



UTAH

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.

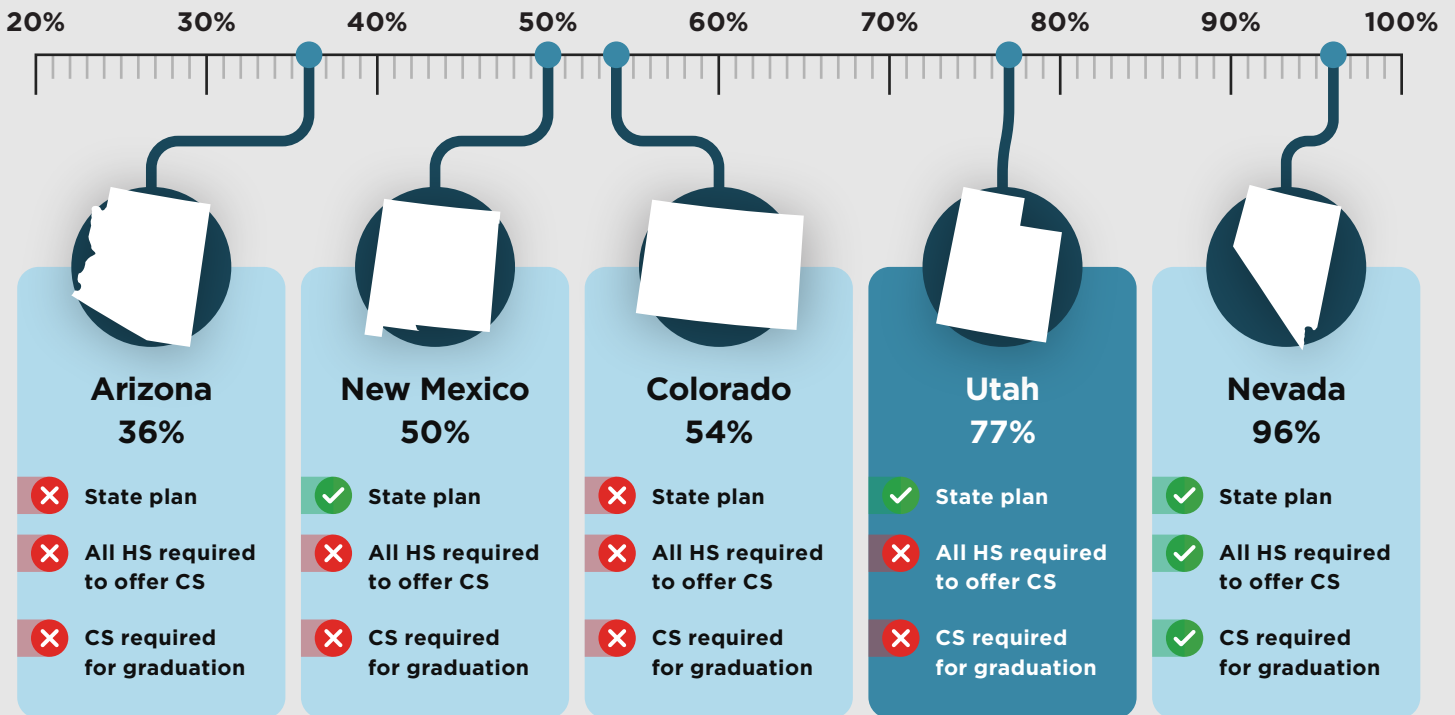
Currently, 57.5% of public high schools in the United States (U.S.) offer a foundational computer science class—an achievement marking the largest percentage growth in the last five years. Across the 35 states* where data is available, 5.8% of high school students are enrolled in foundational computer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

4,722
In 2023, UT averaged 4,722 open computing jobs each month

\$98,291
These jobs have an average salary of \$98,291

*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 Utah Done to Advance Computer Science Education?

Utah has funded computer science education since 2017, totaling over \$26M after the 2023 legislative session.

Utah adopted the Computer Science Education Master Plan in 2019. The Community Foundation of Utah and the Silicon Slopes community created the Silicon Slopes Computer Science Fund to invest in computer science education initiatives outlined in the state plan.

How Can Utah Increase Opportunities for Students?

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

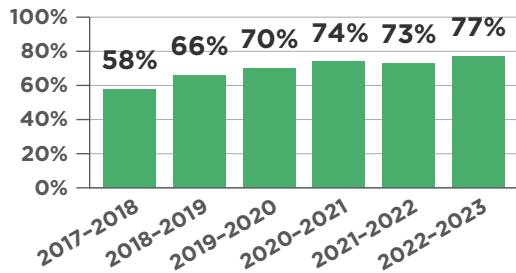
Utah should require all preservice teachers to receive instruction in computer science education. This will ensure there are enough teachers prepared to teach computer science in every school.



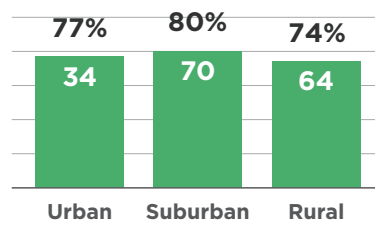
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Percentage of Public High Schools Offering Foundational Computer Science

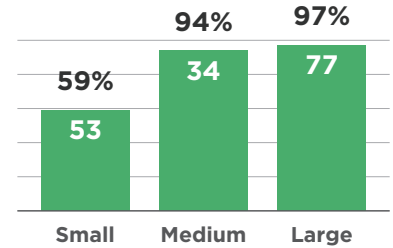
Access by School Year



Access by Geography*



Access by School Size*



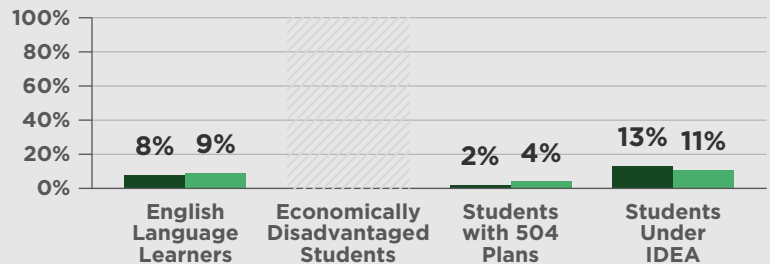
*Data is from the most recent data school year 2022-2023

Participation in Foundational High School Computer Science by Student Demographics

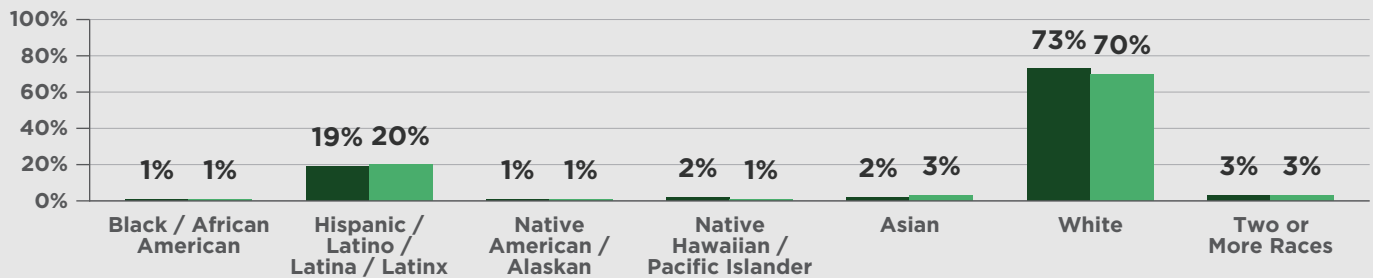
13% of high school students took foundational computer science in 2022-2023

34% of students who took foundational computer science were female

Enrollment by Subgroup



Enrollment by Race / Ethnicity



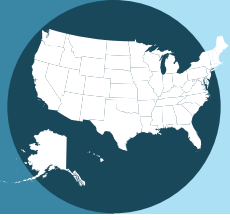
Students of all racial and ethnic groups are similarly likely to take foundational computer science

- Student Demographics 9-12
- Participation in Foundational Courses

K-12 Access and Participation in Computer Science

68% of middle schools** are teaching foundational computer science education, with an enrollment of 13,372 students.

**87% of middle schools reported course offerings and among those schools 68% reported teaching foundational computer science



UNITED STATES

Percentage of Public High Schools Offering Foundational Computer Science Nationally

