

# Support K-12 Computer Science Education in Idaho

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 57.5% of U.S. high schools teach any computer science courses and only 4% of bachelor's degrees are in Computer Science. We need to improve access for all students, including groups who have traditionally been underrepresented.



Yet, there were only 577 graduates in computer science in 2020 and only 38% of all public high schools teach a foundational computer science course.

## Computer science in Idaho

- Only **475 exams were taken in AP Computer Science by high school students in Idaho** in 2020 (166 took AP CS A and 309 took AP CSP).
- Only 28% were taken by female students (27% for AP CS A and 29% for AP CSP); only 42 exams were taken by Hispanic/Latino/Latina students (1 took AP CS A and 41 took AP CSP); only 3 exams were taken by Black/African American students (1 took AP CS A and 2 took AP CSP); only 3 exams were taken by Native American/Alaskan students (0 took AP CS A and 3 took AP CSP); only 2 exams were taken by Native Hawaiian/Pacific Islander students (0 took AP CS A and 2 took AP CSP).
- Only **26 schools** in ID (25% of ID schools with AP programs) offered an AP Computer Science course in 2019-2020 (11% offered AP CS A and 21% offered AP CSP), which is 10 more than the previous year. There are fewer AP exams taken in computer science than in any other STEM subject area.
- Teacher preparation programs in Idaho only graduated 1 new teacher prepared to teach computer science in 2018.
- According to a representative survey from Google/Gallup, school administrators in ID support expanding computer science education opportunities: 66% of principals surveyed think CS is just as or more important than required core classes. And one of their biggest barriers to offering computer science is the lack of funds for hiring and training teachers.

## What can you do to support K-12 CS education in Idaho?

- Send a letter to your school/district asking them to expand computer science offerings at every grade level: [www.code.org/promote/letter](https://code.org/promote/letter)
- Find out if your school teaches computer science or submit information about your school's offerings at [www.code.org/yourschool](https://www.code.org/yourschool).
- Visit [www.code.org/educate/3rdparty](https://www.code.org/educate/3rdparty) to find out about courses and curriculum from a variety of providers, including Code.org.

## Code.org's impact in Idaho

- In Idaho, Code.org's curriculum is used in
  - 28% of elementary schools
  - 31% of middle schools
  - 20% of high schools
- There are 5,313 teacher accounts and 262,924 student accounts on Code.org in Idaho.
- Of students in Idaho using Code.org curriculum last school year,
  - 29% attend high needs schools
  - 51% are in rural schools
  - 43% are female students
  - 6% are Black/African American students
  - 13% are Hispanic/Latino/Latina students
  - 1% are Native American/Alaskan students
  - 1% are Native Hawaiian/Pacific Islander students
  - 60% are white students
  - 4% are Asian students
  - 5% are students who identify as two or more races
- Code.org, its regional partner(s) AVID, and 7 facilitators have provided professional learning in Idaho for
  - 709 teachers in CS Fundamentals (K-5)
  - 103 teachers in Exploring Computer Science or Computer Science Discoveries
  - 44 teachers in Computer Science Principles

## 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 ten 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 10 policy ideas at [https://advocacy.code.org/2023\\_making\\_cs\\_foundational.pdf](https://advocacy.code.org/2023_making_cs_foundational.pdf) and see our rubric for describing state policies at <http://bit.ly/9policiesrubric>.

□ **State Plan** - The Idaho STEM Action Center and Idaho Digital Learning Academy developed the Idaho Computing Technology K–12 CS State Plan in 2018. The plan includes goals and strategies to increase access for female students, rural students, low-income students, and students from marginalized racial and ethnic groups underrepresented in computer science.

□ **K-12 Standards** - Idaho adopted K–12 computer science standards based on the CSTA standards in 2017. Standards within each grade band address concepts of equity, such as bias, accessible technology, and inclusivity.

□ **Funding** - SB1136 (FY2024), H0743 (FY 2023), and H0331 (FY 2021) allocated \$500K (which was renewed for FY 2022), H0215 (FY 2020) allocated \$1M, and H0669 (FY 2019), H0298 (FY 2018), and H0379 (FY 2017) allocated \$2M annually for the expansion of computer science.

□ **Certification** - In Idaho, teachers with existing licensure can obtain a 6–12 or 5–9 endorsement by completing a state-approved program and passing the Praxis CS exam. An initial license in computer science also requires completing a state-approved program and passing the exam. A 6–12 CTE Occupational Specialist certification in computer science can be obtained with industry experience.

□ **Pre-Service Programs** - The Idaho Department of Education has approved teacher preparation programs leading to certification in computer science and lists these programs publicly.

□ **Dedicated State Position** - The Idaho Governor's STEM Action Center has a STEM and Computer Science Program Manager.

□ **Require High Schools to Offer** - H648 (2018) required each school district to make one or more computer science courses available to all high school students by FY 2020. Students must have the option of taking the course as part of their course schedule during normal instructional hours at the school where the student is enrolled. Courses may be offered through virtual education programs and online courses, traditional in-person courses, or a combination of online and in-person instruction. In 2022, the State Board of Education passed a rule change requiring instruction for all elementary school and middle school students in computational thinking and digital literacy. The rule change was adopted by the legislature in 2023.

□ **Count Towards Graduation** - In Idaho, AP Computer Science or dual-credit computer science can count as one mathematics (after completion of Algebra II) or up to two science credits for graduation.

□ **Higher Ed Admission** - Under certain conditions, computer science can count as a mathematics or science credit required for admission at institutions of higher education in Idaho.

□ **Graduation Requirement** - Idaho **does not yet** require students to take computer science to earn a high school diploma. Graduation requirements ensure that all students get exposure to computer science.

## 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 youth. Our vision is that every student in every school should have the opportunity to learn computer science.

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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, Maggie Glennon, at [maggie@code.org](mailto:maggie@code.org).

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.