Table 58. Statistical profile of doctorate recipients in physical sciences and earth sciences fields, by sex and field of study: 2016

Characteristic	All physical sciences and earth sciences fields	Chemistry	Geosciences, atmospheric, and ocean sciences	Physics and astronomy
All doctorate recipients (number) ^a	6,252	2,704	1,227	2,321
Sex (%)				
Male	68.6	63.4	58.4	80.0
Female	31.4	36.6	41.6	19.9
Unknown	*	0.0	0.1	0.1
Citizenship (%)				
U.S. citizen or permanent resident	58.6	58.4	65.4	55.4
Temporary visa holder	37.0	37.0	31.8	39.8
Unknown	4.4	4.6	2.9	4.9
Marital status (%)				
Never married	40.7	41.2	34.8	43.3
Married	37.1	35.7	43.2	35.4
Marriage-like relationship	9.9	10.1	11.2	8.8
Separated, divorced, widowed	2.1	1.6	3.1	2.0
Unknown	10.3	11.4	7.7	10.4
Bachelor's in same field as doctorate (%) ^b	66.9	72.1	47.8	70.8
Master's earned (%)	51.4	34.3	68.1	62.4
Age at doctorate (median years)	29.5	28.9	30.7	29.6
Time to doctorate (median years)				
From bachelor's	6.9	6.3	8.0	7.0
From graduate school start	6.1	5.7	6.9	6.4
From doctoral program start ^c	5.7	5.3	5.7	5.9
Male doctorate recipients (number)	4,286	1,713	716	1,857
Citizenship (%)	,			,
U.S. citizen or permanent resident	57.1	57.5	61.6	55.0
Temporary visa holder	38.4	37.7	35.3	40.3
Unknown	4.5	4.8	3.1	4.7
Marital status (%)				
Never married	41.3	41.6	34.1	43.9
Married	37.5	36.5	46.6	35.0
Marriage-like relationship	9.1	9.0	9.2	9.3
Separated, divorced, widowed	1.7	1.3	2.5	1.7
Unknown	10.3	11.7	7.5	10.1
Bachelor's in same field as doctorate (%) ^b	66.9	70.2	48.9	70.8
Master's earned (%)	52.1	34.5	69.4	61.7
Age at doctorate (median years)	29.5	29.0	31.2	29.6
Time to doctorate (median years)			- 1.	
From bachelor's	7.0	6.3	8.0	7.0
From graduate school start	6.2	5.7	7.0	6.5
From doctoral program start ^c	5.7	5.3	5.7	5.9
Female doctorate recipients (number)	1,963	991	510	462
Citizenship (%)	1,900	391	310	402
U.S. citizen or permanent resident	62.0	59.9	70.8	56.9
Temporary visa holder	34.0	35.8	26.9	37.9

Table 58. Statistical profile of doctorate recipients in physical sciences and earth sciences fields, by sex and field of study: 2016

Characteristic	All physical sciences and earth sciences fields	Chemistry	Geosciences, atmospheric, and ocean sciences	Physics and astronomy
Unknown	4.0	4.2	2.4	5.2
Marital status (%)				
Never married	39.5	40.6	35.9	41.3
Married	36.1	34.4	38.4	37.2
Marriage-like relationship	11.4	12.0	14.1	7.1
Separated, divorced, widowed	2.9	2.2	3.9	3.2
Unknown	10.0	10.8	7.6	11.0
Bachelor's in same field as doctorate (%) ^b	66.8	75.4	46.5	71.0
Master's earned (%)	49.9	33.9	66.5	65.8
Age at doctorate (median years)	29.3	28.7	30.4	29.5
Time to doctorate (median years)				
From bachelor's	6.8	6.2	7.8	7.1
From graduate school start	6.0	5.7	6.7	6.3
From doctoral program start ^c	5.4	5.3	5.6	5.8

^{* =} value < 0.05%.

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, 2016.

^a Includes respondents who did not report sex.

^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 doctorate institution in the same fine field of study or was a prerequisite to the doctorate; otherwise, it is based on doctoral program entry.