
Other	207	212	211	246	263	251	254	296	288
Science	8,002	8,200	8,457	9,062	9,012	8,888	9,140	9,331	9,279
Natural sciences	5,166	5,295	5,465	5,843	5,799	5,899	6,104	6,416	6,455
Agricultural sciences	239	238	273	277	317	294	305	307	330
Biological sciences	1,975	2,021	2,000	2,114	1,996	1,975	1,996	2,094	1,954
Earth, atmospheric, and ocean sciences	154	177	218	227	190	200	210	233	218
Atmospheric sciences	18	14	30	24	23	20	36	30	25
Earth sciences	107	128	143	157	134	138	144	158	148
Oceanography	29	35	45	46	33	42	30	45	45
Mathematics and computer sciences	238	253	265	270	262	246	289	254	283
Computer sciences	83	90	95	91	101	89	127	101	125
Mathematics and statistics	155	163	170	179	161	157	162	153	158
Medical and other health sciences	1,986	2,030	2,085	2,353	2,391	2,542	2,656	2,812	2,984
Medical sciences	473	547	602	715	891	968	995	1,114	1,220

Table SHED-7

Doctoral degrees awarded, by sex, citizenship, race, ethnicity, and field: 2011–19

(Number)

Sex, citizenship, race, ethnicity, and field	2011	2012	2013	2014	2015	2016	2017	2018	2019
Earth sciences	0	1	2	5	4	7	2	11	7
Oceanography	0	0	0	1	0	2	3	2	3
Mathematics and computer sciences	2	4	4	5	6	16	8	17	16
Computer sciences	1	0	1	1	3	4	2	7	5
Mathematics and statistics	1	4	3	4	3	12	6	10	11
Medical and other health sciences	14	11	35	41	48	61	99	80	110
Medical sciences	6	4	12	15	26	23	39	39	49
Other health sciences	8	7	23	26	22	38	60	41	61
Physical sciences	7	5	14	13	10	33	26	26	39
Astronomy	2	0	0	2	0	2	0	2	3
Chemistry	3	3	12	8	9	22	20	17	30
Physics	2	2	2	2	1	8	6	6	6
Other physical sciences	0	0	0	1	0	1	0	1	0
Social and behavioral sciences	45	55	60	91	93	105	142	149	186
Psychology	29	32	36	56	59	72	89	86	108
Social sciences	16	23	24	35	34	33	53	63	78
Anthropology	2	6	3	7	6	3	10	13	19
Area and ethnic studies	2	3	2	6	4	6	7	9	7
Economics	6	3	1	2	4	2	5	4	6
History of science	0	0	0	0	0	0	0	0	1
Linguistics	0	1	1	1	3	4	3	2	7
Political science and public administration	4	5	10	6	8	8	11	16	16
Sociology	1	3	4	7	8	6	8	12	17
Other social sciences	1	2	3	6	1	4	9	7	5
Non-S&E	80	86	111	146	165	220	245	295	335
Other or unknown race or ethnicity									
All fields	2,126	2,143	2,161	2,252	2,287	2,181	2,195	2,245	2,197
S&E	1,180	1,094	1,162	1,237	1,192	1,179	1,098	1,207	1,099
Engineering	70	81	74	91	88	94	95	119	91
Aerospace	1	1	0	1	2	2	0	1	1
Chemical	7	10	8	14	11	6	14	13	17
Civil	7	11	13	10	18	14	11	16	8
Electrical	20	21	11	18	21	10	17	23	18
Industrial	2	5	3	1	3	2	5	3	4
Materials	1	2	4	7	4	9	7	9	6
Mechanical	5	15	5	12	8	7	7	8	8

Table SHED-7

Doctoral degrees awarded, by sex, citizenship, race, ethnicity, and field: 2011–19

(Number)

Sex, citizenship, race, ethnicity, and field	2011	2012	2013	2014	2015	2016	2017	2018	2019
Other	27	16	30	28	21	44	34	46	29
Science	1,110	1,013	1,088	1,146	1,104	1,085	1,003	1,088	1,008
Natural sciences	651	610	591	655	608	618	585	675	649
Agricultural sciences	23	21	31	24	48	21	32	30	35
Biological sciences	240	259	215	250	183	189	179	188	176
Earth, atmospheric, and ocean sciences	17	14	13	16	27	23	21	14	16
Atmospheric sciences	2	1	1	1	3	4	2	2	3
Earth sciences	10	10	7	15	18	16	17	11	10
Oceanography	5	3	5	0	6	3	2	1	3
Mathematics and computer sciences	35	29	50	55	44	48	45	49	50
Computer sciences	17	14	28	33	25	19	20	21	24
Mathematics and statistics	18	15	22	22	19	29	25	28	26
Medical and other health sciences	238	206	219	225	219	274	242	343	313
Medical sciences	63	68	85	102	90	121	118	159	115
Other health sciences	175	138	134	123	129	153	124	184	198
Physical sciences	98	81	63	85	87	63	66	51	59
Astronomy	4	1	3	5	6	2	3	5	2
Chemistry	71	59	41	59	58	40	48	35	41
Physics	23	21	19	21	23	19	14	11	16
Other physical sciences	0	0	0	0	0	2	1	0	0
Social and behavioral sciences	459	403	497	491	496	467	418	413	359
Psychology	262	233	303	263	258	267	238	245	205
Social sciences	197	170	194	228	238	200	180	168	154
Anthropology	31	32	40	32	42	31	39	35	26
Area and ethnic studies	17	8	10	18	17	9	10	14	13
Economics	32	27	24	17	26	27	23	16	11
History of science	2	0	0	3	0	0	0	0	1
Linguistics	11	8	10	12	12	8	5	8	7
Political science and public administration	52	60	76	87	79	75	57	52	52
Sociology	27	25	15	32	33	33	32	22	20
Other social sciences	25	10	19	27	29	17	14	21	24
Non-S&E	946	1,049	999	1,015	1,095	1,002	1,097	1,038	1,098
Temporary visa holder									
All fields	6,015	6,186	6,501	6,707	6,755	6,757	6,879	7,281	7,471
S&E	4,342	4,589	4,793	5,110	5,132	5,048	5,189	5,416	5,534
Engineering	978	1,005	1,158	1,209	1,262	1,302	1,345	1,413	1,479

Table SHED-7

Doctoral degrees awarded, by sex, citizenship, race, ethnicity, and field: 2011–19

(Number)

Sex, citizenship, race, ethnicity, and field	2011	2012	2013	2014	2015	2016	2017	2018	2019
Aerospace	15	16	22	17	17	18	12	15	25
Chemical	139	158	172	188	199	206	189	186	212
Civil	124	119	159	149	189	156	210	222	235
Electrical	257	266	259	295	278	306	330	353	313
Industrial	63	55	70	79	87	81	72	68	74
Materials	90	84	101	105	119	124	120	130	118
Mechanical	78	101	103	122	102	125	137	136	170
Other	212	206	272	254	271	286	275	303	332
Science	3,364	3,584	3,635	3,901	3,870	3,746	3,844	4,003	4,055
Natural sciences	2,578	2,773	2,816	3,056	3,045	2,937	2,984	3,082	3,154
Agricultural sciences	174	210	200	228	226	218	247	211	256
Biological sciences	1,071	1,056	1,098	1,185	1,146	1,106	1,092	1,100	1,007
Earth, atmospheric, and ocean sciences	77	95	109	97	107	107	103	110	122
Atmospheric sciences	14	26	22	14	26	19	20	23	28
Earth sciences	55	56	64	69	67	73	69	79	76
Oceanography	8	13	23	14	14	15	14	8	18
Mathematics and computer sciences	387	444	459	501	526	493	492	545	602
Computer sciences	163	197	170	216	250	217	223	234	271
Mathematics and statistics	224	247	289	285	276	276	269	311	331
Medical and other health sciences	311	381	350	377	362	392	421	453	449
Medical sciences	186	238	252	264	246	261	278	292	299
Other health sciences	125	143	98	113	116	131	143	161	150
Physical sciences	558	587	600	668	678	621	629	663	718
Astronomy	17	15	18	17	10	12	21	18	26
Chemistry	396	397	422	470	484	444	441	451	491
Physics	139	170	153	166	176	152	157	186	195
Other physical sciences	6	5	7	15	8	13	10	8	6
Social and behavioral sciences	786	811	819	845	825	809	860	921	901
Psychology	185	186	179	170	188	164	191	199	191
Social sciences	601	625	640	675	637	645	669	722	710
Anthropology	49	44	58	46	45	50	53	50	48
Area and ethnic studies	20	31	14	31	22	27	34	32	43
Economics	250	243	268	258	269	287	273	289	299
History of science	0	3	5	3	6	3	4	1	8
Linguistics	57	56	61	65	66	61	49	65	64
Political science and public administration	122	133	128	151	123	112	148	154	132

Table SHED-7**Doctoral degrees awarded, by sex, citizenship, race, ethnicity, and field: 2011–19**

(Number)

Sex, citizenship, race, ethnicity, and field	2011	2012	2013	2014	2015	2016	2017	2018	2019
Sociology	58	62	65	64	53	56	56	74	64
Other social sciences	45	53	41	57	53	49	52	57	52
Non-S&E	1,673	1,597	1,708	1,597	1,623	1,709	1,690	1,865	1,937

Note(s):

Racial and ethnic breakouts include U.S. citizens and permanent residents only; temporary visa holder includes all racial and ethnic groups. Hispanic may be any race, and race categories exclude Hispanic origin.

Source(s):

National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Completions Survey; National Center for Science and Engineering Statistics, Table Builder.

Science and Engineering Indicators