

## Congestion: A Mounting Problem

Americans are experiencing longer delays, longer periods of congestion, and the spread of congestion across more of the nation's roadways. The longest-running study of traffic congestion in America—the *Urban Mobility Report* conducted annually for 22 years by the Texas Transportation Institute (TTI)—confirms the trend on a daily basis.

This study of 85 urban cities suggests that traffic congestion will continue to worsen as the number of vehicle miles traveled continues to grow.

- Each person traveling in peak periods wastes, on average, 47 hours a year—nearly 8 full working days—in congestion delays.<sup>7</sup>
- Urban travelers can now expect to encounter congested roadways during 7 hours of the day.<sup>7</sup>
- Congestion is becoming more widespread, experienced on 60 percent of urban roadways in 2003.<sup>7</sup>
- In 2003, one-third of peak-period traffic was congested in areas of 500,000 or less.<sup>7</sup>

## Suburban and rural congestion is spreading

Based on current trends, highway congestion will become a problem in medium-sized cities within the next 10 years, while smaller cities, towns, and the suburbs and rural fringe can expect to face similar challenges over the next 10 to 15 years.<sup>6</sup>

*“We are experiencing increasing congestion on our nation's highways, railways, airports and seaports. And we're robbing our nation of productivity and our citizens of quality time with their families.”*

U.S. Secretary of Transportation  
Mary E. Peters

## Public Transportation: The Solution

**Public transportation is leading the fight against traffic congestion.** It reduces the number of vehicles on the road and vehicle miles traveled. The annual increase of travel in traffic congestion without public transportation would have been 1.1 billion hours.<sup>7</sup> Automobile users also accrue benefits as a result of public transportation. Thus, where public transportation is available, it makes roads work better.

To relieve congestion, investment priority must shift toward dramatic expansion of high-capacity public transportation systems, including light rail, heavy rail, commuter rail, bus rapid transit (BRT), express bus services and transit/high occupancy vehicle (HOV) lanes. These improvements must be coupled with targeted investments and better management of the current highway network.

***Without public transportation, congestion would have increased by 27 percent.<sup>7</sup> Public transportation saved \$18.2 billion in additional congestion costs.***

In the 13 largest areas of the 85 urban areas studied, the average savings is almost \$1.2 billion annually. The TTI report concluded that without public transportation:

- Congestion delays in these 85 areas would have increased 27 percent.
- Residents in the major urban areas studied would have lost an additional \$18.2 billion in wasted time and fuel.

Public transportation is one of the best ways our major urban centers can fight congestion. Public transportation reduces hours of delay in major travel corridors.

Public transportation use reduces delays for both public transportation riders and highway users. According to a Federal Transit Administration (FTA) study of six urban corridors served by high-capacity rail transit:

- Public transportation passengers saved 17,400 hours daily over auto travel in the six corridors.<sup>16</sup>
- Remaining road users in the six corridors saved an additional 22,000 hours of delay per day due to the absence of vehicles from public transportation users.<sup>16</sup>
- Travelers on surrounding roads in the corridors saved an additional 20,700 hours daily as spillover congestion was reduced. These reductions represent an annual savings of \$225 million in the six corridors analyzed.<sup>16</sup>



## Works Cited

1. *Statistical Abstract of the United States 2007*. Washington: U.S. Census Bureau, annual. [www.census.gov](http://www.census.gov).
2. *Highway Statistics*. Washington: U.S. Federal Highway Administration, annual. [www.fhwa.dot.gov](http://www.fhwa.dot.gov).
3. *Transit Growing Faster Than Driving: A Historic Shift in Travel Trends, Decoding Transportation Policy and Practice*, #3. Washington: Surface Transportation Policy Project, May 29, 2002. [www.transact.org](http://www.transact.org).
4. Card, Michael S., President, Combined Transport, Inc. in testimony on behalf of the American Trucking Associations, Inc. before the Subcommittee on Highways and Transit, Transportation and Infrastructure Committee, U.S. House of Representatives, May 21, 2002.
5. *2006 Public Transportation Fact Book*. Washington: American Public Transportation Association, 2006.
6. “National Strategy to Reduce Congestion on America's Transportation Network.” Washington: U.S. Department of Transportation, Federal Highway Administration, May 2006.
7. Lomax, Timothy J. and Schrank, David L., *The 2005 Urban Mobility Report*. College Station: Texas Transportation Institute, Texas A&M University, 2005. <http://mobility.tamu.edu>.
8. *Atlas of Public Transportation in Rural America, 1994*. Washington: Community Transportation Association of America, 1995.
9. “Consumer Expenditures in 2004.” Washington: Bureau of Labor Statistics, 2006.
10. “Public Transportation and Petroleum Savings in the U.S.: Reducing Dependence on Oil.” Washington: ICF International, January 2007.
11. Keever, David B., Weiss, Karen E., and Quarles, Rebecca C., *Moving Ahead: The American Public Speaks on Roadways and Transportation in Communities*. Washington: Federal Highway Administration, February 2001. [www.fhwa.dot.gov](http://www.fhwa.dot.gov).
12. Litman, Todd. “Land Use Impacts On Transport.” Victoria: Victoria Transport Policy Institute, 2005.
13. Litman, Todd. “Smart Transportation Investments II.” Victoria: Victoria Transport Policy Institute, September 12, 2006.
14. “Traffic Volume Trends, December 2005.” Washington: Federal Highway Administration, February 16, 2006.
15. “Consumer Expenditure Survey, 2004-2005.” Washington: Bureau of Labor Statistics, 2006. [www.bls.gov/cex/](http://www.bls.gov/cex/).
16. Transit Benefits 2000 Working Papers: A Public Choice Policy Analysis. Washington: Federal Transit Administration, Office of Policy Development, 2000.
17. Bush, George Walker, “State of the Union Address by the President.” United States Capitol, Washington, DC, January 31, 2006.
18. “Transit Ridership Report.” Washington: American Public Transportation Association, Quarterly.
19. Cervero, Robert and Aschauer, David, TCRP Report 25: *Economic Impact Analysis of Transit Investments: Guidebook for Practitioners*. Washington: Transit Cooperative Research Program, Transportation Research Board, 1998.
20. Vuchic, Vukan R., *Transportation for Livable Cities*. New Brunswick, NJ: Center for Urban Policy Research, Rutgers University, 1999.

**For more information on public transportation and its many benefits, visit [www.publictransportation.org](http://www.publictransportation.org).**

## The Benefits of Public Transportation Relieving Traffic Congestion



**More** and more vehicles are crowding the nation's roadways, and traffic congestion is having an increasingly debilitating effect on our quality of life. Individuals, business and industry, the economy and the environment are paying a high price for mounting congestion. Longer and more delays, lost opportunities, higher costs, more accidents, reduced competitiveness and pollution are a result of our current traffic congestion crisis.

The facts are clear: providing fast, affordable and reliable public transportation is essential in helping to reduce congestion and provide sustained relief on our roadways.

### While relieving traffic congestion, public transportation:

- Increases personal freedom, choice and mobility
- Enhances access to opportunity
- Enables economic prosperity
- Protects our communities and the natural environment



## The Cause

Traffic congestion is a result of too many vehicles crowding available road space along with a lack of alternative travel options.

**Increased use of the private vehicle.** Population and economic growth spur travel demand, which, in the absence of other travel options, results in disproportionate increases in the use of motor vehicles. From 1980 to 2005, the U.S. population grew 30 percent,<sup>1</sup> while the number of registered motor vehicles increased 60 percent and the number of vehicle miles traveled grew 95 percent.<sup>2</sup>

**Chronic under investment in public transportation and lack of travel alternatives reinforce private vehicle use.** Despite the expansion in public transportation services, relatively few Americans have access to reasonable or attractive transit options and Americans cannot use what they cannot access.

- Nearly 60 percent of the U.S. population lives in major metropolitan areas of over 1 million, but only 8.3 percent of households have access to subway service.<sup>3</sup>
- Over 50 percent of Americans do not live within one-quarter mile of a transit stop.<sup>3</sup>
- Only 4.3 percent of miles on our road system are served by public transportation.<sup>3</sup>
- Two-thirds of rural Americans—60 million people—are almost wholly unserved by public transportation.<sup>8</sup>

**Public policies reinforce auto-oriented patterns of development.** Sprawling development patterns in America's urban and suburban areas often provide no choice but to use private vehicles for every travel need. This increases congestion and requires more roads and parking facilities.

## The Consequences

The U.S. Department of Transportation stated in May 2006 in the *National Strategy To Reduce Congestion On America's Transportation Network* that congestion is one of the biggest threats to our economic prosperity and way of life.<sup>6</sup>

**Staggering costs in lost hours, wasted fuel.** The 2005 Texas Transportation Institute (TTI) Urban Mobility Report found that, of the top 85 cities in the United States, congestion caused 3.7 billion hours of travel delay and 2.3 billion gallons of wasted fuel in 2003, for a total cost of \$63 billion.<sup>7</sup>

**Costs to individuals and families.** Congestion and the growing unreliability of highway travel impose high costs on the quality of life of millions of Americans. Parents are increasingly missing events with their children; friends and families are finding it harder to spend time together; and civic participation is being negatively impacted. Evidence suggests that each additional 10 minutes spent in daily commuting time reduces an individual's involvement in community affairs by 10 percent.<sup>6</sup>

- In 2003, each peak-period traveler lost \$794 in wasted fuel and time, including time shared with family and friends.<sup>7</sup>

- In 2004, the annual transportation expenditures for an American family cost \$7,801.<sup>9</sup>
- In New York, where public transportation is widely available, only 14.0 percent of consumer expenditures are for transportation.<sup>15</sup> In contrast, in the Phoenix area, where there are fewer transportation options, consumer expenditures for transportation are 21.5 percent.<sup>15</sup>

**Continued dependence on oil.** In the 2006 State of the Union address, President Bush stated that our nation is “addicted to oil” and needs to reduce our dependence on foreign oil.<sup>17</sup> The typical automobile user consumes on average twice as much oil as the public transportation user.<sup>10</sup>

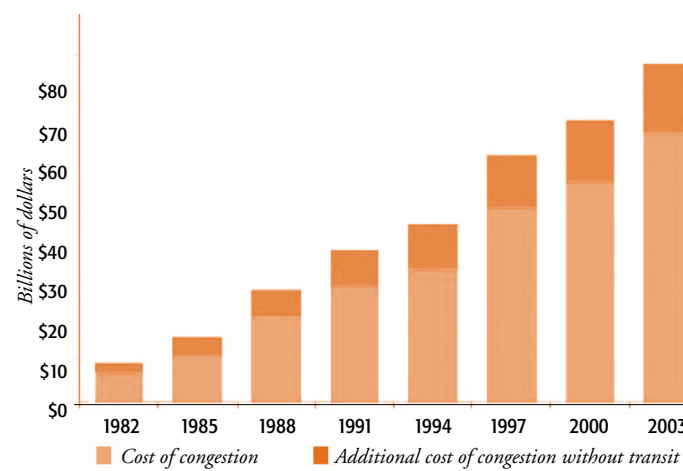
Public transportation is an important alternative to rising gas prices. Each year the use of public transportation in the United States saves:

- 1.4 billion gallons of oil, representing 4 million gallons of gasoline per day.<sup>10</sup>
- The equivalent of 140,769 fewer service station tanker trucks clogging our streets each year.<sup>10</sup>

When presented with a choice, more and more people opt for transit over cars. As gas prices fluctuate, public transportation will continue to provide a key option for the traveling public. Riders also discover additional benefits of using public transportation, such as reading or relaxing while traveling.

**Higher business costs.** In an increasingly competitive global economy that relies on the “just-in-time” transportation of raw materials and finished products, on-time deliveries are critical. Because trucks are the sole providers of goods to 75 percent of American communities, congestion delays increase business costs.<sup>4</sup> This results in more freight traffic and congestion on our roadways.<sup>4</sup>

## Annual Cost of Congestion



Source: Texas Transportation Institute, 2005 Urban Mobility Study: Mobility Issues and Measures, College Station, Texas, 2005.

## Public Transportation Offers Proven Solutions to Our Congestion Problems

Urban economists have long realized that transportation has a major impact on land use development patterns; in many situations improved accessibility can stimulate development location and type.

**The public transportation/land-use connection.** As a strategy in relieving congestion, public transportation can be more effective with policies and actions that expand “transit-oriented development.” APTA supports more investment, incentives and pilot projects that encourage or provide for increased density, mixed-use and pedestrian design in development in major public transportation corridors.

**Expanding the public transportation commute benefit.** To help reduce roadway congestion, employers can offer employees a tax-free transit pass of up to \$110 per month. The cost of this commute benefit is deductible as a normal business expense. Alternatively, the transit commute benefit can be provided through payroll deductions before taxes, with employer and employee sharing the cost. APTA supports increasing the transit commute benefit to match the parking cost deduction of \$215 per month and encouraging more businesses to offer the commute benefit.

## Growing Public Frustration

According to the Federal Highway Administration (FHWA), since 1995, traffic flow has been the only roadway characteristic that has experienced a decline in public satisfaction levels.<sup>11</sup>

FHWA reports that 70 percent of respondents favored the expansion of existing public transportation, while fewer than 40 percent favored building more highways to ease traffic problems.<sup>11</sup>

Traffic congestion is a top concern across the country.

- In a 2005 National League of Cities survey, traffic congestion led all other categories—including education and healthcare—when subjects were asked to identify the most deteriorated conditions in their cities over the last 5 years.<sup>6</sup>

- In a 2001 survey by the U.S. Conference of Mayors, 80 percent of Americans in 10 surveyed metro areas believed that congestion had gotten worse over the last 5 years; 50 percent believed that congestion had become “much worse.”<sup>16</sup>

**Intelligent Transportation Systems (ITS).** New technologies applied to both public transportation and highways can help relieve congestion. Universal fare systems based on “smart card” technology; real-time, on-street customer information; and integrated scheduling and dispatching systems can dramatically enhance the attractiveness of public transportation use.

**Location-efficient mortgages.** Proximity to public transportation can reduce the costs of auto-oriented transportation, freeing household income for other uses, such as home mortgages.

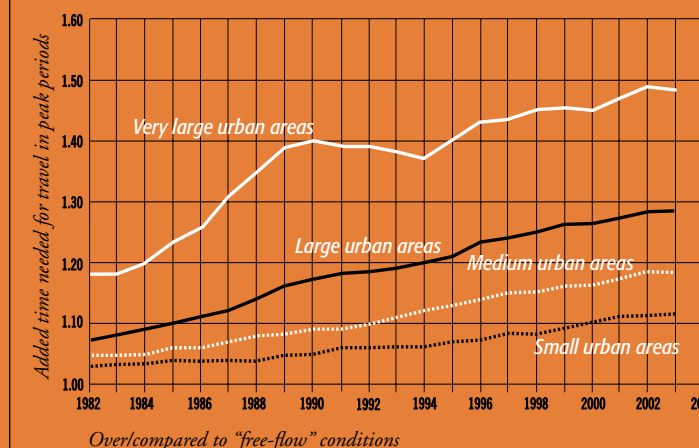
**Public transportation promotes smarter growth and more productive development.** Public transportation drastically reduces the amount of land needed for cars.

- Urban rail systems can provide more capacity in a 100-foot right-of-way than a six-lane freeway requiring a 300-foot right-of-way.<sup>20</sup>
- Required parking spaces can be reduced 30 and 50 percent, respectively, for office and retail development in transit-intensive areas.<sup>19</sup>

## In 2003, in the largest U.S. cities, highway congestion:

- Impacted nearly 70% of trips (up from 30% of trips in 1982)
- Lasted 7 hours per day (up from 4.5 hours in 1982)
- Added an additional 37 percent to the time of the average rush hour driver's trip (up from 13 percent in 1982)

## Growth in Peak-Period Travel Times



Source: Texas Transportation Institute, 2005 Urban Mobility Study: Mobility Issues and Measures, College Station, Texas, 2005.



## Benefits of Transit Oriented Development<sup>12</sup>

Economic	Social	Environmental
<ul style="list-style-type: none"> <li>• Reduced development and public service costs</li> <li>• Consumer transportation cost savings</li> <li>• Economics of agglomeration</li> <li>• More efficient transportation</li> </ul>	<ul style="list-style-type: none"> <li>• Improved transportation choice, particularly for non-drivers</li> <li>• Improved housing choices</li> <li>• Community cohesion</li> </ul>	<ul style="list-style-type: none"> <li>• Greenspace and wildlife habitat preservation</li> <li>• Reduced air pollution</li> <li>• Reduced resource consumption</li> <li>• Reduced water pollution</li> </ul>

**Public transportation may reduce the need for expansion.** Often, there is not the space, money or public support to add the roadway capacity needed to create and sustain acceptable conditions.<sup>7</sup>

- Roadway expansion may reduce traffic congestion in the short run. However, these benefits tend to decline over time due to generated traffic. The additional vehicle travel tends to increase other costs such as downstream traffic congestion and parking demand, total accidents, energy consumption and pollution emissions.<sup>13</sup>

## Investing in Policies that Make Public Transportation Work

The federal government needs to partner with state and local governments to expand the availability of transit services across the country. Without new investment in public transportation, the key hubs of the United States' surface transportation system could become so congested that our highway systems will no longer work.

From 1995 through 2005, public transportation ridership increased by 25 percent,<sup>18, 5</sup> a growth rate higher than the 11 percent increase in U.S. population<sup>1</sup> and the 22 percent growth in use of the nation's highways.<sup>14</sup> Substantial increases in public transportation investment are needed to assure that current and planned services remain comfortable, convenient and attractive. To obtain the greatest return from that investment, renewed emphasis must be placed on a number of existing public transportation supportive policies and initiatives.

## Public Transportation Provides Congestion Relief

Without public transportation, congestion would have increased by 27 percent.<sup>7</sup>

**Very large areas** (3+ million population). In areas such as New York, New Jersey and Connecticut, public transportation prevented additional delays and saved 52 million hours in travel time and \$6 billion in fuel and time costs.

**Large areas** (1–3 million population). Seattle ranked the best in this category. Public transportation in the metropolitan area annually saved travelers 6 million hours in travel time and \$566 million in fuel and time costs.

**Medium urban areas** (500,000–1 million population). Salt Lake City was the leader in this category. Public transportation annually saved travelers 1.3 million hours in travel time and \$73 million in fuel and time costs.

**Small areas** (less than 500,000 population). Colorado Springs ranked the best in small areas, saving travelers 189,000 hours in travel time and \$3.5 million in fuel and time costs.

*“With ever increasing levels of urban traffic congestion, our cities need safe, convenient and efficient transit systems, now more than ever.”*

*Chairman James L. Oberstar  
(D-Minnesota), U.S. House Committee on  
Transportation and Infrastructure*

**Without new investment in public transportation, the key hubs of the United States' surface transportation system could become so congested that our highway systems will no longer work.**