

# Congestion Pricing and USDOT's Urban Partnership Agreement

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## **The Crisis of Congestion**

- The financial cost of congestion:
  - 3.7B hours of delay and 2.3B gallons of wasted fuel / year\*
  - Almost \$200B after accounting for unreliability, inventory, and environmental costs across all modes\*\*
- Congestion hurts family and civic life, impacting:
  - Where people live and work
  - Where they shop
  - How much they pay for goods and services
- The environmental impacts are significant:
  - Carbon emissions
  - Public health





Congestion on I-95 in Northern Virginia



## **A Virtual "Congestion Tax" on Large Urban Areas**

Metro Area	Total Cost in 2003	Cost Per
	(\$ millions)	Peak Traveler
Los Angeles-Long Beach-Santa Ana CA	\$10,686	\$1,598
San Francisco-Oakland CA	\$2,604	\$1,224
Washington DC-VA-MD	\$2,465	\$1,169
Atlanta GA	\$1,754	\$1,127
Houston TX	\$2,283	\$1,061
Dallas-Fort Worth-Arlington TX	\$2,545	\$1,012
Chicago IL-IN	\$4,274	\$976
Detroit MI	\$2,019	\$955
Miami FL	\$2,485	\$869
Boston MA-NH-RI	\$1,692	\$853
Phoenix AZ	\$1,295	\$831
New York-Newark NY-NJ-CT	\$6,780	\$824
Philadelphia PA-NJ-DE-MD	\$1,885	\$641



# **USDOT's Urban Partnership Agreement**

#### The Four "T's":

- 1. Tolling (congestion pricing) Establishment of a variable tolling/pricing demonstration
- 2. Transit Utilization of cost-effective transit options such as Bus Rapid Transit (BRT)
- 3. Telecommuting Expansion of telecommuting and flexible work schedules
- 4. Technology and Operations Utilizing cutting edge approaches to improve system performance

#### What USDOT Brings:

- 1. Financial resources (grants, loans and borrowing authority)
- 2. Expedited Federal approvals
- 3. Dedicated USDOT resources, expertise and personnel





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## **An Overview of Congestion Pricing**

- Varies user fees by traffic volumes or time of day to balance supply & demand (e.g., airline tickets, electricity)
- Consensus among economists that it is the single most viable approach to reducing congestion
- No longer simply theory; demonstrated positive results both in the U.S. and internationally
- It shifts purely discretionary travel to off-peak (>50% of rush hour drivers on a typical urban highway are NOT commuting)
- It increases vehicle throughput, allowing more cars to move through the same physical space
- A little means a lot reducing peak period use by just
  3-8% can reduce delays by up to 50% (e.g., D.C. in August).







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# **Benefits to Drivers from Congestion Pricing**

- Reduced delays
- Reduced stress
- More deliveries per hour
- More time with family and friends
- Predictability of trip times
- Higher throughput = more customers served





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## **Benefits to Transit from Congestion Pricing**





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# **Other Societal Benefits from Congestion Pricing**

- Signals where investment is most needed
- Allows significant fuel savings
- Reduces vehicle emissions
- Decreases inventory carrying costs for businesses
- Improves land use decisions
- Reduces housing market distortions
- Expands opportunities for civic participation





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### **Ease of Implementation**

- Current technology allows relatively easy implementation
  - Dashboard/window mounted transponders (e.g., E-Z Pass)
  - Optical recognition of license plates to confirm enrollment (e.g., London cordon pricing)
  - GPS devices or odometer sensors (e.g., Oregon's highway finance trial under FHWA's Value Pricing Pilot Program)
- Technology allows for pricing the use of either individual roadways or broader geographic areas (e.g., downtown business districts)
- Technology can also supplement or replace traditional enforcement mechanisms (e.g., highway patrol), improving system performance



Free flowing traffic on California SR-91



### **Domestic Examples of Congestion Pricing**



I-394 MnPass Express Lanes allow single occupancy cars to use 11 miles of carpool (HOV) lanes between downtown Minneapolis and the western suburbs. Fees vary every 6 min. based on realtime traffic levels.



Express Lanes on California SR-91 charge all users of the 10mile stretch between Anaheim and Riverside, with discounted rates for cars with 3+ occupants.



Single occupancy cars pay to use an 8-mile (FasTrak) stretch of I-15 outside of San Diego. Some of the proceeds are used to fund transit projects and operations. Fees vary based on entry points and real-time traffic levels.



### **Overseas Examples of Congestion Pricing**

#### Stockholm

 Downtown cordon pricing has reduced traffic in the downtown area by 25%, creating free flow highway conditions virtually every day for 7 months. It has also increased transit ridership by 5% and reduced vehicle emissions by 14%; fees vary by time of day

#### London

 Downtown cordon pricing has increased vehicle speed by 37%, reduced delays by 30%, and decreased taxi travel costs by as much as 40%; fees are currently uniform, but will soon move to a variable structure

#### Singapore

 Fully automated electronic fee collection system (the first of its kind in the world) has reduced traffic by 13% and increased vehicle speed 22%; fees are variable

#### **Taxing Journey**

Fees for travel within Stockholm vary according to peak driving times, with higher tolls during rush hours. A look at the pricing:



Note: Converted from Swedish Krona at current rate Source: Stockholm Trial Expert Group

Chart courtesy of the Wall Street Journal (8/29/06)



# **Public Opinion Regarding Congestion Pricing**

Public opinion indicates a strong willingness to accept pricing as an alternative to congestion:

- Nearly 60% of those surveyed said that allowing single occupancy cars to use HOV lanes on I-394 in Minnesota is a "good idea;" Support was consistent among all income groups
- Only 5 months after downtown cordon pricing was introduced in Stockholm, over 60% of those surveyed said they would vote to make cordon pricing permanent
- Over 70% of respondents in a California SR-91 survey supported allowing lower-occupancy vehicles to bypass congestion by paying a fee to use the HOV lane
- By a 2-to-1 margin, respondents to a 2005 Washington Post poll preferred tolls over taxes for financing highway construction or expansion; 58% also favored allowing toll buy-in to carpool lanes







## Questions, Comments, and Discussion

