Testimony before the
House Education Committee
in **OPPOSITION** to
House Bill 2183 — Requiring a computer science course for high school graduation
by
Game On for Kansas Schools
Erin Gould, Member
February 20, 2019

Mr. Chair, Members of the Committee:

Thank you for the opportunity to submit testimony in opposition to House Bill 2183.

Game On for Kansas Schools is a nonpartisan, grassroots advocacy effort among Kansans who share a belief in high-quality public education as a right of all Kansas students. We advocate for Kansas public schools to ensure our teachers, principals, superintendents, and school board members have the resources necessary to deliver quality education to all Kansas students. We inform communities across the state about education funding and policy issues and legislation affecting our students. The Game On team includes members representing the spectrum of education stakeholders (parents, educators, and other community advocates), and our membership extends statewide.

As the world becomes increasingly reliant on the digital, we agree it is important to know something about computer science in order to participate productively in society. We support strong computer science fundamentals for our students, and we are pleased the Kansas State Board of Education is currently developing discrete standards for K-12 computer science education. We support Kansas' effort to incorporate the topics and fundamentals of computer science throughout grade and middle school. That being said, we oppose this bill for several reasons.

First, we object to this bill because it usurps the power of the Board of Education and our locally elected school boards. While we agree computer science ought to be incorporated into our schools, we believe it is the responsibility of the Board of Education to develop the graduation requirements, academic objectives and standards, not the legislature. This bill not only mandates a specific course, it also requires the state board of education to create an advisory board for computer science academic standards, requires the advisory board to develop and recommend to the state board academic performance standards for computer science instruction by July 1, 2020 and requires the state board to adopt such standards by that same date. It also requires the state board to establish an advisory board for the creation of computer science curriculum standards by July 1, 2020. The advisory board is required to include representatives of Kansas businesses that have "information technology as a primary business focus." These mandates improperly usurp the role of the state board of education. It is inappropriate for the legislature to order the board to take such specific steps by such specific deadlines. We also note that July 1, 2020 is both the deadline for the establishment of an advisory board and for the state board to adopt standards for computer science instruction. This seems like an unreasonably tight timeline and leaves the board little to no time to amend the advisory board recommendations. Furthermore, the Board of Education is already working on the development of Computer Science standards for all grades K-12. Additionally, local school boards must retain the authority and flexibility to deliver required information in a way that works best for their districts and their unique population of students. This bill hinders that ability by mandating a specific high-school course.

Second, the mandate that the advisory board have members of a specific business community, and the fact that this bill was requested by Cerner are also troubling. While we appreciate the role companies like Cerner play in the Kansas economy, we do not believe they should be dictating curriculum for

Kansas students, many of whom will not choose computer science as a career field no matter how much exposure they have. There are many other ways a company could work with our schools and our students to encourage interest and sufficient computer science education without mandating a specific course for high school graduation. We would not support Hallmark lobbying for a studio art course graduation requirement, or Shook, Hardy and Bacon mandating a business law requirement, or Kansas health systems mandating anatomy.

Third, as parents and teachers, we know that time is a resource in our schools. High school students already have to cover a lot of ground. For some students - especially those on college or career tech paths - it would difficult to fit another required course into their schedule. Being able to substitute a computer science course for another core science seems like an easy fix but there are consequences to this type of substitution. Most colleges and universities currently do not allow computer science courses to meet the math or science entrance requirements, even if they count towards a high school graduation requirement.[1] Therefore, a student who elects to substitute a core science for computer science could be hindering their ability to enter a program or university in the future. The traditional 4-year high school science track of biology, chemistry, physics and an advanced biology or chemistry class fits the needs of many students. For those students, this course would simply be another requirement. Students in IB or in some other specialized programs are already stretched in their ability to take all of their required courses, especially if they are also in orchestra or band. Students should be able to maintain the flexibility of obtaining computer science instruction in middle school or having computer science as an elective but not a requirement.

Fourth, we wonder whether Kansas schools will have the capacity to offer computer science as a separate course for all high school students by the '20-21 school year. Computer science is neither a math or a science. It is its own field that has elements of both math and science as well as other topics. We cannot expect a high school math or science teacher to have the requisite background to teach a high school level computer science course. At the current time, Kansas does not require all districts to offer computer science. Nor does Kansas offer a computer science teacher certification. Having enough teachers capable of delivering a computer science course with fidelity in every high school would require an investment in staff and teacher education that would be difficult to meet by the deadlines stated in this bill.

Fifth, this is an unfunded mandate. Our districts already have staff and programs they would like to provide if they are given the inflation adjustment funding currently under consideration in the legislature. This bill adds to their costs in terms of professional education and staff, yet contains no appropriation. The fiscal note states, "school districts would be required to finance the instruction of the computer science course within existing state aid received. Any fiscal effect associated with HB 2183 is not reflected in The FY 2020 Governor's Budget Report." We object to adding to school districts' costs without adding to their funding.

Literacy in computer science concepts is a desirable educational goal for Kansas students. We appreciate the legislature's interest in making sure Kansas students are ready for their futures but are asking you to vote no on this bill and direct your support to the Board of Education and its work on computer science standards and allow the state board and local boards of education to apply their judgment and expertise in the best interest of Kansas students.

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[1] Code.org Advocacy Coalition (2018). State of Computer Science Education. Retrieved from https://code.org/files/2018_state_of_cs.pdf.