

2017-2018 REGIONAL TRAVEL SURVEY: ALTERNATIVE TRAVEL OPTIONS

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Presentation Outline

- Purpose of Regional Household Travel Survey
- Regional Travel Survey (RTS) vs. State of the Commute Survey
- Overview of RTS information
- New Alternative Travel Option Questions
- Next steps

Purpose of Regional Household Travel Survey

- Collect empirical data on travel behavior from individual persons and households
- Provide more details, specificity to national level travel behavior data (Census, ACS, etc.)
- Serve as primary source of region specific data to develop travel demand forecasting model
- Inform development of projects, programs and policies supporting transportation planning and programming decisions
- Typically performed every ten years
- Largest single discrete project (on cost basis) in UPWP



Regional Travel Survey vs. State of the Commute Survey

COG's Department of Transportation Planning conducts two random sample surveys focused on trips. Both use an address based sampling methodology.

REGIONAL TRAVEL SURVEY



Once a decade comprehensive survey of all types of trips (both work and non-work trips). Analyzes detailed household and person trips to assist in travel demand forecasting, transportation planning and programming.

COMMUTER CONNECTIONS[®]

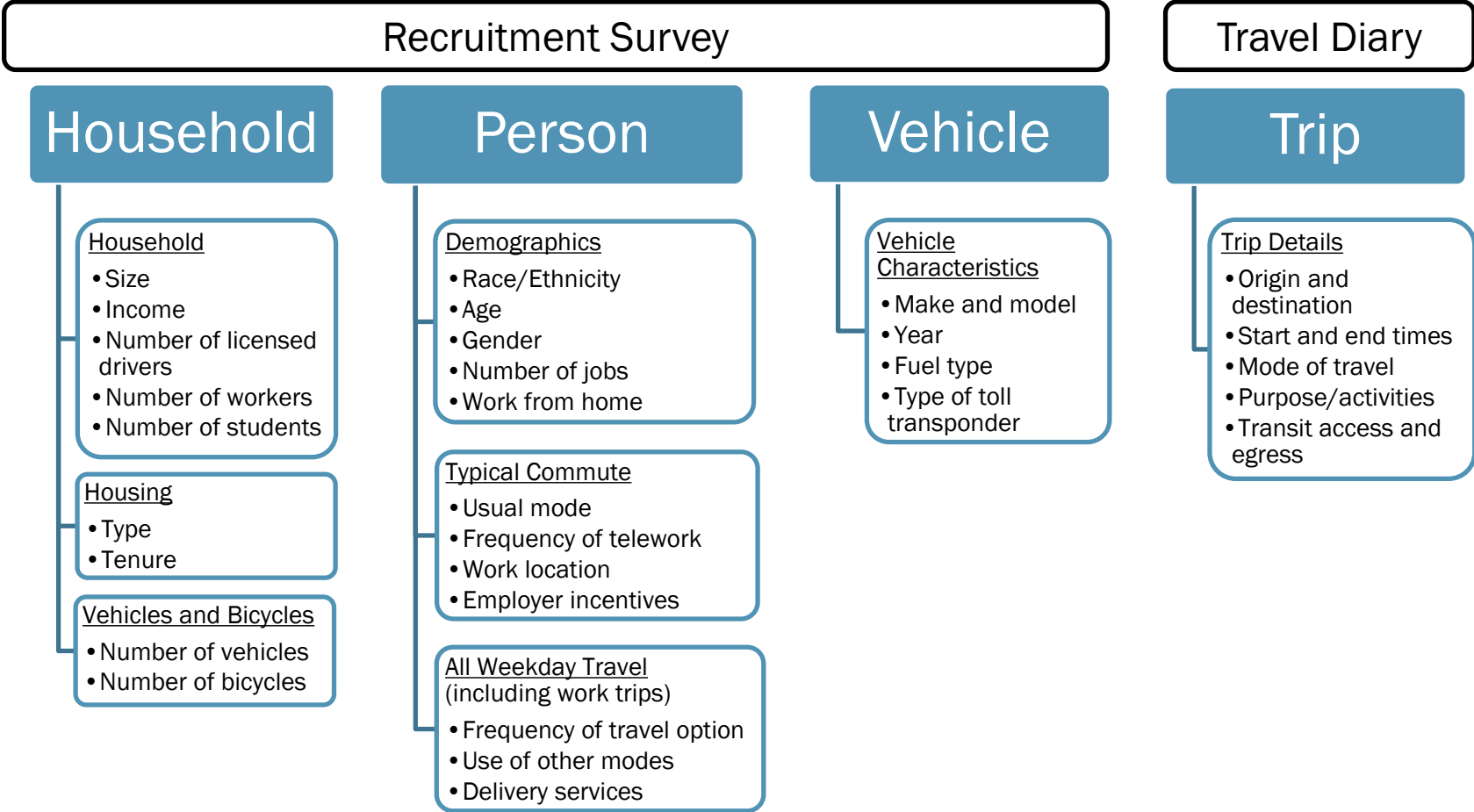
A SMARTER WAY TO WORK

State of the Commute

Triennial survey focused on commute trips. Analyzes commute patterns and attitudes towards alternative modes to evaluate and improve the region's travel demand management efforts.



Overview of Regional Travel Survey Information



Example Cross Tabulations

Number of Vehicles by Household Size (Household Information)

Household Size	No Vehicle	1 Vehicle	2 Vehicles	3 or more Vehicles
1 Person	X	X	X	X
2 Persons	X	X	X	X
3 Persons	X	X	X	X
4 Persons	X	X	X	X
5+ Persons	X	X	X	X

Number of Jobs by Gender (Person Information)

Gender	Unemployed	1 Job	2 Jobs	3 or more Jobs
Female	X	X	X	X
Male	X	X	X	X
Unspecified	X	X	X	X



Preliminary Plan for Release

Phase I – Household, Person, and Vehicle Information

- Alternative travel option questions (New)
- Demographic changes since 2007/08
- Additional analysis of demographics including cross tabulations

Phase II – Trip Information

- Preliminary findings of select indicators from the travel diary
- Changes in reported travel between 2007/08 and 2017/18
- Additional findings from the travel diary



REGIONAL TRAVEL SURVEY



Planning Our Future Together

New Alternative Travel Options Questions

- Inquired how often a person uses these travel options in a typical week
- Focus on travel options that reduce SOV travel and capture recent travel trends since the 2007/08 Household Travel Survey
- Asked of those 16 years and older



Alternative Travel Options

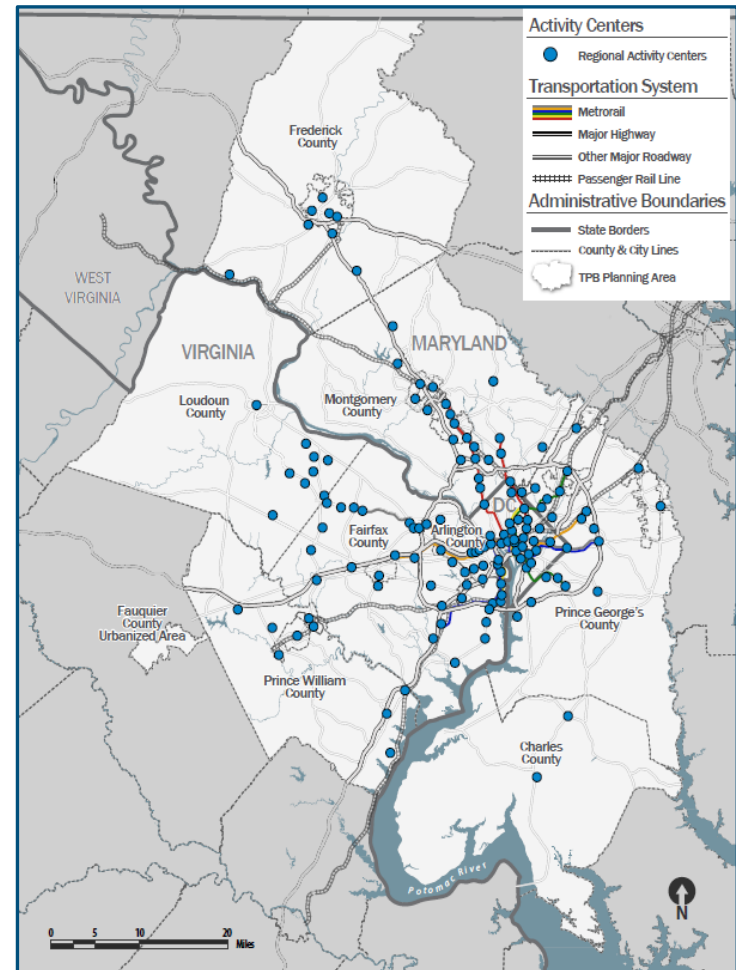
These questions cover:

- A. Modes that reduce the need for a household vehicle (e.g., ride-hailing, public transit)
- B. Optimizing the region's highway system including high-occupancy vehicle (HOV) and recently built high-occupancy toll (HOT) lane facilities
- C. Non-motorized travel (bicycle/bikeshare)



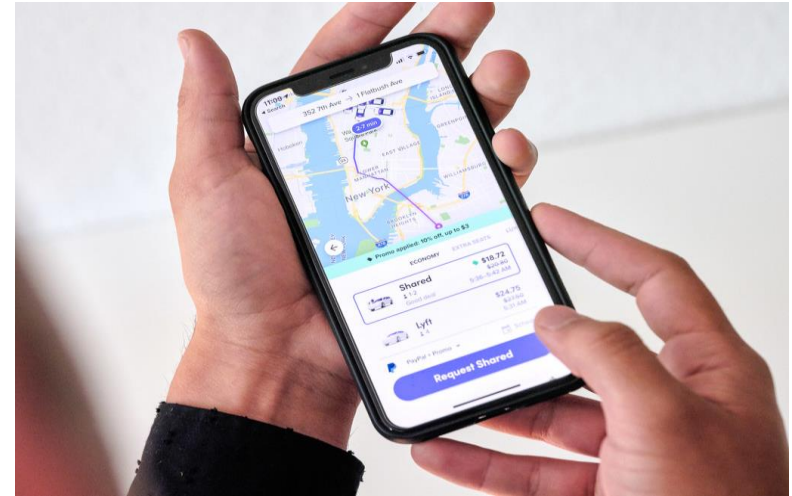
A. Modes that Reduce the Need for a Household Vehicle

1. Ride-Hailing Services
2. Regional and Local Transit Services
3. Delivery Services to Home

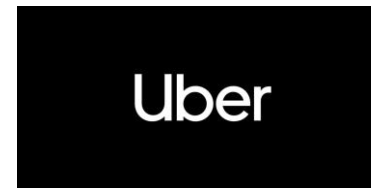


1. Ride-Hailing Services

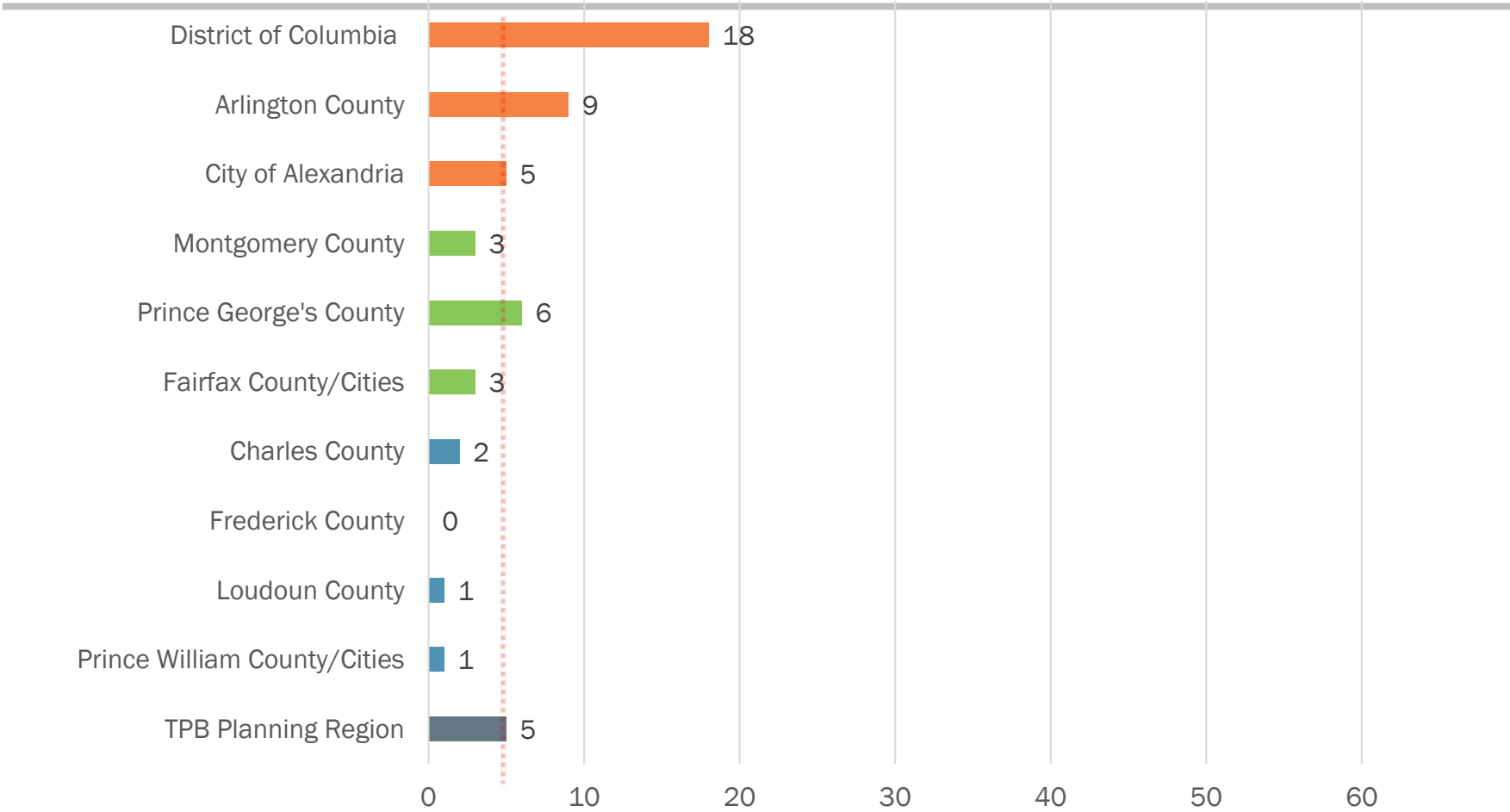
- Also called Transportation Network Companies (TNCs)
- Use smartphone apps to connect passengers with drivers of personal vehicles
- Dynamic pricing based on demand
- Examples include: Uber, Lyft, Via



"Lyft" by danielfoster437



Household Weekday Use of Ride-Hailing Services At Least Once a Week (%)



2. Regional and Local Public Transit

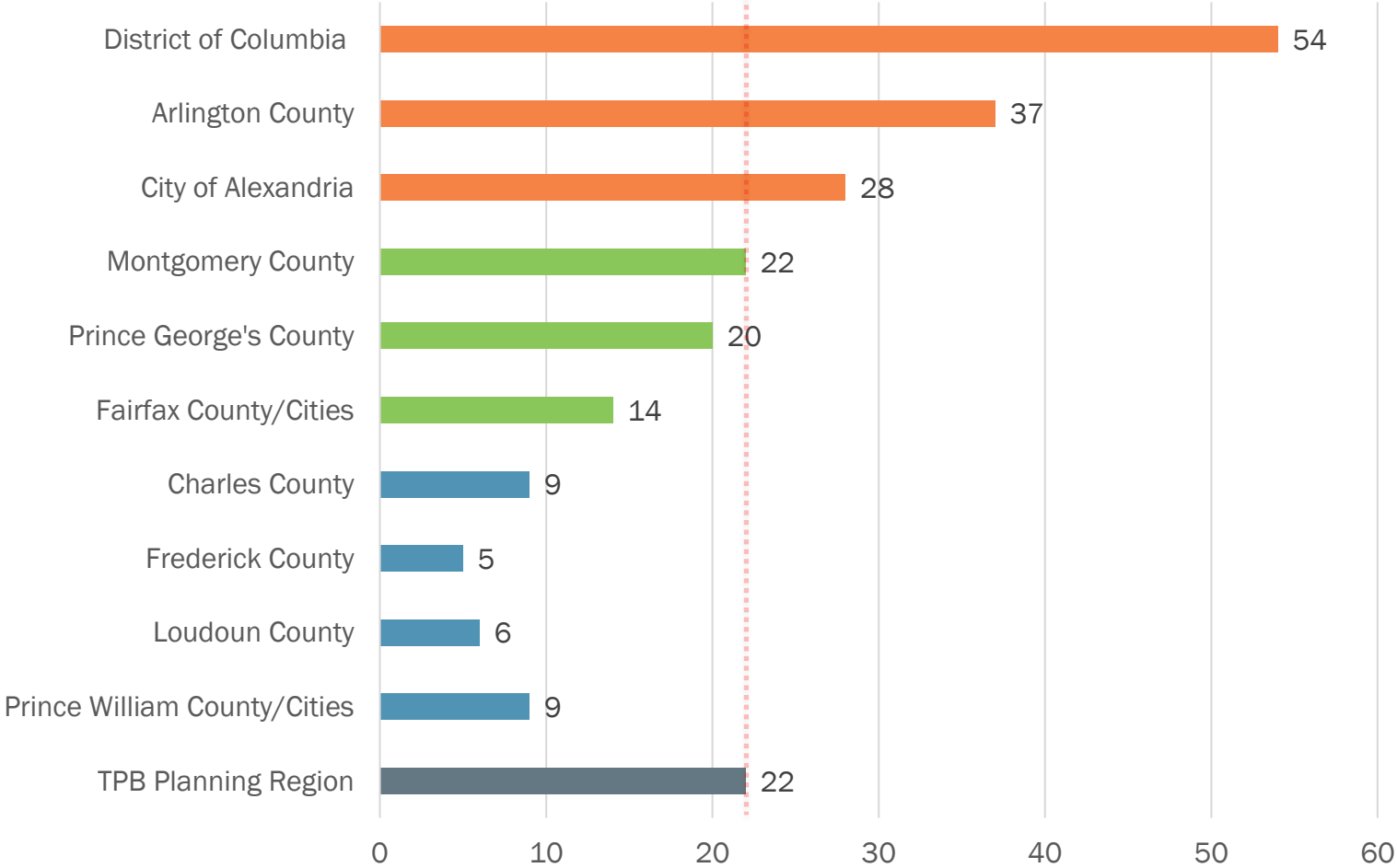
- Regional/local rail options:
 - Metrorail
 - Commuter rail (MARC, VRE)
 - Light rail/streetcar (DC Streetcar)
- Regional/local bus options:
 - Metrobus
 - Commuter bus (e.g., Loudoun County Transit, OmniRide)
 - Local bus (e.g., ART, Ride On)



“Metrobus at Metrorail” (top) and “Farragut West” (bottom) by afagen



Household Weekday Use of Public Transit At Least Once a Week (%)



3. Delivery Services to Home on Weekdays

- Package deliveries:
 - Amazon
 - UPS/FedEx
 - USPS
- Food deliveries:
 - Pizza delivery
 - UberEats/GrubHub
- Home services:
 - Landscaping
 - Cable service



Household Delivery Services to Home on Weekdays (%)

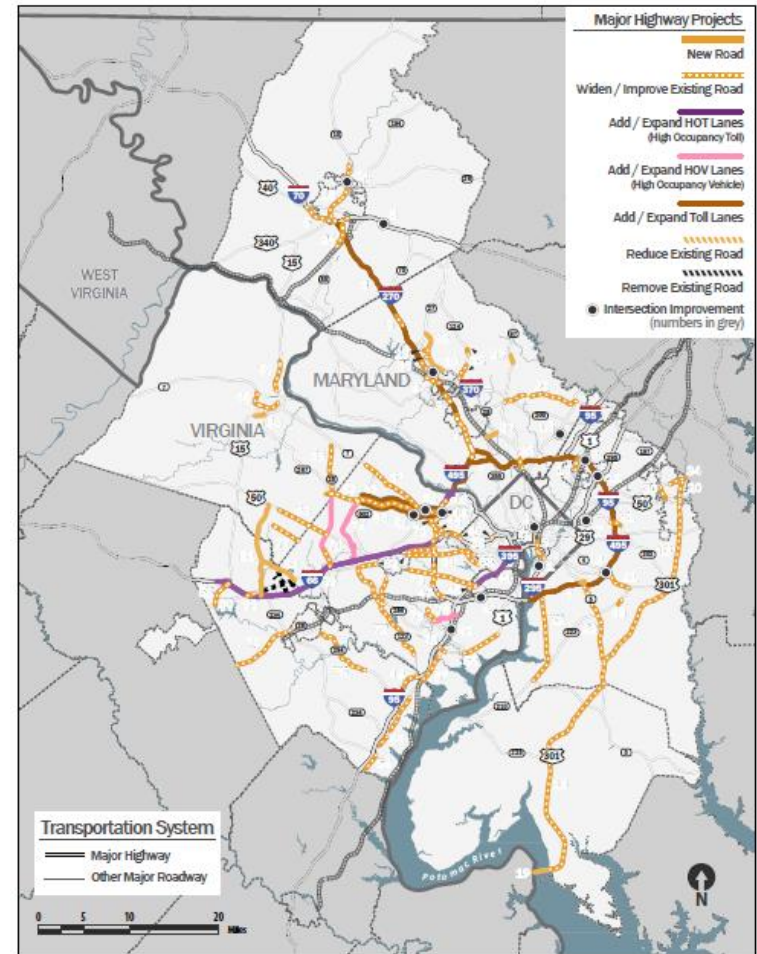
Person File

	Package	Food	Service	Any Type
Core	28.6	4.1	6.4	34.3
Inner Suburb	28.1	3.7	6.6	34.0
Outer Suburb	24.6	2.2	5.6	29.5
TPB Region	27.5	3.5	6.3	33.1



B. Alternative Travel Options to Optimize the Region's Highway System

1. Carpooling and Vanpooling
2. HOV Lanes
3. HOT Lanes and Toll Roads



1. Carpooling and Vanpooling

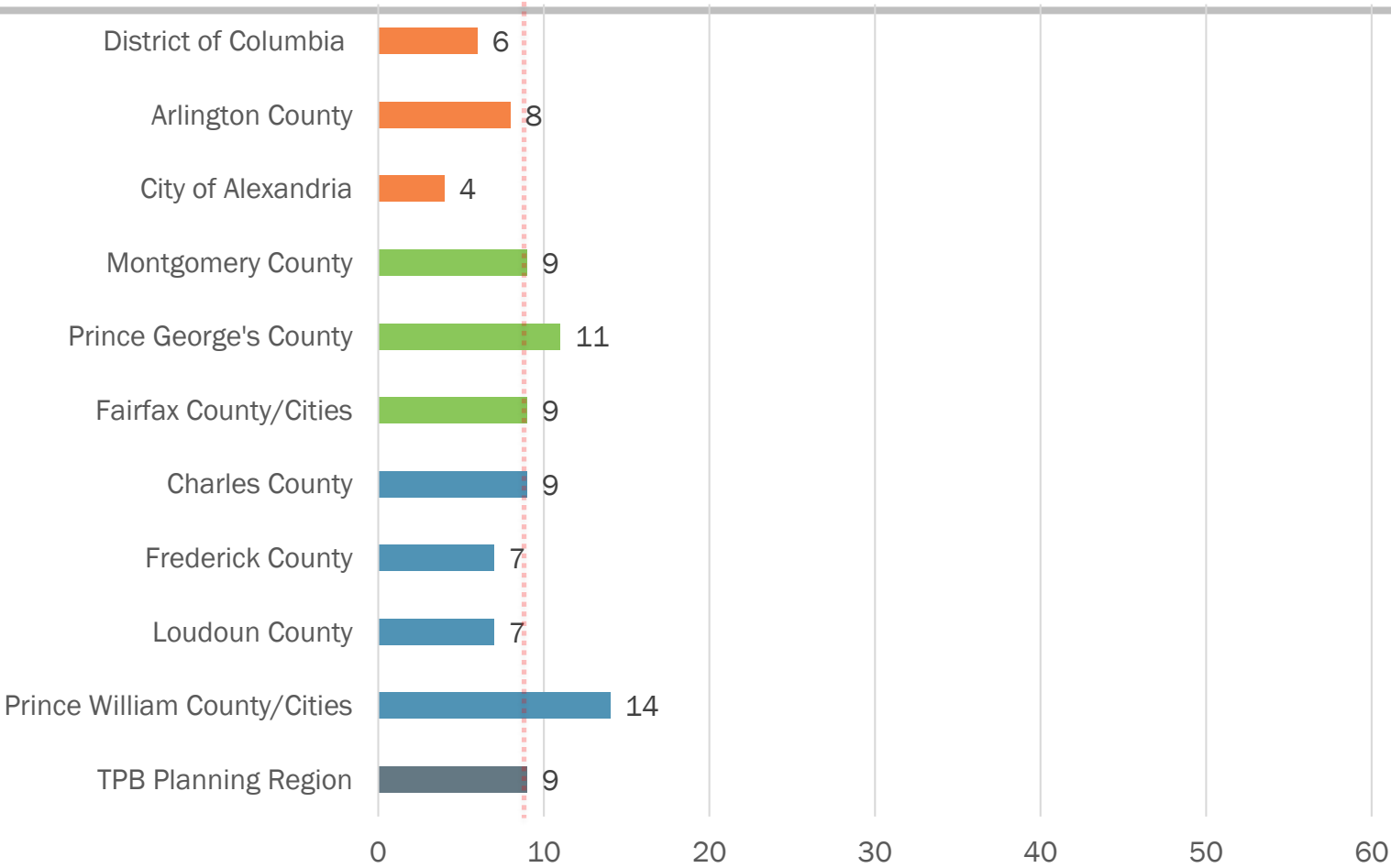
- Commuter Connections offers ridesharing programs to promote carpooling and vanpooling to and from work
- Casual carpooling (“slugging”) allows drivers and non-paying passengers to use HOV lanes
- Carpools/vanpools can be formally arranged via ride-matching services or ad hoc via slug lines



Source: Federal Highway Administration



Household Weekday Commuter Car & Vanpooling At Least Once a Week (%)



2. The Region's HOV Network

- First HOV lane in the U.S. opened in the Washington region (I-395/Shirley Hwy)
- The region's extensive network of HOV lanes help move more persons per lane than general purpose lanes in the AM and PM peak periods
- HOV facilities include: I-66, I-95/395, I-270, I-495 (in VA), VA-267(Dulles Toll Road)



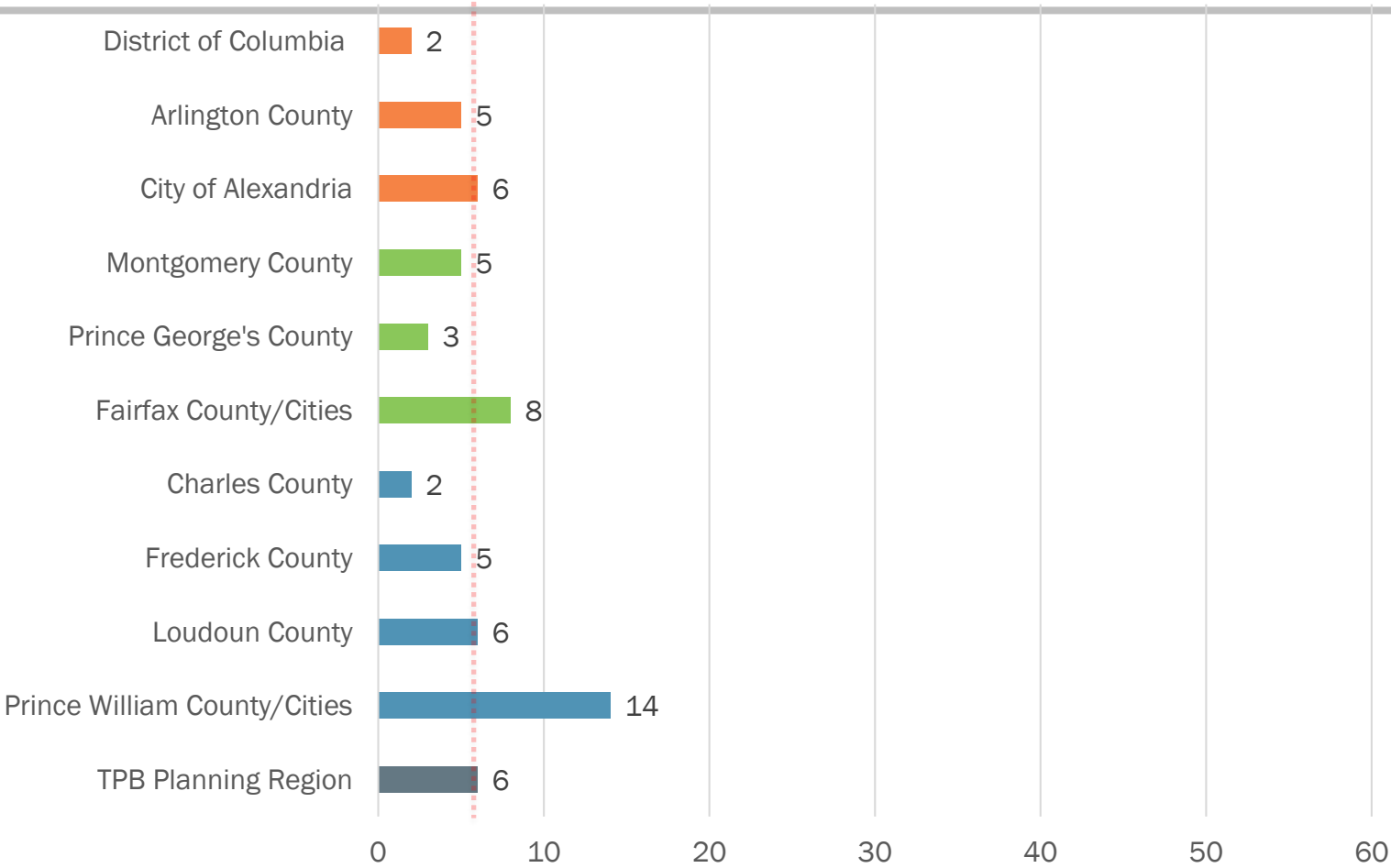
"File:HOV2+ I270 MD 08 2009 7033.JPG" by Mariordo



Source: <https://williamsonsource.com/the-past-and-future-of-hov-lanes/>



Household HOV Use for Weekday Peak Period Travel At Least Once a Week (%)



3. HOT Lanes and Toll Road Use

- HOT lanes and toll road pricing encourage efficient use of the region's limited highway capacity in peak periods
- Examples of HOT Lanes:
 - I-95/495 Express Lanes (VA)
 - I-66 Express Lanes
- Examples of Toll Roads:
 - Dulles Toll Road/Dulles Greenway (VA-267)
 - Intercounty Connector (MD-200)



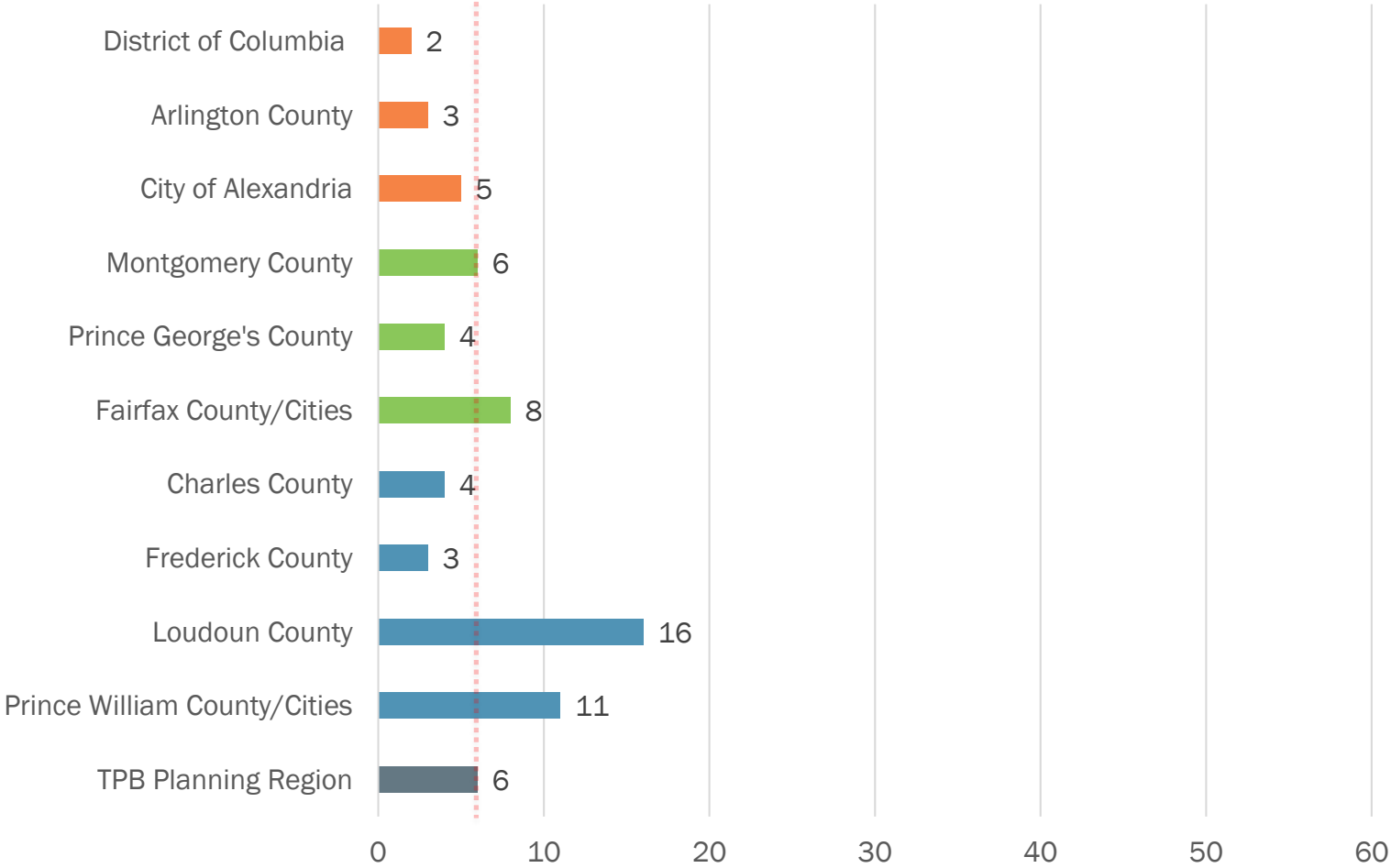
Household Vehicles with Toll Transponders (%)

Vehicle File

	E-ZPass	E-ZPass Flex	Other Transponder	No Transponder
Core	47.7	11.2	0.6	40.5
Inner Suburb	45.5	10.5	0.5	43.5
Outer Suburb	37.6	15.0	0.4	46.9
TPB Region	43.6	11.9	0.5	44.0



Household HOT Lane and Toll Road Use for Weekday Travel At Least Once a Week (%)



C. Bicycle and Bikeshare Travel

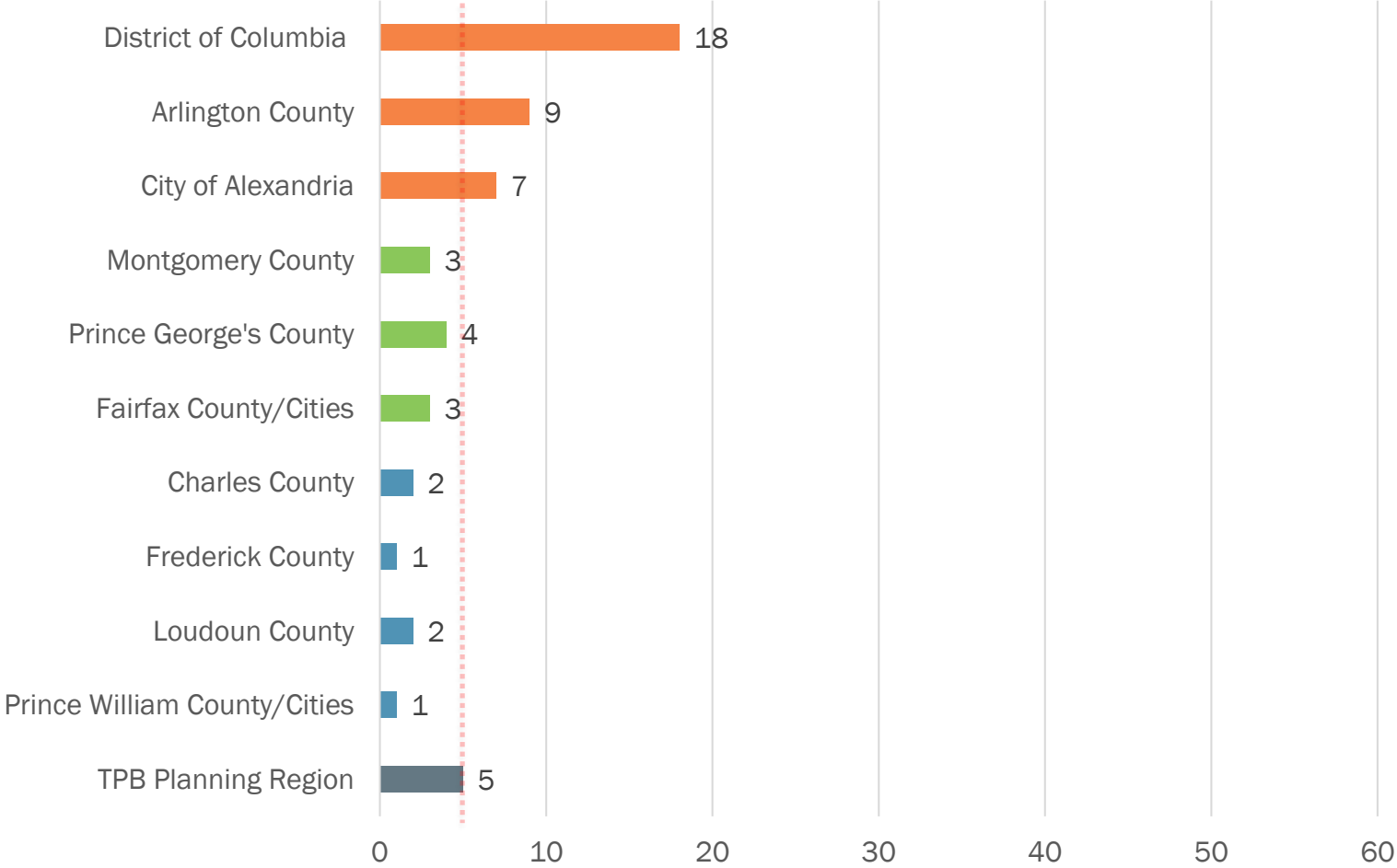
- The region's bicycling network and infrastructure has grown rapidly since 2005
- Capital Bikeshare launched in 2010 and has grown to serve five jurisdictions with 500 stations and over 4,300 bikes
- 48% of the region's households have 1 or more adult bicycles for their personal use



"DC Capital Bikeshare" by James D. Schwartz



Household Weekday Bicycle Use (including Bikeshare) At Least Once a Week (%)



Summary of Findings

- Ride-hailing is most heavily used in the core
- Public transit is used widely across the region, especially in the core and inner suburban areas
- Car and vanpooling rates do not vary as much regionally as other alternative travel modes
- HOV lanes, HOT lanes, and toll roads/bridges are utilized most by suburban commuters
- Bicycle and bikeshare use most prevalent in the core



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