



HAWAII

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.

2,234

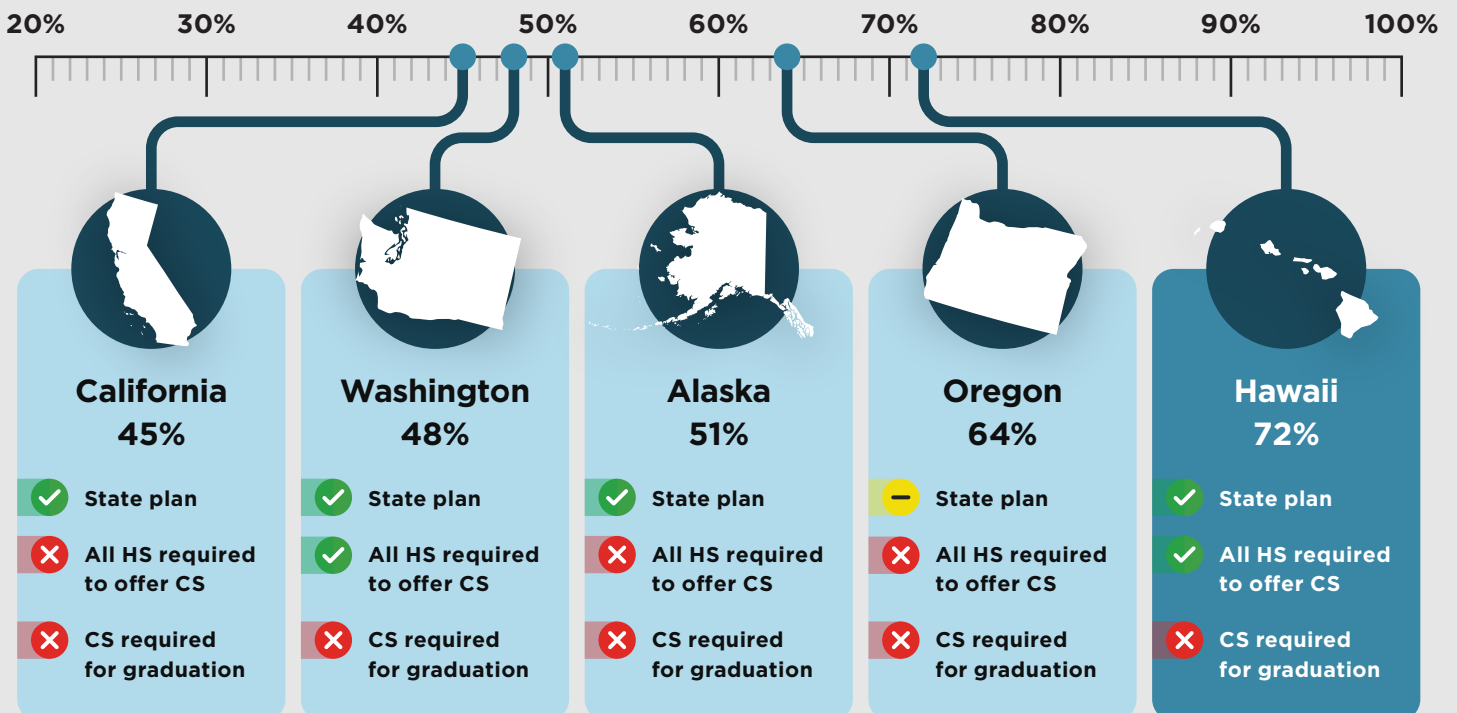
In 2023, HI averaged
2,234 open computing jobs
each month

\$94,618

These jobs have an average
salary of \$94,618

*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 Hawaii Done to Advance Computer Science Education?

Hawaii passed legislation requiring the State Board of Education to make recommendations and a timeline for implementing a graduation requirement.

Hawaii is requiring all elementary, middle, and high schools to offer computer science by the 2024-25 school year.

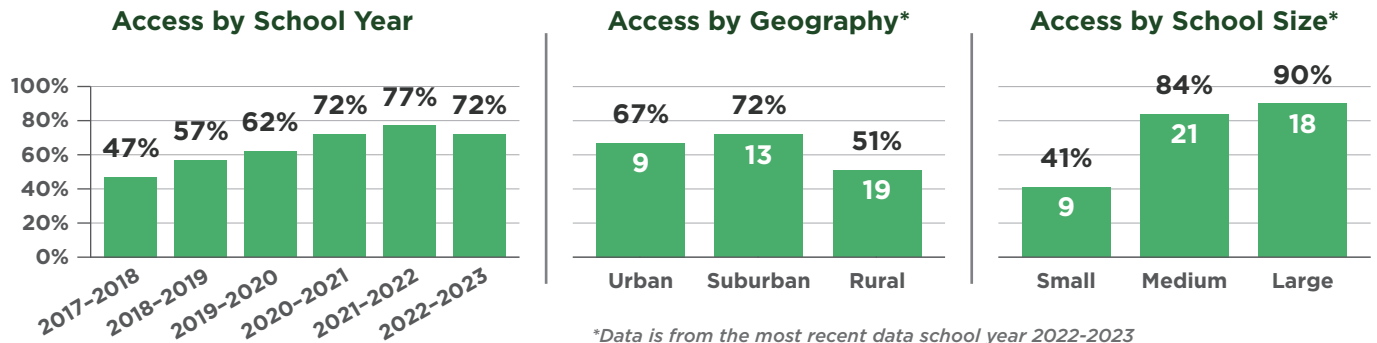
How Can Hawaii Increase Opportunities for Students?

Hawaii should require all preservice teachers to receive instruction in computer science education to 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

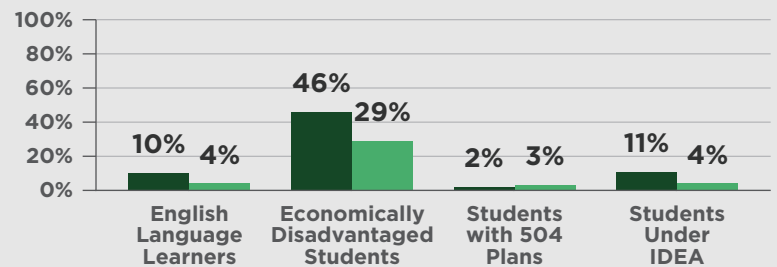


Participation in Foundational High School Computer Science by Student Demographics

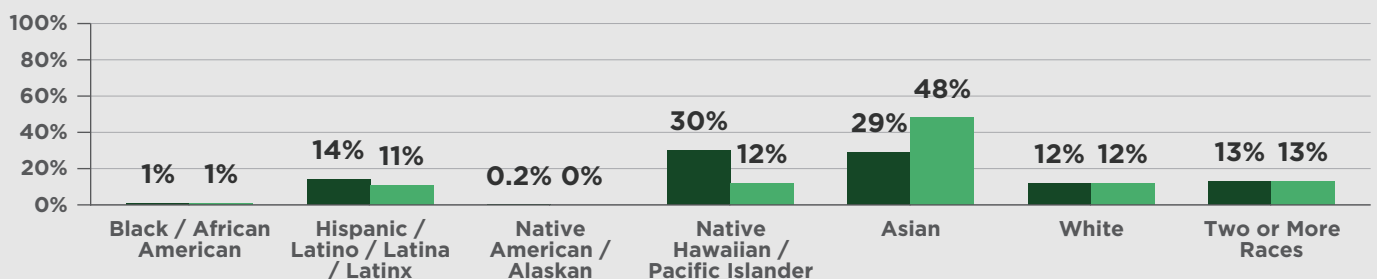
2.6% of high school students took foundational computer science in 2022-2023

26% of students who took foundational computer science were female

Enrollment by Subgroup



Enrollment by Race / Ethnicity



Native Hawaiian students are 3 times less likely to take foundational computer science than their white and Asian peers

● Student Demographics 9-12
● Participation in Foundational Courses

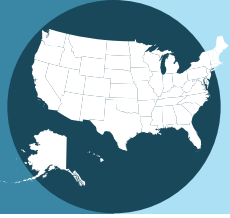
K-12 Access and Participation in Computer Science

68% of elementary schools** are teaching foundational computer science education, with an enrollment of 25,015 students.

55% of middle schools*** are teaching foundational computer science education, with an enrollment of 4,235 students.

**83% of elementary schools reported course offerings and among those schools 68% reported teaching foundational computer science

***90% of middle schools reported course offerings and among those schools 55% reported teaching foundational computer science



UNITED STATES

Percentage of Public High Schools Offering Foundational Computer Science Nationally

