

**Testimony of
Robert Atkinson**

**Vice President and
Director, Technology and New Economy Project
Progressive Policy Institute**

before the

Joint Economic Committee

“The Role of Road Pricing in Reducing Traffic Congestion”

May 6, 2003

PPI • 600 Pennsylvania Ave, • Suite 400 • Washington, DC • 20003
202-547-0001

Mr. Chairman, members of Subcommittee, I am Rob Atkinson, Vice President and Director of the Technology and New Economy Project of the Progressive Policy Institute. PPI is a think tank whose mission is to define and promote a new progressive politics for America in the 21st century. It is a pleasure to testify before you on the issue of the role of road pricing in solving America's surface transportation challenges. PPI has been keenly interested in promoting public policies to help address the central problem facing our nation's transportation system—high levels of congestion. We strongly advocate the increased use of road pricing as a way to meet that goal. While technologies enabling no-hassle road pricing have advanced dramatically, federal and state laws and resistance by transportation agencies hold back this promising innovation.

How Bad Is Congestion?

Once upon a time, cars and highways represented freedom. Now, for most Americans, they represent constraint, as drivers crawl along in stop-and-go traffic hoping to get home at a reasonable hour. Traffic congestion just keeps getting worse. According to the 2000 census, commuters spent an average of 25.5 minutes to get to work, more than two and one half minutes longer than they did in 1990, and more than double the 40-second rise of the 1980s. While this may not sound like a lot, the increase alone adds up to an additional 10 hours a year stuck in traffic. The problem is even worse in large and mid-sized metropolitan areas. According to Texas A&M's Texas Transportation Institute (TTI), the average commute time during rush hour is almost 40 percent longer in the nation's 75 largest metro areas than during non-rush periods.¹ This is up from about 15 percent longer in 1982. Drivers now waste an average of 62 hours per year stuck in traffic, the equivalent of more than one and one-half weeks of work.

Why Is Congestion So Bad?

Traffic congestion has gotten worse for two reasons: The demand (vehicle miles traveled) has increased while the supply (miles of roads) has stagnated.

Why are people driving more? Unlike what some opponents of expanding roads claim, the main big contributor is the growth of the economy. The 15 percent increase in employment in the 1990s accounts for more than half of the increase in vehicle miles traveled (VMT). Moreover, because incomes went up so much during the 1990s (and cars are lasting longer), driving has become more affordable. As a result, for the first time in our history over 90 percent of households own a car. Moreover, because more people face increased time pressures and fewer work standard 9-to-5 hours, car-pooling has declined. Put it all together and you get a 28 percent increase in VMT in the last decade.²

Even with an increase in VMT, congestion should not get worse if roads are expanded by an equivalent amount. Unfortunately, between 1987 and 1998, while VMT on freeways or principal arterials in urban areas increased 42 percent, lane miles increased only about 9 percent.³ This is why even though we added 40 percent fewer drivers in the 1990s than we did in the 1980s, travel times increased three times faster.⁴ Confirming what the average American would see as common sense, the bottom line is best stated by TTI: “Road construction has been shown to play a key role in holding the line against urban mobility decline.”

One of the main reasons for this infrastructure shortfall is that while highway funding has increased in the last several years, as a share of miles traveled, highway expenditures by all levels of government fell from a high of 8.7 cents in the early 1960s to 4.6 cents in 1985, to 3.9 cents in 1997 (in constant dollars).⁵ At the same time the systems needs have increased as population has grown and much of the infrastructure has aged.

In 2000, DOT estimated that overall highway funding would need to increase 16 percent from \$48.7 billion to \$56 billion per year (1997 dollars) just to maintain the physical conditions of existing highways and bridges over the next 20 years.⁶ Expanding and improving the highway system so that road congestion won't get worse will cost \$76 billion per year, a 56 percent increase.⁷ Cutting travel time by 1 percent per year will require annual surface transportation investments of \$94 billion per year. However, projected amounts of transportation funding will fall significantly short of these levels. As a result, if we want to make significant progress in improving the performance of our surface transportation system, we will need to invest more.

Tolls Will Have to Play an Increased Role In Financing our Transportation Infrastructure in the 21st Century

Even if it were raised a modest amount—a necessary, but politically difficult task—the gas tax simply will not provide enough revenue to make the investments needed to reduce congestion. The problem may get even more acute as cars become more fuel-efficient and gas tax revenues decline. Moreover, many regions spend most of their limited transportation dollars on maintenance; they have little remaining to fund system expansion. As a result, toll roads will be the only way for many regions to finance lane and highway expansions. Tolls accounted for less than 5 percent of total highway revenues in 1997. Expansion of toll systems, including high-occupancy toll (HOT) lanes, value express lanes, truck-only lanes, and congestion pricing of existing lanes, could significantly increase revenues to offset the costs of new construction.⁸

One promising approach to implementing road pricing would be to convert existing high-occupancy vehicle (HOV) lanes to HOT lanes. The development of HOT lanes can bring new revenues and pricing incentives to road use by essentially auctioning off space on existing HOV lanes. HOV lanes spread throughout most of America's largest metro areas in the 1980s and 1990s as an effort to encourage commuting by carpool and bus. But years later, the common spectacle of little-used HOV lanes adjoining jammed

“regular” lanes is creating a backlash, with lane restrictions being loosened or eliminated in five states. A number of regions have come up with a better idea: HOT lanes currently operate in two parts of California (San Diego and Orange Counties) and in Houston, Texas, and additional projects are currently in development in eight other states.⁹ The concept is simply to open up existing underutilized HOV lanes to voluntary toll traffic, resulting in a reduction of traffic congestion in the “regular” lanes, generation of revenue for other transportation projects, and an option for commuters who are willing to pay—or who urgently need—to get down the road. HOT lane tolls can and should also be used for the broader purpose of reducing traffic congestion and pollution, while making transportation more affordable. In San Diego, tolls are used to subsidize express bus service in the corridor, which promotes all three purposes.

The concept of road pricing can go beyond HOT lanes to value express lanes, whereby new roads or lanes are built and supported in all or part through the use of tolls.¹⁰ These new roads and/or lanes would offer reliable, free-flowing travel throughout metropolitan areas for a fee. As roads continue to get more congested, there is an increasing number of people who would gladly pay extra to drive on un-congested roads. By adjusting the fee in real time, a free flow of traffic could be maintained. Robert Poole of the Reason Institute has proposed value express lanes throughout entire metro areas.

The Orange County, Calif., 91 Express Lane is an example of such a value express lane project. Opened in late 1995, it is one of four private toll road ventures permitted by legislation passed in 1989. Project development and operating procedures are delineated in a franchise agreement signed by the state and the facility’s operator, the California Private Transportation Company. Four lanes (two in each direction) were built in the median of State Route 91, an extremely congested, six-lane highway. The amount of the toll varies by time of day to ensure that traffic flows smoothly. To keep the lanes free of congestion at rush hour, express lane tolls have been raised more than once a year since 1995. The current cost of traveling the entire 10-mile span of HOT lanes ranges from \$1.00 to \$4.75, and it is estimated that drivers save an average of 12 minutes in commuting time.

Finally, with the recent implementation of congestion pricing in central London there has been renewed interest in using pricing to manage congestion. Economists have long argued that drivers do not pay the full social cost of driving when they drive during peak periods and that because of this that drivers over-consume peak period travel. The notion is that if drivers traveling at peak periods were charged a fee (or a higher fee than at other times of the day), that travelers who had other choices (e.g., transit, time shifting) would not drive then. The experience so far in London has proven this point, as traffic is down approximately 20 percent and average speeds are up considerably. It’s important to note, however, that in this case the congestion tolls are used not to raise revenue to pay for new capacity to alleviate congestion, but rather to induce people to not drive. It’s unlikely that a similar scheme will be introduced in the U.S., nor is such an approach needed except perhaps in the few most congested urban cores. However, tolls easily could and should be varied on roads (and bridges) to adjust to demand conditions in order to not

only maximize the efficient utilization of our limited transportation infrastructure but also pay for infrastructure expansion.

Objections to Road Pricing. Opponents of road pricing make a number of objections, charging that it is inefficient, unfair, and represents double taxation.

It is true that paying tolls at staffed tollbooths is inefficient and costly. However, electronic toll collection systems that use vehicle-mounted electronic transponders to automatically debit funds from drivers' pre-paid accounts enable road pricing without slowing traffic or requiring toll collectors. This technology also enables governments to easily institute a variety of road pricing approaches, including pricing based on time of day, level of congestion, number of passengers, and type of car (e.g., electric-gas hybrid cars ride for free).

Some oppose tolls because they believe that drivers have already paid for roads through gas taxes and that tolls represent a form of double taxation. However, gas taxes do not cover the full costs of driving. Gas taxes (and tolls) cover only about 88 percent of the cost of highways. If the costs of maintaining other roads and local streets are factored in, the share of road costs paid by gas taxes is even lower. In short, gas taxes do not come close to paying for the costs of the nation's surface transportation system. Moreover, gas taxes do not cover the costs of adding lanes or expanding roads. One study found that the average construction costs for adding lanes in urban areas is over 30 cents per mile driven during peak periods, yet gas taxes amount to only about 2 cents per lane mile.¹¹ Likewise, drivers pay nowhere near the total cost of driving when they use roads during peak congestion periods.¹²

Some conservatives oppose road pricing because they see it as a tax increase. While this could be true if existing roads were tolled, it's not true if tolls are used to finance new road capacity and if current gas tax revenues continue to be spent on transportation and not diverted to the general fund. Tolls are simply a way to charge the user for their use of a service. Clearly when a consumer pays to buy a service, neither they nor we see that as a tax. The same holds true for transportation. If used to support new capacity expansion, tolls would simply be the price people would voluntarily pay for a new service. If consumers did not want to "buy" this increased mobility, they could remain on "free" lanes.

Finally, road pricing is opposed by some, particularly on the left, who believe that roads are a public good which should be provided equally to all. For example, some liberal groups have criticized HOT lanes as unfair, calling them "Lexus lanes." They argue that all Americans should be treated equally and that charging some for premium service creates a two-tiered society with the privileged getting to cruise along at 65 mph while everyone else sits in traffic. There are several problems with this view.

First, as a representative of an organization affiliated with the Democratic Leadership Council, I am sympathetic to concerns about equity. However, I believe that in this case, well-intentioned equity concerns are misplaced. Studies have shown that HOT lanes are used by a representative mix of commuters, not just the wealthy.¹³ But even taking into account the fact that higher income travelers do use the lanes more than lower income travelers, one can make a compelling case that using tolls to expand infrastructure is in fact highly progressive—since higher earners are actually paying more for public infrastructure. But opponents will argue that unless you pay, you don't benefit. In reality, everyone benefits from charging those willing to pay for additional lanes or using underutilized lanes, since this means there will be fewer drivers in the free lanes. Second, road pricing can be explicitly designed to address these equity concerns. For example, some of the revenue generated can support transit, and people who take transit could get credits (through smart cards) that let them use toll lanes on days they need it most.¹⁴ Finally, it's one thing to raise equity concerns, it's another to propose realistic alternative solutions. We can ask Americans to wait a very long time until the gas tax is finally increased on all drivers so it raises enough revenues to add new capacity, or we can just move ahead now and expand capacity, drawing revenues from those that are willing to pay. In most cases, arguing that roads should be funded solely by the gas tax means that new roads will simply not be built.

How the Federal Government Can Boost Road Pricing. While a number of new road pricing projects have emerged in the last decade, overall progress is slow. In 1997, Congress created an Interstate Toll pilot project and a road pricing pilot program within DOT. No funds were devoted to the former project and the road pricing program received just \$11 million per year for FY2000 to FY2003 to support up to 15 new state and local value pricing programs. In spite of energetic efforts by the DOT program managers, the results have been disappointing largely because the incentives for states to try a new and potentially controversial proposal were minimal. Moreover, DOT itself has been ambiguous about road pricing. As a result, if Congress wants to kick-start new road pricing projects it will have to provide much stronger incentives.

- **Repeal the limitation on tolls on interstate highways, as long as toll collection is electronic and the tolls are used to support road or lane expansion or major rebuilding.**¹⁵ To enable states to generate more revenues for road expansion, Washington needs to remove the regulatory barriers to road pricing. In order to ensure that states do not simply slap tolls on sections of interstates that carry large numbers of out-of-state drivers, any new tolls should be allowed only on new roads or expanded lanes. The Freeing Alternatives for Speeding Transportation (FAST) Act, H.R.1767, introduced by Mark Kennedy (R-MI) and Adam Smith (D-WA) would do this.
- **For a limited period of time, raise the required federal share on road projects involving pricing by at least 10 percent.** While reducing restrictions on tolling federally funded highways is an important step, it may be not be enough to convince states to take the somewhat politically risky step of using tolls to add capacity.

However, if the federal government provided states with incentives to use tolls to fund new capacity, this would help states overcome their inertia and political caution. One way to do this is to raise the federal share of funding for toll roads. Currently, the federal government provides 80 percent of funds for most road projects. To jump-start road pricing projects, Congress should provide a 90 percent match on these projects. While this will not provide additional funds to states, it will let them stretch their own state funds further. Some will argue that since road-pricing projects raise revenue, federal funds should be used instead for maintenance and construction of roads that are not priced. However, the revenues from the road can be used to support other transportation projects in the state. Until toll roads become more widespread, it makes sense for the federal government to provide incentives for their creation.

- **Change the tax laws to allow private corporations to issue tax-exempt bonds for toll roads as long as they get approval from the state DOT.** Under current law, certain types of privately funded projects, such as public transportation facilities, airports, waste disposal facilities, and water and sewage facilities, are eligible for tax exempt financing with private activity bonds.¹⁶ However, privately built toll roads are not eligible. In contrast, publicly funded and operated road projects can obtain tax-exempt bonds. Additionally, the fact that a private operator cannot own a publicly funded project reduces the incentive for private companies to operate roads. Moreover, private toll roads compete against publicly provided roads. Changing the tax laws to enable private toll roads to be eligible and raising the state cap on private revenue bonds to reflect this change would enlist new innovative public-private partnerships.
- **Make the receipt of federal highway funding contingent upon the states adopting an interoperable national toll system so that any toll transponder can be used anywhere. Allow states to use federal highway funds to offer free transponders to all drivers when they register their vehicles.**¹⁷ Toll roads will expand if it is easier to use electronic toll transponders. While a number of East Coast states adopted a shared E-ZPass standard, other states use different systems.¹⁸ But even for states with the same standard, unless they are linked to the same system, drivers cannot use one state's transponder in another state. For example, a commuter in Washington, D.C. would have to get a "Smart Tag" to drive on the Dulles Toll Road in Virginia and an E-ZPass for the Chesapeake Bay Bridge in Maryland, not because the transponders are different, but because Virginia is not linked into the E-ZPass system. As a result, transponder interoperability is needed. In addition, to encourage the use of toll transponders, it needs to be much easier for Americans to get low-cost transponders.¹⁹

Conclusion

If we do not want to see even higher levels of congestion when Congress revisits the TEA-21 Act in 2009, moving forward this year to remove restrictions and provide incentives for the greater use of tolls to expand our nation's infrastructure will be critical.

Endnotes

- ¹ Schrank, David and Tim Lomax, “2002 Urban Mobility Study,” Texas Transportation Institute, June 2002, <http://mobility.tamu.edu/ums/>.
- ² Bureau of Transportation Statistics: <http://www.transtats.bts.gov>.
- ³ The actual increase was 13.1 percent expansion, but over 30 percent of this is due to reclassifying rural counties as urban.
- ⁴ Source: Alan Pisarski, personal communication.
- ⁵ “Highway, Bridge and Transit Finance,” Chapter 6 in “1999 Status of the Nation’s Highways, Bridges, and Transit Conditions and Performance Report,” U.S. Department of Transportation: Federal Highway Administration, <http://www.fhwa.dot.gov/policy/1999cpr/index.htm>.
- ⁶ Preliminary data from the 2002 Conditions and Performance Report indicate that a 17 percent increase in highway spending, from \$64.6 billion to \$75.9 billion per year (2000 dollars), will be needed just to maintain the physical conditions of existing highways and bridges over the next 20 years. Source: Statement of Mary E. Peters, Administrator, Federal Highway Administration, Department of Transportation, before the Committee on Transportation and Infrastructure Subcommittee on Highways and Transit, House of Representatives, Hearing on the Status of the Nation’s Highway and Transit Systems, September 26, 2002.
- ⁷ Preliminary data from the 2002 Conditions and Performance Report indicate that a 65 percent increase in highway spending, from \$64.6 billion to \$106.9 billion per year (2000 dollars), will be needed to improve the system. *Ibid.*
- ⁸ Other nations are further ahead than the United States. For example, the Netherlands recently instituted a comprehensive mobility plan to keep traffic moving in the areas of Amsterdam, Rotterdam, The Hague, and Utrecht. They plan to institute a two-year road pricing test period and construct new toll roads with express toll lanes. Several cities in Norway, including Trondheim, Oslo, and Bergen, instituted tolls to build new roads and widening existing ones.
- ⁹ These include Arizona, Colorado, Florida, Georgia, Minnesota, Oregon, Virginia, and Washington. Prior to Governor Glendening’s veto of the idea, Maryland was also on the list.
- ¹⁰ Orski, Ken, “Financing Future Transportation Needs, Part III: Long Term Alternatives—New Funding Concepts,” *Innovation Briefs*, vol. 13, no. 5., September/October 2002, <http://www.innobriefs.com/abstracts/2002/sep02.html#2>.
- ¹¹ DeCorla-Souza, Patrick and Anthony Kane, “Peak Period Tolls: Precepts and Prospects,” *Transportation*, vol. 19, no. 293, p. 311, 1992, Kluwer Academic Publishers.
- ¹² While the cost to each additional driver on a congested road increases, the cost to the rest of the drivers from the incremental addition of more cars increases even more. As a result, drivers on congested roads do not pay the full social costs.

-
- ¹³ Analysis by Edward Sullivan and Joe El Harake of the 91 express lanes in southern California found that while upper-income drivers use lanes more, the difference is not too pronounced. Fifty percent of households with incomes of higher than \$100,000 stated that they rarely or never use the lanes, while 25 percent of individuals with incomes below \$25,000 use them frequently.
- ¹⁴ DeCorla-Souza, Patrick and Anthony Kane, “Peak Period Tolls: Precepts and Prospects,” *Transportation*, vol. 19, no. 293, p. 311, 1992, Kluwer Academic Publishers.
- ¹⁵ Section 1216 of Transportation Equity Act for the 21st Century (TEA-21) says that with the exception of a limited pilot program, states cannot put new tolls on interstate highways. States should be able to add new lanes to interstates and charge all electronic tolls on them.
- ¹⁶ “Issue Brief: Private Activity Bond Volume Caps,” June 2002, <http://www.gfoa.org/flc/briefs/062702/volcaps.06.02.pdf>.
- ¹⁷ Transponders cost anywhere between \$15 and \$35, and are often free since they save the toll road authority money by avoiding the use of expensive human toll collectors.
- ¹⁸ For example, Florida, South Carolina, Texas, and Kansas use a different standard.
- ¹⁹ Most likely, the next generation of transponders for which there is an agreed North American standard will be built into vehicles by the manufacturers. In addition to permitting automatic tolling, they could support a wide range of new applications, such as allowing police to download license and registration data if they pull a car over, give the driver a dashboard display of the fog warning one-half mile ahead, and download a movie at the gas station for the kids in the backseat. (Source: interview with Peter Samuel, editor, *Toll Roads Newsletter*)