



# Kansas

## 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

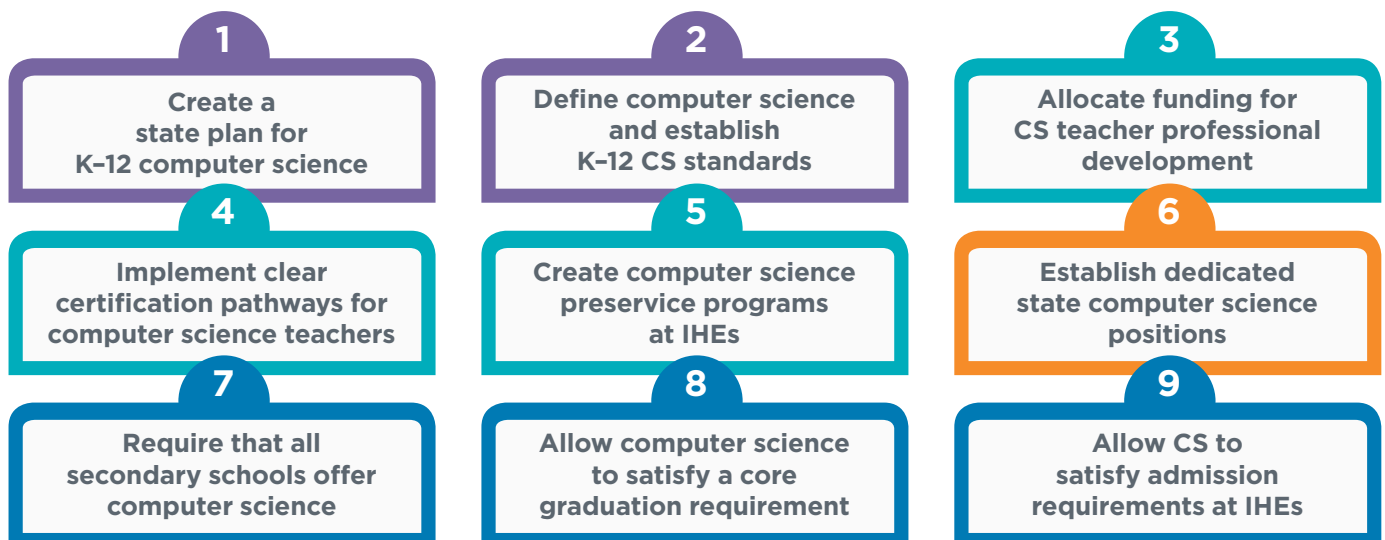
computer science education, supporting teachers and students, and providing leadership and guidance.

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. All nine policies can promote access to and equity within rigorous and engaging computer science courses when stakeholders make equity an explicit focus on policy development and implementation monitoring.

### Nine Policies to Make Computer Science Fundamental





# Kansas Computer Science Policy

## State Plan

No

Although Kansas has not yet created a plan for K-12 computer science, the State Board of Education adopted five policy recommendations from the Department of Education's Computer Science Education Task Force in 2020. A plan that articulates the goals for computer science, strategies for accomplishing the goals, and timelines for carrying out the strategies is important for making computer science a fundamental part of a state's education system.

## Standards

Yes

Kansas adopted preK-12 computer science standards in 2019. A primary goal of the standards is to increase the availability of rigorous computer science for all students, especially those who are members of underrepresented groups.

## Funding

No

Kansas does not yet provide dedicated funding for rigorous computer science professional development and course support. Although funds may be available via broader programs, the state can strengthen its computer science programs by creating specific opportunities to bring computer science to school districts, such as matching fund programs.

## Certification

No

Kansas does not yet have clear certification pathways for computer science teachers. The expansion of K-12 computer science education is hampered by the lack of qualified computer science teachers. We can grow their ranks by creating clear, navigable, and rewarding professional paths for computer science teachers.

## Preservice

No

Kansas has not yet established programs at institutions of higher education to offer computer science to preservice teachers. The computer science teacher shortage can be addressed by exposing more preservice teachers to computer science during their required coursework or by creating specific pathways for computer science teachers.

## CS Supervisor

Yes

The Kansas Department of Education has a Computer Science Education Program Consultant.

## All HS Offer

No

Kansas does not yet require that all secondary schools offer computer science. The state can support the expansion of computer science courses by adopting policies that require schools to offer a computer science course based on rigorous standards, with appropriate implementation timelines and allowing for remote and/or in-person courses.

## Grad Credit

No

Kansas does not yet allow computer science to count for a core graduation requirement, although the State Board of Education directed the department to develop the policy. States that count computer science as a core graduation requirement see 50% more enrollment in their AP Computer Science courses and increased participation by students from marginalized racial and ethnic groups underrepresented in computer science.

## IHE Admission

No

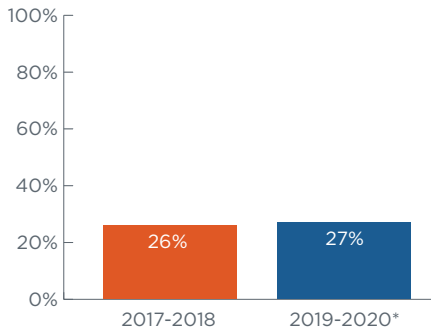
Kansas does not yet allow computer science to count as a core admission requirement at institutions of higher education. Admission policies that do not include rigorous computer science courses as meeting a core entrance requirement, such as in mathematics or science, discourage students from taking such courses in secondary education. State leaders can work with institutions of higher education to ensure credit and articulation policies align with secondary school graduation requirements.

Kansas has a CSTA chapter.



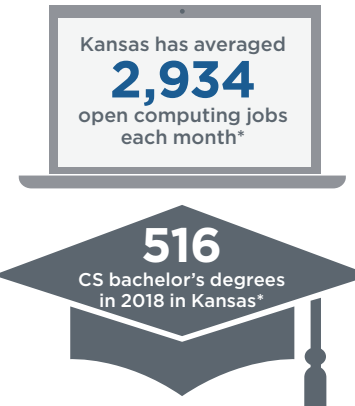
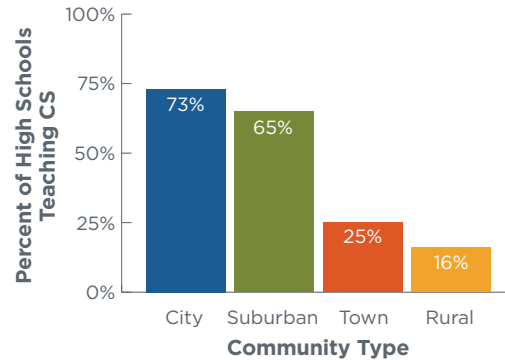
# Computer Science Access and Participation in Kansas

## High Schools Teaching CS



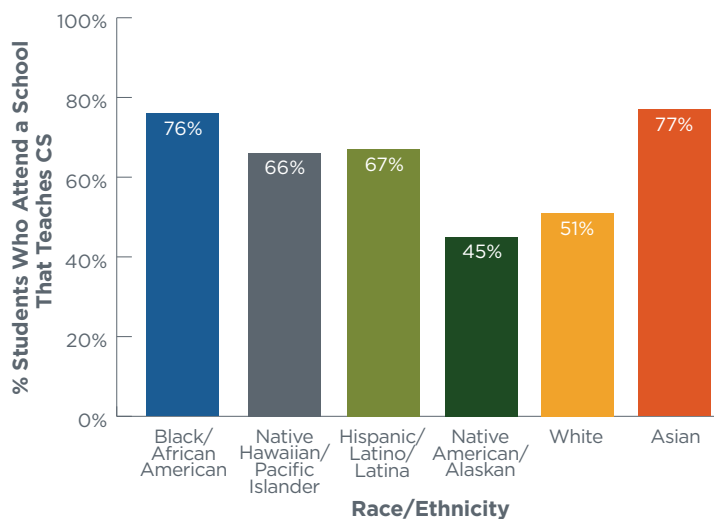
\*Data was not collected for the 2018-2019 school year

## Percent of High Schools Teaching CS by Community Type

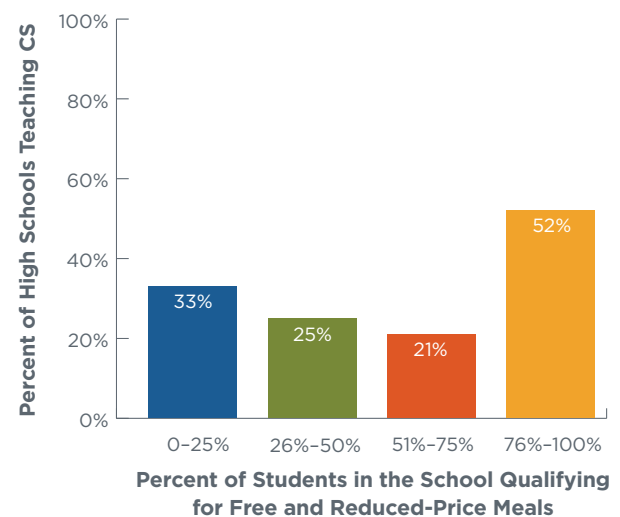


\*Sources: The Conference Board and the National Center for Education Statistics

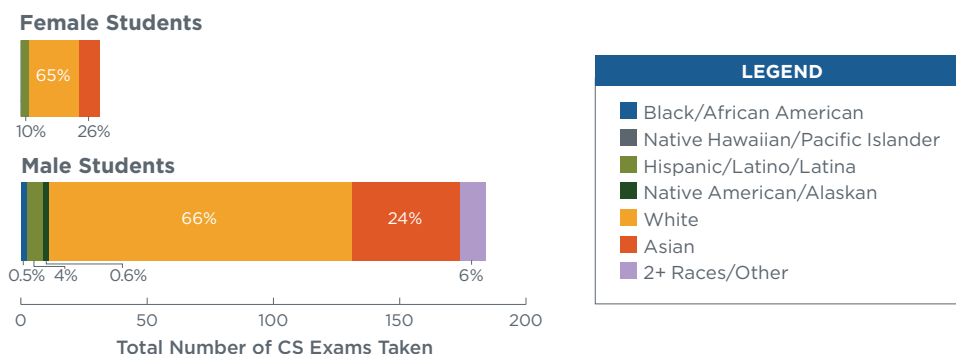
## Race/Ethnicity and Access to Computer Science



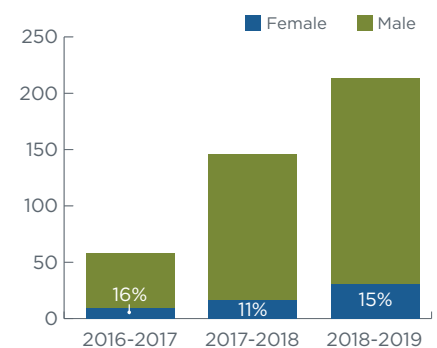
## Income Level and Access to CS



## AP CS Participation by Race/Ethnicity and Gender



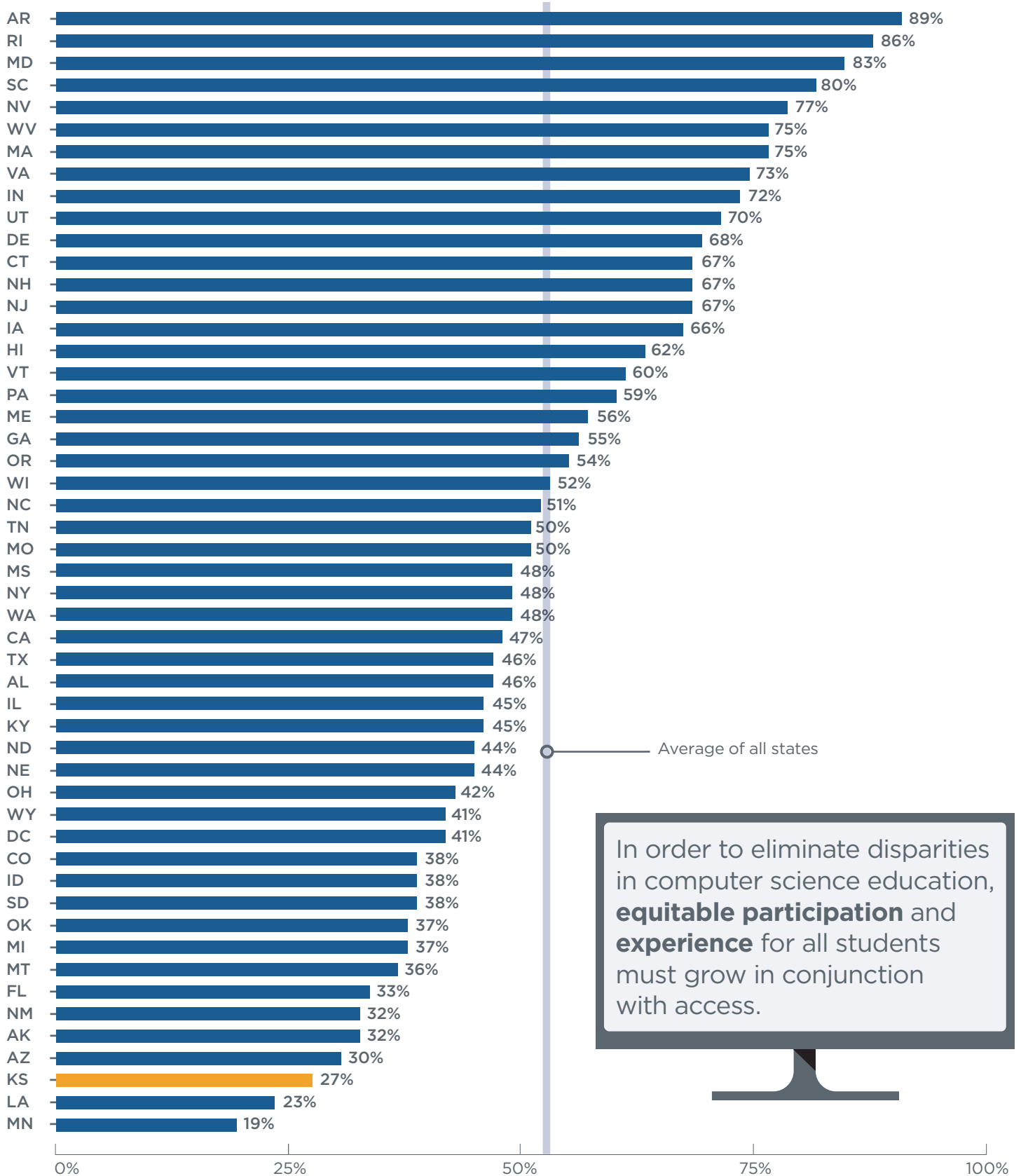
## AP CS Student Participation



Although Hispanic/Latino/Latina students make up 20% of the overall student population, only 4 Hispanic/Latino/Latina students took an AP CS exam. Black/African American students make up 7% of the overall student population, but only 1 Black/African American student took an AP CS exam.



# 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](https://advocacy.code.org/stateofcs)

