



ALABAMA

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.

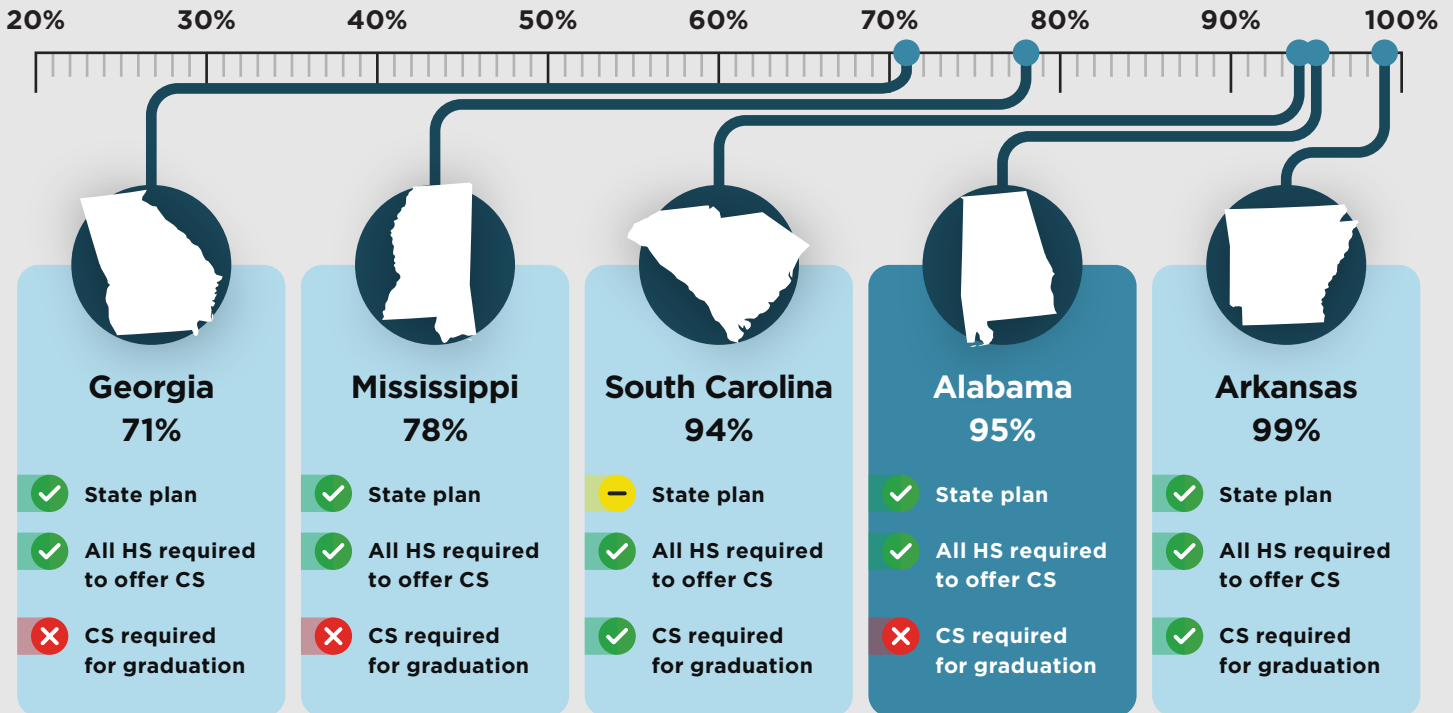
Currently, 57.5% of public high schools in the United States (U.S.) offer a foundational computer science class—an achievement marking the largest percentage growth in the last five years. Across the 35 states* where data is available, 5.8% of high school students are enrolled in foundational computer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

8,367
In 2023, AL averaged 8,367 open computing jobs each month

\$96,251
These jobs have an average salary of \$96,251

*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 Alabama Done to Advance Computer Science Education?

Alabama requires all high schools, middle schools, and elementary schools to offer computer science.

Alabama has a robust data collection and reporting system, which is directly connected to ensuring all high schools offer computer science.

How Can Alabama Increase Opportunities for Students?

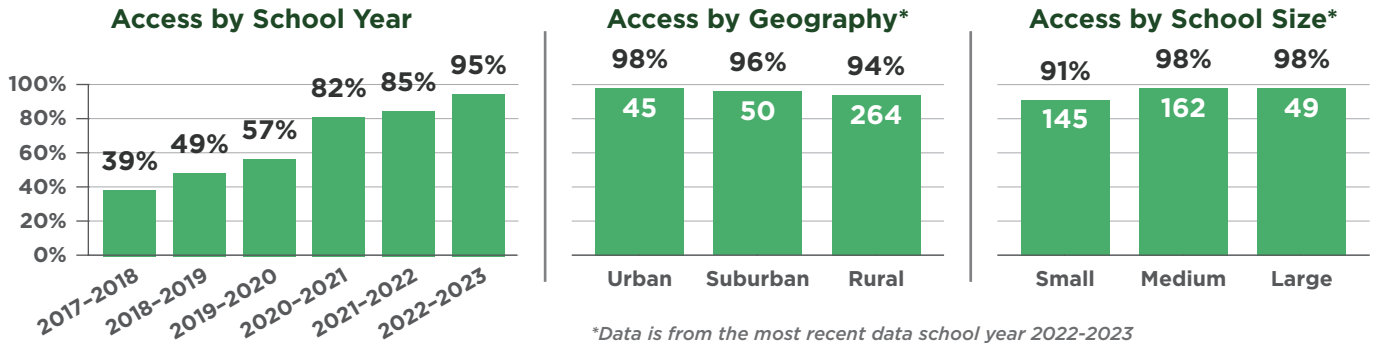
Alabama should adopt a graduation requirement for all high school students in computer science.

Alabama should expand its data collection to include K-5 schools.



ALABAMA

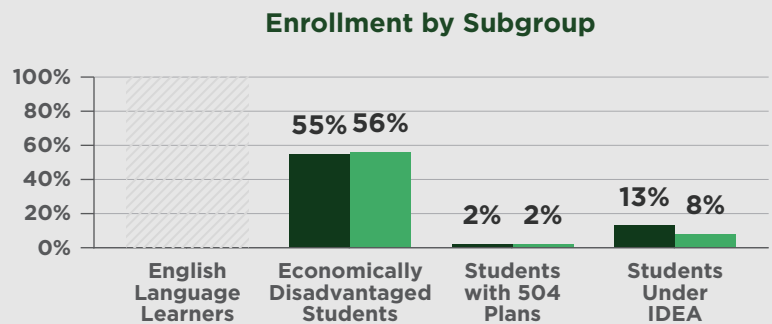
Percentage of Public High Schools Offering Foundational Computer Science



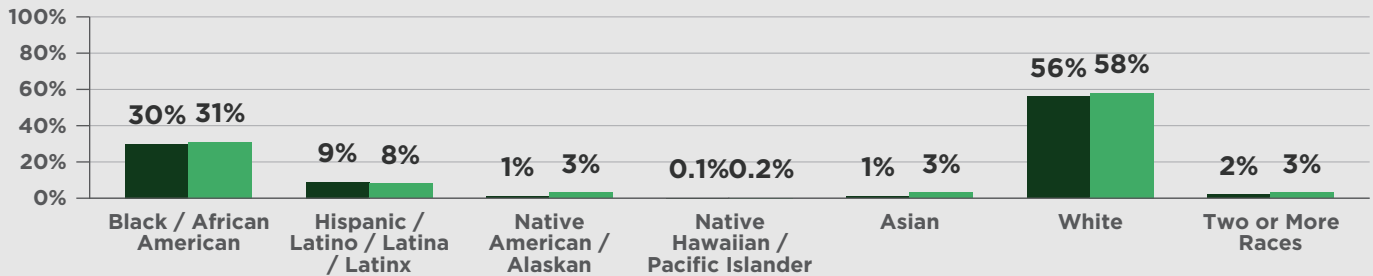
Participation in Foundational High School Computer Science by Student Demographics

5.7% of high school students took foundational computer science in 2022-2023

39% of students who took foundational computer science were female



Enrollment by Race / Ethnicity



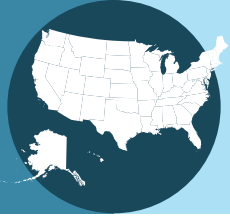
Students of all racial and ethnic groups are similarly likely to take foundational computer science

- Student Demographics 9-12
- Participation in Foundational Courses

K-12 Access and Participation in Computer Science

90% of middle schools** are teaching foundational computer science education, with an enrollment of 22,381 students.

**94% of middle schools reported course offerings and among those schools 90% reported teaching foundational computer science



UNITED STATES

Percentage of Public High Schools Offering Foundational Computer Science Nationally

