COMMITTEE ON LEGISLATIVE RESEARCH
OVERSIGHT DIVISION

FISCAL NOTE

L.R. No.:   4037-03
Bill No.:   HCS for HB 1457
Subject: Elementary and Secondary Education; Department of Elementary and Secondary
              Education; Science and Technology
Type: Original
Date: February 6, 2018

Bill Summary: This proposal creates new provisions related to computer science.

FISCAL SUMMARY

ESTIMATED NET EFFECT ON GENERAL REVENUE FUND			
FUND AFFECTED	FY 2019	FY 2020	FY 2021
General Revenue	($23,859)	($23,859)	$0
Total Estimated Net Effect on General Revenue	**($23,859)**	**($23,859)**	**$0**

ESTIMATED NET EFFECT ON OTHER STATE FUNDS			
FUND AFFECTED	FY 2019	FY 2020	FY 2021
Total Estimated Net Effect on Other State Funds	**$0**	**$0**	**$0**

Numbers within parentheses: ( ) indicate costs or losses.
This fiscal note contains 8 pages.

ESTIMATED NET EFFECT ON FEDERAL FUNDS			
FUND AFFECTED	FY 2019	FY 2020	FY 2021
Total Estimated Net Effect on All Federal Funds	**$0**	**$0**	**$0**

ESTIMATED NET EFFECT ON FULL TIME EQUIVALENT (FTE)			
FUND AFFECTED	FY 2019	FY 2020	FY 2021
Total Estimated Net Effect on FTE	**0**	**0**	**0**

☐ Estimated Net Effect (expenditures or reduced revenues) expected to exceed $100,000 in any of the three fiscal years after implementation of the act.

ESTIMATED NET EFFECT ON LOCAL FUNDS			
FUND AFFECTED	FY 2019	FY 2020	FY 2021
Local Government	**$0**	**$0**	**(Unknown)**

FISCAL ANALYSIS

<u>ASSUMPTION</u>

§170.035.10
Officials from **Department of Elementary and Secondary Education (DESE)** assume this proposal requires establishment of academic standards, so DESE will have to convene workgroups. DESE estimates two workgroups (one K-5 and one 6-12) are needed. Also, developing the frameworks will require .50 FTE assistant director.

DESE assumes a cost of approximately $30,000 per year for the .50 FTE. Also, DESE assumes a cost of $23,859 in FY 2019 and FY 2020 for the workgroups.

Oversight assumes DESE is provided with core funding to handle a certain amount of activity each year. Oversight assumes the current FTE could handle the framework development. Should additional FTE be required, DESE could request the FTE through the appropriation process. Oversight will reflect the cost of the workgroup meetings.

§170.035.2
Oversight assumes this provision requires every school district, after the 2019-2020 school year, to offer a course on computer science.

§170.035.4
Oversight assumes this provision requires DESE to develop a graduation policy before July 1, 2020, that allows a student to fulfill one unit of academic credit with a computer science course.

§170.035.9
Oversight assumes this provision requires DESE to develop a virtual computer science course and the department shall not charge any school district a fee in order to offer such virtual course.

Oversight notes, DESE offers computer science and programming courses through MoVIP (Missouri Virtual Instruction Program). Oversight notes DESE does not charge school districts a fee for this course; however, the course provider charges an enrollment fee that ranges from $349 to $445 per student.

ASSUMPTION (continued)

Oversight notes there were 267,868 students in enrolled in high school (9th - 12th) in the 2016-2017 school year. If 5% of students opted to take a computer science course through MoVIP (13,393) and assuming a cost of $400 per semester-long course ($800 for a year-long one credit course), the cost is estimated at $10,714,400 (13,393 * $800).

Oversight will assume the cost of the virtual coarse will be paid by the school district. Oversight does not have information as to what school districts currently meet these requirements, which school districts will incur additional expense hiring additional instructors qualified to teach computer science courses, and which districts will require their students to take online course or videoconferencing. Therefore, Oversight will reflect an unknown cost to local school districts beginning in the 2020-2021 school year.

§170.035.11
Oversight assumes this provision requires the state board of education to develop a procedure for a teacher who holds a certificate of license to teach and demonstrate sufficient content knowledge of computer science to receive a special endorsement on his or her license.

Bill as a whole
Officials from the **Macon County R-IV School District** state the district currently has no personnel able to instruct in computer programming. While the bill allows for various avenues the district would face one or more of the following in order to comply:
1. Hire an instructor qualified to instruct computer programming. The current base salary for the district is $27,700 plus benefits.
2. Acquire suitable virtual instruction. Costs cannot be determined at this time but there would be a cost, either to license the district or to pay on a per pupil basis.
3. Send students to a vocational-technical school for services. Currently the cost per student is $1,800 annually.

Officials from the **West Plains School District** assume the district would be required to employ an instructor with computer programming certification in order to offer this course. The annual cost is estimated at $60,000 to $80,000.

Officials from the **Kirksville R-III School District** assume this proposal would have a limited negative fiscal impact on the district.

Officials from the **Wellsville-Middletown R-1 School District** assume this proposal will have a negative fiscal impact on the district. The start-up costs for small rural school like ours are likely to be significant.

JLH:LR:OD

ASSUMPTION (continued)

In response to a previous version HB 1457 (LR 4037-02), officials from the **Wellsville-Middletown R-1** and **Summersville R2 School District** anticipated a negative fiscal impact.

In response to a previous version HB 1457 (LR 4037-02), officials from the **Moberly School District #81** assumed the cost will be about $3,000 for start up and an annual fee for software of about $700. Other costs involved will be for a teacher, equipment, and training.

In response to a previous version HB 1457 (LR 4037-02), officials from the **Northeast Nodaway R-5 School District** assumed this could cost several thousand dollars to get a good curriculum.

In response to a previous version HB 1457 (LR 4037-02), officials from the **Osage R-2 School District** assumed this would have no additional cost.

Officials from the **Joint Committee on Administrative Rules** assume this proposal is not anticipated to cause a fiscal impact beyond its current appropriation.

Oversight notes this proposal requires all school districts to offer a course on computer science with an emphasis in computer programming to all students beginning in school year 2020-2021 (FY 2021). This course is required to be taught by a teacher holding a certificate. Oversight assumes some school districts will have expenses for hiring additional teachers, obtaining the computers and space to hold the classes and for supplies needed for the course. Oversight is unable to determine how many school districts currently teach the course as required by the proposal. Oversight will show an unknown cost to school districts.

ASSUMPTION (continued)

Officials at the following school districts: Arcadia Valley R-2, Avilla R-13, Bakersfield, Belton, Benton County R-2, Bismark R-5, Bloomfield R-14, Blue Springs, Bolivar R-I, Bowling Green R-1, Branson, Brentwood, Bronaugh R-7, Campbell R-2, Carrollton R-7, Caruthersville, Central R-III, Chilhowee R-4, Chillicothe R-II, Clarkton C-4, Cole R-I, Columbia, Concordia R-2, Crawford County R-1, Crocker R-II, Delta C-7, East Carter R-2, Eldon R-I, Everton R-III, Fair Play, Fayette R-3, Forsyth R-3, Fox C-6, Fredericktown R-I, Fulton, Grain Valley, Hancock Place, Hannibal, Harrisonburg R-8, Harrisonville, Hillsboro R-3, Hollister R-5, Humansville R-4, Hurley R-1, Independence, Jefferson City, Kansas City Public Schools, Kearney R-1, Kennett #39, King City R-1, Kingston 42, Kirbyville R-VI, Lee Summit, Leeton R-10, Lewis County C-1, Lincoln R-II, Lindbergh, Lonedell R-14, Malta Bend, Mehville, Meramec Valley R-3, Mexico, Middle Grove C-1, Midway R-1, Milan C-2, Monroe City R-I, Morgan County R-2, New Haven, Nixa, North Kansas City, North St. Francois Co. R-1, Odessa R-VII, Oregon-Howell R-III, Orrick R-11, Osborn R-0, Parkway, Pattonville, Pettis County R-12, Pierce City, Plato R-5, Princeton R-5, Raymore-Peculiar R-III, Raytown, Reeds Springs R-IV, Renick R-5, Republic R-III, Richards R-V, Richland R-1, Richmond R-XVI, Riverview Gardens, Salisbury R-4, Sarcoxie R-2, Scotland County R-I, Sedalia, Seymour R-2, Shell Knob #78, Sikeston, Silex, Smithville R-2, Special School District of St. Louis County, Spickard R-II, Springfield, St Joseph, St Louis, St. Charles, St. Elizabeth R-4, Sullivan, Valley R-6, Verona R-7, Warren County R-3, Warrensburg R-6, Waynesville, Webster Groves, Wentzville, Westview C-6 and the Wright City R-2 school districts did not respond to **Oversight's** request for fiscal impact.

FISCAL IMPACT - State Government	FY 2019 (10 Mo.)	FY 2020	FY 2021
GENERAL REVENUE			
Cost - DESE - workgroup meetings §170.035.10	($23,859)	($23,859)	$0
ESTIMATED NET EFFECT ON GENERAL REVENUE	**($23,859)**	**($23,859)**	**$0**

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FISCAL IMPACT - Local Government   FY 2019   FY 2020   FY 2021
                                            (10 Mo.)

SCHOOL DISTRICT FUNDS

<u>Costs</u> - teachers, computers, classrooms
and/or supplies needed to offer a course
on computer science or cost for virtual   <u>$0</u>   <u>$0</u   (Unknown)
computer science courses

**ESTIMATED NET EFFECT ON
SCHOOL DISTRICT FUNDS**   **<u>$0</u>**   **<u>$0</u>**   **(Unknown)**

FISCAL IMPACT - Small Business

No direct fiscal impact to small businesses would be expected as a result of this proposal.

FISCAL DESCRIPTION

This proposal requires each school district, after the 2019-20 school year, to offer a course on computer programming to all high school students. The bill provides specified options for the school district to develop or use an established curriculum for the course. Students taking the course may have the course count as an elective or practical arts credit. The course shall be taught by a certified teacher and may be offered as an online course or through videoconferencing.

This proposal requires the state board of education to convene a work group to develop and recommend academic performance standards for computer science. These standards shall be adopted and implemented beginning in the 2020-21 school year.

The state board shall also develop a procedure by which any licensed teacher who demonstrates sufficient content knowledge of computer science to receive a special endorsement on his or her license.

This proposal requires Department of Elementary and Secondary Education to develop a virtual course that meets the requirements of section 162.1250 and the requirements for the computer science course described under subsection 2.

This legislation is not federally mandated, would not duplicate any other program and would not require additional capital improvements or rental space.

JLH:LR:OD

SOURCES OF INFORMATION

Department of Elementary and Secondary Education
Kirksville R-III School District
Macon County R-IV School District
Moberly School District #81
Northeast Nodaway R-5 School District
Osage R-2 School District
Summersville R2 School District
Wellsville-Middletown R-1
West Plains School District

Ross Strope

Acting Director
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