



PSFA staffs PSCOC and does not assess HVAC units to the degree this memorial requires or keep detailed inventory and data regarding each individual HVAC unit. As such, additional costs to adequately study HVAC systems may require ventilation assessments or surveys. A self-reported survey of school HVAC systems could be conducted by PSFA with minimal or no additional costs.

Based on PSFA's knowledge of the condition of existing HVAC systems in schools, the total gross square feet requiring HVAC upgrades or replacements in New Mexico schools could reach up to 25 percent of school buildings in the state. PSFA's data on schools' building systems is limited to overall age and condition, as observed by PSFA assessors or reported by the school or district.

## **SIGNIFICANT ISSUES**

New Mexico school districts have escalated efforts to improve indoor air quality in schools since the onset of the Covid-19 pandemic and the availability of \$1.5 billion in federal emergency (ESSER) relief funding, which could be used for purposes outlined in this bill. In response to requirements set by PED for school reentry, school districts attempted to purchase and install filters rated at minimum efficiency reporting value (MERV) 13, which provide stronger filtration. While an existing HVAC system can be upgraded to accommodate more restrictive air filters, such as MERV 13, districts struggled with delays in the delivery of the new filters, unpredictable variability in cost, and impractical requirements for bulk purchases from suppliers. PSFA notes MERV 13 filters cost three to five times more than MERV 8 filters, the type of filter commonly used by schools.

## **PERFORMANCE IMPLICATIONS**

According to a DOH analysis of a similar bill, 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. 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. In 2020, the Centers for Disease Control (CDC) and the American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE) recommended several goals related to HVAC systems and ventilation at schools, one of which was to improve filtration by installing more restrictive air filters to capture these particulates.

PED's Covid-19 Response Toolkit for New Mexico's Public Schools for FY23 uses the ASHRAE recommendation for school ventilation systems, which sets the target level for filtration in schools at MERV 13 or higher, which on average will remove 75 percent of particles as small as 0.3  $\mu\text{m}$ —effectively removing viral particles in the air. PED has been working with districts and schools to identify the highest quality compatible filters that meet these standards. Schools are also using portable high-efficiency particulate air (HEPA) fan/filtration systems to help enhance air cleaning (especially in higher risk areas such as a nurse's office or areas frequently inhabited by persons with increased risk of getting Covid-19).

## **ADMINISTRATIVE IMPLICATIONS**

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Provisions of this memorial further request PSCOOTF to report its recommendations to LESC by January 16, 2024.

## **RELATIONSHIP**

This memorial relates to House Bill 30, which requires schools to perform ventilation assessments and improve HVAC systems based on the assessments.

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