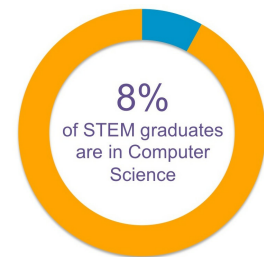
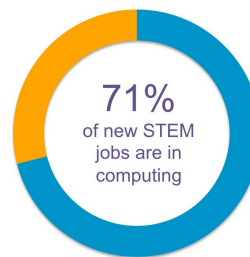


Support K-12 Computer Science Education in California

Computer science drives job growth and innovation throughout our economy and society. Computing occupations are the **number 1 source of all new wages in the U.S.** and make up two-thirds of all projected new jobs in STEM fields, making Computer Science one of the most in-demand college degrees. And computing is used all around us and in virtually every field. It's foundational knowledge that all students need. But computer science is marginalized throughout education. 75 percent of U.S. schools don't even offer computer science and only 8% of STEM graduates study it. We need to improve access for all students, including groups who have traditionally been underrepresented.



90% of parents want their child's school to teach computer science, but only 1 in 4 schools teach it.

75% of Americans believe computer science is cool in a way it wasn't 10 years ago.

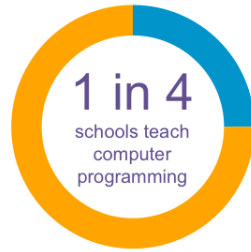
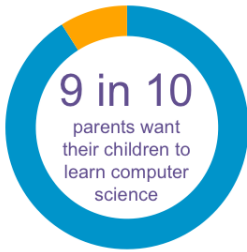
67% of parents and 56% of teachers believe students should be required to learn computer science.

50% of Americans rank CS as one of the two most important subjects of study after reading and writing.

Students who learn computer science in high school are 6 times more likely to major in it, and women are 10 times more likely.

Computer science in California

- California currently has **70,596 open computing jobs** (3.5 times the average demand rate in California).
- The average salary for a computing occupation in CA is **\$109,410**, which is significantly higher than the average salary in the state (\$55,260).
- California had only **3,525 computer science graduates** in 2014; only **15%** were female.
- Only **8,688 high school students** in California took the AP Computer Science exam in 2015; only 26% were female; only 973 students were Hispanic; only 148 students were black; only 35 students were Native American.
- Only **357 schools** in CA (16% of CA schools with AP programs) offered the AP Computer Science course in 2014-2015. There are fewer AP exams taken in computer science than in any other STEM subject area.



What can you do to improve K-12 CS education?

1. Call on your school to expand computer science offerings at every grade level.
2. Ask your local school district to allow computer science courses to satisfy a core math or science requirement.
3. Visit www.code.org/educate/3rdparty to find out about courses and curriculum from a variety of third parties, including Code.org.
4. Visit www.code.org/promote/CA to learn more about supporting computer science in your state.
5. Sign the petition at www.change.org/computerscience to join 100,000 Americans asking Congress to support computer science.

Code.org's Impact in California

There are 29,226 teacher accounts and 995,042 student accounts in Code Studio in California.

- Code.org's professional learning partner(s) is/are: 9 Dots Community Learning Center, Alameda County Office of Education, and Riverside County Office of Education.
- Code.org has partnered with the following school district(s): Alliance College Ready Public Schools, Anaheim Union High School District, Benicia Unified School District, Brentwood Union School District, Cajon Valley School District, Calistoga Joint Unified School District, Central Unified School District, Corona-Norco Unified School District, Covina Valley Unified School District, Fairfield-Suisun Unified School District, Fontana Unified School District, Granada Hills Charter High School, John Swett Unified School District, Jurupa Unified School District, Liberty Union High School District, Los Angeles Unified School District, Martinez Unified School District, Moraga Elementary School District, Mt. Diablo Unified School District, Oakland Unified Public Schools, Orange Unified School District, Perris Union High School District, Pittsburg Unified School District, Placentia-Yorba Linda Union School District, Riverside Unified School District, Saddleback Valley Unified School District, San Jacinto Unified School District, Temecula Valley Unified School District, Val Verde Unified School District, and Whittier Union High School District.
- 38 Code.org K-12 facilitators in California have provided professional learning for **5,553 elementary teachers**.
- Code.org has provided professional learning for **121 middle school teachers** and **247 high school teachers** in California to teach computer science.

“Computer Science is a liberal art: it’s something that everybody should be exposed to and everyone should have a mastery of to some extent.”

— Steve Jobs

What can the federal government do to support computer science in grades K-12?

Access to computer science courses is a bipartisan issue that can be addressed without adding to the Federal budget. Tell your representatives in Washington, D.C. that you support funding to expand access to this foundational 21st-century subject in your community that will America remain secure and globally competitive. Over 100,000 Americans, CEOs of the largest companies in every major industry, 29 governors, and major K-12 education leaders have all joined forces to call on Congress to support this idea. You can see their open letter (and add your name in support) at www.change.org/computerscience.

What can your state do to improve computer science education?

States and local school districts need to adopt a broad policy framework to provide all students with access to computer science. The following eight recommendations are a menu of best practices that states can choose from to support and expand computer science. Not all states will be in a position to adopt all of the policies, and no state has accomplished all 8 yet. Read more about these 8 policy ideas at https://code.org/files/Making_CS_Fundamental.pdf.

- California **does not yet** have rigorous computer science standards publicly available across K-12. Computer science has often been confused with broader technology education in schools. States could strengthen their computer science programs by publicly adopting discrete standards for computer science focused on both the creation and use of software and computing technologies at all levels of K-12 education. The Computer Science Teachers Association has model K-12 CS standards.
- California **does not yet** provide dedicated funding for rigorous computer science professional development and course support. Although funds may be available via broader programs, the state can strengthen its computer science programs by creating specific opportunities to bring computer science to school districts, such as matching fund programs.
- California has clear certification pathways for computer science teachers.
- California **currently has no** incentives for institutions of higher education to offer computer science to pre-service teachers. The computer science teacher shortage can be addressed by exposing more pre-service teachers to computer science during their required coursework or by creating specific pathways for computer science teachers.
- California has dedicated computer science positions in state and local education authorities.
- California **does not yet** require that all secondary schools offer computer science. The state can support the expansion of computer science courses by adopting policies that require schools to offer a computer science course based on rigorous standards, with appropriate implementation timelines and allowing for remote and/or in-person courses.
- California allows computer science to count for a core graduation requirement. Find out how California allows computer science to count towards graduation at <http://bit.ly/1ls6YXS>.
- California allows computer science to count as a core admission requirement at institutions of higher education.

Follow us!

Join our efforts to give every student in every school the opportunity to learn computer science. Learn more at code.org, or follow us on [Facebook](#) and [Twitter](#).

Launched in 2013, Code.org® is a non-profit dedicated to expanding access to computer science, and increasing participation by women and underrepresented students of color. Our vision is that every student in every school should have the opportunity to learn computer science.

Data is from the Conference Board for job demand, the Bureau of Labor Statistics for state salary and national job projections data, the College Board for AP exam data, the National Center for Education Statistics for university graduate data, the Gallup research study Searching for Computer Science: Access and Barriers in K-12 Education for schools that offer computer science and parent demand, and Code.org for its own courses, professional learning programs, and participation data.