

TABLE 3-5

Primary mechanism of support for full-time graduate students in science, engineering, and health, by broad field: 2021

(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	543,823	50,212	9.2	124,894	23.0	84,293	15.5	11,621	2.1	225,770	41.5	47,033	8.6
Science	366,207	36,018	9.8	78,092	21.3	66,466	18.1	9,110	2.5	146,771	40.1	29,750	8.1
Agricultural and veterinary sciences	7,754	428	5.5	4,527	58.4	900	11.6	27	0.3	1,400	18.1	472	6.1
Biological and biomedical sciences	82,218	11,394	13.9	26,411	32.1	10,685	13.0	5,845	7.1	21,237	25.8	6,646	8.1
Computer and information sciences	75,637	2,785	3.7	9,819	13.0	7,575	10.0	359	0.5	48,051	63.5	7,048	9.3
Geosciences, atmospheric sciences, and ocean sciences	9,863	1,152	11.7	4,170	42.3	2,493	25.3	94	1.0	1,341	13.6	613	6.2
Mathematics and statistics	26,522	2,036	7.7	2,515	9.5	8,813	33.2	211	0.8	11,687	44.1	1,260	4.8
Multidisciplinary and interdisciplinary studies	9,650	1,281	13.3	1,043	10.8	857	8.9	186	1.9	5,401	56.0	882	9.1
Natural resources and conservation	9,476	991	10.5	2,735	28.9	1,350	14.2	88	0.9	3,580	37.8	732	7.7
Physical sciences	38,847	4,839	12.5	15,494	39.9	13,290	34.2	597	1.5	3,186	8.2	1,441	3.7
Psychology	47,699	2,120	4.4	5,084	10.7	6,370	13.4	789	1.7	28,860	60.5	4,476	9.4
Social sciences	58,541	8,992	15.4	6,294	10.8	14,133	24.1	914	1.6	22,028	37.6	6,180	10.6
Engineering	122,853	11,401	9.3	41,601	33.9	13,889	11.3	1,230	1.0	44,337	36.1	10,395	8.5
Aerospace, aeronautical, and astronautical engineering	5,161	452	8.8	1,870	36.2	611	11.8	60	1.2	1,649	32.0	519	10.1
Biological, biomedical, and biosystems engineering	12,066	1,838	15.2	4,630	38.4	956	7.9	418	3.5	3,146	26.1	1,078	8.9
Chemical, petroleum, and chemical-related engineering	9,416	1,403	14.9	4,578	48.6	1,167	12.4	91	1.0	1,591	16.9	586	6.2
Civil, environmental, transportation and related engineering fields	14,218	1,338	9.4	4,944	34.8	1,836	12.9	99	0.7	4,777	33.6	1,224	8.6
Electrical, electronics, communications and computer engineering	33,744	2,285	6.8	9,530	28.2	3,775	11.2	181	0.5	15,395	45.6	2,578	7.6
Industrial, manufacturing, systems engineering and operations research	9,338	528	5.7	1,658	17.8	934	10.0	57	0.6	4,924	52.7	1,237	13.2

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		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Self-support		Other	
										Number	Percent	Number	Percent
Mechanical engineering	20,236	1,724	8.5	6,896	34.1	2,894	14.3	191	0.9	6,745	33.3	1,786	8.8
Metallurgical, mining, materials and related engineering fields	6,171	740	12.0	3,066	49.7	609	9.9	53	0.9	1,347	21.8	356	5.8
Other engineering	12,503	1,093	8.7	4,429	35.4	1,107	8.9	80	0.6	4,763	38.1	1,031	8.2
Health	54,763	2,793	5.1	5,201	9.5	3,938	7.2	1,281	2.3	34,662	63.3	6,888	12.6
Clinical medicine ^a	23,888	1,423	6.0	2,072	8.7	1,076	4.5	721	3.0	15,841	66.3	2,755	11.5
Other health	30,875	1,370	4.4	3,129	10.1	2,862	9.3	560	1.8	18,821	61.0	4,133	13.4
Master's students	286,954	8,928	3.1	21,173	7.4	22,172	7.7	2,009	0.7	202,659	70.6	30,013	10.5
Science	184,719	5,204	2.8	13,121	7.1	15,711	8.5	1,051	0.6	131,148	71.0	18,484	10.0
Agricultural and veterinary sciences	4,034	141	3.5	2,071	51.3	369	9.1	11	0.3	1,117	27.7	325	8.1
Biological and biomedical sciences	27,949	645	2.3	2,581	9.2	2,942	10.5	115	0.4	19,138	68.5	2,528	9.0
Computer and information sciences	58,913	776	1.3	2,033	3.5	3,456	5.9	191	0.3	46,321	78.6	6,136	10.4
Geosciences, atmospheric sciences, and ocean sciences	3,731	135	3.6	1,209	32.4	1,140	30.6	15	0.4	989	26.5	243	6.5
Mathematics and statistics	14,157	267	1.9	390	2.8	1,717	12.1	41	0.3	10,906	77.0	836	5.9
Multidisciplinary and interdisciplinary studies	6,602	511	7.7	235	3.6	284	4.3	6	0.1	4,912	74.4	654	9.9
Natural resources and conservation	6,343	499	7.9	1,354	21.3	691	10.9	51	0.8	3,209	50.6	539	8.5
Physical sciences	3,834	98	2.6	548	14.3	1,037	27.0	49	1.3	1,766	46.1	336	8.8
Psychology	30,052	201	0.7	1,025	3.4	1,235	4.1	250	0.8	24,511	81.6	2,830	9.4
Social sciences	29,104	1,931	6.6	1,675	5.8	2,840	9.8	322	1.1	18,279	62.8	4,057	13.9
Engineering	58,790	2,155	3.7	6,179	10.5	4,446	7.6	390	0.7	39,542	67.3	6,078	10.3
Aerospace, aeronautical, and astronautical engineering	2,755	92	3.3	507	18.4	277	10.1	39	1.4	1,455	52.8	385	14.0
Biological, biomedical, and biosystems engineering	3,900	170	4.4	319	8.2	325	8.3	19	0.5	2,708	69.4	359	9.2
Chemical, petroleum, and chemical-related engineering	2,053	69	3.4	293	14.3	162	7.9	9	0.4	1,276	62.2	244	11.9

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										Number	Percent	Number	Percent
Civil, environmental, transportation and related engineering fields	7,426	502	6.8	1,208	16.3	739	10.0	46	0.6	4,128	55.6	803	10.8
Electrical, electronics, communications and computer engineering	18,540	403	2.2	1,174	6.3	1,312	7.1	74	0.4	14,140	76.3	1,437	7.8
Industrial, manufacturing, systems engineering and operations research	6,307	189	3.0	333	5.3	268	4.2	51	0.8	4,540	72.0	926	14.7
Mechanical engineering	9,930	378	3.8	1,305	13.1	875	8.8	114	1.1	6,038	60.8	1,220	12.3
Metallurgical, mining, materials and related engineering fields	1,662	68	4.1	330	19.9	140	8.4	8	0.5	999	60.1	117	7.0
Other engineering	6,217	284	4.6	710	11.4	348	5.6	30	0.5	4,258	68.5	587	9.4
Health	43,445	1,569	3.6	1,873	4.3	2,015	4.6	568	1.3	31,969	73.6	5,451	12.5
Clinical medicine ^a	20,189	1,023	5.1	868	4.3	647	3.2	368	1.8	14,917	73.9	2,366	11.7
Other health	23,256	546	2.3	1,005	4.3	1,368	5.9	200	0.9	17,052	73.3	3,085	13.3
Doctoral students	256,869	41,284	16.1	103,721	40.4	62,121	24.2	9,612	3.7	23,111	9.0	17,020	6.6
Science	181,488	30,814	17.0	64,971	35.8	50,755	28.0	8,059	4.4	15,623	8.6	11,266	6.2
Agricultural and veterinary sciences	3,720	287	7.7	2,456	66.0	531	14.3	16	0.4	283	7.6	147	4.0
Biological and biomedical sciences	54,269	10,749	19.8	23,830	43.9	7,743	14.3	5,730	10.6	2,099	3.9	4,118	7.6
Computer and information sciences	16,724	2,009	12.0	7,786	46.6	4,119	24.6	168	1.0	1,730	10.3	912	5.5
Geosciences, atmospheric sciences, and ocean sciences	6,132	1,017	16.6	2,961	48.3	1,353	22.1	79	1.3	352	5.7	370	6.0
Mathematics and statistics	12,365	1,769	14.3	2,125	17.2	7,096	57.4	170	1.4	781	6.3	424	3.4
Multidisciplinary and interdisciplinary studies	3,048	770	25.3	808	26.5	573	18.8	180	5.9	489	16.0	228	7.5
Natural resources and conservation	3,133	492	15.7	1,381	44.1	659	21.0	37	1.2	371	11.8	193	6.2

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		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Self-support		Other	
										Number	Percent	Number	Percent
Physical sciences	35,013	4,741	13.5	14,946	42.7	12,253	35.0	548	1.6	1,420	4.1	1,105	3.2
Psychology	17,647	1,919	10.9	4,059	23.0	5,135	29.1	539	3.1	4,349	24.6	1,646	9.3
Social sciences	29,437	7,061	24.0	4,619	15.7	11,293	38.4	592	2.0	3,749	12.7	2,123	7.2
Engineering	64,063	9,246	14.4	35,422	55.3	9,443	14.7	840	1.3	4,795	7.5	4,317	6.7
Aerospace, aeronautical, and astronautical engineering	2,406	360	15.0	1,363	56.7	334	13.9	21	0.9	194	8.1	134	5.6
Biological, biomedical, and biosystems engineering	8,166	1,668	20.4	4,311	52.8	631	7.7	399	4.9	438	5.4	719	8.8
Chemical, petroleum, and chemical-related engineering	7,363	1,334	18.1	4,285	58.2	1,005	13.6	82	1.1	315	4.3	342	4.6
Civil, environmental, transportation and related engineering fields	6,792	836	12.3	3,736	55.0	1,097	16.2	53	0.8	649	9.6	421	6.2
Electrical, electronics, communications and computer engineering	15,204	1,882	12.4	8,356	55.0	2,463	16.2	107	0.7	1,255	8.3	1,141	7.5
Industrial, manufacturing, systems engineering and operations research	3,031	339	11.2	1,325	43.7	666	22.0	6	0.2	384	12.7	311	10.3
Mechanical engineering	10,306	1,346	13.1	5,591	54.2	2,019	19.6	77	0.7	707	6.9	566	5.5
Metallurgical, mining, materials and related engineering fields	4,509	672	14.9	2,736	60.7	469	10.4	45	1.0	348	7.7	239	5.3
Other engineering	6,286	809	12.9	3,719	59.2	759	12.1	50	0.8	505	8.0	444	7.1
Health	11,318	1,224	10.8	3,328	29.4	1,923	17.0	713	6.3	2,693	23.8	1,437	12.7
Clinical medicine ^a	3,699	400	10.8	1,204	32.5	429	11.6	353	9.5	924	25.0	389	10.5
Other health	7,619	824	10.8	2,124	27.9	1,494	19.6	360	4.7	1,769	23.2	1,048	13.8

^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, 2021.