



# CONNECTICUT

## 2023 State of Computer Science Education

The rapid pace of technological advancement, as seen with the widespread integration of generative artificial intelligence (AI), underscores the need for foundational knowledge in computer science for all students. This report calls upon advocates to embrace the urgency of this matter and revamp school curricula to align with the demands of the 21st century, including requiring that all students learn computer science.

Currently, 57.5% of public high schools in the United States (U.S.) offer a foundational computer science class—an achievement marking the largest percentage growth in the last five years. Across the 35 states\* where data is available, 5.8% of high school students are enrolled in foundational computer science. Even with growing access this growth, large disparities still exist, and we must continue to focus on eliminating participation gaps.

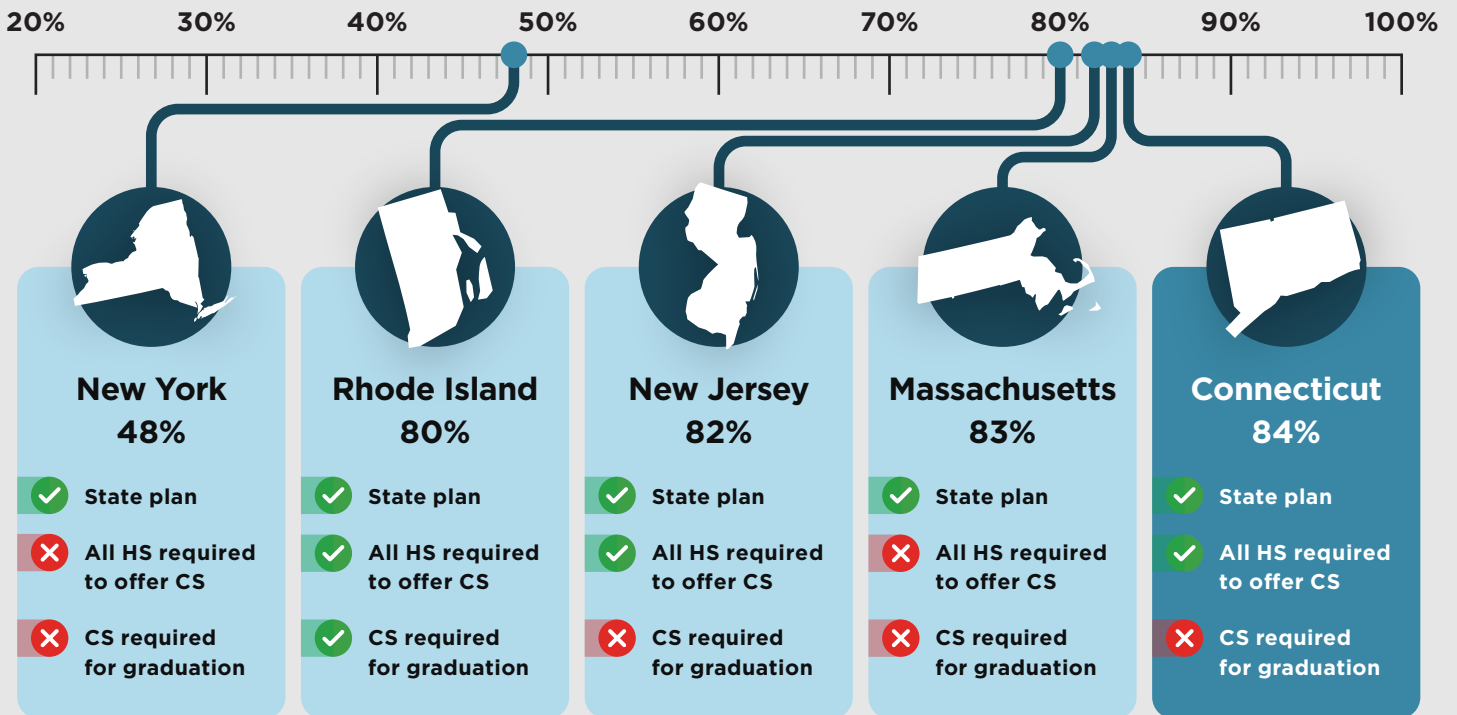
**5,373**  
In 2023, CT averaged 5,373 open computing jobs each month

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**\$112,526**  
These jobs have an average salary of \$112,526

\*AL, AR, AZ, CT, FL, GA, HI, IA, ID, IL, IN, KS, KY, LA, MA, MD, MS, NC, ND, NE, NJ, NM, NV, NY, OK, OR, PA, RI, TN, TX, UT, VA, VT, WV, WI

### Comparative Access to Computer Science Courses (percentage of high schools offering)





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## Ten Policies to Make Computer Science Foundational

1.

Create a **statewide plan** for K-12 computer science



2.

Define **computer science** and establish standards for K-12 computer science



3.

**Allocate funding** for rigorous computer science teacher professional learning



4.

Implement **clear certification pathways** for computer science teachers at elementary and secondary levels



5.

Create university programs to **encourage all preservice teachers** to gain exposure to computer science



6.

Establish **dedicated computer science** positions in a state education agency



7.

**Require that all schools offer computer science** with appropriate implementation timelines



8.

**Allow computer science to count** toward a core graduation requirement



9.

Allow **computer science to satisfy an admission requirement** at higher education institutions



10.

**Require that all students take computer science** to earn a high school diploma



## What Has Connecticut Done to Advance Computer Science Education?

Connecticut requires every elementary, middle, and high school to offer computer science.

SB 957 (2019) required teacher preparation programs to include, as part of the curriculum for all preservice candidates, instruction in computer science that is grade-level and subject-area appropriate.

## How Can Connecticut Increase Opportunities for Students?

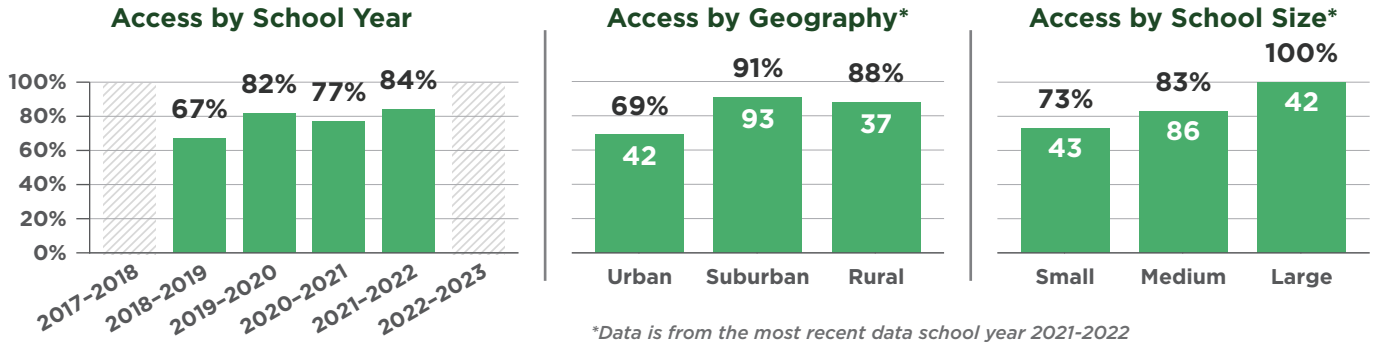
Connecticut should fund professional development opportunities for teachers to ensure there are enough teachers prepared to teach computer science in every school. A fund was created by SB 957 (2019), but no funding has yet been allocated.

Connecticut should adopt a graduation requirement for all high school students in computer science.

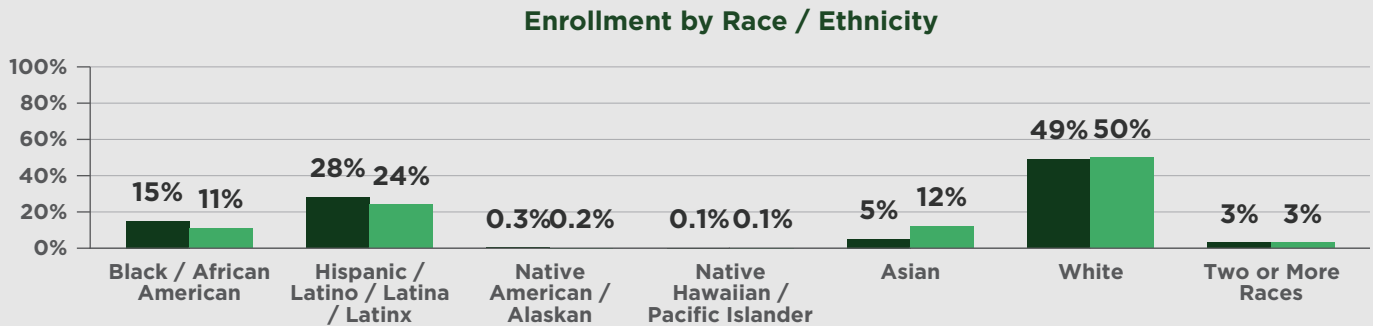
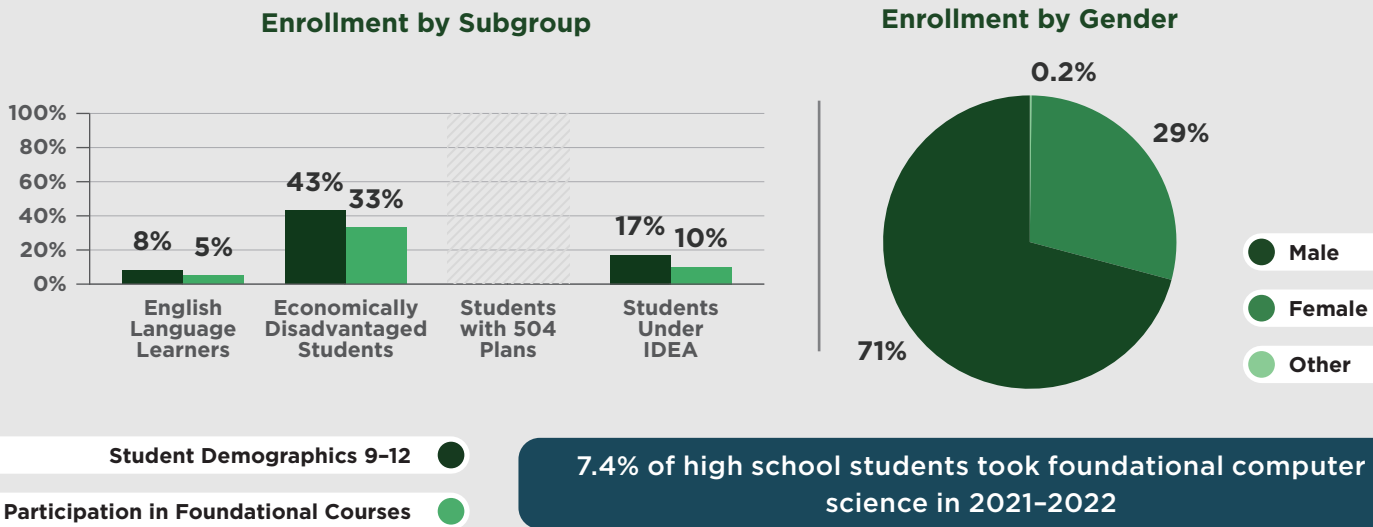


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## Percentage of Public High Schools Offering Foundational Computer Science

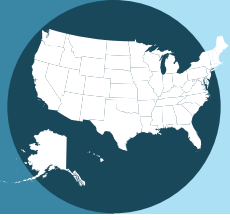


## Participation in Foundational High School Computer Science by Student Demographics



Hispanic students are 1.3 times less likely to take foundational computer science than their white and Asian peers

- Student Demographics 9-12
- Participation in Foundational Courses



# UNITED STATES

## Percentage of Public High Schools Offering Foundational Computer Science Nationally

