SENATE BILL REPORT
SB 5849

As of February 3, 2024

Title: An act relating to a computer science competency graduation requirement.

Brief Description: Concerning a computer science competency graduation requirement.

Sponsors: Senators Wellman, Nobles, Boehnke, Frame, Hasegawa, Hunt, Kuderer, Nguyen, Shewmake, Trudeau and Wilson, C..

Brief History:
  Committee Activity: Early Learning & K-12 Education: 1/17/24, 1/25/24 [DPS].
  Ways & Means: 2/03/24.

Brief Summary of First Substitute Bill

- Requires that all students show competency in high school learning standards related to computer science in order to graduate from high school, beginning with the 2029 graduating class.

- Provides various options in which students may demonstrate competency in computer science learning standards.

- Specifies that the requirements do not increase the number of high school credits required for graduation.

- Requires the Office of the Superintendent of Public Instruction to initiate a review and update of the state computer science learning standards.

- Requires the State Board of Education to collect information from school districts on computer science offerings, plans on implementing computer science requirements, and potential implementation needs.

- Modifies the goals that, to the maximum extent possible, the Superintendent of Public Instruction must integrate when periodically revising state learning standards.

This analysis was prepared by non-partisan legislative staff for the use of legislative members in their deliberations. This analysis is not part of the legislation nor does it constitute a statement of legislative intent.

SENATE COMMITTEE ON EARLY LEARNING & K-12 EDUCATION

Majority Report: That Substitute Senate Bill No. 5849 be substituted therefor, and the substitute bill do pass.
 Signed by Senators Wellman, Chair; Nobles, Vice Chair; Wilson, C., Vice Chair; Hawkins, Ranking Member; Dozier, Hunt, McCune, Mullet and Pedersen.

Staff: Benjamin Omdal (786-7442)

SENATE COMMITTEE ON WAYS & MEANS

Staff: Trevor Press (786-7446)

Background: <u>High School Graduation Requirements.</u> Washington State students must meet various requirements to graduate high school and receive a diploma. Students must complete 24 credits in specified subject areas as determined by the State Board of Education (SBE). Students must also complete a High School and Beyond Plan (HBSP), meet the requirements of at least one graduation pathway, and satisfy any local requirements.

Graduating students in the class of 2021 and subsequent classes must earn 17 core academic credits, four elective credits, and three locally determined personalized pathway credits.

<u>Program of Basic Education and State Learning Goals.</u> Washington's program of basic education establishes four goals for school districts pertaining to the opportunity for every student to develop the knowledge and skills essential for practicing certain academic skills and concepts.

The third goal addresses thinking "analytically, logically, and creatively, and to integrate technology literacy and fluency as well as different experiences and knowledge to form reasoned judgments and solve problems." The fourth goal addresses "the importance of work and finance and how performance, effort, and decisions directly affect future career and educational opportunities."

<u>State Learning Standards.</u> The Office of the Superintendent of Public Instruction (OSPI) is required to develop state learning standards that identify the knowledge and skills all public school students need to know and be able to do. Learning standards are based on the student learning goals of basic education as laid out in statute. State law also requires OSPI to periodically revise the state learning standards as needed.

Summary of Bill (First Substitute): <u>Computer Science Graduation Requirements.</u> Beginning with the 2029 graduating class, all students are required to show competency in the high school learning standards related to computer science in order to graduate from high school.

Students may demonstrate this computer science competency graduation requirement via:

- completion of a stand-alone computer science course aligned to the state learning standards;
- completion of a different subject matter course where the state computer science learning standards are embedded with other learning standards; or
- a demonstration of competency of the foundational skills established in the computer science state learning standards.

The demonstration of competency could include completion of a competency examination or any of the options allowed by rules adopted by the SBE that address mastery-based crediting, such as:

- completing a locally established portfolio or culminating project;
- participating in supervised work experience or other outside school experience;
- taking career and technical education classes;
- taking courses offered by regional or community centers or programs;
- receiving credits earned at a postsecondary institution; or
- providing documentation of a prior learning activity that demonstrates proficiency of the identified learning standards.

Consideration of seat time or instructional hours is not required to demonstrate competency. Students must be allowed to present multiple types of evidence for the demonstration of competency. Any options used to demonstrate competency in computer science standards must include evidence that the student meets or exceeds the computer science state learning standards.

Students in grade 12 who have not been able to show computer science competency because of previous residence outside the state may have the requirement waived by their principal.

The bill specifies that the additional computer science graduation requirements do not increase the number of high school credits required for graduation as established by the SBE.

Computer Science Learning Standards. OSPI shall initiate a review and update of the state computer science learning standards for students in grades kindergarten through grade 12. In developing the update of the state computer science learning standards, OSPI shall review standards adopted by other states and consult with nonprofit organizations that have demonstrated expertise in assisting states in developing computer science learning standards and must identify the standards considered to be foundational for graduation purposes.

The SBE must collection information from school districts about:

- the courses and other learning opportunities currently offered in computer science for high school students;
- how the district already assesses or plans to assess competency of the computer science state learning standards; and

- what the district may need in order to ensure that students are ready for the graduation requirement established under the act.

State Learning Goals. To the maximum extent possible the Superintendent of Public Instruction shall integrate technology literacy and fluency from goal three in the state learning standards, as opposed to specifically integrating goal four.

EFFECT OF CHANGES MADE BY EARLY LEARNING & K-12 EDUCATION COMMITTEE (First Substitute):

- Specifies that any options used to demonstrate competency in computer science standards must include evidence that the student meets or exceeds the computer science state learning standards.
- Requires OSPI, in developing computer science state learning standards, to identify the standards considered to be foundational for graduation purposes.
- Requires the State Board of Education to collection information from school districts about:
  1. the courses and other learning opportunities currently offered in computer science for high school students;
  2. how the district already assesses or plans to assess competency of the computer science state learning standards; and
  3. what the district may need in order to ensure that students are ready for the graduation requirement established under the act.

Appropriation: None.

Fiscal Note: Requested on January 8, 2024.

Creates Committee/Commission/Task Force that includes Legislative members: No.

Effective Date: Ninety days after adjournment of session in which bill is passed.

Staff Summary of Public Testimony on Original Bill (Early Learning & K-12 Education): *The committee recommended a different version of the bill than what was heard.* PRO: Technological skills are important and necessary to thrive in a 21st century digital economy. It is not necessary to wait until high school to learn computer science. Many students will have already mastered computer science basics by the time the bill's implementation go into effect. Computer science is as foundational as math or English. Allowing students in middle school to complete the requirement will ensure that students have the ability to take additional courses in high school. 92 percent of jobs in all fields will require technological skills. If requirements are not in place, the most vulnerable students in Washington will be left behind. It is critical that students understand the importance of technology and related skills. There is a high and growing necessity for computer science skills. Washington has the highest proportion of tech jobs in the country;

the bill would help students gain skills for these jobs. Current certification requirements have made it more difficult for districts to have qualified computer science teachers; reducing some administrative burdens will lead to more schools being able to offer computer science.

CON: Computer science is not needed for all students. There is only so much time for coursework that is relevant to their future goals.

OTHER: There is a need for the K-12 education system to adjust to a fast-moving world. While the bill allows flexibility for meeting the bill requirements, there are concerns about implementation. Current learning standards go beyond what students need to know in technology and media literacy. Equity concerns exist with available resources, teachers, and competency opportunities. The bill does not address the advanced skills needed to be successful in college computer science courses. The system may not be ready to fully implement a competency requirement with such high stakes.

Persons Testifying (Early Learning & K-12 Education): PRO: Senator Lisa Wellman, Prime Sponsor; Dave Brown, CS Forward; Chad Magendanz, CSTA; Connor Williams, Sammamish Robotics; Braelyn Fox, Sammamish Robotics; Kylee Seibel, Sammamish Robotics; Rediet Tassew, Sammamish High School; Maggie Glennon, Code.org; Anna Hernandez-French, Office of Superintendent of Public Instruction.

CON: Steven Bock; Katharine Rouse; Megan Klamik, Lake Washington High School.

OTHER: Natalya Yudkovsky, Roosevelt High School PTSA; Susan Baird-Joshi, Federal Legislative Chair for Washington State PTA; Alissa Muller, Washington State Board of Education; Nasue Nishida, Washington Education Association.

Persons Signed In To Testify But Not Testifying (Early Learning & K-12 Education): PRO: Linda Yang; Brittany Jarnot, Washington Technology Industry Association; Kan Qiu, American Coalition for Equality; Victor Wong, Hazen Robotics.

Staff Summary of Public Testimony on First Substitute (Ways & Means): PRO: Diversity in the technology workforce is not improving. Many youth outside of the east side of Puget Sound will not have access to computer science programming. In the modern world we need to have more access to computer science education.

OTHER: We have questions related to implementation. There will be local costs that vary widely due to this bill. The prototypical model does not easily reflect changes and are often underfunded by the Legislature.

Persons Testifying (Ways & Means): PRO: Senator Lisa Wellman, Prime Sponsor; Jennifer Boutell.

OTHER: Anna Hernandez-French, Office of Superintendent of Public Instruction.

Persons Signed In To Testify But Not Testifying (Ways & Means): No one.