

# SB2590

Measure Title:	RELATING TO CLASSROOM CLIMATE CONTROL.
Report Title:	Department of Education; Classroom Climate Control; Air Conditioning; Appropriation (\$)
Description:	Requires the department of education to develop a plan to provide air conditioning to all public school classrooms that meet or exceed a temperature of ninety degrees Fahrenheit, and provides appropriations to fund the plan.
Companion:	
Package:	None
Current Referral:	EDU, WAM
Introducer(s):	KIDANI, ENGLISH, GALUTERIA, HARIMOTO, SHIMABUKURO, Dela Cruz



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

**Date:** 02/10/2016

**Time:** 01:15 PM

**Location:** 229

**Committee:** Senate Education

**Department:** Education

**Person Testifying:** Kathryn S. Matayoshi, Superintendent of Education

**Title of Bill:** SB 2586 RELATING TO EDUCATION.

**Purpose of Bill:** Requires the department of education to provide public school students with a whole child education curriculum, air conditioning in certain classrooms, and decrease class size. Requires sufficient allocation of special education teachers and provides special education teachers with additional preparation time and funding. Establishes the student loan subsidy program and special fund. Expands vocational, technical, and career pathway programs. Amends weighted student formula factors to be considered by the committee on weights. Limits participation in standardized tests, prohibits the use of standardized test scores for evaluation purposes, authorizes standardized testing exemptions, and requires the board of education to provide notice of the right to opt-out of standardized testing. Requires all eligible children to attend preschool by the 2020-2021 school year. Amends evaluation program for teachers and educational officers. Increases the general excise tax. Makes appropriations.

**Department's Position:**

The Department of Education offers COMMENTS on S.B. No. 2586, S.B. No. 2587, S.B. No. 2588, S.B. No. 2589, S.B. No. 2590, S.B. No. 2591, S.B. No. 2592, S.B. No. 2593, S.B. No. 2594, S.B. No. 2595, S.B. No. 2596, S.B. No. 2597, S.B. No. 2598, and S.B. No. 2599.

**Overall Comments**

The Department of Education's (Department) vision is that our students are educated, healthy, and joyful lifelong learners who contribute positively to our community and global society. To achieve this goal, our schools and educators need the proper tools and resources.

We support initiatives aimed at improving working conditions for teachers and educational opportunities for students. In 2004, the Legislature established the "Reinventing Education Act," allowing schools the autonomy and responsibility to allocate school-based budgets to support school-identified programs and priorities, whether it be hiring more staff or purchasing supplies and materials. And, it empowered schools to make the best decisions to fit the needs of its students and communities.

Over the last decade school funding levels have not kept up with our education costs. Nevertheless, our public schools have made significant strides that have not gone unnoticed by the U.S. Department of Education and other national organizations. Attendance has improved, students are progressing and achieving more, and more students are going to college. This is a testament to the dedication of our educators and students, as well as other community leaders and partners.

The measures before you address many important aspects of education – curriculum, assessments, staffing, facilities, class size, funding, etc. However, respectfully, the Department is concerned that the crafted language, such as providing specific types of teachers for schools or a one-size-fits-all approach to instructional time or class size, detracts from school-level decision making and also circumvents the appropriate participants and venues for these conversations. Such a proposal would hinder the progress made by school leadership teams or School Community Councils, the collective bargaining process, the Board of Education which sets the policy direction for the Department, and principals and teachers in collaboration with Department leadership.

We welcome continued support from HSTA and the Legislature for additional resources for public education as well as the Department's budget priorities, as set out in the Executive Budget request. Adequate funding for our students helps to ensure a quality education that they deserve, and need, to prepare to be contributing members in our community and global society. Teachers have the most impact in ensuring a quality education. It's important that they have the support, the right tools, and the best facilities to thrive in their profession.

We look forward to working with the Committee and other stakeholders to address the issues raised in these measures.

Specific comments to the parts of the bill are itemized below.

## **Part II. WHOLE CHILD EDUCATION (S.B. No. 2587)**

The Department recognizes the importance of promoting creative thinking, self-directed learning, and cultural understanding, as well as the impact it has upon children's future outcomes and the state's economic growth.

Since 1999, the Department has provided "whole child education" through its K-12 standards-based system which includes the General Learner Outcomes (GLOs). GLOs are the overarching goals and content standards in nine areas including fine arts, social studies, Hawaiian studies, world languages, and physical education. Complex areas and schools have the flexibility to design class offerings that are best suited to their

community.

Additional funding would support increased opportunities and more diverse offerings for students.

Given that a Board of Education policy for whole child education is already in place, the Department respectfully finds S.B. No. 2587 to be unnecessary.

### **Part III. SPECIAL EDUCATION (S.B. No. 2588)**

The Department appreciates the intent of S.B. No. 2588 to provide each teacher with \$1,690 of discretionary funds for instructional materials and equipment and to add additional preparation time for special education (SPED) teachers. This additional preparation time, during which teachers would "not be required to interact with students", would be to complete individualized education programs (IEPs), which are required for each SPED student.

Teachers' preparation time is subject to collective bargaining. Article VI of the current HSTA contract and Department regulations include provisions for preparation periods and that address providing SPED teachers with additional non-student time to work on IEPs and other related SPED duties.

If this measure is adopted, additional funds would be required to either pay SPED teachers for the additional 40 plus hours of additional preparation time, or alternatively, schools would need to establish and hire additional SPED teachers or substitute teachers to cover the instructional time for SPED teachers during the extra preparation period. Because Hawaii's SPED teaching positions are "hard-to-fill," as they are nationwide, creating more positions in order to hire more SPED teachers will not, in the near term, be a solution.

The Department is not opposed to the Legislature appropriating funding for \$1,690 for every SPED teacher to purchase additional instructional materials and equipment, provided that it does not replace or adversely impact priorities as indicated in budget approved by the Board of Education (Board).

Given that teacher preparation time is included in the collective bargaining agreement, the Department respectfully does not support S.B. No. 2588.

### **Part IV. VOCATIONAL EDUCATION (S.B. No. 2589)**

The Department supports the intent of S.B. No. 2589 to expand vocational, technical, and career pathways programs and welcomes additional funding to support career and technical programs, provided that it does not replace or adversely impact priorities as indicated in budget approved by the Board.

Career and Technical Education (CTE) programs (formally known as Vocational and Technical Education) are currently offered in 46 public high schools. In school year 2014-2015, 29,356 students were registered in at least one CTE course and 4,453 seniors had completed a CTE program of study. Also, the Department awards Honors

Recognition Certificates for graduates earning Career and Technical Education Honors or Science, Technology, Engineering and Mathematics (STEM) Honors.

CTE programs are organized under six Career Pathways: Arts and Communication, Business, Health Services, Industrial and Engineering Technology, Natural Resources, and Public and Human Services. The Department currently offers 41 programs of study within the six career pathways framework. Current Board Policy No. 2103 defines Career and Technical Education.

The Department is committed to improving CTE opportunities for students throughout the state. The Department respectfully finds the provisions of S.B. No. 2589 to be unnecessary, as the intent of this bill is currently being implemented.

#### **Part V. FACILITIES (S.B. No. 2590)**

The Department welcomes additional funding for heat abatement and energy efficiency measures. The Department's Ka Hei program is a comprehensive energy and sustainability program designed to provide comfortable learning environments for our students and teachers. One of the key objectives of the program is to reduce costs and energy consumption at all 256 public schools. The Department has made significant progress in working toward the goals of Ka Hei and appreciates the support of the Legislature to further these efforts.

In addition, the Governor announced his plan to air condition 1,000 classrooms by the end of 2016, and is making available GEMS financing. We appreciate his initiative and are moving rapidly to execute his proposal.

#### **Part IV. WEIGHTED STUDENT FORMULA (S.B. No. 2591)**

The Department offers the following comments:

This bill states: "Principals, in consultation with teachers and school community councils, shall expend moneys provided to the principals' school." Section 302A-1124, HRS, currently defines the role of the school community council and mandates a composition that includes teachers.

The new language related to a "superintendent's reserve" states both that the reserve is "to address needs at unique and remote schools," and that "the committee on weights shall make recommendations...for how the reserve should be used." Stating that the reserve is for "unique and remote schools" would be unnecessary if the intent is to allow the committee on weights to determine the criteria for the reserve's use.

The Weighted Student Formula (WSF) reserve was established in school year 2012-2013 based on a committee on weights recommendation that was approved by the Board. A portion of WSF funds are set aside in this reserve to provide supplemental funds to schools that demonstrate a need as combination school (e.g., K-8, 7-12), geographically isolated, has very low enrollment, or is experiencing an extraordinary circumstance. The distribution of these funds is made based on committee on weights-recommended guidelines.



## **Part VII. STANDARDIZED TESTING (S.B. No. 2592)**

Statewide standardized tests provide one valuable source of information on student learning for students, parents, teachers, and educational administrators, but also informs educators and policy-makers about the progress of the education system. Standardized testing is an efficient method for reliably and objectively measuring the academic performance of the over 90,000 students in tested grades and 275 public schools (Department and charter) across the state. Standardized test scores provide one consistent measure, although incomplete, of school and student performance. Thus, all of the Department's accountability systems – for schools, educators, and students - use multiple measures.

Many provisions in this bill related to testing conflict with federal requirements which are a condition of receiving federal educational support including Title I funds. Despite the elimination of No Child Left Behind, its successor, the Every Student Succeeds Act (ESSA), still requires states to administer a statewide student test and use those test scores to "meaningfully differentiate" schools and identify the lowest-performing. Federal requirements for minimum participation of 95% of students continue under ESSA. And students who have individual needs may receive accommodations on a test based on their IEP, which is informed by their teachers' assessment of their needs. The Department also administers an alternative assessment for students with significant cognitive disabilities and an exemption for the English Language Arts state assessment for students with limited English proficiency who are in their first year in a U.S. school.

The Department understands that instructional time is incredibly valuable for teaching and learning. The Department is continuously reviewing the tests that are required for all students to ensure that they are necessary and valuable. Over the last two years, we have reduced the number of tests that are required. Currently, the number of standardized tests required by the state is at the federal minimum with the exception of grade 11 which is being reviewed.

The Department remains cognizant to minimize the burden on students while balancing the need to support students through measuring achievement and complying with federal requirements. As such, the Department respectfully suggests that S.B. No. 2592 is unnecessary.

## **Part VIII. CLASSROOM SUPPLIES (S.B. No. 2593)**

The Department supports providing teachers with the resources necessary to help our students thrive in the classroom. The Department estimates the fiscal impact to be approximately \$11,900,000 per year using the calculation of \$1,000 per Full Time Equivalent (FTE) positions at schools which total approximately the Department's workforce of 11,100 classroom teachers, 200 libraries, and 600 counselors.

Additionally, there may be some administrative issues that need to be addressed before

implementing such a program through a debit card system, as described in the bill. These administrative considerations include processing, procurement, reconciliation, and workload issues at the school and vendor payment levels.

#### **Part IX. TEACHER RECRUITMENT AND RETENTION (S.B. No. 2594)**

The Department supports the intent of S.B. No. 2594. Loan subsidies can encourage prospective teachers to contemplate careers in special education, vocational education, technical education, and career pathways.

However, the Department believes the bill may not be necessary. Federal loan forgiveness is already available for teachers in areas the Department has designated as “teacher shortage,” including special education, technical, and vocational education.

Furthermore, the program proposed for teacher recruitment and retention is complex and would be, as a result, administratively burdensome given the Department’s current systems and staffing. The Department anticipates the establishment and maintenance of the program would require substantial resources to fund the incentives and administer the program.

#### **Part X. EARLY CHILDHOOD EDUCATION (S.B. No. 2595)**

The Department supports efforts to provide opportunities for early childhood education for all of Hawaii’s keiki as it is critical that they enter kindergarten ready to learn. Children deserve the best possible foundation upon which to build success and early childhood education is integral to this foundation. Children are most successful when they enter the public school system prepared with the socio-emotional and pre-academic skills that make them kindergarten-ready.

#### **Part XI. EVALUATIONS (S.B. No. 2596)**

The Department offers the following comments on S.B. 2596:

The Department recommends maintaining the existing 302A-638, HRS, which was established in 1996 and preceded the current evaluation systems which were negotiated between the State and its unions. The proposed changes should be bargained, as HSTA has previously testified in response to prior year’s efforts to legislate aspects of teachers’ evaluations.

The Department supports the intent of the portion of paragraph (a), which requires the Department to consult with the unions in establishing an evaluation program for teachers and educational officers (EOs), but notes that proposed language is redundant with existing statute and practice. A consultation process is already codified in section 89-9(c), HRS, and in the past, the Department has consulted, and at times negotiated, with Hawaii State Teachers Association (HSTA) and Hawaii Government Employees Association (HGEA) regarding evaluation programs for teachers and EOs.

Many provisions of this measure are currently governed by agreements with HSTA and HGEA.

**Part XII. CLASS SIZE (S.B. No. 2597)**

The Department supports the intent of S.B. No. 2597 but respectfully opposes the measure for the reasons identified below.

Class size is a subject of collective bargaining and is addressed in the Department's contract with HSTA. Article VI, Teaching Conditions and Hours, Section A. 6., of the current contract states that the employer agrees to maintain the "average statewide class size ratio of 26.15 to 1."

Moreover, class size is product of school-level decisions by the principal and School Community Council in budgeting of school funds. Thus, schools are empowered to select its number of teachers based on its allocation of its student population-based budget toward personnel. Rather than class size limitations determined by the Legislature, class size is better addressed by providing additional funding for the Weighted Student Formula, which would allow schools to allocate additional resources towards personnel and thus reduce class size.

The current HSTA contract also provides a process to follow should there be issues in connection with the class size of individual classrooms. For example, a class size committee is required, with the authority to hear and investigate class size complaints and make recommendations to the Superintendent for change. If there is no majority vote on a decision of the committee, the HSTA may have the matter submitted to arbitration.

Finally, any change to the class size requirements, including a change from average statewide ratio to individual classroom maximum, would have significant cost implications due to the need for more teachers and additional facilities to house additional classrooms. The Department believes there are other, often less costly, means to provide students with quality education and to address working conditions for teachers.

**Part XIII. FUNDING (S.B. No. 2599)**

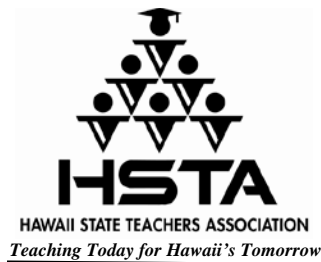
The Department has no position on this measure and defers to the Administration with regard to the generation of revenues to fund public programs.

**Part XIV. MISCELLANEOUS (S.B. No. 2598)**

The Department supports the intent of S.B. No. 2598. The additional funds would provide the Department with additional teaching positions to support the programs and needs of our schools and students. However, this bill is prescribes the subject area of



teachers to be funded, and the Department supports schools' using their autonomy to determine the types of positions necessary for their school program and community.



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President  
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Wilbert Holck  
Executive Director

## TESTIMONY BEFORE THE SENATE COMMITTEE ON EDUCATION

RE: SB 2590 - RELATING TO CLASSROOM CLIMATE CONTROL.

WEDNESDAY, FEBRUARY 10, 2016

COREY ROSENLEE, PRESIDENT  
HAWAII STATE TEACHERS ASSOCIATION

Chair Kidani and Members of the Committee:

The Hawaii State Teachers Association **strongly supports SB 2590**, relating to classroom climate control.

It's getting hot in Hawai'i. According to the National Weather Service, our state set over 50 high temperature records this summer, with the heat and humidity lingering well into the start of fall. In our schools, children and teachers alike became ill from the blistering conditions. Kalaheo High School science teacher Micah Pregitzer recorded temperatures as high as 108 degrees inside his classroom last August, telling reporters, "You're dripping in sweat when you're just sitting there grading papers by yourself with no students in the room. You get the room packed with 36, 38, sometimes 40 students, and it just boosts that temperature up even higher."

A recent study conducted by University of California at Los Angeles researchers showed that the percentile gap between students learning in air conditioned and non-air-conditioned environments can reach as much as 17 percent on achievement tests, clearly evincing the impact of a comfortable classroom environment on student success. In a longitudinal analysis contained in "Effects of the Physical Environment on Student Learning," moreover, Glen I. Earthman of Virginia Polytechnic Institute and State University found that students between 4<sup>th</sup> and 9<sup>th</sup> grade at demographically similar schools showed increased gains in reading vocabulary, total math, problem solving, math procedures, pre-writing, and editing at schools with air conditioning, as compared with peers from non-cooled schools.



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Earthman demonstrated that the longer and more consistently students are exposed to classroom cooling, the better and more stable their performance gains tend to be. Conversely, students exposed to thermal conditioning for only short or intermittent periods of time achieved less than their peers. These findings are supported by U.S. Department of Education sponsored research, which claims that proper cooling systems lead to better attitudes toward learning, fewer disciplinary problems, and sustained achievement.

We applaud Gov. David Ige's call to cool 1,000 classrooms within the next two years. While previous department of education estimates put the cost of comprehensive air conditioning at \$1.5 billion, that figure has been fallen as investments in experiments with renewable energy technology have proven fruitful. Furthermore, in conversations with photovoltaic companies, advocates for cool schools have learned that employing off-grid DC-powered air conditioners, operated entirely from photovoltaic modules that store energy in power-saving batteries, could cost between \$15,000 to \$30,000 per classroom, a savings of approximately 70 percent from earlier departmental projections (discounting a monthly lease per-classroom payment that could be offset by the department's ongoing and all-encompassing renewable energy savings).

Yet, a number of questions remain about comprehensive classroom cooling, such as:

- What type of batteries and/or solar panels should be used for off-grid and renewable units, and how many of each? Enchanted Lakes Elementary is piloting a lead acid battery, while Kalaheo High School will be employing a salt water battery.
- How many thermal units (BTU) are needed to properly air condition classrooms of varying sizes?
- How should comprehensive heat abatement be funded, especially if the cost of a cooling system can be lowered by up to 75 percent? Administrators at Enchanted Lake Elementary believe that they can install air conditioning at a cost of \$5,000-\$6,000 per classroom, a cost at which, if scaled, could bring down the total for comprehensive statewide cooling for all 7,000 classrooms in need to approximately \$40 million.



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While HSTA supports the goals of other air conditioning bills being heard this session—including funding air conditioning, heat abatement, and related energy efficiency measures through a \$100 million loan from the green infrastructure loan program; requiring the DOE to become net-zero with respect to energy use by 2035; establishing microgrid pilot projects at two public schools; and expediting the cooling of all public school classrooms to a temperature acceptable for student learning—we believe that a timeline for comprehensive classroom cooling should be placed in state law to ensure that heat abatement initiatives launched this session are scaled to other schools in need and completed in a timely manner.

School should be cool. To improve air conditioning facilities and, in turn, boost student learning, the Hawaii State Teachers Association asks your committee to **support** this bill.



46-063 Emepela Pl. #U101 Kaneohe, HI 96744 · (808) 679-7454 · Kris Coffield · Co-founder/Executive Director

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**TESTIMONY FOR SENATE BILL 2590, RELATING TO CLASSROOM  
CLIMATE CONTROL**

**Senate Committee on Education  
Hon. Michelle N. Kidani, Chair  
Hon. Breene Harimoto, Vice Chair**

**Wednesday, February 10, 2015, 1:15 PM  
State Capitol, Conference Room 229**

Honorable Chair Kidani and committee members:

I am Kris Coffield, representing IMUAlliance, a nonpartisan political advocacy organization that boasts over 350 members. On behalf of our members, we offer this testimony **in strong support of** Senate Bill 2590, relating to classroom climate control.

If schools is cool, as the saying goes, our classrooms should be, too. Yet, last year, classroom temperatures regularly exceeded 90 degrees, reaching as high as 108 degrees in one Kalaheo High School classroom. Studies show that the achievement gap between cooled and non-cooled classroom environments can reach 17 percent on standardized tests. While local schools' outdated electrical infrastructure often cannot support traditional air conditioning technology, raising recent estimates of the cost of comprehensive air conditioning to over \$1 billion, experiments in renewable energy cooling systems have drastically lowered departmental projections. Using available energy efficient technology—including on-grid, off-grid, microgrid, and photovoltaic technology—could reduce the cost of classroom cooling to \$20,000, or a total of \$140 million for the 7,000 classrooms currently in need.

Mahalo for the opportunity to testify **in support** of this bill.

Sincerely,  
Kris Coffield  
*Executive Director*  
IMUAlliance



Testimony for: Support of SB2590  
Committee on Education Hearing  
Wednesday, February 10, 2016 1:15PM

Honorable Chair Kidani and committee members

We, freshmen of Mililani High School, support this bill because it will help to expand our education opportunities. This bill will provide more fundings for schools, allowing us to provide some classrooms air conditioning when needed, with this, it will also allow schools to save more money since the state will provide schools with the AC's. With this bill, it was also decrease class sizes. With the big class sizes we have right now, it's harder for us to get help and serves as a big distraction which will affects our learning abilities. With this bill it will improve our learning environment, it will help us get the one on one help we need. Without this bill, children who don't go to preschool will have difficulties in comprehending what they will learn in kindergarten, however, if we go on with this bill, then all the kids will be able to to learn better.

This bill supports all of us because, it will provide more funding for special education teachers. It also changes the evaluation program for teachers and education officers allowing teachers to help students learn better. It will also get rid of evaluating students and teachers by their standardized testing scores. This bill would help create better education, expanding our learning abilities, expanding our education opportunities, creating a better nation.

Sincerely,  
Mackenzie Reed and Sofia Ana G. Balinbin

Testimony for: Support of SB2590

Committee of Education Hearing

Wednesday, February 10, 2016 1:15

Honorable Chief Kidani and committee members,

I support this bill SB2590 because it relates to the problems that we go through here in the state of Hawaii. We think that one of the issues here in the Hawaii schools are air quality. Some air quality issues we face here are things like vog and pollution, and because of the poor air conditioning, these things are circulating in our classrooms and creating an uncomfortable learning environment. Basic things like taking tests or paying attention in class can be difficult with the wrong conditions. I know people that are allergic to vog and it causes them to cough and sneeze badly, I can only imagine how hard it is to focus in class while trying not to sneeze or cough on someone. Here in Hawaii, it is hot most of the year. Adults seek air conditioned rooms to help beat the heat, but expect us students to be able to manage it and pay attention in class.

Through my personal experiences I can relate to what other students around the state are going through. Not all classrooms here are air conditioned, but i feel lucky to even have a few, this is because in those few classes with air conditioning, I am able to cool off. Although there are other schools that have no air conditioning in any classrooms. It is hard to imagine what they go through. Also they are expected to keep up their grades and do good on all of their tests, when they don't have the correct environment to help them thrive in the classroom. Going through conditions like that for 7 hours could be hard to endure and some of them don't even have air conditioning at their home. This is why i strongly support the bill SB2590.

Sincerely,

Cole Akamu and Franklin Orego

Testimony for: Support of SB2590  
Committee on Education Hearing  
Wednesday, February 10, 2016 1:15 pm

Honorable Chair Kidani and committee members,

Our names are Isabelle Rice and Alanis Santiago-Rodriguez and we are concerned students of Mililani High School. We are testifying in support of S.B. 2590.

This bill will help the children of Hawaii for the following reasons: our schools need air conditioning and smaller class sizes.

Over the past year, Honolulu experienced record high temperatures at least 25 times; and for decades, Hawaii's cooling trade winds have been declining. This weather makes it very hard for children to remain focused in school, especially when 94% of schools in Hawaii do not have access to air conditioning. Studies have shown that air conditioned classrooms help students remain focused. Also, if schools are not equipped with AC, there could be dangerous consequences; kids are susceptible to heat exhaustion, due to their small size. According to a Huffington Post article, there have already been many students who have shown signs of heat exhaustion, and have had to go to the school nurse. If AC were provided in classrooms, there would not have to be "heat days" and, no [preventable] missed school days. Another issue that is of our concern, is the size of our classrooms. Our class size can usually range from 30 to 40 students. We are aware that class size does not correspond with our success in later life, however, it is difficult to learn where there are not enough chairs and equipment available. Also, it is burdensome when 30 kids are trying to fight for a seat next to a fan.

This is the first school that we have ever attended that does not have air conditioning in all classrooms. Mililani High School is said to be the best public school in the state, and we have only have selected rooms with air conditioning. Not only that our class sizes are fairly large, compared to those on the mainland. We are in support of this bill because no student should have to be distracted by heat so badly that it affects his or her education. We are in support of this bill because every student shouldn't have to fight over a seat because class sizes are too large. We are in support of this bill because other students, our future students of Hawaii deserve this.

Sincerely,  
Isabelle Rice & Alanis Santiago-Rodriguez

Testimony for: Support of SB2586  
Committee on Education Hearing  
Wednesday, February 10, 2016 1:15pm

Honorable Chair Kidani and committee members,

My name is Cairo Kahakua and I am a student at Mililani High School. I believe SB2586 is a great bill and I support it. This would give the students a more comfortable and better work place because of the air conditioning and smaller class sizes. Studies show that the lack of a comfortable classroom will make it harder for students to pay attention, concentrate, learn, and they become more irritable in a non-comfortable environment. Air conditioning also has good effects as it helps the students work, "Research indicates that lowering the temperature and increasing ventilation in classrooms increases student performance by 10 to 20 percent. The students' performance improved mainly in terms of how quickly they worked and also how many errors were made." To make the classrooms even better, this bill proposes that we should make the classes with less kids, so the teachers could teach some of the kids more personally than a class with more students. Less students could also help the special education or disadvantaged children, since they sometimes need more attention from the teacher to learn how to do the lessons we are being taught.

This bill also affects me personally, because in my school only the new or recently renovated buildings have air conditioning, and some my friends do not have a single air conditioned classroom. This could affect their learning and it could make it harder for them to graduate. Another thing is that in one of my classes, we do not have enough laptops for every student, so we would have to share with someone else. If we had a smaller class size, then there



would be enough laptops for everyone. This also make me think of the schools who don't have enough chairs or desks for everyone or if they even have laptops in the first place. All in all I believe this bill could help schools become better than they are now and it could help the students graduate from high school easier.

Sincerely,

Cairo Kahakua

Testimony for: Support of SB2586

Committee on Education Hearing

Wednesday, February 10, 2016 1:15 pm

Aloha, legislators! I am Isabel Camacho, a student at Mililani High School, and I strongly support this bill. In particular, I would be pleased if the PART V. QUALITY SCHOOL FACILITIES became reality. Concerning Hawaii's school facilities, I would like to focus upon the issue of installing air conditioning and cooling systems for our public schools.

94% of Hawaii's public schools lack air conditioning throughout their entire school, according to an official count. Schools will have more trouble with this as we move into warmer times- there's the fact that Honolulu is making record high temperatures, which has happened at least 25 times in the last year or so, not to mention that experts say our cooling trade winds have been declining. This may not seem terribly urgent, but the majority of these schools are already in warmer areas like Ewa Beach, where a Campbell High School teacher measured her classroom and found it was 96 degrees fahrenheit- this is like a humid Hawaiian day with no wind, but worse. Studies show that anywhere over 75 degrees makes it hard to focus, so this is clearly not the ideal environment for learning. Another Ewa Beach teacher left her work for the emergency room, experiencing intense heat exhaustion; she was later told she nearly had a heat stroke. Heat strokes are a deadly medical emergency, as the possible loss of consciousness and the damage done to organs, including the brain, is in some cases fatal. Considering kids are more vulnerable to heat exhaustion from not being fully developed, this issue is actually very urgent.

From personal experience, I know air conditioned classrooms are preferable since they are significantly easier to focus in. It is simply miserable in that type of a learning environment- being stuck in a small, steaming room with 35 sweaty kids in it, you couldn't *possibly* be expected to learn, or to even pretend to pay attention. Yet, even though I think I have it bad in my classes without AC, and I go to the highest-ranking and nicest public high school in Hawaii, in one of the *cooler* parts of

Oahu, so to think that the majority of Hawaiian kids are facing much worse is to say the least upsetting.

Thus, it is so very pressing that this bill is accepted, for just this one small segment of the bill will do so much for our community. Thanks for your time.

Testimony for: Support for SB2590  
Committee on Education Hearing  
Wednesday, February 10, 2016

Honorable Chair Kidani and committee members,

My name is Kylie Jones, I am a freshman in Highschool, and I support bill SB2590. I agree with this bill, as a student in Mililani High School. The classrooms we learn in are being neglected, and as a result, we are working in 65 year old classrooms. Section V is about the facilities in our schools, and the monumental need for modernization of our classrooms. Many classrooms fail to have proper air conditioning, so student have to try to learn in classrooms that can reach and sustain 100 degrees. At this point, the cost of installing AC in all of the schools, and updating the infrastructure is \$140,000,000. I support this legislation because in classrooms all around Hawaii, student learning is being negatively affected because of the lack of modern facilities.

In my own classrooms, I have felt my clothing cling to my body and I have heard the violent buzzing of more than 5 fans attempt to cut the heat in my classroom. This Hell was in the 7th grade. Now that I am a freshman, I have seen very little change since then. I am lucky enough to have my PE and my Civics classroom air conditioned, however, I still have to spend hot days suffering in every other class that I have. A few years back, I visited Punahou High School, and experienced what I thought was a luxury. Well kept facilities, air conditioning, and open classrooms, things that are actually normal in other states. Our classrooms will never get better unless something is done, we are no longer living in the past, let's act like it. Please support this bill for our schools, for our education, and for our students.

Sincerely,  
Kylie Jones

Testimony In Support of Senate Bill 2590  
Senate Committee on Education  
Wednesday, February 10, 2016

Dear Honorable Chair Kidani and committee members,

Our keiki deserve, at the very least, school facilities that have adequate lighting, clean air, comfortable heating and cooling, properly-insulated windows that open and close, roofs that do not leak, classrooms large enough to move around in (for projects and group work), cafeterias, library media centers, functioning plumbing in bathrooms, computer labs, science labs, auditoriums with chairs, and fresh paint.[1] There is a growing body of work linking educational achievement and student performance to the quality of learning environment in which students and teachers spend the majority of their waking hours.[2] Learning spaces have become a critical social justice issue, and many researchers and advocates in Hawai'i and across the country are concerned about the disproportionate effect of unhealthy public school facility conditions on students from racial or ethnic minority groups and from families having lower socioeconomic status.[3]

Investigations linking indoor air quality, lighting, ventilation, and temperature to student learning have emerged over the past three decades and have produced clear results: facilities not conducive to human health make teachers and students sick - sick students and teachers cannot perform as well as healthy ones.[4] Specifically, poor air quality, weak or overly intense fluorescent lighting, lack of adequate ventilation, and extreme classroom temperatures in Hawaii, as in classrooms in the other dramatically underfunded school districts around the country, have been associated with increased student absenteeism, less productive learning environments, student dissatisfaction, alienation, and poor educational performance. This scholarship supports the sensible inference that physical environments (which include seating, furnishings, spatial density, privacy, noise and acoustics, windowless classrooms, vandalism, and playgrounds) have a dramatic effect on students' engagement, attainment, attendance, and well-being.[5]

Some of the most important insights about the connections between place, space and learning include:

- Temperature, heating, and air quality are the most important individual elements for student achievement.[6]
- Chronic noise exposure impairs cognitive functioning, with a number of studies finding noise-related reading problems, deficiencies in pre-reading skills, more general cognitive deficits, and higher stress levels for students.[7]
- Classroom lighting plays a particularly critical role in student performance: appropriate lighting improves test scores, reduces off-task behavior, and plays a significant role in students' achievement.[8]

Hawai'i ranks LAST in the nation in capital improvement investment per student.[9] This chronic failure to adequately invest in public schools is not just a source of public embarrassment. When students see that buildings are neglected and dilapidated, research has shown that they question whether or not education is valued by their community, and this has noticeable effect on their level of motivation.[10] The Hawai'i state legislature annually allocates far less to capital improvement funding than is even necessary to address the backlog of maintenance issues. In the January 2016 Supplemental Budget request, the Hawai'i State Department of Education only requested



a total of an additional \$80 million in funding for capital improvement projects, when the total cost of addressing the actual backlog of maintenance issues has been estimated at \$3.8 billion.[11]

Teachers, students and administrators actually working in the public schools across the state have been begging for basic and fundamentally urgent repairs for decades.[12] There has been increasing media attention to the issue in recent years, as the destructive effects of underfunding repair and upkeep of 256 schools generally built around 65 years ago have worsened.[13] The average age of a typical Hawai'i public schools is 59 years old, and "more than one-third of schools are over 75 years old." [14] Even with efforts to renovate, classrooms occupied by young children all day have termite droppings, mold, peeling paint, and rusty structures. Neglecting needed structural improvements to our school facilities puts our children in danger and represents an evasion of the most basic social responsibility to future generations. It was a miracle that the collapse of Farrington High School's gym in 2012 did not result in harming students, and it is not unlikely that such events will reoccur without attention to this issue.[15]

With school buildings that are aging rapidly and in distressingly poor repair, the environmental issues facing the islands have an intensified impact on our unprotected children.[16] Air quality issues for students include vog and exposure to pollutants from pesticides being sprayed on or near campuses.[17] With poor ventilation, these irritants and pollutants are often either trapped inside the classroom or kept out by eliminating all airflow in classrooms without air conditioning, creating a stiflingly hot and toxic environment for the students. The manifestations of climate change, including increasing high temperatures for longer periods of the year and dramatic climate events, leave our children the most vulnerable.[18] Adults seek out air-conditioned spaces for work and leisure during increasingly hot days, yet we subject our children to sweltering conditions that not only make learning far less likely but also, more importantly, pose an imminent threat to the health of students and teachers alike.[19]

It is in the public charter schools, however, that the children and teachers have the least physical support because they have not been receiving funding for facilities despite the fact that they are public and not private charter schools. Although Hawai'i law now allows the Charter School Commission to request facilities funding as part of its annual budget request to the director of finance, and it may receive, expend, or allocate any funds provided by the facilities funding request beginning with fiscal year 2014–15, the legislature has not been providing funding for facilities costs.[20] There are multiple public charter schools across the state that lack adequate building space, who have to conduct class outdoors, on covered lanais, or in makeshift structures.[21] Public charter schools are forced to spend time and energy seeking funds for facilities from outside sources instead of focusing on student learning. Some of these public charter schools were established in remote, rural areas, and they exist because state has simply never constructed a public school to meet the needs of the growing populations of the area.[22] The perpetuation of these conditions is unconscionable – our keiki deserve better.

Sincerely,

Amy Perruso, Ph.D  
Mililani High School

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- [1] Schneider, Mark. "Do School Facilities Affect Academic Outcomes?" National Clearinghouse for Educational Facilities. National Institute of Building Sciences, Nov. 2002. Web. 14 Jan. 2016. Uline, Cynthia, and Megan Tschannen-Moran. "The Walls Speak: The Interplay of Quality Facilities, School Climate, and Student Achievement," *Journal of Educational Administration*: Vol 46, No 1. Emerald Insight, 1 Sept. 2008. Web. 14 Jan. 2016.
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- [6] Earthman, Glen. *Prioritization of 31 Criteria For School Building Adequacy*. Rep. Blacksburg: Virginia Polytechnic Institute & State U, 2004. Print.
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**SB2590**

Submitted on: 2/8/2016

Testimony for EDU on Feb 10, 2016 13:15PM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Elise Page	Individual	Support	No

Comments: Testimony for: Support of SB2590 Senate Committee on Education Hearing Wednesday, February 10, 2016 Honorary Chair Kidani and committee members, My name is Elise Page, a freshman at Mililani High School. I believe that it is absolutely important to encourage students to do well in school and try their best, however, many of our public schools in Hawaii are lacking in basic necessities such as air conditioning. Coming from Mililani, I understand that I am very fortunate, I have smaller classes and air conditioning in most of them. Campbell on the other hand is not so lucky. They have very large classes without air conditioning and some students don't even have chairs. I spoke to one of the students there and he said that air conditioning and class size are the top issues for students there, so I'm here to speak for them. Now tell me this; how do we expect children to learn and pay attention when they are in an uncomfortable environment? Having a smaller class and air conditioning rather than sitting in a stuffy classroom can improve moods of students and teachers, which can help to improve the grades of students in the long run. If the state of Hawaii is ever going to improve our test scores, making sure that the students are able to focus is important and necessary. Personally, air conditioning makes a big difference in how I focus on my class work, I'm not worrying about other things like constantly eyeing the clock eager to get out of the stifling classroom. Many of my classes only have large fans that make a lot of noise, so we are forced to turn it off to be able to hear our teacher. When the fan is turned off, I try to distract myself from the heat, causing me to lose focus of the material we are learning. Imagine this for students in classrooms with temperatures around 90 degrees. I would like to raise the test scores and grade point average for Hawaii and I feel that improving the classrooms is the first step to achieving that goal. I want Hawaii to be proud of their students. Thank you, Elise Page

Please note that testimony submitted less than 24 hours prior to the hearing, improperly identified, or directed to the incorrect office, may not be posted online or distributed to the committee prior to the convening of the public hearing.

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Testimony for: Support of SB2590  
Committee on Education Hearing  
Wednesday, February 10, 2016 1:15 pm

Honorable Chair Kidani and committee members,

Our names are Isabelle Rice and Alanis Santiago-Rodriguez and we are concerned students of Mililani High School. We are testifying in support of S.B. 2590.

This bill will help the children of Hawaii for the following reasons: our schools need air conditioning and smaller class sizes.

Over the past year, Honolulu experienced record high temperatures at least 25 times; and for decades, Hawaii's cooling trade winds have been declining. This weather makes it very hard for children to remain focused in school, especially when 94% of schools in Hawaii do not have access to air conditioning. Studies have shown that air conditioned classrooms help students remain focused. Also, if schools are not equipped with AC, there could be dangerous consequences; kids are susceptible to heat exhaustion, due to their small size. According to a Huffington Post article, there have already been many students who have shown signs of heat exhaustion, and have had to go to the school nurse. If AC were provided in classrooms, there would not have to be "heat days" and, no [preventable] missed school days. Another issue that is of our concern, is the size of our classrooms. Our class size can usually range from 30 to 40 students. We are aware that class size does not correspond with our success in later life, however, it is difficult to learn where there are not enough chairs and equipment available. Also, it is burdensome when 30 kids are trying to fight for a seat next to a fan.

This is the first school that we have ever attended that does not have air conditioning in all classrooms. Mililani High School is said to be the best public school in the state, and we have only have selected rooms with air conditioning. Not only that our class sizes are fairly large, compared to those on the mainland. We are in support of this bill because no student should have to be distracted by heat so badly that it affects his or her education. We are in support of this bill because every student shouldn't have to fight over a seat because class sizes are too large. We are in support of this bill because other students, our future students of Hawaii deserve this.

Sincerely,  
Isabelle Rice & Alanis Santiago-Rodriguez

Testimony for: Support of SB2590

Committee on Education Hearing

Wednesday, February 10, 2016 1:15 pm

Honorable Chair Kidani and Committee members,

We support the bill for providing air conditioning. One, Mililani is hot, but nothing is compared to what schools like Campbell and Waianae. For example, these places have got to be one of the hottest and it shows in the student's health and education. The problem is this heat wave at James Campbell High that really know one hardly is really notices, all they care about is how much money it's going to cost into putting these air conditionings. Back in 2015, teachers at Campbell High were thrilled to get new air conditionings installed in 12 classrooms, but this still did not solve the problem that these students face. Still schools officials tell us about 80 percent of the Ewa Beach School's classrooms are not conditioned, this alone is a huge problem, but at least it's being done and taken care of little by little. With air conditioned offices for the staff the next step would be providing air for the students as well. With Campbell as one of the largest public schools on the island by creating healthier work environments we will be benefiting a lot of students. We believe that by solving the issue at Campbell we could then work down the line to the next hottest school, taking care of the places that need it most as the top priority. Supporting this bill definitely stop the health and education problems that these students face against the heat wave.

Personally, we have never experienced a heat wave or a source of heat in classroom that goes up to 90 degrees or even 100 degrees. Being in a room temperature classroom or classroom that is kind of hot, we complain and say it's too hot. Having friends who go to Campbell ans asking them about it, many of them complain as the heat as a major learning disturbance. Going to Mililani we have many air conditioning classes, we can only imagine what they go through with heat that fries their brain to death. Few of them had to go to the school nurse for having really bad headaches and also dehydration. Dehydration for students, especially athletes isn't a good thing at all. Along with heating this has left an issue of health. We care especially about issues like this because it could increase the level of high school dropouts, academic performance drops significantly, or the risk of health problems. By adding these air conditioners in schools that reach extreme heat we may be able to see a greater increase in Hawaii's education level as a nation and students individually. So in supporting this bill we think all schools in the Ewa beach district deserve air conditioning.

Sincerely Merilis Rivera and Mira Chloe Prickett



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**Date:** Sunday, February 07, 2016 10:55:18 PM

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**SB2590**

Submitted on: 2/7/2016

Testimony for EDU on Feb 10, 2016 13:15PM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Sherry Pollack	Individual	Support	No

Comments:

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EDUtestimony@capitol.hawaii.gov

Heading: Testimony in support of SB2590

Testimony for: Committee on Education Hearing on Wednesday, February 10, 2016 1:15pm

Honorable Chair Kidani and committee members,

My name is Debbie Anderson. I am a teacher at Waiakea Intermediate School on the island of Hawaii. As a teacher of over 25 years in Hawai'i, I am writing in support of SB2590 Classroom Climate Control, **SB 2586** subcomponent Part V., which "Requires the department of education to develop a plan to provide air conditioning to all public school classrooms that meet or exceed a temperature of ninety degrees Fahrenheit, and provides appropriations to fund the plan.

## PART V. QUALITY SCHOOL FACILITIES

Our keiki deserve, at the very least, school facilities that have adequate lighting, clean air, comfortable heating and cooling, properly-insulated windows that open and close, roofs that do not leak, classrooms large enough to move around in (for projects and group work), cafeterias, library media centers, functioning plumbing in bathrooms, computer labs, science labs, auditoriums with chairs, and fresh paint.[1] A growing body of work links educational achievement and student performance to the quality of learning environment in which students and teachers spend the majority of their waking hours.[2] Learning spaces have become a critical social justice issue, and many researchers and advocates in Hawai'i and across the country are concerned about the disproportionate effect of unhealthy public school facility conditions on students from racial or ethnic minority groups and from families having lower socioeconomic status.[3]

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Some of the most important insights about the connections between place, space and learning include:

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- [1] Schneider, Mark. "Do School Facilities Affect Academic Outcomes?" National Clearinghouse for Educational Facilities. National Institute of Building Sciences, Nov. 2002. Web. 14 Jan. 2016. Uline, Cynthia, and Megan Tschannen-Moran. "The Walls Speak: The Interplay of Quality Facilities, School Climate, and Student Achievement," *Journal of Educational Administration*: Vol 46, No 1. Emerald Insight, 1 Sept. 2008. Web. 14 Jan. 2016.
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**SB2590**

Submitted on: 2/9/2016

Testimony for EDU on Feb 10, 2016 13:15PM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Brianna Levy	Individual	Support	No

Comments: I am a student at the University of Hawaii who has spent many volunteer hours in many of the elementary schools in various areas across the island. I support SB2590 which is a great step in the right direction for whole child education. I believe education is not just about the teachers, and material being taught but it is also about the environment and access to resources for success in the classroom as well. I noticed from classroom observation during those very hot summer/ fall months that kids were just so distracted by the heat, it was taking away from the learning because it was just truly too warm. Kids were getting sick, no one could function, and the heat just made everyone a little more irritable. That is not an environment anyone can learn and thrive in. I would love to see it go into classrooms despite the temperature regulation, i think 80 degrees is still too warm, and this bill states they will only install at 90 degrees. I think the temperature cap needs to be re-looked at. I urge this bill to pass, and am in support of improvement classrooms all over the island for the better whole child education.

Please note that testimony submitted less than 24 hours prior to the hearing, improperly identified, or directed to the incorrect office, may not be posted online or distributed to the committee prior to the convening of the public hearing.

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