K-12 Computer Science Policy And Implementation in States

Code.org's Nine Policy Elements | State-by-state data on the 9 policies | 2018 State Legislation

We are seeing a groundswell of interest and effort from students, parents, teachers, districts, and states to bring computer science into our K-12 system. Tens of millions of students are participating in the Hour of Code. Tens of thousands of teachers are going through professional development to bring computer science (CS) into their schools. Hundreds of school districts have embraced computer science in their curriculum. New York City and Chicago Public Schools -- two of the largest districts in the country -- have announced that computer science will be in all schools, and in Chicago, it is a required graduation credit. And in the past four years, more than 40 states have responded to this growing interest by passing policies to boost computer science.

We've suggested nine policies states can adopt to make computer science foundational for all students (see: https://code.org/files/Making_CS_Fundamental.pdf). Below is a list of states working toward these broad policy and/or implementation plans toward scaling K-12 computer science.

Help us grow and maintain this document. This document represents states where Code.org is tracking policy change, as well as statewide implementation efforts in those states. There are likely states that we are not aware of that are working on new policies, and we'd love your help adding them to this list. (Note: For now, we're only including action in states where there is a statewide policy effort underway.) ***Do you have a suggestion for an addition or edit to this document? Please submit it here.***

Alabama

- **K-12 CS Standards:** K-12 computer science standards are combined with digital literacy and were adopted in March 2018.
- **Funding:** $675K and $613K were allocated for the Middle School Computer Programming Initiative in FY 2018 (SB 129) and 2019 (HB 175), respectively; and $300K was allocated for Computer Science Professional Development in FY 2019 (HB 175).
- **Making CS Count:** AP Computer Science A or AP Computer Science Principles can count as a mathematics credit for graduation.
- **Implementation:** A+ College Ready is engaged in implementation. The Governor's Advisory Council for Computer Science Education will develop recommendations for the expansion of computer science.

Alaska

- **K-12 CS Standards:** K-12 computer science standards development began in March 2018.
- **Implementation:** Alaska Staff Development Network is engaged in implementation.

Arkansas

- **State Plan:** Created a state plan for computer science education implementation.
- **K-12 CS Standards:** K-8 computer science standards were adopted in 2015 and 9-12 standards were adopted in 2016. All students learn the K-6 standards and take a coding block in 7th or 8th grade.
- **Funding**: Arkansas provided $15 million over the FY 2016-21 budgets to expand computer science education to all schools.
- **K-12 CS Certification:** Created a new CS teacher licensure and adopted a new assessment—Praxis™ Computer Science (5651) exam. Teachers can obtain a computer science approval code as a temporary measure to meet short-term demands for courses and have access to pathways to later meet traditional certification requirements.
- **Dedicated CS Position:** Act 970 created a computer science coordinator position in the Department of Education.
- **Requiring All Secondary Schools to Offer CS:** Act 187 (2015) required all high schools to offer computer science by the following school year.
- **Making CS Count:** Passed legislation to allow computer science to substitute for mathematics or science credit.
- **Implementation**: Act 187 created the Computer Science and Technology in Public School Task Force.

Arizona

- **K-12 CS Standards:** K-12 computer science standards development began in January 2018.
- **Funding:** SB 1538 (2016) allocated $500K for K-12 computer science implementation, with a focus on Native American students. $200K more was allocated in the FY 2018 budget (HB 2537) to support standards and PD opportunities. HB 2663 (2018) allocated $1M for FY 2019, prioritizing schools that currently do not provide high school computer science instruction. The bill requires the second 50% of state funding to be matched with private monies or in-kind donations.
- **K-12 CS Certification:** Certification pathway exists.
- **Making CS Count:** The state has passed a permissive and encouraging policy to allow computer science to count as a mathematics credit for graduation, but it is a district decision.
- **Implementation:** Science Foundation Arizona and Grand Canyon University are engaged in advocacy and implementation.

California

- **State Plan:** The draft Computer Science Strategic Implementation Plan, as legislated by AB 2329 (2016), was recommended for a 30-day public review period beginning in October 2018.
- **K-12 CS Standards:** K-12 Computer Science standards were adopted in September 2018. The California NGSS Curriculum Framework also includes major new sections on computational thinking and CS for educators.
- **K-12 CS Certification:** Updated teacher endorsement to replace the Computer Applications Supplementary Authorization with a Computer Science Supplementary Authorization.
- **Dedicated CS Position:** A state board member is currently designated as the computer science liaison, although the state department does not have a computer science supervisor.
- **Making CS Count:** The state has passed a permissive and encouraging policy to allow computer science to count as a science and mathematics credit for graduation, but it is a district decision.
- **Implementation:** Multiple entities, including 9 Dots Community Learning Center, Alameda County Office of Education, Contra Costa County Office of Education, Elementary Institute of Science, Fresno County Superintendent of Schools, Los Angeles Unified School District, Riverside County Office of Education, Sacramento County Office of Education, Silicon Valley Education Foundation, and USC Viterbi VAST are engaged in implementation. LAUSD and San Francisco Unified have both launched major efforts to bring CS to all grades.

Colorado

- **K-12 CS Standards:** New high school computer science standards were adopted in April 2018. There is no comprehensive set of K-12 computer science standards.
- **Funding:** HB 16-1289 (2016) created a $1,000 per student incentive program for schools to offer AP Computer Science. SB 17-296 (2017) allocates up to $500K for teachers pursuing postsecondary education in computer science education for FY 2018, and another $500K for FY 2019. An additional $500K was allocated in HB 18-1322 (2018) for K-5 teacher professional development.
- **Dedicated CS Position:** There is a dedicated Computer Science Content Specialist at the department of education.
- **Making CS Count:** The state has passed a permissive and encouraging policy to allow computer science to count as either a mathematics or science credit for graduation, but it is a district decision.
- **Implementation:** mindSpark Learning and the Colorado Education Initiative are engaged in implementation. HB 17-1184 directs the Department of Education to create a resource bank for CS materials.

Connecticut

- **State Plan:** The State Board of Education adopted a Position Statement on Computer Science Education for All K-12 Students in 2016.
- **K-12 CS Standards:** The CSTA K-12 Computer Science Standards were adopted in June 2018.
- **Dedicated CS Position:** Created a computer science coordinator position in the Department of Education.
- **Implementation:** Sacred Heart University is engaged in implementation.

Delaware

- **K-12 CS Standards:** The CSTA K-12 Computer Science Standards were adopted in January 2018.
- **Requiring All Secondary Schools to Offer CS:** HB 15 (2017) requires all high schools to offer computer science by school year 2020-2021.
- **Making CS Count:** HB 15 also allows an Advanced Placement, Honors, College Prep, or Integrated computer science course meeting the computer science and mathematics standards can satisfy the fourth mathematics graduation credit.

District of Columbia

- **K-12 CS Certification:** Certification pathway exists.
- **Making CS Count:** An AP computer science course can satisfy the fourth year upper level mathematics credit for graduation (policy in place prior to 2013).
- **Implementation**: A computer science working group established in 2016 was tasked with creating a vision for computer science in the District, but no recommendations were put forth.

Florida

- **K-12 CS Standards:** K-12 computer science standards were adopted in May 2016 and are currently embedded as a strand within the state science standards.
- **K-12 CS Certification:** Certification pathway exists.
- **Dedicated CS Position:** Computer Science Specialist in the Department of Education.
- **Requiring All Secondary Schools to Offer CS:** HB 495 (2018) requires all middle and high schools to offer computer science or provide students access via the Florida Virtual School if a district is unable to provide access.
- **Making CS Count:** HB 5101 (2014) allows a high school computer science course and the earning of related industry certifications to count towards one mathematics graduation credit (with the exception of Algebra I or higher-level mathematics) or one science graduation credit (with the exception of Biology I or higher-level science).
- **Implementation:** Multiple entities, including Broward County Public Schools, Florida State College Jacksonville, Orlando Science Center, Florida International University

School of Computing and Information Sciences, and Tampa Bay STEM Network are engaged in implementation.

Georgia

- **State Plan:** A state plan is in development (2018).
- **K-12 CS Standards:** K-12 computer science standards development began in September 2017.
- **Funding:** In 2018, the state budget (Act 286) included $500K in grants for middle school coding and teacher professional development. In 2016, the Governor's Oce of Student Achievement Innovation Funds allocated $250K for the expansion of computer science throughout the state.
- **K-12 CS Certification:** Certification pathway exists.
- **Dedicated CS Position:** Created a computer science coordinator position in the Department of Education.
- **Making CS Count:** Of the approved computing courses in the state, nine count towards graduation for the fourth mathematics credit or the fourth science credit (policy in place prior to 2013).
- **Implementation:** The Georgia Tech Center for Education Integrating Science, Mathematics, and Computing is engaged in implementation.

Hawaii

- **State Plan:** The Hawaii State Department of Education has created a state plan for expanding computer science access.
- **K-12 CS Standards:** The CSTA K-12 Computer Science Standards were adopted in May 2018.
- **Funding:** HB 2607 (2018) dedicated $500K to computer science teacher professional development in FY 2019.
- **K-12 CS Certification:** Certification pathway for K-6, 6-12, and K-12 in computer science developed in 2018.
- **Dedicated CS Position:** Created a computer science position at the Department of Education.
- **Requiring All Secondary Schools to Offer CS:** HB 2607 requires all high schools to offer at least one computer science course by the 2021-2022 school year.
- **Implementation:** The Hawaii State Department of Education and multiple other partners (including STEMworks) are engaged in implementation.

Idaho

- **State Plan:** Created the Idaho Computing Technology K-12 CS State Plan for computer science education implementation.
- **K-12 CS Standards:** K-12 computer science standards were adopted in February 2017.

- **Funding:** Idaho provided a total of $6M for FY 2017-2019 for the expansion of computer science throughout the state, including funds for professional development (H0379 in 2016, H0298 in 2017, and H0669 in 2018).
- **K-12 CS Certification:** Certification pathway exists.
- **Dedicated CS Position:** Created a computer science position at the Governor's STEM Action Center.
- **Requiring All Secondary Schools to Offer CS:** H648 (2018) requires each school district to make one or more computer science courses available to all high school students by 2020.
- **Making CS Count:** 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.
- **Implementation:** The Governor's STEM Action Center is engaged in CS initiatives, and the Idaho Digital Learning Academy is engaged in implementation. The Computer Science in K-12 working group made recommendations in 2016 for the expansion of computer science.

Illinois

- **K-12 CS Certification:** Certification pathway exists.
- **Making CS Count:** Legislation passed allowing CS to satisfy a graduation requirement in mathematics.
- **Implementation:** Chicago Public Schools is the first district in the country that will require CS for graduation beginning with the class of 2020. Multiple entities, including the Illinois Math & Science Academy and Lumity, are engaged in implementation. In June 2018, the House adopted a resolution (HR0853) that all schools should teach computer science. A task force on computer science education created by HB5720 (2016) developed and presented recommendations to the Illinois General Assembly in 2017. The task force recommendations to the General Assembly in 2017 can be found here.

Indiana

- **K-12 CS Standards:** K-8 computer science standards were adopted in April 2016 and are embedded in the state science standards. A comprehensive set of K-12 computer science standards was published in fall 2018.
- **Funding:** In 2018, the Indiana Department of Education contracted with a provider to offer computer science professional development for over 400 teachers in FY 2019 as required by law in SB 172.
- **Dedicated CS Position:** Created a computer science position at the Department of Education.

- **Requiring All Secondary Schools to Offer CS:** SB 172 (2018) requires all elementary, middle, and high schools to offer computer science by 2021-2022.
- **Making CS Count:** The Department of Education has approved specific computer science courses that can count towards CORE 40 graduation requirements such as mathematics or quantitative reasoning.
- **Implementation:** Nextech is engaged in implementation.

Iowa

- **K-12 CS Standards:** The CSTA K-12 Computer Science Standards were adopted in June 2018.
- **Funding:** HF 642 (2018) allocated $500K for computer science professional development for FY 2019; another $500K was added to the fund.
- **K-12 CS Certification:** Certification pathway for 5-12 and K-8 computer science teachers adopted in 2018.
- **Requiring All Secondary Schools to Offer CS:** SF 274 (2017) sets a goal, but not a requirement, for each high school, middle school, and elementary school to offer computer science by July 2019.
- **Implementation:** The New Bohemian Innovation Collaborative is engaged in implementation in the state. The IA Computer Science Task Force made recommendations (2015) to the STEM Advisory Council. SF 274 (2017) required the development of a CS Education Workgroup, which made recommendations to the legislature.

Kansas

- **K-12 CS Standards:** K-12 computer science standards development began in June 2018.
- **Implementation:** Union Station is engaged in implementation.

Kentucky

- **K-12 CS Standards:** K-12 computer science standards development began in July 2017.
- **K-12 CS Certification:** Certification pathway exists.
- **Making CS Count:** The state has passed a permissive and encouraging policy to allow computer science to count as an elective science credit or a fourth year mathematics credit for graduation, but it is a district decision. The course must involve computational thinking, problem solving, computer programming, and a significant emphasis on the science and engineering practices.
- **Implementation:** Kentucky Science and Technology Corporation is engaged in implementation in the state.

Louisiana

- **K-12 CS Certification:** Certification pathways exists.
- **Making CS Count:** The State Board of Education has adopted a policy to allow AP Computer Science A to count towards an advanced mathematics credit (policy in place prior to 2013).
- **Implementation:** McNeese State University is engaged in implementation.

Maine

- **Implementation:** A task force, established by LD 398 (2017), presented recommendations to recognize computer science in the path to proficiency. Education Maine and the Maine Mathematics & Science Alliance are engaged in implementation.

Maryland

- **State Plan:** HB 281 requires the Maryland Center for Computing Education to develop and publish a state plan by July 2019.
- **K-12 CS Standards:** K-12 computer science standards were approved by the state board in September 2018.
- **Funding:** SB 185 (2018) allocated $5M for computer science for FY 2019, and HB 281 (2018) allocates $1M per year for FY 2020 and 2021.
- **K-12 CS Certification:** Certification pathway exists.
- **Dedicated CS Position:** Created a position to oversee computer science education via the Maryland Center for Computing Education.
- **Requiring All Secondary Schools to Offer CS:** HB 281 requires all high schools to offer at least one computer science course by school year 2021-2022, and asks each school board to make efforts to incorporate computer science in each elementary and middle school and to increase the enrollment of female students, students with disabilities, and students of underrepresented ethnic or racial groups.
- **Making CS Count:** Made regulatory change allowing CS to fulfill the high school technology graduation requirement. Also allows CS to count as a mathematics credit.
- **Implementation:** Multiple entities, including Charles County Public Schools, Maryland Codes, and the Maryland Center for Computing Education, are engaged in advocacy and implementation.

Massachusetts

- **K-12 CS Standards:** K-12 computer science standards are combined with digital literacy and were adopted in June 2016.
- **Funding:** $1.5M was allocated for FY 2016 (H3650, 2015) for professional development and implementation support and required a one-to-one private match. $850K was allocated for FY 2018 in H3800 (2017) and an additional $850K was allocated for FY 2019 in H4800 (2018); both amounts require a one-to-one private match.

- **K-12 CS Certification:** Certification pathway exists.
- **Dedicated CS Position:** Created a computer science coordinator position in the Department of Education.
- **Making CS Count:** The Massachusetts Board of Elementary and Secondary Education has approved a recommendation to allow a computer science course to substitute for either a laboratory science course or a mathematics course, if the course includes rigorous mathematical or scientific concepts and aligns with the state computer science standards.
- **Implementation:** BATEC is engaged in implementation in the state.

Michigan

- **Funding:** Although the state has not created a dedicated funding source for computer science, HB 4313 (2017) allocates $1M for FY 2018 for a competitive grant to provide information technology education opportunities to students, including coding curriculum for high school and computational thinking for K-8. The Marshall Plan for Talent, stemming from SB 941 (2018), includes almost $30M for educational uses such as computer science and professional learning.
- **K-12 CS Standards:** K-12 computer science standards development began in May 2018.
- **Making CS Count:** A computer science course can count as the fourth mathematics credit for graduation or it can replace the Algebra II requirement as a department-approved formal career and technical education program or curriculum (policy in place prior to 2013).
- **Implementation:** West Shore ESD is engaged in implementation.

Minnesota

- **Making CS Count:** HF 844 (2015) allows computer science to count as a mathematics credit if the course meets state academic standards in mathematics.
- **Implementation:** Twin Cities Public Television is engaged in implementation.

Missouri

- **K-12 CS Standards:** K-12 computer science standards development begins in November 2018.
- **K-12 CS Certification:** HB 3 (passed in special session in 2018) requires the development of a certification in computer science.
- **Making CS Count:** A computer science course can count towards a mathematics, science, or practical arts graduation credit.
- **Implementation:** The Institute for School Partnership at Washington University in St. Louis and Union Station are engaged in implementation.

Mississippi

- **K-12 CS Standards:** K-12 computer science standards were adopted in April 2018.
- **K-12 CS Certification:** Certification pathway exists.
- **Making CS Count:** Beginning with incoming freshmen of 2018-2019, all students must earn one credit in technology or computer science.
- **Implementation:** Mississippi State University is engaged in implementation.

Montana

- **K-12 CS Standards:** K-12 computer science standards development began in July 2018.
- **K-12 CS Certification:** Certification pathway exists.

Nevada

- **State Plan:** Created the Computer Science Strategic Plan in 2018.
- **K-12 CS Standards:** K-12 computer science standards were adopted in June 2018.
- **Funding:** $1M and $1.4M were allocated in FY 2018 and 2019, respectively, for carrying out SB 200 (2017) to expand computer science education.
- **K-12 CS Certification:** Two endorsement pathways were created in 2018.
- **Dedicated CS Position:** Created a computer science coordinator position in the Department of Education.
- **Requiring All Secondary Schools to Offer CS:** SB 200 requires a course in computer science to be made available in high schools, and requires all students to receive instruction in computer education before 6th grade. Schools must make efforts to increase enrollment of girls, students with disabilities, and underrepresented minority students.
- **Make CS Count:** To meet the computer education and technology graduation credit, a course must dedicate half of the instructional time to computer science and computational thinking. A student that takes a computer education and technology course in middle school is not required to fulfill the half credit in high school.
- **Implementation:** The Southern Nevada Regional Professional Development Program is engaged in implementation. SB 200 requires students enrolled in public schools to receive instruction in CS and technology before 6th grade; and also creates a subcommittee of the Advisory Council on Science, Technology, Engineering, and Mathematics was established in 2017 to develop recommendations on computer science. All students must also take 1/2 credit in computer education and technology, of which 50% must be computer science, in order to graduate.

New Hampshire

- **State Plan:** Development of a state plan is in progress.
- **K-12 CS Standards:** K-12 computer science standards were adopted in August 2018.

- **K-12 CS Certification:** Certification pathway currently exists. Professional standards board subcommittee is also developing computer science educator certification standards for K-8 and 6-12. Multiple partners are concurrently developing new courses and professional development aligned with these standards.
- **Dedicated CS Position:** Created a computer science coordinator position in the Department of Education.
- **Requiring All Secondary Schools to Offer CS:** HB 1674 (2018) requires all schools to create and implement computer science programs.
- **Making CS Count:** The state has passed a permissive and encouraging policy to allow computer science to count as a mathematics or technology credit for graduation, but it is a district decision.
- **Implementation:** CS4NH is actively engaged in advocacy and implementation. UNH STEM Teachers' Collaborative is engaged in implementation.

New Jersey

- **K-12 CS Standards:** Computer science standards are included as a strand in the state technology literacy standards revised in 2014.
- **Funding**: The Secondary School Computer Science Education Initiative (P.L. 2018, Chapter 53) allocates $2M for FY 2019.
- **K-12 CS Certification:** A new computer science endorsement allows a teacher to apply if they have taught computer science within the three years prior to a requirement to hold the endorsement.
- **Requiring All Secondary Schools to Offer CS:** A2873 (2018) requires all high schools to offer a course in computer science by the 2018-2019 school year.
- **Making CS Count:** Legislation passed in 2016 to allow computer science to count as a mathematics credit towards graduation.
- **Implementation:** The TCNJ Center for Excellence in STEM Education is engaged in implementation.

New Mexico

- **Make CS Count**: SB 134 (2017) allows computer science to count towards a mathematics or science credit for graduation, provided that the student has demonstrated competence in mathematics or science.
- **Implementation:** Explora - Science Center & Children's Museum is engaged in implementation.

New York

- **K-12 CS Standards:** A 9506 (2018) requires the development of K-12 computer science standards by December 2019.

- **Funding:** The Smart Start program (funded in S 7504/A 9504, 2018) allocates $6M per year (for a total of $30M) starting in FY 2019 to expand computer science education.
- **K-12 CS Certification:** The Board of Regents created a new computer science teacher certification that will be in effect by September 2022. Current teachers will be exempt from needing to fulfill additional requirements to earn their computer science certification and new computer science teachers will have four pathways to certification.
- **Make CS Count:** The state has passed a permissive and encouraging policy to allow computer science to count as either a mathematics or science credit for graduation, but it is a district decision.
- **Implementation:** New York City Public Schools, in partnership with CSNYC, has created a 10-year plan to bring CS to all students. Mouse and WNY STEM Hub are also engaged in implementation in the state.

North Carolina

- **State Plan:** HB 155 (2017) requires the development of a state plan and curriculum guidelines that are aligned with the K-12 Computer Science Framework.
- **K-12 CS Standards:** HB 155 (2017) calls for curriculum guidelines that are aligned with the K-12 Computer Science Framework.
- **Funding:** SB 257 (2017) allocates $400K for FY 2018 for the “Coding and Mobile Application Grant Program” which can be used for teacher professional development in computer science. SB 99 (2018) allocated an additional $400K for the program in FY 2019, along with $500K to support the implementation of the Computer Science Education Plan and establish a position in the Department of Public Instruction to support the effort.
- **K-12 CS Certification:** Certification pathway exists.
- **Make CS Count:** Computer science can count as the fourth mathematics credit for graduation in the Future-Ready Core track (policy in place prior to 2013).
- **Implementation:** The Friday Institute is engaged in implementation.

North Dakota

- **K-12 CS Standards:** K-12 computer science standards development began in September 2018.
- **K-12 CS Certification**: Certification pathways exists.
- **Make CS Count**: North Dakota Century Code 15.1-21 allows computer science to count as a mathematics credit for graduation. Currently two courses have been approved: Mathematics for Computer Science/Information Technology and AP Computer Science A.
- **Implementation:** Technology & Innovation in Education is engaged in implementation.

Ohio

- **K-12 CS Standards:** K-12 computer science standards and a model curriculum are currently in development and must be completed by the end of 2018.
- **K-12 CS Certification:** Certification pathway exists.
- **Make CS Count:** HB 170 (2017) expanded how computer science can count towards a graduation credit in either science or mathematics. A computer science course can be taken in place of Algebra II if the school communicates to the student that institutions of higher education may require Algebra II for admission, and the parent or guardian signs a document acknowledging that not taking Algebra II may have an adverse effect on college admission decisions.
- **Implementation:** Battelle Education is engaged in implementation.

Oklahoma

- **K-12 CS Standards:** K-12 computer science standards were adopted in May 2018.
- **K-12 CS Certification:** Certification pathway exists.
- **Dedicated CS Position:** There is a Director of Secondary Mathematics and Computer Science Education at the department of education.
- **Make CS Count:** A computer science course may satisfy a foreign language or mathematics credit in the Core Curriculum Standard Track (policy in place prior to 2013).
- **Implementation:** The Oklahoma Public School Resource Center is engaged in implementation.

Oregon

- **Make CS Count:** The state has passed a permissive and encouraging policy to allow computer science to count as a fourth science elective for graduation, but it is a district decision (policy in place prior to 2013).
- **Implementation:** George Fox University is engaged in implementation.

Pennsylvania

- **K-12 CS Standards:** The CSTA K-12 Computer Science Standards were endorsed in January 2018.
- **Funding:** PAsmart (funded in HB 2121, 2018) dedicates $20M for FY 2019 to expanding STEM and computer science education, including teacher professional development.
- **Make CS Count:** Legislation passed in 2016 allows CS to count towards a mathematics or science credit.
- **Implementation:** Delaware County Intermediate Unit and Allegheny Intermediate Unit 3 are engaged in implementation.

Rhode Island

- **State Plan:** Created a state plan for computer science education implementation.

- **K-12 CS Standards:** K-12 computer science standards that include digital literacy were adopted in May 2018.
- **K-12 CS Funding:** $260K was allocated for computer science professional development in the FY 2017 operating budget (HB 7454), and has continued to be funded each year.
- **Making CS Count:** Computer science counts as a mathematics or science graduation requirement (policy in place prior to 2013).
- **Implementation:** CS4RI is working to implement the goal of providing computer science in every public school by the end of 2017. The University of Rhode Island is engaged in implementation.

South Carolina

- **K-12 CS Standards:** K-8 computer science standards were adopted in May 2017. High school standards were adopted in August 2018.
- **Funding:** H 630 (2017) allocated $400K to the Computer Science Task Force.
- **K-12 CS Certification:** Certification pathway exists.
- **Requiring All Secondary Schools to Offer CS:** The Department of Education has revised the list of courses that satisfy the computer science graduation requirement, effectively requiring all high schools to offer at least one computer science course by 2019 and all students to take at least one credit of computer science to graduate.
- **Making CS Count:** All students must take one credit of computer science to graduate.
- **Implementation:** The STEM Center of Excellence at the Citadel is engaged in implementation.

South Dakota

- **Making CS Count:** The state board of education approved changes to the diploma requirements in 2018, allowing students earning a regular diploma to substitute a state-approved advanced computer science course for a science requirement.
- **Implementation:** Technology & Innovation in Education is engaged in implementation.

Texas

- **K-12 CS Standards:** The Texas Essential Knowledge and Skills for Technology Applications at the high school level contain computer science standards and were implemented for the 2012-2013 school year. There is no comprehensive set of K-12 computer science standards.
- **K-12 CS Certification:** Certification pathway exists. Current effort underway to remove certification requirement for introductory level CS since it is prohibitive for teachers.
- **Requiring All Secondary Schools to Offer CS:** In 2014, the State Board of Education added computer science courses to the list of required curriculum offerings at high schools (19 TAC § 74.3).

- **Making CS Count:** AP Computer Science A or IB Computer Science Higher Level can satisfy a required mathematics or foreign language requirement. HB 728 (2017) allows a computer science course to count as an advanced science credit.
- **Implementation:** CSforTX is actively engaged in advocacy and implementation. Other entities engaged in implementation include Rice University, the Center for STEM Education at the University of Texas at Austin, and the University of Texas at Dallas. $1.2 million was allocated from MSP in 2015-2016 for computer science professional development.

Tennessee

- **K-12 CS Standards:** K-8 computer science standards are combined with digital literacy and were adopted in July 2018. There is no comprehensive set of K-12 computer science standards.
- **K-12 CS Certification:** Created a new CS teacher licensure and adopted a new assessment—Praxis™ Computer Science (5651) exam.
- **Making CS Count:** Computer science counts as a mathematics credit towards high school graduation.

Utah

- **State Plan:** The State Board of Education created a Computer Science Task Force, which submitted recommendations for expanding CS in 2018.
- **K-12 CS Standards:** The State Board of Education adopted K-12 computer science standards in 2018.
- **Funding:** SB 93 (2016) allocates $400K for computer science through the State Office of Education in FY 2017. SB 190 (2017) created a Computing Pathways Grants program, including $1.2M each year for FY 2018 and FY 2019.
- **K-12 CS Certification:** There are three tiers for K-12 computer science endorsement allowing teachers to move towards a full certification while they begin to teach courses. The elementary STEM endorsement requires a computer science component.
- **Make CS Coun**t: A computer programming course can replace the third mathematics credit (Secondary III) by request from the parent, or it can count as a science credit (policy in place prior to 2013).
- **Implementation:** Utah's State STEM Action Center in engaged in implementation.

Virginia

- **K-12 CS Standards:** Mandatory K-12 computer science standards were added to the state Standards of Learning in November 2017, effectively requiring all K-12 schools to offer instruction in computer science.
- **Funding:** $1.1M was allocated in 2016 over FY 2017-2018 for K-12 computer science professional development.

- **K-12 CS Certification:** Certification pathway exists.
- **Dedicated CS Position:** Created a computer science coordinator position in the Department of Education.
- **Requiring All Secondary Schools to Offer CS:** HB 831 adds CS into state's K-12 Standards of Learning, which all schools must implement.
- **Making CS Count:** Computer science may satisfy a graduation credit in lab science, career and technical education, or mathematics at or above the level of Algebra II (policy in place prior to 2013). The policy also allows students in English as a Second Language programs to add a computer science elective for graduation credit if they test out of their foreign language requirement.
- **Implementation:** CodeVA is actively engaged in advocacy and implementation. In 2017, legislation established a Computer Science for All Virginia Students Advisory Committee and Computer Science for All Virginia Students public-private partnership.

Washington

- **K-12 CS Standards:** K-12 computer science standards were adopted in December 2016 and updated in 2018.
- **Funding:** A $2M per biennium grant program with one-to-one private match for professional development and technology upgrades was included in the 2015-2017 (SB 6052) and 2017-2019 (SB 5883) budgets, for a total of $4M in state funds and $8M in overall funds.
- **K-12 CS Certification:** Professional Educator Standards Board approved a K-12 Computer Science Endorsement.
- **Dedicated CS Position:** Created a computer science program specialist position at the Office of Superintendent of Public Instruction.
- **Making CS Count:** Previous legislation allowed computer science to count as a science or mathematics (as long as the student had previously taken or concurrently taking Algebra II) credit for graduation; SB 6136 (2018) allowed computer science to count as the third required mathematics credit without the Algebra II requirement.
- **Implementation:** The Office of the Superintendent for Public Instruction is working with nonprofit Washington STEM creating, promoting, and implementing grant funding. Other entities engaged in implementation include the NorthEast Washington Educational Service District 101 and Puget Sound Educational Service District.

West Virginia

- **K-12 CS Standards:** K-12 computer science standards were adopted in April 2017.
- **K-12 CS Certification:** Certification pathway exists.
- **Requiring All Secondary Schools to Offer CS:** The State Board updated Policy 2510 to require all high schools to offer a computer science course beginning in the

2016-2017 school year, although no guidance has been issued around implementation of this requirement.
- **Making CS Count**: An AP computer science course can count as the fourth mathematics credit for graduation. Policy 2520.14, updated in April 2017, allows a computer science course to count as a science credit.
- **Implementation:** West Virginia University Center for Excellence in STEM Education is engaged in implementation.

Wisconsin
- **K-12 CS Standards:** K-12 computer science standards were adopted in June 2017.
- **K-12 CS Certification:** Certification pathway exists.
- **Making CS Count:** Legislation passed allowing computer science to satisfy a mathematics graduation requirement.
- **Implementation:** Marquette University is engaged in implementation.

Wyoming
- **State Plan:** The Wyoming Department of Education created a task force in 2018 to develop and implement a long-term plan for expanding computer science.
- **K-12 CS Standards:** K-12 computer science standards development began in July 2018.
- **Funding:** The Wyoming Trust Fund for Innovative Education, although not a dedicated funding program for computer science, has prioritized computer science applications in 2018-2019.
- **K-12 CS Certification:** Certification pathway exists.
- **Dedicated CS Position:** The Department of Education hired a Math and Computer Science Consultant to lead the computer science efforts.
- **Requiring All Secondary Schools to Offer CS:** SF 29 (2018) requires each school to include computer science and computational thinking by school year 2022-2023.
- **Making CS Count:** SF 29 (2018) allows computer science to count as a math or science credit.
- **Implementation**: WyoCSZone is actively engaged in advocacy and implementation; Technology & Innovation in Education is also engaged in implementation.

See a comparison chart of the 9 policies by state at www.bit.ly/9policies