

# Cruising with Cleaner Air

## The Pueblo Bus Retrofit Pilot Program: A Collaboration to Create Healthier Air

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School kids, and adults who ride city buses, are breathing easier thanks to the efforts of an innovative partnership in Pueblo to retrofit all of the eligible publically-owned buses in one county. School children in Pueblo now ride on buses which have reduced in-cabin emissions of harmful particulates by more than 56%.

This partnership worked to give Pueblo public school students a healthier ride to and from school and the area cleaner air by equipping, at no cost to the districts, 120 buses operated by Pueblo City Schools, School District 70

and the Pueblo Transit District with devices to reduce diesel emissions and energy usage.

The Environmental Justice Program for Region 8 partnered with the State of Colorado, and community and environmental groups to accomplish this goal.

On any given school day, nearly 9,000 students ride buses to and from school in Pueblo. The major goal of this project is to reduce student exposure to toxic pollutants from diesel exhaust and crankcase emissions by, (1) reducing bus idling, thus reducing emissions and fuel use and (2) equipping the buses ("retrofitting" them) with pollution reduction equipment.

The reduction of diesel particulate emissions is particularly significant, as students may spend hundreds of hours per year in and around the buses (Assuming an average of 1.5 hour per day, 20 days per month x 9 months = 270 hours per year. A child riding a school bus for 10 years of his or her life would likely board a school bus about 3,600 times.)

Diesel exhaust emissions can cause or aggravate respiratory disease, such as asthma. In children, ages 10 to 18, exposure to motor vehicle pollution is associated with permanent reduction in lung function.

Another precedent was set by this project when researchers from the University of Colorado at Boulder were engaged to conduct “before and after” tests on three buses driving selected bus routes. These tests were the first of their kind conducted in Colorado. Results from the study demonstrated reductions of harmful “in-cabin” particulate concentrations of more than 50%.



Based on the success of the Pueblo Retrofit Project, EPA and the Colorado Department of Public Health and Environment have broadened this initiative to assist more school districts in Colorado in reducing emissions from their older buses. Thus far, more than 500 buses are being retrofitted in Garfield, Rio Blanco, Weld and El Paso counties. Our intention is to bring as many of the 4000 un-retrofitted buses as possible into the program over the next several years.

For more information about diesel emissions from school buses and this project, see the following web sites:

- <http://epa.gov/cleanschoolbus/index.htm>
- [www.cleanairfleets.org](http://www.cleanairfleets.org)

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