

How Cleaning and Disinfection Can Help Keep K-12 Schools Funded and Kids Healthy

Author: Jordan Bastian, MPH, CIC | CloroxPro Clinical and Scientific Affairs

Introduction

Creating a safe and healthy learning environment for children and working space for teachers and staff is a top priority for schools. But public schools are currently facing funding challenges due to state tax cuts, the expiration of COVID-19 emergency federal funding, inadequate funding formulas, and higher costs. While public schools are limited in the ways they can improve their funding, the two key areas they can influence are student enrollment and attendance. Both enrollment and attendance can be improved by ensuring adequate cleaning and disinfection practices in K-12 schools.

In this analysis we will define the different K-12 public school funding models, discuss how enrollment and absenteeism impact school funding, and demonstrate how cleaning and disinfection can help schools maintain or gain funding.

U.S. School Funding Models Are Diverse with Unique Priorities

School district budgets in the U.S. are funded by local taxes (44%), state funding (45%), and federal programs (11%). State funding, which is the single largest proportion of overall school funding, is based on each state's unique model.

There are three main K-12 public school state funding models in the U.S.:

- 1. **Student-based** funding is determined based on the number of students enrolled in a school. Funding is allocated per student. It is intended to provide the minimum amount of funding needed per student in a school. There are a few problems with this model: First, not every student needs the same amount of support or resources, and second, this funding model does not account for the needs of teachers or other staff.
- 2. **Resource-based** funding is determined by the number of required resources, which includes teachers and staff, to support the student population. This model can adapt to larger facilities, or to students with higher needs that require more resources.
- 3. **Hybrid** funding may be allocated based on both number of students and resource requirements.

The vast majority (70%) of states use the student-based funding model (Figure 1).² Student-based funding and resource-based funding models are directly tied to and therefore impacted by student enrollment. Enrollment is defined as the total number of students registered to attend a school at a given time. Therefore, if a school's enrollment decreases, so does their budget. Currently in the U.S., 44 states and the District of Columbia (88%) use student enrollment to determine funding (Figure 2).²

In addition to enrollment, some states use attendance as part of their school funding calculation. This is determined by averaging the total number days of school attended by students. In schools that use attendance to determine funding, chronic absenteeism, major illness outbreaks, or significant weather-related shutdowns may impact a school's budget. Only 6 states including California, Idaho, Kentucky, Mississippi, Missouri, and Texas use attendance-based models (Figure 2).²

Decreased student enrollment and chronic absenteeism therefore have direct implications on funding that support teacher salaries, classroom resources, student performance, extracurricular programs, and facility operations.



Figure 1



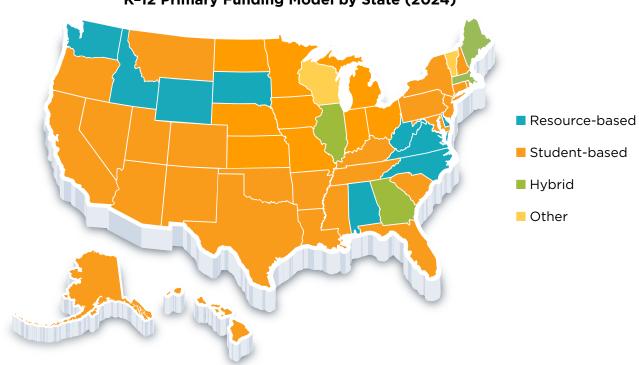


Figure 2







Cleaning and Disinfecting Can Reduce Illness-Related Absenteeism

Chronic absenteeism typically refers to students missing at least 10% of their school year and has doubled in K-12 schools in recent years.³ Preliminary data shows that during the 2022–2023 school year, more than 13 million students (27.85%) were considered chronically absent.⁴ A recent estimate reported that U.S. schools lose \$10.7 billion each year due to student absenteeism.⁵

Improving student enrollment and presence in schools can help maintain school budgets under all funding models. One way to help increase attendance and enrollment in schools is through cleaning and disinfecting of surfaces. Maintaining a clean and safe environment plays a crucial role in keeping students in school, including:

- ▶ **Decreased Illness-related Absences:** Elementary school students typically experience 5-8 illness each school year, including cold and flu infections.⁶ Teens similarly catch an average of 3-4 colds per year leading to missed school days.⁶ Cleaning and regular disinfection of high-touch surfaces in shared spaces (such as desks, doorknobs, and handrails), can help prevent the spread of viruses and bacteria which can survive on surfaces for days to weeks.⁷ A recent study found that by implementing enhanced cleaning protocols, germs on desktops and classroom surfaces were significantly reduced.⁸ Further, another elementary school study found that increased cleaning and disinfection reduced student absences by 14%.⁹
- ▶ Improved Educational Experience: Schools that are in good condition, clean, and that provide a safe physical environment, are essential for the health and well-being of students and staff.¹⁰ A recent study found that when environments are clean and well-maintained, children complete schoolwork faster (50%), are more creative (30%) and better at problem solving (25%).¹¹

Effective cleaning and disinfection practices help create healthier school environments, limit illness transmission, and ultimately contribute to improved attendance and subsequent funding for schools.

Enhanced Cleaning and Disinfecting May Bolster K-12 Student Enrollment

During the COVID-19 pandemic in school years 2020–21 and 2021–22, there were substantial declines in student enrollment, affecting approximately 12% of public elementary schools and 9% of middle schools.¹² Post-pandemic, parents have been slow to re-enroll their kids due to ongoing student health concerns, remote learning advantages, and state choice programs with many families opting for alternatives outside of traditional public schools.¹³

Environmental cleanliness in schools influences K-12 enrollment rates for several reasons:

- ▶ **Health and Safety:** Clean and well-maintained schools create healthier and safer environments for students. Parents are more likely to enroll their children in schools that prioritize hygiene, sanitation, and safety. A clean environment reduces the risk of illness and promotes overall well-being.
- ▶ **Perception and Reputation:** The initial impression matters. Research shows that 55% of first impressions are visual.¹⁴ Clean classrooms, restrooms, and common areas leave a lasting impact. Schools with a positive reputation for cleanliness and orderliness attract more students, as well as garner more community involvement and support.¹⁵ A well-kept school reflects care and attention to detail, signaling a commitment to quality education.
- ▶ **Student Performance:** A clean and organized environment enhances student focus and concentration. A recent study found that the condition of school buildings and perceptions of safety strongly influenced both academic performance and absenteeism.¹⁶ Clutter-free classrooms, well-maintained facilities, and aesthetically pleasing surroundings contribute to better learning outcomes. Schools that prioritize cleanliness tend to have higher academic performance, which can attract families seeking quality education.
- ▶ **Teacher Retention:** Teachers are more likely to stay in schools with a pleasant and clean environment. In fact, a survey of teachers found that 80% agreed that school facility conditions were an important factor in teaching quality.¹⁷ High teacher retention rates positively impact student experiences, because when teachers feel comfortable and supported, they create a positive learning atmosphere, which in turn attracts families to enroll their children.



A clean and well-maintained school environment contributes to positive perceptions, better student performance, teacher satisfaction, community engagement, and overall enrollment rates.¹⁸

Conclusion

Maintaining adequate funding is a top priority for K-12 schools to support their goal of creating a safe and healthy learning environments. Starting next school year, schools will have even less funding available due to the expiration of federal COVID-19 relief funding, which makes increasing enrollment and reducing absences even more crucial. By better understanding school funding and the models described in this paper, school facilities should recognize the impact cleaning and disinfection can have on funding, via enrollment and attendance.

Schools can take a proactive approach to establishing cleaning and disinfecting best practices in their facilities by:

- 1. **Partnering to establish quality protocols.** Working closely with facility managers and contract cleaners to prioritize routine, daily cleaning and disinfecting on shared spaces, such as classrooms, restrooms, and cafeterias.
- 2. Incorporating the right products. Adopting products that are simple to use and EPA-registered to efficiently clean and kill illness-causing pathogens commonly found in schools. Ready-to-use, eco-conscious products that have third-party certifications, like EPA Safer Choice or Design for the Environment (DfE), are an excellent option for schools seeking alternatives to traditional cleaning solutions.
- 3. **Providing comprehensive training.** Ensuring janitorial staff have access to high-quality training. 22% of professional cleaners believe insufficient training has reduced their confidence in preventing germ spread. By providing them with the necessary knowledge and skills they can more confidently create clean and healthy learning environments.

As a strategy to improve enrollment and attendance, schools should ensure they have adequate cleaning and disinfecting practices in place to help decrease illness-related absences and improve the overall learning experience for students, teachers, and staff.



References

- Peter G. Peterson Foundation. How is K-12 education funded? [Internet]. 2023. [cited 2024 May 17]. Available from: https://www.pgpf.org/budget-basics/how-is-k-12-education-funded
- 2. Education Commission of the States. 50-state comparison: K-12 funding [Internet]. 2024 [cited 2024 May 17]. Available from: https://www.ecs.org/50-state-comparison-k-12-funding-2024/
- The White House. Chronic absenteeism and disrupted learning require an all-hands-on-deck approach [Internet]. 2023 [cited 2024 May 17]. Available from: https://www.whitehouse.gov/cea/written-materials/2023/09/13/chronic-absenteeism-and-disrupted-learning-require-an-all-hands-on-deck-approach/
- 4. Attendance Works. Chronic absence remained a significant challenge in 2022-23 [Internet]. 2023 [cited 2024 May 17]. Available from: https://www.attendanceworks.org/chronic-absence-remained-a-significant-challenge-in-2022-23/
- CleanLink. A closer look at hand hygiene in schools and its impact on absenteeism [Internet]. 2019. [cited 2024 May 17].
 Available from: https://www.cleanlink.com/news/article/A-Closer-Look-At-Hand-Hygiene-In-Schools-And-Its-Impact-On-Absenteeism--23596
- 6. University of Utah Health. Should I be worried if my child gets sick too often? [Internet]. 2021 [cited 2024 May 17]. Available from: https://healthcare.utah.edu/the-scope/kids-zone/all/2021/12/should-i-be-worried-if-my-child-gets-sick-too-often
- 7. Wißmann, J. E, et al. (2021). Persistence of pathogens on inanimate surfaces: A narrative review. Microorganisms, 9(2), 343.
- 8. Shaughnessy R, Hernandez M, Haverinen-Shaughnessy U. Effects of classroom cleaning on student health: A longitudinal study. J Expo Sci Environ Epidemiol [Internet]. 2022 [cited 2024 May 17];32(5):767-73. Available from: https://www.nature.com/articles/s41370-022-00427-8
- 9. CloroxPro. Study Summary: Clorox® Total 360® System can help reduce absenteeism rates and bioburden in elementary schools [Internet]. 2019. [cited 2024 May 17]. Available from: https://www.cloroxpro.com/wp-content/uploads/2019/09/Clorox-Total-360-Flagler-Public-Schools-Study-Summary-White-Paper.pdf
- 10. National Center on Safe Supportive Learning Environments. K-12 Physical Environment [Internet]. 2024. [cited 2024 May 17]. Available from: https://safesupportivelearning.ed.gov/topic-research/environment/physical-environment
- 11. Clorox. New research shows children are more creative in a clean workspace [Internet]. PR Newswire. 2019 [cited 2024 Jan 19]. Available from: https://www.prnewswire.com/news-releases/new-research-shows-children-are-more-creative-in-a-clean-workspace-300905487.html
- 12. Burtis E, Goulas S. Declining school enrollment since the pandemic [Internet]. Brookings. 2023 [cited 2024 May 17]. Available from: https://www.brookings.edu/articles/declining-school-enrollment-since-the-pandemic/
- 13. Urban Institute. Where the kids went: Nonpublic schooling and demographic change during the pandemic exodus from public schools [Internet]. 2023. [cited 2024 May 17]. Available from: https://www.urban.org/research/publication/where-kids-went-nonpublic-schooling-and-demographic-change-during-pandemic
- 14. U.S. Chamber of Commerce Institute for Organization Management. What makes a good first impression [Internet]. 2016 [cited 2024 May 17]. Available from: https://institute.uschamber.com/what-makes-a-good-first-impression/
- 15. Goldkind L, Farmer GL. The Enduring Influence of School Size and School Climate on Parents' Engagement in The School Community. Sch Comm J [Internet]. 2013 [cited 2024 May 28];23(1):223-44. Available from: http://files.eric.ed.gov/fulltext/EJ1004340.pdf
- Berman JD, McCormack MC, Koehler KA, Connolly F, Clemons-Erby D, Davis MF, et al. School environmental conditions and links to academic performance and absenteeism in urban, mid-Atlantic public schools. The International Journal of Hygiene and Environmental Health [Internet]. 2018 [cited 2024 May 17];221(5):800-8. Available from: http://dx.doi.org/10.1016/j.ijheh.2018.04.015
- 17. Schneider M. Public school facilities and teaching: Washington, DC and Chicago. 2002 [cited 2024 May 17]; Available from: http://files.eric.ed.gov/fulltext/ED474242.pdf
- 18. Hogan J. Clean Schools: The Impact on Student Success and Teacher Retention [Internet]. CCS Facility Services. [cited 2024 May 17]. Available from: https://ccsbts.com/the-impact-of-clean-schools-on-student-success-and-teacher-retention/
- 19. CloroxPro. 2023 Clean Index Study. Data for this report was collected in Spring 2023 an online survey of a nationally representative U.S. General Population based on age, gender, region, race/ethnicity and income and cleaning industry professionals defined as business service contractors, facility managers in education, commercial buildings, and healthcare facilities.