

## SENATE COMMITTEE SUBSTITUTE

FOR

SENATE BILL NO. 659

AN ACT

To repeal section 170.018, RSMo, and to enact in lieu thereof two new sections relating to computer science courses.

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*Be it enacted by the General Assembly of the State of Missouri, as follows:*

Section A. Section 170.018, RSMo, is repealed and two new sections enacted in lieu thereof, to be known as sections 170.018 and 170.036, to read as follows:

170.018. 1. (1) For purposes of this section, "computer science course" means a course in which students study computers and algorithmic processes, including their principles, hardware and software designs, implementation, and impact on society. The term shall include, but not be limited to, a stand-alone course at any elementary, middle, or high school or a course at any elementary or middle school that embeds computer science content within other subjects.

(2) The department of elementary and secondary education shall, before July 1, 2019, develop a high school graduation policy that allows a student to fulfill one unit of academic credit with a district-approved computer science course meeting the standards of subsection 2 of this section for any mathematics, science, or practical arts unit required for high school graduation. The policy shall require that all students have either taken all courses that require end-of-course examinations for math and science or are on track to take all courses that require end-of-course examinations for math and science under the Missouri school

improvement program in order to receive credit toward high school graduation under this subsection.

(3) A school district shall communicate to students electing to use a computer science course for a mathematics unit that some institutions of higher education may require four units of academic credit in mathematics for college admission. The parent, guardian, or legal custodian of each student who chooses to take a computer science course to fulfill a unit of academic credit in mathematics shall sign and submit to the school district a document containing a statement acknowledging that taking a computer science course to fulfill a unit of academic credit in mathematics may have an adverse effect on college admission decisions.

(4) The department of elementary and secondary education and the department of higher education and workforce development shall cooperate in developing and implementing academic requirements for computer science courses offered in any grade or grades not lower than the ninth nor higher than the twelfth grade.

2. (1) The department of elementary and secondary education shall convene a work group to develop and recommend rigorous academic performance standards relating to computer science for students in kindergarten and in each grade not higher than the twelfth grade. The work group shall include, but not be limited to, educators providing instruction in kindergarten or in any grade not higher than the twelfth grade and representatives from the department of elementary and secondary education, the department of higher education and workforce development, business and industry, and institutions of higher education. The department of elementary and secondary education shall develop written curriculum frameworks relating to computer science that may

be used by school districts. The requirements of section 160.514 shall not apply to this section.

(2) The state board of education shall adopt and implement academic performance standards relating to computer science beginning in the 2019-20 school year.

3. Before July 1, 2019, the department of elementary and secondary education shall develop a procedure by which any teacher who holds a certificate of license to teach under section 168.021 and demonstrates sufficient content knowledge of computer science shall receive a special endorsement on [his or her] the teacher's license signifying [his or her] the teacher's specialized knowledge in computer science.

4. (1) For purposes of this subsection, "eligible entity" means:

(a) A local educational agency, or a consortium of local educational agencies, in the state, including charter schools that have declared themselves local educational agencies;

(b) An institution of higher education in the state; or

(c) A nonprofit or private provider of nationally recognized and high-quality computer science professional development, as determined by the department of elementary and secondary education.

(2) There is hereby created in the state treasury the "Computer Science Education Fund". The fund shall consist of all moneys that may be appropriated to it by the general assembly and any gifts, contributions, grants, or bequests received from private or other sources for the purpose of providing teacher professional development programs relating to computer science. The state treasurer shall be custodian of the fund. In accordance with sections 30.170 and 30.180, the state treasurer may approve disbursements. The fund

shall be a dedicated fund and, upon appropriation, moneys in the fund shall be used solely for the administration of grants to eligible entities as described in this section. Notwithstanding the provisions of section 33.080 to the contrary, any moneys remaining in the fund at the end of the biennium shall not revert to the credit of the general revenue fund. The state treasurer shall invest moneys in the fund in the same manner as other funds are invested. Any interest and moneys earned on such investments shall be credited to the fund.

(3) The state board of education shall award grants from the computer science education fund to eligible entities for the purpose of providing teacher professional development programs relating to computer science. An eligible entity wishing to receive such a grant shall submit an application to the department of elementary and secondary education addressing how the entity plans to:

(a) Reach new and existing teachers with little computer science background;

(b) Use effective practices for professional development;

(c) Focus the training on the conceptual foundations of computer science;

(d) Reach and support historically underrepresented students in computer science;

(e) Provide teachers with concrete experience with hands-on, inquiry-based practices; and

(f) Accommodate the particular needs of students and teachers in each district and school.

5. (1) For all school years beginning on or after July 1, 2023, each public high school and charter high school shall offer at least one computer science course in

an in-person setting or as a virtual or distance course option.

(2) Any computer science course or instruction offered under this subsection shall:

(a) Be of high quality as defined by the state board of education;

(b) Meet or exceed the computer science performance standards developed and adopted by the department of elementary and secondary education under this section; and

(c) For any computer science course offered by a public high school or charter high school, be offered in such school's course catalog.

(3) On or before June thirtieth of each school year, each school district shall submit to the department of elementary and secondary education a report for the current school year which shall include, but not be limited to:

(a) The names and course codes of computer science courses offered in each school in the district with a course description and which computer science performance standards are covered, to the extent such information is available;

(b) The number and percentage of students who enrolled in each computer science course, listed by the categories in subparagraphs a. to f. of this paragraph. If a category contains one to five students or contains a quantity of students that would allow the quantity of another category that contains five or fewer to be deduced, the number shall be replaced with a symbol:

a. Sex;

b. Race and ethnicity;

c. Special education status including, but not limited to, students receiving services under the federal Individuals with Disabilities Education Act (IDEA) (20 U.S.C. Section 1400 et seq., as amended) or Section 504 of

the federal Rehabilitation Act of 1973 (29 U.S.C. Section 794), as amended;

d. English language learner status;

e. Eligibility for free or reduced price meals; and

f. Grade level; and

(c) The number of computer science instructors at each school, listed by the following categories:

a. Applicable certifications;

b. Sex;

c. Race and ethnicity; and

d. Highest academic degree.

(4) On or before June thirtieth of each school year, the department of elementary and secondary education shall post the following on the department's website:

(a) Data received under paragraphs (a) and (b) of subdivision (3) of this subsection, disaggregated by school and aggregated statewide; and

(b) Data received under paragraph (c) of subdivision (3) of this subsection, aggregated statewide.

(5) On or before June thirtieth of each school year, the department of elementary and secondary education shall publish a list of computer science course codes and names with a course description and an indication of which courses meet or exceed the department of elementary and secondary education's computer science performance standards.

6. The department of elementary and secondary education shall appoint a computer science supervisor. The computer science supervisor shall be responsible for implementing the provisions of this section.

7. For all school years beginning on or after July 1, 2023, a computer science course successfully completed and counted toward state graduation requirements shall be equivalent to one science course or one practical arts

credit for the purpose of satisfying any admission requirements of any public institution of higher education in this state.

8. The department of elementary and secondary education shall promulgate rules to implement the provisions of this section. Any rule or portion of a rule, as that term is defined in section 536.010, that is created under the authority delegated in this section shall become effective only if it complies with and is subject to all of the provisions of chapter 536 and, if applicable, section 536.028. This section and chapter 536 are nonseverable, and if any of the powers vested with the general assembly pursuant to chapter 536 to review, to delay the effective date, or to disapprove and annul a rule are subsequently held unconstitutional, then the grant of rulemaking authority and any rule proposed or adopted after December 18, 2018, shall be invalid and void.

170.036. 1. There is hereby established the "Computer Science Education Task Force".

2. The task force shall consist of the following members:

(1) Two members of the house of representatives, with one member to be appointed by the speaker of the house of representatives and one member to be appointed by the minority leader of the house of representatives;

(2) Two members of the senate, with one member to be appointed by the president pro tempore of the senate and one member to be appointed by the minority leader of the senate;

(3) The governor or the governor's designee;

(4) The commissioner of education or the commissioner's designee;

(5) The commissioner of higher education or the commissioner's designee; and

(6) Six members who represent the interests of each of the following groups, to be appointed by the commissioner of education:

- (a) The state board of education;
- (b) Private industry in this state with interest in computer science;
- (c) Nonprofit organizations;
- (d) An association of school superintendents;
- (e) A statewide association representing computer science teachers; and
- (f) A secondary teacher leader from career and technical education representing computer science teachers.

3. The mission of the computer science education task force shall be to develop a state strategic plan for expanding a statewide computer science education program, including the following:

- (1) A statement of purpose that describes the objectives or goals the state board of education will accomplish by implementing a computer science education program, the strategies by which those goals will be achieved, and a timeline for achieving those goals;
- (2) A summary of the current state landscape for K-12 computer science education, including demographic reporting of students taking these courses;
- (3) A plan for expanding computer science education opportunities to every school in the state within five years and increasing the representation of students from traditionally underserved groups, in computer science including female students, students from historically underrepresented racial and ethnic groups, students with disabilities, English-language learner students, students who qualify for free and reduced-price meals, and rural students;



(4) A plan for integrating computer science instruction in kindergarten through eighth grades around the basics of computer science and computational thinking and exploratory computer science;

(5) A plan for the development of rigorous standards and curriculum guidelines for K-12 computer science, including ways to incorporate computer science into existing standards at the elementary level, as appropriate;

(6) A plan for ensuring teachers are well-prepared to begin teaching computer science, including defining high-quality professional learning for in-service teachers and strategies for pre-service teacher preparation;

(7) An ongoing evaluation process that is overseen by the state board of education;

(8) Proposed rules that incorporate the principles of the master plan into the state's public education system as a whole; and

(9) A plan to ensure long-term sustainability for computer science education.

4. The speaker of the house of representatives shall designate the chair of the task force, and the president pro tempore of the senate shall designate the vice chair of the task force.

5. Members of the task force shall serve without compensation, but the members and any staff assigned to the task force shall receive reimbursement for actual and necessary expenses incurred in attending meetings of the task force or any subcommittee thereof. All task force members shall be subject to the same conflict of interest provisions in chapter 105 that are enforced by the Missouri ethics commission in the same manner that elected or appointed officials and employees are subject to such provisions.

6. The task force shall hold its first meeting within one month from the effective date of this section.

7. Before June 30, 2023, the task force shall present a summary of its activities and any recommendations for legislation to the general assembly.

8. The computer science education task force shall dissolve on June 30, 2024.