

# 2017-2018 REGIONAL TRAVEL SURVEY BRIEFING: ALTERNATIVE TRAVEL OPTIONS

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# 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.



Once a decade comprehensive survey of all types of trips (both work and non-work trips). Analyzes detailed household and person trips to develop COG/TPB's regional travel demand forecasting model.



Triennial survey focused on commute trips. Analyzes commute patterns and attitudes to evaluate the effectiveness of COG/TPB's commuter services programs.

# Overview of Regional Travel Survey Files

## Household File

### Household

- Size
- Income
- Number of licensed drivers
- Number of workers
- Number of students

### Housing

- Type
- Tenure

### Vehicles and Bicycles

- Number of vehicles
- Number of bicycles

## Person File

### Demographics

- Race/Ethnicity
- Age
- Gender
- Number of jobs
- Work from home

### Typical Commute

- Usual mode
- Frequency of telework
- Work location
- Employer incentives

### All Weekday Travel (including work trips)

- Frequency of travel option
- Use of other modes
- Delivery services

## Vehicle File

### Vehicle Characteristics

- Make and model
- Year
- Fuel type
- Type of toll transponder

## Trip File

### Trip Details

- Origin and destination
- Start and end times
- Mode of travel
- Purpose/activities
- Transit access and egress



# 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

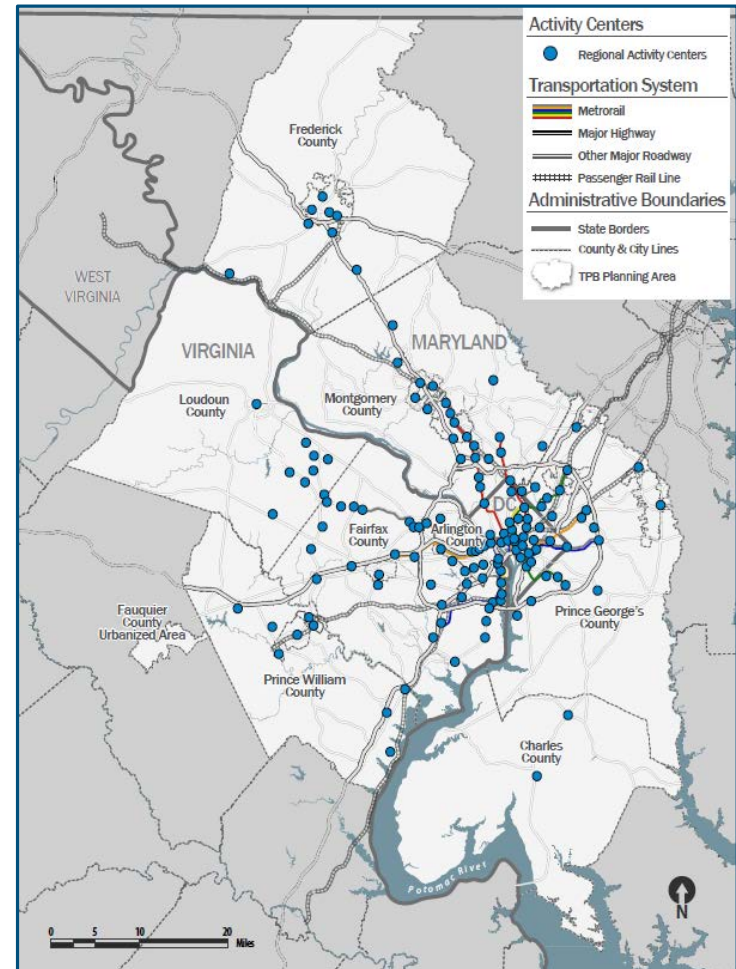
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- These questions cover:
  - Modes that reduce the need to own a household vehicle (e.g., ride-hailing, public transit)
  - Use of the region's highway system including high-occupancy vehicle (HOV) and recently built high-occupancy toll (HOT) lane facilities
  - Non-motorized travel (bicycle/bikeshare)



# Modes that Reduce the Need for a Household Vehicle

- Ride-Hailing Services
- Regional and Local Transit Services
- Delivery Services to Home



# Number of Vehicles (%)

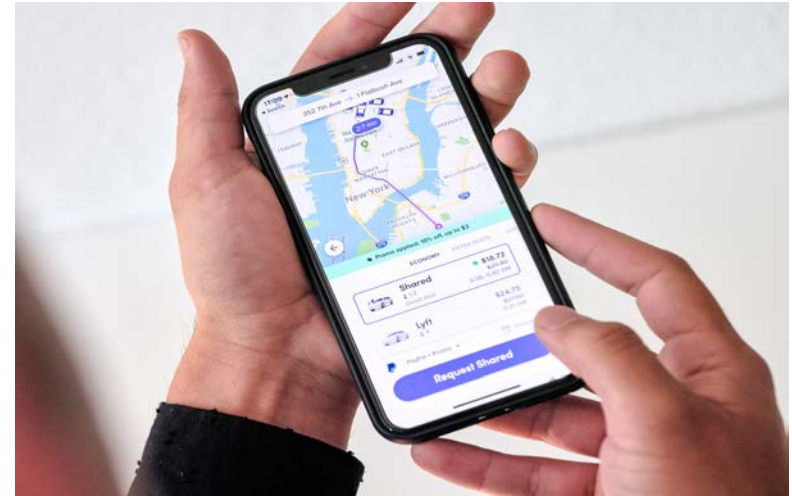
## Household File

	No Vehicle	1 Vehicle	2 Vehicles	3+ Vehicles
Core	24.5	49.6	21.8	4.1
Inner Suburb	4.4	32.5	43.4	19.8
Outer Suburb	1.2	21.4	45.4	32.1
TPB Region	8.5	34.1	38.7	18.7
Regionwide, '07/'08	6.9	32.4	40.9	19.9



# 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

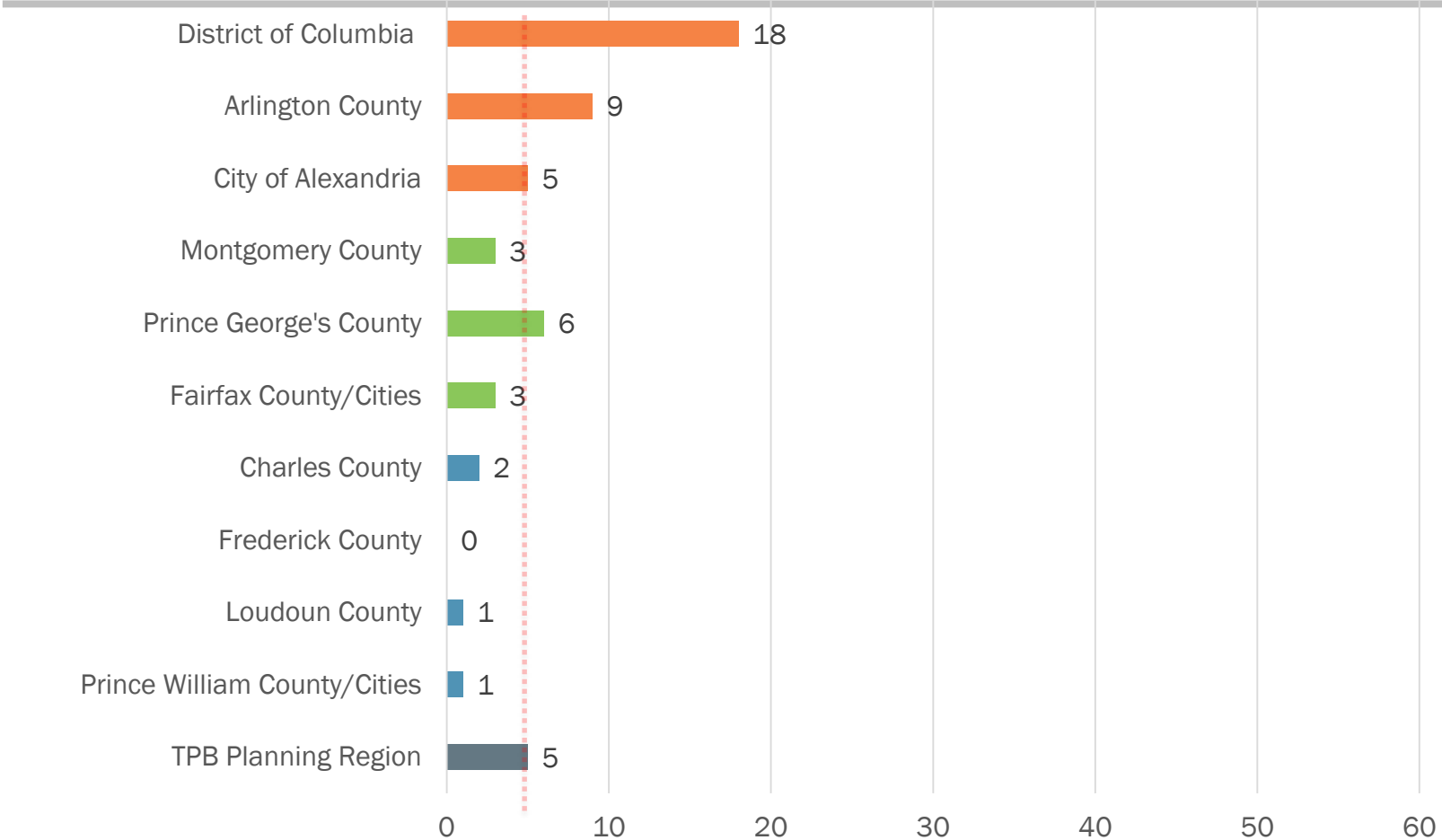


"Lyft" by danielfoster437





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



# Regional and Local Public Transit

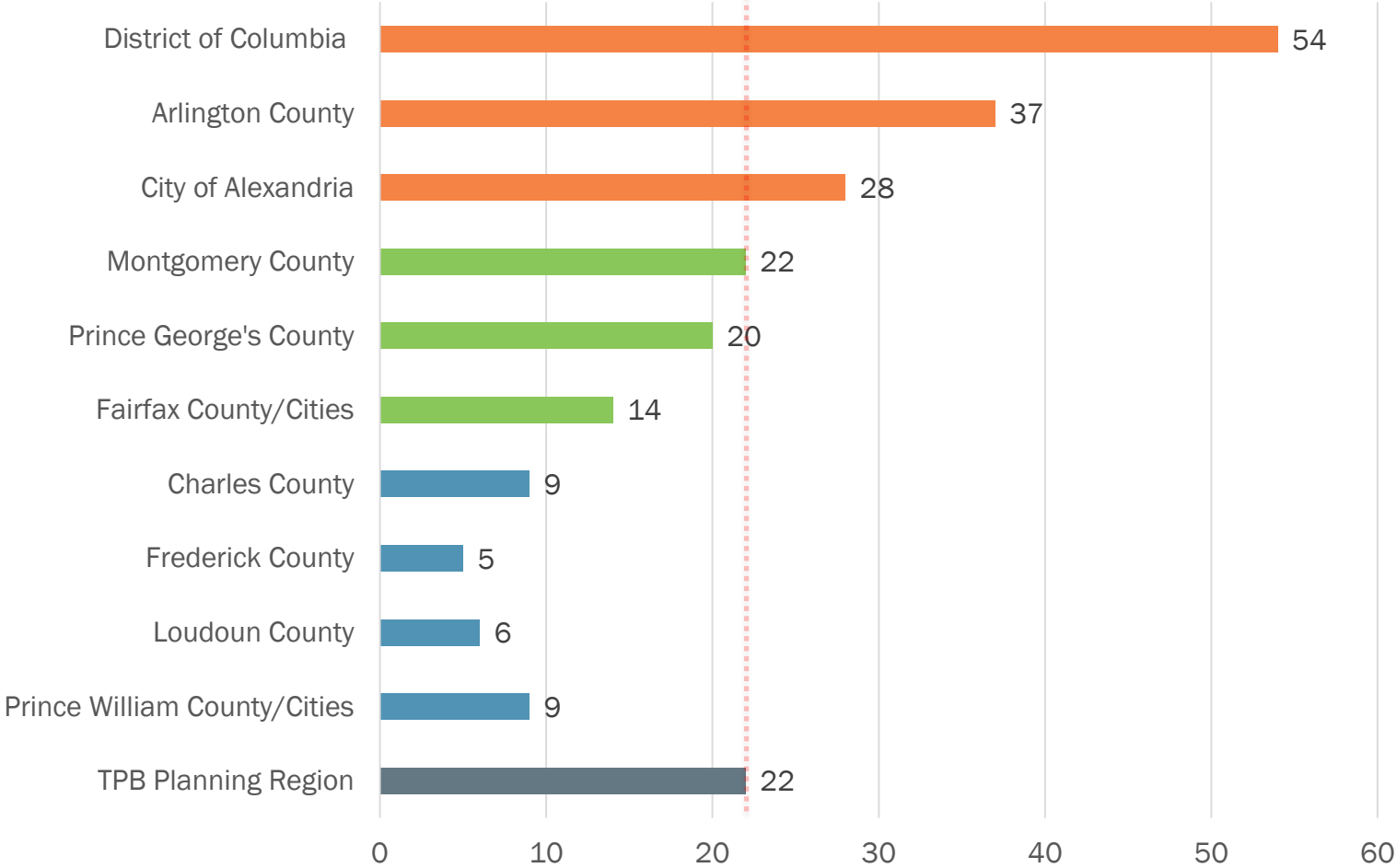
- Regional/local rail options:
  - Metrorail
  - Commuter rail (MARC, VRE)
  - Light rail/streetcar (DC Streetcar)
- Regional/local bus options:
  - Metrobus
  - Commuter bus (e.g., Loudoun County Transit, OmniRide)
  - Local bus (e.g., ART, Ride On)



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



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



# Delivery Services to Home on Weekdays

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



# Delivery Services to Home on Weekdays (%)

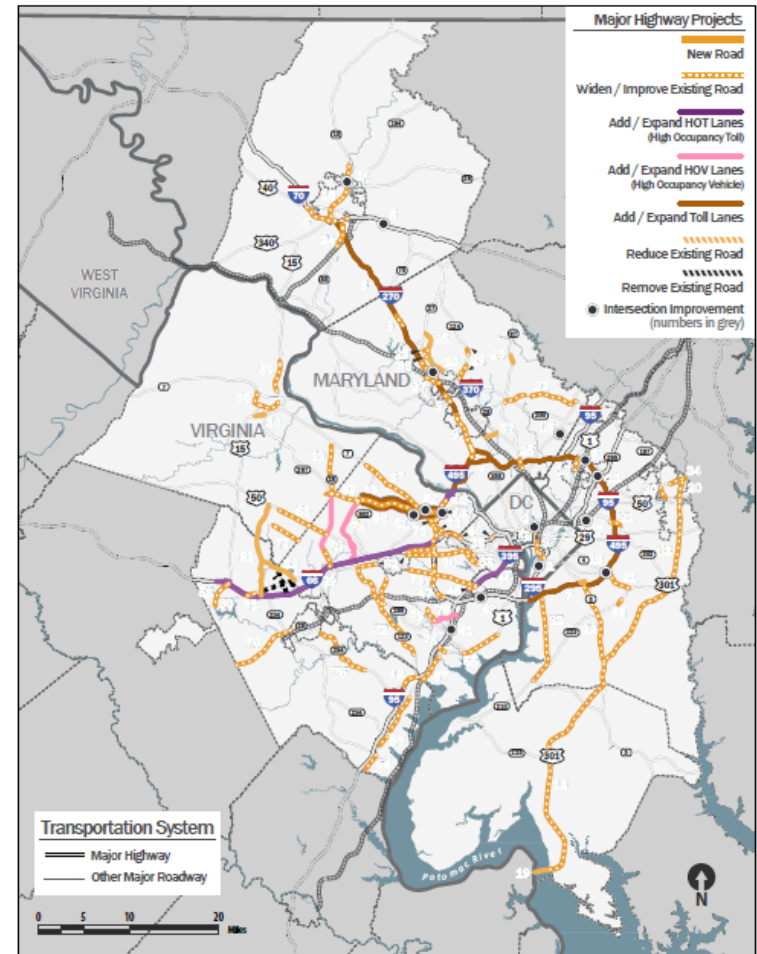
## Person File

	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



# Alternative Travel Options to Maximize Use of the Region's Highway System

- Carpooling and Vanpooling
- HOV Lanes
- HOT Lanes and Toll Roads



# Carpooling and Vanpooling

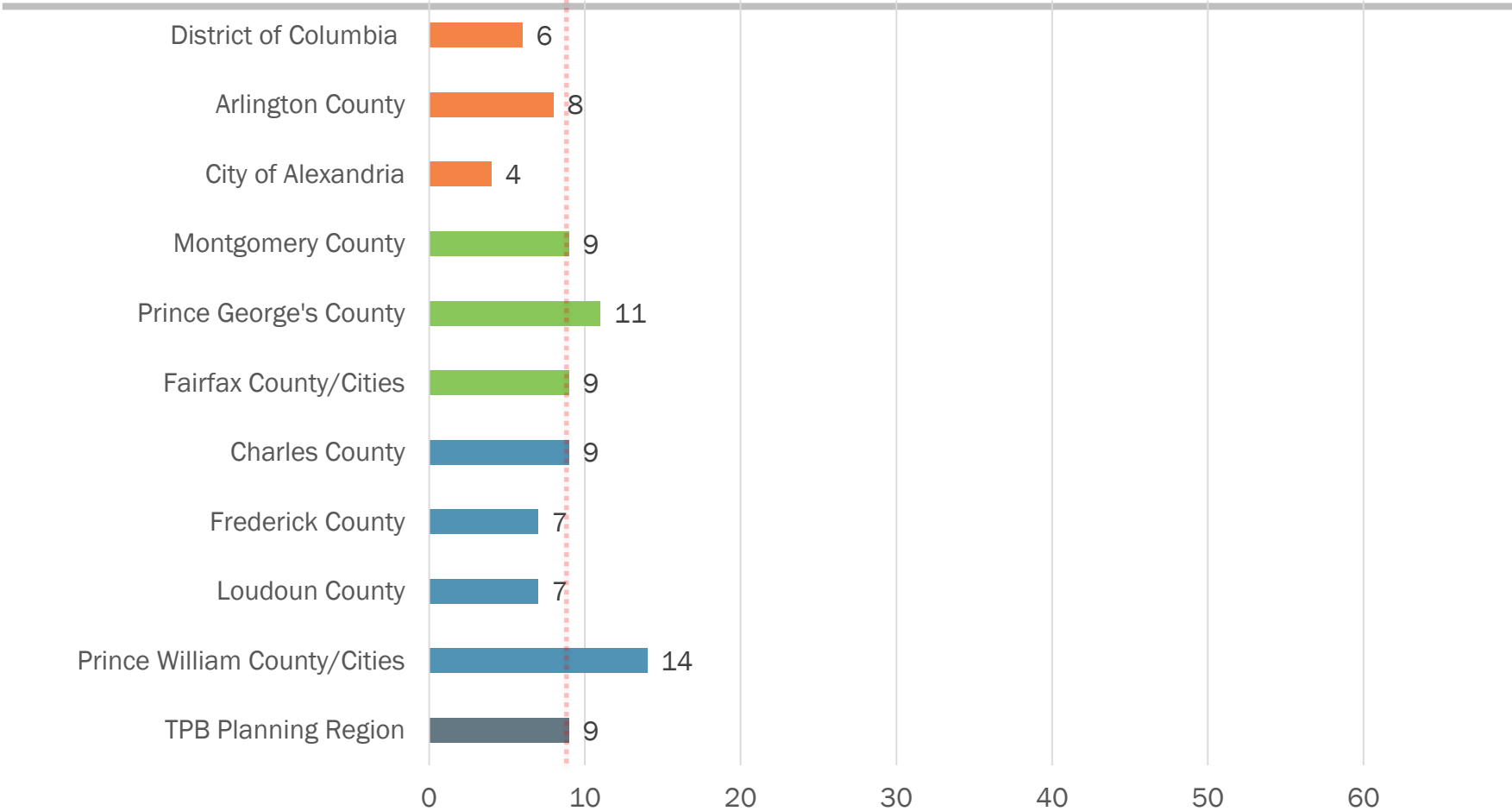
- Commuter Connections offers ridesharing programs to promote carpooling and vanpooling to and from work
- Casual carpooling (“slugging”) allows drivers and non-paying passengers to use HOV lanes
- Carpools/vanpools can be formally arranged via ride-matching services or ad hoc via slug lines



Source: Federal Highway Administration



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





# 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)



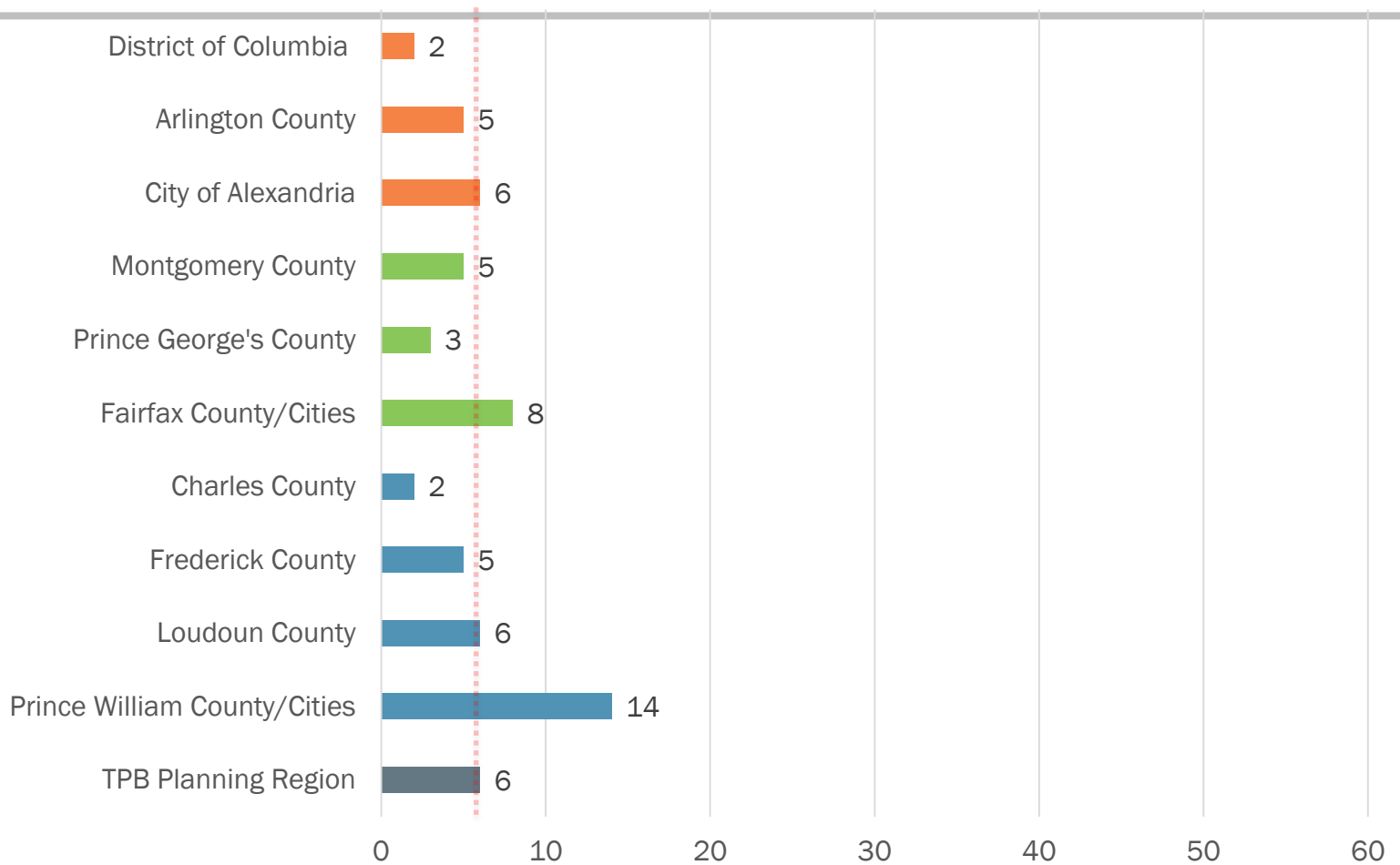
"File:HOV2+ I270 MD 08 2009 7033.JPG" by Mariordo



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



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



# 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)



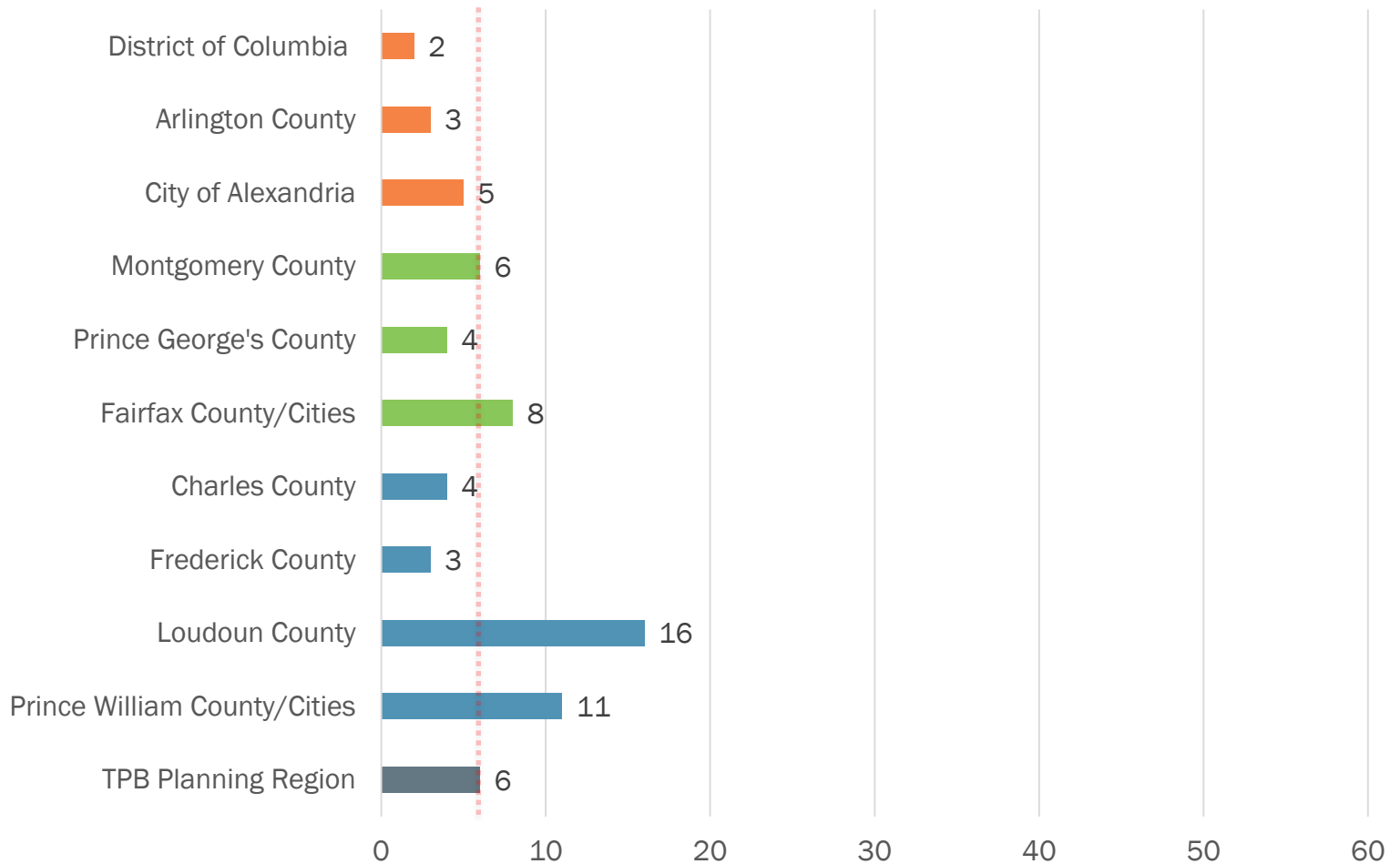
# Toll Transponders (%)

## 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



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



# Bicycle and Bikeshare Travel

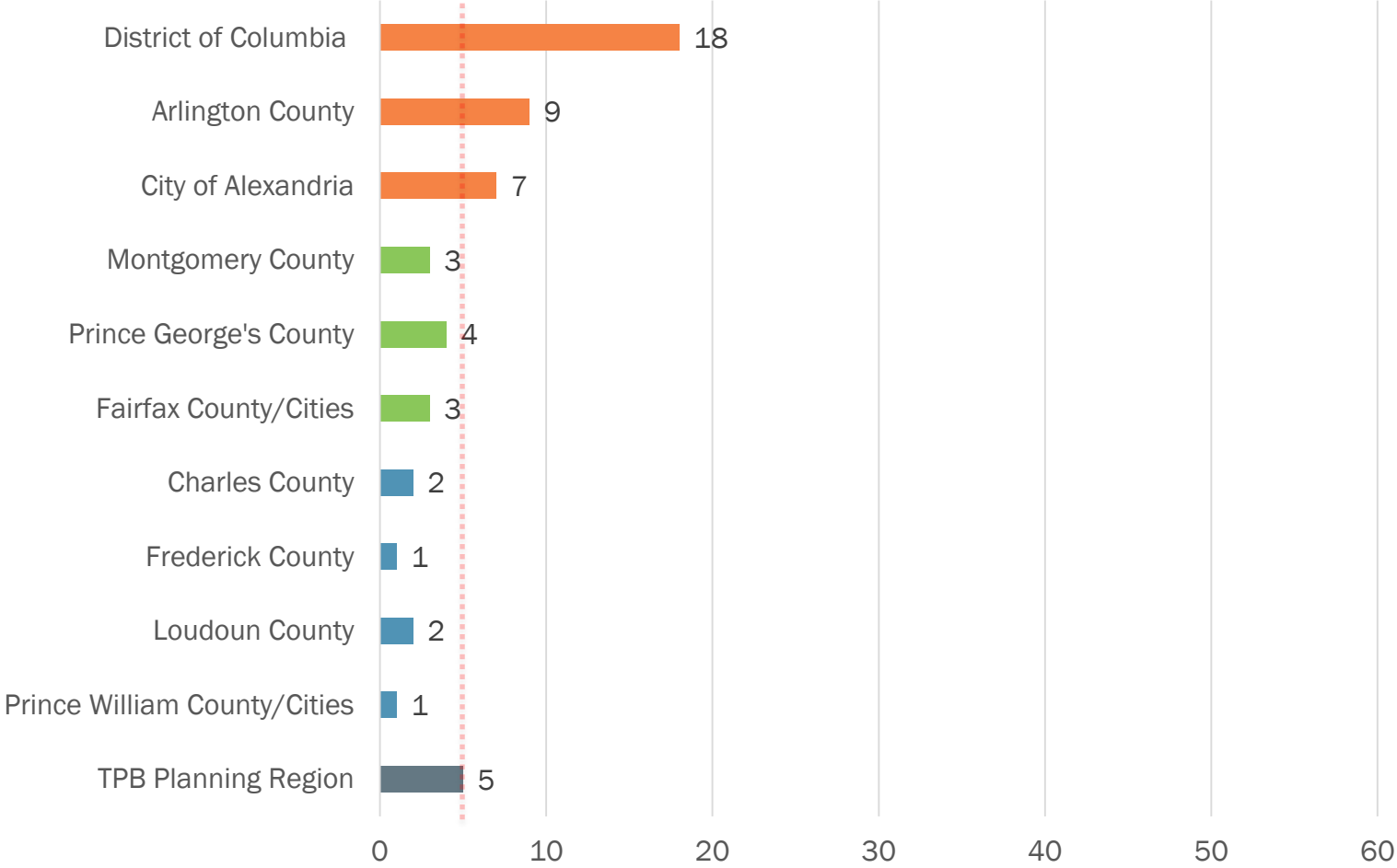
- The region's bicycling network and infrastructure has grown rapidly since 2005
- Capital Bikeshare launched in 2010 and has grown to serve five jurisdictions with 500 stations and over 4,300 bikes
- 48% of the region's households have 1 or more adult bicycles for their personal use



"DC Capital Bikeshare" by James D. Schwartz



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



# Summary of Findings

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- 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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TRAVEL SURVEY



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