
SENATE COMMITTEE ON EDUCATION

Senator Benjamin Allen, Chair
2017 - 2018 Regular

Bill No: AB 809 **Hearing Date:** June 27, 2018
Author: Quirk-Silva
Version: June 18, 2018
Urgency: No **Fiscal:** Yes
Consultant: Brandon Darnell

Subject: Pupil instruction: Cyber Secure Youth Act.

NOTE: This bill has been amended to replace its contents and this is the first time the bill is being heard in its current form. This bill has been referred to the Committees on Education and Veteran Affairs. A "do pass" motion should include referral to the Committee Veteran Affairs.

SUMMARY

This bill requires school district and county offices of education to provide instruction in cyber hygiene education to students at least once during kindergarten and grades 1 to 6 and at least once during grades 7 to 12.

BACKGROUND

Existing law:

- 1) Requires the Superintendent of Public Instruction (SPI) to convene a computer science strategic implementation advisory panel by March 1, 2018, to develop recommendations for a computer science strategic implementation plan. (Education Code § 53310)
- 2) Requires the computer science strategic implementation advisory panel hold public meetings, post the location and time of the meetings, and post agendas online, and requires members of the advisory panel shall possess expertise in computer science. (EC § 53310)
- 3) Requires the computer science strategic implementation advisory panel to submit recommendations for a computer science strategic implementation plan to the SPI, the State Board of Education, and the Legislature by January 15, 2019. (EC § 53311)
- 4) Requires the recommendations for a computer science strategic implementation plan to include recommendations on at least all of the following:
 - a) Broadening the pool of teachers to teach computer science. These recommendations may provide, among other things, for the following:
 - i) Providing training and professional development for education in computer science.

- ii) Creating a teacher certification pathway in computer science.
 - iii) Expanding scholarship eligibility and loan forgiveness programs for computer science teachers in low-income and underserved school districts and rural and urban school districts.
- b) Defining computer science education principles that meet the needs of pupils in kindergarten and grades 1 to 12, inclusive.
- c) Ensuring that all pupils have access to quality computer science courses. These recommendations may provide, among other things, for the following:
 - i) Scaling up computer science education coursework so that all high schools teach at least one computer science course.
 - ii) Providing access to computer science in both college and career pathways.
 - iii) Ensuring school districts have adequate broadband connectivity and infrastructure and access to hardware and software. This may include, but is not limited to, the development of grant programs that prioritize high-need school districts.
 - iv) Removing local policy and regulatory barriers that local educational agencies face when implementing computer science education.
 - v) Increasing the participation of pupils traditionally underrepresented in computer science education. (EC § 53312)
- 5) Requires the Superintendent of Public Instruction (SPI) to receive the recommendations submitted by the computer science strategic implementation advisory panel, and requires the SPI to develop, and the State Board of Education (SBE) to consider adopting, a computer science strategic implementation plan by July 15, 2019. (EC § 53313)
- 6) Requires the SPI submit the computer science strategic implementation plan, if adopted by the SBE, to the Legislature by July 15, 2019. (EC § 53313)
- 7) Requires the Instructional Quality Commission (IQC), by July 31, 2019, to consider developing and recommending to the SBE computer science content standards for kindergarten and grades 1 to 12, inclusive, pursuant to recommendations developed by a group of computer science experts. (EC § 60605.4)
- 8) Requires the IQC to consider existing computer science content standards, which include, but are not limited to, the national K–12 computer science content standards developed by the Computer Science Teachers Association, and consider content standards that include, but are not necessarily limited to, standards for teaching coding. (EC § 60605.4)

ANALYSIS

This bill requires school district and county offices of education to provide instruction in cyber hygiene education to students at least once during kindergarten and grades 1 to 6 and at least once during grades 7 to 12. Specifically, this bill:

- 1) Specifies that it shall be known, and may be cited, as the Cyber Secure Youth Act.
- 2) States that it is the intent of the Legislature to do all of the following:
 - a) Provide pupils with the knowledge and skills necessary to protect themselves while utilizing technology to communicate, access the Internet, and conduct online activities.
 - b) Provide pupils with the knowledge and skills they need to develop healthy attitudes concerning the use of social media, the storing and use of personal information online, and online communication.
 - c) Promoting understanding of the security issues surrounding the use of technology.
 - d) Ensuring pupils receive integrated, comprehensive, accurate, and unbiased instruction to promote the use of healthy cyber hygiene habits.
- 3) Require instruction in cyber hygiene education to be provided by school districts and county offices of education to students at least once during kindergarten and grades 1 to 6, inclusive, and at least once during grades 7 to 12, inclusive.
- 4) Requires cyber hygiene education to include, based on the age of the pupil, all of the following:
 - a) Account maintenance.
 - b) Secure Internet Web site recognition.
 - c) Source evaluation.
 - d) Content maintenance.
 - e) Safe online behavior.
 - f) Computer literacy.
 - g) Community responsibility.

STAFF COMMENTS

- 1) ***Need for the bill.*** According to the author, “the purpose of the Cyber Secure Youth Act is to ensure that just as we teach students to wash their hands and use other practices to avoid sickness, we must teach cyber hygiene practices to

protect their identities and livelihood. In addition, students must be prepared to enter a workforce that must maintain cybersecurity in order to protect not only their employers, but the country at large.”

- 2) ***Disrupts the computer science implementation plan process.*** As indicated above, the California Department of Education, State Board of Education (SBE), and Legislature have begun the process for developing the new California computer science strategic implementation plan. The 23 members of the computer science strategic implementation advisory panel were appointed or designated by the Governor, the President of SBE, the Senate Committee on Rules, the Speaker of the Assembly, and the Superintendent of Public Instruction (SPI) in January of this year. The members of the computer science strategic implementation advisory panel possess expertise in computer science. Additionally, below is the schedule of signification events for the computer science strategic implementation plan:

Computer science strategic implementation advisory panel convenes to develop recommendations for the strategic implementation plan: <ul style="list-style-type: none"> • March 1–2, 2018 (Stanley Mosk Library and Courts Building) • April 11–12, 2018 (California Department of Education) • June 25–26, 2018 (California Department of Education) 	March 2018–June 2018
Computer science strategic implementation advisory panel presents the recommendations for the strategic implementation plan to the SBE	September 2018
Instructional Quality Commission (IQC) Education Technology Committee reviews draft Computer Science Strategic Implementation Plan	September 2018
IQC and SPI recommend draft Computer Science Strategic Implementation Plan for 30-day public review period	September 2018
30-day public review period prior to IQC recommendation to SBE	October–November 2018
IQC Education Technology Committee analyzes public review comments for edits to draft Computer Science Strategic Implementation Plan	January 2019
IQC and SPI recommend draft Computer Science Strategic Implementation Plan to the SBE	March 2019
Statutory Deadline for SSPI to submit Computer Science Strategic Implementation Plan to the Legislature	July 15, 2019

This bill mandates specific computer science instruction before completion of the computer science strategic implementation plan, and accordingly is premature. *The committee may wish to consider* whether it is appropriate to supersede the activities the advisory panel, IQC, SPI, and SBE in this regard before the computer science strategic implementation plan is completed.

- 3) ***Computer science content standards under development.*** Additionally, The California Department of Education, Instructional Quality Commission (IQC), and State Board of Education (SBE) have already commenced the process for developing new California computer science content standards. On July 12, 2017, the SBE appointed 21 members to the Computer Science Standards Advisory Committee (CSSAC). The CSSAC is assisting in the development of the California Computer Science Standards. On July 12, 2017, the SBE also approved guidelines to direct the work of the CSSAC, which include, but are not limited to, the following:
- a) Include an introduction that clearly states the basic overarching purpose and goals of computer science instruction and states a clear definition of computer science and clarifies the distinction between computer science and digital literacy and citizenship.
 - b) Provide substantive guidance while also allowing for flexibility and innovation across local educational agencies to determine from a variety of approaches how best to incorporate computer science into their curricula based on local capacity and context.
 - c) Be written in language accessible to teachers, curriculum leaders, and students.
 - d) Be designed for the grade spans K–2, 3–5, 6–8, 9–12 and include options for full courses in middle and high school.
 - e) Reflect an awareness of industry trends and the dynamic nature of the computer science industry.
 - f) Describe the concepts and practices that a student should know and be able to do in computer science in kindergarten through grade twelve (K–12).
 - g) Be vertically aligned and coherent across grade spans.
 - h) Be computing language, hardware, and platform independent.
 - i) Be consistent with, supportive of, and showing integration with all other SBE-adopted curriculum standards.
 - j) For secondary grades, be compatible with any University of California approved computer science course and the California Standards for Career Technical Education Career Pathways;
 - j) Address the legal and safe use of all of their personal devices without harming themselves or others;
 - k) Encourage student critical thinking and discussion about the broader ethical and social implications and questions related to the growing

capabilities of technology, such as spreading of fake news through social media, the loss of jobs to automation, and others.

- l) Include a glossary of computer science terms used throughout the standards.

The Instructional Quality Commission (IQC) approved the Draft Computer Science Standards for public review and comment on March 23, 2018. This public review and comment period just ended on June 20, 2018. Education Technology SMC will now public review results and staff recommendations for edits to draft Computer Science Standards, and the IQC and Superintendent of Public Instruction (SPI) will recommend draft Computer Science Standards to the State Board of Education (SBE) in July of this year, for action by the SBE in September at a public meeting. This bill imposes specific instruction without regard to the computer science standards under development, and is thus premature. *The committee may wish to consider* whether it is appropriate to supersede the activities of the Computer Science Standards Advisory Committee, IQC, SPI, and SBE in this regard before the computer science standards are adopted.

- 4) ***Previous legislation.*** AB 2329 (Bonilla, Chapter 693, Statutes of 2016) Requires the SPI to convene a computer science strategic implementation advisory panel to develop recommendations for a computer science strategic implementation plan.

AB 1539 (Hagman, Chapter 876, Statutes of 2014) Requires the Instructional IQC and the SBE to consider developing computer science content standards.

AB 1530 (Chau, 2014) required the SPI to consider identifying, developing or revising model curriculum on computer science for kindergarten - 6th grade. AB 1530 was held in the Senate Appropriations Committee.

AB 2110 (Ting, 2014) required the IQC to consider incorporating computer science curriculum content into the mathematics, science, history-social science, and English language arts/English language development frameworks. AB 2110 was held in the Senate Appropriations Committee.

SUPPORT

None received

OPPOSITION

None received

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