Support K-12 Computer Science Education in Florida

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 over half 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. Only 45% of U.S. high schools teach any computer science courses and only 11% of STEM bachelor's degrees are in Computer Science. We need to improve access for all students, including groups who have traditionally been underrepresented.

- 93% of parents want their child’s school to teach computer science, but only 45% of high 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 computer science 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 Florida

- Florida currently has 29,716 open computing jobs (3.7 times the average demand rate in Florida).
- The average salary for a computing occupation in FL is $82,793, which is significantly higher than the average salary in the state ($46,010). The existing open jobs alone represent a $2,460,283,046 opportunity in terms of annual salaries.
- Florida had only 3,357 STEM bachelor's degrees in Computer Science in 2018; only 19% were female.
- In Florida, only 30% of all public high schools teach computer science.
- Only 12,811 exams were taken in AP Computer Science by high school students in Florida in 2019 (3,057 took AP CS A and 9,754 took AP CSP).
- Only 29% were female (22% for AP CS A and 31% for AP CSP); only 4,320 exams were taken by Hispanic or Latino students (893 took AP CS A and 3,427 took AP CSP); only 1,070 exams were taken by Black students (182 took AP CS A and 888 took AP CSP); only 26 exams were taken by American Indian or Alaska Native students (3 took AP CS A and 23 took AP CSP); only 10 exams were taken by Native Hawaiian or Pacific Islander students (0 took AP CS A and 10 took AP CSP).
- Only 315 schools in FL (28% of FL schools with AP programs) offered an AP Computer Science course in 2017-2018 (15% offered AP CS A and 24% offered AP CSP), which is 74 more than the previous year.
- Universities in Florida only graduated 2 new teachers prepared to teach computer science in 2017.
- According to a representative survey from Google/Gallup, school administrators in FL support expanding computer science education opportunities: 67% of principals surveyed think CS is just as or more important than required core classes.
What can you do to support K-12 CS education in Florida?

- Nominate a teacher for professional learning: [www.code.org/nominate](http://www.code.org/nominate)
- Send a letter:
  - To your school/district asking them to expand computer science offerings at every grade level: [www.code.org/promote/letter](http://www.code.org/promote/letter)
  - To your elected officials asking them to support computer science education policy in Florida: [www.votervoice.net/Code/campaigns/58463/respond](http://www.votervoice.net/Code/campaigns/58463/respond)
- Find out if your school teaches computer science or submit information about your school's offerings at [www.code.org/yourschool](http://www.code.org/yourschool).
- Visit [www.code.org/educate/3rdparty](http://www.code.org/educate/3rdparty) to find out about courses and curriculum from a variety of providers, including Code.org.

Who can you connect with locally to talk about K-12 CS education policy?

- You can reach Code.org's policy contact for your state, Amy Roberts, at amy.roberts@code.org.

Code.org's impact in Florida

- In Florida, Code.org's curriculum is used in
  - 23% of elementary schools
  - 18% of middle schools
  - 15% of high schools
- There are 42,890 teacher accounts and 1,550,267 student accounts on Code.org in Florida.
- Of students in Florida using Code.org curriculum last school year,
  - 53% attend high needs schools
  - 14% are in rural schools
  - 42% are female students
  - 58% are underrepresented minority students (Black/African American, Hispanic/Latino, American Indian, or Hawaiian)
- Code.org, its regional partner(s) Broward County Public Schools, Florida International University, Orlando Science Center, Tampa Bay STEM Network, and University of North Florida, and 39 facilitators have provided professional learning in Florida for
  - 7,240 teachers in CS Fundamentals (K-5)
  - 502 teachers in Exploring Computer Science or Computer Science Discoveries
  - 325 teachers in Computer Science Principles

"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."
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 nine 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. Read more about these 9 policy ideas at https://code.org/files/Making_CS_Fundamental.pdf and see our rubric for describing state policies at http://bit.ly/9policiesrubric.

Florida has not yet created a state plan for K-12 computer science. A plan that articulates the goals for computer science, strategies for accomplishing the goals, and timelines for carrying out the strategies is important for making computer science a fundamental part of a state’s education system.

Florida has established K-12 computer science standards.

Florida has allocated funding for rigorous computer science professional development and course support.

Florida has clear certification pathways for computer science teachers.

Florida has not yet established programs at institutions of higher education to offer computer science to preservice teachers. The computer science teacher shortage can be addressed by exposing more preservice teachers to computer science during their required coursework or by creating specific pathways for computer science teachers.

Florida has a dedicated computer science position in the state education agency.

Florida requires that all secondary schools offer computer science.

Florida allows computer science to count for a core graduation requirement. Find out how Florida allows computer science to count towards graduation at http://bit.ly/9policies.

Florida does not yet allow computer science to count as a core admission requirement at institutions of higher education. Admission policies that do not include rigorous computer science courses as meeting a core entrance requirement, such as in mathematics or science, discourage students from taking such courses in secondary education. State leaders can work with institutions of higher education to ensure credit and articulation policies align with secondary school graduation requirements.

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 nonprofit 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 and Google research study Education Trends in the State of Computer Science in U.S. K-12 Schools for parent demand, the 2018 Computer Science Access Report for schools that offer computer science, and Code.org for its own courses, professional learning programs, and participation data.