

Testimony in Support of HB 5649

Ashley Cramer

Student

Good morning Chair Koleszar, Majority Vice Chair Churches, Minority Vice Chair Greene, and members of the Michigan House Education Committee. I'm Ashley Cramer, a junior at Zeeland East High School in Zeeland, Michigan, and I am a part of the women's code ambassador program at Code.org. During my 3 and half years of high school, I've taken the in-person computer science courses offered at my school and am signed up to take a virtual computer science class next year. I'm also heavily involved with programming on our FRC robotics team, and we actually just recently returned from the World Championship in Houston, Texas. I am beyond honored to be speaking in front of you all today.

Many of you know how technology and innovations are expanding at an exponential rate. This "technology era" isn't going away any time soon, and the need for employees in the programming field is only growing every day. It's important that students are given the opportunity to explore computer science during high school. Not only to allow them to be more prepared to pursue coding or software as a career but to also develop new ways of thinking and learn fundamental skills that can be applied to a multitude of professions.

When I started my first unit in computer science, learning about how complex information - like images, text, and numbers - are seen through the digital world, something clicked in my mind, and it felt like I had just been exposed to a whole new world that I had never seen before. The code and software behind a screen are like a whole other reality that allows for creativity and ideas to come to life. Anything that I want to make, there is a way to do it. I didn't expect to gain this level of knowledge and expertise in so many different programming languages. I didn't expect to learn about how the AI behind social media works, how loops and conditionals are used within apps, and how so many small components come into play when creating a bigger picture. I would have never thought about these concepts had I not taken a computer science class. It's truly helped me develop this imaginative way of tackling problems unlike any other. And I don't just keep this mindset when I code, but I use it to help solve problems in math, understand concepts in science, and make connections to sources used in my English essays. Without the exposure to computer science within my school, I don't think I would be the kind of thinker I am today.

Now, I have joined my robotics team, advocated for my school to adopt more comp sci classes, and want to major in computer science. All things I would have never felt confident enough to do had I not taken a coding course. Because of CS, I've taken on leadership roles like being a CS ambassador and am understanding how the structure of all languages is very similar. Because of CS, I can code our FRC robot to

move autonomously and program sensors to detect when game pieces are acquired in each mechanism. Because of CS, I have grown as a person and can achieve more than I ever dreamed possible.

I want all students to experience the same feeling I had when I was introduced to the programming world, and there's no better time than in high school. Regardless of the person's identity, religious, or ethnic background, they should have access to a computer science class in their high school. This will increase not only the number of applicants for software or programming jobs but, also, increase the diversity in this field. And, as a woman going into this male-dominated field, knowing that every kid, especially other girls, had the option to explore computer science makes me feel inspired and safe. It makes me feel as though I will have a strong community around me in the future.

All in all, passing HB 5649 Michigan will set more students up for successful futures and give them the ability to experience a newfound way of solving problems like I did. Computer science is more than just coding, and exposure to the concepts and skills learned from a high school computer science class can change lives. Thank you for listening to my testimony in support of HB 5649.