



WHY COMPUTER SCIENCE IN CALIFORNIA?

CSforCA Mission:

Lead the charge for equitable and accessible computer science education in California. Far too often, gender identity, ethnicity, income-level, or zip-code determine who is able to access and participate in computer science education.

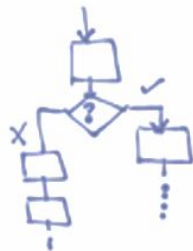
CSforCA Goal:

To ensure all high schools in CA will provide all students with access to, and engagement in, high-quality computer science education that empowers them to thrive in college, careers, and community engagement.

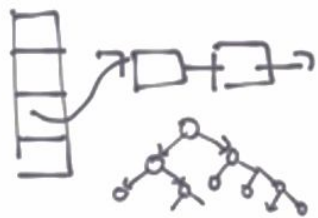


A young boy with short dark hair, wearing a blue long-sleeved shirt, is sitting at a white desk in a classroom. He is leaning forward, looking intently at a tablet computer. His right hand is touching the screen, which displays a colorful data visualization with various charts and graphs. In the background, another student in a red shirt is partially visible, also working at a desk. The classroom setting includes a blue carpet and a metal chair.

WHAT IS COMPUTER SCIENCE?



Algorithms



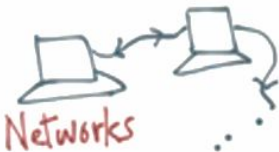
Data Structures



Computer Architecture



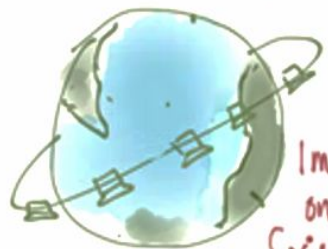
Human
Computer
Interaction



Networks



Impact
on
Society



Databases



Artificial Intelligence
Robotics



Operating Systems



Programming
= "Coding"

<code>



Theory of computation

COMPUTER SCIENCE

is more than coding

WHAT IS COMPUTER SCIENCE?

Computer science \neq education technology

Computer science \neq digital literacy

Computer science \neq just coding

Computer science is:

“The study of computers and algorithmic processes, including their principles, their hardware and software designs, their applications, and their impact on society.”

(Tucker et. al. 2006, p. 2, as seen in the California CS Standards Introduction, 2018, p. 10 & the California CS Strategic Implementation Report, 2019, p.6)





Riverside Unified
School District

CS PREPARES STUDENTS FOR COLLEGE, CAREERS, & COMMUNITY ENGAGEMENT

CS teaches core 21st century skills and basic literacies for all fields of study:

- + **Problem Solving**
- + **Collaboration and Creativity**
- + **Computational Thinking**
- + **Technological Innovation**



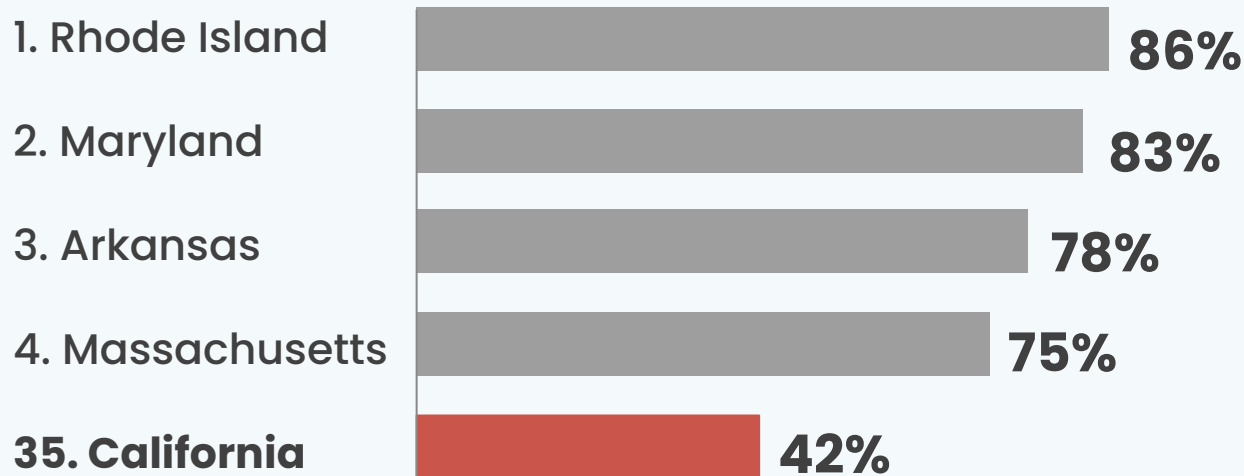
COMPUTER SCIENCE IS FOUNDATIONAL FOR ALL CALIFORNIANS

Computer Science education is critical to the success of:

- + **Our students**
- + **Our state**
- + **Our society**

California ranks **35th**

in states offering at least one high school CS course.



OUR STATE NEEDS CS

California is the 5th largest economy in the world and leads the nation in tech and employment across all fields.

Technology affects **every** industry.





OUR SOCIETY NEEDS CS

CS education encourages youth to create innovations for the world's toughest challenges and helps students understand and think critically about the impact of technology through topics such as:

- + **Ethics**
- + **Data**
- + **Cybersecurity**
- + **Artificial Intelligence**

A group of four students are gathered around a table, focused on a small electronic circuit board. One student in the foreground is holding the board, while others look on with interest. A laptop is open on the table, and various wires and components are visible. The scene is brightly lit, suggesting a classroom or workshop environment.

WHAT IS EQUITY IN CS?

EQUITY IN CS

Without equity in computer science, we see problems like:

- + **Unequal Opportunities**
- + **Algorithmic Bias**
- + **Income Inequality**
- + **Lack of Diversity and Inclusion**





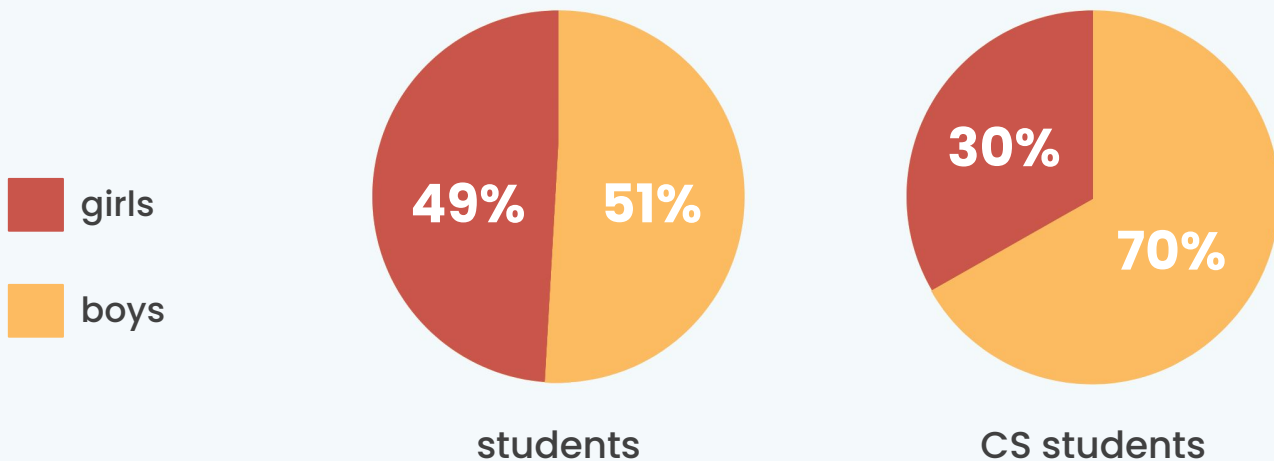
CS EDUCATION DOES NOT REFLECT CALIFORNIA'S DIVERSITY

Girls, students in low-income schools, Black and Brown students, & rural communities do not have access to the same high-quality computer science education as their peers.

SMASH Berkeley

Gender Gap

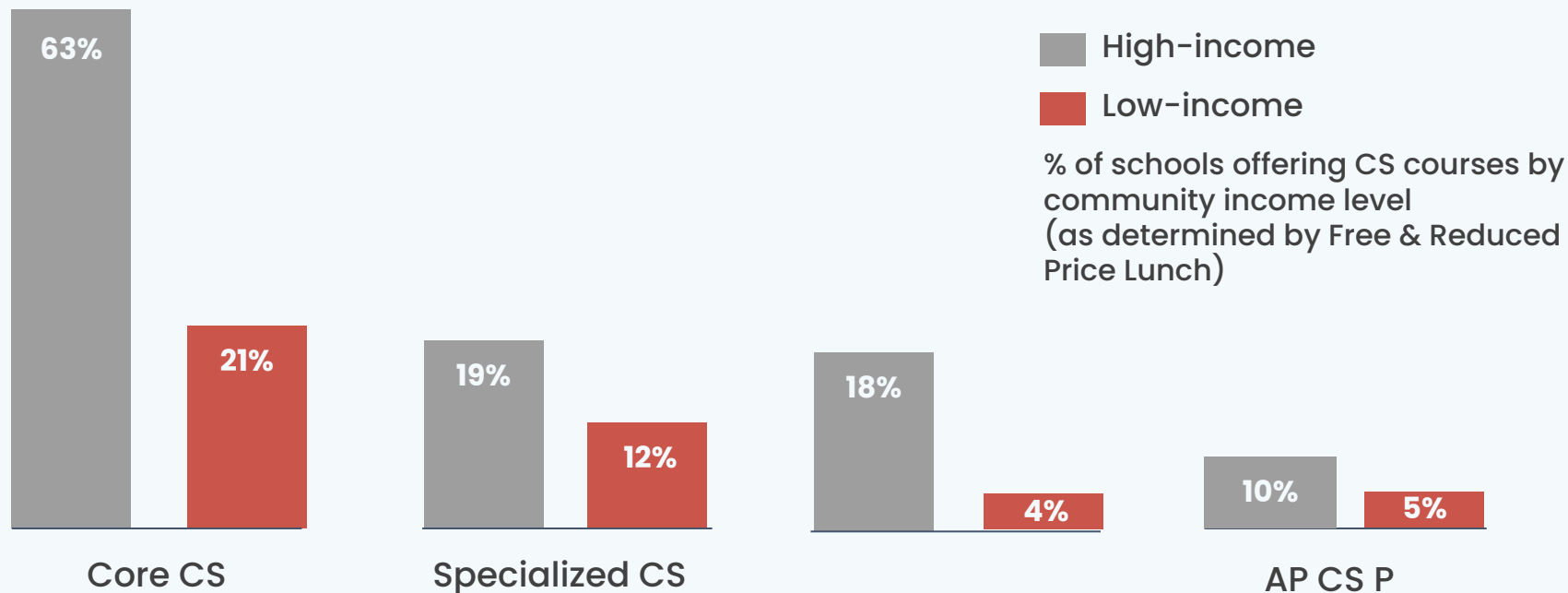
In California, **49%** of students who identify as girls, but only **30%** of CS students identify as girls.*



*Based on self-reported data collected by the California Department of Education

Low-Income Schools

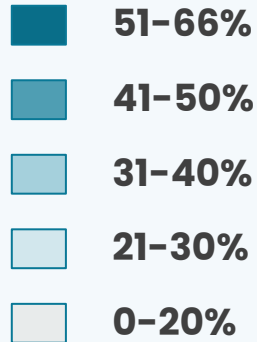
are **half** as likely to offer CS than high-income schools.



Rural Schools

are **half** as likely to offer CS courses than urban schools.

% of high schools offering
CS courses by county



Challenges

Select one challenge. As a group, craft a response to the challenge. Consider:

Pages

5.



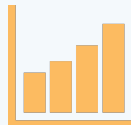
WHAT CAN WE DO?

WHAT CAN WE DO?



GROW THE POOL OF QUALITY CS TEACHERS

Bring professional learning and support to teachers, counselors, and administrators.



LEARN THE DATA

Analyze CS education equity gaps across the state.



ADVOCATE FOR CS

Advocate to the school board, instructional leaders, and elected officials to offer CS.



CONNECT WITH COMMUNITY

Connect with parents, families, and community to build demand and encourage students to take CS.



JOIN CSforCA

Stay informed about California's CS education and equity in CS.





THANK YOU!

www.csforca.org

