

TABLE 3-5

Primary mechanism of support for full-time graduate students in science, engineering, and health, by broad field: 2020

(Number and percent)

Broad field	Total	Fellowships		Research assistantships		Teaching assistantships		Traineeships		Other types of support			
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Self-support		Other	
										Number	Percent	Number	Percent
All graduate students	491,515	43,462	8.8	115,101	23.4	85,292	17.4	12,019	2.4	192,671	39.2	42,970	8.7
Science	330,541	31,998	9.7	71,110	21.5	67,293	20.4	9,174	2.8	123,897	37.5	27,069	8.2
Agricultural and veterinary sciences	7,271	406	5.6	4,128	56.8	992	13.6	69	0.9	1,306	18.0	370	5.1
Biological and biomedical sciences	77,580	10,017	12.9	24,296	31.3	10,644	13.7	5,890	7.6	20,307	26.2	6,426	8.3
Computer and information sciences	55,402	2,318	4.2	8,558	15.4	7,268	13.1	371	0.7	32,358	58.4	4,529	8.2
Geosciences, atmospheric sciences, and ocean sciences	9,456	1,133	12.0	3,751	39.7	2,529	26.7	99	1.0	1,396	14.8	548	5.8
Mathematics and statistics	24,041	1,859	7.7	2,108	8.8	9,098	37.8	217	0.9	9,357	38.9	1,402	5.8
Multidisciplinary and interdisciplinary studies	9,039	924	10.2	1,005	11.1	842	9.3	94	1.0	5,364	59.3	810	9.0
Natural resources and conservation	8,448	875	10.4	2,433	28.8	1,277	15.1	91	1.1	3,166	37.5	606	7.2
Physical sciences	37,638	4,194	11.1	14,556	38.7	13,422	35.7	657	1.7	3,081	8.2	1,728	4.6
Psychology	46,168	1,924	4.2	4,726	10.2	6,631	14.4	816	1.8	27,882	60.4	4,189	9.1
Social sciences	55,498	8,348	15.0	5,549	10.0	14,590	26.3	870	1.6	19,680	35.5	6,461	11.6
Engineering	111,240	9,732	8.7	39,230	35.3	14,187	12.8	1,395	1.3	36,794	33.1	9,902	8.9
Aerospace, aeronautical, and astronautical engineering	4,599	428	9.3	1,736	37.7	591	12.9	61	1.3	1,356	29.5	427	9.3
Biological, biomedical, and biosystems engineering	11,075	1,684	15.2	4,213	38.0	966	8.7	495	4.5	2,677	24.2	1,040	9.4
Chemical, petroleum, and chemical-related engineering	9,030	1,340	14.8	4,343	48.1	1,160	12.8	130	1.4	1,509	16.7	548	6.1
Civil, environmental, transportation and related engineering fields	12,861	1,052	8.2	4,488	34.9	1,875	14.6	135	1.0	4,125	32.1	1,186	9.2
Electrical, electronics, communications and computer engineering	30,503	1,925	6.3	9,428	30.9	3,973	13.0	195	0.6	12,516	41.0	2,466	8.1
Industrial, manufacturing, systems engineering and operations research	7,728	404	5.2	1,545	20.0	982	12.7	62	0.8	3,769	48.8	966	12.5

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		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Self-support		Other	
										Number	Percent	Number	Percent
Mechanical engineering	18,680	1,448	7.8	6,682	35.8	2,985	16.0	174	0.9	5,643	30.2	1,748	9.4
Metallurgical, mining, materials and related engineering fields	6,063	700	11.5	2,770	45.7	616	10.2	57	0.9	1,506	24.8	414	6.8
Other engineering	10,701	751	7.0	4,025	37.6	1,039	9.7	86	0.8	3,693	34.5	1,107	10.3
Health	49,734	1,732	3.5	4,761	9.6	3,812	7.7	1,450	2.9	31,980	64.3	5,999	12.1
Clinical medicine ^a	20,528	733	3.6	1,864	9.1	1,021	5.0	786	3.8	13,816	67.3	2,308	11.2
Other health	29,206	999	3.4	2,897	9.9	2,791	9.6	664	2.3	18,164	62.2	3,691	12.6
Master's students	243,859	6,112	2.5	19,274	7.9	21,699	8.9	2,268	0.9	169,099	69.3	25,407	10.4
Science	155,502	3,977	2.6	11,699	7.5	15,580	10.0	1,144	0.7	107,842	69.4	15,260	9.8
Agricultural and veterinary sciences	3,731	119	3.2	1,880	50.4	468	12.5	45	1.2	974	26.1	245	6.6
Biological and biomedical sciences	26,473	473	1.8	2,294	8.7	3,059	11.6	157	0.6	18,062	68.2	2,428	9.2
Computer and information sciences	39,929	465	1.2	1,668	4.2	3,258	8.2	205	0.5	30,649	76.8	3,684	9.2
Geosciences, atmospheric sciences, and ocean sciences	3,649	130	3.6	1,051	28.8	1,186	32.5	16	0.4	979	26.8	287	7.9
Mathematics and statistics	11,622	169	1.5	325	2.8	1,668	14.4	60	0.5	8,498	73.1	902	7.8
Multidisciplinary and interdisciplinary studies	6,169	251	4.1	236	3.8	273	4.4	24	0.4	4,884	79.2	501	8.1
Natural resources and conservation	5,536	446	8.1	1,183	21.4	625	11.3	56	1.0	2,788	50.4	438	7.9
Physical sciences	3,686	70	1.9	528	14.3	1,077	29.2	61	1.7	1,606	43.6	344	9.3
Psychology	28,716	120	0.4	1,017	3.5	1,250	4.4	227	0.8	23,609	82.2	2,493	8.7
Social sciences	25,991	1,734	6.7	1,517	5.8	2,716	10.4	293	1.1	15,793	60.8	3,938	15.2
Engineering	49,179	1,426	2.9	5,840	11.9	4,253	8.6	413	0.8	31,736	64.5	5,511	11.2
Aerospace, aeronautical, and astronautical engineering	2,298	111	4.8	464	20.2	214	9.3	39	1.7	1,184	51.5	286	12.4
Biological, biomedical, and biosystems engineering	3,416	106	3.1	277	8.1	304	8.9	32	0.9	2,349	68.8	348	10.2
Chemical, petroleum, and chemical-related engineering	1,898	60	3.2	246	13.0	189	10.0	20	1.1	1,168	61.5	215	11.3

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Primary mechanism of support for full-time graduate students in science, engineering, and health, by broad field: 2020

(Number and percent)

Broad field	Total	Fellowships		Research assistantships		Teaching assistantships		Traineeships		Other types of support			
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Self-support		Other	
										Number	Percent	Number	Percent
Civil, environmental, transportation and related engineering fields	6,487	353	5.4	1,148	17.7	716	11.0	67	1.0	3,437	53.0	766	11.8
Electrical, electronics, communications and computer engineering	15,329	232	1.5	1,157	7.5	1,301	8.5	95	0.6	11,209	73.1	1,335	8.7
Industrial, manufacturing, systems engineering and operations research	4,820	125	2.6	320	6.6	237	4.9	49	1.0	3,380	70.1	709	14.7
Mechanical engineering	8,461	197	2.3	1,315	15.5	859	10.2	80	0.9	4,882	57.7	1,128	13.3
Metallurgical, mining, materials and related engineering fields	1,566	81	5.2	263	16.8	127	8.1	8	0.5	957	61.1	130	8.3
Other engineering	4,904	161	3.3	650	13.3	306	6.2	23	0.5	3,170	64.6	594	12.1
Health	39,178	709	1.8	1,735	4.4	1,866	4.8	711	1.8	29,521	75.4	4,636	11.8
Clinical medicine ^a	17,186	456	2.7	799	4.6	573	3.3	431	2.5	13,000	75.6	1,927	11.2
Other health	21,992	253	1.2	936	4.3	1,293	5.9	280	1.3	16,521	75.1	2,709	12.3
Doctoral students	247,656	37,350	15.1	95,827	38.7	63,593	25.7	9,751	3.9	23,572	9.5	17,563	7.1
Science	175,039	28,021	16.0	59,411	33.9	51,713	29.5	8,030	4.6	16,055	9.2	11,809	6.7
Agricultural and veterinary sciences	3,540	287	8.1	2,248	63.5	524	14.8	24	0.7	332	9.4	125	3.5
Biological and biomedical sciences	51,107	9,544	18.7	22,002	43.1	7,585	14.8	5,733	11.2	2,245	4.4	3,998	7.8
Computer and information sciences	15,473	1,853	12.0	6,890	44.5	4,010	25.9	166	1.1	1,709	11.0	845	5.5
Geosciences, atmospheric sciences, and ocean sciences	5,807	1,003	17.3	2,700	46.5	1,343	23.1	83	1.4	417	7.2	261	4.5
Mathematics and statistics	12,419	1,690	13.6	1,783	14.4	7,430	59.8	157	1.3	859	6.9	500	4.0
Multidisciplinary and interdisciplinary studies	2,870	673	23.4	769	26.8	569	19.8	70	2.4	480	16.7	309	10.8
Natural resources and conservation	2,912	429	14.7	1,250	42.9	652	22.4	35	1.2	378	13.0	168	5.8

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		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Self-support		Other	
										Number	Percent	Number	Percent
Physical sciences	33,952	4,124	12.1	14,028	41.3	12,345	36.4	596	1.8	1,475	4.3	1,384	4.1
Psychology	17,452	1,804	10.3	3,709	21.3	5,381	30.8	589	3.4	4,273	24.5	1,696	9.7
Social sciences	29,507	6,614	22.4	4,032	13.7	11,874	40.2	577	2.0	3,887	13.2	2,523	8.6
Engineering	62,061	8,306	13.4	33,390	53.8	9,934	16.0	982	1.6	5,058	8.2	4,391	7.1
Aerospace, aeronautical, and astronautical engineering	2,301	317	13.8	1,272	55.3	377	16.4	22	1.0	172	7.5	141	6.1
Biological, biomedical, and biosystems engineering	7,659	1,578	20.6	3,936	51.4	662	8.6	463	6.0	328	4.3	692	9.0
Chemical, petroleum, and chemical-related engineering	7,132	1,280	17.9	4,097	57.4	971	13.6	110	1.5	341	4.8	333	4.7
Civil, environmental, transportation and related engineering fields	6,374	699	11.0	3,340	52.4	1,159	18.2	68	1.1	688	10.8	420	6.6
Electrical, electronics, communications and computer engineering	15,174	1,693	11.2	8,271	54.5	2,672	17.6	100	0.7	1,307	8.6	1,131	7.5
Industrial, manufacturing, systems engineering and operations research	2,908	279	9.6	1,225	42.1	745	25.6	13	0.4	389	13.4	257	8.8
Mechanical engineering	10,219	1,251	12.2	5,367	52.5	2,126	20.8	94	0.9	761	7.4	620	6.1
Metallurgical, mining, materials and related engineering fields	4,497	619	13.8	2,507	55.7	489	10.9	49	1.1	549	12.2	284	6.3
Other engineering	5,797	590	10.2	3,375	58.2	733	12.6	63	1.1	523	9.0	513	8.8
Health	10,556	1,023	9.7	3,026	28.7	1,946	18.4	739	7.0	2,459	23.3	1,363	12.9
Clinical medicine ^a	3,342	277	8.3	1,065	31.9	448	13.4	355	10.6	816	24.4	381	11.4
Other health	7,214	746	10.3	1,961	27.2	1,498	20.8	384	5.3	1,643	22.8	982	13.6

^a Clinical medicine includes graduate students in public health and in medical clinical sciences and clinical and medical laboratory sciences.**Note(s):**

Percentages may not add to total because of rounding. For more information on the mapping of Survey of Graduate Students and Postdoctorates in Science and Engineering fields and codes, see technical table A-17.

Source(s):

National Center for Science and Engineering Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering, 2020.