

Table 64. Statistical profile of doctorate recipients in engineering fields, by sex and field of study: 2015

Characteristic	All engineering fields	Aerospace, aeronautical, and astronautical engineering	Bioengineering and biomedical engineering	Chemical engineering	Civil engineering	Electrical, electronics, and communications engineering	Industrial and manufacturing engineering	Materials science engineering	Mechanical engineering	Other engineering
All doctorate recipients (number) ^a	9,897	361	1,129	1,002	633	2,004	244	874	1,467	2,183
Sex (%)										
Male	76.8	85.3	62.1	68.4	72.4	85.4	63.1	74.5	86.2	76.2
Female	23.2	14.7	37.9	31.6	27.6	14.6	36.9	25.5	13.8	23.8
Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Citizenship (%)										
U.S. citizen or permanent resident	42.7	59.8	64.2	48.7	36.3	31.5	26.6	43.7	42.3	39.6
Temporary visa holder	51.8	36.6	30.9	46.0	56.9	62.0	66.0	51.5	53.4	54.1
Unknown	5.6	3.6	4.9	5.3	6.8	6.4	7.4	4.8	4.3	6.2
Marital status (%)										
Never married	39.0	41.0	43.8	47.1	32.7	37.6	32.0	40.2	37.8	36.6
Married	41.5	38.2	35.8	33.9	45.5	43.8	49.2	40.0	41.9	44.9
Marriage-like relationship	6.4	D	10.1	6.9	4.3	4.1	D	8.6	7.0	5.8
Separated, divorced, widowed	1.5	D	0.6	1.6	2.4	1.4	D	1.6	1.4	1.7
Unknown	11.5	10.8	9.7	10.5	15.2	13.0	13.9	9.6	11.9	10.9
Bachelor's in same field as doctorate (%) ^b	76.4	79.2	73.9	82.5	80.1	78.8	68.4	67.4	82.4	71.6
Master's earned (%)	70.6	79.8	52.6	47.0	83.6	77.6	81.6	56.8	75.1	80.2
Age at doctorate (median years)	30.0	29.7	29.2	28.7	31.2	30.3	31.5	29.2	30.0	30.7
Time to doctorate (median years)										
From bachelor's	7.3	7.0	6.8	6.1	8.1	7.8	8.3	6.6	7.5	8.0
From graduate school start	6.7	6.7	6.0	5.7	7.2	6.9	7.2	6.0	6.7	7.1

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From doctoral program start ^c	5.2	5.6	5.3	5.0	4.9	5.3	5.2	5.0	5.2	5.2
Male doctorate recipients (number)	7,596	308	701	685	458	1,711	154	651	1,265	1,663
Citizenship (%)										
U.S. citizen or permanent resident	41.3	59.4	62.8	49.6	35.4	31.2	24.7	43.8	40.5	38.5
Temporary visa holder	53.3	36.7	33.0	45.5	59.0	62.5	70.1	51.2	55.3	55.1
Unknown	5.4	3.9	4.3	4.8	5.7	6.3	5.2	5.1	4.3	6.4
Marital status (%)										
Never married	39.0	40.6	44.2	47.2	33.8	38.5	33.1	39.0	37.2	37.2
Married	42.2	39.6	36.8	34.7	46.5	43.2	50.0	41.8	42.2	45.1
Marriage-like relationship	6.0	D	9.3	D	D	4.0	3.2	D	D	5.4
Separated, divorced, widowed	1.4	D	D	D	D	1.3	D	D	D	1.1
Unknown	11.4	9.7	D	9.9	13.1	12.9	D	9.7	12.0	11.2
Bachelor's in same field as doctorate (%) ^b	77.8	80.8	74.9	83.2	81.4	79.4	68.8	69.0	82.8	73.9
Master's earned (%)	71.6	80.8	52.9	46.6	85.4	78.0	83.8	58.2	75.2	79.3
Age at doctorate (median years)	30.1	29.7	29.5	28.7	31.7	30.4	32.2	29.2	30.1	30.8
Time to doctorate (median years)										
From bachelor's	7.5	7.0	6.9	6.2	8.4	7.8	9.2	6.6	7.5	8.1
From graduate school start	6.7	6.7	6.2	5.7	7.4	7.0	7.3	6.0	6.7	7.2
From doctoral program start ^c	5.2	5.6	5.3	5.0	4.9	5.3	5.2	5.0	5.2	5.2

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Characteristic	All engineering fields	Aerospace, aeronautical, and astronautical engineering	Bioengineering and biomedical engineering	Chemical engineering	Civil engineering	Electrical, electronics, and communications engineering	Industrial and manufacturing engineering	Materials science engineering	Mechanical engineering	Other engineering
Female doctorate recipients (number)	2,301	53	428	317	175	293	90	223	202	520
Citizenship (%)										
U.S. citizen or permanent resident	47.3	62.3	66.6	46.7	38.9	33.8	30.0	43.5	53.5	43.1
Temporary visa holder	46.5	35.8	27.6	47.0	51.4	59.0	58.9	52.5	42.1	51.2
Unknown	6.2	1.9	5.8	6.3	9.7	7.2	11.1	4.0	4.5	5.8
Marital status (%)										
Never married	38.8	43.4	43.2	47.0	29.7	32.1	30.0	43.5	41.6	35.0
Married	39.5	30.2	34.1	32.2	42.9	47.1	47.8	35.0	39.6	44.2
Marriage-like relationship	8.0	9.4	11.4	D	D	5.1	D	D	D	7.3
Separated, divorced, widowed	1.7	0.0	D	D	D	2.0	D	D	D	3.7
Unknown	12.0	17.0	D	11.7	20.6	13.7	D	9.4	11.4	9.8
Bachelor's in same field as doctorate (%) ^b	72.0	69.8	72.2	81.1	76.6	75.4	67.8	62.8	80.2	64.4
Master's earned (%)	67.1	73.6	52.1	47.9	78.9	75.8	77.8	52.5	74.8	82.9
Age at doctorate (median years)	29.4	29.1	28.8	28.4	30.0	30.0	30.1	28.9	29.5	30.5
Time to doctorate (median years)										
From bachelor's	7.0	6.9	6.6	6.0	7.5	7.6	7.8	6.6	7.0	7.9
From graduate school start	6.3	6.3	6.0	5.5	6.7	6.9	6.8	6.0	6.7	6.9
From doctoral program start ^c	5.2	5.6	5.3	5.0	4.9	5.4	5.0	5.0	5.3	5.0

D = suppressed to avoid disclosure of confidential information.

^a Includes respondents who did not report sex.

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^b A bachelor's degree is counted as "in same field as doctorate" if the fields of study for the doctorate recipient's bachelor's degree and doctorate degree are both in the same major field category of the National Science Foundation's field of study taxonomy, except for engineering and education fields where broad field categories need be the same. See table A-6 in the technical notes for a listing of major fields and their constituent subfields.

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

NOTE: Due to rounding, percentages may not sum to 100.

SOURCE: National Science Foundation, National Center for Science and Engineering Statistics, Survey of Earned Doctorates, 2015.