



# MWCOG AQC TAC Meeting Transportation Planning

May 10-2022







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**ARLINGTON**  
VIRGINIA

# Community Energy / Climate Plan Goals

## 100% Renewable Energy Electricity by 2035 / Carbon-Neutral by 2050

	<b>BUILDINGS</b>	<ul style="list-style-type: none"><li>• Total community 2016 energy use reduced by at least 38% by 2050</li><li>• Incentive beyond-code building design, construction &amp; operation</li></ul>
	<b>RESILIENCE</b>	<ul style="list-style-type: none"><li>• Develop Energy Assurance Plan</li><li>• Develop energy resilience, e.g., micro-grids, diverse resources</li></ul>
	<b>RENEWABLE ENERGY</b>	<ul style="list-style-type: none"><li>• Govt ops electricity 50% renewable energy by 2022; 100% by 2025</li><li>• Community @ 100% renewable energy by 2035</li></ul>
	<b>TRANSPORTATION</b> →	<ul style="list-style-type: none"><li>• Carbon neutral government fleet by 2050 (including APS)</li><li>• 0.5 mt CO2e / capita / year by 2050 (present 2.7 mt)</li></ul>
	<b>GOVERNMENT</b> →	<ul style="list-style-type: none"><li>• County government carbon-neutral by 2050</li><li>• Design/construction of new &amp; major renovation facilities should presume Net Zero Ready Targets</li></ul>
	<b>BEHAVIORAL CHANGE</b> →	<ul style="list-style-type: none"><li>• Engage and empower individuals to reduce energy use</li><li>• Design and implement programs that address equity issues</li></ul>

# GOVERNMENT OPERATIONS

## Transportation

- 15% of non-emergency passenger fleet is EV
- Current purchase schedule – 40% by 2024
- Current EV School Bus Pilot (partnership among APS, Facilities, Equipment Bureau and AIRE)
- Pilot EV Rate Ordinance in development for Board Review June 2022
- Arlington Government Capitol Bike-Share for County employees
- Public transportation employee incentives



# GOVERNMENT – CAPITAL INVESTMENT

## Transportation

- ARTBus Maintenance and Operations Facility (2025) – designed for electrification and resilient systems
- Initial FY 2023 purchase of 16 EV Buses
- Light Facility Retrofit for Electrification
- County Fleet EVSE Network Capital Program
- Publicly-Accessible EVSE on government sites – Capital Program



# GOVERNMENT – STRATEGIC PLANNING

## Transportation

- **Total Cost of Ownership Study** – sedan and SUV (for government and the public) 09/2022 Completion
- **ARTBus Feasibility Study** – all aspects of transit system electrification and resilience planning (includes lit review & case studies on hydrogen) 09/2022 Completion
  - Consultant coordinating with AMOF consultant on AMOF design and construction
- **Decarbonization of Transportation Master Plan** (government and community-wide) for electrification, resilience, EVSE infrastructure and proposed siting plan, policy review and market assessment. 04/2023 Completion
  - Public transit/multi-modalism **first in the loading order**



# Master Transportation Plan & Selected Outcomes

## General Principles

- A. Integrate transportation with land use
- B. Support the design and operation of Complete Streets
- C. Manage travel demand and transportation systems



# MTP Goals

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1. Provide high-quality transportation services for all users and all modes
2. Move more people without more traffic
3. Promote safety – provide transportation system operations that are safe, secure, and enable prompt and effective emergency response
4. Establish equity – serve the mobility and accessibility needs of all residents regardless of age, income or ability
5. Manage effectively and efficiently – fund, develop, manage and maintain transportation facilities and services in an equitable and cost effective manner
6. Advance environmental sustainability – reduce the impact of travel on community resources including air and water quality, and increase energy efficiency

# Accessibility – Expanding Options





# Promoting Sustainable Travel

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The community-wide transportation focus is to reduce reliance on private vehicle trips for travel by residents, workers and visitors, shifting these trips to more sustainable modes through investments and encouragement that is aimed at lasting behavior change;

In addition to ongoing investments in multimodal transportation, Arlington -

- Sustains a broad program of transportation demand management providing ongoing information/communications, education, marketing/sales and research – Arlington County Commuter Services
- Requires transportation management plans for all major private and public development projects coupled with regular reporting requirements
- Supports and encourages reduction in on-site parking requirements for both private and public projects

# Tracking Long-term Changes in Community Travel

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Before COVID-19 Pandemic

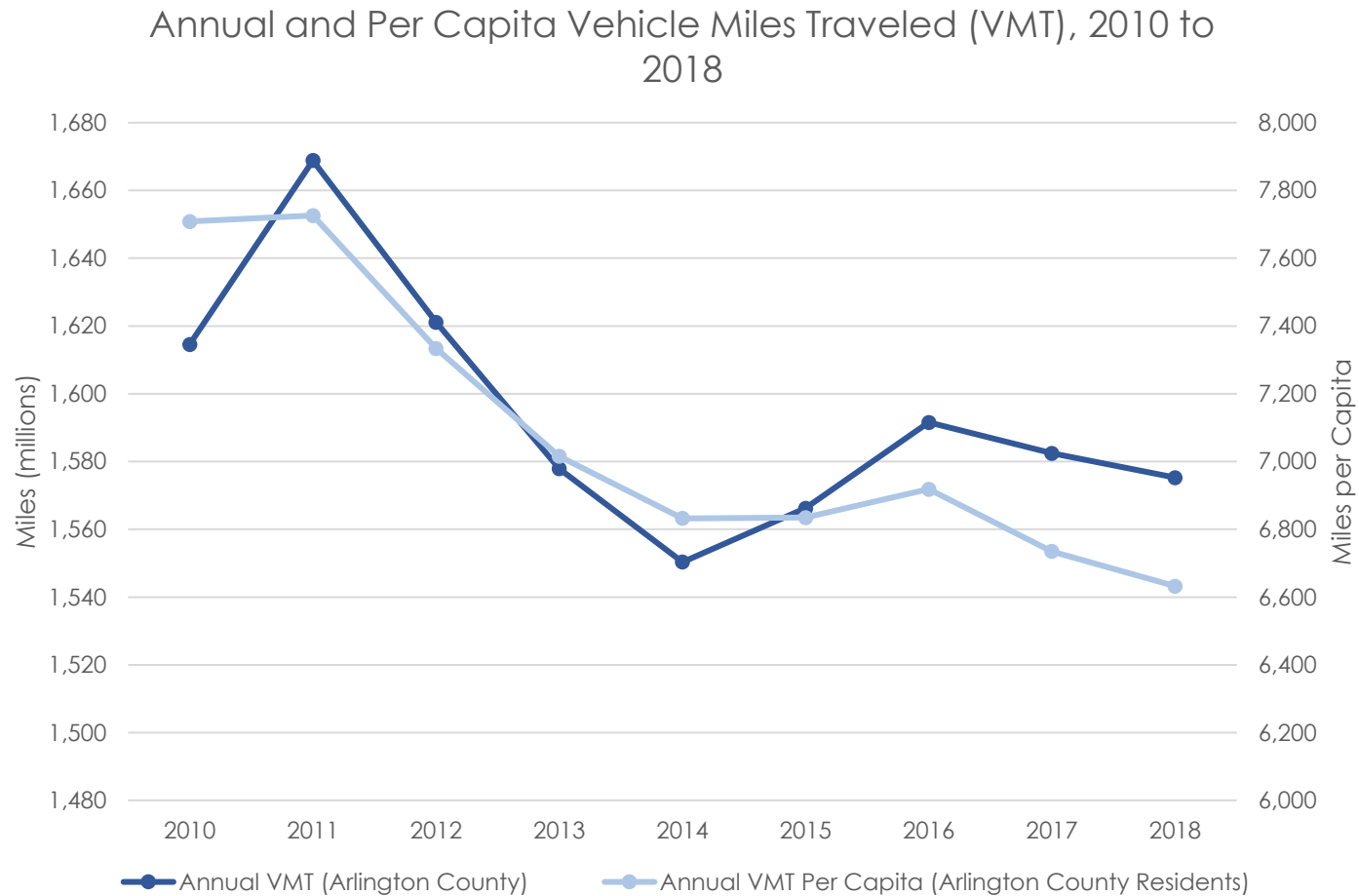


# 20+ Years of Growth Resulting in Less Daily Traffic

## Daily Traffic Estimates (vehicles)

	1996	2019	
<b>Langston Blvd.</b> (@ Rosslyn)	37,770	21,000	-44%
<b>Wilson Blvd.</b> (@ Clarendon)	16,368	10,000	-39%
<b>Washington Blvd.</b> (@ VA Square)	20,469	14,109	-31%
<b>Clarendon Blvd.</b>	13,980	9,900	-29%
<b>Glebe Rd.</b> (South of Columbia Pike)	29,000	22,000	-24%
<b>Glebe Rd.</b> (@ Ballston)	35,230	27,000	-23%
<b>Route 1</b> (North of Glebe Rd.)	52,000	47,000	-10%
<b>George Mason Dr.</b>	20,002	21,000	5%
<b>Arlington Blvd.</b>	55,865	65,000	16%

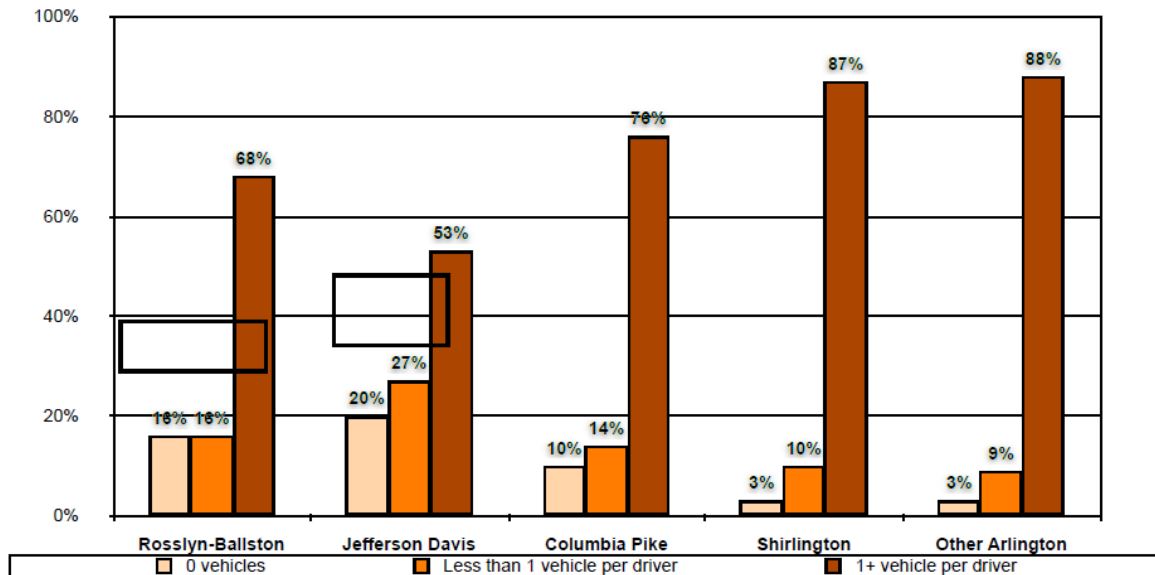
# Annual VMT Declining Even With Ongoing Community Growth



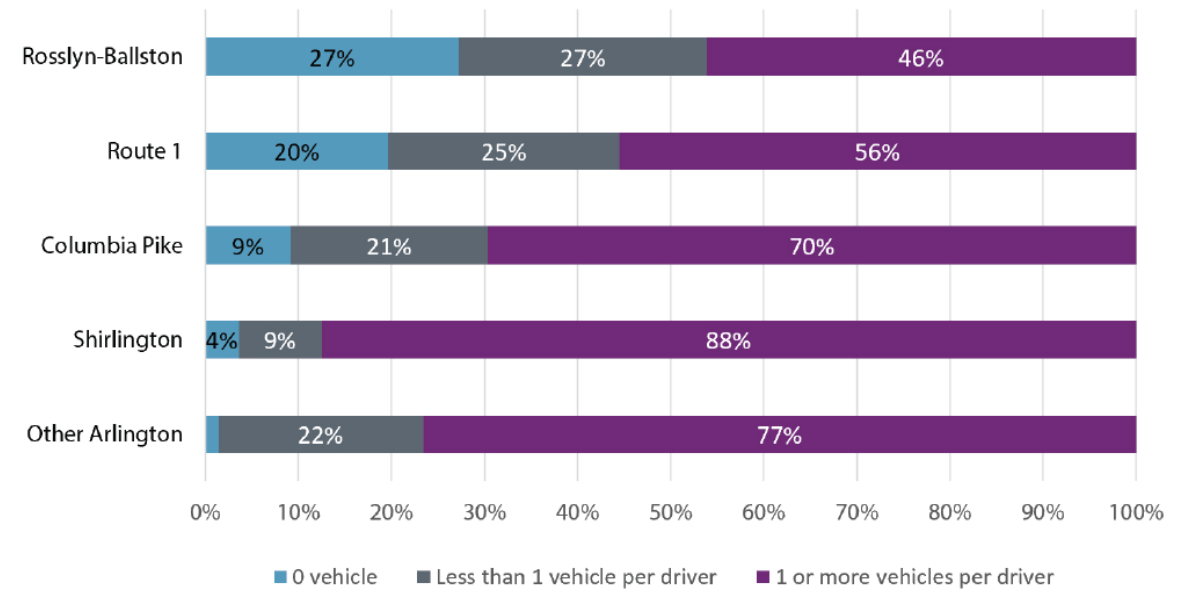
# More Arlington Households are Going Car-less

Number of Vehicles Per Driver, Per Household, by Arlington Planning Area

2010 Household Travel Survey



2020 Household Travel Survey



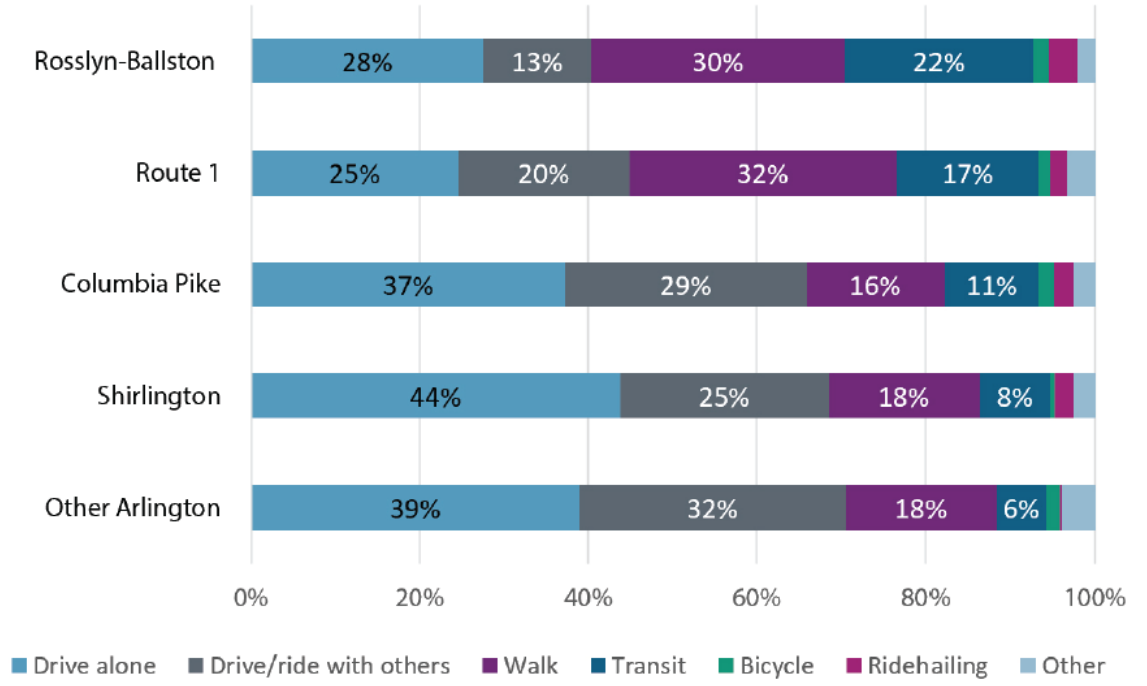
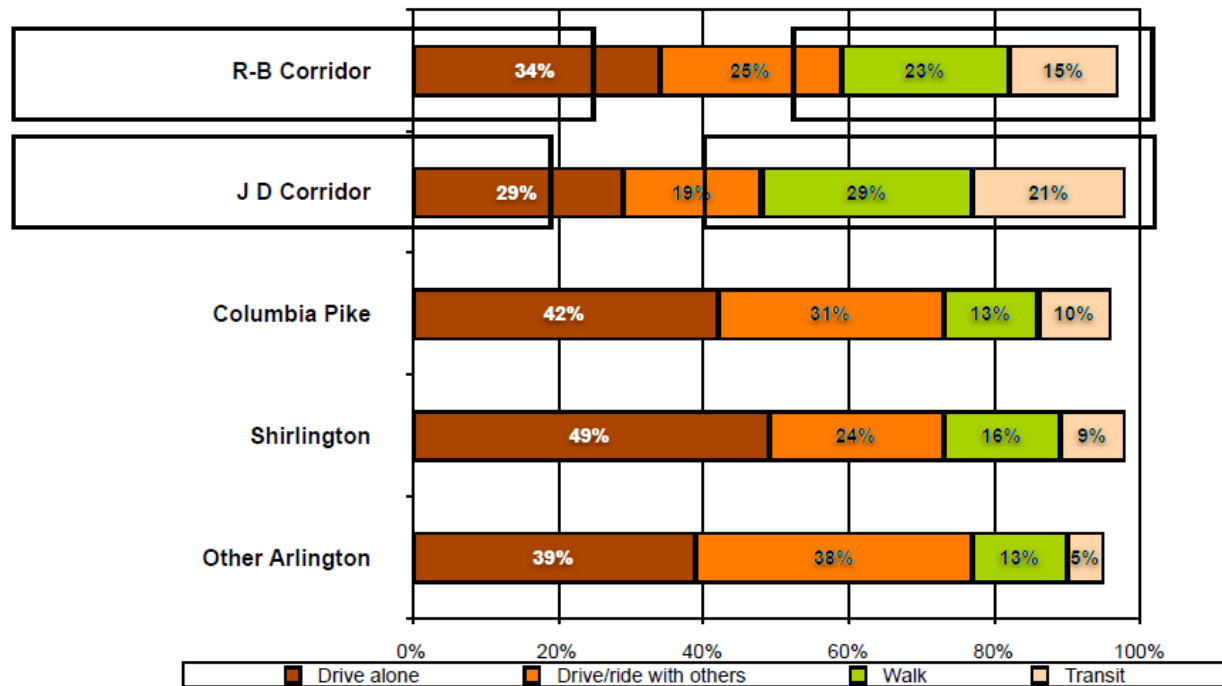
Sources: Arlington County Oversample and Special Analysis of MWCOC Regional Travel Surveys

# Planning Area Differences: Higher transit use and walking in transit corridor areas of Rosslyn-Ballston and Route 1 (Pentagon City-Crystal City)

Mode Split, by Arlington Planning Area

2010 Household Travel Survey

2020 Household Travel Survey

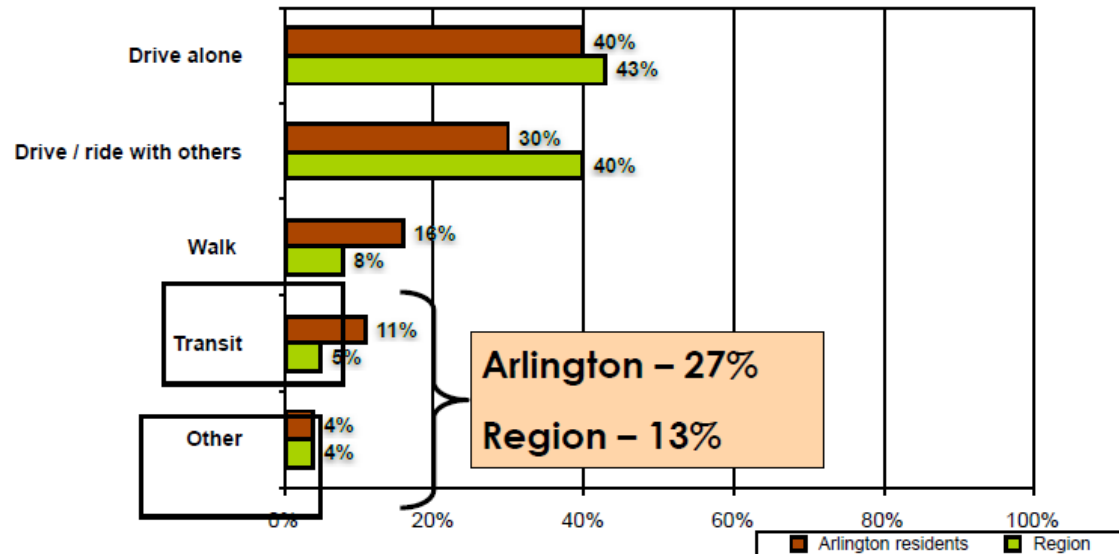


Sources: Arlington County Oversample and Special Analysis of MWCOG Regional Travel Surveys

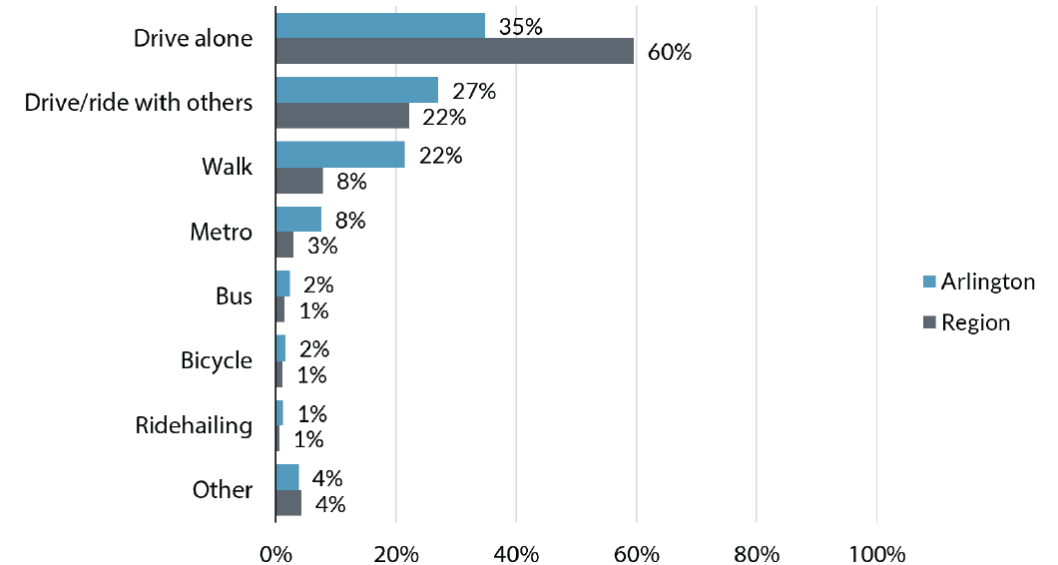
# Arlington Residents Drive Alone Less and Use Non-SOV Modes More than the Region

Mode Split of All Daily Trips

2010 Household Travel Survey



2020 Household Travel Survey



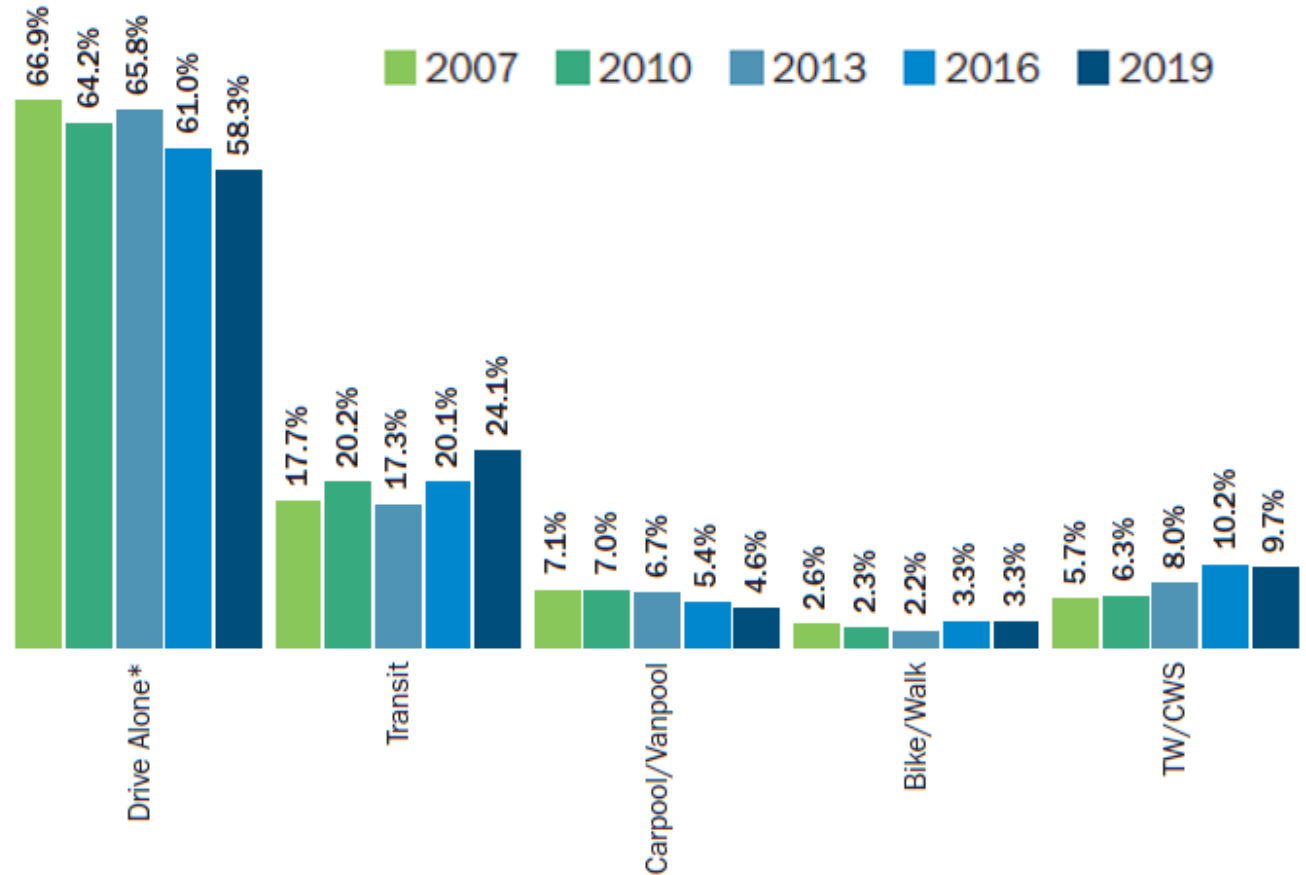
Sources: Arlington County Oversample and Special Analysis of MWCOC Regional Travel Surveys

# 2019 State of the Commute - Regional Results

## Percentage of Weekly Trips by Mode – 2007 to 2019

(Including telework and compressed schedules)

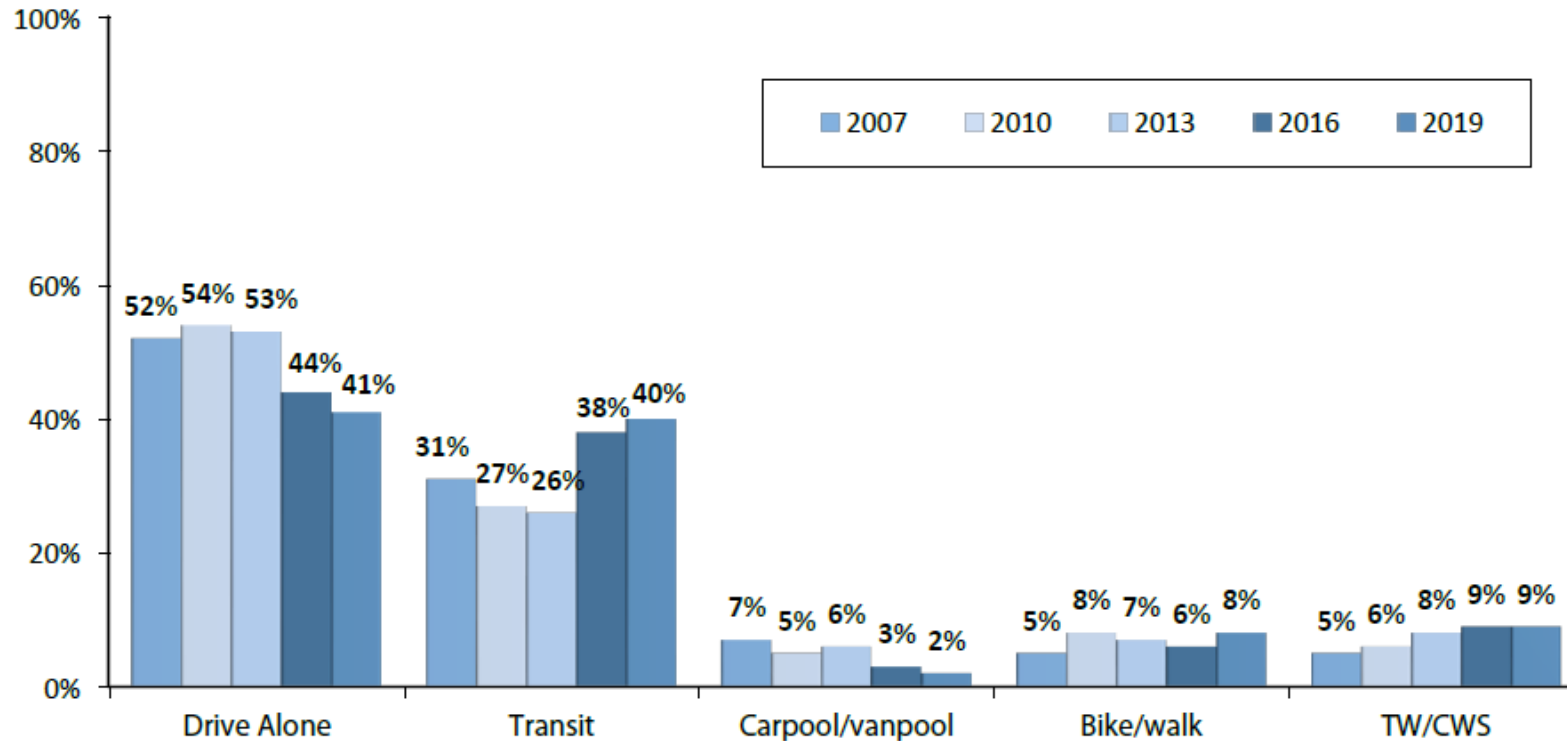
(\*Note: taxi/ride-hall was reported as part of “drive alone” in the 2007-2016 surveys. For consistency, “drive alone” percentage shown for 2019 follows the same approach. In 2019, taxi/ride-hall accounted for 1.1% of the total 58.3% drive alone.)





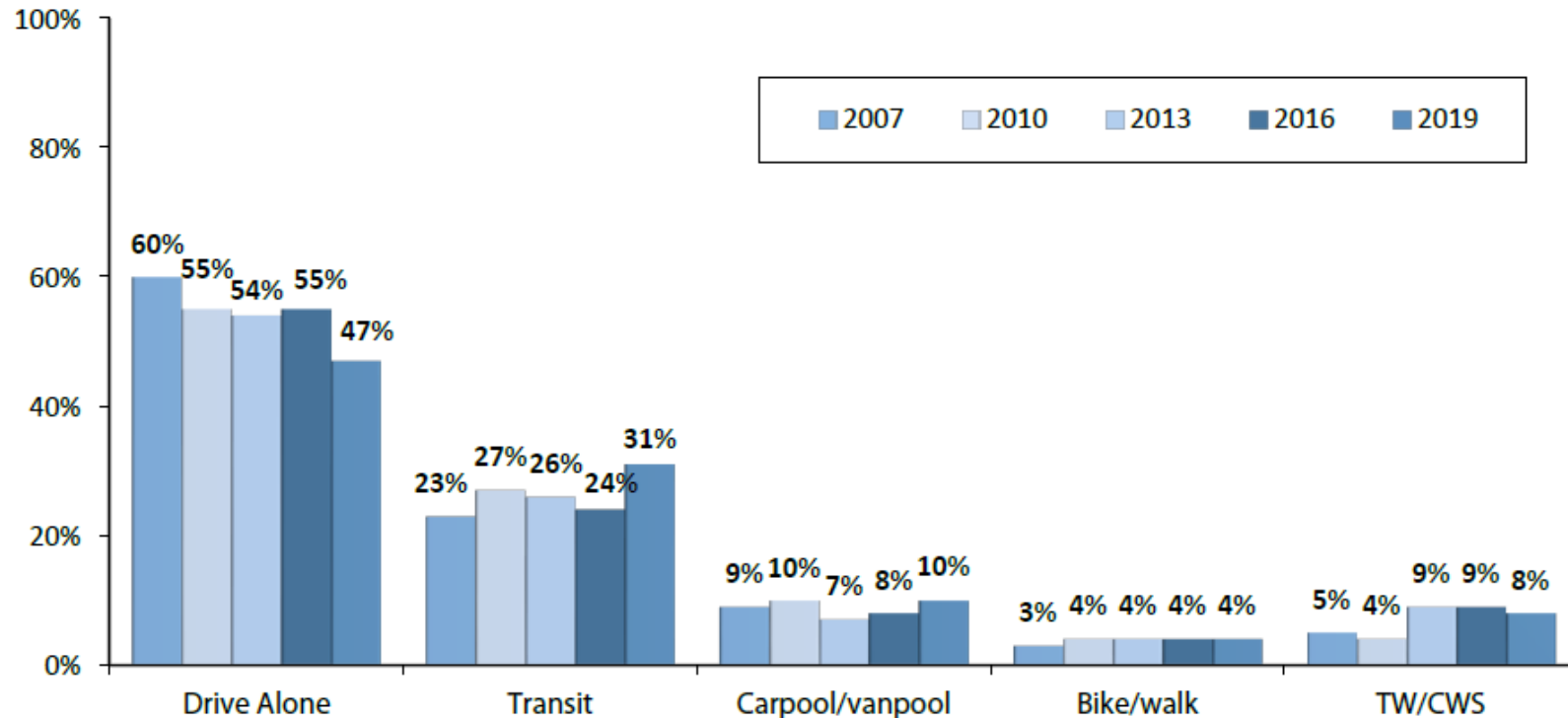
# 2019 State of the Commute - Arlington Results

Weekly Trips by Mode - for People Who Lived in Arlington



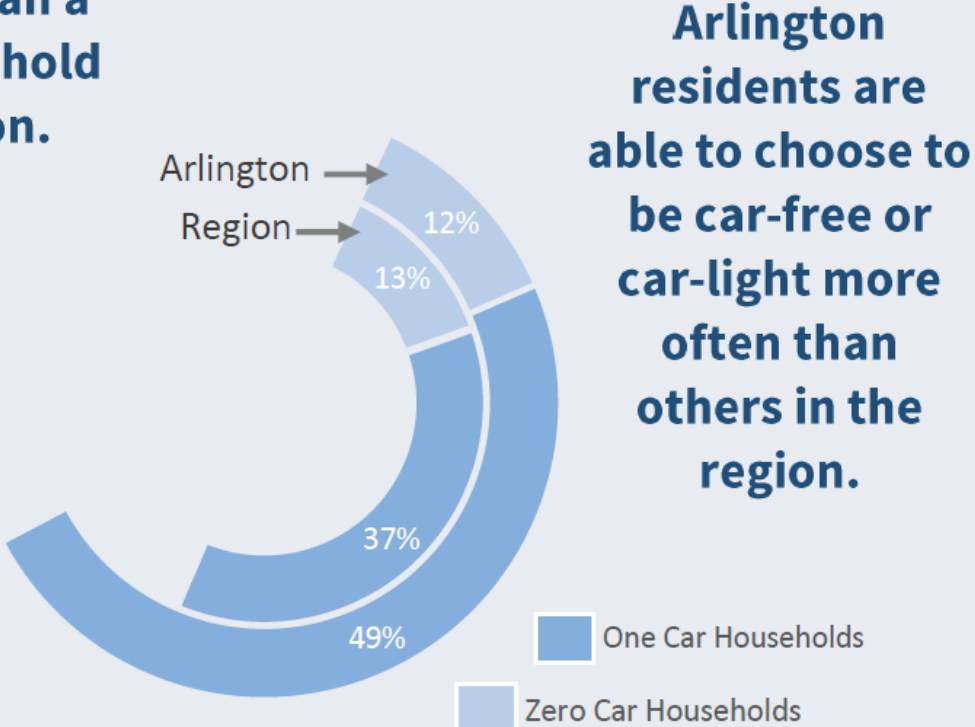
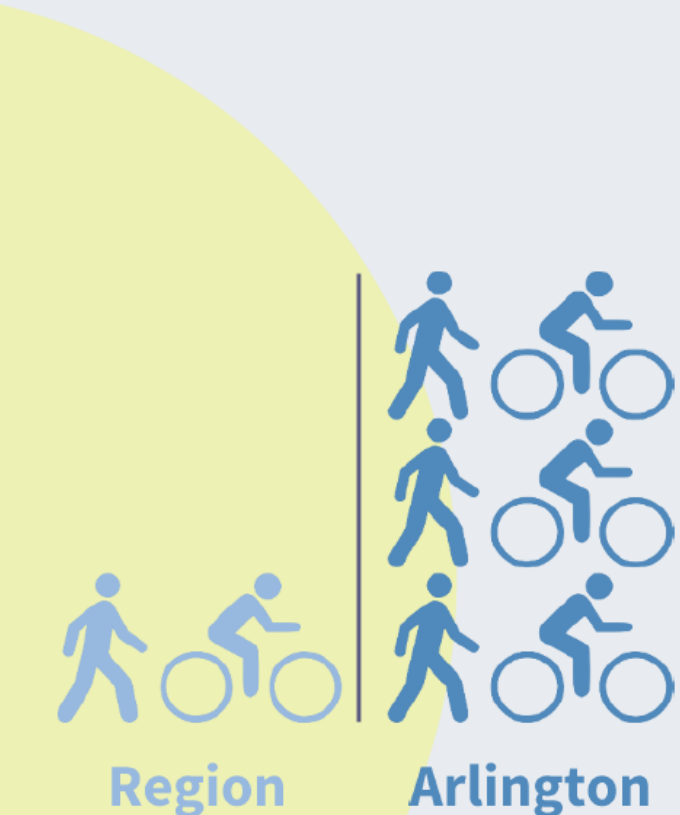
# 2019 State of the Commute - Arlington Results

Weekly Trips by Mode - for People Who Worked in Arlington



# Residents Bike and Walk More

On an average day, Arlington households make three times as many bike and walk trips than a typical household in the region.



Arlington residents are able to choose to be car-free or car-light more often than others in the region.