

# Smarten Up and Stop Idling

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Prenatal exposure to combustion byproducts lowers children's IQ, according to a new study conducted by researchers at the Columbia Center for Children's Environmental Health (CCCEH). New York City children, exposed to high levels of polycyclic aromatic hydrocarbons (PAHs,) the [research \(published in Pediatrics\)](#) showed, had full scale and verbal IQ scores that were 4.31 and 4.67 points lower, respectively, than those of less exposed children.

PAHs are chemicals released into the air from the burning of coal, diesel, oil and gas, or other organic substances such as tobacco. High PAH levels were defined as above the median of 2.26 nanograms per cubic meter (ng/m<sup>3</sup>).

"The decrease in full-scale IQ score among the more exposed children is similar to that seen with low-level lead exposure," noted Dr. Frederica Perera, director of the Columbia Center. "This finding is of concern because IQ is an important predictor of future academic performance, and PAHs are widespread in urban environments throughout the world."

Motor vehicles are a major source of PAHs—idling cars and trucks in particular. Each year, long-duration idling of truck engines consumes over 1 billion gallons of diesel fuel and emits 11 million tons of carbon dioxide, 200,000 tons of oxides of nitrogen, and 5,000 tons of particulate matter into the air. But long-duration idling is not just costly to the environment and health, it also costs the driver and the fleet owner. Some surveys say that trucks idle anywhere from six to eight hours a day for as many as 250 to 300 days each year. And at current fuel prices, this can cost \$6,000 or more per year in fuel costs per truck. Also, idling can increase engine maintenance costs, shorten engine life, adversely affect driver well-being and create elevated noise levels.

The U.S. EPA set up the [Smartway Transport program](#) to help drivers save fuel, money and the environment. One feature of the SmartWay program is a list of idling reduction technologies and strategies available for trucks and locomotives, many of which are eligible for the federal excise tax exemption. The Smartway website also provides a useful [interactive map](#), a geographic information system that allows truckers to locate various programs and projects

that reduce fuel and pollution, such as electrified truck stops, renewable energy refueling stations, and marine terminals.

In addition, a number of states and local governments, Delaware, Maryland, Virginia and Washington, DC among them, have promulgated laws that restrict the amount of time that a vehicle can idle its main engine. For a continually updated list of state and local anti-idling laws, check out the [American Transportation Research Institute](#).

Many of the laws specify buses, including tour and school buses, and limit their idling time to 10 minutes or less, except in cases of very cold or very hot weather. Others focus on big trucks, including [Dallas, TX](#), which ranked recently as a Smarter City. Since May 2008, Dallas has strictly forbidden big trucks (more than 14,000 pounds) from idling for more than five minutes during the “ozone season” that runs from April to October. It would be good to see this law extend the whole year round as it does in other states and locales. California's anti-idling laws are some of the most rigorous. In July 2004, California adopted the Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling, which prohibits drivers of diesel-fueled commercial motor vehicles with gross vehicular weight ratings of greater than 10,000 pounds from idling the vehicle's primary diesel engine for more than 5 minutes anywhere in California. The law was applied to sleeper berths trucks a year later.

NYC is another [smarter city](#) taking aim at idling's impact on children's health. In February of this year, Mayor Bloomberg signed legislation reducing the time buses may idle near schools to one minute and allowing agents of the Department of Parks and Recreation and the Department of Sanitation to issue idling summonses, appearance tickets and violation notices. The law also gives citizens the ability to report truck violations.

This seems like a smart strategy, to enlist citizens to help enforce the law. Hopefully the new research out of Columbia University will ignite still more local governments to drive up IQ by turning off idling engines.