

# HCR74

Measure Title: URGING THE DEPARTMENT OF EDUCATION TO INCLUDE NEIGHBOR ISLAND SCHOOL COMPLEXES IN HEAT ABATEMENT STUDIES, USE SCIENTIFIC DATA AND METHODS TO DETERMINE HEAT ABATEMENT PRIORITY RANKINGS OF SCHOOLS, AND INCREASE TRANSPARENCY IN THE METHODOLOGY USED TO DETERMINE PRIORITY RANKINGS.

Report Title: Department of Education; Heat Abatement; Priority

Description:

Companion: [HR37](#)

Package: None

Current Referral: EDU

Introducer(s): LOWEN, BELATTI, ITO, C. LEE, MCKELVEY, MORIKAWA, OHNO, RHOADS, TAKUMI, WOODSON, Onishi



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

**Date:** 04/15/2016  
**Time:** 01:30 PM  
**Location:** 229  
**Committee:** Senate Education

**Department:** Education

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

**Title of Resolution:** HCR 074 URGING THE DEPARTMENT OF EDUCATION TO INCLUDE NEIGHBOR ISLAND SCHOOL COMPLEXES IN HEAT ABATEMENT STUDIES, USE SCIENTIFIC DATA AND METHODS TO DETERMINE HEAT ABATEMENT PRIORITY RANKINGS OF SCHOOLS, AND INCREASE TRANSPARENCY IN THE METHODOLOGY USED TO DETERMINE PRIORITY RANKINGS.

**Purpose of  
Resolution:**

**Department's Position:**

The Department of Education (DOE) supports this concurrent resolution and would like to assure members of the House of Representatives that it currently is using scientific data and methods to address the highest priority schools throughout the state. The DOE uses internal and external temperature data, including national weather station data, for its analysis and planning. The DOE is currently engaging experts and using standards developed both at the local and national level.

Thank you for the opportunity to provide testimony.



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Corey Rosenlee  
President  
Justin Hughey  
Vice President  
Amy Perruso  
Secretary-Treasurer  
Wilbert Holck  
Executive Director

TESTIMONY BEFORE THE SENATE COMMITTEE ON  
EDUCATION

RE: HCR 74 - URGING THE DEPARTMENT OF EDUCATION TO INCLUDE NEIGHBOR ISLAND SCHOOL COMPLEXES IN HEAT ABATEMENT STUDIES, USE SCIENTIFIC DATA AND METHODS TO DETERMINE HEAT ABATEMENT PRIORITY RANKINGS OF SCHOOLS, AND INCREASE TRANSPARENCY IN THE METHODOLOGY USED TO DETERMINE PRIORITY RANKINGS.

FRIDAY, APRIL 15, 2016

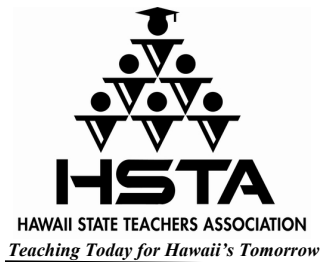
COREY ROSENLEE, PRESIDENT  
HAWAII STATE TEACHERS ASSOCIATION

Chair Kidani and Members of the Committee:

The Hawaii State Teachers Association **strongly supports HCR 74**, urging the Department of Education to include neighbor island school complexes in heat abatement studies, used scientific data and methods to determine heat abatement priority rankings of schools, and increase transparency in the methodology used to determine priority rankings.

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



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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. 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, including: how are school rankings determined and using what technology, and to what extent are neighbor island schools represented in heat abatement disbursements? These questions deserve answers. To improve heat abatement implementation and, in turn, boost student learning, the Hawaii State Teachers Association asks your committee to **support** this resolution.



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

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**TESTIMONY FOR HOUSE CONCURRENT RESOLUTION 74, URGING THE  
DEPARTMENT OF EDUCATION TO INCLUDE NEIGHBOR ISLAND  
SCHOOL COMPLEXES IN HEAT ABATEMENT STUDIES, USE  
SCIENTIFIC DATA AND METHODS TO DETERMINE HEAT ABATEMENT  
PRIORITY RANKINGS OF SCHOOLS, AND INCREASE TRANSPARENCY  
IN THE METHODOLOGY USED TO DETERMINE PRIORITY RANKINGS**

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

**Friday, April 15, 2016, 1:30 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, with proposed amendments for** HCR 74, urging the Department of Education to include neighbor island school complexes in heat abatement studies, use scientific data and methods to determine heat abatement priority rankings of schools, and increase transparency in the methodology used to determine priority rankings.

If school is cool, 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, experiments in renewable energy cooling systems have lowered departmental projections for comprehensive cooling. 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.

Therefore, we strongly support passage of this measure, which comes at a time when lawmakers are considering funding classroom cooling in the amount of \$130 million, financed primarily through unexpected federal Medicaid reimbursements or the Green Infrastructure Loan Program. We are concerned that funds appropriated this year could be a “one off,” with the Department failing to aggressively pursue heat abatement funding beyond this fiscal year or maximize the use of taxpayer dollars. We are especially worried about overspending on paint and classroom sealing, which would sap funding from air conditioning installation. We caution against enabling a situation to arise in which classrooms that hit 100 degrees are given cooling systems, but those reaching 98 or 99 degrees are left to sweat it out because of a failure to commit to future assistance and/or a reliance on problematic methodology for evaluating both average temperatures and the cost effectiveness of proposed solutions. Therefore, **we urge the committee to consider amending page 2 of this resolution to include one additional point, to read: “BE IT FURTHER RESOLVED that the Department of Education is urged to make publicly available the data and the methodology used to determine the cost of implementing classroom cooling measures at schools designated as high priority for heat abatement.”**

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

Sincerely,  
Kris Coffield  
*Executive Director*  
IMUAlliance

**From:** [mailinglist@capitol.hawaii.gov](mailto:mailinglist@capitol.hawaii.gov)  
**To:** [EDU Testimony](#)  
**Cc:** [andiandlen@gmail.com](mailto:andiandlen@gmail.com)  
**Subject:** \*Submitted testimony for HCR74 on Apr 15, 2016 13:30PM\*  
**Date:** Thursday, April 14, 2016 2:33:43 PM

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**HCR74**

Submitted on: 4/14/2016

Testimony for EDU on Apr 15, 2016 13:30PM in Conference Room 229

| <b>Submitted By</b>    | <b>Organization</b> | <b>Testifier Position</b> | <b>Present at Hearing</b> |
|------------------------|---------------------|---------------------------|---------------------------|
| Andi Pawasarat-Losalio | Individual          | Support                   | No                        |

Comments:

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**To:** [EDU Testimony](#)  
**Cc:** [mendezj@hawaii.edu](mailto:mendezj@hawaii.edu)  
**Subject:** \*Submitted testimony for HCR74 on Apr 15, 2016 13:30PM\*  
**Date:** Wednesday, April 13, 2016 11:16:32 AM

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**HCR74**

Submitted on: 4/13/2016

Testimony for EDU on Apr 15, 2016 13:30PM in Conference Room 229

| <b>Submitted By</b>   | <b>Organization</b> | <b>Testifier Position</b> | <b>Present at Hearing</b> |
|-----------------------|---------------------|---------------------------|---------------------------|
| Javier Mendez-Alvarez | Individual          | Support                   | No                        |

Comments:

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