

# Visualize 2045

## Highlights from the Draft Plan

Board Transportation Committee  
October 2, 2018



# Introduction

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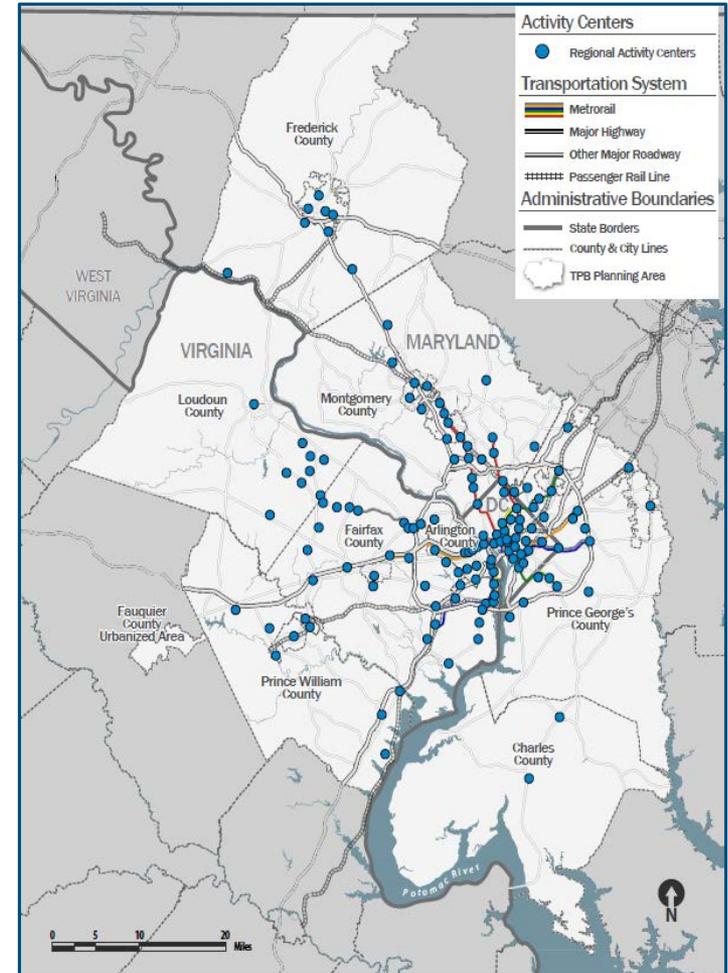
Visualize 2045 aims to help decision makers and the public “visualize” the region’s future by illustrating:

- What the region **aspires to do** if more resources were available
- What the region **can do** with current levels of funding and,
- What the region **must do** to meet federal requirements



# TPB Region

- Approx. 3,500 square miles
- 5.7 million people
- 3.3 million jobs
- 141 Activity Centers



# Our Transportation System

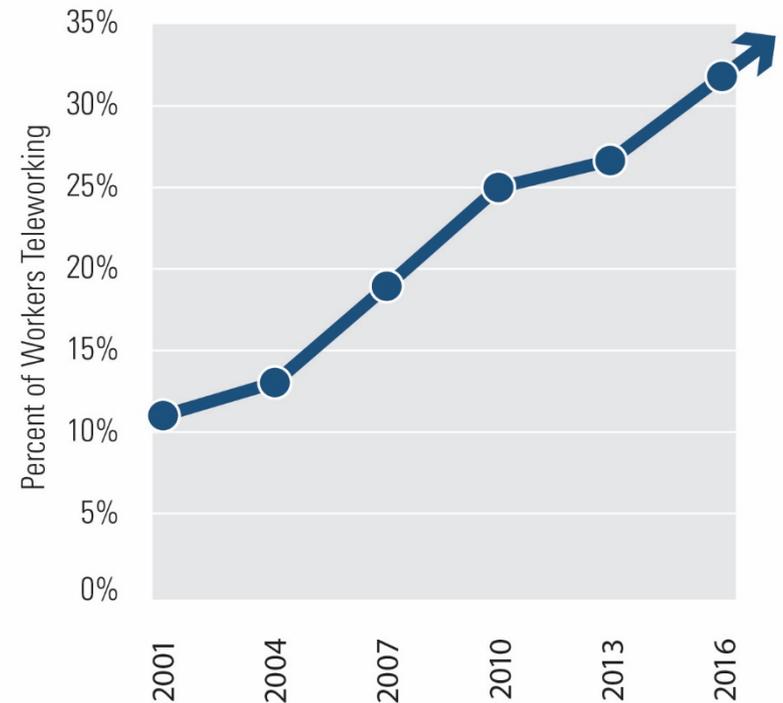
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- More than 17,000 lane miles of highways and major roads
- 118 miles of Metrorail and 91 Metrorail stations
- 167 miles of MARC and VRE commuter rail and 39 commuter rail stations
- Six miles of bus rapid transit, light rail and streetcars
- Over 500 of miles of off-street paved trails and paths for walking and biking and over 200 miles of bike lanes
- Over 15 local and commuter bus systems and over 10 paratransit service providers



# Transportation Trends - Highlights

- The rate of single occupancy vehicle trips has been declining in favor of other modes, although:
  - 41% of all trips are people driving alone
  - 61% of work trips are people driving alone
- Telework, ride-hailing apps, bikeshare (docked and dockless) all on the rise



# Forecast Population Growth

- Population is forecast to grow by 23% between now and 2045
  - 5.7 million people today
  - 6.9 million people in 2045 (approx. 1.2 million more people)
- While the projected rate of growth varies for each jurisdiction, the regional core will grow at the highest rate (35%), followed by the outer suburbs (28%), then inner suburbs (17%)
- Fairfax County and the District of Columbia are forecast to gain the most residents, each planning to grow by over a quarter-million people



# Forecast Job Growth

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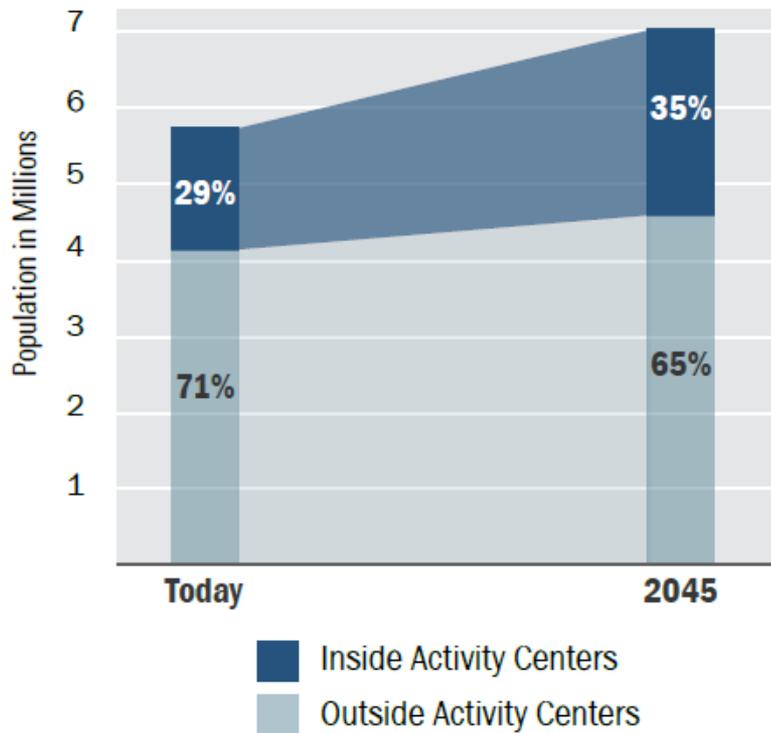
- Regional employment expected to grow 29% between today and 2045
  - 3.3 million jobs today
  - 4.3 million jobs in 2045 (approx. 1 million more jobs)
- Growth is distributed throughout the region, however growth is forecast to be higher on the western side
- Fairfax County and the District of Columbia are forecasted to have the most jobs gained, while the highest rates of job growth are forecasted in Loudoun and Prince William Counties



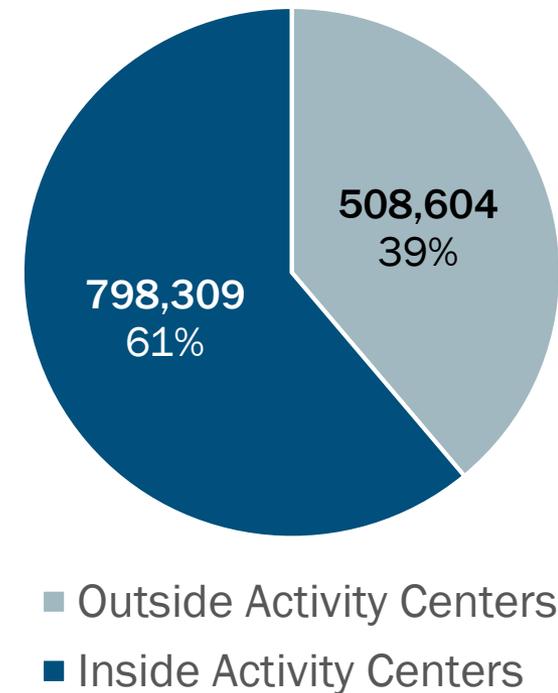
# Growth Inside and Outside Activity Centers

## POPULATION

1,300,000 New People (+23%)



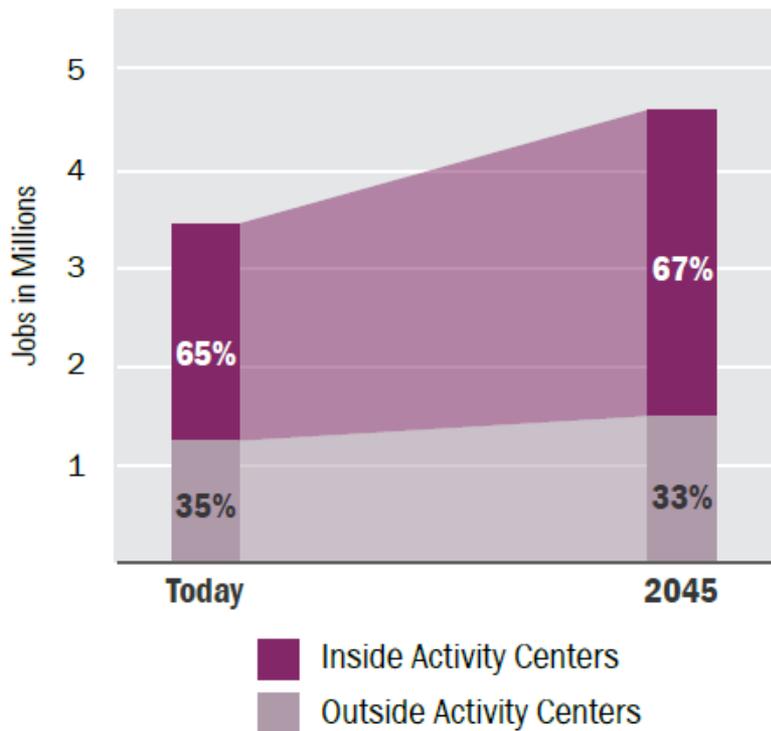
## New Regional Residents Between Now and 2045



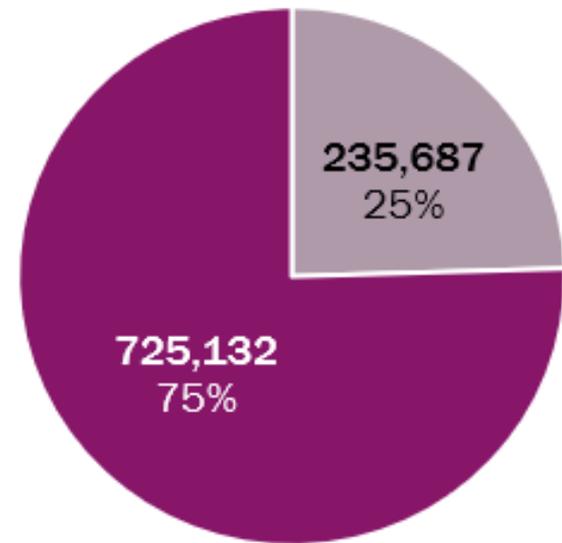
# Growth Inside and Outside Activity Centers

## JOBS

960,000 New Jobs (+29%)



## New Regional Jobs Between Now and 2045



■ Outside Activity Centers  
■ Inside Activity Centers



# Aspirational element

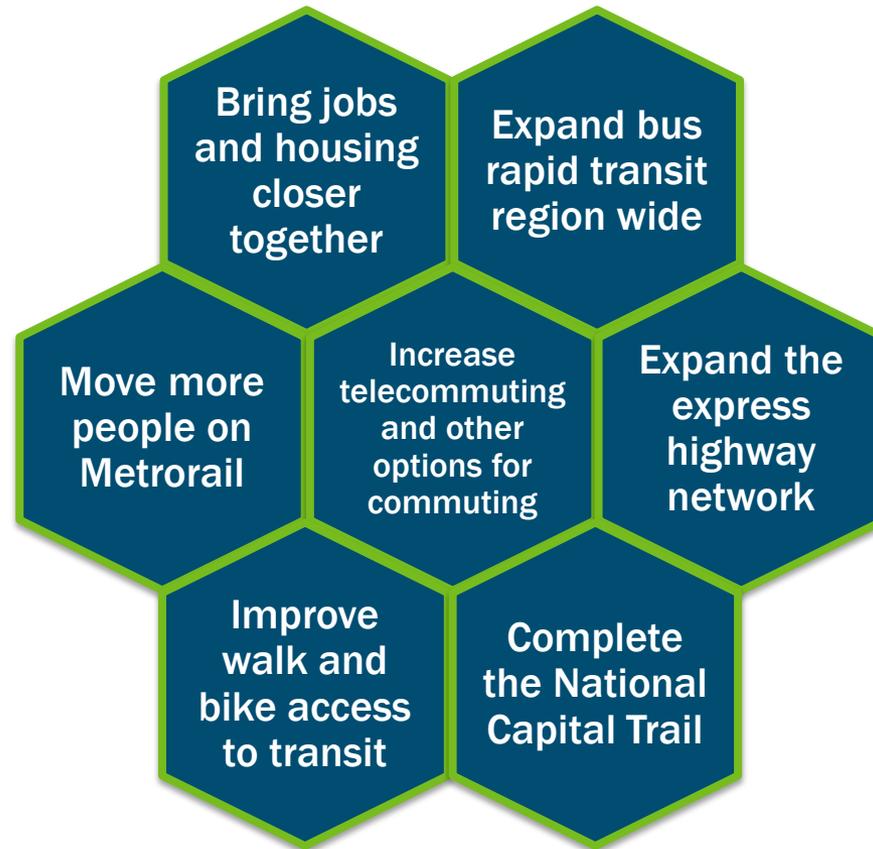
What the region **aspires to do** if more resources were available

(Fort Belvoir Community Hospital/Flickr)



# Aspirational Element

## Seven endorsed initiatives



# Aspirational Element

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TPB's December 2017 endorsement:

The TPB “endorses the attached list of five initiatives, found to have the most potential to significantly improve the performance of the region’s transportation system compared to current plans and programs, for future concerted TPB action, and directs staff to **include these initiatives in the aspirational element of the TPB’s long-range transportation plan, Visualize 2045.**”

\*Jan 2018 TPB passed two others



# Aspirational Element

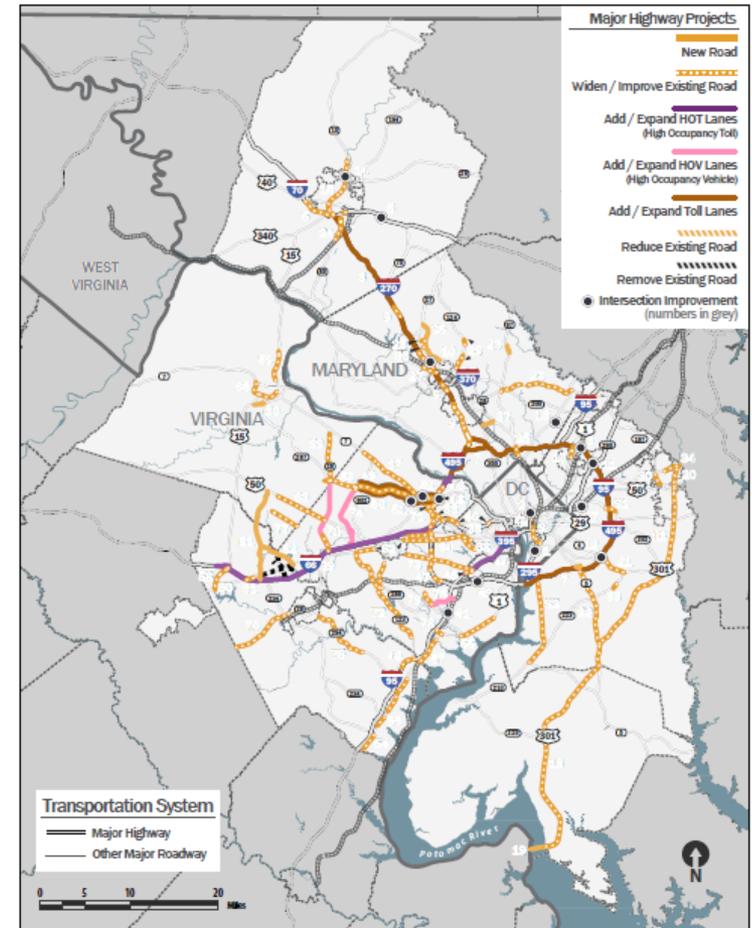
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- Aspirational initiatives are now part of the regional policy framework
- Conducted public forums to learn what people think about the initiatives
- 14 programs highlighted in the plan show how they can support the initiatives
- Highlights projects in the financially constrained element that help support the initiatives



# Projects in the Financially Constrained Element

- Includes more than **100 major projects** that expand or change the region's highway or transit system capacity (see map, right)
- More than **600 projects in total**



# Projects in the Financially Constrained Element

## New Capacity in Visualize 2045

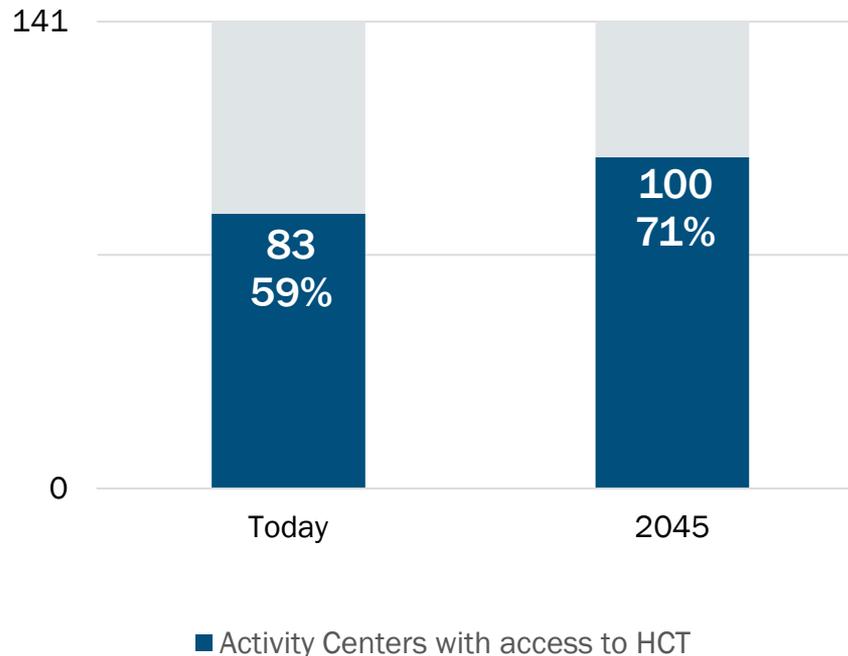
	Roadway	Managed Lanes (subset of roadway)	High-Capacity Transit*
<b>Existing</b>	17,048 lane miles	436 lane miles	292 miles
<b>Added by Visualize 2045</b>	1,388 lane miles	461 lane miles	124 miles
<b>Total 2045</b>	18,436 lane miles	897 lane miles	416 miles

\* “High-Capacity transit” defined to include Metrorail, commuter rail, streetcar, light rail or bus rapid transit.



# Projects in the Financially Constrained Element

More Activity Centers connected to High-Capacity Transit



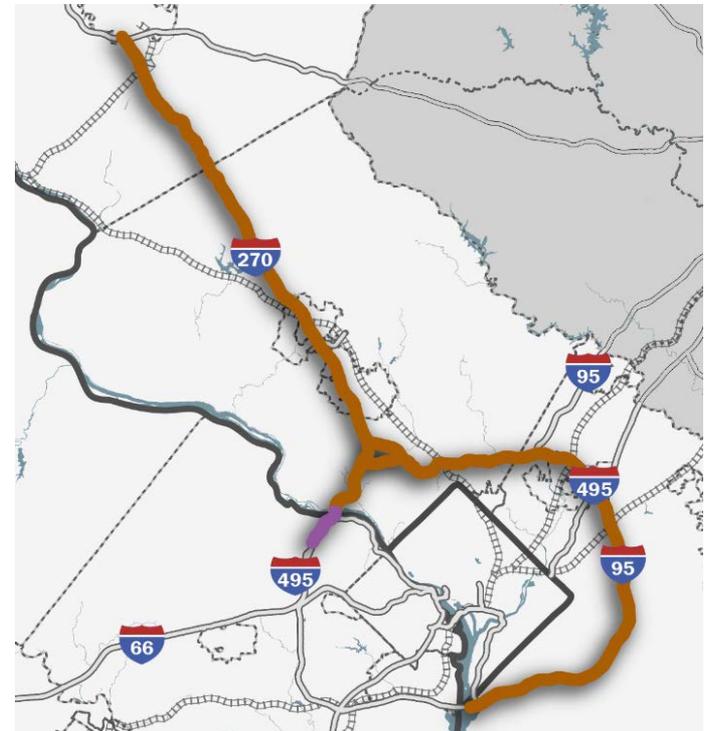
\* "Proximity" defined as within one mile of rail or within ½ mile of BRT.



# Project Highlights

## New I-270 and I-95/I-495 Managed Lanes Projects in Maryland and Changes to I-495 HOT Lanes Project in Virginia

- Complete by 2025
- \$8.1 billion
  - (\$7.6 B in MD, \$0.5 B in VA)
  - Mostly private funding
- 116 new lane miles
  - 56 miles, 2 managed lanes each direction in Maryland
  - 2 miles, 2 HOT lanes each direction in Virginia
- **Expand Express Highway Network**



# Project Highlights

## Metrorail Core Capacity Improvements

- Complete by 2045
- \$5.4 billion
- Implement 8-car trains system-wide during peak periods.
- Make capacity improvements to stations in the core and upgrade power systems
- Removes core capacity constraint
- **Move More People on Metrorail**



# Financial Plan – Key Assumptions (States)

- District of Columbia
  - Revenue growth rate of 2.4% after 2023
  - Most revenue come from general tax revenues
- Suburban Maryland
  - State growth rate of 5%, federal growth rate of 3%
  - Increased private funding to build toll roads
  - Increased contribution to WMATA by the state
- Northern Virginia
  - State growth rate of 2.4%, federal growth rate of 2%
  - More regional revenues to WMATA; reduced NVTAF funds
  - Assumption that state transit capital funding will continue



# Financial Plan – Key Assumptions (WMATA)

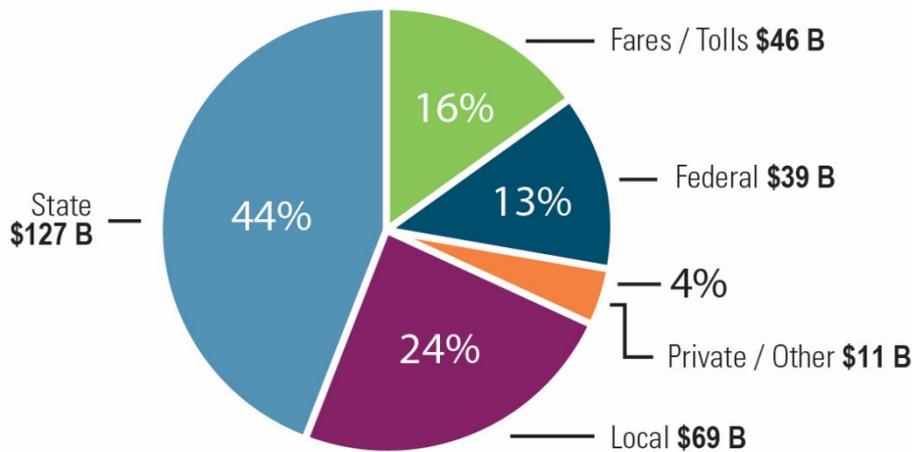
- WMATA inputs
  - Operating revenues and costs based on extrapolation of current trends
  - Capital costs based on Capital Needs Inventory (CNI) and GM/CEO's plan
  - Assumption that PRIIA funding (\$150M/year federal, matched by DC-MD-VA) will be extended through 2045
- TPB staff modified inputs following approval of dedicated funding by DC, MD, and VA
  - New dedicated capital revenues of \$500 million annually begin in 2020 and continue through 2045
  - Removal of transit core capacity constraint from Air Quality Conformity Determination travel demand model



# Regional Revenues: Visualize 2045

## Visualize 2045 Revenues

\$ Billions Year of Expenditure

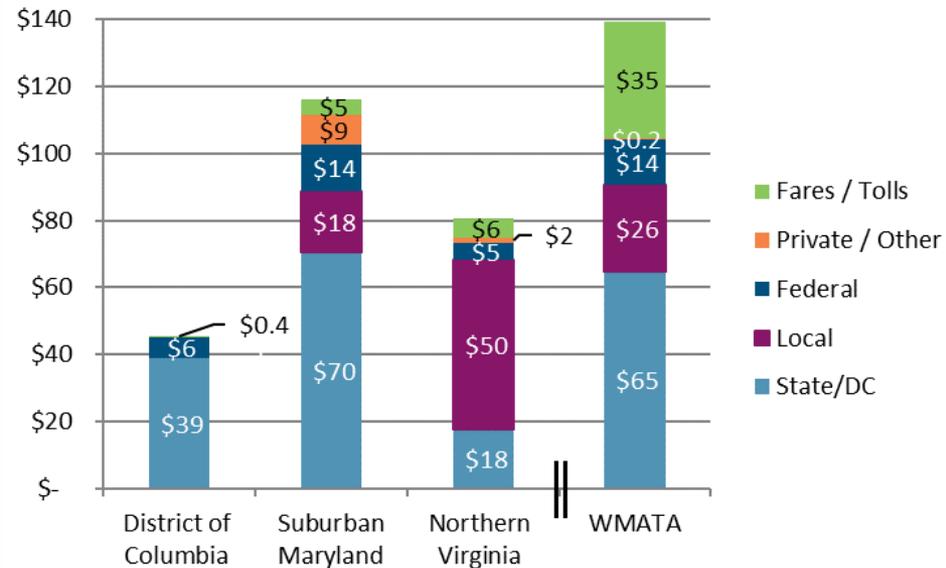


**Total: \$291.1 Billion**

\*Units in Billions

## Revenue Source State & WMATA\*

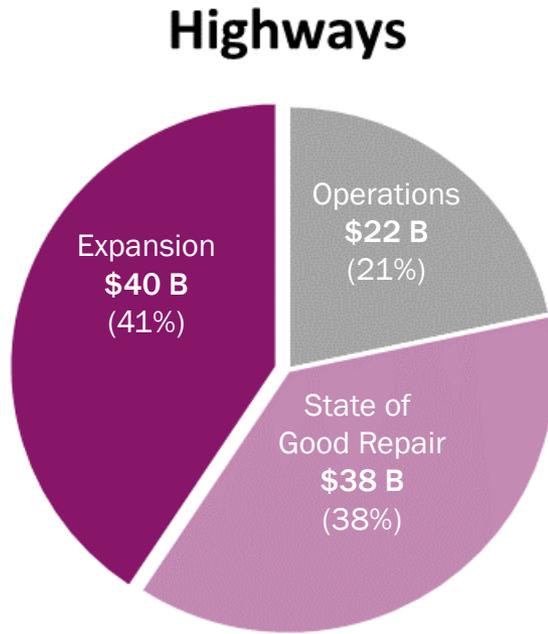
(2019 - 2045)



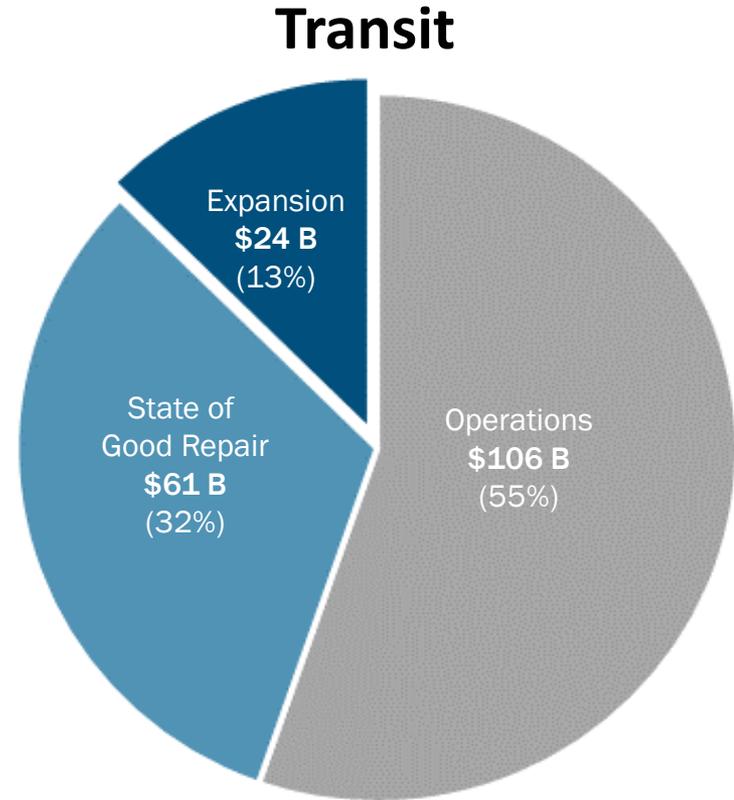
\* Includes funding for public transit and WMATA



# Regional Expenditures: Visualize 2045



**\$99.5 Billion**  
(34% of total expenditures)



**\$191.6 Billion**  
(66% of total expenditures)



# Financial Plan: Conclusions

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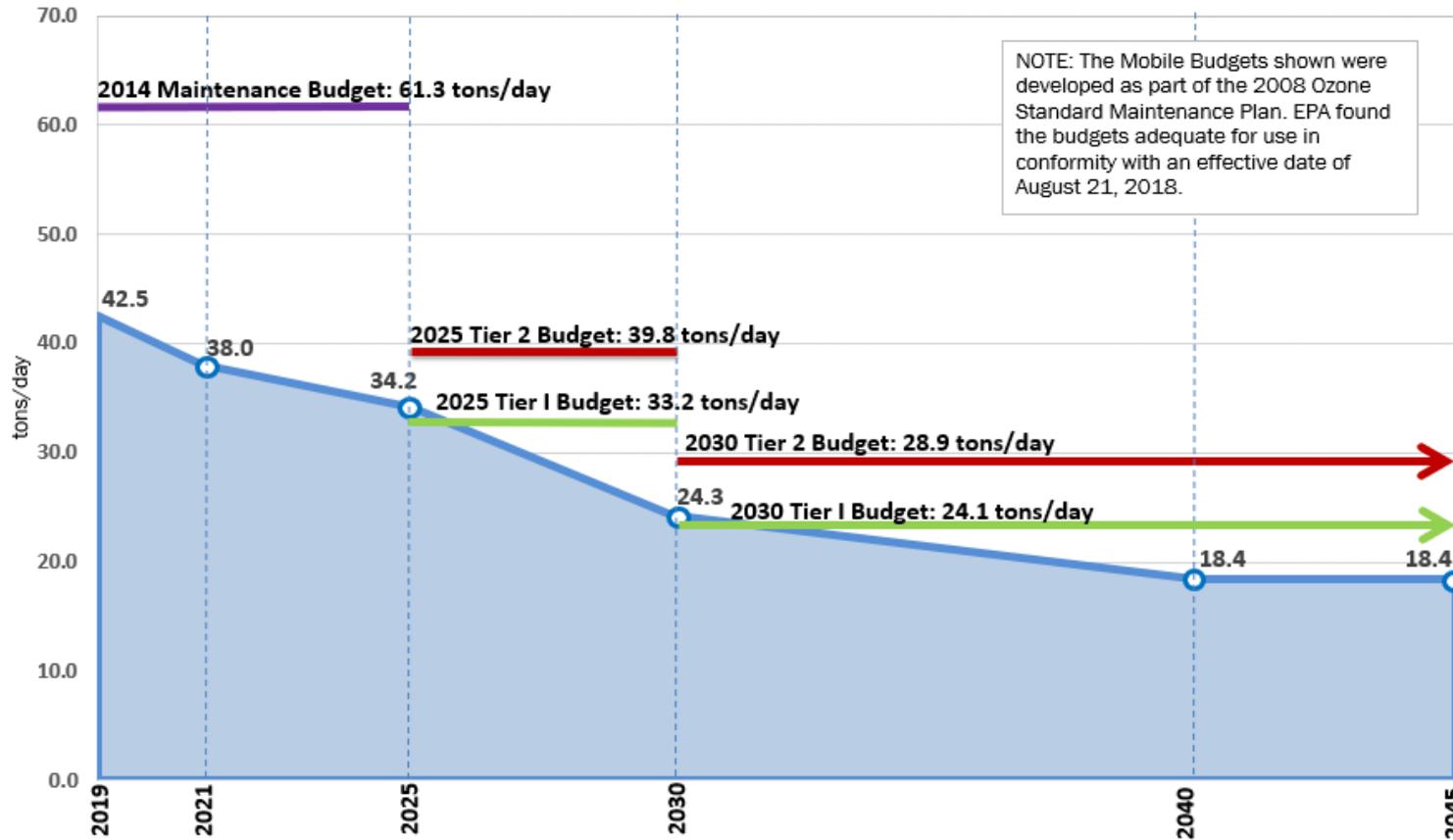
The Financial Analysis demonstrates that the forecast revenues are reasonably expected to be available to implement Visualize 2045

- Demonstrates the region's commitment to maintaining a State of Good Repair for highways and public transportation systems
- Provides for operations and maintenance of the existing transportation system
- Provides for capacity expansion to address forecasted growth in the region's population and economy



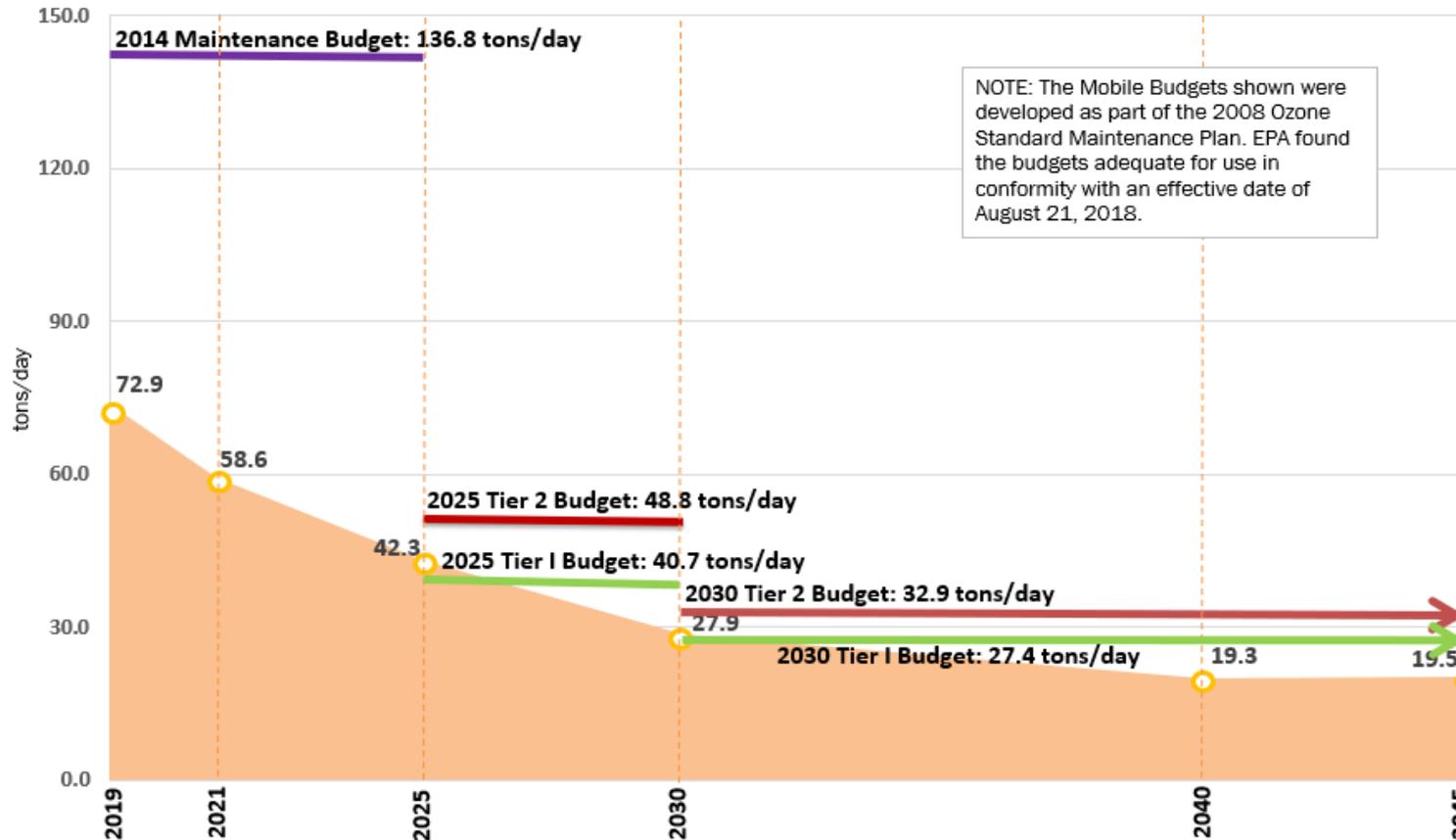
# Air Quality Conformity

## Mobile Source Emissions and Mobile Budgets Ozone Season VOC



# Air Quality Conformity

## Mobile Source Emissions and Mobile Budgets Ozone Season NOx



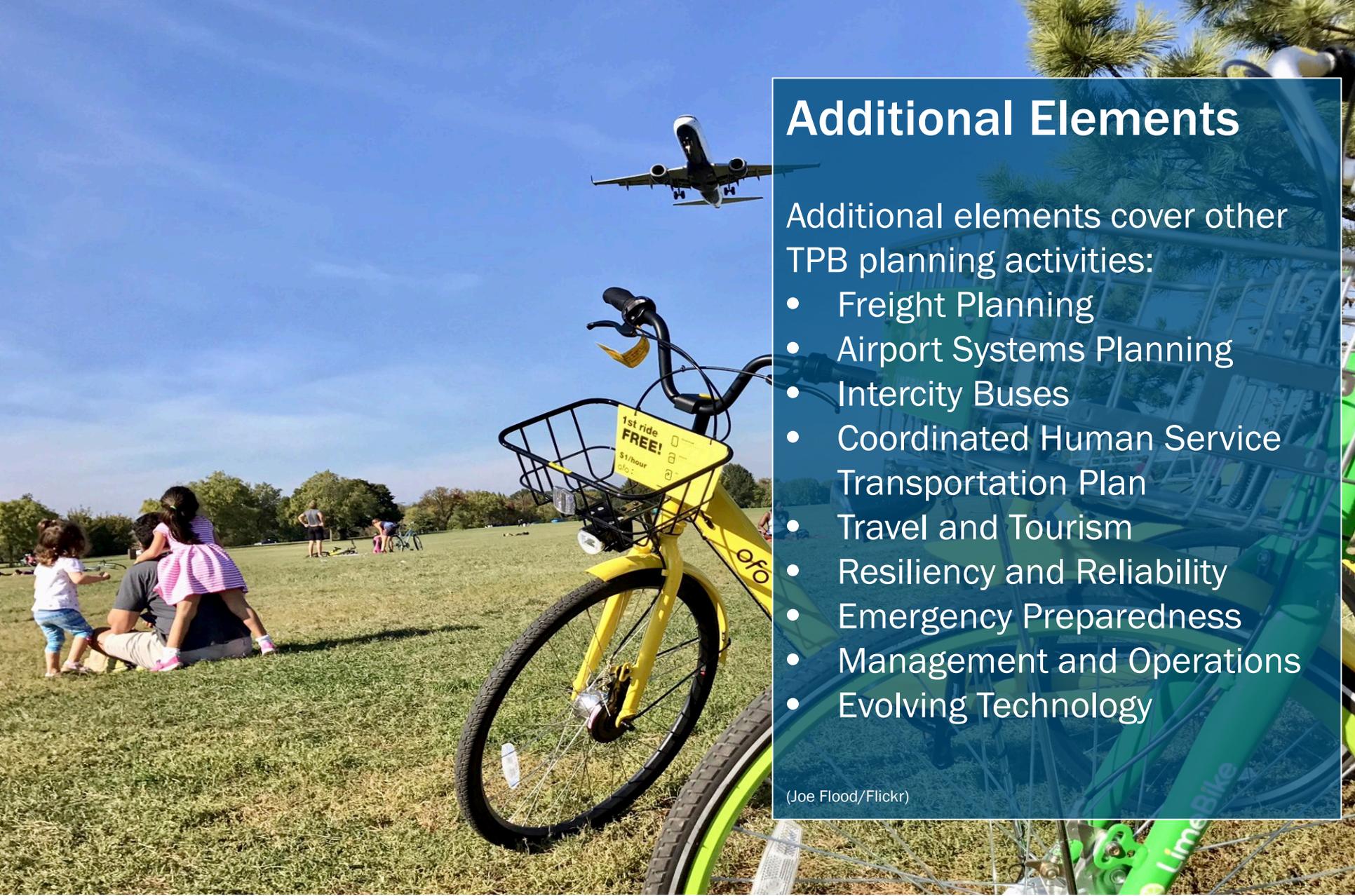
# Performance Planning

Performance Based Planning and Programming, the Congestion Management Process, and Safety

- TPB champions improvements in the ways the transportation system is managed and operated
- Federal laws require target setting and progress reports through PBPP
- Visualize 2045 includes these elements of performance planning as drivers of decision making

(Geoff Livingston/Flickr)





# Additional Elements

Additional elements cover other TPB planning activities:

- Freight Planning
- Airport Systems Planning
- Intercity Buses
- Coordinated Human Service Transportation Plan
- Travel and Tourism
- Resiliency and Reliability
- Emergency Preparedness
- Management and Operations
- Evolving Technology

(Joe Flood/Flickr)



# Bicycle and Pedestrian Planning

- TPB's Bicycle and Pedestrian Plan
- Street Smart
- Two of the aspirational initiatives focus on biking and walking: completing the National Capital Trail and improving walk/bike access to transit



# Land-Use Coordination

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## Land-use and transportation are complex and intertwined

- TPB staff work closely with COG's Department of Community Planning and Services, which informs the TPB about market conditions, real estate development, land-use plans, and growth forecasts for employment, population, and households
- Transportation/Land-Use Connections (TLC) program
- Aspirational initiative focused on bringing jobs and housing closer together



# Equity and Inclusion

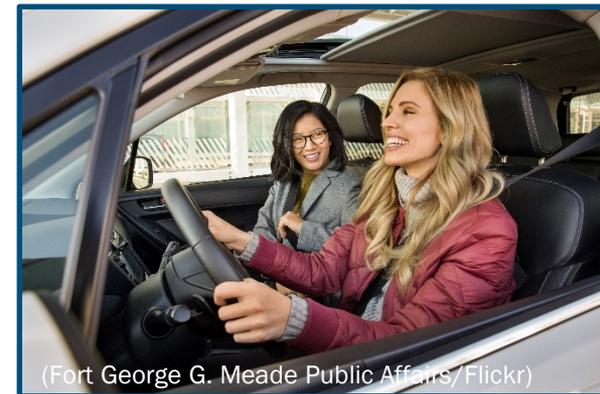
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- Equity Emphasis Areas (EEAs) adopted by TPB in 2017:
  - Small geographic areas that have concentrations of low-income and/or minority populations based on Census data
- EEAs can be used to
  - Examine demographic patterns
  - Analyze the constrained element of the plan for disproportionate and adverse impacts
- Access for All Advisory Committee
  - Advises the TPB on transportation issues, programs, policies, and services important to traditionally underserved communities



# Transportation Demand Management (TDM)

- Commuter Connections is the TPB's TDM program
  - Creates awareness of alternatives to driving alone
  - Promotes and encourages TDM strategies such as employer-based parking cash-out, transit/vanpool benefits, teleworking, and flexible work schedules
- One aspirational initiative focuses on increasing the use of telework and other modes of travel besides driving alone

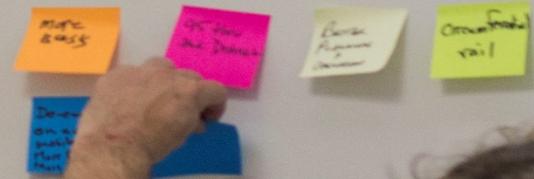
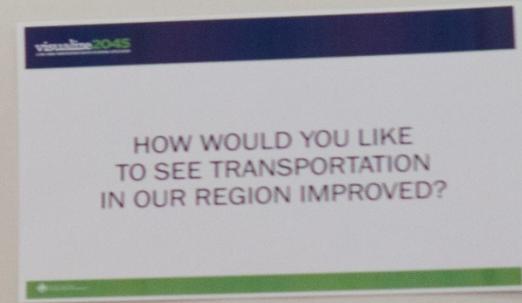


(Fort George G. Meade Public Affairs/Flickr)



# Public Participation

- Public Input Survey
  - Two groups of survey respondents
  - Outreach included 15 survey events, social media, and other promotion
- Public Forums across the region
  - Focus on the aspirational initiatives where input is most needed
- Open Houses
  - 3 Open Houses so people in the region can learn more about the plan



# Public Participation

What people said:

- Frustrations with system reliability
- General familiarity with the aspirational initiatives
- Desire to move more quickly in implementing changes
- Concerns about equity and regional balance
- Calls for thinking “outside the box”

