College of Education

May 21, 2019

Dear Honorable Chair and Members of the Education Committee,

I write to you today as an educational researcher and university faculty member in support of CS Equity bill. Given the long-standing inequities in computer science in Oregon, I believe HB 2967A will help fill a gaping hole in Oregon's K-12 curriculum while broadening participation in computing for students across the state.

Please, consider the following:

UNIVERSITY OF OREGON

- The focus on providing equitable opportunities, rooted in evidence-based curriculum and with accompanying professional development, is an important element of this legislation. Historically, girls, students of color, and low-income students have been historically absent from computer science learning opportunities in schools, more so than any other discipline. For instance, in 2018, only 24% of 762 Advanced Placement Computer Science test-takers in Oregon were girls, and only 9% were students of color.
- **Careers in computer science are rapidly growing and offer many economic opportunities** for students who either pursue computing or apply this knowledge in other fields. According to the Bureau of Labor Statistics, computer science is the fastest growing area of STEM occupations, and related jobs pay typically pay much higher than occupations with similar education levels.
- Currently, Oregon is one of only five states nationwide that has no established statewide education policies that encourage or support students in learning computer science. HB 2967 defines computer science education and supports schools in providing students learning opportunities in computer science, a critical step in highlighting the state's investment in giving Oregon students access to this high-status knowledge.
- This initiative builds strategically on a National Science Foundation-sponsored project, CS For Oregon, which is supporting 46 teachers across two cohorts so that they are prepared to teach the *Exploring Computer Science* course to high school students. The CS for Oregon project is co-hosted by Portland State University, University of Oregon, and Oregon State University, Cascades. The CS for Oregon project is part of the larger, CS for All initiative, a national network of states, districts, and other organizations working on policies and practices needed to bring CS into the core curriculum of K-12 education.
- The Exploring Computer Science curriculum and accompanying professional development program, the focal course being supported by CS for Oregon, has accumulated a decade of empirical evidence that highlights the course's effectiveness at reaching historically underrepresented groups of students. I developed the Exploring Computer Science course with National Science Foundation sponsorship at the University of Oregon in 2008, and since then, this course has been adopted by school districts across the nation, including in Chicago, where it is a high school graduation requirement.

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As an Education Professor who has studied equity and access in Computer Science Education for 20 years, I know that without inclusive computer science courses in schools, Oregon's students are being left behind and are ill-prepared for 21st century jobs and lacking knowledge of the digital infrastructure of today's society. And as a former computer science teacher and teacher educator, I appreciate the tremendous dividends associated with investing in high-quality professional development that leads to meaningful curricular and pedagogical changes in classrooms.

The HB 2967A legislation marks a desperately needed commitment in providing K-12 school opportunities for students, particularly historically underrepresented students, to be the future creators of computing innovations and technologies. I hope you will support the CS Equity Initiative.

Thank you for your time.

Sincerely,

Joanna Hoade

Joanna Goode Professor Co-Principal Investigator, CS for Oregon