



TOLLING THE FREEWAY Congestion Pricing and the Economics of Managing Traffic

Highway congestion increases the cost of travel in most urban areas of the United States. It is inefficient because of the wasted time spent in traffic and it contributes to air pollution. This problem cannot be solved by building more highways. However, congestion pricing may offer a solution.

In a new study for the Mercatus Center at George Mason University, economist Robert Krol examines the problem of highway congestion, looking at how congestion pricing has been successful in the past and why it could be an attractive option in the future. There is mixed evidence about whether congestion pricing is regressive, but governments implementing congestion pricing could use several policy solutions to help reduce inequity. These include reducing other regressive taxes such as the gasoline tax and giving commuters the option to choose between toll lanes and toll-free lanes.

To read the entire study and learn more about its author, see [“Tolling the Freeway: Congestion Pricing and the Economics of Managing Traffic.”](#)

THE PROBLEM OF TRAFFIC CONGESTION AND THE SOLUTION OF CONGESTION PRICING

Traffic congestion continues to increase in the United States. A trip that would typically take 20 minutes in free-flowing traffic may now take 48 minutes during peak driving times.

- These delays are costly, both in terms of drivers' time and because of air pollution. Congestion is estimated to have cost the United States \$160 billion in 2014.
- Expanding highway capacity serves more drivers, but as total traffic volume increases, congestion returns. Mass transit has similarly failed to reduce congestion.

Congestion pricing, also known as variable tolling, offers a solution. Congestion pricing means the highway toll changes based on the number of drivers using the road. Travelers respond to the higher tolls by shifting nonessential trips to a different time or by carpooling, thus reducing congestion.

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ADDRESSING CONCERNS ABOUT CONGESTION PRICING

- *Tolls offer a broad-based benefit for society.* The costs and benefits of congestion pricing differ depending on the person considered and also how the toll revenues are used. However, some economics literature suggests that there will be a broad-based welfare gain if toll revenues are directed toward specific areas that benefit commuters.
- *Tolls are no more regressive than the fuel tax.* There is mixed evidence about whether variable tolls are regressive. However, congestion pricing is no more regressive than a fuel tax, the current primary source of highway funding.
- *Technological advances can reduce costs and protect privacy.* Current technology could reduce the implementation costs of congestion pricing. Technological advances could also address privacy concerns about how personal vehicle and travel information is collected.

EXAMPLES OF CONGESTION PRICING

Several examples indicate that congestion pricing elicits a significant response from drivers, resulting in less congestion and faster speeds on tolled highways.

- Both Singapore and London saw improvements in speed and congestion after implementing tolls. Revenues generated were used to enhance public transportation, and this allocation reduced equity concerns for voters.
- In the United States, converting high-occupancy lanes into tolled lanes has proven to be similarly efficient. But because only part of the highway is tolled, drivers still have a toll-free option, which the public may view as more fair.

POLICY LESSONS AND CONCLUSIONS

State and local governments are currently not allowed to impose tolls on existing interstate highways. Therefore, the first step toward reform must be giving state and local governments the option to impose tolls on all interstate highways.

Congestion pricing schemes have been unpopular, but as people become more familiar with the idea and see its benefits, public support may grow. Since congestion pricing becomes more acceptable after it is implemented, one policy option is to impose a temporary toll that could be made permanent later. Another policy option is to offset the toll by a reduction in other regressive taxes, such as the gasoline tax or even a sales tax.