



MASSACHUSETTS BUSINESS ALLIANCE FOR EDUCATION PUBLIC COMMENT TO THE BOARD OF ELEMENTARY AND SECONDARY EDUCATION – June 26, 2018 REGARDING COMPUTER SCIENCE EDUCATION

The Massachusetts Business Alliance for Education (MBAE) is pleased to see that the recommendations of the Computer Science Working Group include integrating computational thinking into K-6 and increasing teacher professional development. While MBAE appreciates any movement in favor of expanding access to computer science there are concerns that must be addressed to ensure every student has access to computer science education.

The recommendations do not adequately address how the Department will focus on access and equity in the development of a comprehensive computer science K-16 plan. Confronting these matters is crucial to ensuring every student has access to computer science coursework and acquires the digital skills they need in the workforce now and in the future.

MassCore

Allowing a computer science course that includes “rigorous mathematical or scientific concepts and aligns with the DLCS standards” to be substituted for either a laboratory science course or for a mathematics course to meet MassCore requirements is a recommendation that we endorse. It will be critically important, however, to put safeguards in place that ensure these courses are of equal rigor across schools and districts. The inconsistency between the number of students reported as having completed the MassCore course of study and those needing remedial or development courses in public higher education or the workforce is significant. This discrepancy indicates that MassCore is not the college and career ready measure it was intended to be and should be. Therefore, simply making computer science an option for MassCore will not guarantee the course is aligned with postsecondary education without further action.

Creating a Computer Science K-16 State Plan

A state plan for computer science education must address not only training and resources, but also access and equity. The report cited deep access issues regarding where computer science courses are currently available and the fact that white students are more likely to access and participate in computer science courses than their peers of other races. The percentage point difference in computer science course enrollment for white students in high school was 5.3 while the percentage point difference for African American and Hispanic students was -2.3 and -4, respectively. Professional development alone will not address equity in access or participation unless there is an explicit plan for

placing computer science teachers in schools attended by student populations currently excluded from studying computer science.

A comprehensive computer science K-16 state plan must put access and equity at the forefront. The report cited a BNY Mellon 2017 study which referenced a state K-12 computer science plan which covers 2015-2018. The state needs a robust, new plan for the next five years which will close the gaps in computer science access between urban, suburban and rural and increase equity in the student population taking computer science.

Universal Access

The recommendations do not include goals for getting computer science into every high school. Collecting data annually on access, participation and performance in computer science should also include annual goals for ensuring computer science is offered equitably in every elementary, middle and high school. It is imperative that all Massachusetts high schools meet student demand and provide equal opportunities for all students in the Commonwealth to gain the skills, experience and knowledge to fully participate in our state's knowledge economy.

We urge the Board to take into consideration the concerns raised here. Issuing recommendations for expanding access and studying results is important, but insufficient to ensure that all Massachusetts students, irrespective of which school they attend, will have equal K12 computer science education opportunities.

For more information, please contact:

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MBAE Affiliates

MBAE Affiliates share our commitment to driving education improvements that will ensure all students get the education they need to be successful in college and career.

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