OPINIONS

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Congestion tolls: The right solution to traffic problems

The Los Angeles County Transportation Commission's purchase of 177 miles of right of way from Southern Pacific is an expensive mistake. The mistake will be compounded to an incredible extreme if these rights of way are ever actually developed for use as a commuter transit system. It's easy to convince the public that rail is a good idea — for the other guy. Everybody wants a rail transit option to be available because everyone sincerely hopes their neighbors will use it. Unfortunately, the rail option is expensive, and there is a quarter century of transportation research concluding that urban rail systems have little to offer modern American cities.

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For example, a superbly documented report released by the Urban Mass Transportation Administration reveals that the rail system built for Miami actually reduced transit use. The Miami train runs empty because it is too inconvenient to attract riders. Empty trains require heavy subsidies, and in Miami the subsidies have been made available by reducing bus service. Unfortunately it was the buses that travelers were willing to use, because the bus network was far more accessible than the rail network that replaced it. Worse, the group to whom the bus option was most important is the poor.

Miami's experience is not exceptional. The same story has been repeated to varying degrees in Washington, Baltimore, Atlanta, Buffalo, Pittsburgh, Portland and Sacramento. Further, rail is probably less relevant in Los Angeles than in any other American city.

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Line's 20,000 travelers per day certainly exceeds the 5,000 riders per day forecast just before the system opened, but is much lower than the ridership forecast of 54,000 that was used as the basis of the decision to build the system. Even 54,000 riders per day implies a very high subsidy to rail users.

Population densities and gasoline prices are too low, and the benefits of the personal automobile are too high, for public investments in rail to make social sense. Even if Los Angeles could afford to saturate the landscape with rail lines, the ultimate result of lower congestion costs would only be more growth, new demand for access to the transportation network, and the eventual return of congestion.

Fortunately, Los Angeles planning authorities have better policy alternatives available. Market-based strategies have been the subject of extensive investigation by planners and economists. Such strategies have been widely implemented by telephone companies, power utilities, and other large-scale enterprises in which the match between supply and demand is particularly important to public welfare.

The efficiency of the market for urban transportation would be vastly improved if policy makers applied market-based approaches. When traffic densities are low, accommodating an additional vehicle produces no change in the average speed of other vehicles. Time and other costs experienced by the occupants of the additional vehicle completely account for the cost of their vehicle's presence on the road. But when traffic densities are high, accommodating an additional vehicle decreases average speed.

This additional delay is imposed on everyone using the road. It is part of the cost of the new vehicle's trip, but this cost has no influence on the vehicle occupants' decision to travel because it is a cost they don't pay. An optimal congestion toll would internalize this external cost so that the costs experienced by the additional vehicle's occupants includes the value of the delay the vehicle's presence imposes on other travelers.

While congestion tolls increase relative capacity by reducing peak volumes, tolls are not likely to price users off the transportation system. Research at the University of Southern California indicates that nonwork trips accounted for approximately 51.9 percent of all peak period trips (38.2 percent of peak period vehicle miles traveled) in the United States' largest (population 3 million plus) urban areas in 1977, and for approximately 58.9 percent of such trips (39.6 percent of peak period vehicle miles traveled) in 1983.

There is nothing immoral or selfish about these network trips. They reflect the mobility and degree of choice we expect in a free society. But because these trips have many discretionary characteristics, their frequency during peak periods is especially responsive to price.

If travelers are provided with sufficient incentives, these discretionary trips will be taken during off-peak periods, with less frequency, over different routes, in longer trip chains, to closer destinations, or on modes that impose lower social costs.

Even in the case of work trips, congestion tolls would still leave employers and employees with a wide range of potential adjustments. These include telecommuting, transportation system management efforts such as employer van pools, ride sharing, flexible work hours, or paying the toll.

An optimal congestion toll would have to accurately reflect the value of time, but congestion costs need not be assessed precisely before a toll could be implemented. Once a system for extracting tolls is in place, toll schedules can be refined as additional traffic data are gathered.

Congestion tolls reduce delay and save time, but low-income groups value time less highly than do high-income groups. This observation might lead some to the conclusion that congestion tolls are hardest on the poor. In truth, the disposition of toll revenues presents a special opportunity to assist low-income groups. If low-income groups are targeted by programs supported by toll revenues, then the net effect of congestion tolls would be profoundly progressive. In almost any event, tolls would be considerably less regressive then spending billions of dollars furbishing a rail system that few residents will use.

Experience in Asia and Europe indicates that tolls can be collected electronically, imposing no new delays. Further, electronic assessment of congestion tolls requires a considerably smaller capital investment than does a commuter rail system. Because they reduce external effects, tolls do not engender NIMBY (Not In My Back Yard) responses from residents.

Congestion tolls increase relative transportation capacity without inducing the growth associated with new transportation facility investments. Carefully implemented, congestion tolls provide an opportunity to improve both the mobility and welfare of Los Angeles residents. Rail hasn't accomplished this anywhere else in the country, and rail can't accomplish it here in L.A.