Contact Info: name - Julia Wynn, email - julia.wynn@code.org, phone number - (240) 688-9674, org - Code.org, zip-code - 43230

Date of Submission: 02/28/2025

Honorable Members of the West Virginia House Education Committee:

Thank you for accepting my written comments in strong support of HB 2411, to enact a computer science graduation requirement. My name is Julia Wynn, and I manage advocacy in West Virginia for Code.org, a nonprofit focused on expanding access to computer science education for every student in every school.

In an age of technology and AI, computer science is an essential literacy. Understanding concepts like the Internet, problem-solving, and algorithms are just as important as learning biology or civics. Computer science skills are used in every industry - energy, finance, manufacturing and more - and are critical to future economic growth in West Virginia. The Governor has expressed his desire to prioritize 21st century subjects, specifically mentioning coding and digital literacy, and legislative leadership has likewise talked about ensuring more West Virginians are prepared for good-paying, 21st century jobs. This bill will help position West Virginia to achieve those things.

Learning computer science is a huge opportunity for students. The subject allows students to be both creative as they design art for apps and create with technology, and analytical, as they apply problem-solving skills to analyzing data and debugging algorithms. Most importantly, it allows students to establish positive associations with trial and error, something that has become increasingly rare in our society today where social media often delivers instant gratification.

West Virginia ranks 17th in the country in access to computer science, with 78% of high schools offering the subject. That means the majority of schools are already offering computer science, and only 25 high schools would need to newly offer a course under this bill. The five years allotted for implementation gives schools a long runway to adapt their offerings to ensure every student is taking computer science. Further, because West Virginia does not have strict licensure requirements for computer science teachers, schools have the flexibility they need to secure teacher capacity. There are also free teacher training opportunities available through CodeWV. The bill does require the State Board to adopt additional rules on teacher licensure to further support quality teacher certification down the road.

Students were also front of mind in the drafting of this bill. The language of HB 2411 attempts to fit this requirement into existing graduation requirements as much as possible, by allowing computer science to count towards other credits. Students can also earn this requirement in 8th grade, in addition to during their high school years. West Virginia has

strong middle school computer science offerings, so it may be easy for many students to meet the requirement in their 8th grade year.

The state's future starts with its students. Computer science is a gateway to economic opportunity for West Virginians, allowing students to receive an education aligned with today's job market. By becoming one of the first 15 states to pass a computer science graduation requirement, West Virginia can position itself as a leader in 21st century education and a target for economic investment.

I want to thank Delegates Hornby, Statler, Ellington and others for their leadership on this issue, and the committee for your consideration of the bill today. I urge support of the bill.

Contact Info: name - H. Toney Stroud, email - stroudh@marshall.edu, phone number - (304) 696-2944, org - Marshall University, zip-code - 25545

Date of Submission: 03/03/2025

February 25, 2025

Members of the House/Senate Education Committee:

On behalf of Marshall University, I offer my full support for HB 2411, which would establish a computer science graduation requirement for all West Virginia students. In an age where AI is becoming an embedded part of business, education and research, computer science must be a part of every student's K-12 experience. Technology and innovation are the cornerstones of the modern economy. Advancing our state's workforce in these areas is paramount to our economic success.

- AI will impact workflows in almost every industry over the next several years - computer science offers schools a readily accessible way to provide every student with a foundation in AI literacy that they can expand on in higher education.
- There are currently over 600,000 unfilled cybersecurity jobs in the U.S. Our cybersecurity microcredential attempts to fill that gap, but students will be less aware of this critical career path, and less inclined to pursue it, if they have no exposure to the foundations of computer science in high school.
- West Virginia is seeing exciting growth and investment - including Marshall University's selection as a Center of Excellence, one of only two in the country - and LG Electronics' new technology business development venture. Now is the time to prepare our students to take advantage of these opportunities by modernizing our K-12 curriculum to reflect the skillsets required for today's in-demand jobs.
- K-12 education creates the foundation on which postsecondary learning is built. A strong grounding in computer science education will ensure students have the

critical thinking skills and knowledge base needed to succeed in postsecondary pathways.

- Computer science teaches students computational thinking, problem-solving, and data analysis, skills that are not only relevant for every career, but that show students how to think creatively about any problem. These multi-disciplinary skills will help students tackle college-level coursework and concepts and set them up for success after graduation.
- Studies have shown that students who take computer science are more likely to enroll in higher education, which helps support a well-educated workforce.
- Computing jobs are growing at 10x the rate of other jobs, and these jobs are in many of West Virginia's top industries, including energy, healthcare and agriculture.
- In a 21st century economy driven by technology; computer science is an essential part of a modern, well-rounded education. It is just as important for students to learn about the technological world as it is for them to learn about the natural world or our system of government.

Marshall University supports efforts to make our state a leader in innovation and 21st century learning. I respectfully urge your support of HB 2411. Thank you for your consideration.

Sincerely,

Toney Stroud

Chief Legal Officer

Vice President Strategic Initiatives

and Corporate Relations