Directorate for Computer and Information Science and Engineering (CISE)
DIRECTORATE PROFILE
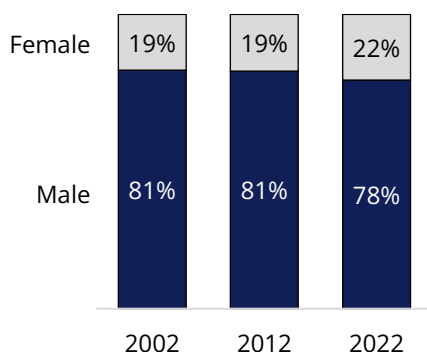
CISE Research Doctorate Recipients by Graduation Year
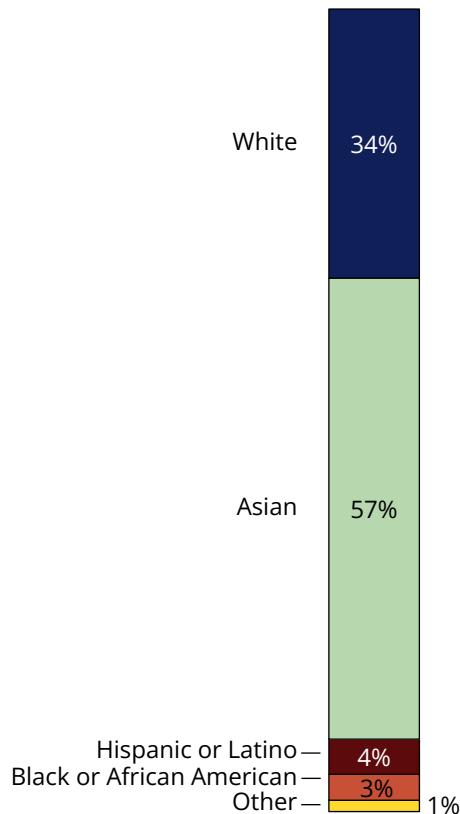
Number: 2002, 2012, and 2022

- 2002: 969
- 2012: 2,249
- 2022: 4,676

Source: Survey of Earned Doctorates.

Sex: 2002, 2012, and 2022

	2002	2012	2022
Female	19%	19%	22%
Male	81%	81%	78%

Source: Survey of Earned Doctorates.

Race and ethnicity: 2022

- White: 34%
- Asian: 57%
- Hispanic or Latino: 4%
- Black or African American: 3%
- Other: 1%

Source: Survey of Earned Doctorates.

Field of degree: 2022

- Computer engineering: 40%
- Computer science: 39%
- Computer and information sciences: 14%
- Information science and systems: 7%
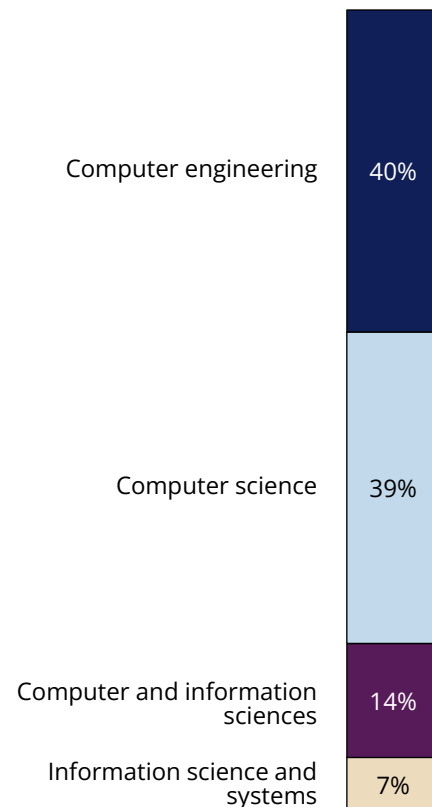
Source: Survey of Earned Doctorates.

Citizenship status by field of degree: 2022

	U.S. citizens and permanent residents	Temporary visa holders
All CISE fields	33%	67%
Computer engineering	28%	72%
Computer science	38%	62%
Computer and information sciences	31%	69%
Information science and systems	38%	62%

Source: Survey of Earned Doctorates.

U.S. National Science Foundation
National Center for Science and Engineering Statistics

CISE Research Doctorate Recipients by Graduation Year

Definite non-postdoctoral employment commitments by sector: 2002, 2012, and 2022

|	2002	2012	2022
Business or industry	53%	72%	79%
Government	4%	4%	3%
Educational institution	43%	24%	18%
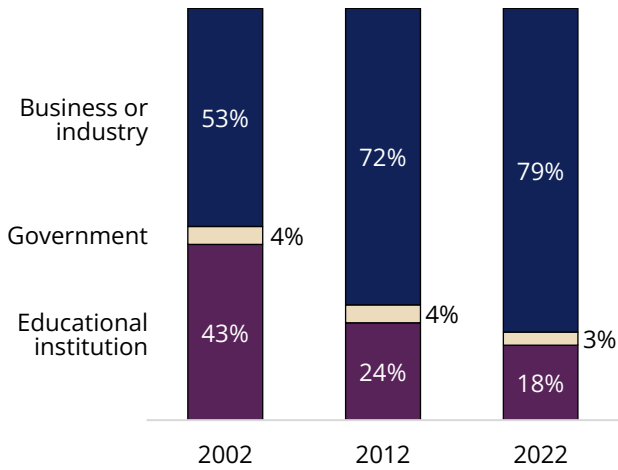
Source: Survey of Earned Doctorates.

85%

of computer and information science and engineering research doctorate recipients reported having **no graduate education-related debt** after receiving their doctoral degree in 2022.

Source: Survey of Earned Doctorates.

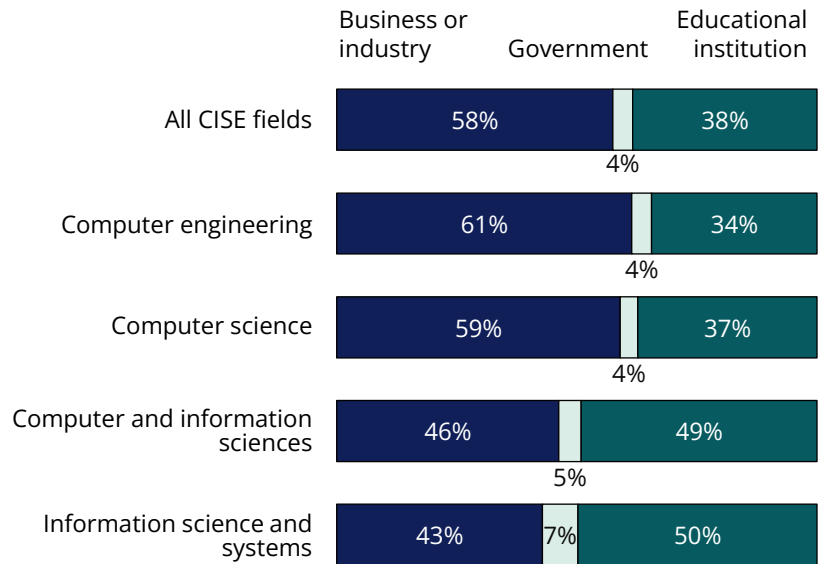### Graduate education-related debt among those with graduate debt: 2022

Among the 15% who reported debt

- $60,001 or more (22%)
- $10,000 or less (31%)
- $30,001–$60,000 (17%)
- $10,001–$30,000 (30%)
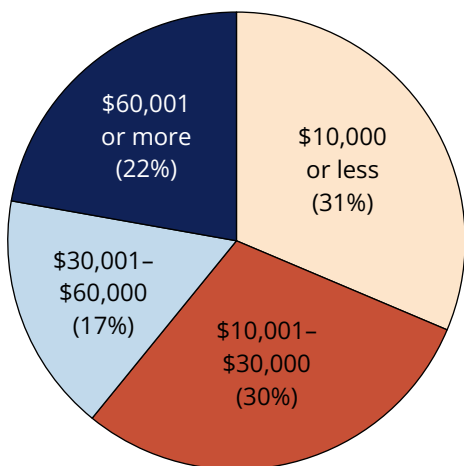
Source: Survey of Earned Doctorates.

CISE Research Doctorate Recipients under the Age of 76

Employment sector by field of degree: 2021

	Business or industry	Government	Educational institution
All CISE fields	58%	4%	38%
Computer engineering	61%	4%	34%
Computer science	59%	4%	37%
Computer and information sciences	46%	5%	49%
Information science and systems	43%	7%	50%

Source: Survey of Doctorate Recipients.

Median salary by field of degree: 2021

All CISE fields	$150,000
Computer engineering	$150,000
Computer science	$150,000
Computer and information sciences	$125,000
Information science and systems	$124,000
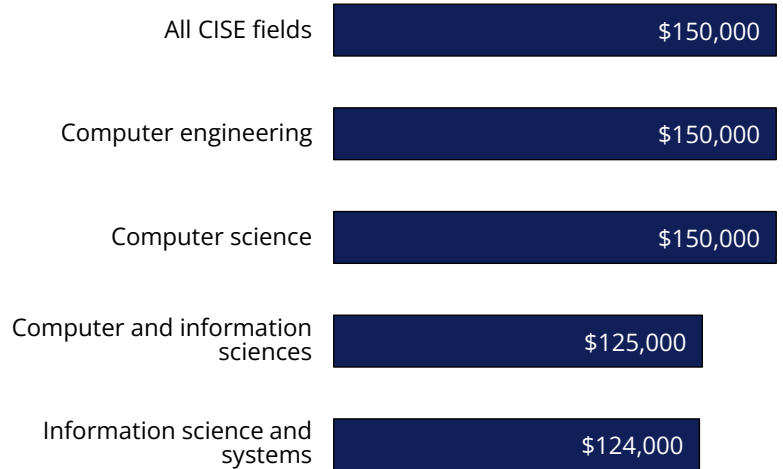
Source: Survey of Doctorate Recipients.

The Survey of Earned Doctorates data reflect characteristics of computer and information science and engineering research doctorate recipients at the time of graduation in academic years 2002, 2012, and 2022. The Survey of Doctorate Recipients data reflect computer and information science and engineering research doctorate recipients under age 76 as of 1 February 2021. See *Directorate Profiles: Technical Notes* for more information. Percentages may not add to 100% due to rounding.