

# **Florida**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

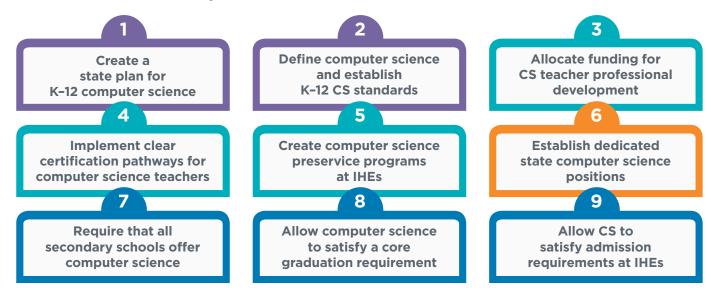
computer science education, supporting teachers and students, and providing leadership and guidance.

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





### **Florida Computer Science Policy**

#### **State Plan**

No

Florida has not yet created a state plan for K-12 computer science. 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

Florida adopted K-12 computer science standards as a strand within the state science standards in 2016. Benchmarks within each grade band address concepts of equity, such as bias, accessible technology, and inclusivity.

#### **Funding**

Yes

HB 5001 (FY 2021) and SB 2500 (FY 2020) allocated \$10M annually for computer science teacher certification and professional development. SB 7070 (FY 2019) established recruitment awards for newly hired teachers who are content experts in computer science.

### Certification

Yes

In Florida, teachers can obtain the K-12 certification as an initial license or an add-on endorsement through academic coursework. State funding for computer science can be used to support credentialing for teachers.

#### **Preservice**

No

Florida 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 Florida Department of Education has a Computer Science Program Specialist.

### All HS Offer

Yes

HB 495 (2018) required all middle and high schools to offer computer science or provide students access via the Florida Virtual School if a district is unable to provide access.

#### **Grad Credit**

Yes

In Florida, computer science can count as a math or science credit for graduation (HB 7071 in 2019 removed the industry certification requirement).

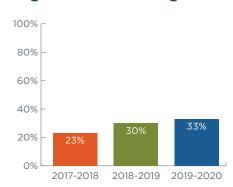
### **IHE Admission**

No

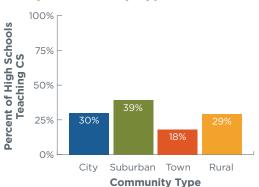
Florida does not yet allow computer science to count as a core admission requirement at institutions of higher education. Admission policies that do not include rigorous computer science courses as meeting a core entrance requirement, such as in mathematics or science, discourage students from taking 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.

Florida has CSTA chapters.

### **High Schools Teaching CS**



### Percent of High Schools Teaching CS by Community Type



Florida has averaged
23,268
open computing jobs
each month\*

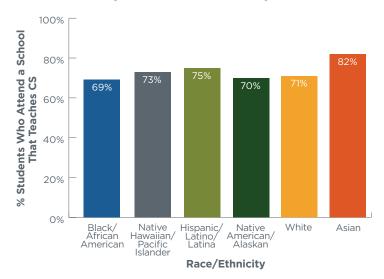


\* Sources: The Conference Board and the National Center for Education Statistics

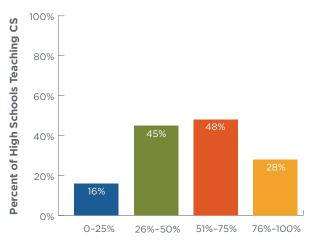


## Computer Science Access and Participation in Florida

### **Race/Ethnicity and Access to Computer Science**

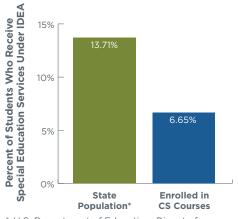


### **Income Level and Access to CS**



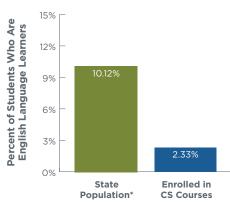
Percent of Students in the School Qualifying for Free and Reduced-Price Meals

### Students with Disabilities and Participation in CS



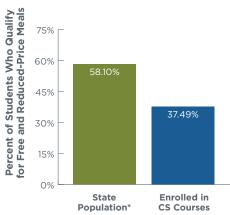
#### \* U.S. Department of Education, Digest of Education Statistics Table 204.70, 2017–2018

### **English Language Learners and Participation in CS**



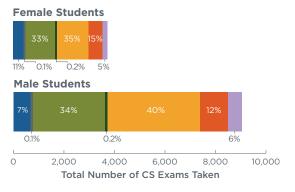
\* U.S. Department of Education, Digest of Education Statistics Table 204.20, fall 2017

### **Economically Disadvantaged Students and Participation in CS**



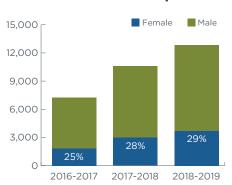
\* U.S. Department of Education, Digest of Education Statistics Table 204.10, 2016–2017

### AP CS Participation by Race/Ethnicity and Gender





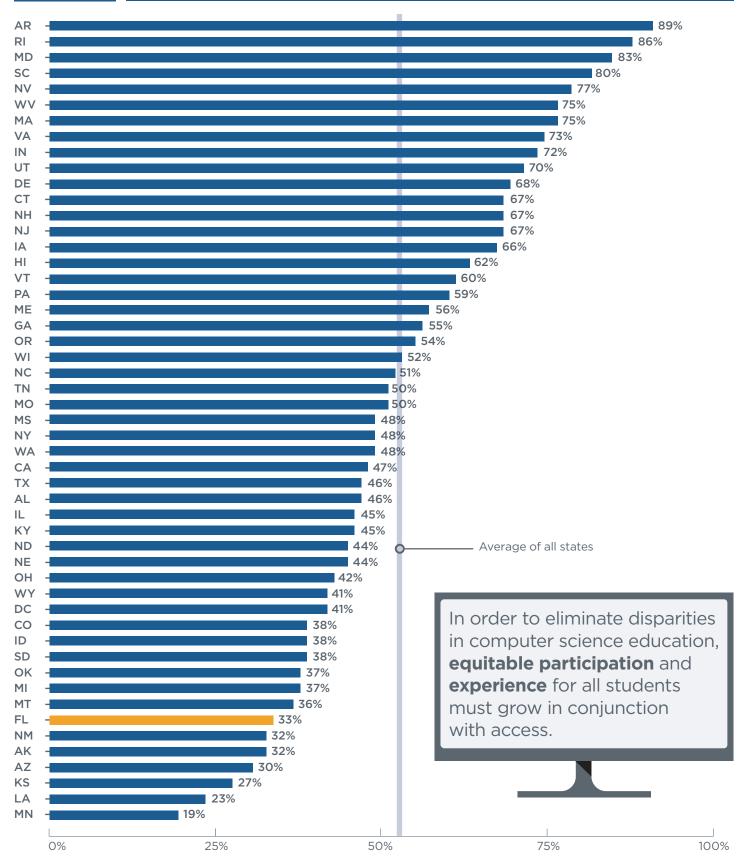
### **AP CS Student Participation**



Students of all racial and ethnic groups have access to AP CS on par with their state population, but Black/African American students are 2.7 times less likely and Native American/Alaskan students are 2 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





