Chairman Cole, Ranking Member DeLauro, I am Erin Siefring, chair of the Computer Science Education Coalition. Thank you for the opportunity to testify before you and all the members of the subcommittee today on a critical issue that greatly impacts the economic competitiveness and national security of the United States: K-12 computer science education. Our country is falling far behind in this area with real impacts to our homeland security and our economic base. Prioritizing funding at the Department of Education for computer science education by the subcommittee can address this problem, and give Americans the tools they need to protect our country and grow the economy.

Computer science is a foundational skill for 21st century jobs. This skill is in high demand in our military and throughout the private sector. However, the United States is failing to take the necessary steps to equip our current and future workforce with the computer science skills needed to fill these positions to remain global competitive

The crisis in computer science funding extends to defending the homeland against cyber threats. Cybersecurity attacks against the United States are on the rise, but as the Center for Strategic and International Studies explained, “There are only about 1,000 security specialists in the United States who have the

specialized skills to operate effectively in cyberspace; however, the United States needs about 10,000 to 30,000 such individuals."

This shortage decreases our country's ability to defend itself in a time where a single bad actor with advanced knowledge of computers, networks and cyber security can do immense damage to the United States just by hitting the enter key on their laptop.

To reverse this trend and bolster our national security, an investment in computer science education is needed now. Failure to make this investment in a timely manner will only compound the problems going forward and increase the national security risk to the United States.

Already, less than half of K-12 classrooms in the United States teach computer science, yet, according to code.org, computer science based employment will make up two-thirds of all projected new jobs in the science, technology, engineering and mathematics, or STEM fields. The United States K-12 educational system simply isn't graduating students with the computer science skills needed to meet the current or growing demand for computer science jobs.

Today's students need to be learning about algorithms, how to make an app, code, or do robotics. These are the critical thinking skills today's students need to become the innovators and cyber warriors of tomorrow.

These skills are needed throughout our economy. There are currently over 500,000 good paying computing jobs unfilled across the country. They are unfilled in large part because we aren't making the investment necessary in computer science education.

Indeed, computing jobs are the number one source of new wages in the United States. To fill these job openings, in recent years American companies have often had to import talent from across the globe. In fact, the majority of high-skilled immigration is for computer scientists and almost 60% of skilled worker visas granted were for computer science occupations. Our failure to invest in our future has forced U.S. businesses to recruit overseas for positions that could be filled domestically.

To address this issue, last year, America's leading CEOs, educators, and non-profit leaders united with 28 Republican and Democratic governors, including then-Governor Mike Pence, to send a letter to Congress, asking for funding to provide every student in every school the opportunity to learn computer science. The signatories included Fortune 100 CEOs across multiple

industries, which illustrates how many sectors of our economy are impacted by the current skills gap in computer science.

State and private efforts are vital, but not enough on their own to fix the skills gap in computer science. We are lagging behind other nations that have prioritized the teaching of this critical subject. A federal investment is necessary to amplify and accelerate the work already being done around this issue in the United States.

Since the Computer Science Education Coalition launched a year ago today, there has been significant bi-partisan support for computer science education in both the House and the Senate. The coalition appreciates this robust demonstration of bicameral leadership.

An investment in computer science education by this subcommittee will be an investment in our country's future. The Computer Science Education Coalition urges the members of this subcommittee and Congress to prioritize an investment in computer science education to help defend the homeland and keep our economy strong.

Thank you for your time and attention to this critical matter.