



Testimony BOE <testimony.boe@boe.hawaii.gov>

Testimony for Oct. 6 special meeting

1 message

Hale Hawaii <hale808hawaii@gmail.com>
To: testimony.boe@boe.hawaii.gov

Mon, Oct 3, 2022 at 4:13 PM

Re: Agenda items IV(B)(3) and VI(D)

Aloha, Chair Voss and Board Members.

I am writing on behalf of HALE Hawai'i to comment on agenda items IV(B)(3) and VI(D), which deal with consultation with the unions about DOE's annual plan of organization.

I note that the organization charts included in the meeting materials do not (yet) reflect the recent addition of two deputy superintendents, including a deputy superintendent of operations (Mr. Curt Otaguro) whose kuleana includes facilities management. When the Board authorizes DOE to consult with the unions about DOE's organization plan, we urge the Board to **direct** DOE generally, and Mr. Otaguro in particular, to address the issue of classroom ventilation, which directly affects the working conditions of the vast majority of the members of those unions.

HALE Hawai'i is currently working with a coalition of community groups to survey teachers and parents about actual ventilation conditions in public school classrooms. The responses so far indicate that a great deal more needs to be done to address this critically important issue. For example, 62% of respondents said that their classrooms have openable windows, but the windows and doors are kept closed in order to maximize the effectiveness of air conditioning. Yet the air conditioners are not equipped with HEPA or MERV-13 filters, nor are there air purifiers in use in the rooms.

We urge the Board to direct DOE to consult with the unions about the desirability and feasibility of assigning **dedicated personnel** to the specific task of assessing classroom ventilation and bringing it up to pandemic-era standards. We believe this issue deserves a far higher priority, in terms of personnel time and funding, than has been devoted to it so far. A summary of our reasons appears below.

Mahalo for your time and your consideration of this issue.

Respectfully,
Sarah Hofstadter, Steering Team Member, HALE Hawai'i

The Importance of Classroom Ventilation

With the discontinuation of the school mask mandate, it has become even more necessary for the DOE to ensure school classrooms are adequately ventilated, and that air purification is employed where adequate ventilation is not possible. Otherwise, if anyone with a contagious Covid-19 infection is present in the room, their virus-laden exhalations will build up in the air, posing a high risk of transmission to other occupants of the room.

"Heat abatement" is entirely distinct from the ventilation/air quality issue, because even in classrooms that have adequate air conditioning or are located at cooler altitudes, supplemental ventilation or air filtering is needed to reduce the level of aerosolized virus in the room. In rooms where air conditioning is relied upon for heat abatement, doors and windows are more likely to be kept closed, creating an even greater need for air purification. Even if the air conditioner is equipped with a high-grade filter capable of trapping virus particles, supplemental air purification may be needed if the air conditioner does not filter a sufficient volume of air per hour.

Air purifiers were delivered to some (but not all) classrooms last year, and air quality testing has been performed at some (but not all) schools. We are also aware that DOE has adopted and distributed

ventilation guidelines for this year. These were steps in the right direction, but there is a great deal more to be done. There is no mention of any effort being made to educate administrative and facilities staff about the ventilation guidelines, much less to assess the degree to which schools are successfully implementing them. On the contrary, at the September 1, 2022 meeting of the Facilities and Infrastructure Committee, Assistant Superintendent Tanaka admitted that teachers are expected to decide for themselves whether and how to use fans or air filters. Similarly, more recently, schools have been given authorization to use available funds to purchase DOE-specified commercial air purifiers, but guidance on why they are needed, how many each school should purchase, and how to deploy them is sadly lacking.

This is absurd. Teachers and school administrators have not been trained and cannot be expected to deal with the complexities of airflow in the context of an aerosol pathogen. Yet when the air purifiers and box fans were distributed, school staff were given no instructions for their correct placement, and were not shown how to ensure the fans are not just blowing aerosolized virus from one student to another. Even with oscillating fans, strategic placement of the fans in the rooms is necessary.

If fans are just dropped off at schools, leaving teachers to determine how to deploy them based on the vague statements in DOE's ventilation guidelines, the fans may end up being used simply to try to cool the classroom, rather than as a tool to ensure there are adequate air exchanges to minimize the risk of virus transmission. Moreover, box fans do nothing to filter the air, which may be necessary if adequate air exchange is not possible; Corsi-Rosenthal boxes or commercial air purifiers must be used in addition. To do the job right, DOE's trained facilities personnel must visit all affected classrooms to assess their individual ventilation dynamics and determine what equipment is needed and how it should be used.

Another obstacle to preventing virus transmission in our classrooms is the systemic issue with our public schools' outdated and inadequate electrical systems. For example, the electrical infrastructure in most of our schools is not equipped to handle the load that would be required in order to deploy HEPA filtration in HVAC systems (per 2021 memo from G. Bignami). In 2016, the DOE received public donations of air conditioners and fans to address heat, but those donations sat in boxes because there was no electrical infrastructure to accommodate them in the schools that needed them most. We have heard that some teachers cannot plug in their fans or air purifiers because there is no available power outlet. Classrooms may need multiple Corsi-Rosenthal boxes in order to do an adequate job, but be unable to use them (even if they are made available) because the school's electrical system cannot handle the load. Accordingly, in order to ensure that all of our state's public school classrooms have adequate air circulation and/or purification, we also need to make it a top priority to upgrade school electrical systems as soon as possible.

If we want our schools to stay open and be in a position to deliver high quality education consistently, the health of students, teachers, and staff must be better protected. From our vantage point, we are hearing horror stories of teachers and students coming to class with obvious symptoms of contagious illness, while carbon dioxide monitors and air purifiers sit unused in classrooms, offices, or storage rooms. And it is Deputy Superintendent Otaguro's job, as well as Superintendent Hayashi's moral obligation, to tackle those issues rather than expecting teachers and principals to do the job for them. The DOE must make a commitment to monitor and improve classroom air quality and to also make this issue one of the highest priorities for health and safety!

--

Mahalo,
HALE Hawai'i
www.HALEHawaii.cc
[Facebook.com/HALEHawaii808/](https://www.facebook.com/HALEHawaii808/)

Board of Education Special Meeting 1:30
October 6, 2022
Susan Pcola-Davis
Testimony

Reports of Board Committees, Board Members, and Superintendent

A. **Student Achievement** Committee Report on:

(1) Committee Action on Kindergarten entry assessment in accordance with Act 210 (2021)

APPROVE with COMMENTS

I appreciate the time that the Department spent to determine a Kindergarten Assessment that meets the Legislature's requirements (HRS §302A-1165).

Communication to additional stakeholders

- The Department will facilitate robust discussions about best practices for successful implementation that are necessary to meet the diverse needs of the Department's schools and the charter schools.
- **Particularly Complex Area Superintendents, principals** and kindergarten teachers and elementary school administrators, is needed to ensure successful implementation.

The discussion will be held with the Office of Talent Management and relevant stakeholders **Complex Area Superintendents, principals** regarding training details.

- All teachers administering this assessment complete seven online learning modules, as well as two mastery assessments, to complete the training.
- The JHU provides all of these learning modules, as well as Train-the-Trainer training to facilitate district leadership and sustainability.

B. **Human Resource Committee** Report on:

(2) Committee Action on the superintendent evaluation system process and Superintendent Priorities for the 2022-2023 school year;

APPROVE WITH RECOMMENDATIONS:

The truncated superintendent evaluation system and the Superintendent Priorities for the 2022-2023 school year.

The Board conducting only an end-of-year evaluation limited to Superintendent Priorities, removing the evaluation of professional standards and strategic plan indicators contained in the current evaluation system. This simplifies the evaluation process by removing more than half what the Board usually reviews and removes the mid-year review.

RECOMMENDATIONS

Superintendent Priority 3: Actively and intentionally engage in professional growth.

Add: Attend Professional training on Systems Design and Continual (not continuous) Process Improvement in order to access his Deputy superintendents, Assistant superintendents and his department's strengths and weaknesses in data analysis.

Revision recommendations for Priority 4 Indicators:

Superintendent Priority 4: Begin building positive and productive relationships with parents, families, and the general public.

Indicator 4.2 The superintendent establishes an efficient and responsive system to intake and address complaints from families and the public received at the state office level, **Complex level and school level** that provides timely and respectful responses to complainants and tracks complaints from initiation to resolution.

Indicator 4.3 The superintendent **develops** establishes an efficient and responsive system for complex area superintendents, principals and schools on how to resolve conflicts with parents and guardians.

TIMING: The Board is still planning on reviewing and improving its superintendent evaluation system to use on a longer-term basis. By when?

(3) Committee Action on authorizing consultation with unions regarding the updates to the Department of Education's ("Department") annual plan of organization, updated as of June 30, 2022

COMMENTS/CONCERNS

4. OFFICE OF FACILITIES AND OPERATIONS

It is necessary for the DOE to ensure school classrooms are adequately ventilated, and that air purification is employed where adequate ventilation is not possible.

Why Consider CO2 Control

1. Student Health Considerations

CO2 monitoring can ensure that acceptable levels of ventilation for the health and welfare of students and teachers is maintained at all times.

• **Lack of Ventilation Can Contributing to Absenteeism & Poor Student Performance**

There are now numerous scientific studies that document that the lack of proper ventilation can impair performance and can increase the effective spread of viruses that can lead to **increase absentee rates that may directly affect school operational funding**. These studies also show that **student performance can also suffer if ventilation is neglected**.

The value of CO2 measurements is that you can constantly monitor and control ventilation levels to ensure student health and productivity.

1.a. CO2 is about the only parameter that can actually measure the amount of fresh air that is being delivered to a space based on its occupancy. As a result it is increasingly being used as a feedback control to ensure buildings are ventilated appropriately for their current occupancy.

1.b. What does too much CO₂ does to the human body?

- The primary symptoms observed due to too much increase in carbon dioxide levels in the body are extreme difficulty breathing, sudden periods of mental confusion, feeling of depression, muscle twitching, arrhythmias, hyperventilation, seizures, panic attacks, and syncopal episodes.

1.c. Why is too much carbon dioxide a bad thing?

- If your blood becomes saturated with too much CO₂, you develop the condition known as hypercapnia. Increased levels of CO₂ also affect the pH level of your blood, turning it more acidic. This condition is called acidemia and, if prolonged, causes acidosis, which is injury to the body's cells by a rise in acidity that leads to faltering functions of the heart.

1.d. Is breathing too much carbon dioxide bad for you?

- In high concentrations, oxygen in the air can be displaced. When there is insufficient oxygen to breathe, symptoms such as fast breathing, high heart rate, clumsiness, emotional upheavals, and exhaustion might occur. As oxygen levels drop, nausea and vomiting, collapse, convulsions, coma, and death may ensue. Carbon dioxide is a normal by-product of cellular respiration and plays an important role in energy production within cells. Too much carbon dioxide in the blood is toxic to tissues; when inhaled, it can cause serious health problems.
- Excessive amounts of carbon dioxide can be harmful to humans. At high concentrations, it is able to displace oxygen in the blood, causing organs such as the brain and lungs to receive less oxygen than they need. These effects are likely to lead to dizziness, headache, fatigue, confusion, loss of consciousness, and possibly death. The human body can only handle a certain concentration of carbon dioxide before it becomes incapacitated.

1.e. What are the symptoms of carbon dioxide toxicity?

- Symptoms
 - Dull headache.
 - Weakness.
 - Dizziness.
 - Nausea or vomiting.
 - Shortness of breath.
 - Confusion.
 - Blurred vision.
 - Loss of consciousness.

On August 24, 2022 a letter was sent to the Complex Area Superintendents and Principals regarding Guidance on Minimum Air Purifier Specifications. I am unable to find this letter on the DOE website. The Office of Facility Operations is working on a price list for air purifiers and filters that schools can utilize.

An attached document provides additional information to guide schools on how to “calculate” air changes per hour based on the clean air delivery rate of the unit you are looking to purchase. It provides some guidance based on the size of your room, to purchase the correct size.

These are screen shots of what was sent to the Complex Area Superintendents and Principals. Pretend you are a CAS or principal, answer for yourselves if this would help you order and purchase air purifiers

AND filters. Ask yourself if this document provides any guidance on purchasing MERV filters for the CR Box fans already placed in classrooms.

Would you feel unsupported? Helpless? Frustrated?

DAVID Y. IGE
GOVERNOR



KEITH T. HAYASHI
SUPERINTENDENT

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

OFFICE OF FACILITIES AND OPERATIONS

August 24, 2022

TO: Complex Area Superintendents
Principals (All)

FROM: Randall M. Tanaka 
Assistant Superintendent

SUBJECT: **Guidance on Minimum Air Purifier Specifications**

The Office of Facilities and Operations (OFO) is currently working on a price list for air purifiers and filters that schools can utilize. Should schools wish to procure air purifiers prior to the completion of the price list, the OFO is providing guidance on the minimum specifications for air purifiers.

The attached document should be used to assist schools with decision making on purchasing high density air filters. To better assist schools with finding an air purifier (or the quantity of air purifiers) for the right size of their classroom, this document also provides additional information on how to calculate air changes per hour (ACH) based on the clean air delivery rate (CADR) of the unit you're looking to purchase.

Should you have any questions, please contact Gary Bignami, Facilities Planner II in the Office of Facilities and Operations Environmental Services Unit at (808) 784-5060 or at gary.bignami@k12.hi.us.

RMT:cs
Attachment

c: Superintendent
Deputy Superintendent
Office of Facilities and Operations
Environmental Services Unit

Office of Facilities and Operations
Guidance on Minimum Air Purifier Specifications

This document is to assist schools with decision making on purchasing high density filters like High Efficiency Particulate Air (HEPA) Air Purifiers to assist with risk reduction strategies related to COVID-19 and other indoor air quality issues.

What should schools/offices look for when purchasing HEPA air purifiers?

Schools should look for the following specifications when purchasing an air purifier:

1. The unit's Clean Air Delivery Rate (CADR) for dust should be a minimum of 275 cubic feet per minute (≥ 275 cfm) on high fan speed.
2. Noise on high fan speed setting should be below 60 decibels (< 60 dB).
3. OFO does not recommend purchasing units with add-ons such as ionizers, photocatalytic oxidation, and plasma. Ultraviolet disinfection is optional and ok to purchase as an inclusion with the air purifier.
4. The unit's filters should have a HEPA filter with a rating of H12 or better; H13 or better is preferred.
5. The unit should be ozone-free or have zero ozone emissions. The unit should have the environmental claim validation number UL2998 or provide equivalent compliance. For additional information on this specification, please visit the link [here](#).
6. It is preferred (but not required) for the unit to have Association of Home Appliance Manufacturers (AHAM) certification and EnergyStar certification.

How do I know what CADR is appropriate for my size classroom?

The target Air Changes per Hour (ACH) is 5 ACH. A CADR of 275 provides approximately 2 ACH in an 8-9000 cubic foot room. This is in addition to the expected ACH levels already existing in your classroom through natural ventilation (1-3 ACH), as well as ACH from HVAC systems (1.5 - 3 ACH).

ACH can be calculated in the following way:

$[\text{CADR (cfm)} \times 60 \text{ (min/hr)}] / \text{Room volume (cu ft)}$

For more specific calculations, please see the Harvard & CU-Boulder tool to estimate air exchange by air purifiers: <https://bit.ly/air-purifier-calculator> (Excel)

General Reminders:

1. Where should you place your air purifier?
 - a. Place the air purifier away from walls toward where occupants sit.
 - b. Avoid placing units in unused corners of rooms, beneath tables, or near objects which obstruct air flow.
 - c. Air purifiers can be used in conjunction with opening windows, but should be located away from the windows, so they aren't cleaning already clean outside air
2. How long should the air purifier run?
 - a. Operate our air purifier for the entire time a room is occupied plus 1-2 hours afterward if feasible.
 - b. Increasing the amount of time an air purifier runs at higher fan speeds increases the air filtration.
 - c. Air purifiers do not instantaneously clean the air, so they should be continuously run even during intermittent occupancy.
3. When should I replace my filter in the air purifier?
 - a. Filters should be changed according to manufacturer recommendations.

VI. Action Items

□A. Board Action on Student Achievement Committee recommendation concerning Kindergarten entry assessment in accordance with Act 210 (2021)

APPROVE with COMMENTS

I appreciate the time that the Department spent to determine a Kindergarten Assessment that meets the Legislature's requirements (HRS §302A-1165).

Communication to additional stakeholders

- The Department will facilitate robust discussions about best practices for successful implementation that are necessary to meet the diverse needs of the Department's schools and the charter schools.
- **Particularly Complex Area Superintendents, principals** and kindergarten teachers and elementary school administrators, is needed to ensure successful implementation.

The discussion will be held with the Office of Talent Management and relevant stakeholders **Complex Area Superintendents, principals** regarding training details.

- All teachers administering this assessment complete seven online learning modules, as well as two mastery assessments, to complete the training.
- The JHU provides all of these learning modules, as well as Train-the-Trainer training to facilitate district leadership and sustainability.

□C. Board Action on Human Resources Committee recommendation concerning the superintendent evaluation system process and Superintendent Priorities for the 2022-2023 school year

APPROVE WITH RECOMMENDATIONS:

The truncated superintendent evaluation system and the Superintendent Priorities for the 2022-2023 school year.

The Board conducting only an end-of-year evaluation limited to Superintendent Priorities, removing the evaluation of professional standards and strategic plan indicators contained in the current evaluation system. This simplifies the evaluation process by removing more than half what the Board usually reviews and removes the mid-year review.

RECOMMENDATIONS

Superintendent Priority 3: Actively and intentionally engage in professional growth.

Add: Attend Professional training on Systems Design and Continual (not continuous) Process Improvement in order to access his Deputy superintendents, Assistant superintendents and his department's strengths and weaknesses in data analysis.

Revision recommendations for Priority 4 Indicators:

Superintendent Priority 4: Begin building positive and productive relationships with parents, families, and the general public.

Indicator 4.2 The superintendent establishes an efficient and responsive system to intake and address complaints from families and the public received at the state office level, **Complex level and school level** that provides timely and respectful responses to complainants and tracks complaints from initiation to resolution.

Indicator 4.3 The superintendent **develops** establishes an efficient and responsive system for complex area superintendents, principals and schools on how to resolve conflicts with parents and guardians.

TIMING: The Board is still planning on reviewing and improving its superintendent evaluation system to use on a longer-term basis. By when?

□D. Board Action on Human Resources Committee recommendation concerning authorizing consultation with unions regarding the updates to the Department of Education's ("Department") **annual plan of organization**, updated as of June 30, 2022

COMMENTS/CONCERNS

4. OFFICE OF FACILITIES AND OPERATIONS

It is necessary for the DOE to ensure school classrooms are adequately ventilated, and that air purification is employed where adequate ventilation is not possible.

Why Consider CO2 Control

1. Student Health Considerations

CO2 monitoring can ensure that acceptable levels of ventilation for the health and welfare of students and teachers is maintained at all times.

- **Lack of Ventilation Can Contributing to Absenteeism & Poor Student Performance**

There are now numerous scientific studies that document that the lack of proper ventilation can impair performance and can increase the effective spread of viruses that can lead to ***increase absentee rates that may directly affect school operational funding***. These studies also show that ***student performance can also suffer if ventilation is neglected***.

The value of CO2 measurements is that you can constantly monitor and control ventilation levels to ensure student health and productivity.

1.a. CO2 is about the only parameter that can actually measure the amount of fresh air that is being delivered to a space based on its occupancy. As a result it is increasingly being used as a feedback control to ensure buildings are ventilated appropriately for their current occupancy.

1.b. What does too much CO2 does to the human body?

- The primary symptoms observed due to too much increase in carbon dioxide levels in the body are extreme difficulty breathing, sudden periods of mental confusion, feeling of depression, muscle twitching, arrhythmias, hyperventilation, seizures, panic attacks, and syncopal episodes.

1.c. Why is too much carbon dioxide a bad thing?

- If your blood becomes saturated with too much CO2, you develop the condition known as hypercapnia. Increased levels of CO2 also affect the pH level of your blood, turning it more acidic. This condition is called acidemia and, if prolonged, causes acidosis, which is injury to the body's cells by a rise in acidity that leads to faltering functions of the heart.

1.d. Is breathing too much carbon dioxide bad for you?

- In high concentrations, oxygen in the air can be displaced. When there is insufficient oxygen to breathe, symptoms such as fast breathing, high heart rate, clumsiness, emotional upheavals, and exhaustion might occur. As oxygen levels drop, nausea and vomiting, collapse, convulsions, coma, and death may ensue. Carbon dioxide is a normal by-product of cellular respiration and

plays an important role in energy production within cells. Too much carbon dioxide in the blood is toxic to tissues; when inhaled, it can cause serious health problems.

- Excessive amounts of carbon dioxide can be harmful to humans. At high concentrations, it is able to displace oxygen in the blood, causing organs such as the brain and lungs to receive less oxygen than they need. These effects are likely to lead to dizziness, headache, fatigue, confusion, loss of consciousness, and possibly death. The human body can only handle a certain concentration of carbon dioxide before it becomes incapacitated.

1.e. What are the symptoms of carbon dioxide toxicity?

- Symptoms
 - Dull headache.
 - Weakness.
 - Dizziness.
 - Nausea or vomiting.
 - Shortness of breath.
 - Confusion.
 - Blurred vision.
 - Loss of consciousness.

On August 24, 2022 a letter was sent to the Complex Area Superintendents and Principals regarding Guidance on Minimum Air Purifier Specifications. I am unable to find this letter on the DOE website. The Office of Facility Operations is working on a price list for air purifiers and filters that schools can utilize.

An attached document provides additional information to guide schools on how to “calculate” air changes per hour based on the clean air delivery rate of the unit you are looking to purchase. It provides some guidance based on the size of your room, to purchase the correct size.

These are screen shots of what was sent to the Complex Area Superintendents and Principals. Pretend you are a CAS or principal, answer for yourselves if this would help you order and purchase air purifiers AND filters. Ask yourself if this document provides any guidance on purchasing MERV filters for the CR Box fans already placed in classrooms.

Would you feel unsupported? Helpless? Frustrated?



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

OFFICE OF FACILITIES AND OPERATIONS

August 24, 2022

TO: Complex Area Superintendents
Principals (All)

FROM: Randall M. Tanaka 
Assistant Superintendent

SUBJECT: **Guidance on Minimum Air Purifier Specifications**

The Office of Facilities and Operations (OFO) is currently working on a price list for air purifiers and filters that schools can utilize. Should schools wish to procure air purifiers prior to the completion of the price list, the OFO is providing guidance on the minimum specifications for air purifiers.

The attached document should be used to assist schools with decision making on purchasing high density air filters. To better assist schools with finding an air purifier (or the quantity of air purifiers) for the right size of their classroom, this document also provides additional information on how to calculate air changes per hour (ACH) based on the clean air delivery rate (CADR) of the unit you're looking to purchase.

Should you have any questions, please contact Gary Bignami, Facilities Planner II in the Office of Facilities and Operations Environmental Services Unit at (808) 784-5060 or at gary.bignami@k12.hi.us.

RMT:cs
Attachment

c: Superintendent
Deputy Superintendent
Office of Facilities and Operations
Environmental Services Unit

**Office of Facilities and Operations
Guidance on Minimum Air Purifier Specifications**

This document is to assist schools with decision making on purchasing high density filters like High Efficiency Particulate Air (HEPA) Air Purifiers to assist with risk reduction strategies related to COVID-19 and other indoor air quality issues.

What should schools/offices look for when purchasing HEPA air purifiers?

Schools should look for the following specifications when purchasing an air purifier:

1. The unit's Clean Air Delivery Rate (CADR) for dust should be a minimum of 275 cubic feet per minute (≥ 275 cfm) on high fan speed.
2. Noise on high fan speed setting should be below 60 decibels (< 60 dB).
3. OFO does not recommend purchasing units with add-ons such as ionizers, photocatalytic oxidation, and plasma. Ultraviolet disinfection is optional and ok to purchase as an inclusion with the air purifier.
4. The unit's filters should have a HEPA filter with a rating of H12 or better; H13 or better is preferred.
5. The unit should be ozone-free or have zero ozone emissions. The unit should have the environmental claim validation number UL2998 or provide equivalent compliance. For additional information on this specification, please visit the link [here](#).
6. It is preferred (but not required) for the unit to have Association of Home Appliance Manufacturers (AHAM) certification and EnergyStar certification.

How do I know what CADR is appropriate for my size classroom?

The target Air Changes per Hour (ACH) is 5 ACH. A CADR of 275 provides approximately 2 ACH in an 8-9000 cubic foot room. This is in addition to the expected ACH levels already existing in your classroom through natural ventilation (1-3 ACH), as well as ACH from HVAC systems (1.5 - 3 ACH).

ACH can be calculated in the following way:

$[\text{CADR (cfm)} \times 60 \text{ (min/hr)}] / \text{Room volume (cu ft)}$

For more specific calculations, please see the Harvard & CU-Boulder tool to estimate air exchange by air purifiers: <https://bit.ly/air-purifier-calculator> (Excel)



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

Ann Mahi
Executive Director

TESTIMONY TO THE BOARD OF EDUCATION SPECIAL MEETING

**RE: IV. B. HR COMMITTEE REPORT ON: (4) PRESENTATION ON DEPARTMENT'S
PLAN TO ADDRESS TEACHER SALARY EQUITY AND COMPRESSION**

THURSDAY, OCTOBER 6, 2022

OSA TUI, JR., PRESIDENT - HAWAII STATE TEACHERS ASSOCIATION

Chair Voss and members of the board,

It is with a collective sigh of relief and appreciation that we've reached this point along a journey that began nearly three years ago. It started with [a plan to conduct an experimental modernization project](#). Since that [plan was unveiled](#), we've been through a global pandemic, a crashed economy, a resurgent boom in tourism and state revenue collections, and a truly historic setting aside of funding by the legislature and governor this past legislative session. These dedicated funds will address salary equity and compression for Hawaii's public school educators and could not have happened without the efforts of many from the Board of Education, the Department of Education, the Public Charter School Commission, the State House and Senate, the governor's office, and our public school educators and allies. The implementation plan being discussed today will ultimately benefit Hawaii's keiki who will not be losing seasoned educators in a time of unprecedented teacher shortages throughout our country.

While this plan will address salary compression for nearly 9,200 current Hawaii public school educators, HSTA asks that in upcoming collective bargaining negotiations, special consideration is given to the over 400 educators currently at the top of the pay scale who continue to remain in our ranks, but will not benefit from any salary increases because they are already at the top of the pay scale.

These salary corrections will be life-changing for so many. [HSTA held a virtual "Unretirement" party](#) at the start of the school year to highlight just a few of the many who will be affected. We appreciate the board's support in helping to make this a reality.