

Testimony to the Gwinnett County Board of Education, Suwanee, GA
Meghan McNulty, Government Affairs Committee Chapter Chair, Atlanta Chapter
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Thanks for your time. My name is Meghan McNulty, I am a registered professional engineer in Georgia, specializing in building ventilation systems and indoor air quality, and a local ASHRAE volunteer. I am speaking on behalf of ASHRAE to share guidance for reducing indoor COVID-19 transmission by way of HVAC operation. I am not speaking to the question of when teachers and students should return to school, but rather to measures to make the indoor environment safer and healthier when they do return. I was happy to see ventilation as the third item in the district's overview of protective measures as this is one of the key tools in the mitigation toolbox.

ASHRAE is a global technical society focused on building systems, energy efficiency, indoor environmental quality, and refrigeration. ASHRAE has a strong local presence, with about 100 staff and 1,200 members here in Georgia, many of whom live in Gwinnett County, and the global headquarters will soon move to Peachtree Corners.

In March, ASHRAE formed the Epidemic Task Force to address challenges of the COVID-19 pandemic and its relation to HVAC systems. Viral transmission can occur through small aerosol particles, which can stay suspended in air for hours to days and build up in spaces without enough ventilation or filtration. While the extent of aerosol transmission is not completely known, we do know enough to reduce airborne exposure.

To that end, the Epidemic Task Force developed guidance for HVAC systems in several types of buildings, including schools. Written for administrators, facility managers, and technicians, the guidance covers maintenance, ventilation and filtration, energy use, and plumbing precautions. It complements CDC guidance and the district's existing preventive measures.

ASHRAE's recommendations are: First, ventilation: providing a good supply of outside air to dilute contaminants, in accordance with ASHRAE Standard 62.1. This is a critical line of defense against aerosol transmission. Second, filtration: using a MERV-13 or higher rated filter, where possible, and portable HEPA air cleaners where systems are limited. There are other air cleaning technologies that could supplement ventilation and filtration, but they must not create

additional contaminants like ozone. Finally, with schools unoccupied for longer than usual, flushing water systems can address the risk of water-borne pathogens like legionella, as described in ASHRAE Standard 188 and Guideline 12.

I've worked with many buildings, from humble to high-performing, and I know the challenges of time and money for maintenance and upgrades, but ASHRAE guidance can help. I emailed a 1-page summary of this guidance to the Board and will follow up with the full document. I appreciate the Board's consideration of ASHRAE's expertise. Protecting the health, safety and welfare of Gwinnett's students, teachers, and administrators from the spread of the coronavirus is essential to the health of our community. ASHRAE members would be honored to share their knowledge with the district to ensure safer and healthier school buildings. Thank you.