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David Miyashiro
Executive Director

HawaiiKidsCAN Testimony on Committee Action on computer science standards

Hawaii State Board of Education Student Achievement Committee
David Miyashiro, Founding Executive Director, HawaiiKidsCAN

May 3, 2018

Aloha Chair Cox, Vice Chair Bergin and Members of the Committee,

My name is David Miyashiro, founder and executive director of the nonprofit organization HawaiiKidsCAN: The Hawaii Campaign for Achievement Now. We are committed to ensuring that Hawaii has an excellent and equitable education system that reflects the true voices of our communities and, in turn, has a transformational impact on our children and our state. HawaiiKidsCAN is a branch of 50CAN: The 50-State Campaign for Achievement Now.

On behalf of HawaiiKidsCAN, I respectfully submit testimony in strong support of adopting the K-12 Computer Science Teachers Association (CSTA) Standards for the Hawaii State Department of Education.

Computer science (CS) and other science, technology, engineering and math (STEM) skills will become increasingly important as our diverse economy evolves. Between 2017 and 2027, STEM-related occupations are projected to grow by 8 percent in Hawaii, compared with just 4 percent growth for all other occupations.[1] In particular, some of Hawaii's fasting-growing occupations between 2014 and 2024 will require CS experience, including web development (26 percent growth), computer systems analysis (20 percent growth) and software development (18 percent growth).[2] In 2016, these and other computer and mathematical occupations carried a median hourly wage of $35.87 in Hawaii, nearly double the median hourly wage of $19.24 for all jobs that year.[3]

These new skills are increasingly important as our economy changes, with reports suggesting that automation may eliminate a third of our nation's jobs by 2030.[4] An initial investment in our

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[1] "ECS Vital Signs: STEM Demand Hawaii." *Education Commission of the States.* http://vitalsigns.ecs.org/state/Hawaii/demand

[2] Software development includes systems software and applications software. "Employment Projections for Industries and Occupations." August, 2016. *Hawaii Workforce Infonet.* https://www.hiwi.org/admin/gsipub/htmlarea/uploads/Long-TermProjections-2014-2024-State.pdf

[3] "Occupational Employment and Wage Data - State of Hawaii 2016." August, 2017. Hawaii Workforce Infonet. https://www.hiwi.org/admin/gsipub/htmlarea/uploads/OES_2016_publication.pdf

[4] "Jobs Lost, Jobs Gained: Workforce Transitions in a Time of Automation." Manyika, J. et al. *McKinsey Global Institute.* December 2017. https://goo.gl/GLShNP

students–and their chance to develop these skills—will come back to us tenfold when our students become the innovative workforce of tomorrow that primes Hawaii to survive, and thrive, in the changing global economy.

The CSTA Standards under consideration today represent a strong and fundamental step toward CS education equity, access and quality in our local schools. The standards establish clarity for students and teachers for CS learning, built with a holistic approach that maps the logical progression a student would follow to develop excellent CS knowledge and skills.
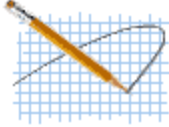
Overall, there is momentum growing for computer science education across Hawaii, for instance through the complementary efforts of the Legislature, Governor Ige's participation in the bipartisan Governors' Partnership for K-12 Computer Science and school-industry collaborations that connect public schools with companies such as DevLeague and Oceanit.

We also commend the Department of Education's computer science team for pulling together a diverse set of stakeholders for its action plan, around which HawaiiKidsCAN has been a proud partner. We hope to keep this momentum for equity and access, which is why we continue to advocate for more funding to support teacher professional development in computer science– and allowing computer science courses to count toward mandatory graduation credits for math or science, both of which could have an immediate impact on CS participation.

The world around us is changing, so we can't take our time. States such as Idaho and Arkansas have seized these new educational opportunities and are aggressively moving ahead with policies that mandate computer science equity and access and provide the resources to make this happen. Hawaii must embrace the challenge of providing our children with an education that keeps up with the world. For more data on the importance of CS education in Hawaii, please explore the latest report from HawaiiKidsCAN, *The State of Computer Science Education in Hawaii 2018* at https://tinyurl.com/StateofCS.

Mahalo for the opportunity to testify,

David Miyashiro
Founding Executive Director
HawaiiKidsCAN

Jordan A Deen
91-1012 Waihuna Pl.
Ewa Beach, HI 96706

May 2, 2018

To the Board of Education of the State of Hawaii,

Hello, My name is Jordan Deen and I am a junior at James Campbell High School. I apologize for not being able to attend the meeting as I am required to take my SBA on May 3, 2018. Throughout the years of my education I have always come back to one thing. Computers. I believe that the Computer Science and the IT classes I have taken at Campbell High School have opened considerable opportunities for me as I continue to pave the pathway to my future in the STEM field.

I have obtained not only the knowledge to complete tasks at hand, but I have also gained work experience through this course with Kahi Mohala. I am the only junior student in App Club for Computer Science and just from what I have seen working with this organization, I have learned so much. This course has taught me how to discuss certain topics at business meetings, how to program apps, and how to troubleshoot. This is a valuable resource that the youth today needs to take advantage of.

Students in the future will have access to more technology than we could possibly imagine. I only want them to have the same opportunities and resources that myself and my classmates were able to utilize. This could pave a new age of prodigies and geniuses by starting the youth in this field early. Technology is only going to continue advancing. We should to.
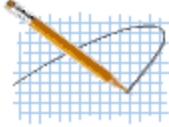
Sincerely,

Jordan A Deen

Jordan A Deen
Junior at James Campbell High School

Adi Henrietta Cakobau
91-543 Akua St
Ewa Beach, HI

May 2, 2018
Board of Education
Student Achievement Committee
1390 Miller St
Honolulu, HI 96813

Dear Board of Education, Student Achievement Committee,

Aloha, my name is Henrietta Cakobau and I am a senior at James Campebell High School.

Prior to taking any Computer Science course, I had not been exposed to the fundamentals of computing in correspondence with computer systems. As a female, careers in IT had been out of the question. There were not many females in the industry, nor did I see myself excelling in such a field. The tech industry is soley male-dominated, and opportunities to just were not available in our community. Schools here in Ewa Beach do not offer options that allow students to venture in a career field that is parallel with our ever-changing society. It was not until my junior year of high school where I had to opportunity to take the course that was recently implemented by College Board, AP Computer Science Principles. Fortunately, the course was also offered by our school.

This course taught many of my peers and I tools and skills we can apply to our other classes. It informed us of the proper and improper ways of using technology. Courses in Computer Science should be made readily available to students as it benefits the student and shapes them to become innovative and quality contributors to our community. It is because of the course that I have now shifted my personal goals, and will major in Computer Science.
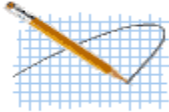
Mahalo,

Adi Henrietta Cakobau

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I, ██████████████, respectfully submit testimony in strong support of approving the adoption of the K-12 Computer Science Teachers Association (CSTA) Standards for the Hawaii State Department of Education.

I believe that computer science needs to be more strongly emphasized and enforced in the department of education. I personally have reciceved 6 college credit and am a future computer science major at arizona state university. Computer science is my passion and a gateway to future advancements. I believe more students must be made aware of computer science through the education system.

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