



Georgia

2020 State of Computer Science Education: Illuminating Disparities

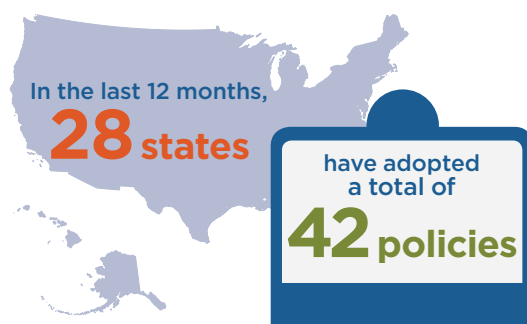
Computer science education is more important than ever. The COVID-19 pandemic has highlighted our society's reliance on computing and its power to help businesses innovate and adapt, yet at the same time has surfaced greater disparities for students studying computer science. Computing is the number one source of all new wages in our economy, and there are currently 400,000 open computing jobs across the United States. Yet the U.S. education system does not provide widespread access to this critical subject.

Although access to computer science is key to addressing the equity issues in society, only 47% of our nation's high schools teach foundational computer science. In addition, students from marginalized racial and ethnic groups, students in Title I schools, and students from rural areas are less likely to attend a school that provides access to this critical subject.

States are working to broaden participation in computer science by passing policies to make computer science a fundamental part of the K-12 education system. In addition to adopting more policies, state education leaders extend and innovate on previously adopted policies: continuing to fund

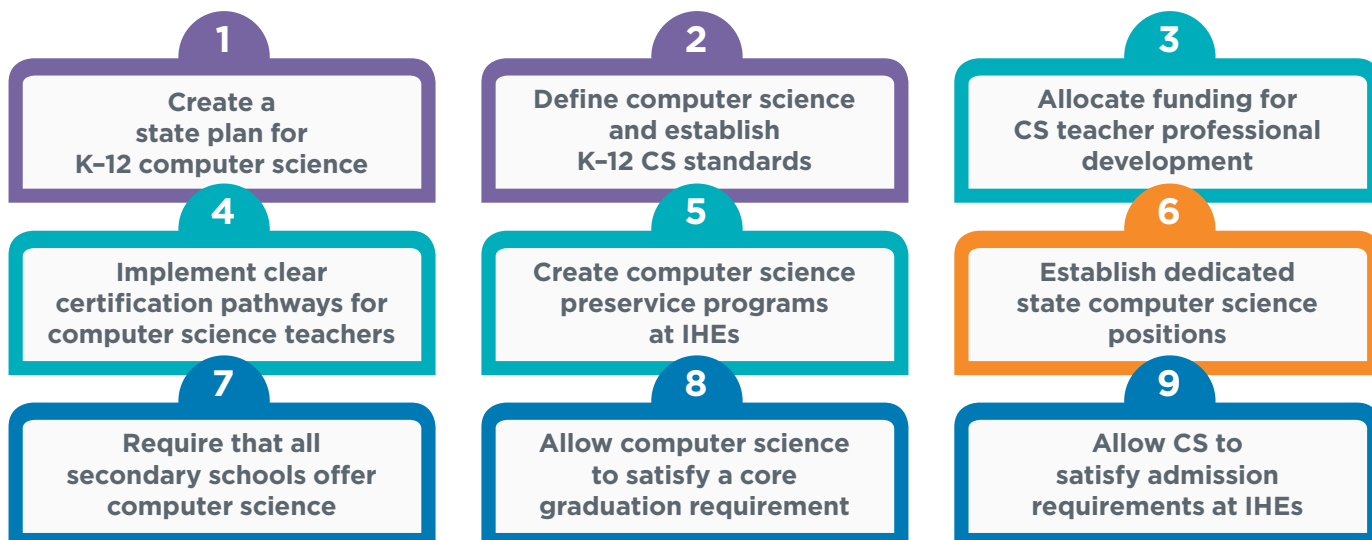
computer science education, supporting teachers and students, and providing leadership and guidance.

States that have adopted more of these nine policies have a larger percentage of high schools teaching computer science. States that have funded K-12 computer science professional learning have higher implementation rates than states that have not provided direct funding.



Pursuing an access agenda to K-12 computer science provides policymakers a rare opportunity to address equity, workforce, and education issues on a bipartisan basis. States should enact or expand on all nine of these education policies in order to provide opportunities for all students regardless of where they live, their race/ethnicity, gender, or socioeconomic status.

Nine Policies to Make Computer Science Fundamental





Georgia Computer Science Policy

State Plan

Yes

The Georgia Department of Education developed a state plan for expanding computer science in 2018. The plan includes strategies to build diversity in computer science education, which includes rural and economically challenged communities.

Standards

In Progress

Although Georgia does not yet have a discrete set of rigorous computer science standards across K-12, K-8 computer science standards were adopted in 2019. The state could strengthen its computer science programs by publicly adopting discrete standards for computer science focused on both the creation and use of software and computing technologies at all levels of K-12 education. These standards can be guided by the concepts, practices, and recommendations in the K-12 Computer Science Framework, found at <http://www.k12cs.org>.

Funding

Yes

HB 793 (FY 2021) and HB 31 (FY 2020) appropriated \$656.5K and \$750K for the grant program established by SB 108 (FY 2019). HB 683 (FY 2018) appropriated \$500K for middle school coding and teacher professional development. In FY 2016, the Governor's Office of Student Achievement Innovation Funds allocated \$250K for the expansion of computer science.

Certification

Yes

In Georgia, teachers with existing licensure can obtain a 6-12 academic endorsement by passing the Georgia GACE Computer Science Assessment. An initial license in computer science requires completing a state-approved program.

Preservice

Yes

The Georgia Department of Education has approved teacher preparation programs leading to certification in computer science and lists these programs publicly.

CS Supervisor

Yes

The Georgia Department of Education has a Computer Science Education Program Specialist.

All HS Offer

Yes

SB 108 (2019) required all high schools to offer computer science beginning in the 2024-2025 school year. The state set incremental requirements for each year, requiring that at least one high school in each local school system offers a course by the 2022-2023 school year, and half of all high schools offer a course by the 2023-2024 school year. Further, all middle and elementary schools must offer instruction in exploratory computer science by the 2022-2023 school year.

Grad Credit

Yes

Of the approved computing courses in Georgia, nine can count as the fourth mathematics credit or the fourth science credit for graduation.

IHE Admission

Yes

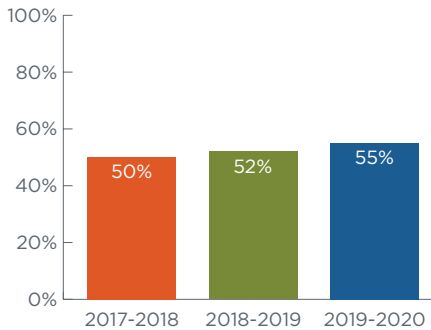
Computer science can count as a science or foreign language credit required for admission at institutions of higher education, which aligns with Georgia's high school graduation policy.

Georgia is a member of the ECEP Alliance and has a CSTA chapter.

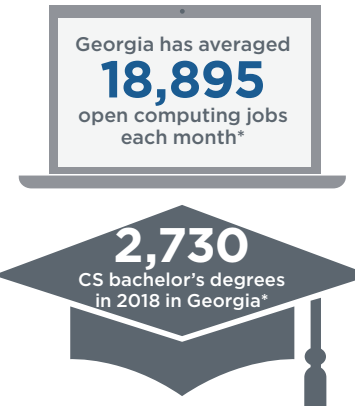
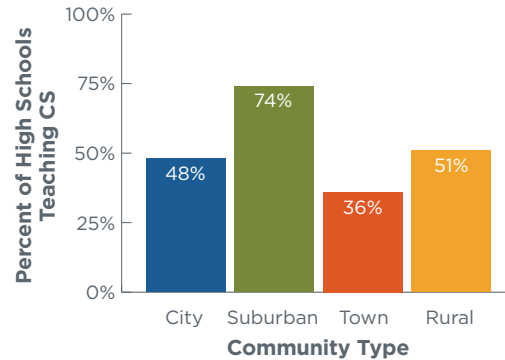


Computer Science Access and Participation in Georgia

High Schools Teaching CS

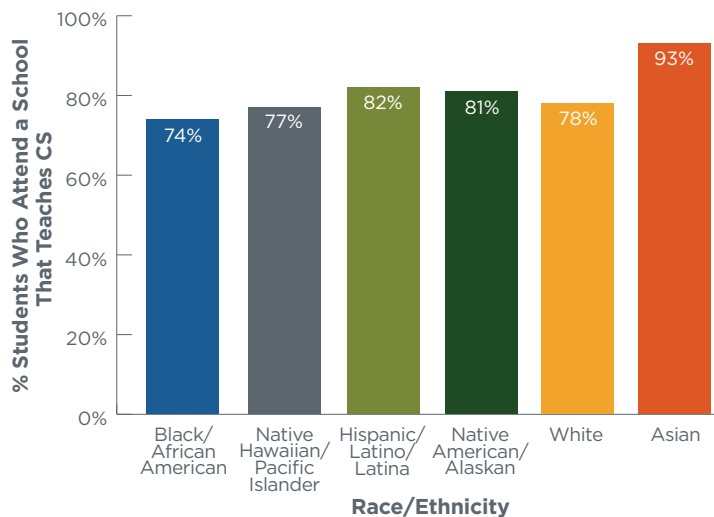


Percent of High Schools Teaching CS by Community Type

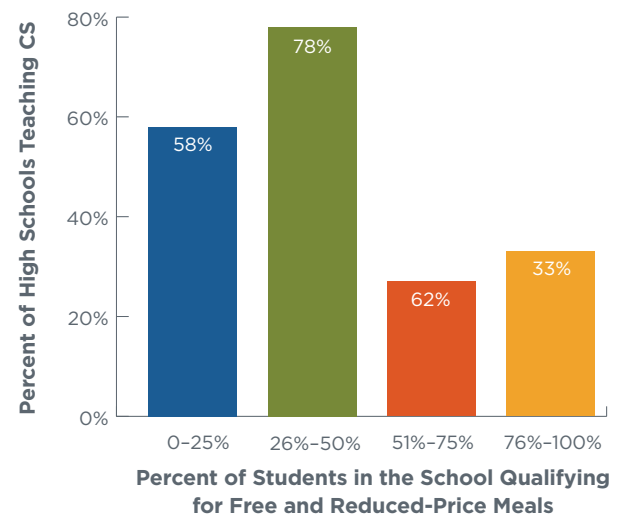


* Sources: The Conference Board and the National Center for Education Statistics

Race/Ethnicity and Access to Computer Science

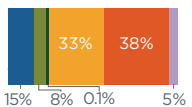


Income Level and Access to CS

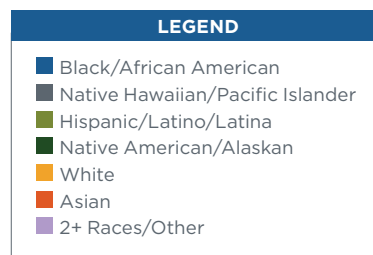
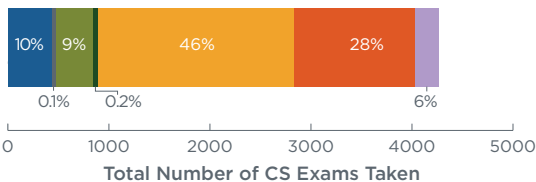


AP CS Participation by Race/Ethnicity and Gender

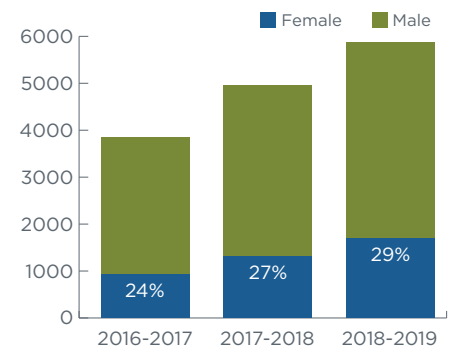
Female Students



Male Students



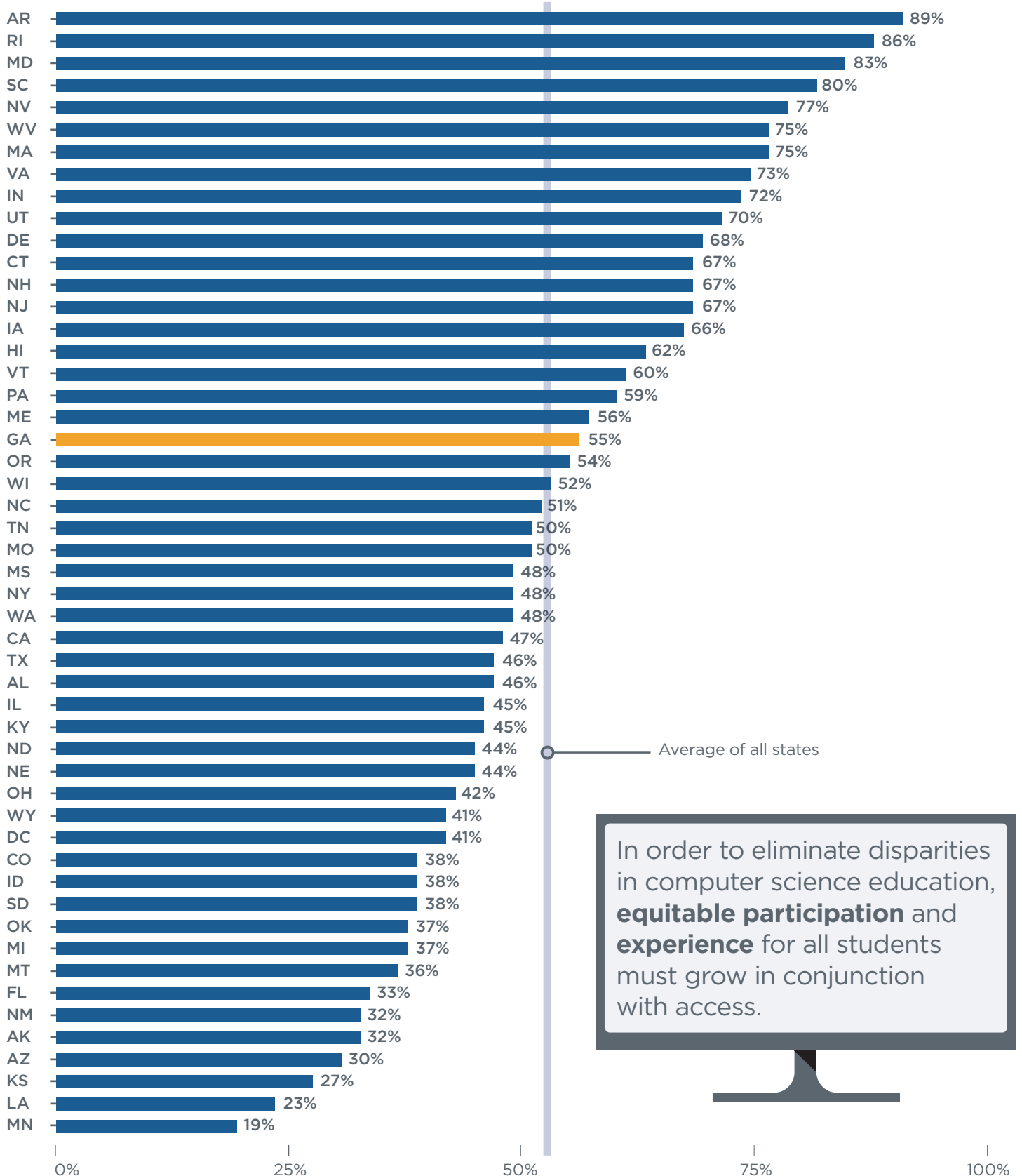
AP CS Student Participation



Black/African American students are 1.5 times less likely than their white and Asian peers to attend a school that offers AP CS, and 3.6 times less likely to take an AP CS exam when they attend a school that offers it. Hispanic/Latino/Latina students are 3 times less likely than their white and Asian peers to take an AP CS exam when they attend a school that offers it.



Percent of High Schools Teaching Computer Science by State



For more details on policy, access, and participation, see the full 2020 State of Computer Science Education report at advocacy.code.org/stateofcs

