2023 State of Computer Science Education

The rapid pace of technological advancement, as seen with the widespread integration of generative artificial intelligence (AI), underscores the need for foundational knowledge in computer science for all students. This report calls upon advocates to embrace the urgency of this matter and revamp school curricula to align with the demands of the 21st century, including requiring that all students learn computer science.

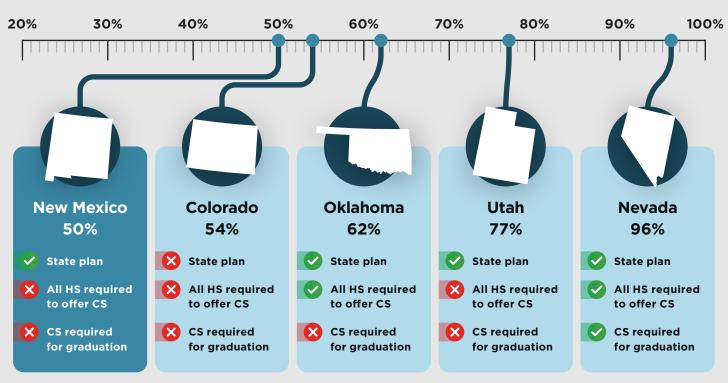
Currently, 57.5% of public high schools in the United States (U.S.) offer a foundational computer science class—an achievement marking the largest percentage growth in the last five years. Across the 35 states* where data is available, 5.8% of high school students are enrolled in foundational computer science. Even with growing access this growth, large disparities still exist, and we must continue to focus on eliminating participation gaps.

2,744
In 2023, NM averaged 2,744 open computing jobs each month

\$89,290
These jobs have an average salary of \$89,290

*AL, AR, AZ, CT, FL, GA, HI, IA, ID, IL, IN, KS, KY, LA, MA, MD, MS, NC, ND, NE, NJ, NM, NV, NY, OK, OR, PA, RI, TN, TX, UT, VA, VT, WV, WI

Comparative Access to Computer Science Courses (percentage of high schools offering)





Ten Policies to Make Computer Science Foundational

1.

Create a **statewide plan** for K-12 computer science

2.

Define computer science and establish standards for K-12 computer science

3.

Allocate funding for rigorous computer science teacher professional learning 4.

Implement clear certification pathways for computer science teachers at elementary and secondary levels

5.

Create university programs to encourage all preservice teachers to gain exposure to computer science

6.

Establish **dedicated computer science** positions in a state education agency

7.

Require that all schools offer computer science with appropriate implementation timelines 8.

Allow computer science to count toward a core graduation requirement

9.

Allow computer science to satisfy an admission requirement at higher education institutions 10.

Require that all students take computer science to earn a high school diploma

What Has New Mexico Done to Advance Computer Science Education?

The New Mexico Public Education
Department developed a state plan
for expanding computer science
education in 2021.

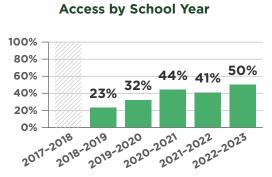
New Mexico adopted the CSTA K-12 standards in 2018. Standards within each grade band address algorithmic bias, accessible technology, and inclusivity.

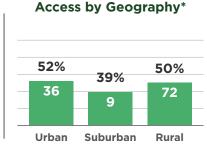
How Can New Mexico Increase Opportunities for Students?

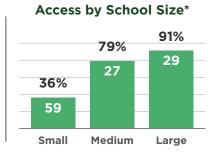
New Mexico should require all high schools to offer at least one computer science course.

New Mexico should require all preservice teachers to receive instruction in computer science education.

Percentage of Public High Schools Offering Foundational Computer Science







*Data is from the most recent data school year 2022-2023

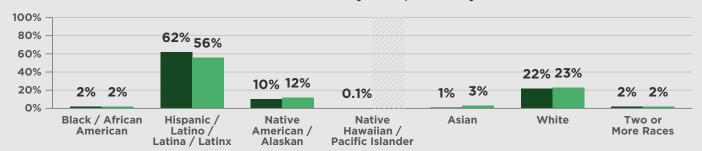
Participation in Foundational High School** Computer Science by Student Demographics

3.0% of high school students took foundational computer science in 2022-2023

31% of students who took foundational computer science were female

Enrollment by Subgroup 100% 72% 80% 60% 28% 40% 17% 10% 16% 15% 1% 2% 20% 0% **English Economically Students Students** Disadvantaged with 504 Under Language Plans **IDEA** Learners Students

Enrollment by Race / Ethnicity



Students of all racial and ethnic groups are similarly likely to take foundational computer science

Student Demographics 9-12

Participation in Foundational Courses

UNITED STATES

Percentage of Public High Schools Offering Foundational Computer Science Nationally

