BERKELEY LAB

EFFICIENT AND HEALTHY SCHOOLS

Exposure to indoor air pollutants such as fine particulate matter, volatile organic compounds, radon and mold at school can affect students' health and productivity. Research led by Berkeley Lab's Indoor Environment Group shows that well-ventilated classrooms and high-efficiency filtration can lead to better student performance and fewer reports of respiratory symptoms.

THE PROJECT

In an effort to boost indoor air quality, energy efficiency, and learning outcomes, the U.S. Department of Energy launched the Efficient and Healthy Schools Campaign. Participating schools receive practical guidance. Schools disproportionately exposed to air pollution, serving communities of color, or located in rural or low-income neighborhoods are encouraged to apply. As a key facilitator, Berkeley Lab engages directly with K-12 schools, providing guidance to over 150 schools and or districts in 44 states, impacting over 4 million students and 7,000 schools.

BETTER
health

HIGHER
student achievement

LOWER
energy costs

+ PARTNERS +

U.S. Department of Education

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BACKGROUND

As a National Laboratory funded by the U.S. Department of Energy, Berkeley Lab is committed to a just and equitable energy transition. We strive to ensure that the impacts of our research benefit all communities, as well as future generations. To meet these goals, we partner with community-based organizations, public, and private agencies to help make clean energy technologies and resources accessible to all.

In this project, Berkeley Lab provided technical assistance to K-12 schools nationwide to improve their indoor air quality and create a better learning environment for students and teachers. Thus far, over 2,600 individual schools, representing 1.5 million students, are breathing cleaner, healthier air while improving energy performance and reducing carbon emissions.

Visit Berkeley Lab's Efficient and Healthy Schools Website ▸

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ABOUT THE PRINCIPAL INVESTIGATORS

Wanyu (Rengie) Chan is Leader of the Indoor Environment Group and a Staff Scientist in the Energy Analysis and Environmental Impact Division of Berkeley Lab. Her work focuses on indoor air quality and the implications of exposure to pollution inside schools, homes, and commercial buildings. Chan earned her Ph.D. in Civil and Environmental Engineering from UC Berkeley.

Cindy Regnier Leads Berkeley Lab's Whole Building Systems Department and serves as Executive Director of FLEXLAB®, a series of experimental testbeds dedicated to integrated and low-carbon building, DER, and grid systems integration research and development. She earned a B.S. in Mathematics and Mechanical Engineering from Queen's University in Canada, and holds professional engineering licenses in California and in Ontario, Canada.

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