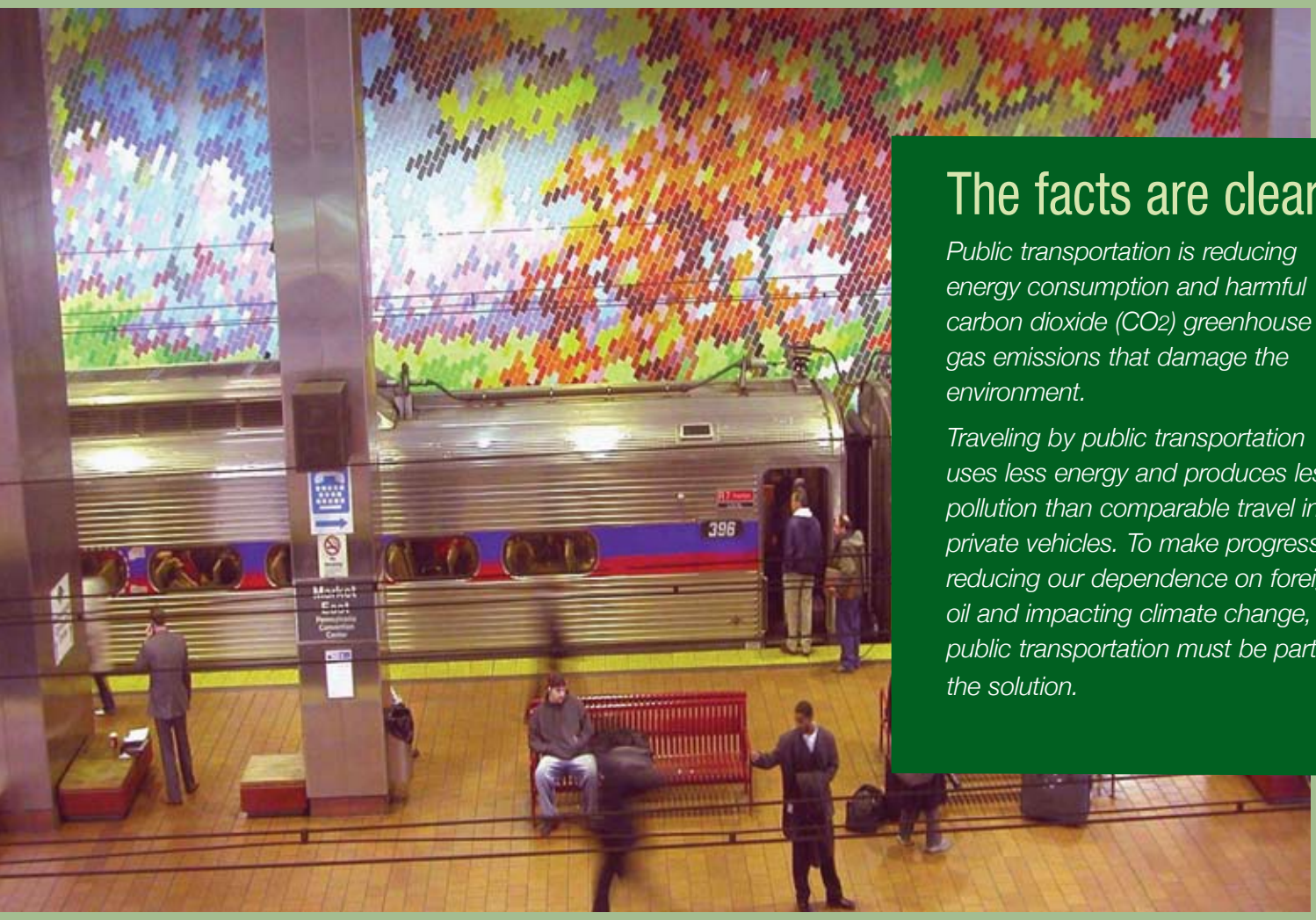
Public Transportation Reduces Greenhouse Gases and Conserves Energy



The facts are clear

Public transportation is reducing energy consumption and harmful carbon dioxide (CO_2) greenhouse gas emissions that damage the environment.

Traveling by public transportation uses less energy and produces less pollution than comparable travel in private vehicles. To make progress in reducing our dependence on foreign oil and impacting climate change, public transportation must be part of the solution.

The Benefits of Public Transportation

APTA AMERICAN PUBLIC TRANSPORTATION ASSOCIATION

Using Public Transportation Reduces Greenhouse Gases and Conserves Energy

The transportation sector produces one-third of all greenhouse gas emissions in the United States.[1]

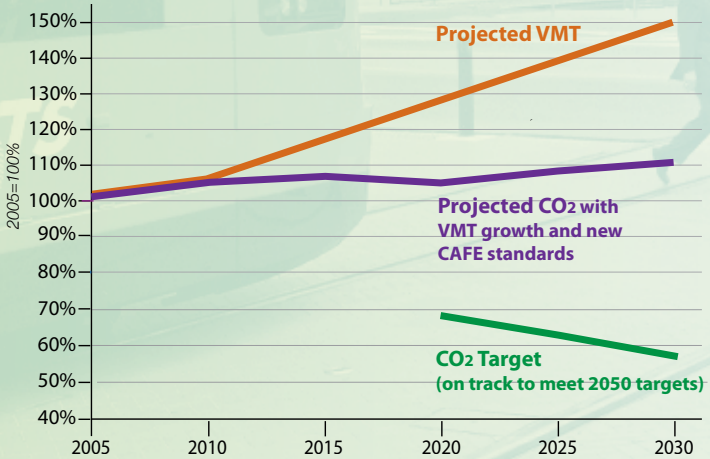
Between 1990 and 2006, emissions in the transportation sector increased by more than 25%, representing almost half of the total national growth in greenhouse gas emissions during this period.

- Approximately 85% of transportation sector emissions are related to the surface transportation system.[1]
- An effective strategy to reduce greenhouse gas emissions must include improved fuel economy, reduced carbon content in fuels, and reductions in the growth of vehicle miles of travel.

By reducing *the growth in vehicle miles of travel, easing congestion and supporting more efficient land use patterns, public transportation can reduce harmful CO_2 emissions by 37 million metric tons annually. These savings represent the beginning of public transportation's potential contribution to national efforts to reduce greenhouse gas emissions and promote energy conservation.*[2]

Projected increases in vehicle miles of travel will negate any improvements in fuel economy resulting from recently approved changes in Corporate Average Fuel Economy (CAFE) standards. Increased investment in, and use of, public transportation can mitigate this trend. Experts indicate we need to reduce total CO_2 emissions to 60%-80% of 1990 levels by 2050.[2]

CO_2 Reduction Targets Cannot Be Met with Recently Enacted CAFE Standards



Projected emissions from cars and light trucks assuming newly adopted nationwide vehicle and fuel standards and current projected VMT growth. Source: Growing Cooler Report [2]

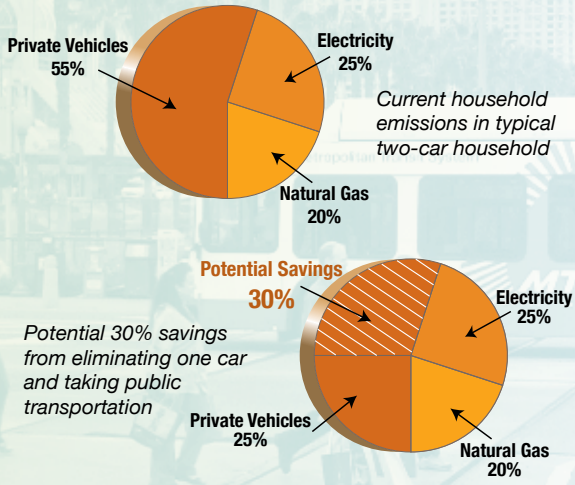
Benefits of a Strategy that Embraces Public Transportation

Public transportation use reduces travel by private vehicles.

Those who choose to ride public transportation reduce their carbon footprint and conserve energy by eliminating travel that would have otherwise been made in a private vehicle. The result is fewer vehicle miles of travel and reduced emissions.

A single person, commuting alone by car, who switches a 20-mile round trip commute to existing public transportation, can reduce his or her annual CO_2 emissions by 4,800 pounds per year, equal to a 10% reduction in all greenhouse gases produced by a typical two-adult, two-car household. By eliminating one car and taking public transportation instead of driving, a savings of up to 30% of carbon dioxide emissions can be realized.[4]

The Private Vehicle is the Largest Contributor to a Household's Carbon Footprint—Using Public Transportation Reduces Household Carbon Emissions



Source: Public Transportation's Contribution to U.S. Greenhouse Gas Reduction [4]

Public transportation use reduces congestion.

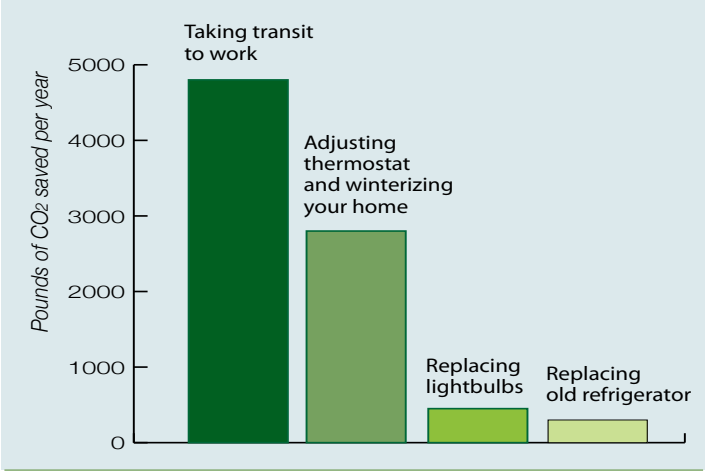
Public transportation serves some of the most congested travel corridors and regions in the country. Increased use of public transportation in these areas eases congestion; as a result, automobiles traveling in these same corridors achieve greater fuel efficiency.[8]




Public transportation use is one of the most effective actions individuals can take.

Public transportation offers an immediate alternative for individuals seeking to reduce their energy use and carbon footprints. This action far exceeds the benefits of other energy saving household activities, such as using energy efficient light bulbs or adjusting thermostats.

Commuting by Public Transportation—One of the Most Significant Actions to Reduce Household Carbon Emissions



By taking existing public transportation instead of driving a car, a single person saves 4,800 pounds of CO_2 per year. Source: Public Transportation's Contribution to U.S. Greenhouse Gas Reduction [4]

Public transportation gives people energy efficient choices.

Public transportation reduces overall greenhouse gas emissions without reducing the mobility so vital to our nation's economic health and our citizens' quality of life.

The increasing cost of fuel makes driving private vehicles even more prohibitive for many. Public transportation households save an average of $6,251 every year[3]—even more as the price of fuel rises.

Public transportation is essential to energy efficient land use patterns.

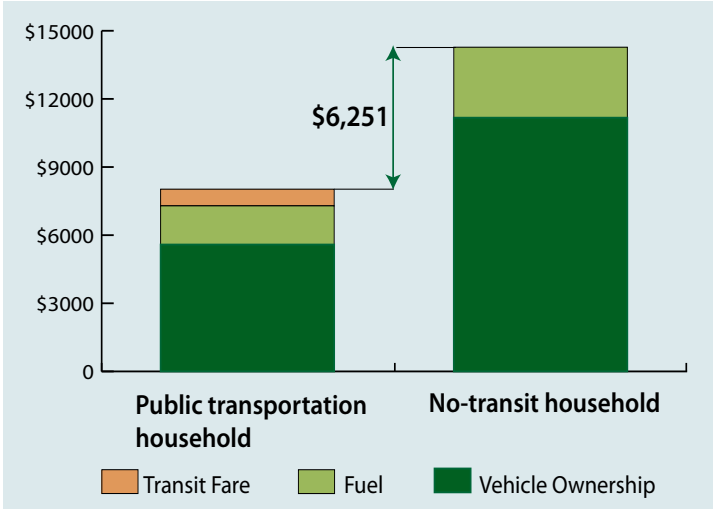
Efficient land use produces results far beyond the immediate benefit of increased use of public transportation. It has the potential to significantly change the way we live and travel, reducing our individual carbon footprints while preserving and enhancing our mobility.

- Higher densities allow for closer proximity of housing, employment and retail, reducing driving distances and enabling communities to plan for and support alternative travel options.
- In many central business districts, trips taken for shopping, dining or other non-commuting purposes are often made on foot—even by those who drive to work.
- Higher density development—including transit-oriented development (TOD), multi-use buildings, and compact apartments and office space—is more energy efficient and extends public transportation's contribution by integrating it with other sectors of our economy.

Public transportation *with its overarching effects on land use, is estimated to reduce CO_2 emissions by* ***37 million metric tons*** *annually.*

This indirect "leverage effect" of public transportation is estimated, conservatively, at three to four times the direct effect of transit service. With this leverage effect, transit is estimated to reduce CO2 emissions by 37 million metric tons annually. In addition, public transportation reduces energy consumption by the equivalent of 4.2 billion gallons of gasoline each year, the equivalent of 320 million cars filling up—almost 900,000 times a day.[6]

Average Annual Household Savings from Using Public Transportation



By taking public transportation instead of driving a car, a two-worker household can save $6,251 annually. Source: Public Transportation and Petroleum Savings Report [3]

Public Transportation Requires Investment to Further Reduce CO_2 Emissions and Conserve Energy

Protect and preserve public transportation service where it exists today.

Public transportation ridership has increased by 30% since 1995—a growth rate more than twice that of population, and greater than vehicle miles of travel. As transit ridership has increased, a number of systems are struggling to maintain the quality of assets and consequently the quality and reliability of service. Systems must be adequately funded to allow people who are choosing public transportation, more than 10 billion trips annually, to stay on public transportation.

Expand capacity of existing public transportation services.

In many parts of the country, public transportation systems are operating beyond their design capacity. With future annual ridership growth projected at 3.5% annually, it will be difficult for a number of these systems to carry additional riders without significant new investment.

Systems that are investing to expand capacity and attract new riders include:

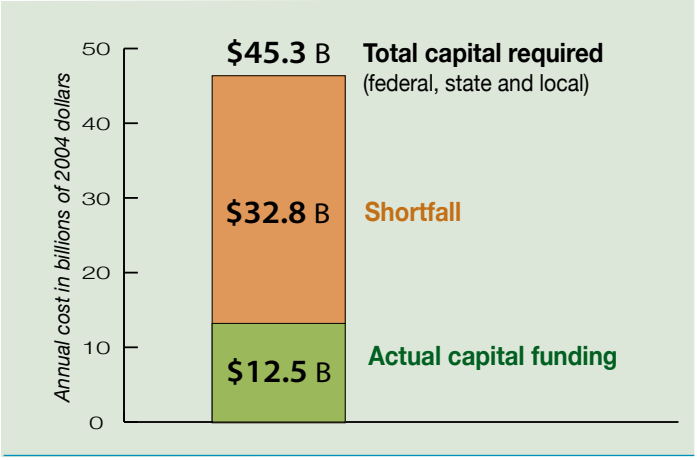
- Charlotte, NC, recently opened its first modern light rail system.
- The New York Metropolitan Transportation Authority is in the process of constructing the Second Avenue Subway Line to relieve severe crowding.
- Cleveland's bus rapid transit system is expected to open in late 2008.
- Salt Lake City is expanding its light rail and will soon add commuter rail.

Expand the geographic coverage of public transportation services.

According to U.S. Census data, 46% of American households do not have access to any public transportation.[7] Public transportation must expand geographically to capture shifts in population, both within regions and across the country. Individuals cannot be asked to reduce their vehicle miles of travel without options. On a national scale, those regions experiencing rapid increases in population must have the resources available to enable public transportation to viably serve local travel demands.

We all have a stake in expanding public transportation.

Annual Capital Investment Needs for Public Transportation



In order to improve physical conditions and improve service performance, the U.S. must make a sizable investment in public transportation. Source: State and National Transit Investment Analysis [5]

Public transportation agencies are reducing their carbon footprints—even more can be done with additional investment.

- The Los Angeles County Metropolitan Transportation Authority is investing in improvements to several maintenance facilities that will use solar energy.
- In Portland, OR, Tri-Met has implemented procedures to reduce idling and improve vehicle maintenance, lowering vehicle fuel use by 10%.
- Throughout the country, bus systems are adding hybrid diesel-electric vehicles.
- In Grand Rapids, MI, The Rapid was the first system to construct a LEED-certified facility.
- Metro in Cincinnati, OH, runs its entire 390-bus fleet on a blend of 50% soy-based biodiesel and 50% regular diesel fuel.

Sources

1. Department of Energy, Energy Information Administration, 2007.

2. "Growing Cooler: The Evidence on Urban Development and Climate Change," Don Chen, Reid Ewing and Steve Winkelman, January 2008.

3. "Public Transportation and Petroleum Savings in the U.S.: Reducing Dependence on Oil," ICF International, January 2007.

4. "Public Transportation's Contribution to U.S. Greenhouse Gas Reduction," Science Applications International Corporation, September 2007.

5. "State and National Transit Investment Analysis," Cambridge Systematics, Inc., 2006.

6. "The Broader Connection between Public Transportation, Energy Conservation and Greenhouse Gas Reductions," ICF International, February 2008.

7. American Housing Survey for the United States: 2005, U.S. Department of Commerce, Economic and Statistics Administration, U.S. Census Bureau, August 2006.

8. 2007 Annual Urban Mobility Report, Transportation Institute, Texas A&M University, 2007.

For more information on the many benefits of public transportation, visit www.publictransportation.org or call 202.496.4800.

Climate change and energy legislation should specifically target public transportation as a national priority.

Public Transportation

- **is estimated** to reduce CO_2 emissions by 37 million metric tons annually.

- **saves fuel**, reduces an individual's carbon footprint, and reduces congestion.

- **provides** an immediate option individuals can take to reduce their energy consumption and greenhouse gas emissions.

- **use** by a solo commuter switching his/her commute from a private vehicle can reduce CO_2 emissions by 20 pounds per day—more than 4,800 pounds in a year.

- **use saves** the U.S. the equivalent of 4.2 billion gallons of gasoline annually—more than 11 million gallons of gasoline per day.

- **provides** an affordable alternative to driving. Households that use public transportation save an average of $6,251 every year.

- **ridership** has increased 30% since 1995, with more than 10 billion trips taken annually.

- **is a national priority** that should be specifically targeted by climate change and energy legislation. We all have a stake in expanding public transportation use.