

Table 8-6. Engineering research doctorate recipients, statistical profile by sex and major field of doctorate: 2025

(Number, percent, and median years)

Characteristic	All engineering fields	Aerospace, aeronautical, astronautical, and space engineering	Biological, biomedical, and biosystems engineering	Chemical and petroleum engineering	Civil, environmental, and transportation engineering	Electrical and computer engineering	Engineering technologies	Industrial engineering and operations research	Materials and mining engineering	Mechanical engineering	Engineering, other
All doctorate recipients (number) ^a	10,876	628	1,390	1,285	1,276	2,111	374	666	867	1,564	715
Sex (%)											
Male	71.1	82.2	55.4	65.9	64.1	79.5	79.1	65.8	69.7	78.6	74.1
Female	28.9	17.8	44.6	34.1	35.9	20.5	20.9	34.2	30.3	21.4	25.9
Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Citizenship status (%)											
U.S. citizen or permanent resident	44.3	55.9	65.4	48.6	36.1	31.7	29.9	39.3	46.5	44.9	45.2
Temporary visa holder	49.8	36.3	30.4	45.5	57.7	61.1	67.4	56.2	47.9	50.6	44.9
Unknown	5.9	7.8	4.2	5.8	6.3	7.2	2.7	4.5	5.7	4.5	9.9
Marital status (%)											
Never married	45.9	45.4	49.5	52.2	39.6	45.8	50.5	36.8	49.1	46.6	40.3
Married	32.0	29.5	27.1	25.9	38.1	32.9	36.1	43.2	28.6	31.4	33.8
Marriage-like relationship	8.2	8.6	10.7	9.6	9.2	6.7	6.4	6.2	9.3	7.7	6.2
Separated, divorced, widowed	1.3	1.0	1.2	1.0	1.8	1.2	1.9	1.4	0.9	1.0	1.5
Unknown	12.6	15.6	11.5	11.3	11.3	13.4	5.1	12.5	12.0	13.2	18.2
Has dependent age 18 or younger (%)	13.1	12.3	6.7	10.9	19.0	15.1	12.2	19.3	10.2	10.8	18.3
Has one or more functional limitations (%)	10.2	10.2	10.0	10.0	10.9	9.1	13.8	10.3	10.8	9.0	13.3
Age at doctorate (median years)	30.1	29.6	29.3	29.3	31.2	30.5	30.4	30.9	29.3	30.0	30.7
Bachelor's in same field as doctorate (%) ^b	78.6	84.2	75.6	87.4	81.3	76.5	68.8	61.0	72.8	90.5	67.5
Master's earned (%)	72.7	78.6	51.2	56.2	90.3	78.2	79.7	82.6	63.1	77.8	79.7
Master's earned at same doctorate institution (%)	51.2	68.1	54.4	49.9	41.6	52.0	47.7	41.5	52.1	57.7	48.1
Time to doctorate (median years)											
Years since earning bachelor's degree	7.4	7.0	6.9	6.6	8.3	7.9	7.9	8.2	6.8	7.4	7.9
From graduate school start	6.4	6.3	6.0	5.8	7.2	6.9	6.8	7.0	6.0	6.4	6.8
From doctoral program start ^c	5.3	5.3	5.3	5.3	4.9	5.6	5.3	5.0	5.3	5.3	5.0

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Received tuition remission (%)	87.9	85.1	90.0	90.0	89.2	88.4	88.6	79.1	87.5	88.9	84.3
Male doctorate recipients (number)	7,728	516	770	847	818	1,679	296	438	604	1,230	530
Citizenship status (%)											
U.S. citizen or permanent resident	41.7	55.4	62.3	47.5	30.6	31.9	27.4	40.9	43.7	42.3	42.3
Temporary visa holder	52.6	36.4	34.2	47.1	63.6	61.5	69.9	54.6	50.0	53.7	48.1
Unknown	5.7	8.1	3.5	5.4	5.9	6.6	2.7	4.6	6.3	4.1	9.6
Marital status (%)											
Never married	47.0	46.1	52.1	55.1	39.5	46.8	D	D	49.3	48.1	D
Married	32.1	D	26.5	24.9	40.3	32.7	35.8	43.6	D	31.1	34.2
Marriage-like relationship	7.5	8.3	9.4	8.9	7.3	7.0	6.4	6.2	7.6	6.9	6.0
Separated, divorced, widowed	1.2	D	1.0	0.9	D	1.0	D	D	D	D	D
Unknown	12.2	16.1	11.0	10.2	D	12.5	5.1	12.1	12.6	D	17.4
Has dependent age 18 or younger (%)	14.3	12.8	7.9	11.5	21.5	15.3	11.8	21.9	11.2	12.0	20.6
Has one or more functional limitations (%)	9.4	9.3	9.2	7.6	10.3	9.3	11.6	7.9	10.5	8.2	13.2
Age at doctorate (median years)	30.3	29.8	29.6	29.5	31.4	30.6	30.4	31.0	29.8	30.3	30.8
Bachelor's in same field as doctorate (%) ^b	80.0	84.8	74.4	87.9	85.8	77.8	70.6	61.4	74.0	91.4	70.2
Master's earned (%)	73.9	76.9	56.1	55.9	92.5	77.8	79.6	80.9	64.0	77.5	79.5
Master's earned at same doctorate institution (%)	50.4	64.6	54.7	49.0	37.7	53.1	48.2	41.9	48.8	55.9	46.9
Time to doctorate (median years)											
Years since earning bachelor's degree	7.6	7.1	7.0	6.8	8.5	7.9	7.9	8.0	7.0	7.6	7.9
From graduate school start	6.7	6.3	6.3	5.8	7.3	6.9	6.8	7.0	6.0	6.7	6.9
From doctoral program start ^c	5.3	5.3	5.5	5.3	4.9	5.7	5.3	5.0	5.3	5.3	5.0

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Received tuition remission (%)	87.6	86.3	89.5	90.5	87.7	88.6	88.4	76.1	87.7	89.1	83.3
Female doctorate recipients (number)	3,148	112	620	438	458	432	78	228	263	334	185
Citizenship status (%)											
U.S. citizen or permanent resident	50.6	58.0	69.2	50.9	45.9	30.8	39.7	36.4	52.9	54.5	53.5
Temporary visa holder	42.9	35.7	25.8	42.5	47.2	59.5	57.7	59.2	43.0	39.5	35.7
Unknown	6.5	6.3	5.0	6.6	7.0	9.7	2.6	4.4	4.2	6.0	10.8
Marital status (%)											
Never married	43.2	42.0	46.3	46.6	39.7	41.9	D	D	48.7	41.0	D
Married	31.6	D	27.7	27.9	34.1	33.6	37.2	42.5	D	32.3	33.0
Marriage-like relationship	10.2	9.8	12.4	11.0	12.7	5.8	6.4	6.1	13.3	10.8	6.5
Separated, divorced, widowed	1.5	D	1.5	1.1	D	2.1	D	D	D	D	D
Unknown	13.6	13.4	12.1	13.5	D	16.7	5.1	13.2	10.6	D	20.5
Has dependent age 18 or younger (%)	10.2	10.3	5.3	9.7	14.3	14.5	13.5	14.5	8.1	6.3	11.6
Has one or more functional limitations (%)	12.2	13.8	10.9	14.6	11.9	8.5	21.9	14.9	11.5	11.7	13.7
Age at doctorate (median years)	29.6	29.1	28.9	28.9	30.6	30.2	30.6	30.8	28.8	29.6	30.3
Bachelor's in same field as doctorate (%) ^b	75.0	81.2	77.0	86.3	73.2	71.2	61.8	60.2	70.2	87.1	59.5
Master's earned (%)	69.6	86.1	45.0	56.9	86.3	79.6	80.3	85.9	61.0	78.9	80.4
Master's earned at same doctorate institution (%)	53.3	81.6	54.0	51.8	49.3	47.9	45.9	40.9	59.9	64.5	51.6
Time to doctorate (median years)											
Years since earning bachelor's degree	7.0	6.8	6.4	6.3	8.0	8.0	7.5	8.4	6.3	7.0	8.0
From graduate school start	6.3	6.0	5.8	5.8	6.8	7.0	6.9	7.0	5.8	6.1	6.7
From doctoral program start ^c	5.3	5.4	5.3	5.3	5.0	5.4	5.3	5.0	5.3	5.3	5.0

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Received tuition remission (%)	88.6	79.6	90.6	89.1	91.8	87.6	89.5	84.8	87.1	88.3	87.4

D = suppressed to avoid disclosure of confidential information.

^a All doctorate recipients includes doctorate recipients who did not report sex.

^b A bachelor's and doctoral degree are considered to be in the same field if doctorate recipient's first or most recent bachelor's degree is in the same broad field as their doctoral degree.

^c Time to doctorate from doctoral program start is based on master's degree entry if the master's degree was at the same doctoral institution in the same field of study or was a prerequisite to the doctorate; otherwise, it is based on doctoral program entry.

Note(s):

Due to rounding, percentages may not sum to 100. The survey data collection for the field of study changed in 2021, which may affect the data comparisons across years. This table uses the new field taxonomy based on a modified version of the 2020 Classification of Instructional Programs (CIP) codes and does not match data that uses the trend field taxonomy. For more information about the field taxonomy changes, see the "Technical Notes."

Source(s):

National Center for Science and Engineering Statistics, Survey of Earned Doctorates.