

WEIGHING THE IMPACTS OF CONGESTION PRICING IN THE DISTRICT OF COLUMBIA



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RESEARCH FOCUS

Assess the policies, actions, and alternatives the District of Columbia can implement to address congestion pricing in order to reduce traffic, promote efficiency, invest in public transportation, and ensure equity for all commuters.

WHAT IS CONGESTION PRICING?

Congestion pricing—also denoted as decongestion charging or value pricing—is a transportation demand management strategy that institutes a road pricing system for single occupancy vehicles (SOVs) at a given geographical area as a means to reduce gridlock, manage traffic efficiency, encourage alternative mobility, and fund public transportation.

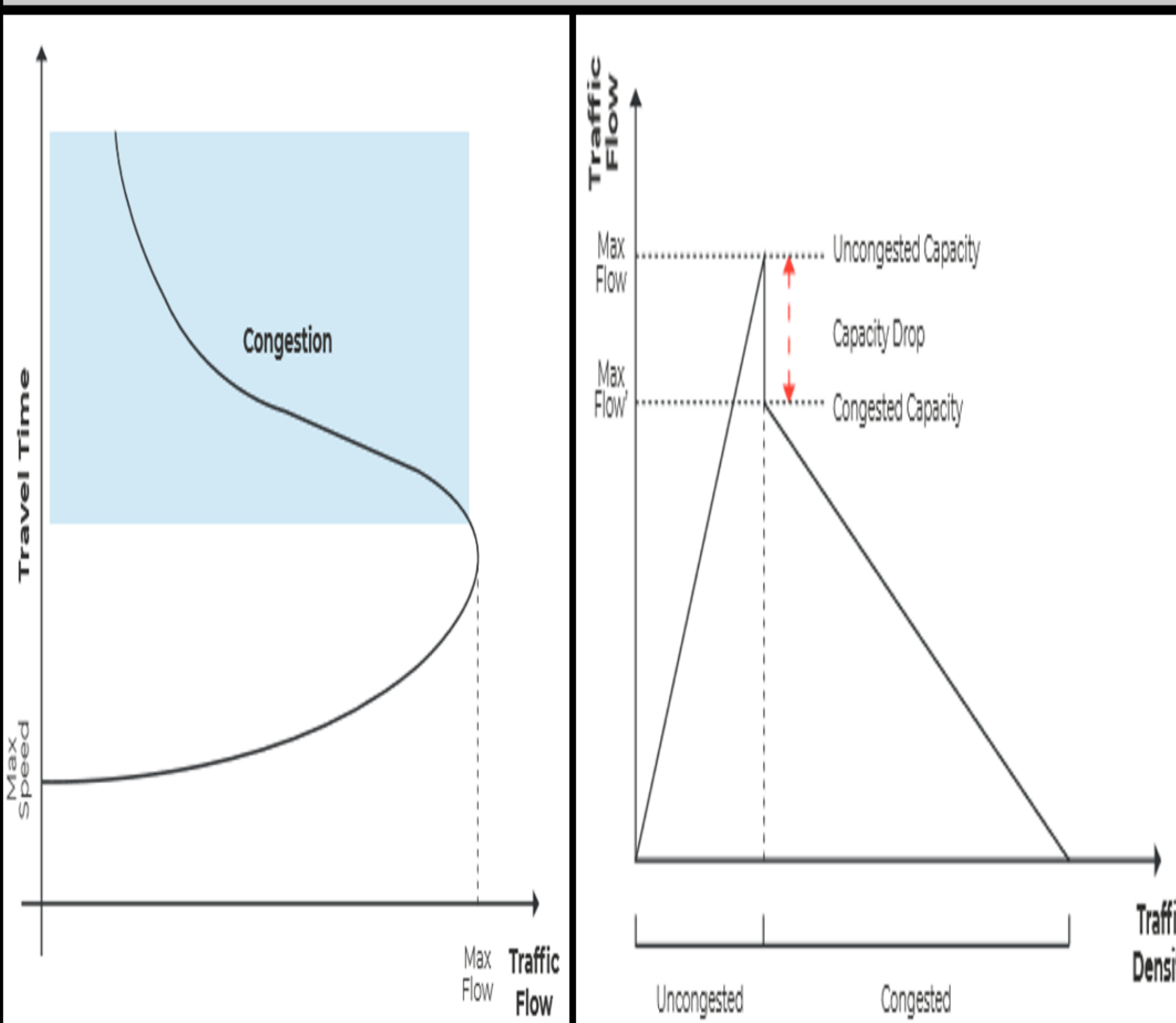
DIFFERENT STRATEGIES FOR CONGESTION PRICING

Strategies Involving Tolls	Strategies Not Involving Tolls
<ul style="list-style-type: none"> HOT Lanes (Partial Facility Pricing) Express Toll Lanes (Partial Facility Pricing) Pricing All Roadway Facilities Zone-Based Pricing (Cordon & Area Pricing) Regionwide Pricing 	<ul style="list-style-type: none"> Parking Pricing Priced Vehicle Sharing & Dynamic Ridesharing Pay-As-You-Drive Pricing (Variable Vehicle Costs)

Source: USDOT, Federal Highway Administration, 2019.

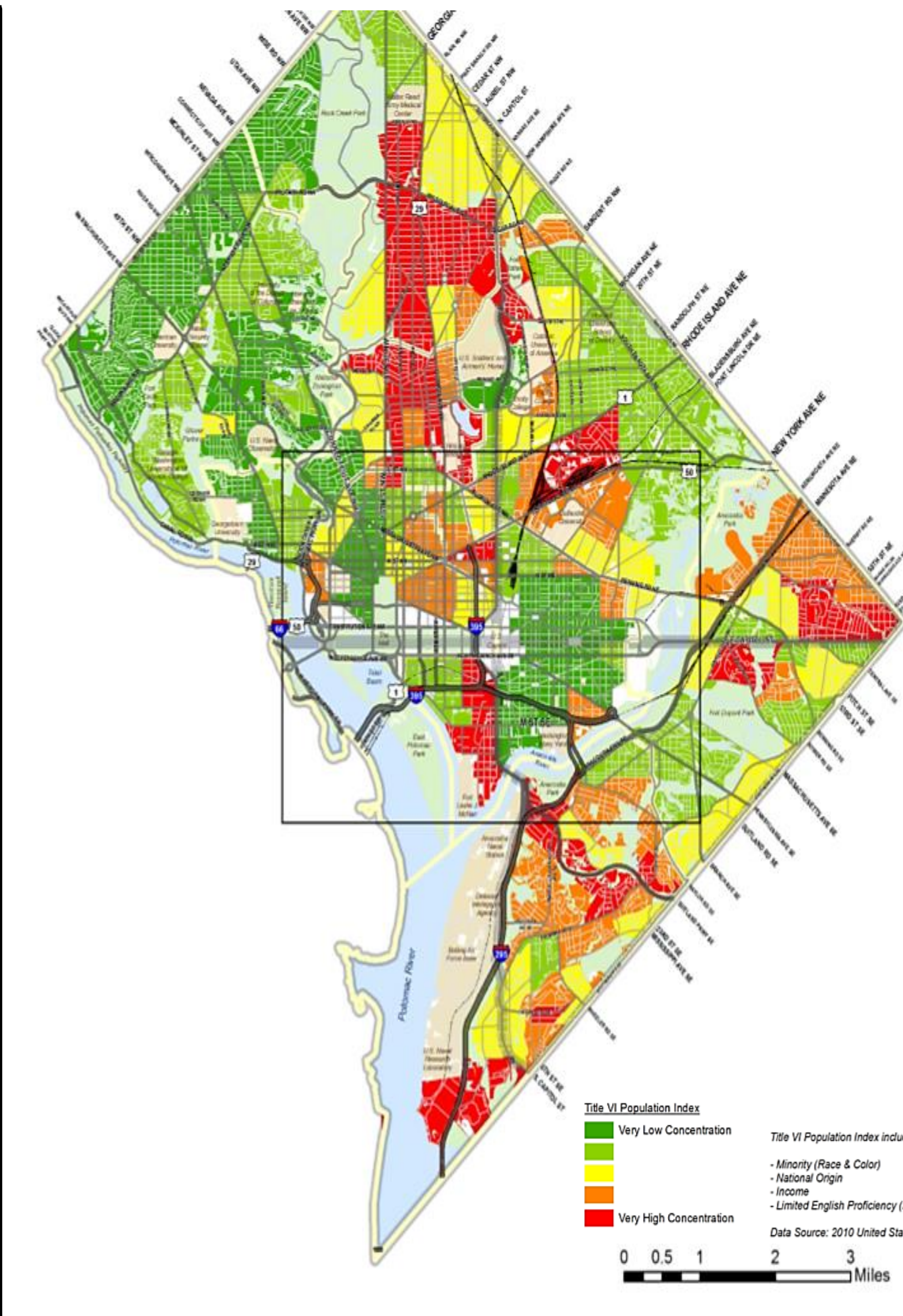
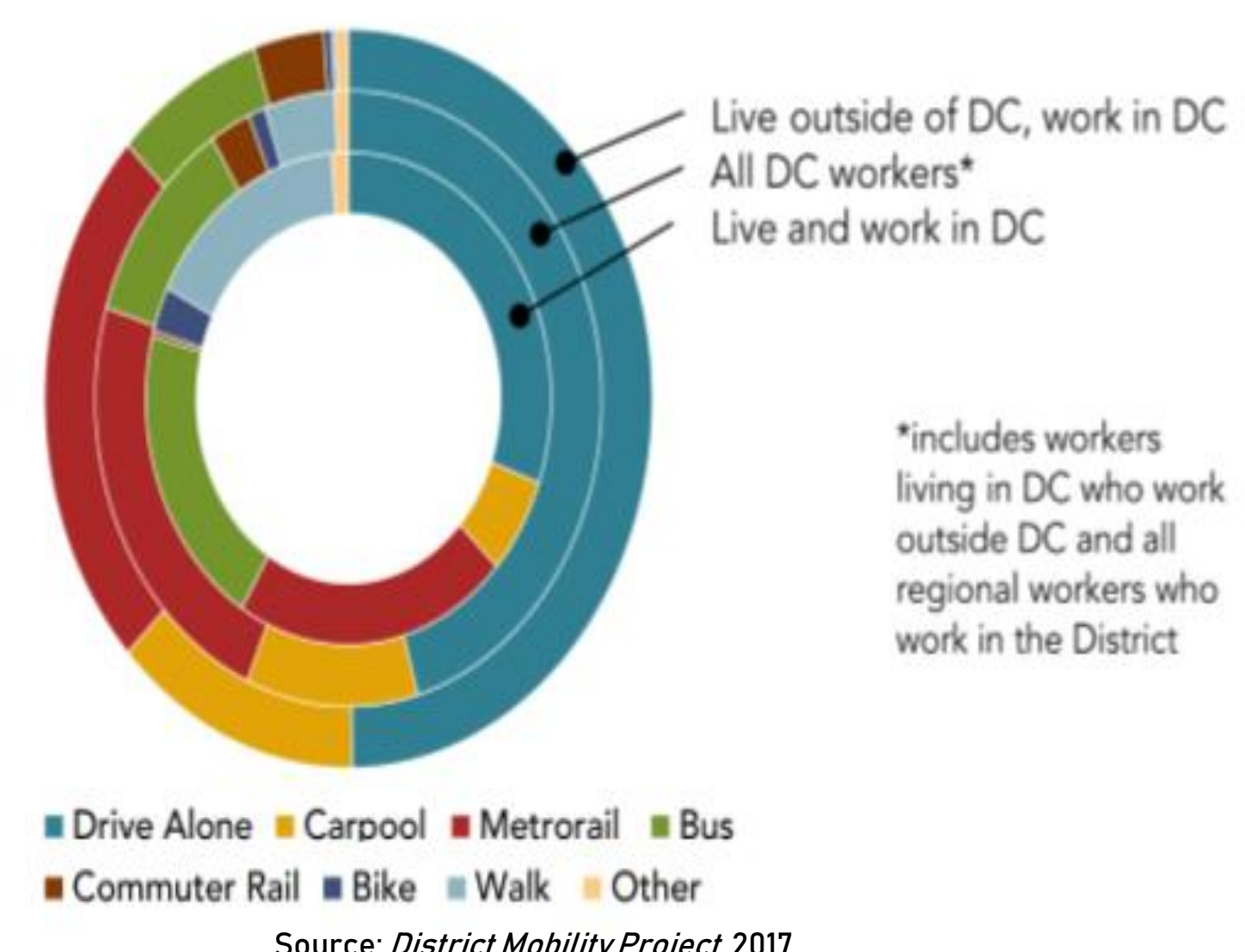
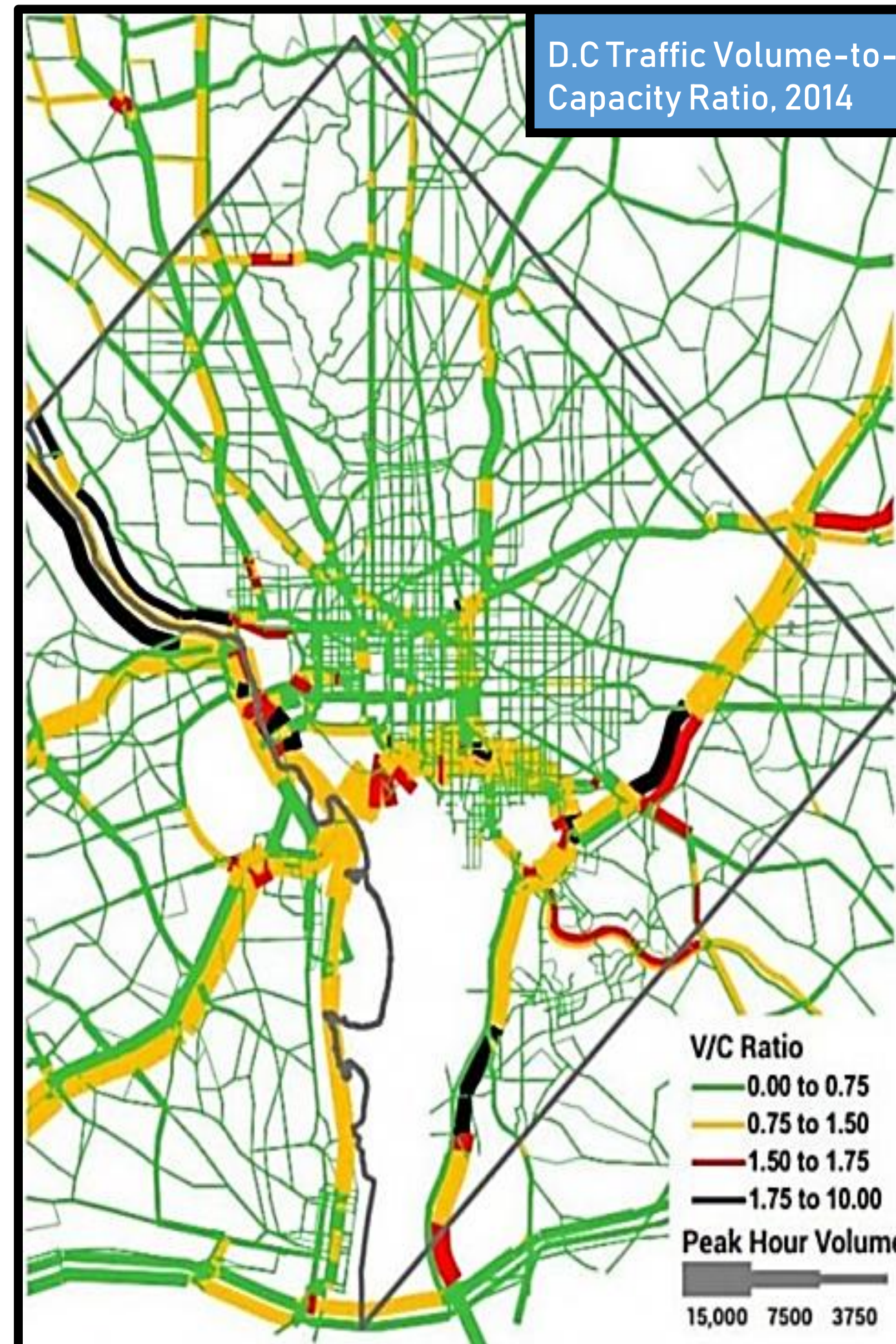
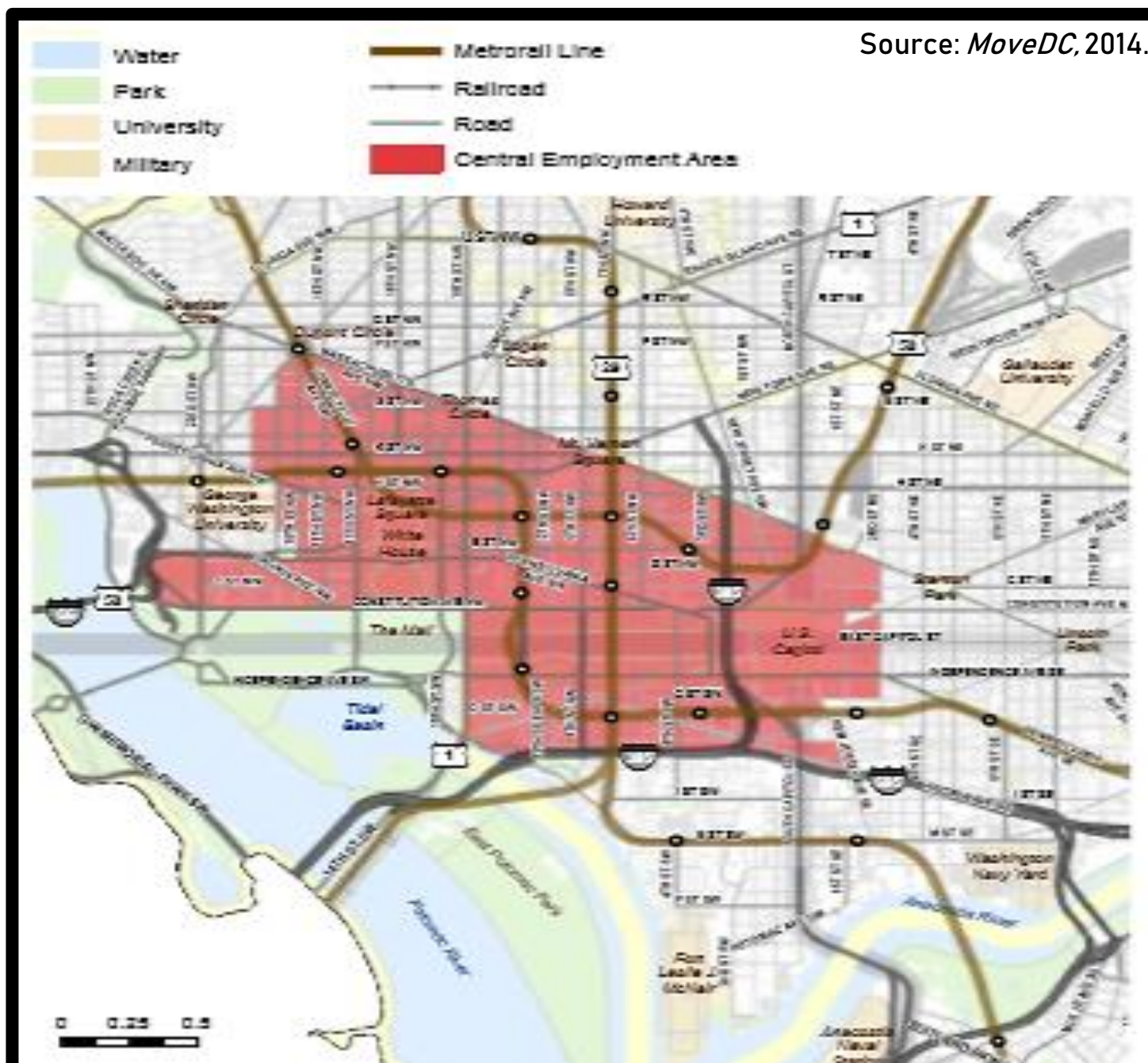
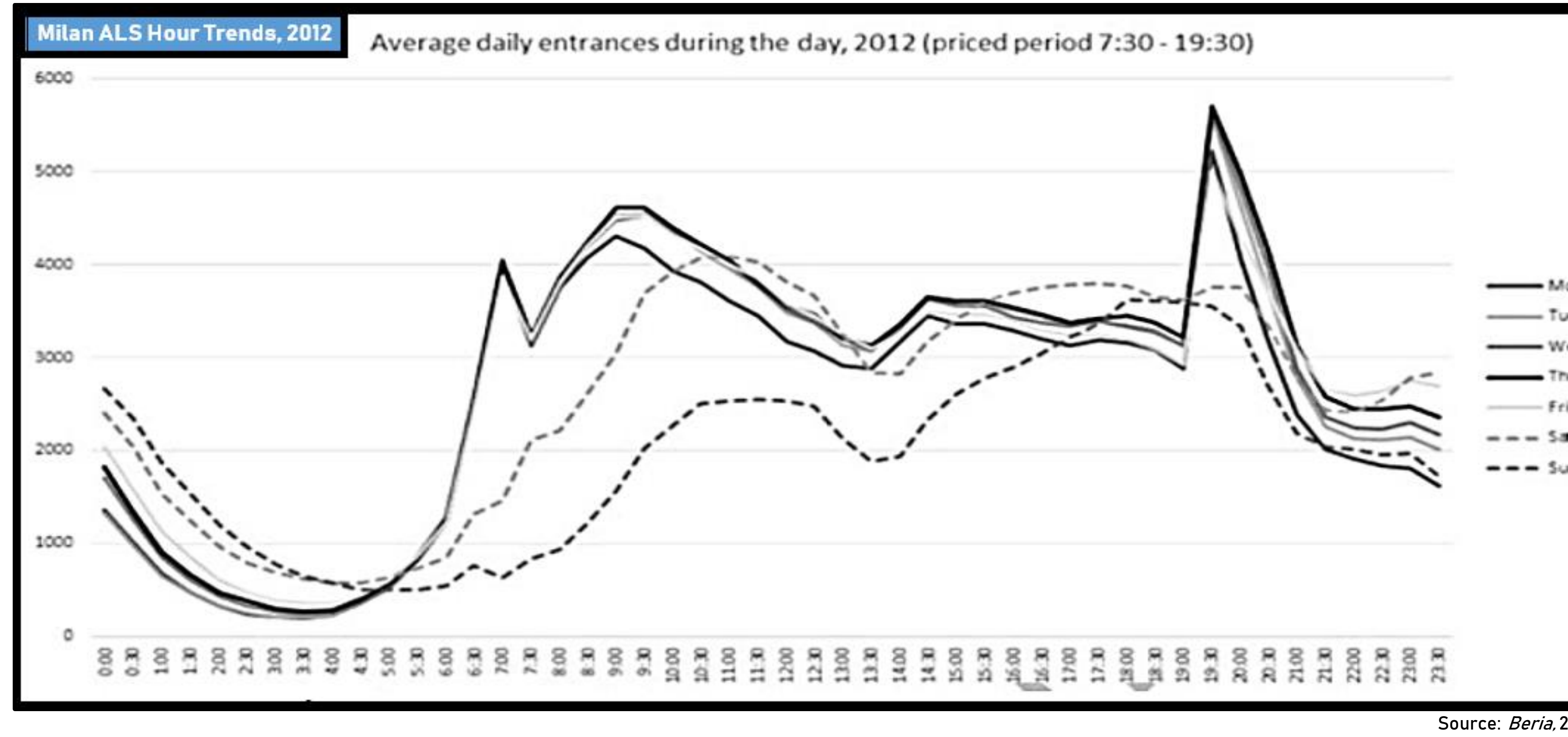


ASSESSING TRAVEL TIME & CAPACITY



CONGESTION PRICING IN PRACTICE

Singapore 1975	London 2003	Stockholm 2007	Milan 2008
<ul style="list-style-type: none"> Originally Area License Scheme & paper based policy. Shifted to ERP in 1998. Goal was to ease congestion in CBD. 44% decrease in traffic volume. Charges vary from \$0 to \$2.80. Other policies imposed include doubling CBD parking rates, park-&-ride scheme, and commuter bus improvement. With ERP, traffic levels decreased by an additional 10%-15% due to fewer repeated trips. 	<ul style="list-style-type: none"> Started out using daily license method, but soon turned to Automated License Plate Recognition (ALPR). All funds raised mandated to be invested towards public transportation. Charge raised from \$8.40 (M-F; 7AM-6:30PM) to \$19.20 (M-F; 7AM-6PM). Other policies include low emission charge zone in 2008 and T-charge of \$16.70 in 2017 for older vehicles. 16% drop in traffic entering zone; 30% for EVs, with speeds improving for buses, bicycles, and taxis. 	<ul style="list-style-type: none"> Began with a six month pilot in 2006 which led into a referendum later that year. 53% voted in favor of the policy. Includes ALPR cameras to monitor and charge the tax. Scheme was extended in 2016 to include an added western ring. Goal is to reduce traffic, increase average speed, and reduce emissions of carbon dioxide. Vehicles pay tax for each entry/exit M-F 6:30AM-6:29PM. CBD tax \$1.70-\$5.30; Ring tax \$1.70-\$4.50 (Max per day is \$15.90). 20% drop in traffic flow. 	<ul style="list-style-type: none"> Small historical city center. Exceeded EU standards for particle exhaust 2002 and 2011. Scheme introduced similar to Singapore's ALS; daily charge for historical center. ECOPASS; ALPR cameras used. Aimed to reduce number of high-polluting vehicles. Too many exemptions at first so scheme renamed in 2012 to Area C, and focus on decreasing congestion Historical center charge M-W&F 7:30AM-7:30PM; TH 7:30AM-6PM at \$7.40; improved bus service. ↓ 34% traffic; ↓ 49% worst polluters.



IMPLICATIONS FOR THE DISTRICT OF COLUMBIA

- Council approved pilot study for D.C for FY2020
- DDOT Partnership with DCST organization

PHASE 1	PHASE 2
<ul style="list-style-type: none"> Broad overview of policy for awareness Qualitative Analysis study Public engagement and outreach to diverse audiences Leverage options 	<ul style="list-style-type: none"> Analyze tools to mitigate trends Quantitative Analysis study Project Analysis Contractors evaluate costs

KEY IMPACTS

- Equity is Top Priority!
- Comprehensive Community Outreach
- Emphasize Public Transportation

CHALLENGES & ALTERNATIVES TO CONSIDER MOVING FORWARD

- District of Columbia Home Rule Act
- Tolling Infrastructure Concerns
- Legislative Mandate Requirements
- Pricing set per mile rather than zone-based
- Pay-as-you-go insurance or road user fee
- Gas tax raise

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