

## **Idaho**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

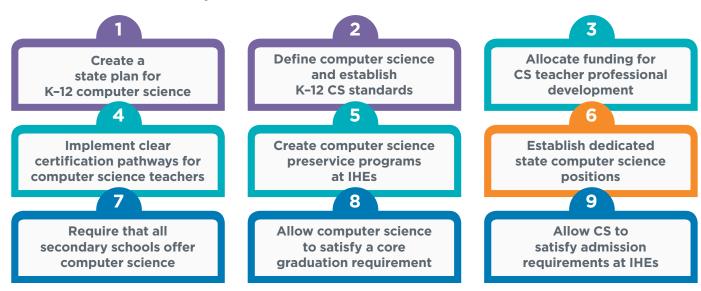
computer science education, supporting teachers and students, and providing leadership and guidance.

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**





#### **Idaho Computer Science Policy**

#### **State Plan**

Yes

The Idaho STEM Action Center and Idaho Digital Learning Academy developed the Idaho Computing Technology K-12 CS State Plan in 2018. The plan includes goals and strategies to increase access for female students, rural students, low-income students, and students from marginalized racial and ethnic groups underrepresented in computer science.

#### **Standards**

Yes

Idaho adopted K-12 computer science standards based on the CSTA standards in 2017. Standards within each grade band address concepts of equity, such as bias, accessible technology, and inclusivity.

#### **Funding**

Yes

H0331 (FY 2021) allocated \$500K, H0215 (FY 2020) allocated \$1M, and H0669 (FY 2019), H0298 (FY 2018), and H0379 (FY 2017) allocated \$2M annually for the expansion of computer science.

#### Certification

Yes

In Idaho, teachers with existing licensure can obtain a 6-12 or 5-9 endorsement by passing the Praxis CS exam. An initial license in computer science requires completing a state-approved program and passing the exam. A 6-12 CTE Occupational Specialist certification in computer science can be obtained with industry experience.

#### **Preservice**

Yes

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

#### **CS Supervisor**

Yes

The Idaho Governor's STEM Action Center has a Computer Science Program Manager.

#### **All HS Offer**

Yes

H648 (2018) required each school district to make one or more computer science courses available to all high school students by FY 2020. Students must have the option of taking the course as part of their course schedule during normal instructional hours at the school where the student is enrolled. Courses may be offered through virtual education programs and online courses, traditional in-person courses, or a combination of online and in-person instruction.

#### **Grad Credit**

Yes

In Idaho, AP Computer Science or dual-credit computer science can count as one mathematics (after completion of Algebra II) or up to two science credits for graduation.

#### **IHE Admission**

Yes

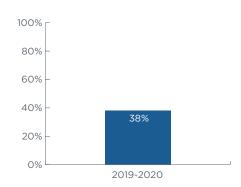
Under certain conditions, computer science can count as a mathematics or science credit required for admission at institutions of higher education in Idaho.

Idaho has a CSTA chapter.



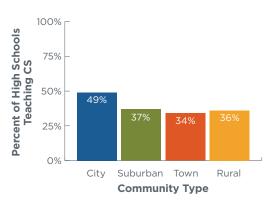
## Computer Science Access and Participation in Idaho

#### **High Schools Teaching CS**



\*May not reflect all courses the state defines as computer science

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

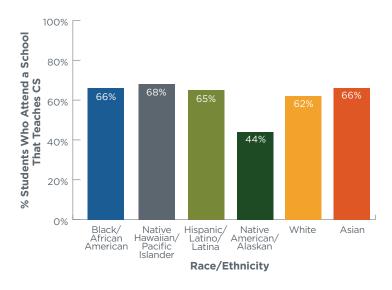


18,895
open computing jobs each month\*

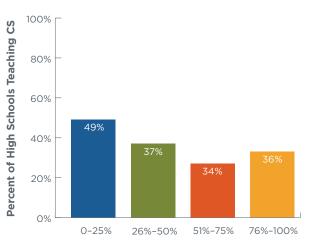


\*Sources: The Conference Board and the National Center for Education Statistics

#### **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

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

# Female Students 17% 66% 18 11% 6% Male Students 15% 69% 8% 6% 0 50 100 150 200 250 300 350 Total Number of CS Exams Taken



## 500 Female Male 400 300 100 29% 21%

2017-2018

2018-2019

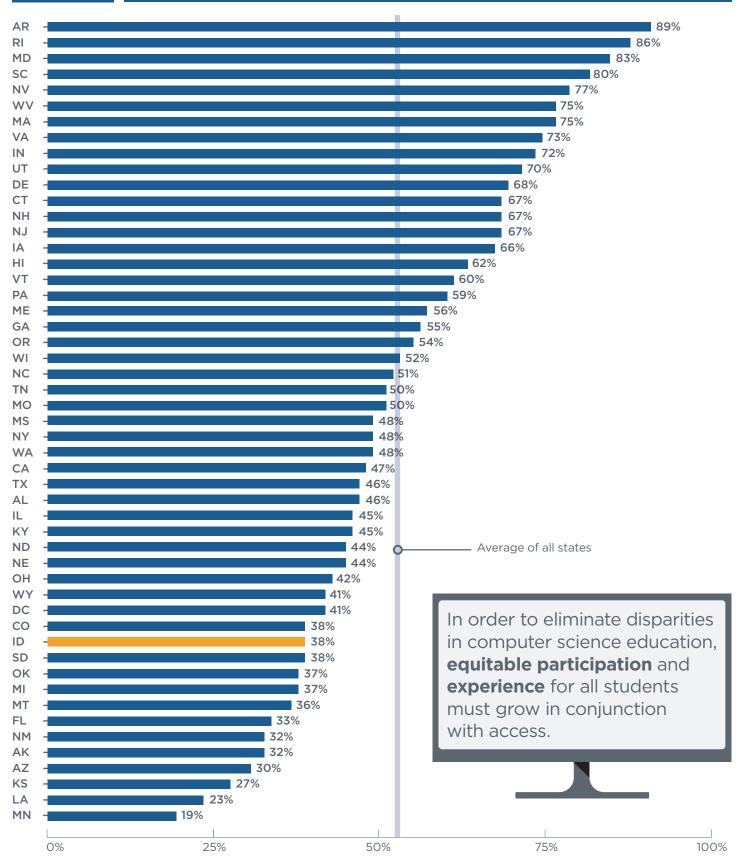
2016-2017

**AP CS Student Participation** 

Native American/Alaskan students are 2 times less likely than their white and Asian peers to attend a school that offers AP CS, and 2.3 times less likely to take an AP CS exam when they attend a school that offers it. Hispanic/Latino/Latina students are 1.5 times less likely 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





