

# Congestion Pricing: Five Urban Legends

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# LEGEND 1:

## Costs of Urban Congestion are Astronomical

- In 2003, Americans were delayed about 3.7 billion hours and used 2.3 billion extra gallons of fuel (47 hours and 29 gallons per rush hour commuter) in stop-and-go traffic.
- In 2003, each traveler in Washington, DC metro area wasted 69 hours stuck in traffic.

Texas Transportation Institute's  
"Urban Mobility Report", 2005

# On Further Consideration...

- The astronomical figures come from comparing existing conditions with the ideal case when congestion on all roads is completely eliminated
- Economically desirable congestion level is much higher than zero, and congestion pricing under the best circumstances aims at achieving that level

## LEGEND 2:

It Is Sufficient to Introduce  
Pricing in the Pockets of  
High Congestion

- Cordon tolls
- Pricing on an individual highway
- Bridge pricing

# On Further Consideration...

- Urban transportation networks are good “conductors” of congestion
- Congestion proliferation effect can be quite significant
- The congestion proliferation effect should be taken into account when designing a localized road pricing strategy

# LEGEND 3:

## Revenue from Congestion Tolls Can Finance New Roads

- Impetus for many HOT lanes projects
- Intercounty Connector
- “HOT networks” by Reason Public Policy Institute

# On Further Consideration...

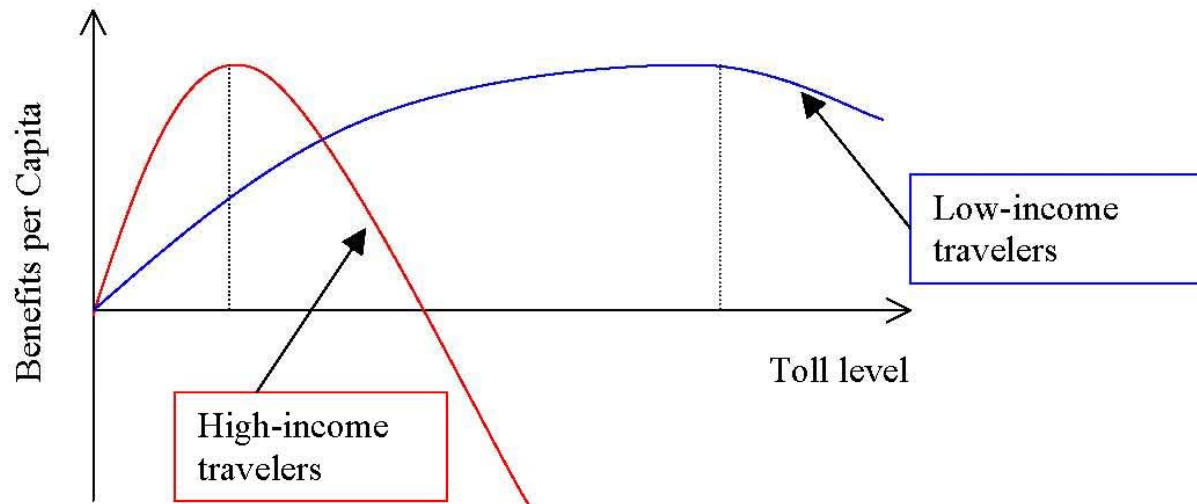
- Revenue may not be sufficient
  - Hypothetical cordon tolls in Washington, DC metro area: toll collection ranges between \$91 and \$111 million annually
  - Converting all HOV lanes into HOT lanes: toll collection ~\$65 million annually
- Spending revenue on new road construction could aggravate equity impact of pricing

# LEGEND 4:

## Low Income Travelers Prefer Low Toll Levels

- Lexus Lane argument: high-income travelers can afford tolls and low-income travelers can not
- Counter argument: many low income travelers have fixed schedules and may have higher incentives to be on time

# On Further Consideration...



# LEGEND 5:

## Congestion Pricing Always Improves Efficiency

- In a highly abstract setting, when “correct” congestion tolls are imposed, efficiency is always improved

# On Further Consideration...

- In real life, there are other complicating factors, such as taxes, agglomeration effects, etc.
- Under certain conditions, interactions between congestion and other factors may make congestion tolls strictly inefficient
- Ian Parry: tax interaction effect between labor taxes and “correct” congestion tolls

# Concluding Remarks

- Counterintuitive results are not just brain teasers, but a sign of a complicated phenomenon
- Congestion pricing is not a panacea and we should not expect miracles to happen. However, modest to moderate improvements in the quality of life can be achieved
- Cities should experiment with different pricing schemes to find those that are both efficient and politically palatable
- Although the incidence of congestion is localized, the problem is global and cities around the globe rely on each others' experience in both implementation and research