

2022 State of Computer Science Education

The tremendous growth of computer science (CS) education has significantly slowed during the COVID-19 pandemic, with few schools able to add new classes to the curriculum. Now, in 2022, it is time for policymakers to reassess the knowledge, skills, and curricula that will engage students, support learning objectives, and prepare students for their post-school lives.

Just over half (53%) of high schools in the U.S. offer a single computer science course. Although this represents significant growth (from 35% in 2018), the number of schools offering CS—a foundational subject that is critical to the nation’s economy and security—has grown by just two percent in the past year. State and federal policy can accelerate growth in computer science education by reexamining the foundational needs for all our K-12 students. Policymakers and school decision-makers must answer this call to ensure all students have equitable access to computer science education.

Colorado by the Numbers

19,324

In 2022, CO averaged 19,324 open computing jobs each month

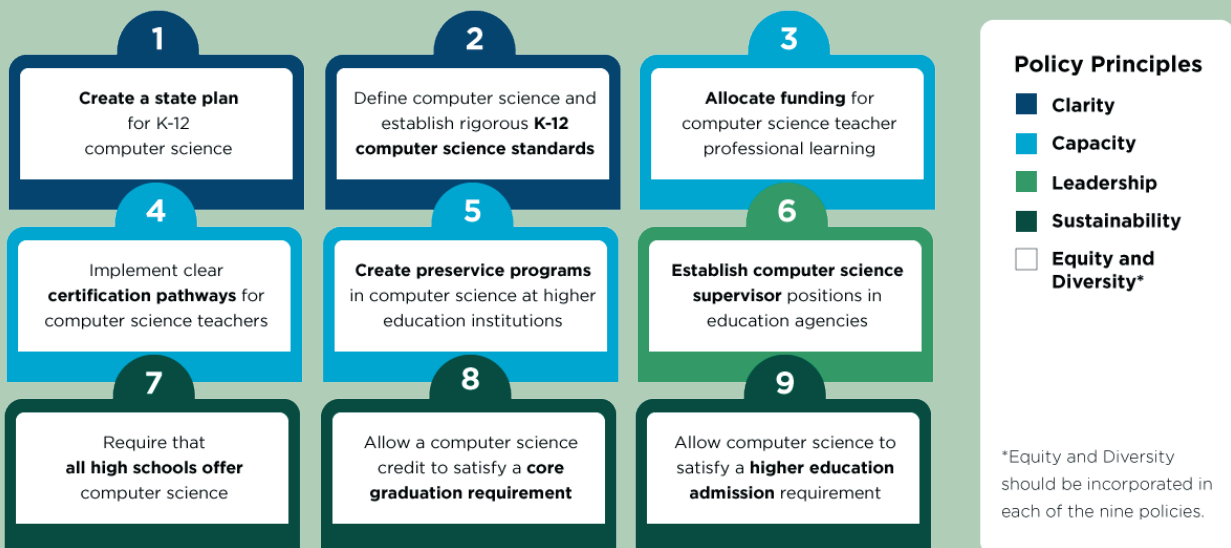
\$101,518

These jobs have an average salary of \$101,518

1,355

Yet there were only 1,355 graduates in computer science in 2019

Nine Policies to Make Computer Science Fundamental



Colorado

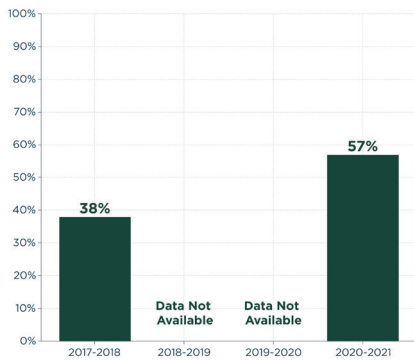
Policies to Make CS Fundamental

State Plan X NO	Standards X NO	Funding ✓ YES
Certification X NO	Preservice X NO	State CS Position ✓ YES
Require HS to Offer X NO	Can Count DISTRICT DECISION	Admissions ✓ YES

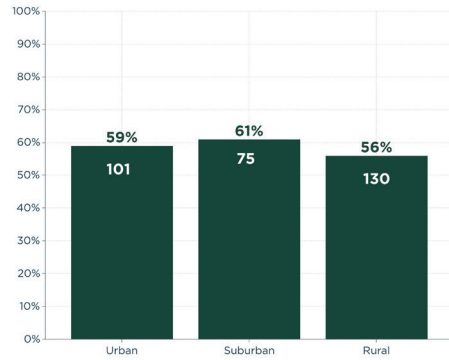
77.4% of CO high school students attend a school that offers foundational computer science. Of the 2,584 AP CS exams taken in Colorado in school year 2020-21, **26% were female**. Course enrollment data for all foundational computer science courses is not available from Colorado. Nationally, we know that participation in all foundational computer science courses is broader than AP participation.

Percentage of Public High Schools Offering Foundational Computer Science

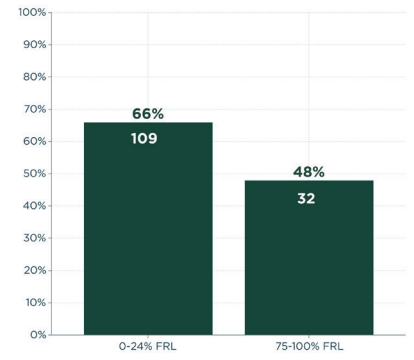
Access by School Year



Access by Geography



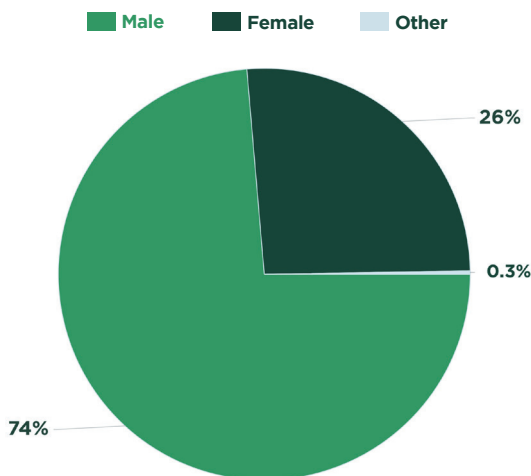
Access by % FRL in the School



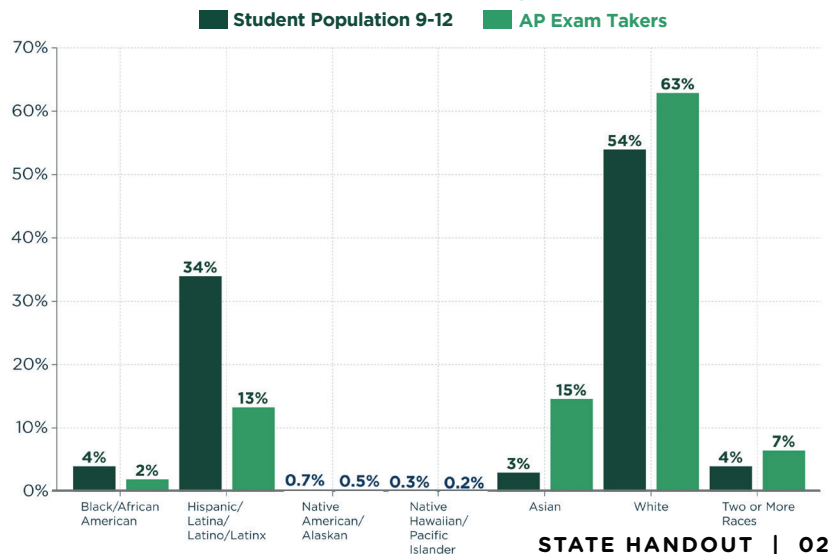
Data provided primarily by the Department of Education, based on 535 schools with high school grades. The state reports low-income students rather than students who qualify for free and reduced-price meals. Participation data was masked at low counts.

Participation in AP Computer Science Exams by Demographic

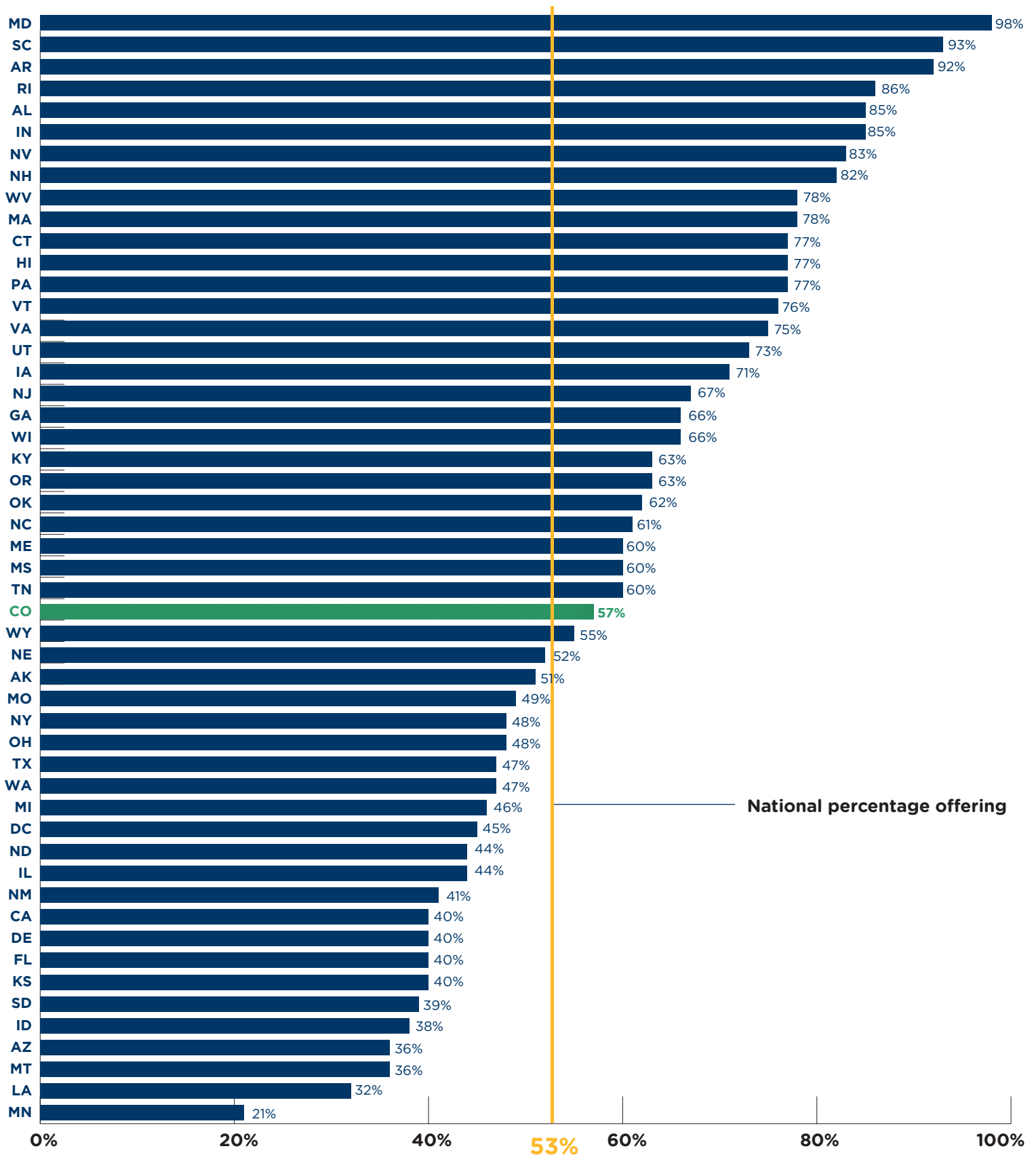
Gender



Race/Ethnicity



Percentage of High Schools Offering Computer Science, by State*



*for the most recent school year reported by each state