

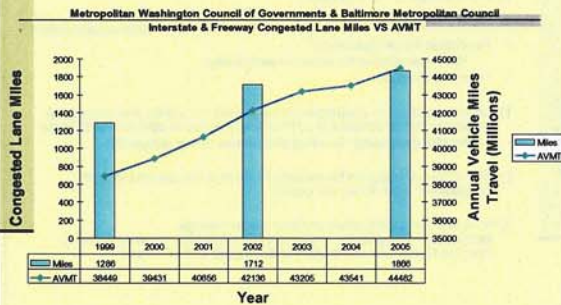
MD Operations Summit

Breakout Session A: Managing Congestion and Planning for Operations

MD's Most Congested Highway Sections



Growing congestion in Maryland



2005 Delay per Traveler

Urban Area	Hours	Urban Area	Hours
Washington DC (Vlg)	60	Medium Area Average	28
Very Large Area Average	54	Small Area Average	17
Baltimore (Lrg)	44		
Large Area Average	37		

Delay per Traveler: Expresses the extra travel time in a ratio with the number of peak period travelers in the urban area. This measure estimates the amount of time, on average, each traveler would spend in congested traffic each year. The measure is shown with operational treatment effects.

2005 Travel Delay

Urban Area	Person-Hours of Delay (000)	Urban Area	Person-Hours of Delay (000)
Very Large Area Average	169,278	Medium Area Average	11,087
Washington DC (Vlg)	127,394	Small Area Average	3,047
Baltimore (Lrg)	56,769		
Large Area Average	33,809		

Travel Delay: The total hours lost due to delay during the peak travel periods is estimated from travel speed estimates on the freeways and principal arterial streets. Total delay is related to the speed and the population. These figures include the benefits from operational treatments.

2005 Total Congestion Cost

Urban Area	Annual Cost Due to Congestion (\$mil.)	Urban Area	Annual Cost Due to Congestion (\$mil.)
Very Large Area Average	3,205	Medium Area Average	206
Washington DC (Vlg)	2,331	Small Area Average	56
Baltimore (Lrg)	1,126		
Large Area Average	628		

Congestion Cost: Is estimated by applying hourly values to the amount of travel time delay and per-gallon estimates of the amount of fuel wasted in congested travel. The areawide "congestion tax" may be thought of as one expression of the cost of congestion to residents of an urban area. These figures include the benefits from operational treatments.

2005 Congestion Cost per Traveler

Urban Area	Cost per Traveler	Urban Area	Cost per Traveler
Washington DC (<i>Very Large</i>)	1,094	<i>Medium Area Average</i>	512
<i>Very Large Area Avg</i>	1,014	<i>Small Area Average</i>	318
Baltimore (<i>Large</i>)	881		
<i>Large Area Average</i>	683		

Congestion Cost per Traveler: The cost of congestion is estimated with a value for each hour of travel time and each gallon of fuel. The value of travel time is based on the value that people demonstrate by their behavior. Paying tolls, erratic lane changing and traffic citations are some ways motorists illustrate they value their travel time. Fuel cost is estimated from state averages. These figures include the effects of operational treatments.

What is being done for Managing Congestion?

- Adding Highway Capacity
- Access Management
- Safety and Spot Improvements
- Resurfacing and Rehabilitation
- Sidewalk Retrofits
- Bridge Replacement & Rehabilitation
- Ridesharing Program

What is being done for Managing Congestion?

- Traffic Management
- Intelligent Transportation Systems
- Intersection Capacity Improvements
- Bicycle Retrofits
- HOV and Price-managed Lanes
- Highway Incident Management
- Telecommuting
- Transit Investments
- Transit Oriented Development
- Land Use Scenario Planning – Jobs/Housing Balance

Session Format

- Facilitated Panel Discussion
 - With opportunities for audience participation
- Topic Framework:
 - 1) Current practices in congestion management - a) policy and practice b) Measurement of congestion c) Planning to improve operations d) Tools
Consider discussing recurring and non-recurring congestion
 - 2) Why should congestion be managed? What is the desired level of congestion? How do we set goals?
 - 3) What are the opportunities and barriers to manage congestion? Specifically, what planning efforts can be undertaken to improve operations in the Maryland, Virginia and DC area?