

BILL ANALYSIS

Senate Research Center

S.B. 2180
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Education
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As Filed

AUTHOR'S / SPONSOR'S STATEMENT OF INTENT

Computer science and coding skills are in strong demand in the job market. There are 37,000 open jobs in computer science in Texas alone. A significant number of the open jobs in computing originate from one particularly important industry: cybersecurity. Despite these opportunities, less than three percent of Texas high school students took a computer science course in the 2015–2016 school year.

S.B. 2180 directs the Texas Education Agency to create a strategic plan for K-12 computer science that articulates the goals for computer science, strategies and funding needed to accomplish the goals, and timelines for carrying out the strategies to make computer science a fundamental part of a state's education system.

S.B. 2180 also requires the State Board of Education to update the K-8 technology applications standards to better address the computational thinking practices and skills that are foundational to further study of computer science and cybersecurity as well as the personal digital security practices that every user of technology should employ.

As proposed, S.B. 2180 amends current law relating to the essential knowledge and skills of the technology applications curriculum and the establishment of a computer science strategic advisory committee.

RULEMAKING AUTHORITY

This bill does not expressly grant any additional rulemaking authority to a state officer, institution, or agency.

SECTION BY SECTION ANALYSIS

SECTION 1. Amends Section 28.002, Education Code, by adding Subsection (c-3), as follows:

(c-3) Requires the State Board of Education (SBOE), in adopting the essential knowledge and skills for the technology applications curriculum for kindergarten through grade eight, to adopt essential knowledge and skills that include coding, computer programming, computational thinking, and cybersecurity. Requires SBOE to review and revise, as needed, the essential knowledge and skills of the technology applications curriculum every five years to ensure that the curriculum is relevant to student education and aligns with current or emerging professions.

SECTION 2. Amends Subchapter A, Chapter 28, Education Code, by adding Section 28.0181, as follows:

Sec. 28.0181. COMPUTER SCIENCE STRATEGIC ADVISORY COMMITTEE. (a) Defines "advisory committee" for purposes of this section.

(b) Requires the Texas Education Agency (TEA) to establish the computer science strategic advisory committee (advisory committee) to develop and provide recommendations for increasing computer science instruction and participation in public schools.

(c) Provides that the advisory committee is composed of at least 11 members. Requires the members to include:

- (1) two members appointed by the governor;
- (2) two members appointed by the lieutenant governor;
- (3) two members appointed by the speaker of the house of representatives;
- (4) one member appointed by the chair of the senate committee with primary jurisdiction over primary and secondary education;
- (5) one member appointed by the chair of the senate committee with primary jurisdiction over higher education;
- (6) one member appointed by the chair of the house of representatives committee with primary jurisdiction over primary and secondary education;
- (7) one member appointed by the chair of the house of representatives committee with primary jurisdiction over higher education;
- (8) one member appointed by the chair of SBOE; and
- (9) any other members added by the advisory committee in a manner determined by the committee in the committee's discretion.

(d) Requires the governor, lieutenant governor, and speaker of the house of representatives, in appointing members to the advisory committee, to coordinate appointments to ensure that the six individuals appointed to the advisory committee collectively by those officers include:

- (1) three educators who teach in a public school and are certified in computer science;
- (2) one parent or person standing in parental relation to a student enrolled in a public school;
- (3) one person employed in the technology industry; and
- (4) one faculty member of an institution of higher education.

(e) Requires the governor to designate a member of the advisory committee as the presiding officer of the advisory committee to serve in that capacity at the pleasure of the governor.

(f) Authorizes the advisory committee to hold public meetings.

(g) Provides that members of the advisory committee are not entitled to compensation but are entitled to reimbursement for actual and necessary expenses incurred in fulfilling committee duties.

(h) Requires staff members of TEA to provide administrative support for the advisory committee.

(i) Requires funding for the administrative and operational expenses of the advisory committee to be provided by appropriation to TEA for that purpose.

(j) Requires the advisory committee, not later than September 1, 2020, to submit to the governor and the legislature a report that includes recommended changes to state law, including funding proposals and timelines for the implementation of the recommended changes. Requires the report to include recommendations that are intended to:

- (1) increase the number of certified computer science teachers;
- (2) increase the number of public high schools offering computer science courses;
- (3) increase the number of high school students enrolled in computer science courses;
- (4) encourage the enrollment of diverse student populations in computer science courses; and
- (5) expand computer science learning opportunities, including computer programming, computer coding, cybersecurity, and computational thinking, in public schools.

(k) Provides that the advisory committee is abolished and this section expires January 1, 2021.

SECTION 3. Requires SBOE, not later than December 31, 2020, to review and revise, as needed, the essential knowledge and skills of the technology applications curriculum as required by Section 28.002(c-3), Education Code, as added by this Act.

SECTION 4. Requires that as soon as practicable after the effective date of this Act, the appropriate persons, as provided by Section 28.0181(c), Education Code, as added by this Act, appoint members to the computer science strategic advisory committee.

SECTION 5. Effective date: upon passage or September 1, 2019.