

TABLE 4-21a

**Industrial, manufacturing, systems engineering and operations research master's and doctoral student demographics, enrollment status, and funding: 2022**

(Number and percent)

Characteristic	All graduate students		Master's students		Doctoral students	
	Number	Percent	Number	Percent	Number	Percent
Institutions	150	21.7	144	20.9	89	12.9
Schools	151	19.5	145	18.7	90	11.6
Units	241	1.1	224	1.0	107	0.5
All graduate students	16,435	100.0	12,579	100.0	3,856	100.0
Male	11,776	71.7	9,184	73.0	2,592	67.2
Female	4,659	28.3	3,395	27.0	1,264	32.8
U.S. citizens and permanent residents <sup>a</sup>	7,931	48.3	6,461	51.4	1,470	38.1
Hispanic or Latino	1,161	7.1	1,046	8.3	115	3.0
Not Hispanic or Latino						
American Indian or Alaska Native	19	0.1	15	0.1	4	0.1
Asian	1,012	6.2	804	6.4	208	5.4
Black or African American	560	3.4	415	3.3	145	3.8
Native Hawaiian or Other Pacific Islander	10	0.1	9	0.1	1	*
White	4,420	26.9	3,560	28.3	860	22.3
More than one race	275	1.7	220	1.7	55	1.4
Unknown ethnicity and race	474	2.9	392	3.1	82	2.1
Temporary visa holders	8,504	51.7	6,118	48.6	2,386	61.9
Part time	6,613	40.2	5,659	45.0	954	24.7
Full time	9,822	59.8	6,920	55.0	2,902	75.3
First time	4,183	25.5	3,634	28.9	549	14.2
Primary source of support for full-time students <sup>b</sup>						
Federal	1,070	6.5	486	3.9	584	15.1
DOD	429	2.6	305	2.4	124	3.2
DOE	53	0.3	20	0.2	33	0.9
HHS	87	0.5	15	0.1	72	1.9
NIH	38	0.2	6	*	32	0.8
Other HHS	49	0.3	9	0.1	40	1.0
NASA	22	0.1	2	*	20	0.5
NSF	293	1.8	29	0.2	264	6.8
USDA	8	*	5	*	3	0.1
Other	178	1.1	110	0.9	68	1.8
Nonfederal	3,700	22.5	1,695	13.5	2,005	52.0
Institutional	3,309	20.1	1,535	12.2	1,774	46.0
Domestic	319	1.9	114	0.9	205	5.3
Foreign	72	0.4	46	0.4	26	0.7
Self-support	5,052	30.7	4,739	37.7	313	8.1
Primary mechanism of support for full-time students <sup>b</sup>						
Fellowships	514	3.1	220	1.7	294	7.6
Research assistantships	1,685	10.3	336	2.7	1,349	35.0
Teaching assistantships	1,016	6.2	364	2.9	652	16.9
Traineeships	58	0.4	49	0.4	9	0.2
Other types of support	6,549	39.8	5,951	47.3	598	15.5
Self-support	5,052	30.7	4,739	37.7	313	8.1
Other	1,497	9.1	1,212	9.6	285	7.4

\* = value &lt; 0.05%.

DOD = Department of Defense; DOE = Department of Energy; HHS = Department of Health and Human Services; NASA = National Aeronautics and Space Administration; NIH = National Institutes of Health; NSF = National Science Foundation; USDA = Department of Agriculture.

<sup>a</sup> Ethnicity and race data are available only for U.S. citizens and permanent residents.

<sup>b</sup> Funding data are available only for full-time students.

**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, 2022.