

**TABLE 5-2**  
**Research doctorate recipients who earned a bachelor's degree related to doctorate, by sex, citizenship status, ethnicity, race, and broad field of doctorate: 2023**  
 (Percent)

Demographic characteristic	All fields		Science and engineering													Non-science and engineering					
	Total		Agricultural sciences and natural resources	Biological and biomedical sciences	Computer and information sciences	Engineering	Geosciences, atmospheric, and ocean sciences	Health sciences	Mathematics and statistics	Multidisciplinary/ interdisciplinary sciences	Physical sciences	Psychology	Social sciences	Total	Business	Education	Humanities	Visual and performing arts	Other non-science and engineering		
Doctorate recipients reporting bachelor's degree	98.3	98.3	97.1	98.2	98.5	98.7	98.3	96.3	98.8	98.1	98.7	98.2	98.8	98.2	98.3	98.2	98.2	98.3	98.3		
Bachelor's degree in the same field as doctorate	60.6	64.3	48.4	64.2	38.8	78.4	49.8	46.4	80.6	14.0	77.2	70.9	55.2	46.0	42.3	25.7	71.3	69.7	38.0		
Sex																					
Male	63.4	66.0	50.8	62.3	39.7	80.1	50.6	37.2	80.5	14.5	77.6	66.0	58.9	49.2	41.7	22.8	71.1	71.6	36.7		
Female	57.6	62.3	46.4	65.7	35.7	73.5	49.0	50.1	80.7	13.2	76.5	72.4	51.7	43.8	42.9	26.7	71.6	68.2	38.8		
Citizenship status																					
U.S. citizen or permanent resident	61.3	66.2	46.0	68.7	46.1	80.0	51.1	43.5	84.6	12.9	80.6	73.1	55.3	45.8	40.9	25.0	73.6	73.1	35.8		
Temporary visa holder	61.5	63.2	53.8	52.6	35.1	78.9	48.9	57.7	78.8	15.3	73.3	62.7	56.6	50.2	44.5	34.7	67.5	64.9	46.1		
Ethnicity and race (U.S. citizens and permanent residents)																					
Hispanic or Latino	61.7	68.6	39.3	72.6	44.4	83.5	50.9	31.4	86.9	16.9	81.1	78.3	59.0	40.1	52.8	17.4	66.0	70.8	35.3		
Not Hispanic or Latino																					
American Indian or Alaska Native	49.5	59.3	0.0	81.8	0.0	D	D	D	-	0.0	D	77.8	46.7	33.3	0.0	D	62.5	D	0.0		
Asian	60.0	64.0	48.9	64.1	40.7	78.6	46.4	D	79.5	15.9	D	70.3	50.5	37.7	35.0	D	D	68.4	27.5		
Black or African American	48.1	59.1	35.5	D	42.9	D	D	49.8	81.0	D	79.3	66.0	44.6	31.1	27.9	D	D	D	33.0		
White	63.1	67.0	47.7	68.8	48.1	80.0	51.6	45.1	86.0	13.0	80.7	73.6	57.4	50.4	43.9	27.9	76.3	74.6	37.9		
More than one race	64.6	68.0	37.0	D	57.1	82.2	41.4	35.6	82.9	D	79.3	75.5	52.9	49.4	46.7	25.0	76.4	81.3	38.9		
Other race or race not reported	61.2	65.6	66.7	70.5	50.0	80.6	50.0	43.8	72.7	0.0	74.3	74.2	52.6	48.9	33.3	30.0	63.6	87.5	35.0		
Ethnicity not reported	45.9	51.0	40.0	60.7	50.0	59.1	100.0	37.5	60.0	10.0	68.8	57.1	35.0	33.3	33.3	13.6	55.0	55.6	0.0		

- = not calculable; D = suppressed to avoid disclosure of confidential information.

**Note(s):** Percentages are based on the total number of doctorate recipients. 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. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information about the 2021 taxonomy change, see the "Technical Notes."

**Source(s):** National Center for Science and Engineering Statistics, Survey of Earned Doctorates.