STATE OF HAWAIʻI
DEPARTMENT OF EDUCATION
P.O. BOX 2360
HONOLULU, HAWAI`I 96804

Date: 03/15/2022
Time: 02:00 PM
Location: 309 Via Videoconference
Committee: House Education
House Higher Education & Technology

Department: Education

Person Testifying: Keith T. Hayashi, Interim Superintendent of Education

Title of Bill: SB 2142, SD1 RELATING TO COMPUTER SCIENCE.

Purpose of Bill: Allows Department of Education students to fulfill world language, fine arts, or career and technical education graduation requirements with computer science. Establishes a scholarship at the University of Hawaii to encourage students majoring in education to take a computer science course. Requires the University of Hawaii to establish computer science pathways for students majoring in education. Requires teacher licensing and certification to include computer science. Appropriates funds. Effective 7/1/2050. (SD1)

Department's Position:

The Hawaii State Department of Education (Department) supports the intent of SB 2142, SD 1 and respectfully offers comments on this measure relating to computer science. The Department defers to the Hawaii State Board of Education (BOE) in regards to where the responsibility of determining educational requirements should lie.

The Department considers computer science as a separate subject area and not as an equivalent substitute for the world language, fine arts, and career and technical education programs of studies. The Department respectfully suggests the language in the bill be revised to add computer science to the list of programs of study through which a student could earn two (2) credits to meet the high school diploma requirement. This will allow students to choose whether to fulfill this requirement with two (2) credits in either world language, fine arts, career and technical education, or computer science.

In addition, the Department will need to seek approval from the BOE to revise this graduation requirement and respectfully requests the start date for this implementation be extended to the Fall 2023 semester (or School Year 2023-2024 for the graduation class of 2028).

The Department defers to the University of Hawaii regarding admission requirements related to computer science course work, the scholarship program, and proposed computer science pre-service teaching degree pathways.

Thank you for this opportunity to provide testimony on SB 2142, SD 1.

Testimony Presented Before the
House Committee on Education and
House Committee on Higher Education & Technology
Tuesday, March 15, 2022 at 2:00 p.m.
By
Nathan Murata, Dean
College of Education
And
Michael Bruno, PhD
Provost
University of Hawai'i at Mānoa

SB 2142 SD1 – RELATING TO COMPUTER SCIENCE

Chairs Woodson and Takayama, Vice Chairs Kapela and Clark, and members of the committees:

Thank you for the opportunity to testify in support of the intent of SB 2142 SD1, relating to computer science, provided that its passage does not replace priorities in our BOR approved budget.

The University of Hawai'i, College of Education (COE) offers comments to the following:

§302A Computer Science; diploma substitution.
The COE defers comments to the Hawai'i Department of Education (HIDOE) regarding computer science (CS) for diploma substitution and any other graduation requirements.

§304A Admission Requirements; Computer Science; substitution.
The COE defers comments to the Hawai'i Department of Education (HIDOE) regarding computer science (CS) for admission requirements to complete a high school course.

The COE requests clarification to the language to specify to whom the admission requirements pertain, whether to high school programs or UH programs.

§304A Admission Requirements; Computer Science in teaching scholarship program.
    (a) The COE supports the establishment of the computer science in teaching scholarship program to be administered by the University of Hawai'i. The COE will work with the HIDOE, and University of Hawai'i's Outreach College to promote a pathway for a scholarship program.
    (b) The COE requests clarification to the language that specifies the scholarship is awarded to students "working towards a degree to become a teacher within the department of education."

(c) The COE requests clarification to the language in this section. The section prioritizes students "from underrepresented groups and students who agree to teach computer science in schools having higher percentages of students from underrepresented groups."

If the intent in section (b) is for scholarship students to be working toward a degree and licensed teacher in computer science, then the COE supports prioritizing those students from underrepresented groups or who will teach computer science in schools having higher percentages of students from underrepresented groups. Clarification is requested whether a student pursuing any other teaching degree would be eligible for the scholarship if teaching computer science (not a CS licensed teacher), even if from an underrepresented group or who will teach in schools having higher percentages of students from underrepresented groups.

§304A Pathways in Computer Science
  (a) The COE is supportive of developing and implementing pathways in computer science for students studying to obtain a degree in education.
  (b) The COE requests a change in language to: the pathways shall prepare a student **to be eligible for a HTSB computer science license** to teach computer science at the elementary and/or secondary level.
  (c) The COE requests a change in language to: The University of Hawaiʻi shall submit pathway programs to the HTSB for computer science licensure approval, thereby providing opportunity for all students completing the pathway under this section to be eligible to add a computer science license to an elementary or secondary teaching license, or to acquire an initial teaching license in computer science.

The College of Education is currently working on a pathway for Computer Science and will submit an "add a field" program proposal(s) to the Hawaiʻi Teacher Standard Board (HTSB) for approval in Computer Science licensing. The College of Education has and will continue to collaborate with other UH programs including Information Technology Services (ITS) and the Information & Computer Science department (ICS).

§304A-802 Licensing and certification standards; policies
  (d) The COE is supportive of any program of teacher preparation leading to a license or certification to include, as part of the curriculum, instruction in computer science and computational thinking as applied to student learning and classroom instruction that are grade-level and subject-area appropriate.

At present the COE meets the current HTSB requirement for educator preparation programs to provide evidence that their candidates are prepared to integrate "..technology effectively into curricula and instruction, including activities consistent with the principles of universal design for learning and the use of technology to effectively

collect, manage and analyze data to improve teaching and learning for the purpose of increasing student academic achievement" [HTSB HAR §8-54-19, (3) (F)]. Therefore, the COE requests clarification of language in section (d) to indicate if this is a different or additional curriculum requirement as that stated in HAR §8-54-19.

Thank you for opportunity to provide testimony on SB 2142 SD1.

FOR:	SB 2142 SD1 Relating to Computer Science
DATE:	March 15, 2022 2:00 PM
COMMITTEE:	Committee on Education
	Committee on Higher Education & Technology
ROOM:	Conference Room 309 & Videoconference
FROM:	Yvonne Lau, Interim Executive Director State Public Charter School Commission

Chair Woodson, Chair Takayama, Vice Chair Kapela, Vice Chair Clark, and members of the Committees:

The State Public Charter School Commission ("Commission") appreciates the opportunity to provide testimony in **STRONG SUPPORT on SB 2142** which allows Department of Education students to fulfill world language, fine arts, or career and technical education graduation requirements with computer science. Establishes a scholarship at the University of Hawaii to encourage students majoring in education to take a computer science course. Requires the University of Hawaii to establish computer science pathways for students majoring in education. Requires teacher licensing and certification to include computer science. Appropriates funds

The Commission appreciates the inclusion of public charter schools in this measure as it allows public charter school students an equal opportunity to the benefits this program can provide.

Thank you for the opportunity to provide this testimony.

DAVID Y. IGE
GOVERNOR

CRAIG K. HIRAI
DIRECTOR

GLORIA CHANG
DEPUTY DIRECTOR

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

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

STATE OF HAWAI'I
DEPARTMENT OF BUDGET AND FINANCE
P.O. BOX 150
HONOLULU, HAWAI'I 96810-0150

WRITTEN ONLY
TESTIMONY BY CRAIG K. HIRAI
DIRECTOR, DEPARTMENT OF BUDGET AND FINANCE
TO THE HOUSE COMMITTEES ON EDUCATION AND HIGHER EDUCATION
& TECHNOLOGY
ON
SENATE BILL NO. 2142, S.D. 1

March 15, 2022
2:00 p.m.
Room 309 and Videoconference

RELATING TO COMPUTER SCIENCE

The Department of Budget and Finance (B&F) offers comments on this bill.

Senate Bill No. 2142, S.D. 1: allows Department of Education students to fulfill

world language, fine arts, or career and technical education requirements with computer

science courses; establishes a computer science in teaching scholarship program;

requires the University of Hawai'i (UH) to develop a pathways program in computer

science for students studying to obtain a degree in computer science; requires teaching

licensing and certification to include computer science; and appropriates an unspecified

amount of general funds in FY 23 for UH for the computer science in teaching

scholarship program.

B&F notes that, with respect to the general fund appropriation in this bill, the

federal Coronavirus Response and Relief Supplemental Appropriations Act requires that

states receiving Elementary and Secondary School Emergency Relief (ESSER) II funds

and Governor's Emergency Education Relief II funds must maintain state support for:

- Elementary and secondary education in FY 22 at least at the proportional level of the state's support for elementary and secondary education relative to the state's overall spending, averaged over FYs 17, 18 and 19; and

- Higher education in FY 22 at least at the proportional level of the state's support for higher education relative to the state's overall spending, averaged over FYs 17, 18 and 19.

Further, the federal American Rescue Plan (ARP) Act requires that states receiving ARP ESSER funds must maintain state support for:

- Elementary and secondary education in FY 22 and FY 23 at least at the proportional level of the state's support for elementary and secondary education relative to the state's overall spending, averaged over FYs 17, 18 and 19; and

- Higher education in FY 22 and FY 23 at least at the proportional level of the state's support for higher education relative to the state's overall spending, averaged over FYs 17, 18 and 19.

The U.S. Department of Education has issued rules governing how these maintenance of effort (MOE) requirements are to be administered. B&F will be working with the money committees of the Legislature to ensure that the State of Hawaiʻi complies with these ESSER MOE requirements.

Thank you for your consideration of our comments.

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

House Committee on Education
House Committee on Higher Education & Technology

Tuesday, March 15, 2022
2:00 p.m.
Via Videoconference
Hawaii State Capitol, Room 309

Senate Bill 2142, Senate Draft 1, Relating to Computer Science

Dear Chairs Woodson and Takayama, Vice Chairs Kapela and Clark, and Members of
the Committees:

The Board of Education ("Board") respectfully provides **comments** on SB 2142 SD1,
which would, among other things, allow Department of Education students to fulfill world
language, fine arts, or career and technical education graduation requirements with
computer science.

The Board generally opposes proposed legislation that diminishes the Board's power to
formulate statewide educational policy as envisioned and established by Article X,
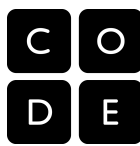Section 3, of the Constitution of the State of Hawaii.

To this end, the Board opposes Sections 1 and 2 of this measure. These sections would
essentially alter the Board's graduation requirements it set through Board Policy 102-15.
Setting graduation requirements should be the role of the Board, and we believe the
Legislature should leave the responsibility of determining educational requirements to
the Board as a foundational part of statewide educational policy. **Therefore, we
respectfully request these committees delete Sections 1 and 2 of this measure.**

Thank you for this opportunity to testify on behalf of the Board.

Sincerely,

Bill Arakaki
Chairperson, Board of Education 2022 Legislative Ad Hoc Committee

March 15, 2022

Re: SB 2142 SD 1; Support

Dear Chair Woodson, Chair Takayama, Vice Chair Kapela, Vice Chair Clark, and members of the House Committees on Education and Higher Education & Technology,

Code.org **enthusiastically supports** SB 2142 SD1 and **suggests an amendment** to clarify the intent and implementation (see page 2 for the suggested amendment).

This bill would: a) elevate computer science to a core subject area by adding it to an option that students must fulfill for graduation and aligning this with higher education admission, b) provide financial support for pre-service educators to develop content knowledge in computer science, c) develop pre-service educator pathways to become certified to teach computer science, and d) include computer science and computational teaching in all educator preparation programs.

The provisions of this bill are essential elements to ensure that the K-12 system has a robust computer science education available for all students.

Hawaii has made incredible progress in ensuring that every school will provide students with access to computer science courses. In 2018, Act 51 required all Department of Education high schools to offer at least one computer science course by the 2021-22 school year; and in 2021, Act 158 required all middle, elementary, and charter schools to offer computer science by the 2024-25 school year.

Section 4 and 5
In order to ensure that schools and teachers are prepared to enact these requirements and begin teaching computer science, a focus on pre-service educators is necessary. SB 2142 SD1 does this by ensuring that pre-service educators for all grade levels and subject areas will be prepared to incorporate fundamentals of computational thinking and technology into their instruction. Elementary teachers are generalists and are expected to have a foundational knowledge of all subject areas, and in just a few years, computer science will be one of those. This bill ensures that teachers entering the profession are well-prepared for teaching computer science and integrating it with other content areas.

Section 3 and 4
Currently, there are no pathways for pre-service teachers to work towards computer science certification while preparing to become a teacher. SB 2142 SD1 will not only begin the creation of these programs, but the scholarship provision will incentivize all pre-service teachers to learn some fundamentals of computer science prior to entering the classroom.

Section 1 and 2
Allowing computer science as a core graduation credit is crucial for increasing

student options and elevating computer science in high schools. While students can currently apply an AP computer science course to the required math credits for the Academic Honors Recognition Certificate, this provision does not apply to all students and their required courses for graduation. The bill proposes expanding these options to allow students to take 2 credits in computer science as an option alongside world language, fine arts, or career and technical education.

Though we strongly support the bill as written, we have a few suggestions to amend the bill language to increase opportunities for more students and teachers:
1) Change the deadline in section 1 to a later date to ensure an adequate timeline for implementation.
2) Instead of allowing two computer science courses to substitute for the world language, fine arts, or career and technical education courses, add "computer science" as a fourth option.
3) Broaden the Computer Science in Teaching Scholarship program to allow in-service teachers and pre-service teachers to apply for funding for any preparation for teacher certification in computer science, including test fees for the required Praxis assessment in computer science.

Specifically, we suggest replacing Section 1 (p. 1, lines 5-9) with the following:

Beginning no later than school year 2023-2024, the department shall add computer science as an additional program of study option to the high school diploma two (2) credit requirement in world language, fine arts, or career and technical education/JROTC. For the graduating class of 2028, this will allow students to choose whether to fulfill this requirement with two (2) credits in one of the specified programs of study in computer science, world language, fine arts, or career and technical education/JROTC.

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.

Mahalo,

Dr. Katie Hendrickson
President
Code.org Advocacy Coalition
www.code.org

![HawaiiKidsCAN logo]
david.miyashiro@hawaiikidscan.org   David Miyashiro
hawaiikidscan.org   Executive Director

March 15, 2022

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

Committee on Higher Education & Technology
Rep. Gregg Takayama, Chair
Rep. Linda Clark, Vice Chair

Aloha Chairs Woodson and Takayama, Vice Chairs Kapela and Clark, and Members of the Committees,

HawaiiKidsCAN strongly supports SB2142 SD1, which allows Department of Education students to fulfill world language, fine arts, or career and technical education graduation requirements with computer science; establishes a scholarship at the University of Hawaii to encourage students majoring in education to take a computer science course; requires the University of Hawaii to establish computer science pathways for students majoring in education; requires teacher licensing and certification to include computer science; and appropriates funds.

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 computer science (CS) skills become more foundational to quality academic and career success, Hawaii must ensure that students have equitable access to CS courses and credits. In Hawaii, 87% of HI high school students attend a school that offers computer science, but only 3.9% of students are enrolled in a foundational computer science course. Just 26% of students enrolled in computer science courses are female, and Native Hawaiian/Pacific Islander and Native American students are less than half as likely as their white and Asian peers to enroll in computer science. When you

consider that Hawaii has averaged 1,903 open computing jobs each month, and that these open jobs have an average salary of $83,548, it's clear that we are not fully setting our kids up for success.[1]

SB2142 SD1 proposes a simple yet extremely powerful change Hawaii could make to change how CS credits are recognized in a student's path to graduation. States that count computer science as a core graduation requirement see 50% more enrollment in their AP Computer Science courses and increased participation from underrepresented minorities. Hawaii could follow suit by doing more than simply offering honors credit for Advanced Placement CS (which is the current case), and instead make CS count as a core requirement.

We agree with the DOE's suggestion in prior testimony to keep computer science as a separate subject area and is not an equivalent substitute for the world language, fine arts, and career technical education/JROTC programs of studies. We concur with the suggestion that the language in the bill be revised to add computer science as an additional program of study option to the current high school diploma two (2) credit requirement in world language, fine arts, or career and technical education/JROTC. This will allow students to choose whether to fulfill this requirement with two (2) credits in one of the specified programs of study with the additional CS option.
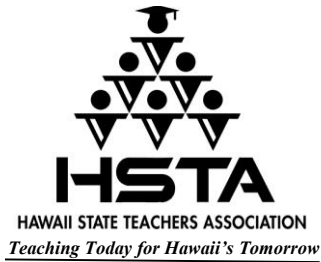
SB2142 SD1 also takes a bold approach regarding increasing the CS teacher pipeline coming from the higher education level. HawaiiKidsCAN is supportive of any actions that result in making it easier or more attractive to become a CS teacher in our K-12 public schools.

We did want to note that we anticipate the Hawaii Board of Education and/or the University of Hawaii may oppose SB2142 SD1 on the grounds of the legislature overstepping its policy authority. If that is the case, we strongly urge both institutions to consider adding these topics to an upcoming agenda for further discussion on their end so that legislation is not needed.

Mahalo for your consideration,

David Miyashiro
Founding Executive Director
HawaiiKidsCAN

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[1] https://advocacy.code.org/state_handouts/Hawaii.pdf

TESTIMONY BEFORE THE HOUSE COMMITTEES ON EDUCATION AND
HIGHER EDUCATION & TECHNOLOGY

RE: SB 2142 SD1 - RELATING TO COMPUTER SCIENCE

TUESDAY, MARCH 15, 2022

OSA TUI, JR., PRESIDENT
HAWAII STATE TEACHERS ASSOCIATION

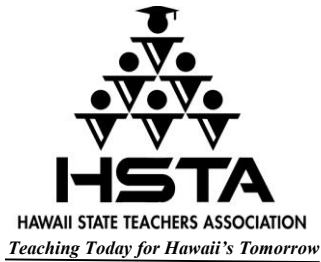Chair Woodson, Chair Takayama, and Members of the Committees:

The Hawaii State Teachers Association **supports SB 2142 SD1, with suggested amendments,** relating to computer science.

This bill will allow HIDOE students to fulfill world language, fine arts, or career and technical education graduation requirements with computer science. It also establishes a scholarship at the University of Hawai'i to encourage students majoring in education to take a computer science course and requires UH to establish computer science pathways for students majoring in education. Finally, the bill requires teacher licensing and certification to include computer science, as well as appropriates an unspecified amount to UH for the computer science scholarship program.

In the 21st century, computer science is an increasingly necessary and useful educational track for high school and college students. This bill will lower barriers and create incentives for more teachers to take up computer science as their primary subject area. By providing computer science as an option alongside a foreign language or fine arts is certainly laudable.

While HSTA supports this bill and its goals, we don't believe curriculum requirements should necessarily be set in statute, we respectfully request one amendment to the bill. Under Section 5 of the bill:

(d) By June 30, 2023, any program of teacher preparation leading to a license or certification shall [~~include~~] offer, as part of the curriculum, instruction in computer science and computational thinking as applied to student learning and

1200 Ala Kapuna Street ♦ Honolulu, Hawaii 96819
Tel: (808) 833-2711 ♦ Fax: (808) 839-7106 ♦ Web: www.hsta.org

Osa Tui, Jr.
President

Logan Okita.
Vice President

Lisa Morrison
Secretary-Treasurer

Wilbert Holck
Executive Director

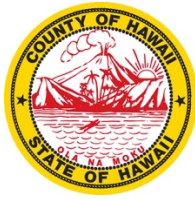classroom instruction that are grade-level and subject-area
appropriate."

We also highlight some of the comments made by the University of Hawai'i, College of Education (COE) relating to §304A Pathways in Computer Science:

(a) The COE is supportive of developing and implementing pathways in computer science for students studying to obtain a degree in education.
(b) The COE requests a change in language to: the pathways shall prepare a student **to be eligible for a HTSB computer science license** to teach computer science at the elementary and/or secondary level.
(c) The COE requests a change in language to: The University of Hawaii shall submit pathway programs to the HTSB for computer science licensure approval, thereby providing opportunity for all students completing the pathway under this section to be eligible to add a computer science license to an elementary or secondary teaching license, or to acquire an initial teaching license in computer science.

HSTA is aware that the College of Education is currently working on a pathway for Computer Science COE will submit an "add a field" program proposal(s) to the Hawai'i Teacher Standard Board (HTSB) for approval in Computer Science licensing. We are confident that the College of Education has and will continue to collaborate with other UH programs including Information Technology Services (ITS) and the Information & Computer Science department (ICS).

Lastly, the Department of Education will need to seek approval from the Hawaii State Board of Education to revise this graduation requirement and thus HSTA requests the start date for this implementation be extended to School Year 2023-2024 (or the graduation class of 2028) to allow the DOE to seek BOE approval.

To provide incentives and opportunities for our students and teachers in Hawai'i to excel in computer science, the Hawaii State Teachers Association asks your committee to **support** this bill.

House Committee on Education
House Committee on Higher Education & Technology

Date: March 15, 2022
Time: 2 p.m.
Where: Conference Room 309& Videoconference

RE: **Supporting SB2142 SD1** Relating to Computer Science

Aloha mai e Chairs Woodson and Takayama, Vice Chairs Kapela and Clark, and Members of the Committees,

As members of the Broadband Hui, the listed organizations and individuals SUPPORT SB2142 SD1, which allows Department of Education students to fulfill world language, fine arts, or career and technical education graduation requirements with computer science; establishes a scholarship at the University of Hawaii to encourage students majoring in education to take a computer science course; requires the University of Hawaii to establish computer science pathways for students majoring in education; requires teacher licensing and certification to include computer science; and appropriates funds.

Over more than 20 months, our organizations have collaborated, each within their own ability, to increase Hawaiʻi's digital capacity, thereby supporting the continuity of social connections, education, employment, and access to other essential services throughout the pandemic. Through the work of the Broadband Hui, we have supported broadband infrastructure development in rural communities, provided digital devices and internet connectivity for students and families, supported the accessibility of telehealth, provided information on low-cost internet options, and adopted a Digital Equity Declaration to set a vision and goals for a more equitable digital future.

As we stated at the outset of the pandemic, addressing digital inequity through broadband access, digital literacy, and digitally-enabled societal systems is one of our greatest opportunities for economic and social recovery, diversification, and resilience. The truth of this statement has been proven throughout the past two years and is even more urgent as we look toward future recovery -- now with a once-in-a-generation opportunity with robust federal funding inbound.

In order to build a diverse and sustainable digital economy in Hawaiʻi, we need to ensure we are building a strong local talent pipeline, starting with the keiki in our public schools. By exposing students to computer science and empowering them with foundational skills, we are actively growing our own pool of young innovators and experts who can lead our state this generation and beyond. States like Arkansas have already made a big bet that a strong talent pipeline will help create jobs, attract leading companies, and nurture entrepreneurial ventures.

For these reasons, we kindly request you PASS SB2142 SD1. Mahalo for the opportunity to testify.

(Please see names on the following page.)

	Name	Organization	Email Address	Zip
1	Burt Lum	Hawaii Broadband & Digital Equity Office	burt.q.lum@hawaii.gov	96813
2	Daniel C. Smith, Ph.D.	(Individual Support)	smithdan@hawaii.edu	96782
3	David Miyashiro	HawaiiKidsCAN	david.miyashiro@hawaiikidscan.org	96734
4	Douglass S. Adams	Dept of Research & Development, COH	douglass.adams@hawaiicounty.gov	96720
5	Jacqui Hoover	Hawaii Island Economic Development Board	jhoover@hiedb.org	96743
6	Jacqui Hoover	Hawaii Leeward Planning Conference and Hawaii Island Economic Development Board	jacqui_hlpc@yahoo.com	96743
7	Jeanne Skog	Skog Rasmussen LLC	jskog@skograsmussen.com	96793
8	Jenifer Sunrise Winter		jenifer.winter@gmail.com	96821
9	Mark Iha	Tangent Inc.	mark@tangent.systems	96813
10	Susan Tai	Economic Development Alliance of Hawaii, Inc.	susantaikaneko@gmail.com	96814

**Hawaiʻi
Arts
Alliance**

*Hawaiʻi Wolf Trap, an affiliate
of Wolf Trap Institute for
Early Childhood Arts
Integration*

*State Captain/
Americans for the Arts*

*State Arts Advocacy
Network Member*

*Creative States Coalition
Member*

**Testimony to the House Committee on Educationn and
The Committee on Higher Education & Technology
Tuesday March 15, 2022, 2:00 p.m.
Via videoconference**

SB2142 SD1

Aloha Chair Woodson, Vice Chair Kapela, Chair Takayama, and Vice Clark,

 The Hawaiʻi Arts Alliance stands in STRONG OPPOSITION to SB2142 SD1. Computer science cannot and should not be allowed to be a substitution for "world language, fine arts, or career and technical education." Computer science is NOT a language of human communication that can convey emotion, history, values, and cultural perspectives.

 According to a state by state comparison, the Education Commission of the States ranks Hawaiʻi as one of the lowest of the fifty states when it comes to supporting the Arts (https://www.ecs.org/artscan-at-a-glance/). There is currently no Arts requirement for a high school diploma and the Department of Education does not provide adequate access to the arts for EVERY student from Kindergarten through Grade 12.

 Of the 19 elementary schools that we surveyed in proximity to downtown Honolulu where our office is located, 7 schools have NO degree certified fulltime arts educator (regardless of discipline, e.g., dance, music, theatre or visual arts). Access to the ARTS is a first amendment right. The Arts or the Creative Economy must be viewed as an ECO-SYSTEM from early childhood to adulthood. The pipeline for the arts begins with arts education at an early age. Even if a student does not choose to go into the arts, knowledge and exposure to the Arts make a well-rounded, compassionate, and engaged citizen.

 Now more than ever, students need the Arts for social emotional learning, the development of critical and innovative thinking skills, and to options for employment that incorporates the arts at professional level. Computer science cannot and does not accomplish this. Bilingualism provides students with broader world views and communication skills that Computer Science does not provide.

 Even at the University level, the state educational system has a moral obligation to offer liberal arts education which includes, world languages (not just Euro-centric languages), the Humanities and the Arts. The diversity of programs in secondary education must be supported for a Liberal Arts Education. No Hawaiʻi student should have to go to an out-of-state institution for Liberal Arts. The High School diploma requires courses in the arts and world language is imperative.

 If the Education Committees and the DOE want to support commputer science programs, then do so but **NOT at the expense of world languages and the Arts**.

 We strongly urge you to NOT pass this legislation. Thank you for the opportunity to submit this written testimony.

Mahalo,

Teri Skillman

*Teri Skillman
Executive Director*

*P.O. Box 3948
Honolulu, Hawaiʻi
96812-3948
Phone: (808) 533-2787
Fax: (808) 526-9040
arts@hawaiiartsalliance.org
www.hawaiiartsalliance.org*

Submitted By	Organization	Testifier Position	Testify
Jennifer Azuma Chrupalyk	Individual	Support	Written Testimony Only

Comments:

I fully support this bill as a means of strengthening staff and development of our educators. The education crisis that resulted from Covid-19 exposed disparities that produced negative implications. To further evolve your bill, I propose the consideration of involving parents from households that already qualify for the free lunch program or SNAP, in this initiative by utilizing UH Computer Science Interns to teach to existing staff and low-income parents. On a communal level, my family assisted many parents during Covid-19, who could not log their child into school because the parent also lacks computer science education. It is not going to help to educate the teachers, but not the parents. That would be metaphorically equivalent to putting your feet in your pants, but not pulling them up.. then trying to walk..

March 15, 2022

Aloha ʻauinalā Chair Woodson, Vice Chair Kapela, Chair Takayama, Vice Chair Clark, Committee on Education, and Committee on Higher Education and Technology,

As a PreK-5th grade Computer Science teacher at Queen Kaʻahumanu Elementary, plus a parent with a son at Kalani High & daughter at UHManoa, **I super support superb SB2142,** with the revision to keep computer science as a separate subject area from world language, fine arts, and career and technical education, and thereby adding computer science as a fourth subject area option versus a replacement of one of these other areas.
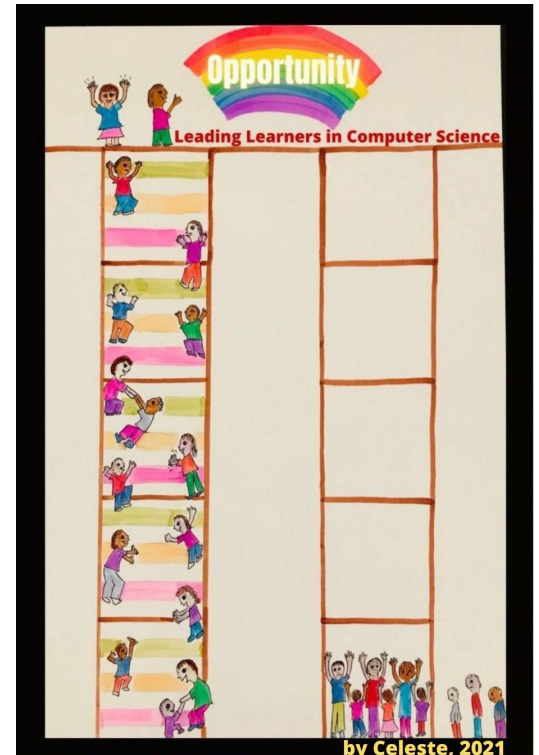
When I took Computer Programming, at the UHM College of Education decades ago, shh don't tell anyone but bruh it was so boring! The saving grace were rolling chairs that we could scoot around on to rescue our minds from deep sleep oblivion.

If you had asked me then, if I thought Computer Science was for everyone, I would have said "Heck No!" as I wiped away sweat & tears. Computer Science was not for everyone YET. Fast forward! Now we have experienced incredible innovations & instrumental contributions to improve CS instruction.

Collaborative efforts of the smartest and kindest minds in CS have brought upon amazing advances in CS education. Computer Science is in a learning revolution. It is up to Hawaiʻi to step up and join the movement toward trailblazing progress.

As a Computer Science Lead Learner, I could tell you all about our interactive chant, coded dances, command movements and glorious code.org curriculum that is FREE and mega fun for keiki, yet today I would really love to tell you about my son.

My son from an early age showed a keen sense of creativity. He would tinker with LEGOs and as a toddler would imaginatively build all kinds of intricate LEGO designs, just like so many of our keiki at home! He learned coding and robotics in elementary, yet when he got to middle school didn't have Computer Science experiences. At Kalani, he gets to learn CS from one of Hawaii's best CS teachers. He enjoys Computer Science class, but doesn't feel confident to continue after this year. Let's close the huge ladder gaps in learning Computer Science by providing pathways and incentives for preservice teachers, fulfillment of more graduation requirements for high schoolers, and overall more support for educators to teach Computer Science. **Now is the time. Let's go Hawaiʻi!!**

Opportunity
Leading Learners in Computer Science
by Celeste, 2021

Growing up to be
Lead Learners.
Making steps to be
Lead Learners.
Raising the roof for
Lead Learners!
Woot, woot, woot, woot!

With Love, 💗 *Celeste Yukiko Endo*

March 14, 2022

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

Committee on Higher Edication and Technology
Representative Gregg Takayama, Chair
Representative Linda Clark, Vice Chair

State Capitol
415 South Beretania Street
Honolulu, Hawaii, 96813

Aloha Chairs Woodson and Takayama, Vice Chairs Kapela and Clark, and Members of the Committee:

As a computer science teacher at Kalani High School, I wholeheartedly support SB2142 SD1 and respectfully ask you to join me in doing so.

The COVID-19 pandemic has brought with it a sea change in the structure of the workplace along with a realization that business-as-usual is no longer good enough—particularly for a state with as distinctive a geography and population as ours. Although it goes without saying that technology will play a crucial role in our future, the availability of a skilled workforce to support, create, and innovate these new technologies is far from assured. Education is both the solution and the problem. While a strong computer science education pipeline from pre-kindergarten through graduate school would ensure a generous supply of home-grown talent, the infrastructure and incentives needed to construct that pipeline are not yet in place to do so. SB2142 SD1 would address both sides of the pipeline—the supply and the demand side—by acknowledging the universality of computer science and computational thinking across the curriculum on the one hand, and providing formal pathways for teachers to become highly qualified computer science educators on the other.

As a teacher I see students who choose not to enroll in my computer science classes because they need to prioritize other classes to meet other graduation requirements, and I see schools that are not able to offer robust computer science programs because of the lack of qualified teachers to support them. Both situations are untenable and both can be alleviated through the provisions in SB2142 SD1, and I therefore invite your consideration and support.

Mahalo for your time and attention.

Respectfully,

Michael P. Ida, PhD

Senate Committee on Education
Senate Committee on Higher Education

Tuesday, March 15, 2022
2:00 PM
Via Videoconference
Hawaiʻi State Capitol Conference Room 309

Senate Bill 2142 SD1, Relating to Computer Science

Person Testifying: Luca Barcenilla

Position: Support of SB 2142 SD1

Aloha e Chair Woodson, Vice Chair Kapela, Chair Takayama, Vice Chair Clark, and members of the Committee on Education, and Committee on Higher Education and Technology:

My name is Luca Barcenilla and I am a Hawaiʻi public school teacher that has been teaching computer science for several years within the Hawaiʻi Department of Education and previously at one of our Hawaiian-focused charter schools. I strongly support SB 2142 SD1 because I believe that it will provide incredible CS learning experiences for our haumāna and pave the way for them to be college and career-ready.

Hawaiʻi has made remarkable progress in the advancement of computer science (CS) courses within the DOE and I am thrilled that my school is able to provide our haumāna with CS courses at the middle school level. Currently, my school doesn't offer CS courses at the high school level but there are dozens of public high schools in Hawaiʻi that offer CS-designated or career and technical education (CTE) CS-related courses. With your support, more DOE high schools can offer CS courses and provide haumāna with an incentive to take these courses as they will fulfill a portion of their DOE high school graduation requirements.

This bill does not take away any of the importance of world languages, fine arts, or career and technical education. What it does is provide haumāna with an opportunity to explore a different career option that will prepare them to be successful in our technology-driven society. We ask that our haumāna be self-directed learners, and we give them the responsibility to choose which classes to register for that will count towards their graduation requirements, but their choices must fall within certain available options. With your support, this bill can provide haumāna with an additional option to choose from.

Mahalo for the opportunity to share my manaʻo and for your continued efforts to provide our haumāna with rich learning experiences and opportunities to pursue their CS education.

Luca Barcenilla