

Table 3-6

Primary source of support for full-time S&E graduate students, by field, sex, and degree: 2018

(Number)

Field, sex, and degree	All sources	Federal support										Other nonfederal support			Self-support	
		Total	DOD	DOE	HHS			NASA	NSF	USDA	Other	Institutional support	Total	United States		Foreign
					Total	NIH	Other									
All S&E graduate students	441,584	68,229	7,522	4,561	20,686	18,348	2,338	1,896	21,546	2,560	9,458	186,068	22,693	18,282	4,411	164,594
Science	321,063	46,268	3,176	2,370	17,415	15,733	1,682	1,193	13,387	2,235	6,492	141,941	13,396	10,988	2,408	119,458
Agricultural sciences	6,899	1,294	7	32	94	25	69	7	122	837	195	3,423	901	821	80	1,281
Biological and biomedical sciences	74,013	18,269	331	144	13,436	12,527	909	61	2,507	663	1,127	32,644	3,918	3,355	563	19,182
Computer and information sciences	57,789	4,871	968	103	326	250	76	46	2,637	28	763	14,310	1,770	1,320	450	36,838
Geosciences, atmospheric sciences, and ocean sciences	9,770	2,535	179	104	33	26	7	424	1,282	31	482	5,189	587	483	104	1,459
Mathematics and statistics	24,955	1,518	158	33	214	185	29	14	885	15	199	12,590	617	391	226	10,230
Multidisciplinary and interdisciplinary studies	6,656	499	46	18	117	111	6	17	147	38	116	2,449	181	150	31	3,527
Natural resources and conservation	8,034	1,303	31	22	120	76	44	46	326	333	425	3,397	491	404	87	2,843
Physical sciences	37,671	10,211	753	1,888	1,881	1,627	254	533	4,289	33	834	22,423	2,022	1,715	307	3,015
Psychology	38,525	2,962	186	4	907	719	188	6	439	13	1,407	13,487	799	708	91	21,277
Social sciences	56,751	2,806	517	22	287	187	100	39	753	244	944	32,029	2,110	1,641	469	19,806
Engineering	120,521	21,961	4,346	2,191	3,271	2,615	656	703	8,159	325	2,966	44,127	9,297	7,294	2,003	45,136
Aerospace, aeronautical, and astronautical engineering	4,301	1,045	493	60	3	3	0	182	148	1	158	1,623	410	321	89	1,223
Agricultural engineering	858	237	0	8	28	4	24	4	40	115	42	373	114	89	25	134
Bioengineering and biomedical engineering	9,933	2,576	150	8	1,610	1,478	132	10	654	10	134	4,060	652	597	55	2,645
Biological and biosystems engineering	199	39	0	1	9	9	0	0	10	10	9	114	24	20	4	22
Chemical engineering	8,803	2,208	185	358	357	282	75	27	1,056	25	200	3,726	1,023	777	246	1,846
Civil engineering	14,862	1,991	147	118	138	45	93	66	850	54	618	6,297	971	748	223	5,603
Electrical, electronics, and communications engineering	34,814	5,753	1,576	388	510	407	103	138	2,519	24	598	10,570	2,483	1,942	541	16,008
Engineering mechanics, physics, and science	1,768	530	160	51	54	52	2	9	190	4	62	759	122	87	35	357
Industrial and manufacturing engineering	9,393	922	373	30	62	19	43	10	344	8	95	2,741	434	330	104	5,296
Mechanical engineering	20,076	3,480	732	451	240	168	72	197	1,346	28	486	7,953	1,623	1,253	370	7,020
Metallurgical and materials engineering	5,823	1,543	311	293	108	66	42	25	650	12	144	2,260	669	544	125	1,351
Mining engineering	381	65	10	17	19	7	12	0	9	0	10	169	37	23	14	110
Nanotechnology	103	22	3	2	10	10	0	0	7	0	0	43	11	11	0	27
Nuclear engineering	1,208	554	66	309	3	3	0	8	25	0	143	376	129	102	27	149
Petroleum engineering	1,056	41	1	19	2	2	0	0	6	5	8	523	239	183	56	253
Engineering nec	6,943	955	139	78	118	60	58	27	305	29	259	2,540	356	267	89	3,092
Female S&E graduate students	190,788	26,962	1,654	1,096	10,411	9,294	1,117	662	7,734	1,301	4,104	81,103	8,374	6,937	1,437	74,349
Science	158,965	21,243	856	638	9,295	8,375	920	491	5,397	1,195	3,371	68,774	6,084	5,079	1,005	62,864

Table 3-6

Primary source of support for full-time S&E graduate students, by field, sex, and degree: 2018

(Number)

Field, sex, and degree	All sources	Federal support										Institutional support	Other nonfederal support			Self-support
		Total	DOD	DOE	HHS			NASA	NSF	USDA	Other		Total	United States	Foreign	
					Total	NIH	Other									
Agricultural sciences	3,818	715	5	16	39	15	24	5	64	476	110	1,916	445	409	36	742
Biological and biomedical sciences	42,265	9,951	154	64	7,326	6,809	517	32	1,345	380	650	18,369	2,137	1,837	300	11,808
Computer and information sciences	18,579	1,128	180	18	94	60	34	16	618	7	195	4,512	421	299	122	12,518
Geosciences, atmospheric sciences, and ocean sciences	4,489	1,185	67	41	13	13	0	187	620	18	239	2,414	266	222	44	624
Mathematics and statistics	9,077	490	33	10	97	80	17	6	269	6	69	3,922	210	130	80	4,455
Multidisciplinary and interdisciplinary studies	3,708	236	6	5	66	61	5	9	69	19	62	1,373	97	77	20	2,002
Natural resources and conservation	4,480	684	11	9	63	42	21	26	199	140	236	1,854	265	215	50	1,677
Physical sciences	12,681	3,346	196	463	744	653	91	187	1,476	9	271	7,585	646	535	111	1,104
Psychology	29,417	2,154	110	4	660	513	147	3	308	12	1,057	9,807	579	515	64	16,877
Social sciences	30,451	1,354	94	8	193	129	64	20	429	128	482	17,022	1,018	840	178	11,057
Engineering	31,823	5,719	798	458	1,116	919	197	171	2,337	106	733	12,329	2,290	1,858	432	11,485
Aerospace, aeronautical, and astronautical engineering	717	182	76	9	0	0	0	35	31	0	31	282	80	68	12	173
Agricultural engineering	338	90	0	1	13	2	11	0	17	41	18	158	33	23	10	57
Bioengineering and biomedical engineering	4,269	1,084	57	1	636	590	46	6	317	6	61	1,755	279	259	20	1,151
Biological and biosystems engineering	80	15	0	1	4	4	0	0	4	2	4	49	9	6	3	7
Chemical engineering	2,804	715	48	97	119	98	21	8	369	11	63	1,200	316	253	63	573
Civil engineering	4,920	727	53	38	52	21	31	28	344	20	192	2,190	303	256	47	1,700
Electrical, electronics, and communications engineering	7,940	1,045	247	58	125	101	24	27	475	6	107	2,363	450	360	90	4,082
Engineering mechanics, physics, and science	455	113	24	9	13	13	0	1	52	1	13	198	32	24	8	112
Industrial and manufacturing engineering	2,695	243	70	5	31	9	22	1	105	4	27	860	132	109	23	1,460
Mechanical engineering	3,379	647	101	75	49	36	13	48	297	3	74	1,529	281	207	74	922
Metallurgical and materials engineering	1,798	478	80	80	35	23	12	9	225	4	45	737	199	163	36	384
Mining engineering	102	14	2	5	1	1	0	0	2	0	4	54	7	4	3	27
Nanotechnology	31	5	2	1	1	1	0	0	1	0	0	16	3	3	0	7
Nuclear engineering	214	96	11	59	0	0	0	1	5	0	20	75	23	20	3	20
Petroleum engineering	197	6	1	2	1	1	0	0	1	1	0	115	31	24	7	45
Engineering nec	1,884	259	26	17	36	19	17	7	92	7	74	748	112	79	33	765
Male S&E graduate students	250,796	41,267	5,868	3,465	10,275	9,054	1,221	1,234	13,812	1,259	5,354	104,965	14,319	11,345	2,974	90,245
Science	162,098	25,025	2,320	1,732	8,120	7,358	762	702	7,990	1,040	3,121	73,167	7,312	5,909	1,403	56,594
Agricultural sciences	3,081	579	2	16	55	10	45	2	58	361	85	1,507	456	412	44	539
Biological and biomedical sciences	31,748	8,318	177	80	6,110	5,718	392	29	1,162	283	477	14,275	1,781	1,518	263	7,374

Table 3-6

Primary source of support for full-time S&E graduate students, by field, sex, and degree: 2018

(Number)

Field, sex, and degree	All sources	Federal support										Institutional support	Other nonfederal support			Self-support
		Total	DOD	DOE	HHS			NASA	NSF	USDA	Other		Total	United States	Foreign	
					Total	NIH	Other									
Computer and information sciences	39,210	3,743	788	85	232	190	42	30	2,019	21	568	9,798	1,349	1,021	328	24,320
Geosciences, atmospheric sciences, and ocean sciences	5,281	1,350	112	63	20	13	7	237	662	13	243	2,775	321	261	60	835
Mathematics and statistics	15,878	1,028	125	23	117	105	12	8	616	9	130	8,668	407	261	146	5,775
Multidisciplinary and interdisciplinary studies	2,948	263	40	13	51	50	1	8	78	19	54	1,076	84	73	11	1,525
Natural resources and conservation	3,554	619	20	13	57	34	23	20	127	193	189	1,543	226	189	37	1,166
Physical sciences	24,990	6,865	557	1,425	1,137	974	163	346	2,813	24	563	14,838	1,376	1,180	196	1,911
Psychology	9,108	808	76	0	247	206	41	3	131	1	350	3,680	220	193	27	4,400
Social sciences	26,300	1,452	423	14	94	58	36	19	324	116	462	15,007	1,092	801	291	8,749
Engineering	88,698	16,242	3,548	1,733	2,155	1,696	459	532	5,822	219	2,233	31,798	7,007	5,436	1,571	33,651
Aerospace, aeronautical, and astronautical engineering	3,584	863	417	51	3	3	0	147	117	1	127	1,341	330	253	77	1,050
Agricultural engineering	520	147	0	7	15	2	13	4	23	74	24	215	81	66	15	77
Bioengineering and biomedical engineering	5,664	1,492	93	7	974	888	86	4	337	4	73	2,305	373	338	35	1,494
Biological and biosystems engineering	119	24	0	0	5	5	0	0	6	8	5	65	15	14	1	15
Chemical engineering	5,999	1,493	137	261	238	184	54	19	687	14	137	2,526	707	524	183	1,273
Civil engineering	9,942	1,264	94	80	86	24	62	38	506	34	426	4,107	668	492	176	3,903
Electrical, electronics, and communications engineering	26,874	4,708	1,329	330	385	306	79	111	2,044	18	491	8,207	2,033	1,582	451	11,926
Engineering mechanics, physics, and science	1,313	417	136	42	41	39	2	8	138	3	49	561	90	63	27	245
Industrial and manufacturing engineering	6,698	679	303	25	31	10	21	9	239	4	68	1,881	302	221	81	3,836
Mechanical engineering	16,697	2,833	631	376	191	132	59	149	1,049	25	412	6,424	1,342	1,046	296	6,098
Metallurgical and materials engineering	4,025	1,065	231	213	73	43	30	16	425	8	99	1,523	470	381	89	967
Mining engineering	279	51	8	12	18	6	12	0	7	0	6	115	30	19	11	83
Nanotechnology	72	17	1	1	9	9	0	0	6	0	0	27	8	8	0	20
Nuclear engineering	994	458	55	250	3	3	0	7	20	0	123	301	106	82	24	129
Petroleum engineering	859	35	0	17	1	1	0	0	5	4	8	408	208	159	49	208
Engineering nec	5,059	696	113	61	82	41	41	20	213	22	185	1,792	244	188	56	2,327
All S&E master's students	210,287	10,882	2,301	411	1,009	696	313	300	2,099	1,036	3,726	50,431	5,449	4,129	1,320	143,525
Science	151,059	7,291	1,046	109	769	561	208	143	1,267	946	3,011	36,887	3,235	2,457	778	103,646
Agricultural sciences	3,626	588	4	12	42	5	37	1	30	395	104	1,636	435	417	18	967
Biological and biomedical sciences	24,759	1,274	53	8	429	367	62	4	221	209	350	6,039	521	396	125	16,925
Computer and information sciences	44,193	1,136	299	25	68	54	14	20	359	18	347	7,413	651	452	199	34,993

Table 3-6

Primary source of support for full-time S&E graduate students, by field, sex, and degree: 2018

(Number)

Field, sex, and degree	All sources	Federal support										Institutional support	Other nonfederal support			Self-support
		Total	DOD	DOE	HHS			NASA	NSF	USDA	Other		Total	United States	Foreign	
					Total	NIH	Other									
Geosciences, atmospheric sciences, and ocean sciences	3,820	668	84	31	5	2	3	51	255	18	224	1,951	179	149	30	1,022
Mathematics and statistics	12,707	201	32	4	23	15	8	5	55	2	80	2,963	187	95	92	9,356
Multidisciplinary and interdisciplinary studies	4,268	148	20	3	5	5	0	7	19	25	69	948	61	48	13	3,111
Natural resources and conservation	5,072	638	16	7	61	27	34	7	95	187	265	1,778	231	188	43	2,425
Physical sciences	3,915	330	33	11	34	34	0	30	113	2	107	1,845	108	67	41	1,632
Psychology	21,987	1,139	63	0	71	34	37	4	30	2	969	3,408	159	135	24	17,281
Social sciences	26,712	1,169	442	8	31	18	13	14	90	88	496	8,906	703	510	193	15,934
Engineering	59,228	3,591	1,255	302	240	135	105	157	832	90	715	13,544	2,214	1,672	542	39,879
Aerospace, aeronautical, and astronautical engineering	2,128	327	205	10	0	0	0	46	27	1	38	676	125	98	27	1,000
Agricultural engineering	286	68	0	1	9	1	8	2	14	31	11	110	36	34	2	72
Bioengineering and biomedical engineering	3,369	135	22	0	52	43	9	3	28	2	28	806	77	69	8	2,351
Biological and biosystems engineering	50	8	0	0	1	1	0	0	2	1	4	27	3	3	0	12
Chemical engineering	2,220	81	3	10	7	6	1	2	37	4	18	424	115	49	66	1,600
Civil engineering	8,289	489	42	27	35	7	28	8	143	26	208	2,589	341	266	75	4,870
Electrical, electronics, and communications engineering	19,341	900	337	55	55	40	15	23	281	9	140	3,494	502	389	113	14,445
Engineering mechanics, physics, and science	472	87	71	1	0	0	0	0	11	1	3	89	26	12	14	270
Industrial and manufacturing engineering	6,492	356	261	7	17	3	14	2	25	3	41	1,022	184	122	62	4,930
Mechanical engineering	10,178	724	206	120	35	18	17	62	181	4	116	2,733	457	367	90	6,264
Metallurgical and materials engineering	1,539	123	33	17	12	5	7	3	39	0	19	317	94	84	10	1,005
Mining engineering	211	38	9	7	11	5	6	0	4	0	7	75	14	10	4	84
Nanotechnology	32	0	0	0	0	0	0	0	0	0	0	7	0	0	0	25
Nuclear engineering	273	82	22	35	1	1	0	0	1	0	23	97	21	17	4	73
Petroleum engineering	477	9	1	4	0	0	0	0	0	1	3	193	79	57	22	196
Engineering nec	3,871	164	43	8	5	5	0	6	39	7	56	885	140	95	45	2,682
Female S&E master's students	94,759	4,471	465	90	517	363	154	117	805	561	1,916	23,368	2,098	1,655	443	64,822
Science	79,260	3,651	233	33	444	317	127	73	584	535	1,749	19,568	1,542	1,218	324	54,499
Agricultural sciences	2,128	348	4	2	20	5	15	1	18	246	57	959	222	214	8	599
Biological and biomedical sciences	15,365	794	29	3	272	227	45	3	146	121	220	3,718	333	250	83	10,520
Computer and information sciences	15,087	289	45	7	24	15	9	7	101	4	101	2,641	170	120	50	11,987
Geosciences, atmospheric sciences, and ocean sciences	1,726	310	27	15	1	1	0	24	116	11	116	890	77	67	10	449

Table 3-6

Primary source of support for full-time S&E graduate students, by field, sex, and degree: 2018

(Number)

Field, sex, and degree	All sources	Federal support										Other nonfederal support			Self-support	
		Total	DOD	DOE	HHS			NASA	NSF	USDA	Other	Institutional support	Total	United States		Foreign
					Total	NIH	Other									
Mathematics and statistics	5,518	76	8	0	10	6	4	3	25	0	30	1,184	83	43	40	4,175
Multidisciplinary and interdisciplinary studies	2,478	66	1	1	1	1	0	4	6	15	38	595	34	26	8	1,783
Natural resources and conservation	2,913	341	6	2	29	15	14	5	57	88	154	999	128	101	27	1,445
Physical sciences	1,477	132	8	2	10	10	0	13	50	1	48	681	44	20	24	620
Psychology	17,432	851	31	0	53	24	29	3	19	2	743	2,619	114	94	20	13,848
Social sciences	15,136	444	74	1	24	13	11	10	46	47	242	5,282	337	283	54	9,073
Engineering	15,499	820	232	57	73	46	27	44	221	26	167	3,800	556	437	119	10,323
Aerospace, aeronautical, and astronautical engineering	363	67	40	4	0	0	0	9	7	0	7	136	18	13	5	142
Agricultural engineering	108	22	0	1	4	0	4	0	6	8	3	44	12	11	1	30
Bioengineering and biomedical engineering	1,508	52	5	0	16	13	3	1	16	1	13	369	43	39	4	1,044
Biological and biosystems engineering	23	3	0	0	1	1	0	0	1	0	1	16	1	1	0	3
Chemical engineering	692	31	2	1	2	2	0	1	19	1	5	130	30	25	5	501
Civil engineering	2,728	169	19	14	11	4	7	3	55	11	56	940	111	92	19	1,508
Electrical, electronics, and communications engineering	4,984	167	50	11	13	11	2	5	55	3	30	913	102	78	24	3,802
Engineering mechanics, physics, and science	129	11	10	0	0	0	0	0	1	0	0	27	3	2	1	88
Industrial and manufacturing engineering	1,791	77	46	1	7	1	6	0	10	1	12	295	55	43	12	1,364
Mechanical engineering	1,527	127	35	14	9	6	3	22	32	0	15	495	90	62	28	815
Metallurgical and materials engineering	467	37	12	4	4	2	2	1	11	0	5	115	22	21	1	293
Mining engineering	61	10	2	3	1	1	0	0	2	0	2	29	3	2	1	19
Nanotechnology	9	0	0	0	0	0	0	0	0	0	0	2	0	0	0	7
Nuclear engineering	30	4	1	2	0	0	0	0	0	0	1	10	6	5	1	10
Petroleum engineering	83	2	1	1	0	0	0	0	0	0	0	34	13	11	2	34
Engineering nec	996	41	9	1	5	5	0	2	6	1	17	245	47	32	15	663
Male S&E master's students	115,528	6,411	1,836	321	492	333	159	183	1,294	475	1,810	27,063	3,351	2,474	877	78,703
Science	71,799	3,640	813	76	325	244	81	70	683	411	1,262	17,319	1,693	1,239	454	49,147
Agricultural sciences	1,498	240	0	10	22	0	22	0	12	149	47	677	213	203	10	368
Biological and biomedical sciences	9,394	480	24	5	157	140	17	1	75	88	130	2,321	188	146	42	6,405
Computer and information sciences	29,106	847	254	18	44	39	5	13	258	14	246	4,772	481	332	149	23,006
Geosciences, atmospheric sciences, and ocean sciences	2,094	358	57	16	4	1	3	27	139	7	108	1,061	102	82	20	573
Mathematics and statistics	7,189	125	24	4	13	9	4	2	30	2	50	1,779	104	52	52	5,181
Multidisciplinary and interdisciplinary studies	1,790	82	19	2	4	4	0	3	13	10	31	353	27	22	5	1,328

Table 3-6

Primary source of support for full-time S&E graduate students, by field, sex, and degree: 2018

(Number)

Field, sex, and degree	All sources	Federal support										Institutional support	Other nonfederal support			Self-support
		Total	DOD	DOE	HHS			NASA	NSF	USDA	Other		Total	United States	Foreign	
					Total	NIH	Other									
Natural resources and conservation	2,159	297	10	5	32	12	20	2	38	99	111	779	103	87	16	980
Physical sciences	2,438	198	25	9	24	24	0	17	63	1	59	1,164	64	47	17	1,012
Psychology	4,555	288	32	0	18	10	8	1	11	0	226	789	45	41	4	3,433
Social sciences	11,576	725	368	7	7	5	2	4	44	41	254	3,624	366	227	139	6,861
Engineering	43,729	2,771	1,023	245	167	89	78	113	611	64	548	9,744	1,658	1,235	423	29,556
Aerospace, aeronautical, and astronautical engineering	1,765	260	165	6	0	0	0	37	20	1	31	540	107	85	22	858
Agricultural engineering	178	46	0	0	5	1	4	2	8	23	8	66	24	23	1	42
Bioengineering and biomedical engineering	1,861	83	17	0	36	30	6	2	12	1	15	437	34	30	4	1,307
Biological and biosystems engineering	27	5	0	0	0	0	0	0	1	1	3	11	2	2	0	9
Chemical engineering	1,528	50	1	9	5	4	1	1	18	3	13	294	85	24	61	1,099
Civil engineering	5,561	320	23	13	24	3	21	5	88	15	152	1,649	230	174	56	3,362
Electrical, electronics, and communications engineering	14,357	733	287	44	42	29	13	18	226	6	110	2,581	400	311	89	10,643
Engineering mechanics, physics, and science	343	76	61	1	0	0	0	0	10	1	3	62	23	10	13	182
Industrial and manufacturing engineering	4,701	279	215	6	10	2	8	2	15	2	29	727	129	79	50	3,566
Mechanical engineering	8,651	597	171	106	26	12	14	40	149	4	101	2,238	367	305	62	5,449
Metallurgical and materials engineering	1,072	86	21	13	8	3	5	2	28	0	14	202	72	63	9	712
Mining engineering	150	28	7	4	10	4	6	0	2	0	5	46	11	8	3	65
Nanotechnology	23	0	0	0	0	0	0	0	0	0	0	5	0	0	0	18
Nuclear engineering	243	78	21	33	1	1	0	0	1	0	22	87	15	12	3	63
Petroleum engineering	394	7	0	3	0	0	0	0	0	1	3	159	66	46	20	162
Engineering nec	2,875	123	34	7	0	0	0	4	33	6	39	640	93	63	30	2,019
All S&E doctoral students	231,297	57,347	5,221	4,150	19,677	17,652	2,025	1,596	19,447	1,524	5,732	135,637	17,244	14,153	3,091	21,069
Science	170,004	38,977	2,130	2,261	16,646	15,172	1,474	1,050	12,120	1,289	3,481	105,054	10,161	8,531	1,630	15,812
Agricultural sciences	3,273	706	3	20	52	20	32	6	92	442	91	1,787	466	404	62	314
Biological and biomedical sciences	49,254	16,995	278	136	13,007	12,160	847	57	2,286	454	777	26,605	3,397	2,959	438	2,257
Computer and information sciences	13,596	3,735	669	78	258	196	62	26	2,278	10	416	6,897	1,119	868	251	1,845
Geosciences, atmospheric sciences, and ocean sciences	5,950	1,867	95	73	28	24	4	373	1,027	13	258	3,238	408	334	74	437
Mathematics and statistics	12,248	1,317	126	29	191	170	21	9	830	13	119	9,627	430	296	134	874
Multidisciplinary and interdisciplinary studies	2,388	351	26	15	112	106	6	10	128	13	47	1,501	120	102	18	416
Natural resources and conservation	2,962	665	15	15	59	49	10	39	231	146	160	1,619	260	216	44	418
Physical sciences	33,756	9,881	720	1,877	1,847	1,593	254	503	4,176	31	727	20,578	1,914	1,648	266	1,383

Table 3-6

Primary source of support for full-time S&E graduate students, by field, sex, and degree: 2018

(Number)

Field, sex, and degree	All sources	Federal support											Other nonfederal support			Self-support
		Total	DOD	DOE	HHS			NASA	NSF	USDA	Other	Institutional support	Total	United States	Foreign	
					Total	NIH	Other									
Psychology	16,538	1,823	123	4	836	685	151	2	409	11	438	10,079	640	573	67	3,996
Social sciences	30,039	1,637	75	14	256	169	87	25	663	156	448	23,123	1,407	1,131	276	3,872
Engineering	61,293	18,370	3,091	1,889	3,031	2,480	551	546	7,327	235	2,251	30,583	7,083	5,622	1,461	5,257
Aerospace, aeronautical, and astronautical engineering	2,173	718	288	50	3	3	0	136	121	0	120	947	285	223	62	223
Agricultural engineering	572	169	0	7	19	3	16	2	26	84	31	263	78	55	23	62
Bioengineering and biomedical engineering	6,564	2,441	128	8	1,558	1,435	123	7	626	8	106	3,254	575	528	47	294
Biological and biosystems engineering	149	31	0	1	8	8	0	0	8	9	5	87	21	17	4	10
Chemical engineering	6,583	2,127	182	348	350	276	74	25	1,019	21	182	3,302	908	728	180	246
Civil engineering	6,573	1,502	105	91	103	38	65	58	707	28	410	3,708	630	482	148	733
Electrical, electronics, and communications engineering	15,473	4,853	1,239	333	455	367	88	115	2,238	15	458	7,076	1,981	1,553	428	1,563
Engineering mechanics, physics, and science	1,296	443	89	50	54	52	2	9	179	3	59	670	96	75	21	87
Industrial and manufacturing engineering	2,901	566	112	23	45	16	29	8	319	5	54	1,719	250	208	42	366
Mechanical engineering	9,898	2,756	526	331	205	150	55	135	1,165	24	370	5,220	1,166	886	280	756
Metallurgical and materials engineering	4,284	1,420	278	276	96	61	35	22	611	12	125	1,943	575	460	115	346
Mining engineering	170	27	1	10	8	2	6	0	5	0	3	94	23	13	10	26
Nanotechnology	71	22	3	2	10	10	0	0	7	0	0	36	11	11	0	2
Nuclear engineering	935	472	44	274	2	2	0	8	24	0	120	279	108	85	23	76
Petroleum engineering	579	32	0	15	2	2	0	0	6	4	5	330	160	126	34	57
Engineering nec	3,072	791	96	70	113	55	58	21	266	22	203	1,655	216	172	44	410
Female S&E doctoral students	96,029	22,491	1,189	1,006	9,894	8,931	963	545	6,929	740	2,188	57,735	6,276	5,282	994	9,527
Science	79,705	17,592	623	605	8,851	8,058	793	418	4,813	660	1,622	49,206	4,542	3,861	681	8,365
Agricultural sciences	1,690	367	1	14	19	10	9	4	46	230	53	957	223	195	28	143
Biological and biomedical sciences	26,900	9,157	125	61	7,054	6,582	472	29	1,199	259	430	14,651	1,804	1,587	217	1,288
Computer and information sciences	3,492	839	135	11	70	45	25	9	517	3	94	1,871	251	179	72	531
Geosciences, atmospheric sciences, and ocean sciences	2,763	875	40	26	12	12	0	163	504	7	123	1,524	189	155	34	175
Mathematics and statistics	3,559	414	25	10	87	74	13	3	244	6	39	2,738	127	87	40	280
Multidisciplinary and interdisciplinary studies	1,230	170	5	4	65	60	5	5	63	4	24	778	63	51	12	219
Natural resources and conservation	1,567	343	5	7	34	27	7	21	142	52	82	855	137	114	23	232
Physical sciences	11,204	3,214	188	461	734	643	91	174	1,426	8	223	6,904	602	515	87	484
Psychology	11,985	1,303	79	4	607	489	118	0	289	10	314	7,188	465	421	44	3,029
Social sciences	15,315	910	20	7	169	116	53	10	383	81	240	11,740	681	557	124	1,984

Table 3-6

Primary source of support for full-time S&E graduate students, by field, sex, and degree: 2018

(Number)

Field, sex, and degree	All sources	Federal support										Institutional support	Other nonfederal support			Self-support
		Total	DOD	DOE	HHS			NASA	NSF	USDA	Other		Total	United States	Foreign	
					Total	NIH	Other									
Engineering	16,324	4,899	566	401	1,043	873	170	127	2,116	80	566	8,529	1,734	1,421	313	1,162
Aerospace, aeronautical, and astronautical engineering	354	115	36	5	0	0	0	26	24	0	24	146	62	55	7	31
Agricultural engineering	230	68	0	0	9	2	7	0	11	33	15	114	21	12	9	27
Bioengineering and biomedical engineering	2,761	1,032	52	1	620	577	43	5	301	5	48	1,386	236	220	16	107
Biological and biosystems engineering	57	12	0	1	3	3	0	0	3	2	3	33	8	5	3	4
Chemical engineering	2,112	684	46	96	117	96	21	7	350	10	58	1,070	286	228	58	72
Civil engineering	2,192	558	34	24	41	17	24	25	289	9	136	1,250	192	164	28	192
Electrical, electronics, and communications engineering	2,956	878	197	47	112	90	22	22	420	3	77	1,450	348	282	66	280
Engineering mechanics, physics, and science	326	102	14	9	13	13	0	1	51	1	13	171	29	22	7	24
Industrial and manufacturing engineering	904	166	24	4	24	8	16	1	95	3	15	565	77	66	11	96
Mechanical engineering	1,852	520	66	61	40	30	10	26	265	3	59	1,034	191	145	46	107
Metallurgical and materials engineering	1,331	441	68	76	31	21	10	8	214	4	40	622	177	142	35	91
Mining engineering	41	4	0	2	0	0	0	0	0	0	2	25	4	2	2	8
Nanotechnology	22	5	2	1	1	1	0	0	1	0	0	14	3	3	0	0
Nuclear engineering	184	92	10	57	0	0	0	1	5	0	19	65	17	15	2	10
Petroleum engineering	114	4	0	1	1	1	0	0	1	1	0	81	18	13	5	11
Engineering nec	888	218	17	16	31	14	17	5	86	6	57	503	65	47	18	102
Male S&E doctoral students	135,268	34,856	4,032	3,144	9,783	8,721	1,062	1,051	12,518	784	3,544	77,902	10,968	8,871	2,097	11,542
Science	90,299	21,385	1,507	1,656	7,795	7,114	681	632	7,307	629	1,859	55,848	5,619	4,670	949	7,447
Agricultural sciences	1,583	339	2	6	33	10	23	2	46	212	38	830	243	209	34	171
Biological and biomedical sciences	22,354	7,838	153	75	5,953	5,578	375	28	1,087	195	347	11,954	1,593	1,372	221	969
Computer and information sciences	10,104	2,896	534	67	188	151	37	17	1,761	7	322	5,026	868	689	179	1,314
Geosciences, atmospheric sciences, and ocean sciences	3,187	992	55	47	16	12	4	210	523	6	135	1,714	219	179	40	262
Mathematics and statistics	8,689	903	101	19	104	96	8	6	586	7	80	6,889	303	209	94	594
Multidisciplinary and interdisciplinary studies	1,158	181	21	11	47	46	1	5	65	9	23	723	57	51	6	197
Natural resources and conservation	1,395	322	10	8	25	22	3	18	89	94	78	764	123	102	21	186
Physical sciences	22,552	6,667	532	1,416	1,113	950	163	329	2,750	23	504	13,674	1,312	1,133	179	899
Psychology	4,553	520	44	0	229	196	33	2	120	1	124	2,891	175	152	23	967
Social sciences	14,724	727	55	7	87	53	34	15	280	75	208	11,383	726	574	152	1,888
Engineering	44,969	13,471	2,525	1,488	1,988	1,607	381	419	5,211	155	1,685	22,054	5,349	4,201	1,148	4,095

Table 3-6

Primary source of support for full-time S&E graduate students, by field, sex, and degree: 2018

(Number)

Field, sex, and degree	All sources	Federal support										Institutional support	Other nonfederal support			Self-support
		Total	DOD	DOE	HHS			NASA	NSF	USDA	Other		Total	United States	Foreign	
					Total	NIH	Other									
Aerospace, aeronautical, and astronautical engineering	1,819	603	252	45	3	3	0	110	97	0	96	801	223	168	55	192
Agricultural engineering	342	101	0	7	10	1	9	2	15	51	16	149	57	43	14	35
Bioengineering and biomedical engineering	3,803	1,409	76	7	938	858	80	2	325	3	58	1,868	339	308	31	187
Biological and biosystems engineering	92	19	0	0	5	5	0	0	5	7	2	54	13	12	1	6
Chemical engineering	4,471	1,443	136	252	233	180	53	18	669	11	124	2,232	622	500	122	174
Civil engineering	4,381	944	71	67	62	21	41	33	418	19	274	2,458	438	318	120	541
Electrical, electronics, and communications engineering	12,517	3,975	1,042	286	343	277	66	93	1,818	12	381	5,626	1,633	1,271	362	1,283
Engineering mechanics, physics, and science	970	341	75	41	41	39	2	8	128	2	46	499	67	53	14	63
Industrial and manufacturing engineering	1,997	400	88	19	21	8	13	7	224	2	39	1,154	173	142	31	270
Mechanical engineering	8,046	2,236	460	270	165	120	45	109	900	21	311	4,186	975	741	234	649
Metallurgical and materials engineering	2,953	979	210	200	65	40	25	14	397	8	85	1,321	398	318	80	255
Mining engineering	129	23	1	8	8	2	6	0	5	0	1	69	19	11	8	18
Nanotechnology	49	17	1	1	9	9	0	0	6	0	0	22	8	8	0	2
Nuclear engineering	751	380	34	217	2	2	0	7	19	0	101	214	91	70	21	66
Petroleum engineering	465	28	0	14	1	1	0	0	5	3	5	249	142	113	29	46
Engineering nec	2,184	573	79	54	82	41	41	16	180	16	146	1,152	151	125	26	308

DOD = Department of Defense; DOE = Department of Energy; HHS = Department of Health and Human Services; NASA = National Aeronautics and Space Administration; nec = not elsewhere classified; NIH = National Institutes of Health; NSF = National Science Foundation; S&E = science and engineering; USDA = Department of Agriculture.

Source(s):

National Center for Science and Engineering Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering, 2018.