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## FISCAL IMPACT REPORT

SPONSOR HEC ORIGINAL DATE 02/12/21  
 LAST UPDATED 03/12/21 HB 232/HECS/aSEC/ec

SHORT TITLE Public School Ventilation Improvement Act SB \_\_\_\_\_

ANALYST Liu/Chilton

### ESTIMATED ADDITIONAL OPERATING BUDGET IMPACT (dollars in thousands)

	FY21	FY22	FY23	3 Year Total Cost	Recurring or Nonrecurring	Fund Affected
<b>Total</b>		\$12,400.0 - \$21,000.0		\$12,400.0 - \$21,000.0	Nonrecurring	School District Budgets

(Parenthesis ( ) Indicate Expenditure Decreases)

Relates to SB29

### SOURCES OF INFORMATION

LFC Files

U.S. Centers for Disease Control and Prevention (CDC)

#### Responses Received From

Public School Facilities Authority (PSFA)

Public Education Department (PED)

Department of Health (DOH)

New Mexico Environment Department (NMED)

Regulation and Licensing Department (RLD)

New Mexico Board of Licensure for Professional Engineers & Professional Surveyors

### SUMMARY

#### Synopsis of SEC Amendment

The Senate Education Committee amendment to House Education Committee Substitute for House Bill 232 makes several changes to the bill, while retaining its emergency clause. The primary change is to eliminate the fund that would have given grants to school districts to evaluate and update their ventilation systems or both. This change is reflected in the amended title of the bill, as well as in the deletion of Sections 3 and 4 [as indicated in the table below] of the HEC substitute bill, listed in the table on pages three and four of this fiscal impact report.

Instead of creating a grant program from a fund, the bill as amended would require all school districts “undertake a ventilation assessment by qualified contractors. If work were done pursuant to a ventilation assessment, a comprehensive report would have to be submitted to PED.

Following a ventilation assessment:

- All districts must perform corrective actions identified as needed in the ventilation assessment as required by PED.
- Possible required upgrades (“if necessary or cost-effective”) to ventilation systems are identified, to include repairs, upgrades or replacements of systems. A list of corrective actions that “may be included” contains an upgrade of filters to a minimum efficiency reporting value (MERV) of 13.
- The amended bill specifies that portable filtration/air cleanser systems could only be used if existing systems were inadequate for the purpose of filtration and ventilation or, if recommended by a mechanical engineer, as supplements where air quality remains inadequate with permanent system use or when stressed by wildfires or pollution.
- School districts must assure work done pursuant to the ventilation assessment be performed using workforce as required in the Construction Industries Licensing Act.
- PSFA is tasked with working with RLD and PED to assure the assessments and construction envisioned by the act are done according to standards and requirements.

The amendment also changes two definitions in section 2 of the bill:

- A “mechanical engineer” must both be licensed and also have experience with HVAC systems.
- “Skilled and trained construction workforce” must include at least 40 percent graduates of or those in apprenticeship programs registered with the Workforce Solutions Department (WSD) or where WSD has granted reciprocal approval.

By mandating all schools to undertake a ventilation assessment by qualified contractors, the SEC amendment creates significant fiscal and administrative implications for school districts. While schools may have access to other local, state or federal funding, the amendment does not include a source of funding for this purpose.

### Synopsis of Original Bill

The House Education Committee substitute for House Bill 232 would establish a public school ventilation improvement program and fund administered by PED to assist with assessments and improvements to school ventilation systems throughout the state. The bill has an emergency clause, a response to the heightened importance of adequate school ventilation during the coronavirus pandemic.

### **FISCAL IMPLICATIONS**

The SEC amendment requires all school districts to conduct a ventilation assessment by qualified contractors with specific testing, measurement, and verification protocols. PSFA estimates these types of ventilation assessments could cost between \$8,000 and \$70 thousand per school, depending on the size of the facility and number of ventilation units. The agency projects costs for assessments statewide could range between \$12.4 million and \$21 million.

School Size (Gross Square Feet)	Number of Schools	Estimated Time for Assessment per School	Estimated Cost of Assessment per School	Total Estimated Cost Range
0 – 50,000 GSF	256	5-7 days	\$8,000 - \$15,000	\$2.1 M - \$3.8 M
50,001 – 100,000 GSF	352	8-14 days	\$15,000 - \$25,000	\$5.3 M - \$8.8 M
100,001 – 200,000 GSF	124	15-30 days	\$25,000 – \$40,000	\$3.1 M - \$5.0 M
200,001 -- larger GSF	50	30+ days	\$40,000 - \$70,000	\$2.0 M - \$3.5 M
<b>Totals</b>	<b>782</b>			<b>\$12.4 M - \$21 M</b>

Source: PSFA

This estimated fiscal impact shown only reflects the cost of ventilation assessments mandated in the amendment and does not consider the additional potential costs of corrective actions (such as ventilation repairs, upgrades, and replacements) that schools may incur as a result of the assessment. As such, the total impacts of this bill are likely understated in this analysis. According to PSFA, the average cost to replace or upgrade an HVAC system is between \$500 thousand and \$5 million per school site. Assuming a unit cost of \$45 to \$60 per square foot to replace an HVAC system, including associated and required work to complete projects to the standard set in this bill, PSFA estimates the statewide cost for HVAC replacements could range between \$731 million and \$2.5 billion.

The bill, as amended by SEC, does not specify the frequency of conducting the ventilation assessments, although presumably the bill’s reference to meeting standards that address ventilation needs during the Covid-19 pandemic suggests these assessments are at least a one-time occurrence. As such, the fiscal impacts of the bill are scored as nonrecurring.

This bill does not make an appropriation but creates a new public school ventilation improvement fund administered by PED. This bill’s provisions are similar to the existing school building systems awards process overseen by the Public School Capital Outlay Council (PSCOC), which provides capital outlay funding to schools to repair, replace, or upgrade public school ventilation systems. Creating a PED administrative function that is already conducted by PSFA would likely duplicate services and increase operating costs for PED.

Provisions of this bill may duplicate federal efforts to address school ventilation infrastructure. For FY21 and FY22, New Mexico schools will receive substantial federal aid for Covid-19-related expenditures, which can be used to improve ventilation systems. School districts can also levy property taxes or use cash balances for similar purposes. Federal aid from the Coronavirus Aid, Relief, and Economic Security (CARES) Act and Consolidation Appropriations Act (CAA) of 2021 will provide New Mexico schools over \$520 million by early 2021 to address pandemic-related costs, such as ventilation improvements. About 90 percent of this federal aid will be directly transferred to local school districts based on the federal Title I formula for allocating funding to schools with low-income students, and 9.5 percent will be redistributed by PED for related purposes.

**SIGNIFICANT ISSUES**

On March 13, 2020, the governor ordered schools to close for three weeks, starting on March 16, in response to the Covid-19 pandemic. On March 27, the governor extended school closures through the remainder of the school year. Although PED provided guidance for schools to reopen in a remote or hybrid setting in September, the department limited in-person instruction to special education students, small school districts, and elementary grade levels. In January

2021, the governor authorized schools to reopen in February, and PED issued reopening guidance, which included requirements for school air filtration systems. Recently, PED has ordered schools to fully reopen on April 5, 2021.

PED’s requirement for schools to install denser air filters in school ventilation systems to reopen will place greater strain on existing HVAC systems and reduce useful system life. Many schools also do not have HVAC systems compatible with advanced air filters, which could also increase the demand for system replacement. With new HVAC standards for reopening schools to ensure adequate air quality, PSCOC may receive increased applications for systems funding. Additionally, Section 22-24-5 NMSA 1978 already includes provisions that allow PSCOC to award grant assistance for projects using criteria other than the statewide adequacy standards for health or safety emergencies. In addition, any building system that poses an imminent life-health-safety hazard to students, teachers, and other building occupants is already eligible for funding through the systems program.

According to PSFA, the state began making awards for building system replacement projects through the systems-based funding program in 2017. While the systems pilot was intended to promote the replacement of smaller building systems to extend the life of facilities (rather than whole school replacement or renovation), systems awards have decreased since inception. In the first year, PSCOC awarded \$23.9 million in state funding, followed by \$15.8 million in the second year, \$12.1 million in the third year, and \$5 million in the fourth year. According to PSFA, the systems most frequently in poor condition include roofing, fire alarm, fire suppression, and heating, ventilation, and air conditioning (HVAC) systems.

Sections of the bill are outlined in the following table:

Section of HB 232	Provisions
1	Names the “Public School Ventilation Improvement Act”
2	Provides definitions of terms in a new section of the Public School Code, including “certified assessor,” “certified technician,” “mechanical ventilation system,” and “skilled and trained construction workforce,” which definition includes the requirement that forty percent of the workforce has had a New Mexico apprenticeship training program. “School district” is defined to include charter schools.
3	<del>Creates a “public school ventilation improvement program” to make grants to school districts for improving their ventilation systems, to be used for repair, upgrades and system replacement, and possibly for improving system energy efficiency. Gives further qualifications for the grants. PED would provide forms for grant application. PED would use the fund to perform assessments of need for system improvements, if this has not previously been done. Grants could be used for reimbursement of districts that has had such work done after August 1, 2020. Priority would be given in the following situations:</del> <ol style="list-style-type: none"> <li><del>1. Lack of local resources to do necessary ventilation system work,</del></li> <li><del>2. Projects “crucial” to school reopening,</del></li> <li><del>3. Projects necessary for school personnel and student safety.</del></li> </ol> <del>Work would have to be done by a “skilled and trained workforce,” as defined above. Funds left over after completion of a project would revert to the fund. Grantees would have to certify that ventilation assessments had been done by a</del>

	<del>certified assessor or mechanical engineer, and that the construction work had been done by a skilled and trained workforce.</del>
4	<del>Establishes a public school ventilation improvement fund consisting of federal grants, state appropriations, gifts, grants, and donations. Expenditures would be on warrant from the secretary of the Department of Finance and Administration following vouchers issued by the secretary of PED or his representative. PED could retain 5 percent of the fund for administrative expenses and technical assistance and support. If state funds are used for a grant, it is to be done as prescribed in Section 22-24-5 NMSA 1978, which applies to public school outlay projects.</del>
5	Specifies the qualifications needed to perform a ventilation assessment and reporting required on completion of the project. A comprehensive list of components of the report is contained in the bill. The report is to contain an assessment of needs that would require further corrective actions. The assessment and report would be public documents.
6	Contains the emergency clause.

CDC has issued comprehensive guidelines for controlling the spread of viral infection in indoor spaces, for which it states evidence shows considerably greater chance of virus spreading indoors than out of doors. CDC recommends a layered strategy to reduce exposures to SARS-CoV-2, the virus that causes Covid-19. This includes using multiple mitigation strategies with several layers of safeguards to reduce the spread of disease and lower the risk of exposure. While it may not be necessary to apply every consideration to be protective, implementing multiple mitigation strategies is recommended, if possible, to improve effectiveness. In addition to ventilation, the layered approach includes efforts to improve [social distancing](#), [wearing face masks](#), and [hand hygiene](#).

SARS-CoV-2 viral particles spread among people more readily indoors than outdoors. When outdoors, the concentration of viral particles rapidly reduces with the wind, even a very light wind. When indoors, ventilation mitigation strategies help to offset the absence of natural wind and reduce the concentration of viral particles in the indoor air. The lower the concentration, the less likely some of those viral particles can be inhaled into your lungs; contact your eyes, nose, and mouth; or fall out of the air to accumulate on surfaces. Protective ventilation practices and interventions can reduce the airborne concentration, which reduces the overall viral dose to occupants.

PSFA notes:

To improve indoor air quality in schools, the Centers for Disease Control (CDC) and the American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE) recommend that schools replace or renovate HVAC systems to achieve three goals: first, increase outdoor air ventilation rates to dilute and flush virus particulates from the building, second, install more restrictive air filters to capture these particulates, and third, install supplemental air cleaning devices and technologies.

PSFA notes a well-documented research preference for MERV (minimum efficiency reporting value) 13. Compared with the standard MERV 8 filters in many schools, MERV 13 filters are much more effective at trapping very small particles, like viruses, but cost three to five times as much.

PSFA goes on to note no public school can begin classes in the hybrid model or full reentry without meeting PED requirements for indoor air quality. PED’s reentry requirements for public schools include that ventilation systems operate properly and increase circulation of outdoor air as much as possible, as long as this does not pose a safety or health risk to students or staff. PED adheres to the ASHRAE guidelines, which require the highest MERV filter rating determined compatible with the existing HVAC system, with MERV 13 set as the preferred standard. School districts must ensure the ventilation systems operate properly and receive regular maintenance for continued assurance the indoor air is properly and optimally filtered for the life of the system. All necessary measures should be taken to optimize filtration systems and augment airflow according to the CDC guidance.

DOH concurs with the recommendation to improve ventilation systems to limit indoor spread of coronaviruses and other infectious agents:

Good ventilation and indoor air quality are important in reducing airborne exposure to viruses, including SARS-CoV-2, the virus that causes Covid-19, as well as other disease vectors, chemicals, and odors. Higher ventilation rates reduce the transmission and spread of infectious agents in buildings. (<https://www.epa.gov/iaq-schools/evidence-scientific-literature-about-improved-academic-performance>)

Studies over the last several decades also highlight the negative health effects of poor ventilation including; 1) a link between short-term sick leave, often associated with respiratory illness and low ventilation rates, and 2) correlations between low ventilation rates and high occupant densities and far higher rates of respiratory illness. (<https://www.epa.gov/iaq-schools/evidence-scientific-literature-about-improved-academic-performance>)

Aside from the coronavirus pandemic, there are other reasons for improving ventilation systems in schools. According to DOH, “Poor air quality is associated with chronic absenteeism in schools. Research highlights the importance of evaluating the environmental context around schools, in particular, addressing environmental factors such as air quality.” In a January 2021 story in Edsource.org, a California expert is quoted as saying, “After roofing, [ventilation systems] can be the most expensive project for a school.”

## ADMINISTRATIVE IMPLICATIONS

According to PSFA, completing a ventilation assessment at a school site would require a week to a month of field and office time for the qualified assessors and mechanical engineers, depending on the size of the school. There are approximately 41 companies in New Mexico that meet the requirements of a “skilled and trained workforce” to perform the work required by the ventilation assessment as required in the bill.

Based on available, qualified engineering and construction labor to perform the corrective action work, PSFA estimates no more than 40 to 60 HVAC replacement projects could be in-process concurrently throughout the state at the same time. If 25 percent of the school sites in New Mexico, or approximately 195 campuses, require HVAC replacement projects to comply with these requirements, only 40 to 60 projects might be initiated per year. Because most publicly financed HVAC replacement projects require one year to two years to process and complete, PSFA notes it may take four years to eight years to complete HVAC projects through the Public School Capital Outlay Council (PSCOC) process at 25 percent of the school sites in New

Mexico.

Further, the prohibited bidding practice of Section 10-16-13 NMSA 1978 would also affect the school districts' ability to obtain either the services for the assessments or the services for the corrective action work. This section prohibits a state agency or local government agency (such as school districts) in part from accepting a bid or proposal from a person who directly participated in the preparation of the specifications, on which the specific competitive bid or proposal was based. If the assessment prepared by a company is used in the development of the specifications for the corrective action work, that company is prohibited from bidding. This would further limit the availability of a qualified workforce to perform either the assessments or the corrective action work identified in the assessments. With an already limited workforce, many companies might potentially opt to perform the more lucrative work of repairing or replacing entire HVAC units, rather than performing the assessments.

The HVAC capital improvement projects resulting from this bill would impact the weighted New Mexico condition index (wNMCI) scores, or PSFA's measurement of the educational adequacy of facility space. To calculate the wNMCI score, PSFA calculates potential costs to correct condition deficiencies, adequacy deficiencies, and school replacement costs. If a school is determined to have an age or condition based deficiency of a particular system, the wNMCI score reflects the costs to correct the issue. If school districts upgrade or replace the HVAC systems at schools, the wNMCI scores will be significantly impacted. Schools with higher wNMCI scores, particularly those that are eligible, or nearing eligibility, for standards-based or systems-based awards may be impacted the most, because the improvement to the most expensive system in the calculation will likely significantly lower the overall wNMCI score and, therefore, reduce their eligibility for future potential PSCOC funding. Districts would also need to notify PSFA when a project to replace an HVAC system has been completed to ensure the database is accurately representing the condition of the school facility.

PED states:

Without an appropriation, the department would be unable to enact provisions of this bill... Currently, the PED has only two full-time employees (FTE) in the Capital Outlay Bureau. Both FTE's are classified as financial coordinators who are currently responsible for the fiscal administration of over 300 direct legislative appropriations, annual SB-9 appropriations made to 88 school districts and approximately 90 charter schools, totaling approximately \$19 million dollars per year, and the G.O.B. library funds that are allocated to every school district and charter school semi-annually. The PED Capital Outlay Bureau is also responsible for reviewing and approving/disapproving property disposition requests and lease purchase arrangements submitted by school districts and charter schools. Responsibilities also include tracking the status of all SB-9 and HB-33 elections and assisting with setting the appropriate tax rates and calculating and monitoring of the bonded indebtedness for all 89 school districts biannually. PED may not have the capacity nor the expertise within its current staffing to administer the new program proposed in HB232.

PED underlines the question of interaction of the Ventilation Improvement Act with the usual method of funding improvements in school facilities:

It is unclear if the state and local match percentage used to fund Public School Capital

Outlay (PSCOC) projects will be applied to the grants funded in this bill. As a result of the Zuni lawsuit filed in 1999, Judge Joseph L. Rich ordered the state to establish and implement a uniform funding system for capital improvements of New Mexico school districts and for correcting past inequities. In response to the judge's order, New Mexico changed the way in which the state funds public school capital outlay expenditures by making extensive amendments to the Public School Capital Outlay Act (PSCOA). One of the amendments implemented a state-share formula based upon a local school district's property tax wealth and its local effort.

## **RELATIONSHIP**

This bill relates to Senate Bill 29, which requires PSCOC to prioritize building systems award applications that respond to viral or bacterial epidemic health and safety needs.

## **OTHER SUBSTANTIVE ISSUES**

Both the Regulation and Licensing Department and the State Board of Licensure for Professional Engineers and Professional Surveyors speak to the importance of complying with provisions of the construction industries licensing act (CILA) as mentioned in Section 3-H(2) and Section 5-C-4e of this bill.

Section 22-8B-4.2 (D) NMSA 1978 requires private owners leasing to charter schools to maintain facilities to statewide adequacy standards at their own cost; however, PSFA notes ventilation repairs and replacements are not part of the statewide adequacy standards. Therefore, the charter schools would be required to undertake the cost of the assessments and all corrective action on their own. This requirement could pose a significant financial burden on charter schools and potentially create anti-donation issues if the corrective action work is performed on a private facility.

## **TECHNICAL ISSUES**

PED raises the issue of the legality of retroactive payments, as specified in Section 3 of the bill: “Section 3 Subsection F allows retroactive reimbursements to be made for expenditures made after August 1, 2020. There may be issues with retroactive payments if the source of funds is from severance tax bonds.”

## **ALTERNATIVES**

As suggested by PED:

- The sponsor may consider adding this program to the Public School Capital Outlay Act instead of the Public School Code. PSFA is the state agency currently responsible for the administration of all programs within this act and serves as staff to PSCOC. The PSFA has approximately 50 full-time employees, with many of them having significant architecture and construction backgrounds. PSFA may have more capacity and expertise to administer this type of program.
- PSCOC currently has a “Systems-Based Program” that seems to duplicate the program proposed in this bill. The systems-based program allows school districts and charter schools to apply for funds to improve different types of systems that will prolong the life



of a building without having to rebuild a school or conduct a major renovation. The replacement or repair of an HVAC systems as proposed within this bill would qualify for a system-based award under the current program.

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