



STATE OF HAWAII
DEPARTMENT OF EDUCATION
P.O. BOX 2360
HONOLULU, HAWAII 96804

Date: 02/09/2021

Time: 02:00 PM

Location: 309 Via Videoconference

Committee: House Education

Department: Education

Person Testifying: Dr. Christina M. Kishimoto, Superintendent of Education

Title of Bill: HB 1222 RELATING TO EDUCATION.

Purpose of Bill: Requires public and charter schools to offer education in computer science. Requires annual reports.

Department's Position:

The Hawaii State Department of Education (Department) supports with comments H.B. 1222 and will be prepared to submit the respective summary reports for the board and legislature as requested by the respective deadlines.

For the 2020-2021 school year, the Department has continued to collaboratively address the Computer Science Action Plan deliverables with the fifteen complex area computer science support teams to develop a comprehensive School Design for K-12 Computer Science Education Curricula and Implementation Plan. This planning effort includes the K-12 Computer Science curriculum and learning opportunities alignment with a focus on rigorous Computer Science instruction in grades K-12 and high-quality professional opportunities that are essential to expanding the Computer Science teacher pipeline.

The Department offers comment on the following proposals in this measure:

Computer Science Definition (Page 4, Lines 12-14): In alignment with the national definition for Computer Science, the Department recommends using the definition for Computer Science by Allen Tucker from the K12 Computer Science Framework.

“Computer science is the study of computers and algorithmic processes, including their principles, their hardware and software designs, their [implementation], and their impact on society” (Tucker et. al, 2003, p. 6).

Additionally, through the efficiencies created as a result of our tri-level system of governance, the reporting information required through this measure does not need to be accumulated by complex areas and can be achieved through the state office. This would relieve the reporting burden from our complex area superintendent.

Thank you for this opportunity to provide testimony on H.B. 1222.

The Hawai'i State Department of Education is committed to delivering on our promises to students, providing an equitable, excellent, and innovative learning environment in every school to engage and elevate our communities. This is achieved through targeted work around three impact strategies: school design, student voice, and teacher collaboration. Detailed information is available at www.hawaiipublicschools.org.

DAVID Y. IGE
GOVERNOR



JOHN S.S. KIM
CHAIRPERSON

STATE OF HAWAII
STATE PUBLIC CHARTER SCHOOL COMMISSION
(‘AHA KULA HO‘ĀMANA)

<http://CharterCommission.Hawaii.Gov>
1111 Bishop Street, Suite 516, Honolulu, Hawaii 96813
Tel: (808) 586-3775 Fax: (808) 586-3776

FOR: HB 1222 Relating to Education
DATE: February 9, 2021
TIME: 2:00 P.M.
COMMITTEE: Committee on Education
ROOM: Conference Room 309
FROM: Yvonne Lau, Interim Executive Director
State Public Charter School Commission

Chair Woodson, Vice Chair Kapela, and members of the Committee:

The State Public Charter School Commission (“Commission”) appreciates the opportunity to submit this testimony and **SUPPORTS THE INTENT of HB 1222** which requires department public schools and public charter schools to offer education in computer science.

The success of Act 51, Session Laws of Hawaii 2018, in expanding opportunities for public school students to receive instruction in computer science is encouraging. The Commission is cautiously optimistic that these opportunities will be available at public charter schools but is aware that funding for this program appears to be currently limited to the grant program administered by the Department of Education (DOE) with the Computer Science Education Special Fund. Without any specific appropriations for this program, there is concern that public charter schools may not be able add this new program to the school’s curriculum and meet the requirements of this legislation.

The Commission is available to assist in facilitating any collaboration and input from the public charter schools to the Legislature and DOE to effectuate this program. Thank you for the opportunity to provide this testimony.

DAVID Y. IGE
GOVERNOR



LATE

CRAIG K. HIRAI
DIRECTOR

ROBERT YU
DEPUTY DIRECTOR

EMPLOYEES' RETIREMENT SYSTEM
HAWAII EMPLOYER-UNION HEALTH BENEFITS TRUST FUND
OFFICE OF THE PUBLIC DEFENDER

**STATE OF HAWAII
DEPARTMENT OF BUDGET AND FINANCE**

P.O. BOX 150
HONOLULU, HAWAII 96810-0150

ADMINISTRATIVE AND RESEARCH OFFICE
BUDGET, PROGRAM PLANNING AND
MANAGEMENT DIVISION
FINANCIAL ADMINISTRATION DIVISION
OFFICE OF FEDERAL AWARDS MANAGEMENT (OFAM)

WRITTEN ONLY
TESTIMONY BY CRAIG K. HIRAI
DIRECTOR, DEPARTMENT OF BUDGET AND FINANCE
TO THE HOUSE COMMITTEE ON EDUCATION
ON
HOUSE BILL NO. 1222

**February 9, 2021
2:00 p.m.
Via Videoconference**

RELATING TO EDUCATION

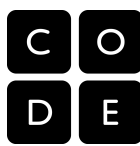
The Department of Budget and Finance offers comments on House Bill (H.B.) No. 1222.

H.B. No. 1222 requires public and charter schools to offer education in computer science; establishes a Computer Science Education Special Fund; and requires annual reports.

As a matter of general policy, the department does not support the creation of any special fund which does not meet the requirements of Section 37-52.3, HRS. Special funds should: 1) serve a need as demonstrated by the purpose, scope of work and an explanation why the program cannot be implemented successfully under the general fund appropriation process; 2) reflect a clear nexus between the benefits sought and charges made upon the users or beneficiaries or a clear link between the program and the sources of revenue; 3) provide an appropriate means of financing for the program or activity; and 4) demonstrate the capacity to be financially self-sustaining. Regarding H.B. No. 1222, it is difficult to determine whether the proposed special fund would be self-sustaining.

The department defers to the Department of Education regarding program implementation and funding.

Thank you for your consideration of our comments.



February 8, 2021

Re: HB 1222; Support

Dear Members of the Senate Education Committee,

Code.org enthusiastically supports HB 1222, which would: a) ensure that all elementary and middle schools offer computer science courses or content by the 2024-2025 school; b) ensure that each public charter school offers computer science courses or content such that students can study the content at the elementary, middle, and high school levels; and c) create a fund for gifts, donations, or future appropriations to expand K-12 computer science pathways and support teachers.

Hawaii has made incredible progress in ensuring that every DOE high school provides students with access to computer science courses. However, to build student interest, it is crucial that all students have opportunities to learn the fundamentals in elementary and middle school. Studies show that by middle school, students have already decided whether computer science is for them or not. Early access and exposure can help students see how the subject can enable them to explore their passions.

Computing is a foundational skill for K-12 students. It develops students' computational and critical thinking skills and teaches them how to create—not just use—new technologies. And Hawaii has averaged over 1,400 open computing jobs each month over the past year. Businesses in every industry are in need of students graduating with computing knowledge. There is incredible interest in supporting K-12 computer science education right now, and this bill furthers the DOE's existing initiatives and leverages the public support for K-12 computer science.

Thank you for your efforts in providing students in Hawaii with opportunities to pursue computer science education. If you have any questions, please contact Katie Hendrickson at Katie@code.org. Thank you for your consideration of this matter.

Sincerely,

Dr. Katie Hendrickson
Director of State Government Affairs
Code.org
www.code.org



Chamber of Commerce HAWAII

The Voice of Business

**Testimony to the House Committee on Education
Tuesday, February 9, 2021 at 2:00 P.M.
Via Videoconference**

RE: HB 1222, RELATING TO EDUCATION

Chair Woodson, Vice-Chair Kapela, and Members of the Committee:

The Chamber of Commerce Hawaii ("The Chamber") **supports HB 1222**, which requires public and charter schools to offer education in computer science.

The Chamber is Hawaii's leading statewide business advocacy organization, representing about 2,000+ businesses. Approximately 80% of our members are small businesses with less than 20 employees. As the "Voice of Business" in Hawaii, the organization works on behalf of members and the entire business community to improve the state's economic climate and to foster positive action on issues of common concern.

To accelerate Hawaii's economic recovery, industry leaders must collaborate to support innovative solutions to grow and strengthen professional development in the 21st Century. Computer science is a foundational skill for K-12 students. It develops students' computational and critical thinking skills and teaches them how to create—not just use—new technologies.

Computing-based occupations make up more than two-thirds of all projected new jobs in the science, technology, engineering, and mathematics fields, commonly known as STEM fields. This means that college graduates with computer science degrees are in high demand among employers across the nation.

The integration and prioritization of computer science curricula in schools may prepare students for fields related to computer science that have the potential to drive job growth and innovation throughout the economy.

Thank you for this opportunity to provide testimony in support.



david.miyashiro@hawaiikidscan.org
hawaiikidscan.org

David Miyashiro
Executive Director

February 9, 2021

Committee on Education
Rep. Justin H. Woodson, Chair
Rep. Jeanne Kapela, Vice Chair

State Capitol
415 South Beretania Street
Honolulu, HI 96813

Aloha Chair Woodson, Vice Chair Kapela, and Members of the Committee,

HawaiiKidsCAN strongly supports HB1222, which requires public and charter schools to offer education in computer science, and requires annual reports.

Founded in 2017, HawaiiKidsCAN is a local nonprofit organization 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. We strongly believe that all students should have access to excellent educational opportunities, regardless of family income levels and circumstances.

As an organization that was proud to advocate in support of the legislation that was signed by Governor Ige as Act 51, HawaiiKidsCAN believes it is critical to build on this strong foundation in our state's efforts to expand access and equity in computer science education and increase our high-tech workforce. We supported the initial legislation after our *State of Computer Science Education in Hawaii 2018* report (accessible at <https://tinyurl.com/CSHawaii2018>) found that less than half of Hawaii public schools offered computer science courses, only 14 high schools offered Advanced Placement Computer Science (AP CS) courses, and only 32 percent of the 290 AP CS test takers in 2017 were female and only 4 percent—just 12 students statewide—identified as Native Hawaiian/Pacific Islander.

As disruptions by COVID-19 have demonstrated, Hawaii needs innovative learning experiences and a diversified economy, particularly where residents with computer

science skills can earn high incomes while working remotely for local, national, and global companies. Research continues to overwhelmingly show that jobs in Hawaii requiring computer science skills will grow twice as fast and pay twice as much versus the state average over the next ten years. An investment in computer science education is an investment in Hawaii's future resilience.

Early exposure

- Hawaii has made great progress since the passage of Act 51 in 2018 with expanding computer science at the high school level. Given that early exposure at the elementary and middle schools levels to these skills is incredibly important, especially for underrepresented students, HB1222 is laser-focused on these foundational grades.
- [Research](#) has shown that early exposure to STEM initiatives and activities positively impacts elementary students' perceptions and dispositions. By capturing students' interest in STEM content at an earlier age, a proactive approach can ensure that students are on track through middle and high school to complete the needed coursework for adequate preparation to enter STEM degree programs at institutions of higher learning. As a result, programs focusing on STEM initiatives and content are a growing priority in American schools with aims to provide early exposure for elementary students.
- The goals set forward by HB1222 for all schools to offer computer science are ambitious but achievable. The bill recognizes this must be a multi-year process, driven by a clear and inspirational north star.

Better data

- HB1222 promotes equity and access by providing better data on which students are included or excluded in computer science courses. This reporting is incredibly important as the state builds its computer science pipeline, given the gender and ethnic gaps that exist in STEM industries. According to the University of Hawaii's [landscape report](#), for example, Native Hawaiian and Micronesian students represented just 9% and 0.4% of advanced placement computer science test takers in the 2019-2020 school year, respectively. These gaps must be carefully tracked and addressed long before students reach these advanced courses.

Stronger partnerships

- Quality work-based learning and career readiness experiences are critical for ensuring students actually can and want to enter computer science fields. HB1222 makes it easier for industry partners to support our students and schools financially.
- Given the difficult financial situation facing Hawaii's state revenues, private support is a powerful tool to ensure students' academic and career opportunities

do not suffer due to program cuts. As a co-convenor of the local CSforHI coalition with Code.org, HawaiiKidsCAN has already engaged a number of promising industry partners around supporting the special fund.

- Programs like IBM's P-TECH offer a strong example of students graduating from high school immediately ready to launch careers in high-wage, high-growth sectors. The special grant fund would enable employers to more effectively strengthen career and technical education partnerships with schools so that students have a clear pathway to a job.

Mahalo for your consideration,

David Miyashiro
Founding Executive Director
HawaiiKidsCAN

Co-signed:

Alvin Sato

Burt Lum

Curtis Kropar



**THE HOUSE OF REPRESENTATIVES
THE THIRTY-FIRST LEGISLATURE
REGULAR SESSION OF 2021
Committee on Education
February 8, 2021**

Microsoft's written and public testimony for HB 1222.

Chair Woodson, Vice Chair Kapela and member of the committee, my name is Allyson Knox and I serve as senior director of education policy at Microsoft. I am based in Washington, DC and have worked closely with Code.org and Hawaii Kids Can to help expand access to computer science education for all students. Ensuring that all students in Hawaii have access to computer science education is a key strategy to helping Hawaii achieve digital equity and promote economic growth. That is why Microsoft **supports the intent** of HB 1222.

Right now – our schools, students, teachers, and families are struggling with COVID-19 crises and we know that America is not prepared for the digital transformation that is taking place across the country and around the globe. The COVID-19 pandemic, which has rapidly accelerated this **transformation** has brought to light that despite progress, millions of students and families continue to lack access to broadband; millions of workers lack the digital skills being demanded in today's jobs; millions of adults lack even basic digital literacy skills to navigate social services (including how to sign up for a vaccination, or to be able to access on-line job postings, career counseling or e-learning opportunities).

To benefit from this digital transformation, our nation must embrace "digital equity." Digital equity is a condition in which all individuals and communities have the information technology capacity needed for full participation in our society, democracy, and economy. Digital Equity is necessary for civic and cultural participation, employment, lifelong learning, and access to essential services. Hawaii has made great progress since the passage of Act 51 in 2018 with expanding computer science education at the high school level. Providing early exposure at the elementary and middle school levels will further these outcomes. Computer science education for all students is a key component for achieving digital equity.

Computer science drives job growth and innovation throughout our economy and society. Computing occupations are the number 1 source of all new wages in the U.S. and make up over half of all projected new jobs in STEM fields, making Computer Science one of the most in-demand college degrees. And computing is used all around us and in virtually every field. It's foundational knowledge that all students need. We need to improve access for all students, including groups who have traditionally been underrepresented.

Thank you for the opportunity to provide this testimony. If you have any questions, please feel free to contact me at allyknox@microsoft.com or my colleague, Jonathan Noble, Director of State Government Affairs for Hawaii, at jnoble@microsoft.com.



February 8, 2021

To: House Committee on Education

Subject: Support for HB1222 Relating to Education--Computer Science

Aloha mai,

Purple Mai'a Foundation supports HB1222 because it would expand access to computer science education for keiki across Hawai'i.

As a tech education nonprofit founded in 2013 that focuses on indigenized computer science education for underserved youth, we see the need for more opportunities for students in public schools to explore and engage with computer science. More must be done not only to offer CS in schools, but to do so in a culturally grounded and community engaged way so that students can see themselves in the CS classroom and in technology fields.

We also appreciate how this bill requires data gathering on students enrolled in CS courses, so that we can further understand issues of disparity and underrepresentation based on race/ethnicity and gender, and work to solve these problems.

Me ka ha'aha'a,

Donavan Kealoha
Chief Executive Officer, Purple Mai'a



February 9, 2021

Committee on Education
Rep. Justin H. Woodson, Chair
Rep. Jeanne Kapela, Vice Chair

Aloha Chair Woodson, Vice Chair Kapela, and Members of the Committee,

We are HSTTE - the Hawai'i Society for Technology in Education. Our organization has over 500 members in education hailing from public, private, and charter schools around the state, most of whom are teachers. Today we rise in proud support of HB 1222.

We live in a digital age in which computers are everywhere and have become an essential part of our lives, especially during this COVID19 pandemic. Every student should have access to technology, whether it be computers, smartphones, or tablets because almost everything we do requires some form of programming.

Coding or computer programming is writing a set of instructions that a computer understands so it will perform a task. There are several advantages of learning to code in elementary school. First, learning programming empowers kids. Coding puts children in control of the computer and through experimentation builds mastery in sequencing skills, counting, problem solving, logical thinking, cause and effect, and critical thinking. Additionally, children can express themselves through code and find it enthralling to create games, apps, and to even control robots.

The younger children are when we introduce them to coding, the more comfortable they will become with computers and technology. They will be more successful when presented with challenging learning opportunities. Developing the basics provides students with computer skills they will need for any career they choose in the future.

HSTTE supported the passage of Act 51 in 2018 with expanding computer science at the high school level. Given that early exposure at the elementary and middle schools levels to these skills is incredibly important, especially for underrepresented students, HB1222 is focused on

these foundational grades. Having students entering high school already having a computer science background means a more skilled workforce for the future of our state.

HB1222 promotes equity and access by providing better data on which students are included or excluded in computer science courses. Quality work-based learning and career readiness experiences are critical for ensuring students actually can and want to enter computer science fields. HB1222 makes it easier for industry partners to support our students and schools financially growing opportunities for the expansion of the study of computer science. For these reasons and more, please move HB1222 forward.

Mahalo,

Hawai'i Society for Technology in Education



TECHNET
THE VOICE OF THE
INNOVATION ECONOMY

TechNet California and the Southwest | Telephone 916.600.3551
915 L Street, Suite 1270, Sacramento, CA 95814
www.technet.org | @TechNetUpdate

February 8, 2021

Representative Justin Woodson
Hawaii State Capitol
415 S Beretania St, Room 405
Honolulu, HI 96813

RE: HB 1222 (Woodson) Computer Science Access and Fund - Support

Dear Representative Woodson,

TechNet is the national, bipartisan network of innovation economy CEOs and senior executives. Our diverse membership includes dynamic American businesses ranging from revolutionary start-ups to some of the most recognizable companies in the world. TechNet represents over three million employees and countless customers in the fields of information technology, e-commerce, sharing and gig economies, advanced energy, cybersecurity, venture capital, and finance.

TechNet respectfully submits this letter in strong support of HB 1222 (Woodson) which makes a series of important computer science related proposals to enhance access and opportunity for Hawaiian K-12 students. The bill does the following: ensures that all elementary and middle schools offer computer science courses or content by the 2024-2025 school; ensures that each public charter school offers computer science courses or content such that students can study the content at the elementary, middle, and high school levels; and creates a fund for gifts, donations, or future appropriations to expand K-12 computer science pathways and support teachers.

Increased access and resources to computer science education for students and teachers is critical in preparing the next generation of Hawaiians. Computing is the fastest-growing, highest-paying, and largest sector of new jobs in the U.S.A. In every industry, and in every state. Every 21st century student should have a chance to learn about coding, how to build their own apps, or just more clearly understand how the internet works. Students should have the opportunity to learn about these things for potential careers, but even if a student chooses not to go into a CS career, having access to CS education can ensure students are responsible users of technology.

Thank you for your consideration. If you have any questions regarding our support to HB 1222 please contact Cameron Demetre, Executive Director, at cdemetre@technet.org or 916-903-8070.

Sincerely,

A handwritten signature in black ink, appearing to read 'Cameron Demetre', written in a cursive style.

Cameron Demetre
Deputy Executive Director, California and the Southwest
TechNet

HB-1222

Submitted on: 2/5/2021 5:31:27 PM

Testimony for EDN on 2/9/2021 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Marissa Baptista	Individual	Support	No

Comments:

Aloha,

I am a public school Parent of 3 and community member from Moanalua and I'm proud to support HB1222.

The COVID-19 pandemic has shown the need to diversify Hawaii's economy and ensure students are equipped with skills to thrive in high-wage, high-growth industries here in the state. Hawaii has made great progress since the passage of Act 51 in 2018 with expanding computer science at the high school level. Given that early exposure at the elementary and middle schools levels to these skills is incredibly important, especially for underrepresented students, HB1222 is laser-focused on these foundational grades.

HB1222 promotes equity and access by providing better data on which students are included or excluded in computer science courses. Quality work-based learning and career readiness experiences are critical for ensuring students actually can and want to enter computer science fields. HB1222 makes it easier for industry partners to support our students and schools financially.

Mahalo,

Marissa Baptista

Kanaka Maoli Parent Education Advocate

HB-1222

Submitted on: 2/6/2021 5:11:36 AM

Testimony for EDN on 2/9/2021 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Kathryn Wild	Individual	Support	No

Comments:

February 5, 2021

I am a retired teacher and professor. My teaching career has covered upper and lower eschalon classrooms K-12, community college, university level, two Native American reservations, foster middle and high school, and women's prison. As an educator and California Indian with 49 years working with students, I am a big proponent of HB1222.

With 2/3 students off line because of financial needs in the family or because of limited or no online access, it is our civic and cultural duty to help make our Hawaiian students competitive in today's world. Native students everywhere must be equipped with skills to thrive in high-wage, high-growth industries, from electric cars or biotech. It is imperative that we prepare and engage elementary and middle school students to be computer savvy. Outreach to low income and remote locations is crucial in order to bring computer science courses equitably to Hawai'i students. HB1222 promises to help fill this gap.

Mahalo, Kathryn Wild, PhD

February 08, 2021

Committee on Education
Rep. Justin H. Woodson, Chair
Rep. Jeanne Kapela, Vice Chair

Hawaii State Capitol
415 South Beretania St
Honolulu, HI 96813

Aloha Chair Woodson, Vice Chair Kapela, and Members of the Committee,

I am a computer science teacher from Kaiser High School and I'm writing to you to support HB1222.

Hawaii has made great strides since the passage of Act 51 in 2018 which expanded computer science at the high school level. My high school easily met the requirements of Act 51 which required the offering of one computer science course, we currently offer six different courses across class periods. Now is a perfect time to further expand opportunities to learn about computer science and focus on the elementary and middle school levels, and this is what HB1222 does.

As a former student at Kaiser, I had one computer science course in my senior year of high school in 2002, which represented the sum of my computer science education. High school should not be the first time a student is exposed to computer science and design thinking. High school should build upon a student's previous knowledge and experience and channel that into college and/or career readiness. Early exposure to computer science allows students to decide at an early age if they want to specialize in this field. Students who choose to specialize in computer science now will have a full array of career options available to them, including those that do not exist yet in today's world.

As a teacher, I am fortunate to work for a principal and school district (Honolulu, Farrington-Kaiser-Kalani Complex Area) that understands the value of computer science and the need to prepare both our students and teachers. I have been part of the complex area and state level work groups to define what computer science education looks like for our students, and where it needs to be now, three, five, and ten years from now. This bill will help to streamline these efforts to build a unified PK-12 computer science pathway, much like how other core subjects have.

For all of these reasons, I am writing to state my support for HB1222 and hope that this legislation continues to build upon the transformation being done to provide equitable and high quality computer science education for all students in Hawaii. Computer science is not the way of the future, it is the present, here and now. Think about what our future in Hawaii will look like five and ten years from now, and you'll see that computer science will have had a large and profound impact on it, and it will be our students who shape it.

Mahalo,

Garrett Hatakenaka
Kaiser High School - Teacher
Hawaii Department of Education - State Workgroup Participant
Hawaii Society for Technology in Education - Member
University of Hawaii - Maui College - CSP4HI - Mentor

HB-1222

Submitted on: 2/8/2021 12:38:02 PM

Testimony for EDN on 2/9/2021 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Iokepa Meno	Individual	Support	No

Comments:

February 9, 2021

Committee on Education
Rep. Justin H. Woodson, Chair
Rep. Jeanne Kapela, Vice Chair

State Capitol
415 South Beretania Street
Honolulu, HI 96813

Aloha Chair Woodson, Vice Chair Kapela, and Members of the Committee,

I am a teacher from Maui and I'm proud to support HB1222.

The COVID-19 pandemic has shown the need to diversify Hawaii's economy and ensure students are equipped with skills to thrive in high-wage, high-growth industries here in the state.

Hawaii has made great progress since the passage of Act 51 in 2018 with expanding computer science at the high school level. Given that early exposure at the elementary and middle schools levels to these skills is incredibly important, especially for underrepresented students, HB1222 is laser-focused on these foundational grades.

HB1222 promotes equity and access by providing better data on which students are included or excluded in computer science courses.

Quality work-based learning and career readiness experiences are critical for ensuring students actually can and want to enter computer science fields. HB1222 makes it easier for industry partners to support our students and schools financially.

Mahalo,
Iokepa Meno

“ In the new
economy,
computer science
isn’t an optional
skill —
It’s a basic skill. ”

— President Barack Obama
Announcing the Computer
Science for All Initiative,
Jan. 30, 2016

February 9, 2021

Committee on Education
Rep. Justin H. Woodson, Chair
Rep. Jeanne Kapela, Vice Chair

Aloha Chair Woodson, Vice Chair Kapela, and Members of the Committee,

My name is Sarah “Mili” Milianta-Laffin, and I teach Computer Science at Ilima Intermediate School in Ewa Beach. I’m also a board member for the Hawaii Society for Technology in Education, an organization of over 500 public, private, and charter school teachers in our state. **I’m writing today in strong favor of HB 1222 to expand Computer Science education in elementary and middle schools.**

I know that HSTE, and other organizations have submitted testimony on this issue, so I’m going to focus on the experience of being a Computer Science (CS) teacher in Hawaii. My initial teacher training was as a Science teacher. When you have a department like Science at a school, you work together with other Science teachers to make lessons, refine the curriculum, and reflect on data.

As the only teacher at my school who teaches CS, it’s tough. I can’t go to my department and ask questions. My “department” is mostly teachers I connect with on social media to talk about teaching CS in the #808Educate community on Twitter and Instagram, but even there, there aren’t that many who teach what I teach. My hope is that HB1222 would expand the number of

CS teachers who have training in the content in elementary and middle schools like mine, so that we can be a resource to each other and our students.

I was chosen to be part of the inaugural Hawaii Code.org cohort for CS through STEMworks in 2017. I was sent to Atlanta, Georgia for a week of training with teachers from around the country. We had about 30 teachers from Hawaii, but in the giant ballrooms there were hundreds of teachers present from multiple states.

I remember thinking 1) how awesome it would be to work with that many teachers passionate about CS, and 2) if this many teachers are taking CS back to their communities, will my Ewa Beach students fall behind their peers? The expanding of CS education with this bill would put those fears to rest. As President Obama said, "In the new economy, Computer Science isn't an optional skill -- it's a basic skill!"

My favorite Vice Principal would say, "In god we trust; all others bring data." We don't have data on CS in Hawaii, and we need quality data in education to make decisions. HB 1222 would help us understand how our students are doing in CS, and what our students need. Using that data, teachers can then work together with local groups and industry to make a robust CS education in Hawaii a reality for all of our keiki.

Finally, CS education is an issue of equity. CS instruction has been happening for well over a decade at our state's elite and exclusive private schools. My public school is Title 1, meaning that we serve students who don't always have access to resources that their private school peers use daily. Public school students deserve to have an excellent and complete education, even if their families can't pay for it. My testimony today carries with me the weight of the 170 students I have this semester, who deserve the same access to CS education as their wealthy peers. Even if students like mine aren't present in today's Zoom hearing room, please keep them in your hearts and mind also, as you move through this legislative session; they're counting on you too.

Mahalo for reading, and supporting Computer Science students like mine at Ilima Intermediate School by moving HB1222 forward.

Respectfully,

Sarah "Mili" Milianta-Laffin

2020 Hawaii State Finalist for the Presidential Award for Excellence in Mathematics and Science Teaching (PAEMST)

2020 ISTE "Making IT Happen" Award Winner

2020 Hawaii State Teachers Association "Pono Award" Winner for Social Justice Advocacy in Education

PS: You are welcome to visit my CS classroom at Ilima Intermediate. Please email Sarah.Milianta-laffin@k12.hi.us if you'd like me to coordinate a virtual visit.

HB-1222

Submitted on: 2/8/2021 1:31:28 PM

Testimony for EDN on 2/9/2021 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Megan Nepshinsky	Individual	Support	No

Comments:

Committee on Education
Rep. Justin H. Woodson, Chair
Rep. Jeanne Kapela, Vice Chair
State Capitol
415 South Beretania Street
Honolulu, HI 96813

Aloha Chair Woodson, Vice Chair Kapela, and Members of the Committee,

I am a secondary teacher from Waialua, Hawai'i and I'm proud to support HB1222.

The COVID-19 pandemic has shown the need to diversify Hawai'i's economy and ensure students are equipped with skills to thrive in high-wage, high-growth industries here in the state.

Hawaii has made great progress since the passage of Act 51 in 2018 with expanding computer science at the high school level. Given that early exposure at the elementary and middle schools levels to these skills is incredibly important, especially for underrepresented students, HB1222 is laser-focused on these foundational grades.

HB1222 promotes equity and access by providing better data on which students are included or excluded in computer science courses.

Quality work-based learning and career readiness experiences are critical for ensuring students actually can and want to enter computer science fields. HB1222 makes it easier for industry partners to support our students and schools financially.

Mahalo nui loa,

Megan Nepshinsky



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February 8, 2020

Aloha e Rep. Justin H. Woodson, Chair; Rep. Jeanne Kapela, Vice Chair; and members of the Committee on Education:

I am writing to express my **support** of HB 1222 as it relates to computer science.

I would like to emphasize that this is broader than an "everyone can code" initiative, which are laudable but too narrow in today's technology landscape.

Overall digital literacy, especially in an historic period of distance learning tools and platforms, is immensely important. And it's not simply a matter of knowing how to join a Zoom class or open a Google Docs document. Beyond providing basic access, school curriculums need to keep pace with what constitutes work, careers, and even creative expression today.

Computer science includes a multitude of critical skills and practices: logic, problem solving, design, documentation, peer coaching, developing theories and rigorous testing, user discovery, project-based learning and data-driven decision making.

And while I believe the fundamentals of computer science can be taught without access to the latest and greatest technologies, providing adequate funding to supply our students with the basic tools they need to learn and grow is important.

Thank you for your consideration.

February 8, 2021

Committee on Education
Rep. Justin H. Woodson, Chair
Rep. Jeanne Kapela, Vice Chair

State Capitol
415 South Beretania Street
Honolulu, HI 96813

Aloha Chair Woodson, Vice Chair Kapela, and Members of the Committee,

I have taught elementary school in Kona for the past ten years and I'd like to voice my support of HB1222. While I could repeat what I know others will say about the growth of well-paying computing jobs, I will instead focus on the impact that computer science education could have on our keiki right now.

I currently teach at Holualoa Elementary School, where unlike most elementary schools we have had a robust technology program led by the excellent Carrie Miller. Starting in early elementary school, Ms. Miller helps students learn about respect for technology, how to interact with a computer, and even basic programming skills. I have watched my students learn to calmly troubleshoot technology issues, keep their cool while trying and failing to get their robot to turn left, and use technology to think about issues like food sustainability. The fact is, learning does not happen in a silo. Students cannot help but apply the knowledge, skills, and mindsets they learn in one area to another.

This year I took a sabbatical to study computer science education. While Act 51 signaled Hawaii's acknowledgement that computer science education is a valuable endeavor, my studies have me convinced that equipping students with computational thinking skills needs to happen earlier. Computer science, after all, helps students see the importance of attention to detail, ethics around the impacts of technology, and the value of failing, failing, failing before finally succeeding. These valuable skills make students stronger in both other academic areas and character development.

In addition, learning programming skills myself over the past year has helped me realize what a significant learning curve accompanies computer science skills like programming and cybersecurity. If we continue to only offer computer science as an elective at our high schools without exposing students to computing concepts earlier on, we will continue to see a significant gap in the diversity of our AP computer science classrooms and beyond. Students need to experience success early and often in order to give computer science a chance.

Thank you for your consideration of this legislation.

Lizzy Pine