Mass Transit Boom

Thomas J. Billitteri

Tampa officials think they might have the answer to a big headache for travelers: getting to and from the airport without getting tangled in traffic gridlock.

Last fall, Tampa officials showed a video animation of a six-car electric train whisking airport passengers along a 3.5-mile track to their terminal. If built, the train could link to a possible rail network connecting downtown Tampa to St. Petersburg 25 miles away.

Tampa Mayor Pam Iorio, a big supporter of building passenger rail service, urged people to compare the airport system's estimated cost — $190 million to $235 million — to the enormous sums spent to improve the region's Interstate highways.

"In the long run, this is cheaper," she said. Moreover, it would be "congestion-proof."

Similar zeal for public transit is spreading nationwide. Pressed by population growth, rising gas prices, global warming and dizzying levels of traffic congestion, cities are pouring unprecedented amounts of money into "light-rail" systems, commuter trains, rapid-transit buses and other forms of public transportation.

Meanwhile, new ideas and technologies are helping to alleviate congestion in traffic-choked metropolitan areas. "Smart card" fare-collection systems allow electronic transfers among buses, subways and other transit modes. Online travel-planning tools, such as Google Transit and hopstop.com, enable commuters to navigate around cities. Car-sharing networks like Zipcar offer quick short-term access to vehicles when needed, reducing the need for car ownership. Planners are fashioning specially wired "e-Burbs," such as La Plaza, Md., in suburban Washington, D.C., to ease communication with remote headquarters and make it...
Transit System Mileage on the Increase

Track mileage on the U.S. transit system has significantly increased over the past two decades. Commuter and light rail mileage doubled and tripled, respectively.

![Track Mileage for Commuter, Heavy and Light Rail, 1985-2005](image)

Source: Bureau of Transportation Statistics, Department of Transportation

In 2000, three of every four commuters got to work by driving alone. Many of those drivers were immigrants of working age (25-45) — people who are on the roads, commuting to jobs.

Some light-rail systems are designed to help revitalize urban areas with "transit-oriented development" — upscale, walkable mixed-use neighborhoods built around transit stations. In 2001, a new streetcar system in Portland, Ore., spurred the transformation of a down-at-the-heels industrial zone, kicking off a surge of interest in streetcars that has spread from Albuquerque, N.M., and Sacramento, Calif., to Columbus, Ohio, and Kenosha, Wis.

Today, 30 to 50 cities are planning, designing or building streetcar projects, according to Charles Hales, a former Portland city commissioner who led that city's streetcar revival. "It's not a fad," declares Hales, now a transit consultant for cities, "or if it is, it's going to be one that lasts a long time."

Advocates cite a recent rise in transit ridership as evidence that riders are ready to park their cars — at least occasionally — and take public transportation. After hitting bottom in the 1970s, trips on trains, trolleys, buses and other transit bounced up and down in a narrow range until the mid-1990s, then began to trend upward. (See graph this page.) So-called "unlinked" passenger trips totaled 9.8 billion in 2005, the most recent year for which data are available, compared with 7.8 billion in 1995, according to the American Public Transportation Association.

The association's president, William W. Millar, says transit's growth has important policy implications.

"Public transit helps us meet the needs of people and solve problems that are important at all the levels — to meet national goals like reduction in greenhouse gases, reduce our reliance on foreign energy sources, you name it," he says. It also helps local communities support economic growth and deal with sprawl and a burgeoning elderly population, he adds.

But not all urban transportation experts are so enthusiastic. Critics argue that investing in expensive projects makes little sense outside of traditional urban megalopolises like the New York region, which alone accounts for about 25 percent of the nation's transit ridership. Despite the recent uptick in ridership, they point out, transit accounts for only a fraction of overall urban travel and ridership remains far below the World War II-era peak, when trips approached 25 billion per year.

The rush to build light rail comes in for especially harsh criticism. "There's a huge amount of money wasted on building rail," says Jonathan Richmond, an urban transportation consultant who has written widely on the subject. "It has pathetically low ridership and very little to show for it."

Some argue, too, that local leaders have created unrealistic expectations that transit systems will make urban life easier. "Transit has been sold as a way to solve congestion, air quality and other environmental problems and make places more livable," says Genevieve Giuliano, senior associate dean for research and technology at the University of Southern California's School of Policy, Planning and Development. "Under most circumstances — notably, outside of very high-density corridors where demand exceeds the capacity of buses operating at the shortest possible intervals — rapid bus service is as effective as rail transit and far less expensive to build," she says.

The list of urban ills that transit is expected to solve is "very long," says Giuliano. "And, unfortunately, it could not possibly live up to that list. But you need the list to get the political support to fund it."

Buses Are Top Public Transportation Mode

More than 20 million so-called "unlinked" bus rides were taken during the average weekday in 2005, constituting nearly 60 percent of all U.S. public-transportation trips. Heavy rail was a distant second with just under 10 million rides, about 29 percent.

![Average Weekday Unlinked Passenger Trips, 2005](image)

Note: Percentages do not total 100 due to rounding; unlinked trips do not add to total due to rounding.

* Unlinked passenger trips are the number of passengers who board public transportation vehicles. Passengers are counted each time they board vehicles no matter how many vehicles they use to travel to their destination.

Transit projects also stir passionate debate between "smart growth" enthusiasts — who advocate reducing sprawl by encouraging high-density, close-in development along transit corridors — and those who call such efforts social engineering. "The notion that government agencies should be forcing people into situations because of a belief in how people ought to live in cities is crazy," says Robert Bruegmann, author of the controversial book Sprawl: A Compact History, which argues that mobility, choice and privacy are much easier for most people to find in sprawling areas than in densely populated ones.

With the population growing and with most people wedded to their cars, transit will remain an "insignificant factor" on the transportation scene, "short of some completely unforeseen turn of events," says Bruegmann, an expert on urban planning at the University of Illinois.
New streetcars in Kenosha, Wis., run on electricity on tracks alongside cars. Madison, Wis., is considering streetcars similar to those in Kenosha.

Chicago. "The only real way for transit to work is to completely change our cities," he says. "There's simply no evidence that will occur." But developers in places like Charlotte, N.C., are betting on a growing demand for public transportation as well as places to live and work near transit lines. They are investing more than $1 billion in projects near stations planned for the region. "We always think of transit as a means, not an end," Planning Director Debra Campbell said. "The real impetus for transit was how it could help us grow in a way that was smart. This really isn't even about building a transit system. It's about place-making. It's about building a community." As cities continue to build and expand public-transit systems, here are some of the questions being asked by transit supporters and critics:

Will spending more on transit ease congestion?

Of all the benefits touted by public-transportation supporters, none resonates with the public as much as the idea that transit might reduce the mayhem on traffic-choked roads. "Congestion is a scourge on the United States," declares Millar of the American Public Transportation Association. He adds, "A comprehensive public transportation system . . . helps to reduce congestion and saves energy." It's an oft-repeated mantra among transit advocates. "I never got caught in a traffic jam on I-96 15 years ago," U.S. Rep. Vernon J. Ehlers, a Michigan Republican from the Grand Rapids area, was quoted by the Michigan and Use Institute, a "smart-growth" advocacy organization. "Today, you drive in every morning and it's jammed up. . . . With the increase in traffic, what do you think is going to happen? We'll need light rail in 15 years. Public transit is very important for our future." But transportation specialists hotly debate the notion that public transit can curb traffic congestion. "Attempts to cope with traffic congestion by shifting more people to public transit are not going to work," argues Anthony Downs, a senior fellow at the Brookings Institution, a Washington think tank. "The automobile is and will remain a better form of movement for most people in spite of congestion." The author of the 1992 book Stuck in Traffic and the 2004 sequel Still Stuck in Traffic, Downs notes that only a fraction of commuting is done by public transit, a proportion that drops even more if New York is excluded. "In 2000 transit provided about 46.6 billion miles of movement while passenger miles traveled [in cars, small trucks and SUVs] totaled about 4 trillion," Downs said. "In fact, transit's share of all passenger miles traveled in the U.S. from 1985 through 2000 averaged only 1.26 percent." Others also doubt the ability of transit — particularly expensive rail projects — to make a significant dent in congestion in a large urban region. While transit can reduce congestion on some high-density traffic corridors, says Michael D. Meyer, a professor of civil and environmental engineering at the Georgia Institute of Technology and former director of transportation planning and development for Massachusetts, most indications show it can provide "an almost insignificant impact on congestion" across a metropolitan region. If you talk to the elected officials behind the scene," Meyer adds, they will often say they need to build transit systems "because . . . you can't be a world-class city unless you have a rail system, you need to be prepared for a future where gas may be God knows how much cheaper per gallon and you need to be more sustainable." But "deep down," Meyer says, most realize that transit "isn't going to reduce congestion" significantly throughout a region. But transit advocates see things differently. "How did we get into the problem of road congestion?" Millar says. "We spent . . . billions of dollars building the 4 million miles of public road we have today. You simply cannot build your way out of congestion. Yes, there will be cases when roads need to be expanded or new roads need to be built, but it is a more balanced, multimodal approach that is ultimately going to give us the long-term solutions that we desire. For something like congestion, it's always easy to take a look at the short term and immediate cost and forget that you get a long-term benefit."

Todd Litman, executive director of the Victoria Transport Policy Institute, a research organization in British Columbia that studies international transportation and land use policies, says high-quality rail transit has several "congestion-reduction benefits." It tends to attract passengers who would otherwise drive, reducing congestion on roads running parallel to transit systems. It stimulates transit-oriented development, thereby reducing vehicle travel. And, it can lower "travel-time costs" incurred by people who shift to transit. "Even if transit takes more time," according to Litman, "many travelers consider their time per minute lower than driving if transit service is comfortable . . . allowing passengers to relax and work." Cities with high-quality transit systems benefit in other ways as well, Litman argues. Energy consumption, pollution and traffic fatalities drop substantially, as do parking-related costs, he says. "The research . . . shows very clearly that households save money by living in a city that has high-quality rail transit," Litman says. Yet some urban transportation experts argue that even with congestion, cars can be faster and more flexible than rail transit, which operates on fixed routes and schedules. "If you think in terms of the value of time as being one of the great factors in people's thinking, then public transit is going to have to compete with people's time needs," says Alan E. Pisarski, a transportation consultant and the author of a series of statistical reports on commuting trends published by the Transportation Research Board, part of the National Academy of Sciences. "Typically that's one of the weakest areas, in terms of getting people where they want to go when they want to go."

Randal O'Toole, a senior fellow at the Cato Institute, is blunter. "Light rail and streetcars may be cute, but they are S-L-O-W," wrote O'Toole, a longtime transit critic. "Portland's fastest light-rail line averages 22 miles per hour. Portland's streetcar goes about 7 miles per hour. I am waiting to see a developer advertise, 'If you lived here and rode transit home from work, you'd still be sitting on the train.'" But transit advocates say such analysis is misguided as it pertains to streetcars and congestion. Hales, the former Portland city commissioner, says that some transit projects — including Portland's streetcar line — are actually not meant to diminish congestion, but rather to increase it. The aim, he says, is to boost population density in downtown areas by attracting residents, shoppers and office workers to transit-oriented neighborhoods, making it easy for them to circulate among stops on the streetcar line.

Before Portland added the streetcars to its Pearl District in 2001, Hales says, the neighborhood had fewer than half a dozen businesses and only a couple of hundred residential units. Now the streetcar has helped transform the Pearl District into a trendy neighborhood with more than 250 commercial enterprises and 5,000 residences, he says. "So far, there's $3 billion of development within three blocks of the line. It's occurring at twice to three times the density and pace that's happening in the rest of downtown."

It's that density and pace — not the lack of congestion — that city leaders wanted to generate with the streetcar line, says Hales, who now is helping to plan streetcars in Sacramento.

"In the United States, the streetcar has been about circling in busy downtowns, or actually about making them busier," he says. "So I hope that they're causing congestion. That seems like an absurd thing to say, but what's absurd is that the only thing we're measuring when it comes to transit projects is their effect on road congestion. That's a very limited view."

Should government spend less on roads and more on transit?

Linked to the debate over congestion is the question of whether more government money should be flowing to transit projects.

Total government spending on transit grew about 80 percent in inflation-adjusted terms between 1980 and 2004, faster than the 12 percent growth in passenger trips and 24 percent growth in passenger miles traveled on transit, according to the Congressional Research Service. "It is often pointed out that while transit spending [amounted in 2004] to about 16 percent of all government highway and transit spending and about 14 percent of federal highway and transit capital expenditure . . . only about 2 percent of all trips are made by this mode. "Even for commuting trips, for which transit is better suited, transit accounts for only 5 percent nationwide, a share that has changed little over the past two decades.
Solitary Commuting Is Most Popular

Nearly 100 million commuters drove alone to work in 2000 — more than a 50 percent increase over the previous 20 years. Carpooling and public transit have remained relatively constant.


Only in two cities, New York and Chicago, does the transit share rise above 10 percent. The effect, according to transit critics, is to shorten highway spending, thereby causing highway conditions and performance, including highway congestion, to be worse than they would otherwise be. 18

Many transit advocates argue, however, that the government's transportation funding priorities have been shortsighted. For decades, they say, the government's bias toward funding roads has encouraged sprawling development patterns that have limited America's mobility — a problem that is likely to grow more acute as the population ages and people look for alternatives to driving. 19

"Why do we have [sprawling] development today? Because we followed for 80-some years a single-minded policy of subsidizing the automobile and the road system," says Millar of the American Public Transportation Association. "So you get what you pay for."

"This year we will spend close to $2 trillion on transportation — that's public and private spending," he adds. "Eighty percent of that will be spent on the highway network and private automobiles and things like labor unions power to veto federal grant projects. That, he contended, is a "bargain that favors high-cost transit systems over low-cost bus systems."

Transit agencies could contract out all their service to provide better service at lower cost, according to O'Toole, but "any plans by transit agencies to do so without a state mandate would be opposed by transit unions and thus would make the agencies ineligible for federal funds.

Worse, O'Toole argued, the Environmental Protection Agency (EPA) subsidizes "anti-highway activist groups to participate in transportation planning initiatives" and ties the funds to mandates for air-quality improvement projects. Both the anti-auto groups and the EPA guidelines, he contended, "favor rail transit over new roads. Most cities would never consider building new rail systems without federal incentives to waste money. In fact, buses can provide the same level of service as trains for far less money."

In a detailed rebuttal of O'Toole's analysis, Litman of the Victoria Transport Policy Institute calls it "outdated and biased, looking backward at the last century... rather than looking forward toward the changing transportation needs of the next century."

Although highways showed high annual return on investment during the 1960s when the Interstate Highway System was developed, Litman wrote, this has since declined significantly, a decline likely to continue because the most cost-effective projects have been implemented. Thus, he added, it "makes sense to invest less in roadways and more in public transit to maximize economic returns."

Do toll lanes and other "congestion-pricing" schemes work?

In traffic-choked New York City, Mayor Michael R. Bloomberg last year proposed a controversial method for easing congestion and generating money for transit: Charge motorists to drive into the most crowded sections of Manhattan on weekdays. 21

Bloomberg's proposal is a form of "congestion pricing," an approach that has been used in London and Stockholm and that is getting close attention in the United States — including strong support from the Bush administration. Congestion pricing can take many forms, from high-occupancy toll (HOT) lanes to higher tolls during peak traffic hours to fees for driving into certain congested areas of cities. It is similar to the idea behind utility usage: consumers pay for what they use and sometimes pay more when demand is high. "I think there's perception that roads are free, but we're paying one way or another," points out Paul Larson, director of the National Transit Institute at Rutgers University.

Congestion pricing can be used to manage traffic flows in order to relieve congestion, to encourage the use of mass transit and to generate revenue for transportation projects, including train or bus systems. Transportation experts say taxpayers and local politicians object to congestion pricing less when it is applied to new highways rather than being imposed on existing ones.

Supporters of congestion pricing say it eases bottlenecks on busy traffic corridors and speeds commutes for transit riders who share the road with autos. Grace Crunican, director of the Seattle Department of Transportation, calls congestion pricing "a good tool to manage and rationalize our system."

In Washington state, tolling operations began last summer on the Tacoma Narrows Bridge, using high-speed, nonstop electronic toll collection to help pay for bridge construction, maintenance and operation. This spring the state is expected to open nine miles of HOT lanes on busy State Road 167 using the same technology, with pricing varying with traffic demand. 22 Elsewhere, congestion pricing has helped ease bottlenecks, encouraged people to shift to transit and raised money for transportation, according to a 2008 report by the U.S. Department of Transportation (DOT).

For example, it said the number of vehicles with more than three passengers rose 40 percent within the first three months of opening priced express lanes on California's SR-91, while ridership on buses and a nearby rail line remained steady. Along Interstate 15 HOT lanes in San Diego, revenues generated by toll-paying drivers helped pay for transportation improvements that contributed to a 25 percent increase in bus ridership, the DOT report said. 23

"We're faced with increasing growth in population and employment, and there's nowhere near enough money for roads to handle the demand," says Meyer, the Georgia Tech professor. The only "clear option," he adds, is to adopt some form of congestion pricing, an approach being considered in his own city of Atlanta, where — despite a large rail system — traffic backups are among the worst in the nation.
not change their work hours or child-care needs. Not everyone has access to public transit, which can take longer and is less reliable than traveling by car. The motorist's alternative to paying more at the toll booth is to find another route that is time-consuming and merely shifts congestion to other roads and neighborhoods." 20

Rep. Anthony Weiner, D-N.Y., who represents sections of the boroughs of Queens and Brooklyn, called the Bloomberg congestion-pricing scheme a regressive tax on working middle-class families and small-business owners. "If I applauded the mayor for focusing on a long-term sustainability plan for the city, in this case the cure seems to be worse than the disease." 30

BACKGROUND

Transit's Golden Age

Like a trolley running on hilly terrain, transit in America has had its ups and downs over the years.

The first horse-drawn street railways began service in New York in 1832, and the service had expanded to Cincinnati, Baltimore, Philadelphia and other cities well before the Civil War. 31 Cable cars came on the scene in 1873 in San Francisco and soon appeared elsewhere. 32

Then in 1888 came a huge advance in public transit: the electric streetcar. 33

"During the remainder of the golden age of mass transit" in the late 1800s and early 1900s, "the electric streetcar reigned supreme as the common man's magic carpet," wrote transportation expert George M. Smerk. "It was the shaper of cities. Electric lines were much cheaper to build than cable lines and much less costly to operate than animal-powered railways. They were also tokens of progress for most cities and, as such, many lines were built that were uneconomic, merely to show that a city was progressive." 34

In the 1920s the nation's post-World War I economy boomed, and motorized vehicles began to take center stage. Buses became a popular mode of transit. As the same time, the car culture was becoming a central feature of U.S. society, fueling a rivalry between private mobility and public transit that grew more intense as time went on.

By 1929, more than 23 million private and commercial automobiles were registered in the United States — or roughly one car for every five Americans. 35 In prosperous cities such as Detroit and Los Angeles, automobiles were the most common means of transportation for most families. 36

With more and more people traveling by car, transit's golden age was receding in the rear-view mirror. Then, as the Great Depression (1929-1939) battered the economy, transit ridership plunged. Suddenly tens of thousands of Americans had no jobs to travel to, and leisure trips were a luxury few could afford.

Meanwhile, transit hit another bend in the tracks. Electric utilities had for years provided money and management expertise to transit systems, but that trend faded after Congress passed the Public Utility Holding Company Act of 1935. The law forced the power companies to start shedding their transit subsidiaries and weakened transit's financial and management underpinnings. 37

With the advent of World War II, transit ridership turned around. Suddenly, America was back on the job, with factory workers boarding streetcars, subways and buses to get to defense plants making bullets, ships and airplanes. The government rationed gasoline as well as rubber used in car tires, prompting the fortunate few who owned automobiles to keep them parked. Transit ridership soared to an all-time high of 23.4 billion trips in 1946. 38

But the transit boom was short-lived. In the postwar economic revival, Americans abandoned transit in droves, choosing instead to get behind the wheel. By 1960, transit ridership had plunged to 9.3 billion trips — 40 percent of its wartime high — eventually falling to an all-time low in 1972 of 6.5 billion trips. 39

Several trends accounted for the downturn — some of them subsidized by the federal government. During the 1950s and '60s, millions of families — often headed by veterans using low-interest government loans — bought homes and moved to the suburbs, places ill-served by transit systems. 40 Along with suburban sprawl came the nation's huge investment in roads, most notably the Interstate Highway System inaugurated during the Eisenhower administration. Automobile registrations doubled in less than a generation from about 40 million in 1950 to 80 million in 1967. In 1973, they broke the 100-million mark and kept climbing, despite an oil embargo, rocketing gas prices and recession. 41

Meanwhile, other changes in American life discouraged transit ridership. The postwar workweek fell to five days, reducing work travel. While downtowns continued to be major employment hubs, many new jobs sprang up in outlying areas not easily accessible by transit. Retailing shifted from Main Street to suburban malls. Television's growing popularity kept people at home and reduced outings to the movies. And many inner-city neighborhoods, particularly in the Northeast, became blighted, accelerating flight to the suburbs and reducing transit use even more.

An Urban Problem

Not everyone liked the shift to an auto culture. Criticism of cars swelled in the 1950s. In his book on sprawl, Bruegmann of the University of Illinois at Chicago wrote: "Led by upper-middle-class residents of central cities in the Northeast...this group took a passionate dislike not just to the automobile but to an entire worldview that they believed supported it. For them the automobile was symptomatic of an individualistic, consumerist society run amuck." 42

To some degree, these sentiments took hold. By the 1960s, many cities were starting to rethink the idea of autos as a solution to their transportation needs, William D. Middleton, a transportation historian and journalist, wrote in a history of rail transit in America, "While the development of expressways and freeways had encouraged and facilitated a massive shift of urban population to the suburbs, no amount of road building ever seemed to be enough to meet the growing demand that it created. More and more, too, cities began to recognize the destructive effects of massive highway construction on the urban community." 43

Pressure also was growing for the federal government to subsidize the struggling urban transit systems. In 1961 President John F. Kennedy signed the Omnibus Housing Act, which provided limited funds for loans and grants for public transportation. In signing the act, Kennedy said mass transportation was "a distinctly urban problem and one of the key factors in shaping community development." 44

The next year, Kennedy asked Congress to establish a program to help cities build and maintain public transportation systems. "To conserve and enhance values in existing urban areas is essential," Kennedy said in a message to Congress. "But at least as important are steps to promote economic efficiency and livability in areas of future development. Our national welfare therefore requires the provision of good urban transportation, with the properly balanced use of private vehicles and modern mass transport to help shape as well as serve urban growth." 45

The year after Kennedy's assassination, President Lyndon B. Johnson signed into law the Urban Mass Transportation Act, establishing permanent federal support for transit. 46
In the 1970s, some of America's largest cities began building big "heavy-rail" systems that changed not only travel habits for tens of thousands of residents and visitors but also the urban landscape itself. San Francisco's Bay Area Rapid Transit District (BART) started passenger service on its regional metro system in 1972; the system now covers 104 miles. The first segment of Washington's Metrorail system opened in 1976, and Atlanta opened the first of its "MARTA" metro system lines in 1979. 47

The Ronald Reagan administration did not share the Kennedy era's interest in the health and welfare of urban transit systems, however. Reagan sought to reduce federal spending through budget cuts and privatization of programs traditionally supported by government. "The Reagan administration made it clear that it wanted to deal with what it deemed to be the 'unsympathetic' policy in mass transportation," transportation expert Smerek wrote. 48

Still, Congress ensured that money for rail project was available. "The reason for the interest of Congress is proof of the dictum of long-time Speaker of the House Thomas P. 'Tip' O'Neill [D-Mass.] that all politics is local politics," Smerek wrote. "[The] simple and straightforward fact is that the federal mass-transit program touches virtually every congressional district and at least some of the constituencies of every senator." 49

Light Rails

Not all systems relied on federal money, though. In 1981, using only local money, San Diego became the first U.S. city to open a new light-rail system, a system known as "The 101," using existing tracks. 50 Other cities also opened light-rail lines — Buffalo in 1983, Portland in 1986 (using money from a canceled freeway project) and then Sacramento and San Jose in California. 51 Seattle began an downtown trolleybus tunnel, and Los Angeles started building its subway system. 52

Transit continued growing steadily in the 1990s, with new emphasis on "intermodalism" — combining various forms of transport, such as roads, rail, buses and ships. 53 The landmark Intermodal Surface Transportation Efficiency Act of 1991 gave states and localities flexibility to shift federal highway funds to transit projects. Seven years later the law's successor legislation, the Transportation Equity Act for the 21st Century, enabled states and local authorities to shift $8.5 billion from highways to transit — but only $40 million from transit to highways. Rep. James Oberstar, D-Minn., chairman of the House Transportation and Infrastructure Committee, said in 2003. He added, "The 99.5 percent of the time, states and local authorities choose to flex funds from highways to transit." 54

By the turn of the 21st century, cities were clamoring to build or upgrade big transit networks and create smaller systems, such as streetcar lines, to help revitalize urban neighborhoods. In 2005, as part of a Transportation Department reauthorization bill, Congress enacted a program to finance projects costing up to $230 million in which the federal portion is $75 million or less. Under that "Small Starts" program transit advocates saw a bright future for projects — such as streetcar systems — designed not just to move people but also to promote smart growth and spark economic development in urban neighborhoods.

Transit and urban planning proponents have complained, though, that the Federal Transit Administration has erected high hurdles for streetcar funding and is using Small Starts to emphasize rapid-transit bus routes over rail. The actions reflect the Bush administration's efforts to focus on easing highway gridlock rather than long-term urban planning.

The administration has a "very arduous and arcane process" for project evaluation criteria that favor cost- and time-saving conveniences, and congestion relief, says Hales, the former Portland city commissioner. But, he adds, "Do the federal government care about how Americans settle on the landscape and how they live? People are willing to pay handsomely to live in a more sustainable way. If the answer is yes, then the transit issue is one place where the federal government can make a huge difference." 55

Hales says cities like Portland have come up with much of the money themselves for their streetcar projects, relying largely on local tax money. "I don't see states and localities falling over themselves to come up with 50 percent of the cost of new highways," he says. "But here are cities waving wads of dollar bills [for streetcar projects], saying, 'We'll pay at least half of these things if [the federal government] will just say yes.' So in terms of leveraging federal dollars, transit projects in general and urban streetcar projects in particular, win hands down if the test is putting local money where the mouth is." 56

Yet, some analysts question the cost-effectiveness of light-rail projects. Researchers from the St. Louis Federal Reserve Bank wrote that "light rail is kept afloat by tax-

1800-1920 Early transit services begin on the East Coast.

1832 Horse-drawn street railways introduced in New York City.

1873 San Francisco starts cable car service.

1888s Electric streetcars introduced.

1882 First Chicago elevated line opens.

1894 New York begins subway service.

1920-1940s After losing ground to the automobile, transit rebounds.

1926 Peacetime ridership on public transportation hits 17.2 billion.

1933 General Motors' "Futurama" exhibit at New York World's Fair features automated superhighways.

1940s World War II industrialization and rationing of rubber and gas spurred a rise in transit ridership to record 23.4 billion passenger trips.

1950s-1960s Growth of suburbs leads millions of Americans to buy cars and abandon public transportation.

1951 President John F. Kennedy calls mass transportation a key factor in shaping community development.


1970s-1980s Transit enters the modern age as big cities begin ambitious urban rail operations.

1970s Recession and high inflation hit the nation; ridership on public transit reaches an historic low.

1980 National Environmental Policy Act requires environmental impact statements for transit and highway projects that receive federal money.

1972 San Francisco launches first computer-controlled heavy-rail transit agency.

1976 First segment of Monorail system opens in Washington, D.C. area.

1979 Metropolitan Atlanta Rapid Transit Authority (MARTA) opens its first line.

1981 San Diego Trolley helps to start light-rail renaissance.

1984 Miami completes first part of Metrorail.

1990s U.S. strengthens role of local planning organizations in charting future needs.

1990 Americans with Disabilities Act requires transit agencies to serve people with disabilities.

1993 Los Angeles County opens initial light-rail segment.

1990 Clean Air Act imposes tough pollution standards on transit buses.

1991 Landmark Intermodal Surface Transportation Efficiency Act gives states new flexibility in use of transportation funds.

1988 Ridership in public transit begins to show a gradual increase.

2000-Present Policy makers put new focus on reducing congestion.

2007 Gasoline prices exceed $3 per gallon. ... Texas Transportation Institute study says traffic congestion creates a $78 billion annual drain on the economy. ... Interstate 35 West bridge over Mississippi River in Minneapolis collapses, putting renewed focus on highway infrastructure. ... Congressional Budget Office says highway account in Highway Trust Fund could run out of money by fiscal 2009.

2008 Washington's Metrorail imposes largest fare increase in its history.
New Transit Projects Raise Questions

Do they ignore the needs of less-affluent riders?

A s cities rush to embrace new transit projects and congestion-pricing ventures, some experts worry that the poor may be shortchanged.

Among the concerns:
- That tax-financed commuter-rail projects may benefit wealthier people, while bus services heavily used by poor people who don't own cars or have jobs near rail stops may suffer;
- That fare policies typically favor peak-hour long-distance commuters to downtowns and other white-collared destinations over shorter, off-peak trips common to low-income people juggling second- and third-shift jobs, child-care duties and other necessities;
- That light-rail systems are often intended to attract discretionary riders — an approach that may come at the expense of improving transportation services generally, including for the poor.

"Transit has two objectives," says Genevieve Giuliano, senior associate dean for research and technology at the University of Southern California's School of Policy, Planning, Policy and Development. "One is solving congestion and air-quality problems. The other is about basic mobility. By putting our eggs in the congestion and air-quality basket, we've made people who need mobility worse off. If we actually pay attention to the quality and availability of service, we'd be doing well toward both of those objectives. But we're going in the wrong direction."

In some localities, grass-roots advocates have taken up the call for greater equity in local transit.

In Los Angeles, the powerful Bus Riders Union gained a federal consent decree a little over a decade ago that forced the city to expand bus service.

In part, too, the equity issue has surfaced because of the way cities have developed. Central cities once were dominated by low-income and working-class residents, but rising urban real estate values and job creation in sprawling suburbs have pushed many of those people into the far reaches of metro areas. That makes their transit needs different from those who commute to downtown professional jobs.

"There's massive gentrification at the center of many cities, very often centered around these transit stops," says Robert Bruegmann, a professor at the University of Illinois, Chicago, who studies urban planning and sprawl. "If you're wealthy enough and you've got a job in the central business district, it provides a wonderful choice."

But, adds Bruegmann, "the lower middle class increasingly has moved out to the outer edge" of cities and relies on autos or buses to get to jobs that frequently are scattered throughout metro areas.

Even bus service, which Bruegmann says can be "long, arduous and uncomfortable," doesn't always meet the needs of the poor and can add to a city's traffic and pollution problems. One solution, he says, is to put more money into "on-demand transit" that allows patrons to summon vans or other transport vehicles exactly when and where they are needed.

The issue of transit equity can put local politicians in a difficult spot. On one hand, they have a responsibility to ease traffic and pollution problems, and they may also see new systems such as light rail as a way to project a modern, progressive image of their cities. But they also have a duty to serve the transportation needs of all citizens, including those who may never step foot in a trolley or train.

A few years ago, the Los Angeles Times noted the juggling act that faced Los Angeles Mayor Antonio Villaraigosa as he sought to deal with the city's massive transportation challenges.

"The mayor wields considerable power over local transit decisions . . . but that power comes fraught with political peril," the newspaper editorialized.

"Invariably the [Metropolitan Transportation Authority] board on which the mayor serves] has to choose between pleasing the powerful Bus Riders Union by maintaining and expanding bus service or pleasing business interests and wealthier constituencies by expanding the rail system."

Soma transit experts worry that city transit buses in Los Angeles, above, and other cities will receive less funding than tax-financed commuter-rail projects.

Villaraigosa promised to do both, but seeking transit equity hasn't been easy. Last year the Times noted that the Metropolitan Transportation Authority was building two rail projects, the Expo Line to Culver City and the Gold Line extension to East Los Angeles, at a $1.5 billion price tag. The MTA said that while rail accounted for only about 17 percent of the city's transit ridership, it was growing.

But critics weren't buying the rail projects. "You see how crowded the buses are; and yet . . . the Gold Line at 4 in the afternoon is practically empty," Joel Kotkin, a Los Angeles resident, told the newspaper. "Obviously, the buses are in demand much more than the more expensive stuff, so why aren't we putting more money into the buses?"

Added Kotkin, the author of The City: A Global History, "It seems to be unconscionable we could be raising fares so a few yuppies from Santa Monica can go downtown on the subway."

Payer-funded subsidies that amount to hundreds of millions of dollars each year. "If light rail is not cost-efficient, nor an effective way to reduce pollution and traffic congestion, nor the least costly means of providing transportation to the poor, why do voters continue to approve new taxes for the construction and expansion of light-rail systems?" they wrote in 2004. Then they answered their own question: One reason is that although the benefits of light rail are highly concentrated, the costs are spread over the tax-paying population. They wrote: "The direct benefits of a light-rail project can be quite large for a relatively small group of people, such as elected officials, environmental groups, labor organizations, engineering and architectural firms, developers and regional businesses, which often campaign vigorously for the passage of light-rail funding."

In St. Louis, they wrote, light rail ran about $6 per taxpayer annually — a sum modest enough to attract voter support even if a transit system is financially inefficient. "A large group of taxpayers facing relatively minimal costs can be persuaded to vote for light rail based on benefits shaped by the interested minority, such as helping the poor, reducing congestion and pollution and fostering development. Even if these benefits are exaggerated and the taxpayer realizes the cost-ineffectiveness of light rail, it is probably not worth the $6 for that person to spend significant time lobbying against light rail."

But transit supporters say rail does pay off. A 1999 study underwritten by private-sector business members of the American Public Transit Association found major economic benefits to transit investment. The study concluded, for instance, that in the year following each $10 million in transit capital funding, 314 jobs were created, business sales rose $32 million for each $10 million in transit operations spending, and more than $15 million was saved in transportation costs to highway and transit users for every $10 million invested in transit in major metropolitan areas.

And according to Litman, of the Victoria Transport Policy Institute, the St. Louis analysis ignored many benefits of rail transit and understated the costs of automobile travel on the same corridors.

"[It] would not be cost effective to provide light rail transit service everywhere," Litman wrote, but "when all costs and benefits are considered, rail transit is often the most cost-effective way to improve transportation on major urban travel corridors."
Can a Daily Transit Pass Save the Planet?

Skeptics say claimed benefits are hyped

Among the many arguments that advocates make for transit impact on the environment, is one nearly at the top of the list. "The most powerful weapon you can use to combat global climate change may be a daily transit pass," said President W. Millar, and another study concluded that public transportation reduces petroleum consumption by 1.4 billion gallons of gasoline annually. That saving results from the fact that transit carries multiple passengers per vehicle, reduces traffic congestion and does not rely exclusively on petroleum to power its fleet, Millar said. The "transportation sector is the largest consumer of petroleum in the United States -- accounting for 67 percent of America's petroleum consumption and 28 percent of our greenhouse gas emissions," Millar stated. "If we are serious about reducing America's addiction to oil and reducing greenhouse-gas emissions, then we must also reduce transportation-related petroleum consumption. This will require a multi-pronged approach that must include expanded public transportation use."

Millar told the panel that Congress should take a variety of legislative steps to promote public transportation use, including increasing federal support for transit agencies to buy buses that use new fuel- and pollution-reduction technologies, and extending tax credits for alternative fuel vehicles past a scheduled 2009 expiration.

For instance, faced with a $1.8 billion financing gap for road improvements, Indiana negotiated a $3.85 billion deal with a foreign consortium to lease and operate the Indiana Toll Road for 75 years. In Florida, more than 90 percent of new roads since the 1990s have been toll roads, according to a state Transportation Department spokesman. Transit funds are limited because the Highway Trust Fund -- which provides 80 percent of the federal portion of transit funding and is financed with gasoline taxes -- is running out of money. The shortfall is blamed on a variety of causes, including a growing demand for infrastructure projects, an overcommitment of transportation spending by Congress, greater auto fuel efficiency (which reduces fueltax revenues) and spiraling infrastructure-construction costs.

But transit critics argue that public transportation's role in reducing pollution and saving energy is overblown. Rail is not "the environmental panacea it advocates promise," contends Randi O'Toole, director of the Thoreau Institute and a senior fellow at the Cato Institute, a Washington think tank. "Light rail may seem to use less energy and emit less pollution than buses or cars. But rail lines must be supplemented by feeder buses that tend to run much emptier than the corridor buses the rail lines replaced. Empty buses mean high energy use and pollution per passenger, so the transit system as a whole ends up consuming more energy and producing more pollution, per passenger, than if it ran only buses."

O'Toole also criticized transit advocates who "argue that transit produces less carbon monoxide than autos. But carbon monoxide is no longer a serious environmental threat. Today's problems are nitrogen oxides, particulates and greenhouse gases. Diesel buses, and rail cars whose electric power comes from burning coal, produce far more of these pollutants than today's automobiles."

Taking aim at the APTA study released in September, Cox said on the Thoreau Institute's Web site that "a full cost accounting of greenhouse gas emissions" would include "emissions from construction of transit and highway systems, construction of vehicles, extraction of fuel for electricity generation and refining, disposal of vehicles and other materials, vehicle maintenance and administrative support."

Cox conceded that without transit use, more congestion would occur near the cores of the largest downtown areas, such as Manhattan and Chicago's Loop. But, he wrote, "the impact would be slight elsewhere, in 'places like Portland, Phoenix and perhaps Paducah ... where the great bulk of the nation's traffic-congestion delay occurs."

"[Red]ivisely tiny (and low-cost) improvements to automobiles will do far more to reduce greenhouse gas emissions without reducing people's mobility or forcing people to change their travel habits," Cox wrote. But Millar has a different view. "While it is good public policy to require more fuel-efficient automobiles, increasing the use of transit can have a more immediate impact on our nation's transportation fuel needs," he said. "It could take 20 to 30 years to see a complete turnover of the vehicle fleet. A household does not need to go to the expense of buying a new vehicle to make a difference. They can simply take advantage of the nation's existing bus or rail services to dramatically reduce their carbon footprint."

CURRENT SITUATION

Budget Woes

The current transit debates are occurring at a time when gasoline prices are rising, local and federal budgets are limited and policymakers increasingly are concerned about curbing climate change.

This past fall, for example, Congress debated a climate-change bill that would limit carbon emissions and auction the right to emit them, earmarking some of the revenues for transit projects. Others are calling for more of the burden for congestion and new infrastructure to be borne by automobile drivers, by using congestion-pricing and privatizing some roads and bridges -- which essentially means charging tolls.

The Congressional Budget Office projected last fall that if annual spending continued at authorized levels, the transit account would have enough revenue to cover expenditures until 2012, but the highway account would be exhausted in fiscal 2009. The Senate Finance Committee and the Transportation Department have been considering ways to shore up the fund. Federal money pays for about half of the $13 billion a year spent on transit construction and equipment, and about 5 percent of operating costs, with the rest of operating costs covered by state and local funds and fare-box revenue. Still, transit supporters are watching the fund carefully.

"We'll be OK until Congress gets around to the next [transformation] authorization bill" in 2009, says Jeffrey Boorhe -- a Washington lawyer who chairs the New Starters Working Group, a coalition that backs federal funding for transit projects -- unless lawmakers move money from the transit account to the highway account as a stopgap measure.

In recent months policymakers and federal officials have been debating what to do about the nation's aging bridges and other infrastructure -- prompted in part by last year's Interstate 35 West bridge collapse in Minneapolis. The gasoline tax is central to the debate.

House Transportation Committee Chairman Oberstar wants to raise the federal gasoline tax, which has remained at 18.4 cents per gallon since 1993. He has proposed raising the tax by 5 cents and dedicating the revenue to a new bridge-maintenance fund.
A Mass Transit Glossary

Aerial Tramway — Unpowered passenger vehicles suspended from a system of aerial cables and propelled by separate cables attached to the vehicle suspension system. The cable system is powered by engines or motors at a central location not on board the vehicle.

Automated Guideway Transit — Guided transit vehicles operating singly or in multi-car trains with a fully automated system (no crew on transit units). Service may be on a fixed schedule or in response to a passenger-activated call button. Automated guided transit includes personal rapid transit, group rapid transit and people mover systems.

Bus — Rubber-tired vehicles operating on fixed routes and schedules on roadways, powered by diesel, gasoline, battery or alternative fuel engines.

Commuter Rail — Urban passenger train service for local short-distance travel operating between a central city and adjacent suburbs.

Monorail — Guided transit vehicles operating singly or suspended from a single rail, beam or tube. Monorail systems usually operate in trains.

Light Rail — Lightweight passenger rail cars operating singly (or in short, usually two-car, trains) on fixed rails in right-of-way that is not separated from other traffic for much of the way. Light rail vehicles are driven electrically with power being drawn from an overhead electric line via a trolley or a pantograph.

Heavy Rail — High-speed, high-capacity rail systems. These systems typically operate in trains of two or more cars on fixed rails in separate rights-of-way from which all other vehicular and foot traffic are excluded.

Source: Federal Transit Administration

But President Bush opposes any hike in gas taxes, as do fiscal conservatives. "The last thing we should do is raise the federal gas tax, which would mean giving members of Congress a bigger slush fund for earmarks," said Rep. Jeff Flake, R-Ariz. 63

Transportation Secretary Peters told the House Transportation and Infrastructure Committee that an increase in federal taxes and spending "would likely do little, if anything, without a more basic change in how we analyze competing spending options and manage existing systems more efficiently." She also cited a "disturbing evolution" in the federal transportation program, with more than 6,000 earmarks in the 2005 funding bill, which added up to a "truly staggering" $23 billion. 64

The fate of the Highway Trust Fund remains unclear. Some observers think the fact that whoever wins next year’s presidential election will walk into the White House in early 2009 and raise the federal gasoline tax to shore up the fund. On the other hand, a funding crisis could spur Washington to pass a stopgap measure to keep the fund from running dry.

"There’s nothing like a good crisis to get people’s attention," says Meyer, the Georgia Institute of Technology professor. In any event, he adds, "something will have to happen. If nothing else, the construction industry is incredibly powerful. If they’re not building those roads and transit systems and all those things they make money on, there will be pressure brought to bear on Congress." 65

Local Support

The shortfall in federal transportation funds is likely to push states and localities to come up with more money for transit systems, which would mean persuading voters to pay higher sales or gas taxes or tolls.

Boothe, the Washington lawyer, says voters have approved 70 percent of transit-related ballot initiatives in the past five years. "There’s a fair amount of support at the issue of congestion pricing, a good strategy?"

YES

Jeffrey H. Stone
Under Secretary for Policy, U.S. Department of Transportation

From testimony before Subcommittee on Highways and Transit, June 7, 2002

Taxing fuel consumption rather than road usage disconnects the price of travel from the true cost of travel. Today a U.S. automobile driver pays the equivalent of about 2.5 cents per mile in federal and state gas taxes.

Yet, when that driver uses a congested roadway during rush hour, he or she imposes between 10 and 50 cents per mile — and in some cases even more — in costs upon the other drivers stuck in traffic by taking space on the highway and exacerbating congestion.

Similarly, gas-tax charges for off-peak travel are not adjusted to reflect the lower costs of such travel. Moreover, the enormous cost savings potentially available from highway pricing are not even close to being realized. Research in recent years now confirms that very small reductions in the number of vehicles using a congested highway facility can produce significant increases in traffic speeds.

By substantially increasing traffic speeds and preventing gridlock, pricing can substantially increase facility "throughput." Counterintuitively, this means that an initial diversion of drivers actually allows for more customers to be served in a given time period.

The benefits of congestion pricing extend beyond simply enhancing the speed of travel and the efficiency of highways. Road pricing encourages the use of mass transit, and by reducing traffic delays in can enable the operation of high-speed, reliable, commuter transit services such as bus rapid transit.

Pricing will improve fuel economy and reduce greenhouse gas emissions by cutting out stop-and-go movement and idling. Pricing will encourage more sustainable land-use patterns by providing transparent signals about the true costs of real estate development on the outskirts of major cities.

Finally, congestion-based user charges can dramatically improve project-planning processes by providing clear signals as to where the benefits of expanding capacity are likely to exceed the costs of providing that capacity.

As prices rise, the case for adding new lanes or roads becomes increasingly obvious, to say nothing of the new supply of revenues from pricing that can be used to finance the improvements.

NO

James J. Baxter
President, National Motorists Association

From " Toll Roads: The Dippity Stock, " www.strategists.org

Conservative and libertarian organizations have been on a campaign to convince the public that the solution to America’s traffic problems, primarily congestion, is toll roads.

The arguments for toll roads are laced with references to “free-market principles,” “proper pricing,” “supply and demand” and “economic incentives.” Most of these discussions have become so obfuscated with nonsensical ruminations that important realities are ignored.

A real market-based system has willing sellers, willing buyers and reasonably unfettered competition among sellers and among buyers. The limited role of government in this system is to make sure everyone operates under the same rules.

Ultimately, sellers base their prices on their costs and the demand of buyers who want to buy their products or services. Competing sellers can drive the price up.

Any highway of any consequence fails flat — when it comes to market principles. First, highway corridors are not assembled by willing buyers in competition with other willing buyers who must negotiate with (and unwilling) sellers who are also in competition with one another. The “state” identifies the corridor, establishes what it considers to be a politically and judicially acceptable price and condemns the land of those sellers who disagree. This is “market principles” figuratively at the end of a gun barrel.

In the case of so-called “private” toll roads, the state (exclusively) grants its eminent domain … authority to the toll road owner. Does this seem like an unfettered, private, market-based system?

Toll road advocates argue that those who use the system the most will pay the most. . . . [But] who determines what the buyers should pay? Is it competing sellers of similar services? Do the buyers really have viable alternatives to buy highway services from other sources? . . .

[New highways are not being delayed for lack of money. There are billions of gas-tax dollars being siphoned off for non-highway purposes, or covering the federal deficit. New highways aren’t being built because there is significant political opposition to new highways. . . .

Toll roads are an inefficient, counterproductive component of our highway system. They foster corruption, political patronage and detract from needed improvements on the rest of the highway system. . . .

Report by Peter DeFazio, D-Ore., who chairs the committee’s Highways and Transit Subcommittee, also wants a gas-tax hike. "There is a tremendous cost to doing nothing," he said. "We have been treading water, and now we are beginning to sink."

In January a divided National Surface Transportation Policy and Revenue Study Commission urged an increase of up to 40 cents per gallon in federal gas taxes over five years to help fix aging bridges and roads and expand transit, but dissenters — including Transportation Secretary Peters, the commission’s chairwoman — disagreed, saying tolls and private investment are better options.

“A dramatic increase in the gas tax does not stand a snowball’s chance in hell of passing Congress,” said Rep. John Mica, R-Fla., the top Republican on the House Transportation and Infrastructure Committee. 66
As with many cities, Seattle sees transit as part and parcel of a larger plan that aims not only to bring sanity to the roadways but also to produce a healthier environment and a more economically vibrant economy.

"We're a metropolitan area, and we're trying to manage congestion," says Crunican. "If you're adding new jobs, which we're doing, and you're adding new housing units, which we're doing, you should expect more activity. And then the question is, can you leverage some of that activity onto greenhouse-friendly trips."

Besides, she says, "We're also an overweight society in general, and there's nothing wrong with healthier lifestyles."

**OUTLOOK**

**Proactive Planning**

With traffic congestion building, greenhouse gases growing and large numbers of Americans seeking sidewalk-friendly urban neighborhoods, public transit clearly seems to be on a roll. Even so, obstacles lie on the tracks.

For instance, transportation problems need regional solutions, but political and taxing jurisdictions typically stop at city or county borders. Tim Lomax, who heads the national congestion studies undertaken by the Texas Transportation Institute, warns in congressional testimony in 2007 against a "patchwork of solutions to large interregional problems with little to no continuity."

"We already recognize regional and in some cases national consequences flowing from any of a number of transportation problems," he says.

Within localities conflict among proponents of various transportation modes — such as buses, rail and highways — can lead to decision-making gridlock. Better financing techniques, stronger management and greater political courage are needed to bring down the "separate silos" that characterize metropolitan transportation networks and integrate them into smooth-running systems, says Joseph M. Giglio, a business professor at Northeastern University with extensive experience in transportation issues.

"Transit has its own operating mode, financing and engineering basis. And highways do. But the commonality is the customer," he says.

Transit will also have to move in lockstep with land-use planning, experts say. Otherwise, systems designed to reduce sprawl and ease congestion could have the perverse effect of making those problems worse.

And that risk doesn't exist only within cities. "In California, sprawl could increase several orders of magnitude if high-speed train services come to the Central Valley, connecting Bakersfield to [Los Angeles] and Fresno to San Francisco," warned Robert Cervero, chair of the Department of City and Regional Planning at the University of California, Berkeley.

Expanding rail services between metropolitan areas and even between states underscores the need for "proactive state land-use planning and management...if the unintended sprawl-inducing consequences of these investments are to be avoided," he wrote.

Ultimately, the outlook for public transit seems mixed. On the one hand, population growth, global warming, traffic gridlock and the desire for new kinds of development suggest significant demand for rail lines, rapid buses and other kinds of transit. On the other hand, tight financing, sprawl and Americans' reluctance to leave their cars present significant obstacles.

In the end, cities face difficult choices in how to allocate their precious transportation dollars.

As Pisarski, the author of the Transportation Research Board's exhaustive studies on commuting, says, "One question I always ask is, what percent of a problem am I solving with what percent of my resources?"

**NOTES**


3. In 2006, the U.S. Department of Transportation began a broad initiative, the "National Strategy to Reduce Congestion on America's Transportation Network," to help state and local governments develop strategies to deal with congestion. Approaches related to road congestion include "Urban Partnership Agreements" with metro areas that in part encompass plans for congestion-pricing demonstrations and expansion of rapid bus services. For background, see: http://transportation.house.gov/Media/Files/Highways/20070607/SSM_HT_6-7-07.pdf.

5. Press release, "Annual study shows traffic congestion worsening in cities large and small," Texas Transportation Institute. Data are from the institute's 2007 Urban Mobility Report, based on 2005 data, the latest available.


8. Ibid., p. 62.


10. American Public Transportation Association, op. cit., p. 12; 2005 data are preliminary.


19. By 2025, a fifth of Americans will be 65 or older, many of them unable to drive, the American Public Transportation Association states in its "Public Transportation Face Book," May 2007. It cites an AARP/Surface Transportation Policy Project study that found that half of non-drivers age 65 and over stay home on any give day in part because they don't have transportation options. The study cited is Linda Bailey, Surface Transportation Policy Project, "Americans: Stranded without Options," April 2004.


34. Ibid.


37. Smerk, op. cit., p. 43.


40. The 1944 GI Bill of Rights provided low-interest home loans for veterans. For background, see Peter Katel, "Wounded Veterans," CQ Researcher, Aug. 31, 2007, pp. 697-720.

41. Federal Highway Administration, op. cit.

42. Brueggman, op. cit., p. 130.


45. Ibid.


47. Ibid., p. 243.


49. Ibid., p. 241.


51. Ibid., p. 152.


55. Cambridge Systematics Inc. with Economic Development Research Group, "Public Transportation and the Nation's Economy," October 1999. The study was underwritten by the private sector business members of the American Public Transit Association, the predecessor of the American Public Transportation Association, Washington, D.C.


58. Ibid.


60. Abrams, op. cit.


63. Sanchez and Hume, op. cit.


66. Statement of Mary E. Peters before House Committee on Transportation and Infrastructure, Sept. 5, 2007.


69. Ibid.

70. Patton, op. cit.
region's efforts to wean people away from autos through transit-oriented residential development.


Reports and Studies


Hennessey, Bridget, Jason Jordan, Mary Karstens and Stephanie Vance, “Transportation Finance at the Ballot Box,” Center for Transportation Excellence, 2006. The report provides details on transportation ballot measures since 2000, plus five local case studies.


“Mobility 2030: Meeting the Challenges to Sustainable Mobility,” World Business Council for Sustainable Development, 2004. A report based on the work of a dozen international automotive and energy companies concludes that the way people and goods are transported today will not be sustainable if present trends continue.

“National Strategy to Reduce Congestion on America’s Transportation Network,” U.S. Department of Transportation, May 2006. The plan calls for more-efficient bus systems, new private-investment opportunities in transportation infrastructure, a reduction in freight bottlenecks and other steps to relieve congestion.

For More Information


Center for Transportation Excellence, 1640 19th St., N.W., #2, Washington, DC 20009; (202) 234-7562; www.cfe.org. Policy research center on public transportation.

Community Transportation Association of America, 1341 G St., N.W., 10th Floor, Washington, DC 20005; (800) 891-0590; www.ctaa.org. Advocates for effective public and community transportation and improved mobility.

Federal Transit Administration, 1200 New Jersey Ave., S.E., 4th & 5th Floors - East Building, Washington, DC 20590; (202) 366-4007. Administrates federal funding for public transit systems.

Reason Foundation, 3415 S. Sepulveda Blvd., #400, Los Angeles, CA 90034; (310) 391-2415; www.reason.org. Research organization that studies market-oriented transportation policies.

Reconnecting America, 43614 4th St., Suite 1005, Oakland, CA 94612; (510) 268-8602; www.reconnectingamerica.org. Advocates integrating transit into communities and hosts the Center for Transit-Oriented Development.

Surface Transportation Policy Partnership, 1100 17th St., N.W., 10th Floor, Washington, DC 20036; (202) 666-2636; www.transact.org. Nonprofit coalition that advocates transportation options that improve public health, the economy, the environment and social equity.


University Transportation Center for Mobility, Texas Transportation Institute, Texas A&M University System, 3135 TAMU, College Station, TX 77843-3135; (979) 845-2538; http://utcm.tamu.edu. Studies congestion management and other transportation issues.

Victoria Transport Policy Institute, 1256 Rudlin St., Victoria, BC V8V 3R7 (Canada); (250) 360-1560; www.vtpi.org. Independent research organization that produces useful background on transportation issues.