Fiscal Note & Local Impact Statement

Bill: H.B. 170 of the 132nd G.A.   **Status:** As Introduced

Sponsor: Reps. Carfagna and Duffey   **Local Impact Statement Procedure Required:** No

Subject: Instruction in computer science

State & Local Fiscal Highlights

- The bill appropriates $2.5 million from the GRF in FY 2019 for a competitive technology grant program to support computer science programs and professional development related to those programs. Under the program, public districts and schools are eligible for grants of up to $100,000. The administrative responsibilities of the Ohio Department of Education (ODE) will increase to award the grants and to produce a report on the effectiveness of the grant program.

- The bill also requires the State Board of Education to adopt academic content standards for grades K-12 in computer science. The administrative responsibilities of the State Board and ODE will increase to develop and communicate the new computer science academic content standards and curriculum to school districts.

- The bill adds computer science instruction as an option to several prescribed subjects in the state minimum high school curriculum. Districts and schools choosing to add computer science instruction may incur increased costs to update curricula, lesson plans, instructional materials, and technology for the unit of computer science education that may be included in the required four units of math education, the three units of science education, or the five units of electives. Districts and schools may also incur costs to reimburse staff members for the cost of professional development.

Detailed Fiscal Analysis

Computer science academic content standards and curriculum

Academic content standards

The bill requires the State Board of Education, by July 1, 2018, to adopt academic content standards for instruction in computer science in grades kindergarten through 12. The bill further directs the State Board, when developing these standards, to consider recommendations from computer science education stakeholder groups, including teachers and representatives from higher education, industry, and Ohio and national computer science organizations. The administrative responsibilities of the State Board and the Ohio Department of Education (ODE) will increase to develop and communicate the new computer science standards and curriculum to school districts. In FY 2017, about $3.9 million in GRF funding is specifically appropriated to ODE in line item 200427, Academic Standards, for developing, revising, and communicating academic content standards and curriculum models to school districts, and for developing professional development programs and other tools on content standards and model curricula.

High school curriculum

Current law prescribes 20 units of study in specified subject areas as the minimum high school curriculum for a diploma from a public school or a chartered nonpublic school. The bill adds computer science instruction as an option to several of the prescribed subjects in that curriculum. Specifically, for districts and schools choosing to offer courses in computer science, the bill permits a student to apply instruction in computer science as one of the four required units of math, one of the three required units of science, or one of the five required units of electives for districts and schools choosing to utilize the new standards. Districts and schools choosing to add instruction in computer science may incur increased costs to update curricula, lesson plans, instructional materials, and technology.

Qualification to teach computer science

State Board rules require that a public school teacher generally must be licensed in the subject area the teacher is teaching. The bill specifies that school districts choosing to offer computer science education under the bill are not required to employ an individual who is licensed to teach in the computer science field, however, the individual must complete a professional development program determined to be appropriate by the district board. In addition, if an individual is teaching Advanced Placement (AP) computer science, the bill requires completion of a professional development program provided by the College Board as one of the conditions for

qualifying as a highly qualified teacher in grades 7 to 12.[1] Thus, districts choosing to offer computer science education may incur additional costs to reimburse staff members for the cost of professional development.

Technology grant program

The bill creates a competitive grant program for school districts, educational service centers, community schools, and STEM schools for the 2018-2019 school year to support computer science programs and professional development related to those programs by improving technology infrastructure and readiness in districts and schools. The bill appropriates $2.5 million for the grants in FY 2019 from GRF line item 200426, Ohio Educational Computer Network, and specifies that each individual grant may be for up to $100,000.

The grants may be used for any of the following: (1) the delivery of online assessments, including instruction and data that support online assessment readiness, (2) wireless connectivity in school buildings, (3) network services, such as improving bandwidth capacity and filtering devices, and (4) the purchase of computers and equipment. ODE must first give priority to applicants that demonstrate the greatest need for the grants and then give priority to proposals that include partnerships and a plan for sustaining the technological improvements made with the grants. In the case of an educational service center, the applicant must demonstrate how a grant awarded to the service center would produce cost savings compared with grants awarded to individual districts or schools.

In addition, ODE must issue a report by January 1, 2020 to the chairpersons of the House and Senate Education committees on the effectiveness of the grant program. The report must include a comparison of the grant proposals and the measurable outcomes of grants awarded under the program, as well as a summary of the data reported by the participants. ODE's administrative responsibilities will increase to award the grants and to produce the report.

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[1] To be highly qualified in Ohio, a teacher must have a bachelor's degree, be licensed by the State Board, and meet certain other educational, professional development, and testing or experience requirements. With the passage of the Every Student Succeeds Act, federal law no longer includes a requirement that teachers of core subject areas be highly qualified in order to teach in a school funded with federal Title I funds.