



Senate Education Committee  
Substitute House Bill 170 – Testimony  
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September 27, 2017

Chairwoman Lehner, Vice Chair Huffman, Ranking Member Sykes, and members of the committee, thank you for the opportunity to testify in support of Substitute House Bill 170.

My name is Annalies Corbin and I am the founder, President and CEO of PAST Foundation.

PAST Foundation is a non-profit provider of STEM education, curriculum design and workforce development. We work with school districts across the state to deliver hands-on, real life problem solving STEM education, and we help catalyze the expansion of STEM education toward workforce development. PAST stands for “Partnering Anthropology with Science and Technology,” and was formed in 2000 to improve education through the use of transdisciplinary problem-based learning, or TPBL. TPBL challenges students to link learning to real life through hands-on, student-centered activities and instruction. PAST is able to create this 21<sup>st</sup> century educational environment by working closely with community partners, school administrators, teachers and businesses in STEM fields in addition to hosting students at the PAST Innovation Lab in Columbus, Ohio.

The PAST Innovation Lab houses industry-driven learning laboratories in design, health sciences, energy and high-tech, urban agriculture, and digital careers. In close collaboration with our industry partners, PAST helps communities design curriculum, internship programs, and mentoring opportunities that have given 26,000 Ohio students the ability to develop skills necessary for a successful career

in a high demand STEM field. Our programming targets both students excelling in math and science as well as those who are struggling to ensure we close the achievement gap and prepare all students to be productive, successful members of the workforce.

PAST Foundation supports Substitute House Bill 170 because we believe this bill moves the state in the right direction toward addressing gaps in workforce development by allowing computer science to stand on its own as a critical learning objective for Ohio students. Specifically, allowing computer science to count as a science or math credit as part of the minimum high school curriculum provides students flexibility for more exposure to elements of computer science, which has shown to be critical in sustaining interest in STEM-related higher education and career paths.

This is vital, as currently one-third of all U.S. students who intend to pursue engineering change their major before graduating and the proportion of American STEM students is already lower than that of our international peers.<sup>1</sup> In addition, of the one million high school freshman who declared an interest in STEM education, 57 percent lost that interest by the time they graduated and began looking toward college or full-time work.<sup>2</sup> This is partially due to the traditional methods often used to teach STEM subjects throughout a student's education—blackboard and textbook-heavy methods that fail to actively engage students in creative problem solving. Yet STEM fields offer some of the best career options as employment in occupations related to STEM will grow to over nine million by 2022, with almost all of the 30 fastest-growing jobs requiring STEM skills.<sup>3</sup>

PAST Foundation supports Substitute House Bill 170 for addressing some of the personnel and capital investments needed for the minimum curriculum expansion to computer science. The bill expands access to teachers of computer science by promoting pathways to developing needed skills while recognizing existing, highly

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<sup>1</sup> New England Board of Higher Education 2011 study, <http://www.nebhe.org/wp-content/uploads/IAJC-ASEE-2011-Paper.pdf>

<sup>2</sup> myCollegeOptions and STEMconnector, Where Are the STEM Students?, USA, 2013

<sup>3</sup> U.S. Bureau of Labor Statistics Occupational Outlook Quarterly Spring 2014, STEM 101: Intro to Tomorrow's Jobs

qualified educators and applicants seeking to teach courses in computer science. The computer science and technology fund which the bill authorizes schools to establish will be a mechanism for some of the capital improvements schools need to make in order to better teach computer science courses.

The improvements to the state's content standards and model curriculum on computer science made by Substitute House Bill 170 are a needed step toward the future of successful STEM education in Ohio. As experienced, effective practitioners in training educators and delivering this knowledge base and skill set to Ohio's youth for 17 years, PAST Foundation commends the legislature's interest in reforming and improving access to STEM education, building the workforce pipeline and preparing students for the evolving demands of Ohio's economy. Please contact me at any time if I can be helpful, and consider PAST a resource as you continue developing policies that will shape the future of Ohio's students and workforce.

I am happy to answer any questions you may have.