

TABLE 3-5

**Primary mechanism of support for full-time graduate students in science, engineering, and health, by broad field: 2022**

(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	579,301	47,647	8.2	130,185	22.5	84,893	14.7	11,717	2.0	244,299	42.2	60,560	10.5
Science	392,192	34,711	8.9	81,549	20.8	66,907	17.1	9,415	2.4	161,417	41.2	38,193	9.7
Agricultural and veterinary sciences	8,035	452	5.6	4,696	58.4	909	11.3	26	0.3	1,324	16.5	628	7.8
Biological and biomedical sciences	83,617	10,990	13.1	27,861	33.3	10,276	12.3	6,065	7.3	20,376	24.4	8,049	9.6
Computer and information sciences	101,252	3,081	3.0	10,926	10.8	8,727	8.6	430	0.4	67,673	66.8	10,415	10.3
Geosciences, atmospheric sciences, and ocean sciences	9,747	1,102	11.3	4,301	44.1	2,352	24.1	78	0.8	1,253	12.9	661	6.8
Mathematics and statistics	26,598	1,987	7.5	2,662	10.0	8,820	33.2	177	0.7	10,995	41.3	1,957	7.4
Multidisciplinary and interdisciplinary sciences	13,048	1,558	11.9	1,244	9.5	1,058	8.1	117	0.9	7,641	58.6	1,430	11.0
Natural resources and conservation	9,161	924	10.1	2,645	28.9	1,278	14.0	101	1.1	3,008	32.8	1,205	13.2
Physical sciences	39,012	4,552	11.7	15,649	40.1	13,171	33.8	577	1.5	2,897	7.4	2,166	5.6
Psychology	45,196	1,937	4.3	5,228	11.6	6,479	14.3	870	1.9	25,721	56.9	4,961	11.0
Social sciences	56,526	8,128	14.4	6,337	11.2	13,837	24.5	974	1.7	20,529	36.3	6,721	11.9
Engineering	130,447	10,780	8.3	43,122	33.1	14,136	10.8	1,155	0.9	47,486	36.4	13,768	10.6
Aerospace, aeronautical, and astronautical engineering	5,420	434	8.0	1,976	36.5	697	12.9	55	1.0	1,528	28.2	730	13.5
Biological, biomedical, and biosystems engineering	12,416	1,812	14.6	5,127	41.3	987	7.9	404	3.3	2,803	22.6	1,283	10.3
Chemical, petroleum, and chemical-related engineering	9,320	1,382	14.8	4,486	48.1	1,174	12.6	78	0.8	1,568	16.8	632	6.8
Civil, environmental, transportation and related engineering fields	14,920	1,235	8.3	5,038	33.8	1,854	12.4	83	0.6	4,996	33.5	1,714	11.5
Electrical, electronics, communications and computer engineering	37,882	2,012	5.3	10,006	26.4	3,882	10.2	164	0.4	17,900	47.3	3,918	10.3
Industrial, manufacturing, systems engineering and operations research	9,822	514	5.2	1,685	17.2	1,016	10.3	58	0.6	5,052	51.4	1,497	15.2

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		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Self-support		Other	
										Number	Percent	Number	Percent
Mechanical engineering	20,696	1,525	7.4	7,206	34.8	2,921	14.1	178	0.9	6,590	31.8	2,276	11.0
Metallurgical, mining, materials and related engineering fields	5,888	629	10.7	3,104	52.7	531	9.0	54	0.9	1,167	19.8	403	6.8
Other engineering	14,083	1,237	8.8	4,494	31.9	1,074	7.6	81	0.6	5,882	41.8	1,315	9.3
Health	56,662	2,156	3.8	5,514	9.7	3,850	6.8	1,147	2.0	35,396	62.5	8,599	15.2
Clinical medicine <sup>a</sup>	23,215	928	4.0	2,153	9.3	1,027	4.4	607	2.6	14,994	64.6	3,506	15.1
Other health	33,447	1,228	3.7	3,361	10.0	2,823	8.4	540	1.6	20,402	61.0	5,093	15.2
Master's students	319,618	8,119	2.5	22,556	7.1	23,877	7.5	2,007	0.6	222,506	69.6	40,553	12.7
Science	208,749	5,123	2.5	13,806	6.6	16,865	8.1	1,158	0.6	147,109	70.5	24,688	11.8
Agricultural and veterinary sciences	4,143	130	3.1	2,067	49.9	413	10.0	9	0.2	1,115	26.9	409	9.9
Biological and biomedical sciences	27,987	501	1.8	2,822	10.1	2,880	10.3	121	0.4	18,271	65.3	3,392	12.1
Computer and information sciences	83,708	1,012	1.2	2,421	2.9	4,531	5.4	201	0.2	66,193	79.1	9,350	11.2
Geosciences, atmospheric sciences, and ocean sciences	3,621	126	3.5	1,139	31.5	1,126	31.1	9	0.2	927	25.6	294	8.1
Mathematics and statistics	14,239	290	2.0	405	2.8	1,805	12.7	28	0.2	10,320	72.5	1,391	9.8
Multidisciplinary and interdisciplinary sciences	9,767	752	7.7	330	3.4	357	3.7	22	0.2	7,158	73.3	1,148	11.8
Natural resources and conservation	6,010	432	7.2	1,289	21.4	645	10.7	76	1.3	2,658	44.2	910	15.1
Physical sciences	3,726	68	1.8	518	13.9	1,050	28.2	70	1.9	1,556	41.8	464	12.5
Psychology	27,861	196	0.7	1,125	4.0	1,244	4.5	253	0.9	21,999	79.0	3,044	10.9
Social sciences	27,687	1,616	5.8	1,690	6.1	2,814	10.2	369	1.3	16,912	61.1	4,286	15.5
Engineering	66,427	2,052	3.1	6,836	10.3	5,050	7.6	331	0.5	43,117	64.9	9,041	13.6
Aerospace, aeronautical, and astronautical engineering	2,937	98	3.3	584	19.9	356	12.1	39	1.3	1,303	44.4	557	19.0
Biological, biomedical, and biosystems engineering	3,834	133	3.5	367	9.6	350	9.1	13	0.3	2,459	64.1	512	13.4
Chemical, petroleum, and chemical-related engineering	2,099	91	4.3	266	12.7	186	8.9	8	0.4	1,292	61.6	256	12.2

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**Primary mechanism of support for full-time graduate students in science, engineering, and health, by broad field: 2022**

(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	8,215	417	5.1	1,309	15.9	804	9.8	27	0.3	4,450	54.2	1,208	14.7
Electrical, electronics, communications and computer engineering	22,725	334	1.5	1,459	6.4	1,532	6.7	61	0.3	16,623	73.1	2,716	12.0
Industrial, manufacturing, systems engineering and operations research	6,920	220	3.2	336	4.9	364	5.3	49	0.7	4,739	68.5	1,212	17.5
Mechanical engineering	10,423	352	3.4	1,498	14.4	942	9.0	78	0.7	5,921	56.8	1,632	15.7
Metallurgical, mining, materials and related engineering fields	1,667	73	4.4	385	23.1	140	8.4	13	0.8	897	53.8	159	9.5
Other engineering	7,607	334	4.4	632	8.3	376	4.9	43	0.6	5,433	71.4	789	10.4
Health	44,442	944	2.1	1,914	4.3	1,962	4.4	518	1.2	32,280	72.6	6,824	15.4
Clinical medicine <sup>a</sup>	19,519	545	2.8	912	4.7	581	3.0	294	1.5	14,195	72.7	2,992	15.3
Other health	24,923	399	1.6	1,002	4.0	1,381	5.5	224	0.9	18,085	72.6	3,832	15.4
Doctoral students	259,683	39,528	15.2	107,629	41.4	61,016	23.5	9,710	3.7	21,793	8.4	20,007	7.7
Science	183,443	29,588	16.1	67,743	36.9	50,042	27.3	8,257	4.5	14,308	7.8	13,505	7.4
Agricultural and veterinary sciences	3,892	322	8.3	2,629	67.5	496	12.7	17	0.4	209	5.4	219	5.6
Biological and biomedical sciences	55,630	10,489	18.9	25,039	45.0	7,396	13.3	5,944	10.7	2,105	3.8	4,657	8.4
Computer and information sciences	17,544	2,069	11.8	8,505	48.5	4,196	23.9	229	1.3	1,480	8.4	1,065	6.1
Geosciences, atmospheric sciences, and ocean sciences	6,126	976	15.9	3,162	51.6	1,226	20.0	69	1.1	326	5.3	367	6.0
Mathematics and statistics	12,359	1,697	13.7	2,257	18.3	7,015	56.8	149	1.2	675	5.5	566	4.6
Multidisciplinary and interdisciplinary sciences	3,281	806	24.6	914	27.9	701	21.4	95	2.9	483	14.7	282	8.6
Natural resources and conservation	3,151	492	15.6	1,356	43.0	633	20.1	25	0.8	350	11.1	295	9.4

TABLE 3-5

**Primary mechanism of support for full-time graduate students in science, engineering, and health, by broad field: 2022**

(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
Physical sciences	35,286	4,484	12.7	15,131	42.9	12,121	34.4	507	1.4	1,341	3.8	1,702	4.8
Psychology	17,335	1,741	10.0	4,103	23.7	5,235	30.2	617	3.6	3,722	21.5	1,917	11.1
Social sciences	28,839	6,512	22.6	4,647	16.1	11,023	38.2	605	2.1	3,617	12.5	2,435	8.4
Engineering	64,020	8,728	13.6	36,286	56.7	9,086	14.2	824	1.3	4,369	6.8	4,727	7.4
Aerospace, aeronautical, and astronautical engineering	2,483	336	13.5	1,392	56.1	341	13.7	16	0.6	225	9.1	173	7.0
Biological, biomedical, and biosystems engineering	8,582	1,679	19.6	4,760	55.5	637	7.4	391	4.6	344	4.0	771	9.0
Chemical, petroleum, and chemical-related engineering	7,221	1,291	17.9	4,220	58.4	988	13.7	70	1.0	276	3.8	376	5.2
Civil, environmental, transportation and related engineering fields	6,705	818	12.2	3,729	55.6	1,050	15.7	56	0.8	546	8.1	506	7.5
Electrical, electronics, communications and computer engineering	15,157	1,678	11.1	8,547	56.4	2,350	15.5	103	0.7	1,277	8.4	1,202	7.9
Industrial, manufacturing, systems engineering and operations research	2,902	294	10.1	1,349	46.5	652	22.5	9	0.3	313	10.8	285	9.8
Mechanical engineering	10,273	1,173	11.4	5,708	55.6	1,979	19.3	100	1.0	669	6.5	644	6.3
Metallurgical, mining, materials and related engineering fields	4,221	556	13.2	2,719	64.4	391	9.3	41	1.0	270	6.4	244	5.8
Other engineering	6,476	903	13.9	3,862	59.6	698	10.8	38	0.6	449	6.9	526	8.1
Health	12,220	1,212	9.9	3,600	29.5	1,888	15.5	629	5.1	3,116	25.5	1,775	14.5
Clinical medicine <sup>a</sup>	3,696	383	10.4	1,241	33.6	446	12.1	313	8.5	799	21.6	514	13.9
Other health	8,524	829	9.7	2,359	27.7	1,442	16.9	316	3.7	2,317	27.2	1,261	14.8

<sup>a</sup> 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. Graduate student data in this table include master's students in health sciences. For more information on the comparability of these counts to other data published by the National Center for Science and Engineering Statistics, see the "Technical Notes."

**Source(s):**

National Center for Science and Engineering Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering, 2022.