

ADVANCING EQUITY IN COMPUTER SCIENCE EDUCATION IN CALIFORNIA.

There are many reasons why equitable computer science education in California is worth fighting for. Far too few California students currently have access to quality computer science classes at their schools and students of color, girls, low-income, and rural students are disproportionately affected. Computer science education provides essential skills that allows students to meaningfully engage in an increasingly technology-driven world.

By building computational and critical thinking skills, computer science can provide students with knowledge applied across all fields and disciplines. Some examples include:

- **Create apps to increase access to healthcare and human services.**
- **Explore ethical implications of technology including data privacy, algorithms, and automation.**
- **Devise operating systems that can increase efficiency in agriculture and improve sustainability.**
- **Learn the ways data can be analyzed to understand complex societal challenges.**

Still, many California students lack access to meaningful opportunities to learn these foundational skills in computer science. If we don't urgently address this issue we will perpetuate an inequitable status quo that serves only a few students while leaving many others behind.

According to the data:

- **Over 60%** of CA high schools offer no computer science courses.
- **Just 3%** of the 1.9M high school students in California took a CS course.
- Schools in low-income areas are **four times less likely** to offer Advanced Placement (AP) Computer Science courses.
- **60%** of California's high schoolers are Black, Latinx, and Native American/Alaskan Native students, but they comprise just **16%** of students taking the AP Computer Science A exam—and shockingly, Black students comprise just **1% of test takers**.
- Female students comprise **50%** of California's high school population, but just **29%** of students taking introductory CS courses. Moreover, only 36 Black girls took AP CS in 2018.

*Sources: California Department of Education (2017);
College Board (2018).*



OUR SOLUTIONS:

Computer Science for California (CSforCA) is a coalition of educators, advocates, industry leaders, nonprofit organizations, and higher education institutions ensuring every California student has access to a high-quality computer science education.

We work to build the political will and urgency needed to inform policymakers to make evidence-based decisions to expand equitable Computer Science programs across California. Our main goal is for every school in California to offer high-quality computer science education by 2025. To achieve this, we offer the following priorities to build infrastructure in our state:

Professional Learning

Create regional hubs of professional development and support for teachers, counselors, and administrators. This could be provided through the development of a California Subject Matter Project devoted to Computer Science and the scaling of the "Summer of CS" a week-long professional development opportunity piloted in 2019.

Pre-Service Teacher Education

Provide incentives for Schools of Education to develop teacher certification pathways including pre-service credentialed programs to teach computer science.

Integrate College & Career Pathways

Integrate college and career pathways to make CS available to all students and include CS as part of a college and career ready indicator on the CA dashboard. Provide funding for all CS courses regardless of pathway or teacher credential.

Teacher Credentialing

Encourage the California Commission on Teacher Credentialing (CCTC) to review computer science teacher credentials including authorizations to teach CS in short-term, while developing a long-term CS credential pathway.

HELP BUILD A BETTER FUTURE FOR ALL CALIFORNIANS.

- **ADVOCATE:** Be part of a grassroots movement to get CS in your school. Find out what your local school leaders and elected representatives are doing to advance CS. Make your voice heard and ask for increased sections of CS at your school.
- **JOIN:** Become a CSforCA partner organization and help build a better future for all Californians at CSforCA.org.
- **LEARN:** Visit CSforCA.org for more information and follow us on Twitter @CSforCA for updates on our work.

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