



ARIZONA

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.

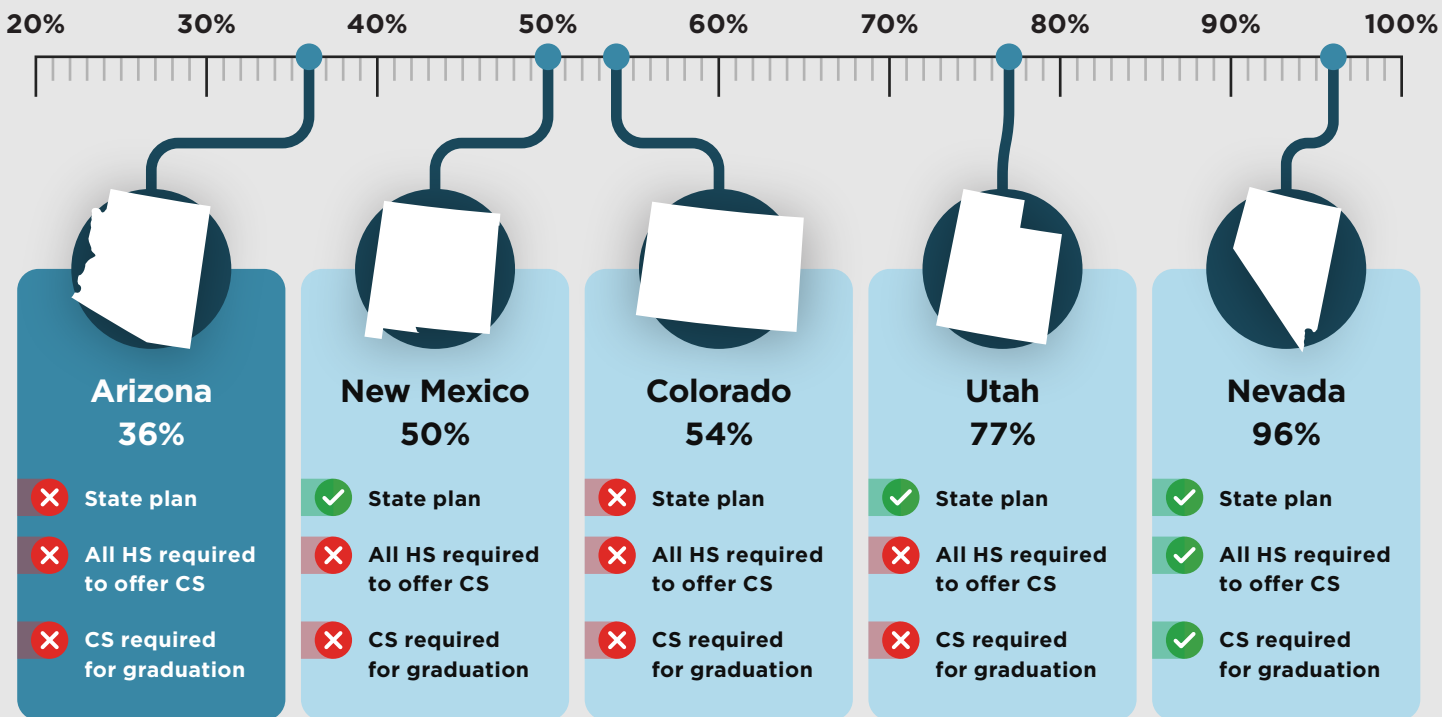
Currently, 57.5% of public high schools in the United States (U.S.) offer a foundational computer science class—an achievement marking the largest percentage growth in the last five years. Across the 35 states* where data is available, 5.8% of high school students are enrolled in foundational computer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

9,265
In 2023, AZ averaged 9,265 open computing jobs each month

\$104,653
These jobs have an average salary of \$104,653

*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 Arizona Done to Advance Computer Science Education?

Arizona has funded computer science education annually since 2017, totaling over \$6M after the 2023 legislative session.

Arizona has a full-time Computer Science specialist in the Department of Education as mandated by state legislation passed in 2021.

How Can Arizona Increase Opportunities for Students?

Arizona should publish a state plan on computer science education.

Arizona should require all high schools to offer at least one computer science course.

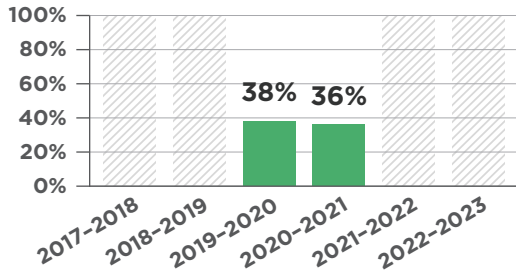
Arizona should prioritize publishing computer science course offerings and enrollment.



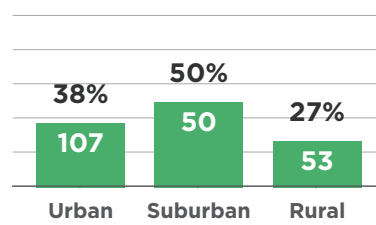
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Percentage of Public High Schools Offering Foundational Computer Science

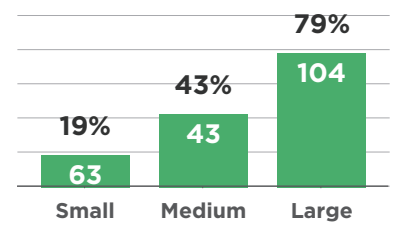
Access by School Year



Access by Geography*



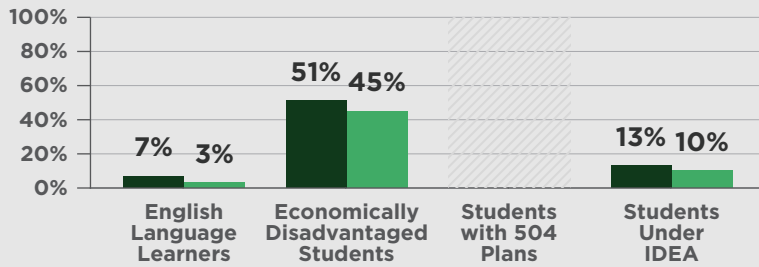
Access by School Size*



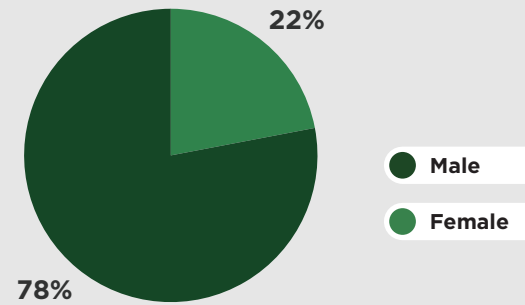
*Data is from the most recent data school year 2020-2021

Participation in Foundational High School Computer Science by Student Demographics

Enrollment by Subgroup



Enrollment by Gender

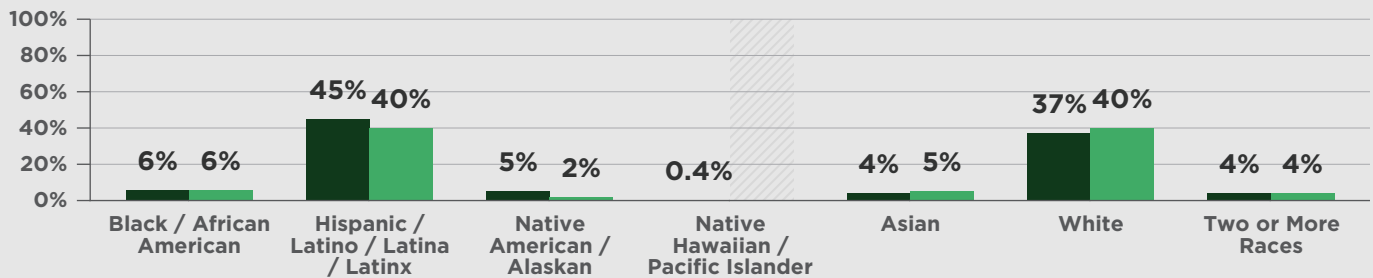


Student Demographics 9-12

Participation in Foundational Courses

2.0% of high school students took foundational computer science in 2020-2021

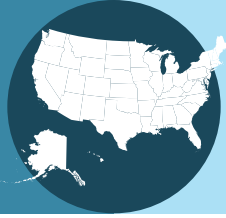
Enrollment by Race / Ethnicity



Native American students are 1.5 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

