



Helping the Public Understand Effects of Transportation Emissions on Local Air Quality

U.S. Environmental Protection Agency

Challenge: Create tools to help communities understand how transportation-caused pollution contributes to emissions, local air quality, and health, as well as the actions available to lessen these impacts.

Executive champion: Karl Simon, Director of the Transportation and Climate Division, Office of Transportation and Air Quality, U.S. Environmental Protection Agency

Problem: Often individuals do not have access to information that helps them easily understand how their choices impact emissions and local air quality, nor what actions can decrease their contributions to transportation-related pollution. There is a need for digital tools that can help the public understand how the transportation sector contributes to local air pollution, as well as the health and environmental impacts of this pollution. Once community members have access to this important information, the natural next step is for them to have access to tools, resources, and methods for reducing air pollution.

Why this problem matters: Transportation emissions make up almost one-third of the nation's greenhouse gas emissions and contribute to air pollution. This has significant health ramifications – every year, 7 million individuals worldwide die from air pollution. Furthermore, 80 percent of people living in urban areas that monitor air pollution breathe in air that exceeds WHO guideline limits. Communities' choices about the transportation of their residents and everyday goods play a significant role in air pollution, but it is difficult to convey this type of information easily to the public, as well as to point to actions that individuals can take to help.

Vision for sprint outcomes: Through practical user-friendly digital tools, more Americans will have an improved understanding of transportation's role in local air pollution, its causes, and its impacts. They will also be equipped with ideas for how to take action to reduce pollution in the transportation sector.

Target end users: Engaged citizens and the general public, especially those at higher risk for respiratory illnesses (e.g., individuals over 65, children, those with respiratory ailments), urban populations and communities (e.g., high transportation traffic areas), rural or tribal communities, and motorized vehicles users.

Related open data sets:

- **Nonattainment counties for all criteria pollutants**, EPA ([link](#))
- **Air Quality Index**, AirNow ([link](#))
- **Emissions from motorized vehicles**, EPA ([link](#))
- **Fuel Economy** ([link](#))
- **Green vehicle resources**, EPA ([link](#))
- **Population data**, Census Bureau ([link](#))
- **Health data**, CDC ([link](#))

Lead POCs:

- Diana Galperin, Economist, EPA
- Britney McCoy, Environmental Engineer, EPA