



Washington Metropolitan Area Transit Authority

WMATA Planning for Climate Change Adaptation in an Operating Environment

FTA Climate Change Adaptation Workshop

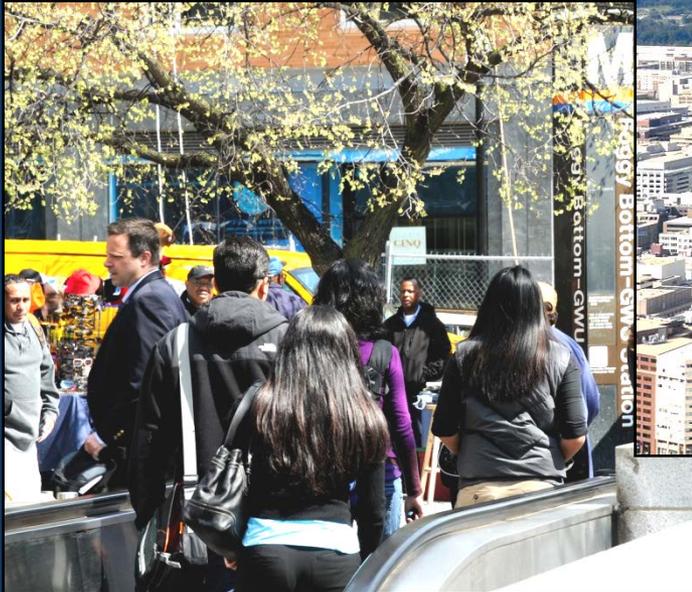
March 21, 2012



Sustainable Transit

- Supports regional economic gains
- Improves environmental quality
- Provides access

Land value near Metrorail generates \$2.8 billion/year in property tax revenues for our funding partners





Metro

- WMATA Compact signed 1967
 - 0 miles of rail
- 40 Years Later
 - 106 miles of rail
 - Regional bus and paratransit network
 - 1.2 million trips per day



What does this mean
for the region?



Results

Metro:

An investment that
produces high returns



Metro: Supports Others in Creating Value



- 28% of the Compact's land value comes from the 4% of its land within a half-mile of Metrorail
- Land value near Metrorail generates \$3.1B / year in property tax revenues to our funding partners
 - \$195m/year from rail "premium"



Metro: Gives access to labor / jobs

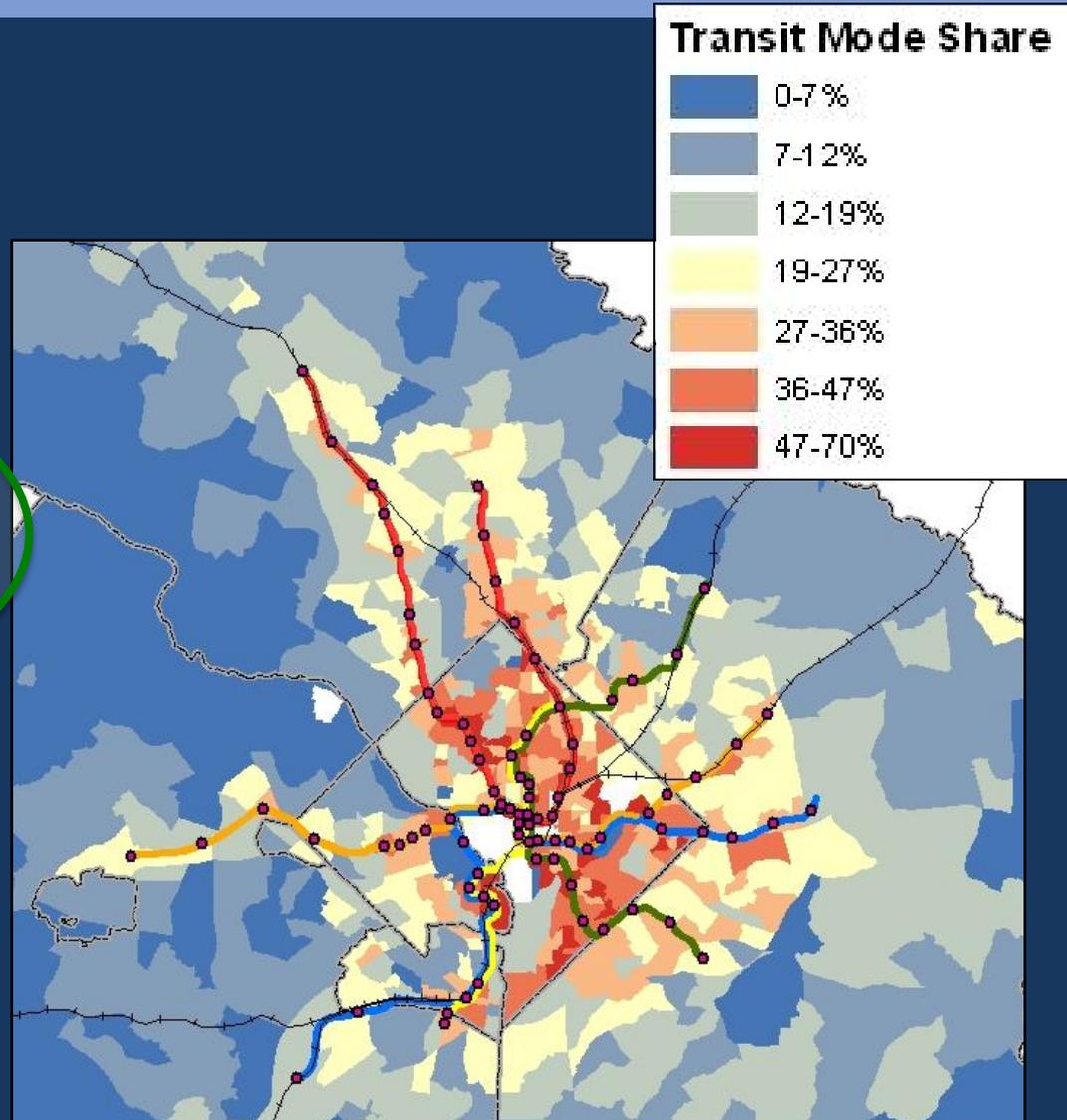
- 2.0 million jobs accessible within a ½ mile of Metro
= 54% of all regional jobs
- 300,000 more jobs accessible within 1 mile of Metro





Metro: Moves the whole region

- A substantial portion of total mobility to *many* parts of the region
- All transit mode share, ¼-mile of station:
 - Office 30%
 - Residential 45%
- Areas with the highest mode share are outside the Core



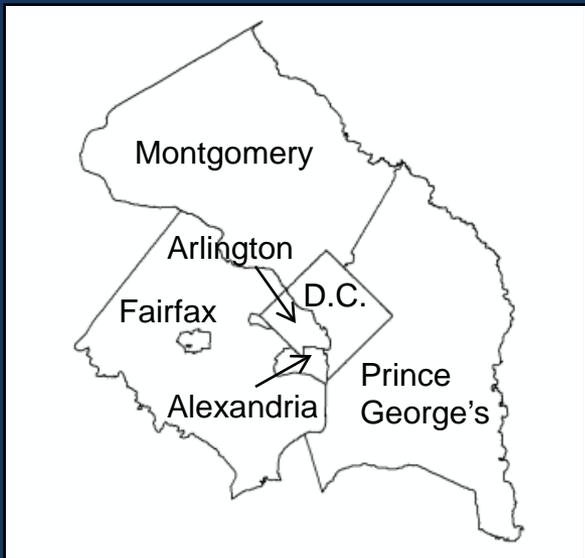


Metro: Moves the Regional Economy



With transit “off”:

- Peak travel times up 25%
- Congestion fractures the regional economy
- Employers lose access to workers
- We lose competitiveness of single economy



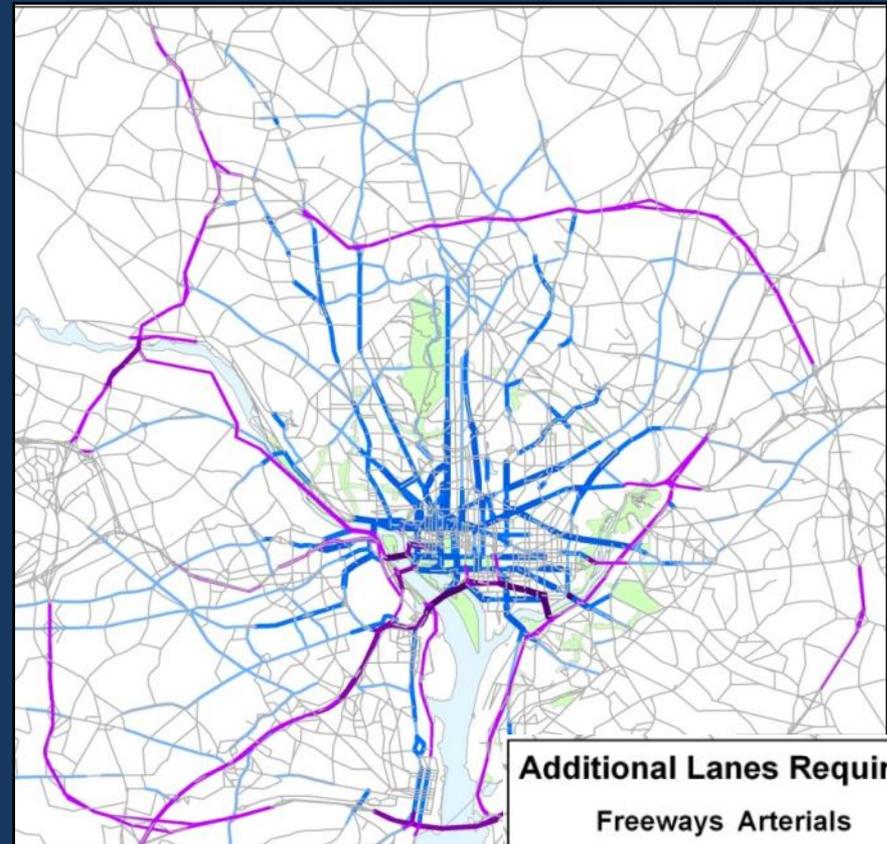
Without Transit

+ 1 million auto trips/day

+ 1,000 lane-miles needed
to keep existing levels of
congestion

=

-
- Equivalent of nearly 2 new Capital Beltways
 - 4-6 new lanes on Potomac crossings
 - ~ \$6.7 billion



Additional Lanes Required

Freeways Arterials

— 0 — 0

— 1 — 1

— 2 — 2

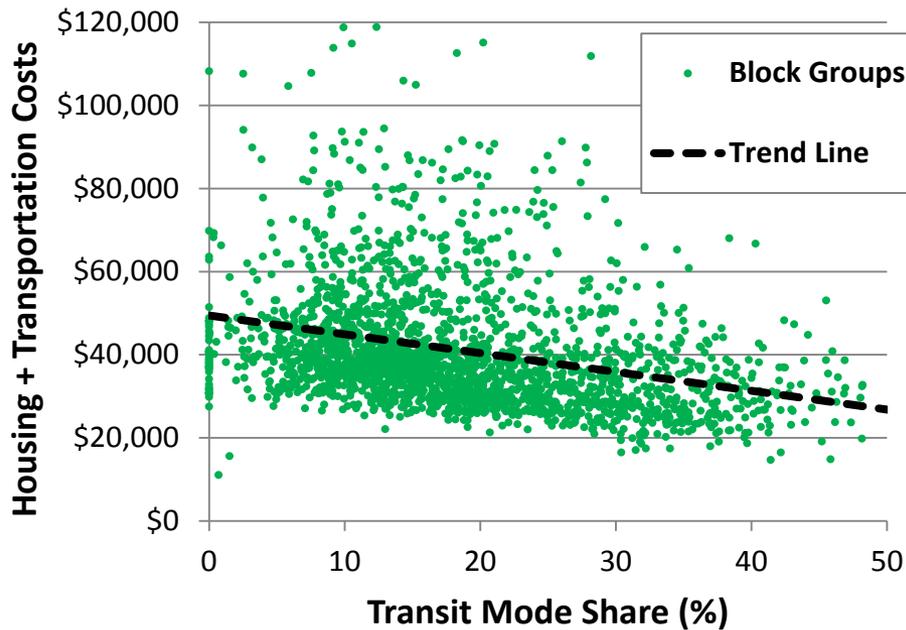
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Metro: Makes the Region Livable



- Saves households time and money
 - Time savings: \$705M/yr
 - Auto savings: \$340M/yr
 - Additional auto savings ~250M/yr



- Cleans the air
- Opens doors for all
- 360,000 trips by car-free households per day



Mitigation - Efficiency Initiatives



Park & Ride lighting upgrade:

- Saves energy
- Provides better lighting & improved safety for customers



Mitigation – LEED Goals



Shepherd's Parkway Bus Facility - LEED design under construction

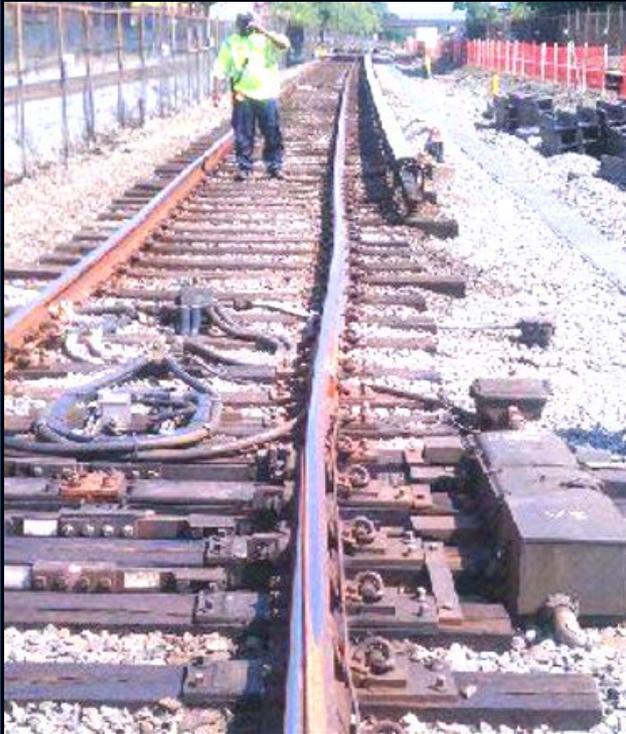


Climate Change Adaptation



Sandbags around National Mall fan shaft & Braddock Road passengers backed up into the street by flooding delays

Climate Change Adaptation



Vulnerable infrastructure results in service delays



Mainstreaming Climate Change Adaptation : Challenges

- Incorporation of economic benefit/impact measures
- Risk evaluation SOGR asset investment prioritization
- Sustainability/business case analysis capital project prioritization
- Responsibility and coordination

