



Citizens for Appropriate Transportation (CAT) Issue Brief

Eisenhower Transportation Corridor CONGESTION PRICING USING HOT LANES

The Illinois Department of Transportation (IDOT) is proposing to add a new lane in each direction from Cicero Avenue to Hillside. For some options, IDOT would limit these lanes to users willing to pay a toll to access this less congested lane. High Occupancy Toll (HOT) lanes exist in other parts of the country, but the results do not suggest that HOT lanes are appropriate for the Eisenhower.

Congestion Pricing charges road users tolls to provide a faster more reliable trip. Tolls can vary with the level of congestion or time of day. An agency can change tolls in real time to maintain 45 miles per hour in the HOT Lanes or revise tolls periodically based on the performance of the HOT Lanes. Some agencies allow solo drivers in the HOT Lanes if they pay a premium toll. Generally, transit and emergency vehicles do not pay a toll. Some agencies have administrative fees and discounts for low-income users.

To avoid paying tolls, a driver can switch to transit, choose to drive in the free but slower lanes, make the trip at a less congested time, or select a different route. Comparing the time saved by using a managed lane with the extra time to pick-up and drop-off one or more persons means some users will not save time. When one person in a car pool works late or leaves early, the others must find another way to get home.

HOT LANES ARE DIFFICULT TO MANAGE

To reduce travel time and increase reliability, HOT lanes should not operate at or near capacity. The intent is to increase person flow, not vehicle flow. Too much traffic in the HOT lane means users do not receive the promised reduction in travel time. Too little traffic wastes HOT lane capacity. An underutilized HOT lane can become a general purpose lane.

HOT lanes are most effective for long home-to-work trips. The distance on I-290 from Wolf Road to Racine Street is about 13.5 miles, a relatively short distance. Many users will not travel the full length.

IDOT can set tolls to regulate traffic or maximize revenue and deal with equity issues. Will IDOT allocate a percentage of the revenues for transit? IDOT does not know which interchange each user will use to exit the expressway, making it harder to regulate traffic volumes. Drivers leaving the expressway near downtown must use congested streets and find a parking space.

HOT LANE EQUITY ISSUES

There are at least five equity questions for HOT Lanes. (1) Do agency policies treat people in the same group equally? (2) Do users pay the full cost for the service HOT lanes provide or are some costs paid by people who do not use HOT lanes? (3) Do low-income groups pay a higher percentage of their income for tolls than high-income groups (Income Equity)? (4) Who pays the social costs (Geographic Equity)? For example, tolls can cause drivers to divert to roads in adjacent neighborhoods, causing an increase in air and noise pollution as well as more traffic and accidents on neighborhood streets. (5) Are there better alternatives than HOT lanes such as transit or cordon pricing? London is a good example of cordon pricing where a fee is charged to drive in the central area.

CONGESTION PRICING PERFORMANCE MEASURES

The U.S. Government Accountability Office (GAO) report¹ analyzed 14 congestion pricing projects where evaluation studies were done. Results were decidedly mixed, suggesting there is no strong evidence that HOT lanes work.

1. **Travel Time and Speed** - "Evaluations of the nine peak-period pricing projects with completed evaluations reported no effects on travel time and speed."²
2. **Throughput** - Five HOT lane projects found an increase in vehicles per hour on the HOT lanes and on some general purpose lanes. The evaluators concluded congestion pricing and the new lanes accounted for this increase. Average vehicle occupancy decreased in four of the five HOT lane projects. There were more cars using the HOT lanes, but fewer people in each car.³
3. **Off-Peak Travel** - Do drivers shift their travel to off-peak hours to avoid tolls? A small percentage of drivers who shift to off-peak times can have a large impact on reducing congestion. In a survey of I-15 in San Diego, "some traffic shifted from the middle of the peak rush hour to the 'peak-shoulder' times – the times directly before and after peak periods. However, the sponsors did not explain why this shift occurred."⁴ A survey of drivers on SR-91 in Orange County, California found "that the level of congestion affected their travel time decisions more than the presence of the toll."⁵ Further studies "showed some success in reducing congestion during peak times."⁶ Some drivers make trips during off-peak times to take advantage of discounted tolls. Drivers found it easier to arrive at work before rather than after peak times. Most truck drivers could not shift times because of delivery schedules.⁷
4. **Transit Ridership** - Do drivers shift to transit? "Evaluations of four of the five HOT lane projects assessed changes in transit ridership, but results were mixed."⁸ The Miami I-95 project was the only one to result in higher transit ridership.
5. **Equity** – Three of the four HOT lane projects (SR 91 in Orange County, California; I-294 in Minneapolis, and SR 167 in Seattle) found "drivers of all incomes used the HOT lanes, but high-income drivers used them more often than low-income drivers."⁹

CONCLUDING OBSERVATIONS

IDOT's says the expressway experiences congestion for 17 hours per weekday now. IDOT projections say the Round 2 solutions will reduce congestion to 16 hours on the general purpose lanes at best - not much change for a substantial capital investment. IDOT's proposed eight lanes will not provide sufficient capacity, and adding even more lanes requires too much property acquisition to be practical.

The person-carrying capacity of the CTA Blue Line is much greater than capacity provided by adding two HOT lanes. There is unused capacity on the Forest Park Branch of the Blue Line. If IDOT is considering congestion pricing on the expressway, the CTA should consider variable pricing on the CTA Blue Line to fill the empty seats and increase CTA's revenues. The airlines and hotels already do this on a regular basis.

Rick Kuner – October 2012

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¹ U.S. Government Accountability Office (GAO), "Traffic Congestion – Road Pricing Can Help Reduce Congestion, but Equity Concerns May Grow," January 2012.

² Ibid., Page 18.

³ Ibid., Pages 18 and 19.

⁴ Ibid., Page 19.

⁵ Ibid., Page 19.

⁶ Ibid., Page 19.

⁷ Ibid., Pages 19 and 20.

⁸ Ibid., Page 20.

⁹ Ibid., Page 2.