

TABLE 4-21a

**Industrial, manufacturing, systems engineering and operations research master's and doctoral student demographics, enrollment status, and funding: 2023**

(Number and percent)

Characteristic	All graduate students		Master's students		Doctoral students	
	Number	Percent	Number	Percent	Number	Percent
Institutions	150	21.8	143	20.8	89	13.0
Schools	151	19.6	144	18.7	90	11.7
Units	244	1.1	226	1.0	106	0.5
All graduate students	15,762	100.0	11,873	100.0	3,889	100.0
Male	11,153	70.8	8,551	72.0	2,602	66.9
Female	4,609	29.2	3,322	28.0	1,287	33.1
U.S. citizens and permanent residents <sup>a</sup>	7,498	47.6	6,012	50.6	1,486	38.2
Hispanic or Latino	1,121	7.1	1,006	8.5	115	3.0
Not Hispanic or Latino						
American Indian or Alaska Native	13	0.1	10	0.1	3	0.1
Asian	970	6.2	756	6.4	214	5.5
Black or African American	542	3.4	391	3.3	151	3.9
Native Hawaiian or Other Pacific Islander	4	*	3	*	1	*
White	4,084	25.9	3,220	27.1	864	22.2
More than one race	280	1.8	222	1.9	58	1.5
Unknown ethnicity and race	484	3.1	404	3.4	80	2.1
Temporary visa holders	8,264	52.4	5,861	49.4	2,403	61.8
Part time	6,471	41.1	5,586	47.0	885	22.8
Full time	9,291	58.9	6,287	53.0	3,004	77.2
First time	3,693	23.4	3,128	26.3	565	14.5
Primary source of support for full-time students <sup>b</sup>						
Federal	1,099	7.0	426	3.6	673	17.3
DOD	413	2.6	250	2.1	163	4.2
DOE	43	0.3	12	0.1	31	0.8
HHS	94	0.6	27	0.2	67	1.7
NIH	32	0.2	5	*	27	0.7
Other HHS	62	0.4	22	0.2	40	1.0
NASA	20	0.1	3	*	17	0.4
NSF	329	2.1	33	0.3	296	7.6
USDA	9	0.1	4	*	5	0.1
Other	191	1.2	97	0.8	94	2.4
Nonfederal	3,431	21.8	1,405	11.8	2,026	52.1
Institutional	2,986	18.9	1,196	10.1	1,790	46.0
Domestic	370	2.3	168	1.4	202	5.2
Foreign	75	0.5	41	0.3	34	0.9

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Characteristic	All graduate students		Master's students		Doctoral students	
	Number	Percent	Number	Percent	Number	Percent
Self-support	4,761	30.2	4,456	37.5	305	7.8
Primary mechanism of support for full-time students <sup>b</sup>						
Fellowships	519	3.3	125	1.1	394	10.1
Research assistantships	1,703	10.8	352	3.0	1,351	34.7
Teaching assistantships	916	5.8	249	2.1	667	17.2
Traineeships	45	0.3	39	0.3	6	0.2
Other types of support	6,108	38.8	5,522	46.5	586	15.1
Self-support	4,761	30.2	4,456	37.5	305	7.8
Other	1,347	8.5	1,066	9.0	281	7.2

\* = 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, 2023.