STATE OF THE COMMUTE
NATIONAL CAPITAL REGION

Commuter Connections TDM Evaluation Project

Nicholas Ramfos
Transportation Operations Programs Director

Transportation Planning Board
September 18, 2019
Item 8

COMMUTER CONNECTIONS
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State of the Commute (SOC) Survey Background

- Seventh triennial survey (2001, 2004, 2007, 2010, 2013, 2016, 2019)
- Information about commute to work
- Surveyed employed persons in TPB non-attainment area (Jan.-Mar. 2019)
- Randomly-selected postal addresses received postcard in mail with link to Internet survey
- Interviewed 8,246 employed residents of COG region
  - 7,808 Internet interviews ; 438 by telephone follow-up
  - At least 600 completed surveys in each major jurisdictions (Counties and the Cities of District of Columbia and Alexandria)

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State of the Commute (SOC) Survey Background (Cont.)

- Regionally, there are about 3.1M Commute trips/day and 13.5M commute trips/week.

- Survey results statistically extrapolated to regional worker population and adjusted for race/ethnicity and age.

SOC 2019 Survey: Highlights

- Commute patterns
  - Mode
  - Travel details
  - Telework
  - Demographics
  - Ride-hailing
- Changes in commute
- Commute Satisfaction
- Commuter Options and Attitudes
- SOC Survey Key Findings

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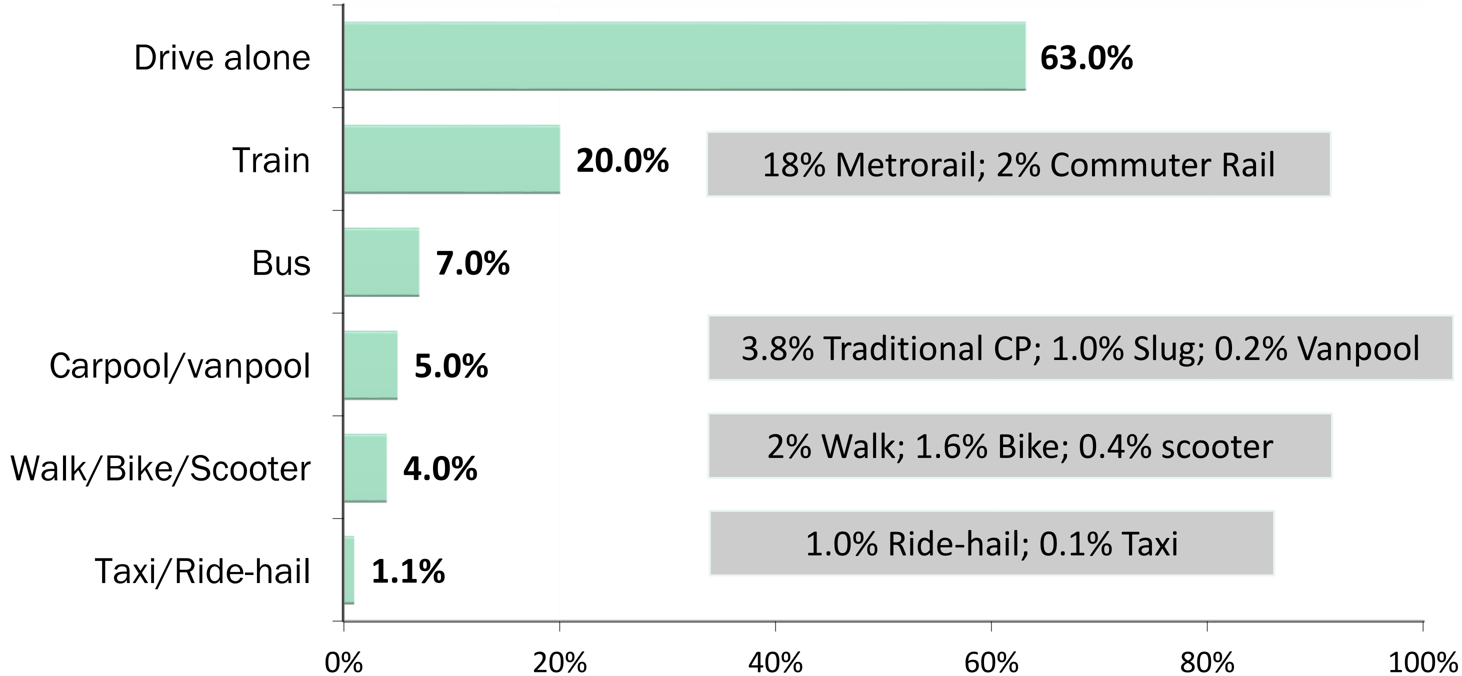
Commute Patterns - Primary Mode

Of the work trips made (omits teleworking and compressed work schedules), which are 10% of total trips):

- Majority of work trips – drive alone; continued decrease since 2004
- About a quarter use public transportation; continued increase since 2004
- Very small share use ride hailing services



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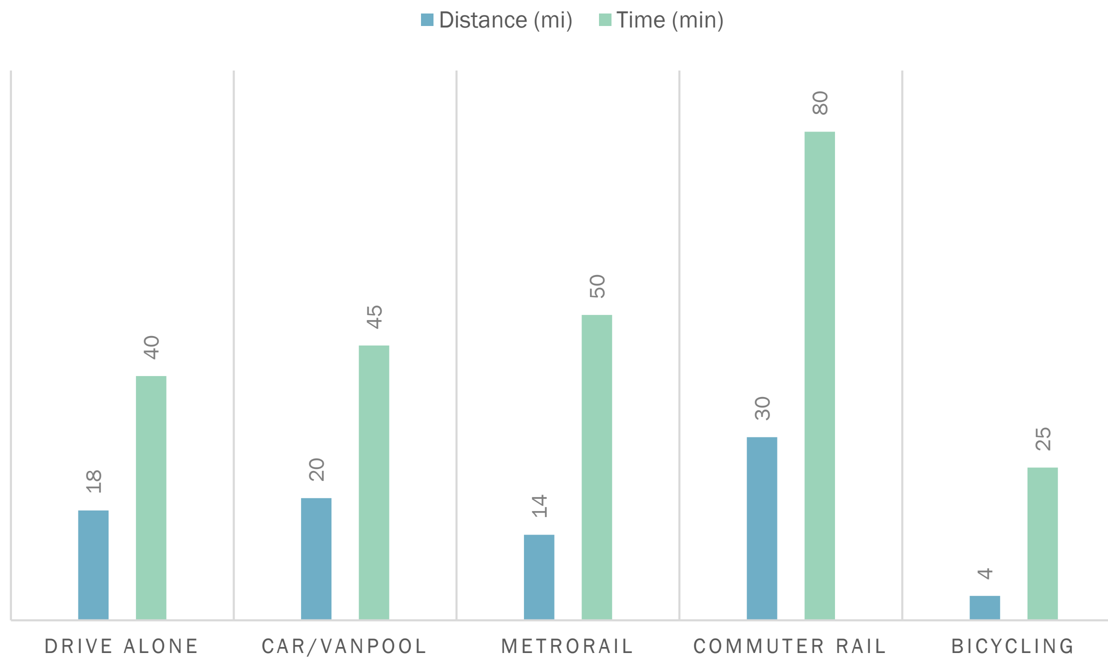
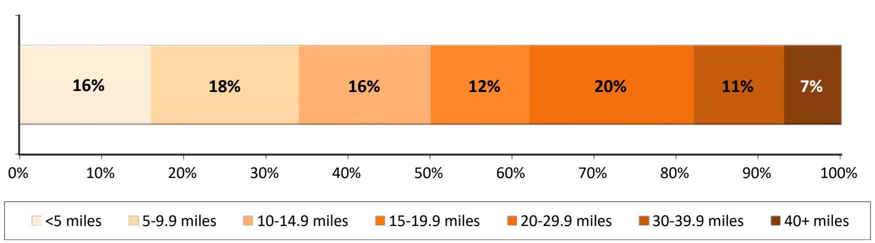
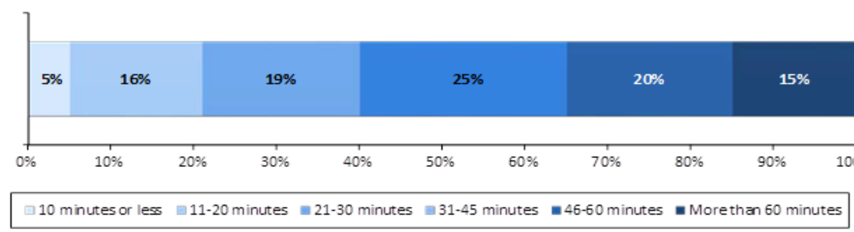
Commute Patterns - Travel Details

- The regional average commute length is 17 miles
- The regional average commute time is 43 minutes
- Average travel length has not changed since 2004
- Average travel time now is 26% longer than in 2004







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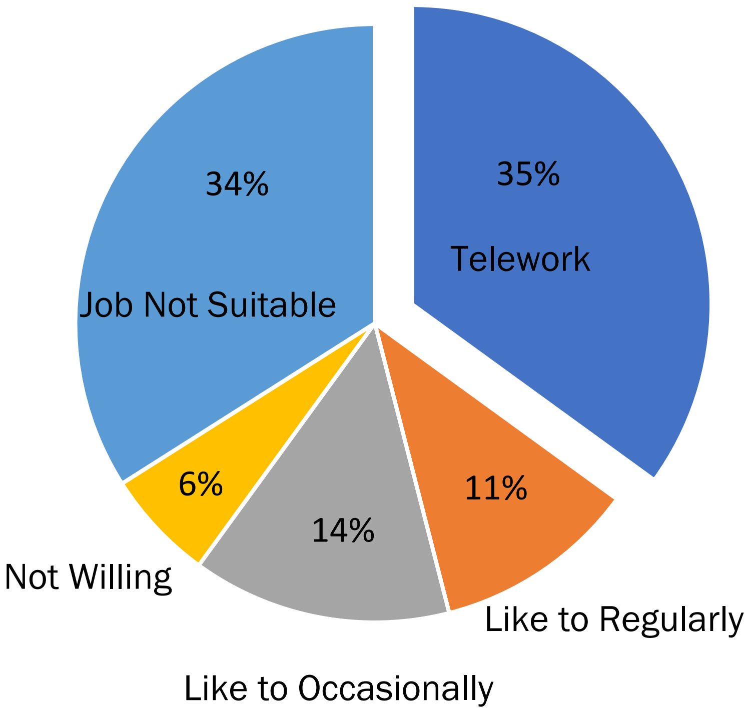
Commute Patterns - Telework

- 35% of all commuters telework on average 1.2 days per week



- Among those who telework:
  - 59% telework 1 or more day(s)/week
  - A quarter teleworking more than 5 years and a third 2-5 years
  - 40% worked in Regional Core and 23% worked in Outer Suburbs
  - 24% had annual incomes less than $100K and 76% had annual incomes $100K or higher
- 48% of federal employees vs. 14% of State and Local Govt. employees

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Commute Patterns - Demographics

- Workers with annual income of $60K or less used the bus twice the rate of other income groups.
- (Non-Hispanic and Hispanic) Blacks used the bus twice the rate of (Non-Hispanic) Whites.
- (Non-Hispanic) Whites walked/biked three times the rate of (Non-Hispanic and Hispanic) Blacks.
- Households with no vehicles or 2 or more adults per vehicle had the highest share of transit and walk/bike; least share of drive alone.
- Outer suburbs have the highest share of drive alone, carpool/vanpool and telework.
- Regional core has the highest share of transit and walk/bike.
- No discernable difference in commute modes between male and female commuters.

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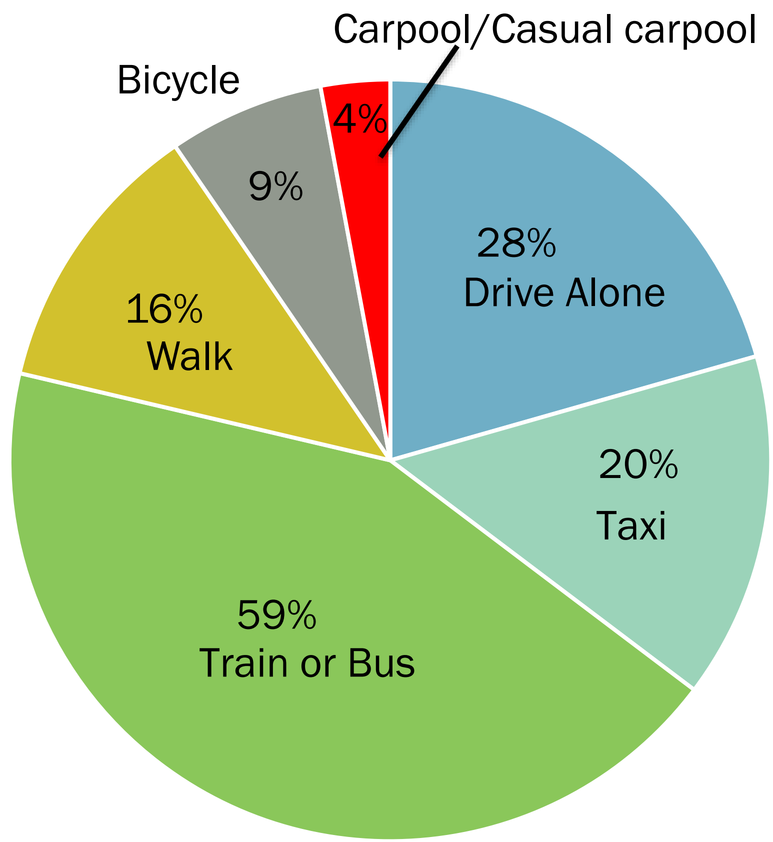
Commute Patterns - Ride-hailing

- Constitutes very small share of primary commute (1% of 3.1M trips/day)
- Without ride-hailing these commute trips would have been made:



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Changes in Commute– Shifting to Alternative Modes

- Non-drive alone ("alternative") modes attracted greater share of their commuters during the past 3 years.
  - Carpool & Walk/Bike – 55% each; Train and Bus – 50% each
- About 40% of alternative mode users were previously driving alone and 32% were not working or not working in the region three or more years ago.
- 15% switched because they were motivated to save money or time while 12% switched due to change in job or residence.
- 7% switched to avoid congestion; 9% switched due to parking cost; and 5% switched because of their employers offered a transit benefit.

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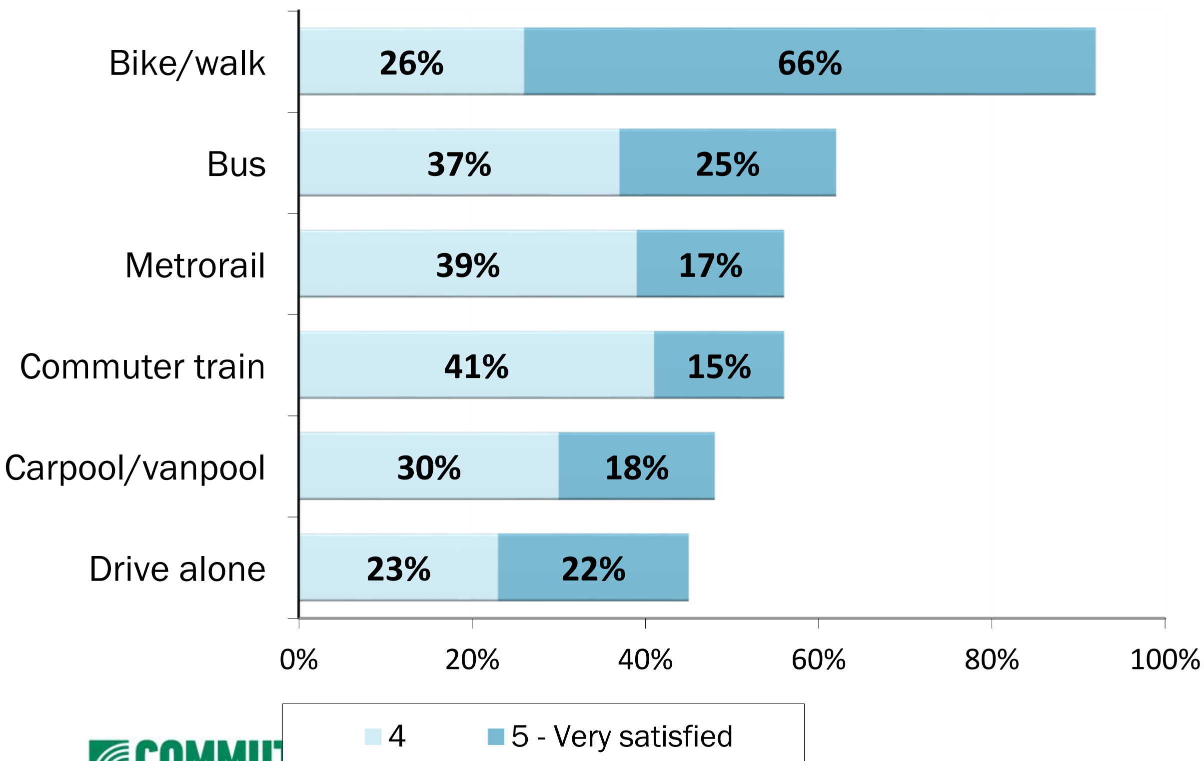
Commute Satisfaction - Mode

- Less than half of the commuters driving were satisfied with their commute while nearly 60% of transit users were.
- Commuter rail and drive alone satisfaction rates were lowest since 2013, Metrorail satisfaction increased since 2016.



	2013	2016	2019
Bike/walk	93%	97%	92%
Bus	65%	66%	62%
Metrorail	67%	48%	56%
Commuter train	90%	70%	56%
Carpool/vanpool	67%	66%	48%
Drive alone	51%	57%	45%

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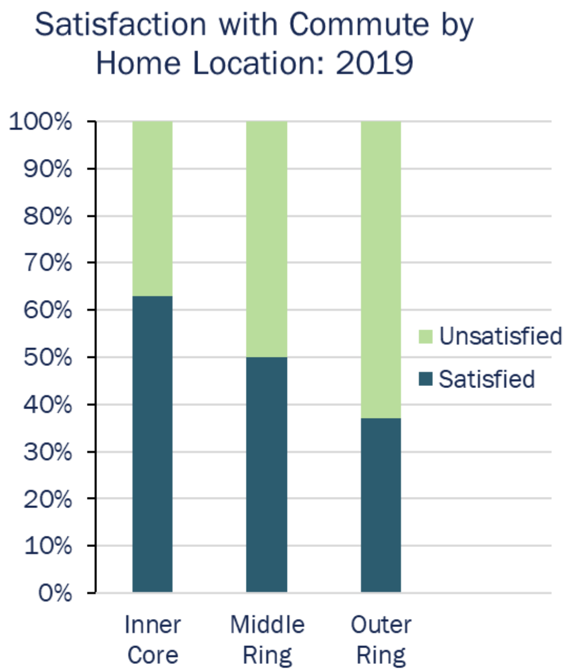
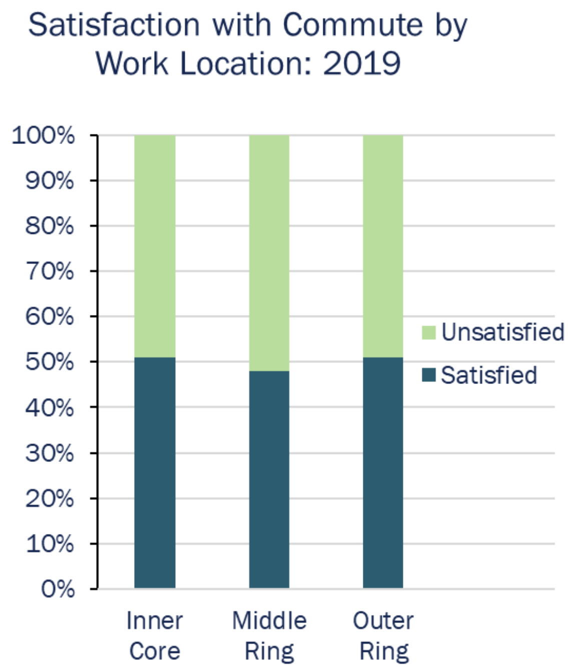
Commute Satisfaction - Time and Location

Commute time is a strong driver of commute satisfaction:

- Commutes > 45 min: approx. 25% - 30% satisfied
- Commutes < 20 min: approx. 80% - 90% satisfied





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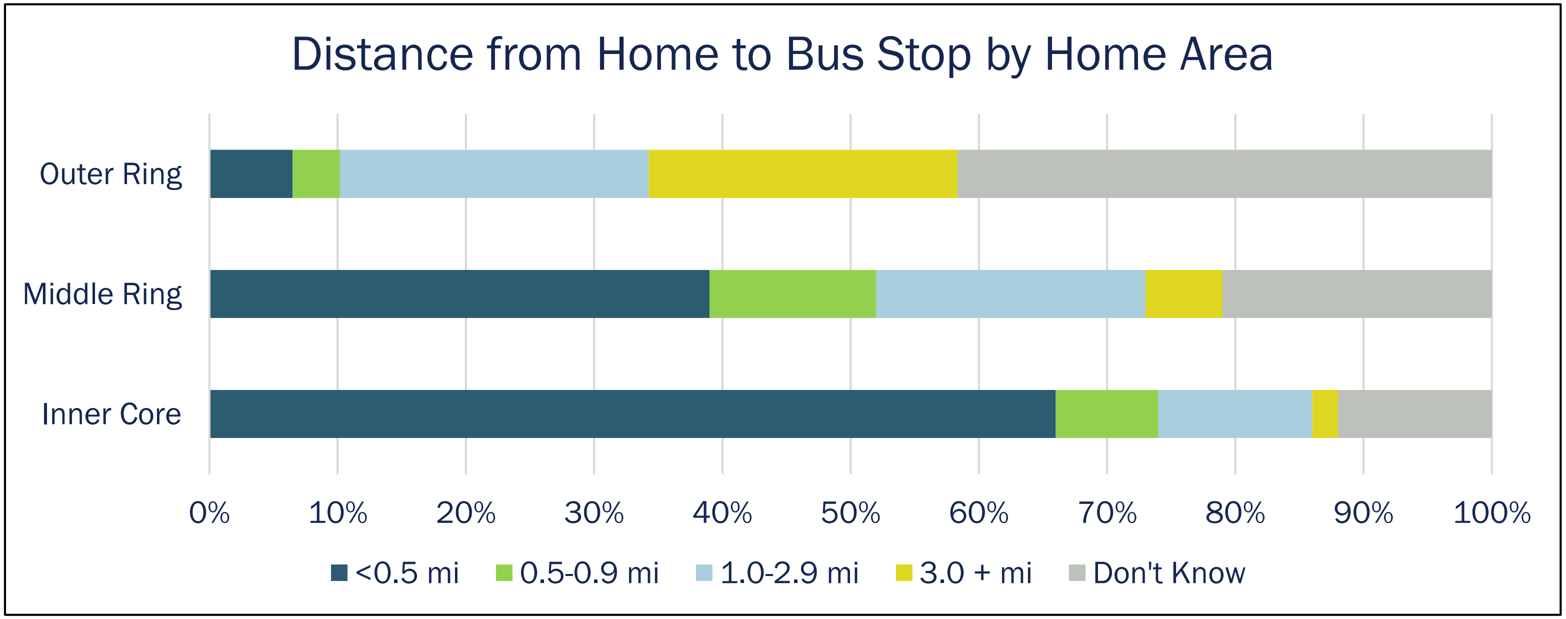
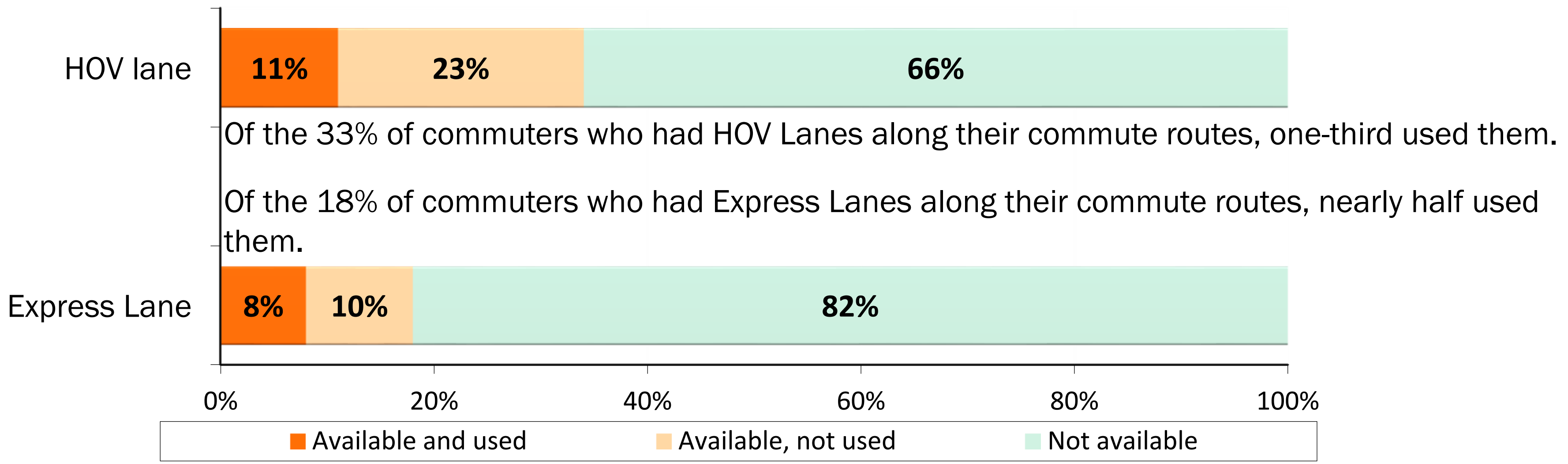
Commute Options and Attitudes

- 47% of commuters (nearly half) lived less than 1-mile from a bus stop, but only 17% live within 1-mile of a train station regionwide.
- These percentages are higher in the inner core and much lower in the outer ring, indicating fewer transit options and subsequent higher drive alone rates in the outer suburbs.



Commute Options and Attitudes – HOV & Express Lanes



- Among users, a higher proportion used Express Lanes 3 or more days a week compared to HOV Lanes.
- Although drive alone was the largest share (73%) among all Express Lane commuter travel (frequent & infrequent), the majority (75%) of those who used it 3 or more days a week used transit or car/vanpools.

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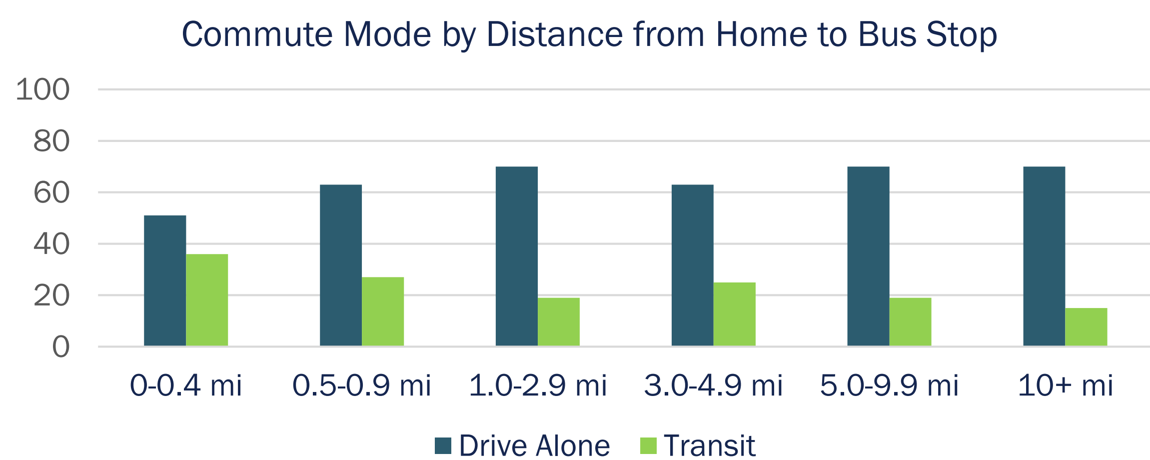
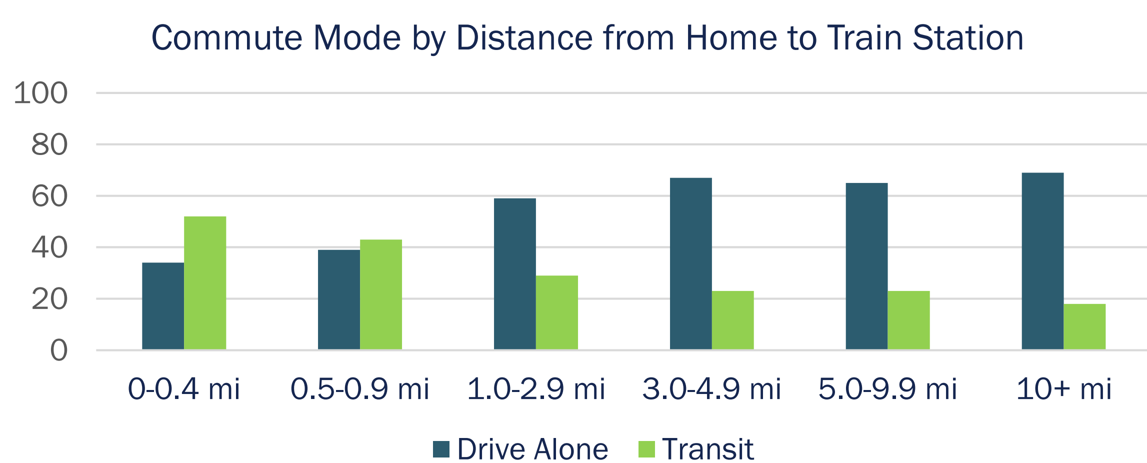
Commute Options– Locational Barriers to Transit

Distance of home from bus stop or train station strongly influences commuting by transit.





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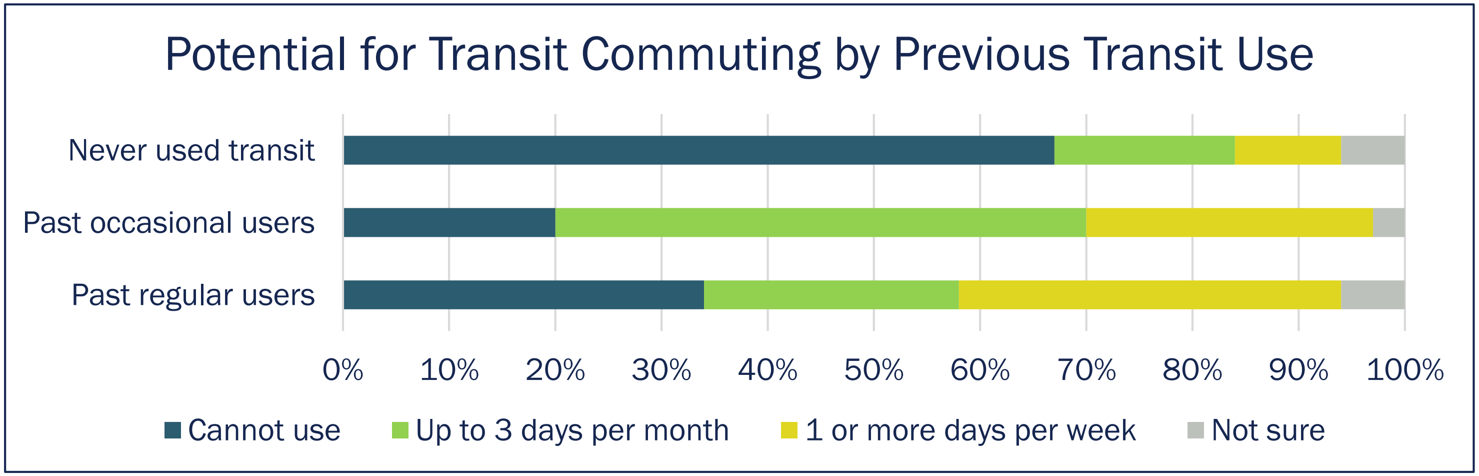
Commute Options and Attitudes – Potential for Transit and Ridesharing

- 32% of commuters who do not use carpool or vanpool cited “not knowing any potential ride-sharers” as the reason; 17% cited incompatible work and 9% prefer to use transit.

- There is notable potential for increased transit use among past regular and occasional transit users.



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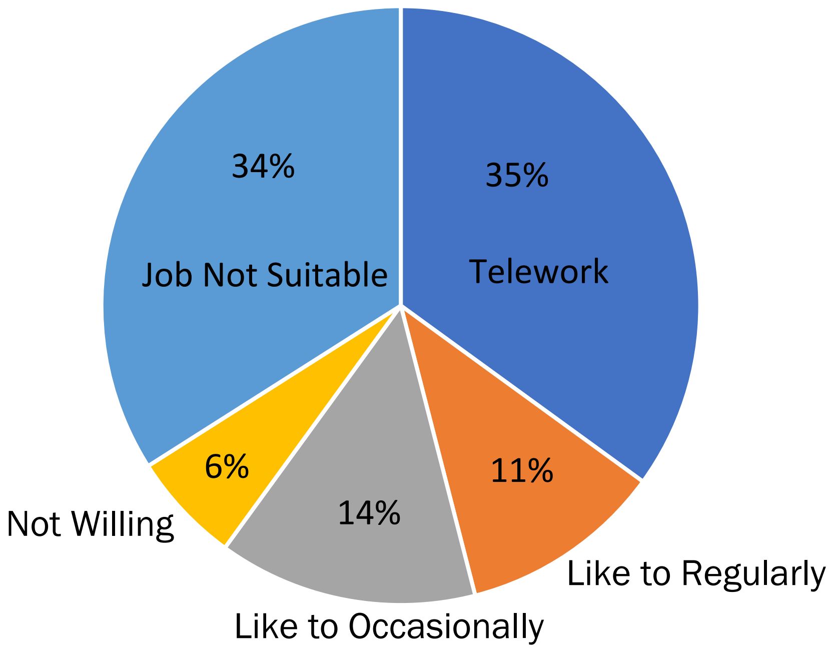
Commute Options and Attitudes – Potential for Telework

Of the 3.1M daily commuters – approximately 1 million telework an average 1.2 days/week.



- Teleworking can be increased among an additional 775,000 who do not telework and would like to telework

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SOC Survey – Key Findings (1)

- Drive alone percentage share continued its decrease, now at 58%, which includes teleworking/CWS—a decrease from 71% since the 2004 survey. Supports TPB policies to focus on moving people, not cars, and providing numerous options for travel and programs to reduce demand.
- Commuters are taking more time to travel the same distance, emphasizing need for continued TPB policy focus on moving more people and not vehicles.
- There is considerable variance in the availability and affordability of travel modes between non-Hispanic white and minority populations.
- While ride-hailing represents a small share of commute trips, it is disproportionately drawing from alternate commute modes.
- Growth and improvements to alternate commute modes has prompted a shift from drive-alone commuting.

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SOC Survey – Key Findings (2)

- With the exception of walk & bike, there is opportunity to increase commute satisfaction among commuters of all modes.
- Travel time significantly influences commute satisfaction.
- Strong correlation in home location and distance to bus or train station to whether persons would likely use transit. This connects with Visualize 2045 Aspirational Initiative “Bring Jobs and Houses Closer Together,” which calls for locating future housing growth in Activity Centers and High Capacity Transit Areas.
- Pricing travel for non-HOV commuters on HOV lanes influences commuter mode choice.
- There is potential for increased teleworking and increased transit use among past regular and occasional transit users as well as among those who have never used transit. Fulfilling this potential aligns with TPB policy focus on moving people through a variety of available modes.

Nicholas Ramfos

Transportation Operations Programs
Director
(202) 962-3313
nramfos@mwcog.org

commuterconnections.org

Metropolitan Washington Council of Governments
777 North Capitol Street NE, Suite 300
Washington, DC 20002

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Additional Survey Highlights

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Weekly Commute Trips

58% of Commuters' Weekly Commute Trips Were Made by Driving Alone or Taxi/Ride-hail; 24% Were Made by Transit and 10% of Trips Were Eliminated by TW/CWS

By Mode:

Transit

16.6% Metrorail; 1.6% Commuter Rail

Carpool/Vanpool

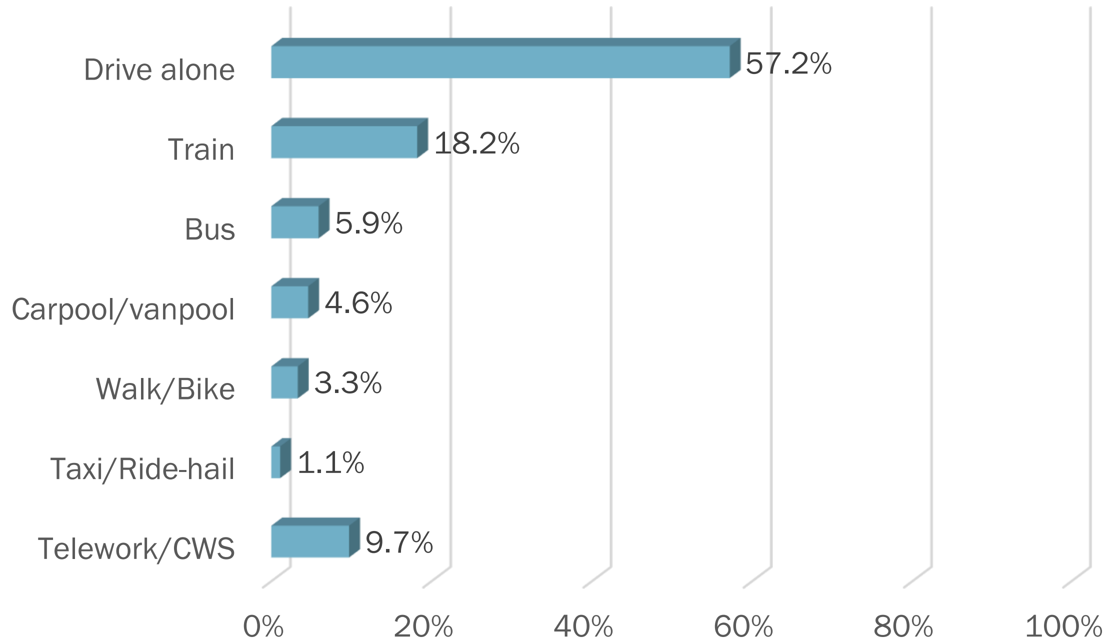
3.4% Formal; 1.0% Slug; 0.2% Vanpool

Walk/Bike/Scooter

1.7% Walk; 1.5% Bike; 0.1% scooter

Ride Hail/Taxi

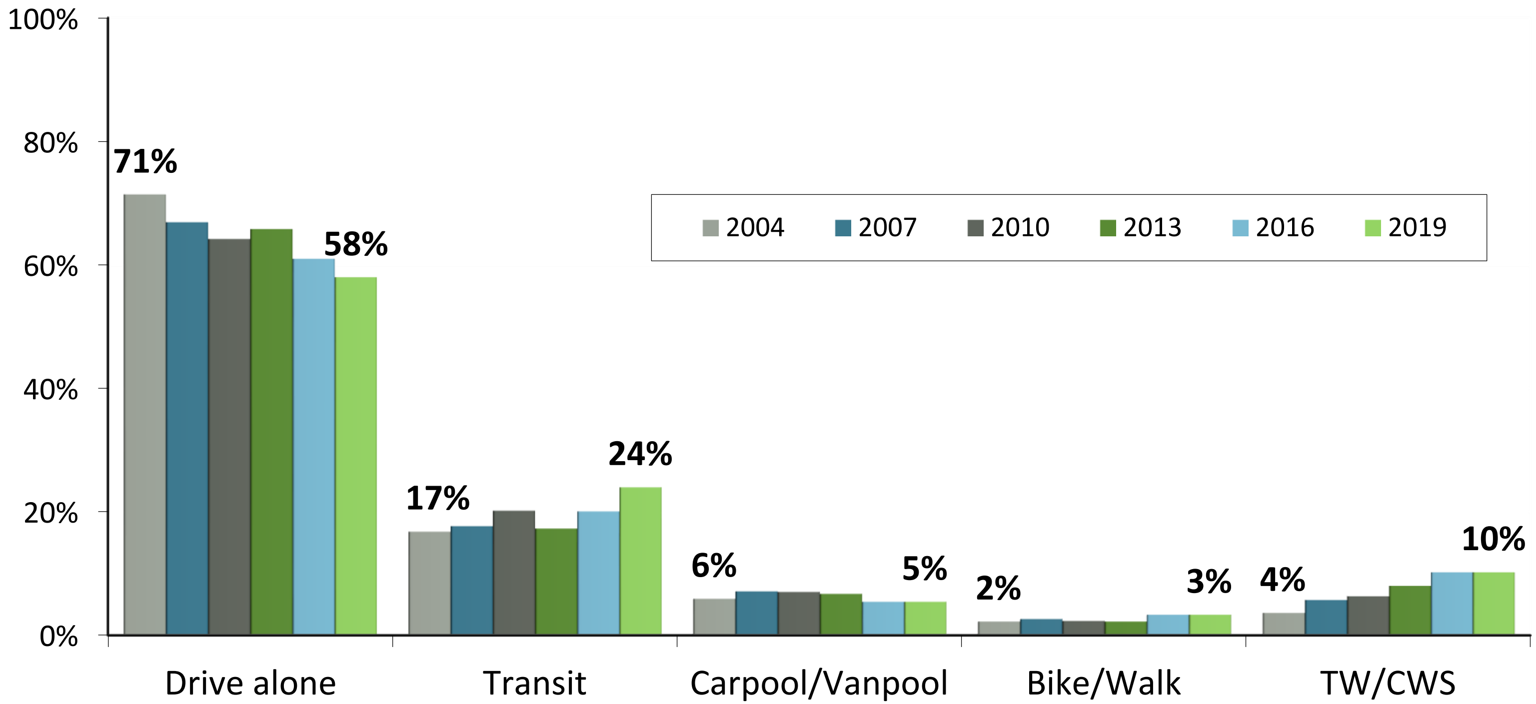
1.0% Ride-hail; 0.1% Taxi



Weekly Commute Trips by Mode Trend

Between 2004 and 2019, the Drive Alone Percentage
Fell 13 Points, from 71% to 58%

Telework and transit use increased; other modes remained steady



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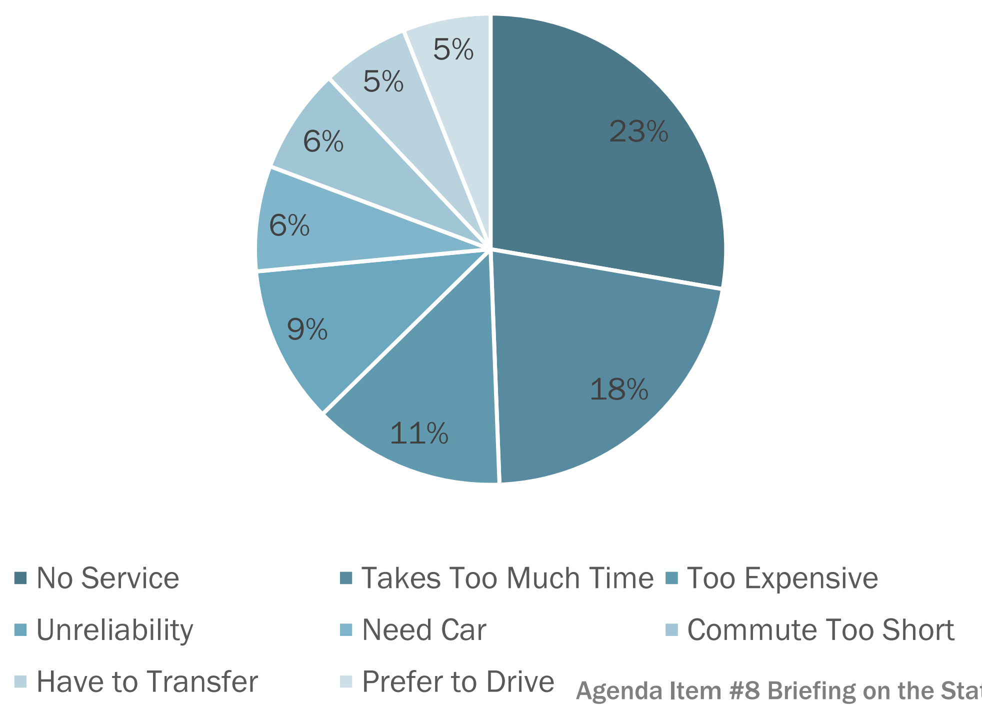
Past Transit Riders

(23%) of past rider respondents said they don't use transit because they had moved either their home or work location and had no transit service available. Travel time (18%), the cost of transit (11%) and the unreliability of transit (9%) were other reasons not to use transit for past riders.

Past Rider Reasons for Not Using Transit



Vehicle Ownership

The trend away from vehicle ownership among young residents might be reversing. 40% of young respondents who lived in the Inner Core reported having a vehicle for each adult household member, vs. 32% in 2016.

Middle Ring was 58% in 2016 to 67% in 2019 and Outer Ring was 73% in 2016 to 83% in 2

Home Area and Age		1+ Car Available 2016 SOC	1+ Car Available 2019 SOC	Change (2016-2019)
Inner Core	**Under 35 years** (2016 n = 212, 2019 n = 778)	32%	40%	+ 8%
	35 to 54 years (2016 n = 749, 2019 n = 908)	51%	56%	+ 5%
	55 years and older (2016 n = 618, 2019 n = 476)	57%	63%	+ 6%
Middle Ring	**Under 35 years** (2016 n = 218, 2019 n = 417)	58%	67%	+ 9%
	35 to 54 years (2016 n = 719, 2019 n = 1,065)	69%	75%	+ 6%
	55 years and older (2016 n = 643, 2019 n = 875)	73%	76%	+ 3%
Outer Ring	**Under 35 years** (2016 n = 272, 2019 n = 483)	73%	83%	+ 10%
	35 to 54 years (2016 n = 1,285, 2019 n = 1,746)	81%	87%	+ 6%
	55 years and older (2016 n = 907, 2019 n = 1,163)	81%	88%	+ 7%

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Number of Teleworkers

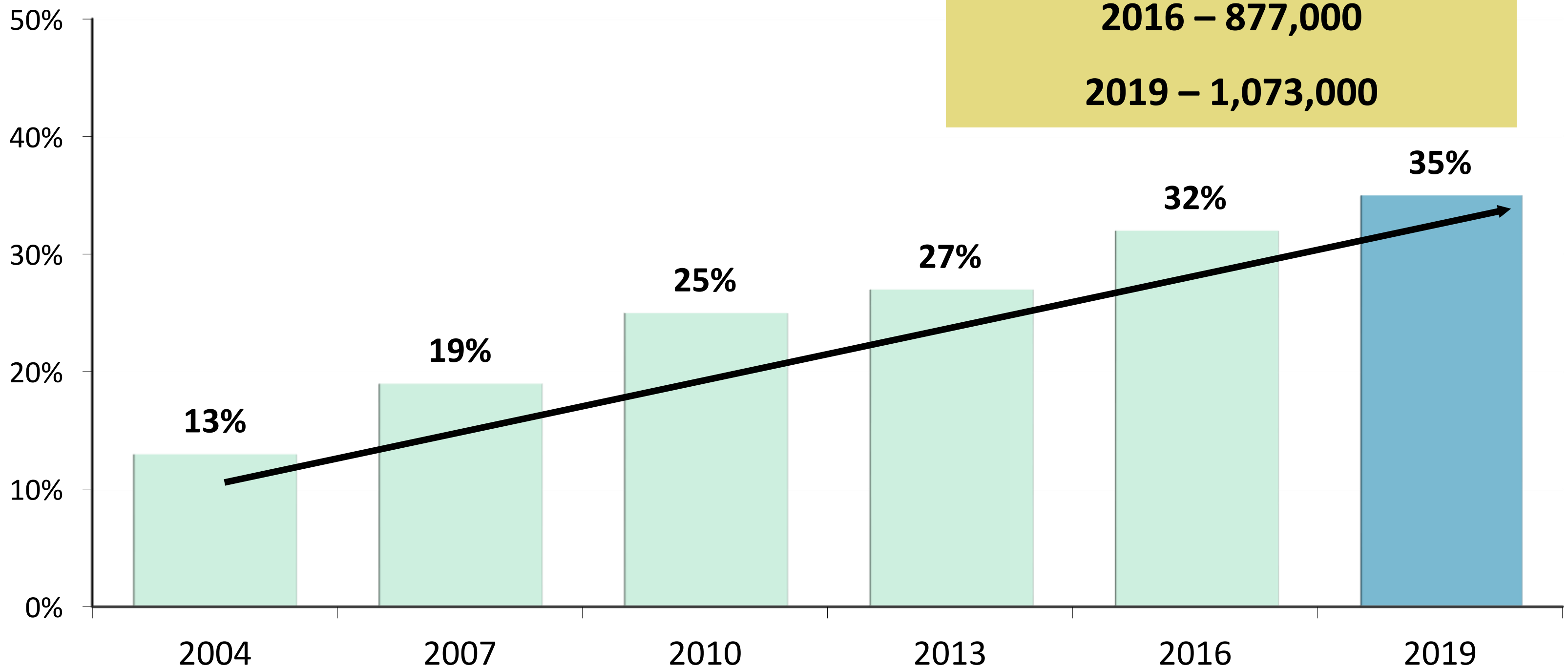
Telework Has Nearly Tripled Since 2004 – 35% of Regional Commuters Teleworked at Least Occasionally in 2019

Between 2016 and 2019, the region added 196,000 new teleworkers for a total of 1,073,000

Regional Teleworkers:

2016 – 877,000

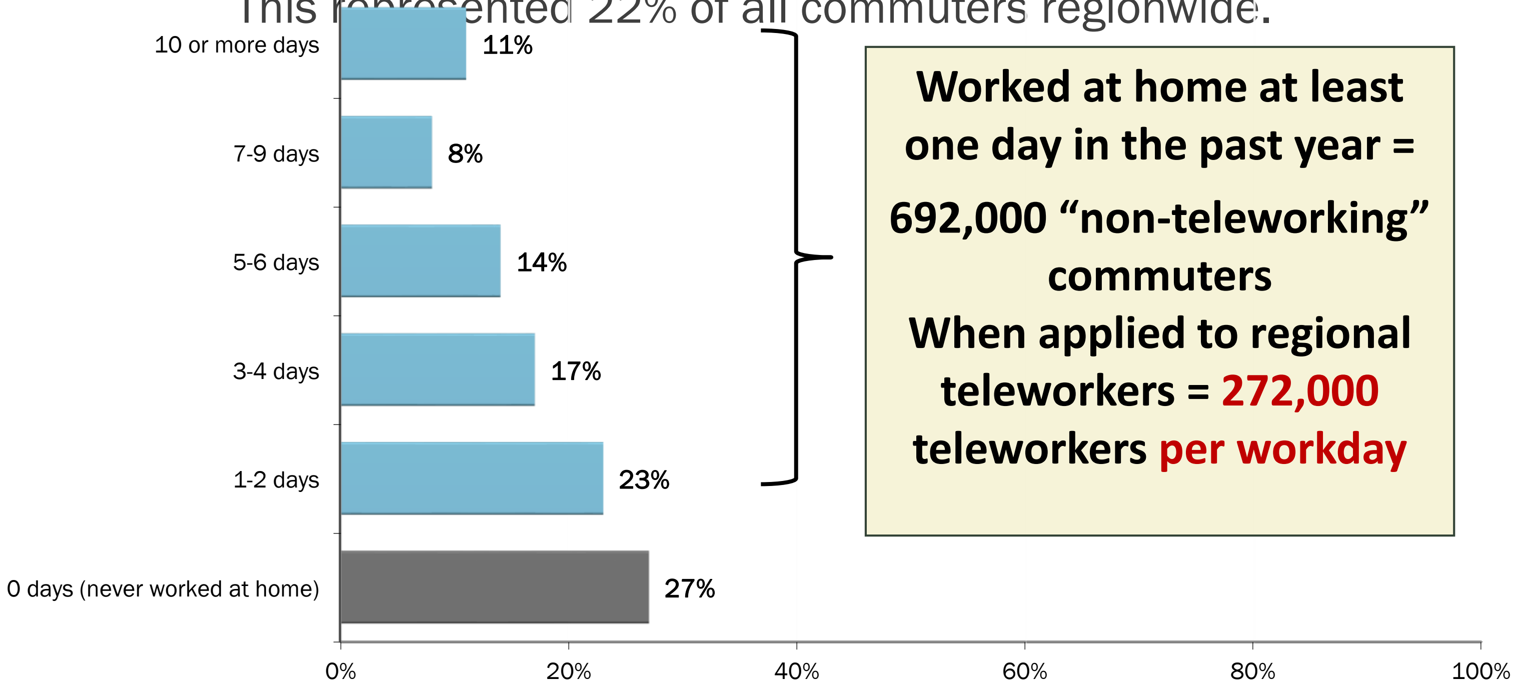
2019 – 1,073,000



TW Frequency of "Non-Teleworkers"

73% of Respondents who said they were not "teleworkers" but had telework-appropriate jobs worked at home at least once in past year

This represented 22% of all commuters regionwide.



Worked at home at least one day in the past year = 692,000 "non-teleworking" commuters
When applied to regional teleworkers = 272,000 teleworkers per workday

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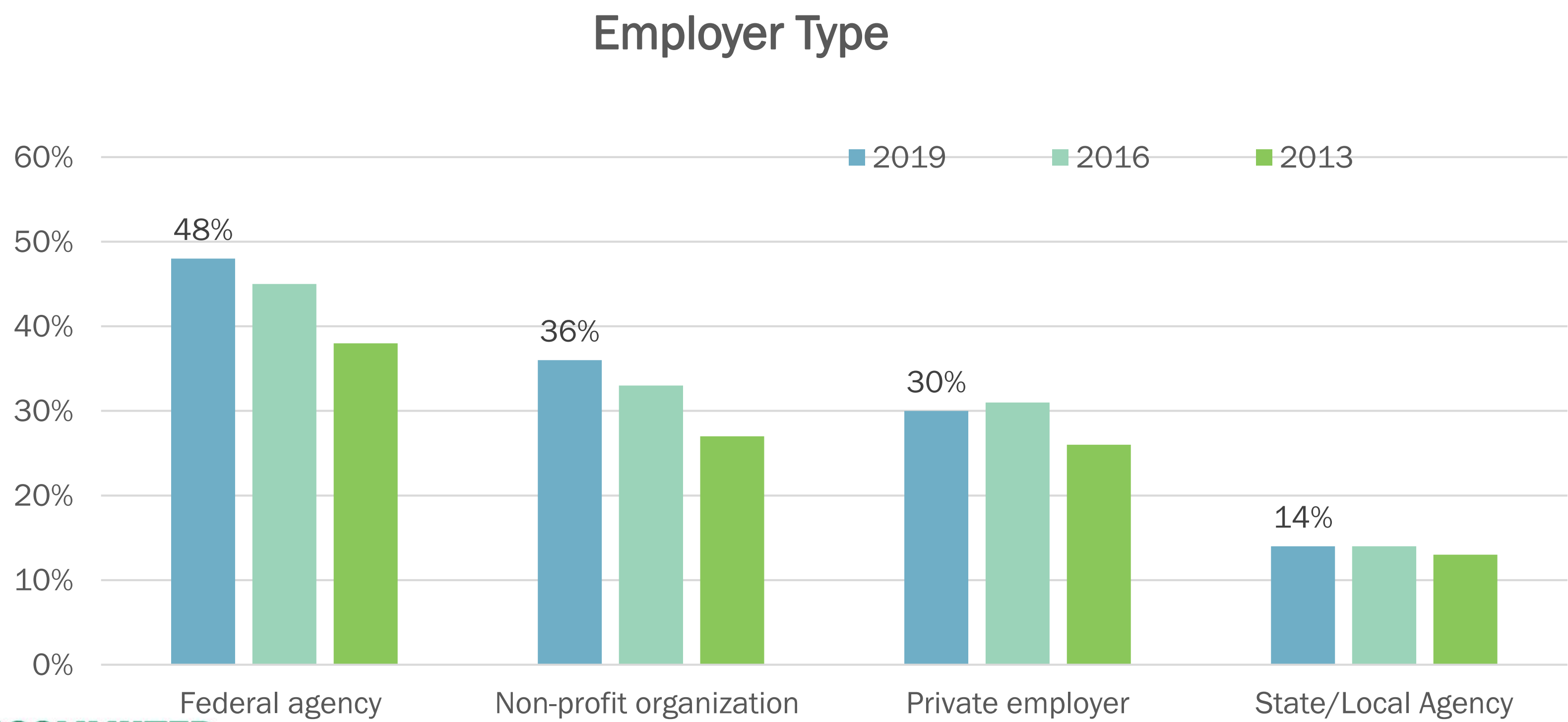
Teleworker Employer Type

Federal agency employees teleworked at a much higher rate (48%) than the regional average

And much higher than did employees who worked for non-profit organizations (36%), private employers (30%), and state/local agencies (14%).



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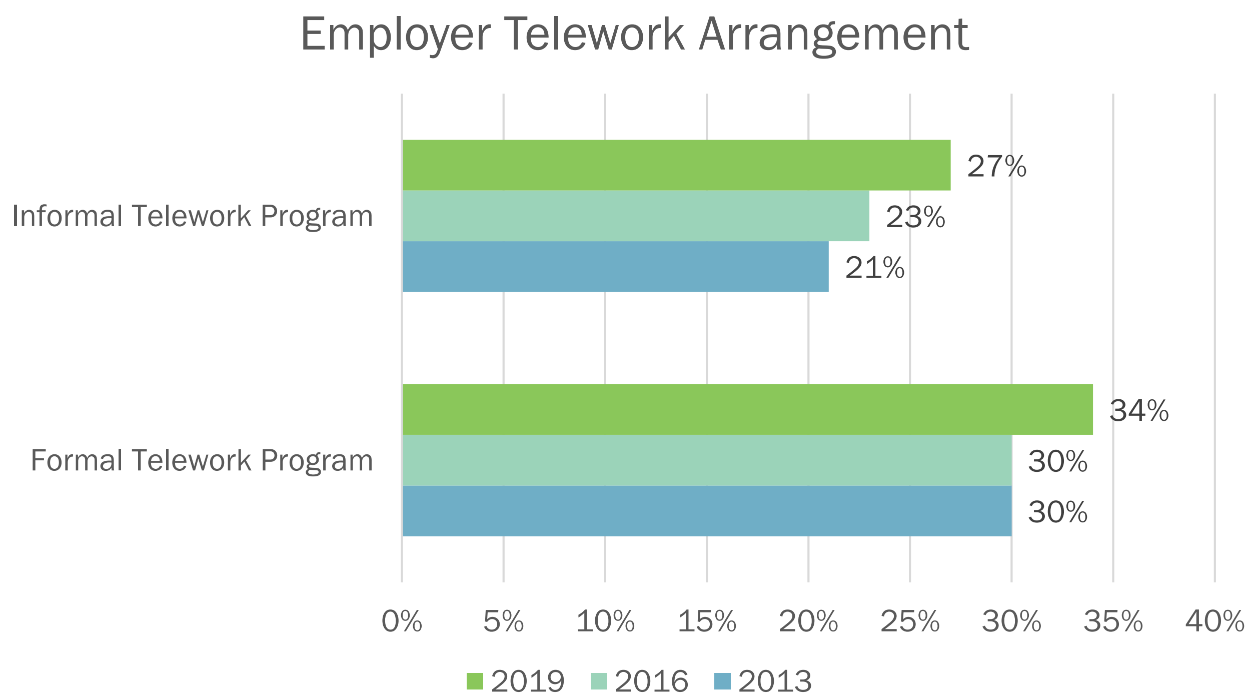
Teleworker Arrangements

More than six in ten (61%) of all respondents said their employers allowed some telework, either under a formal program (34%) or an informal arrangement (27%)



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Type of Employer Commute Services

Transit/Vanpool Subsidy Was Most Widely Available Service in 2019 (45% of Respondents)

Availability of TR/VP subsidy increased 8 percentage points from 2016; Availability of carshare and bikeshare also increased

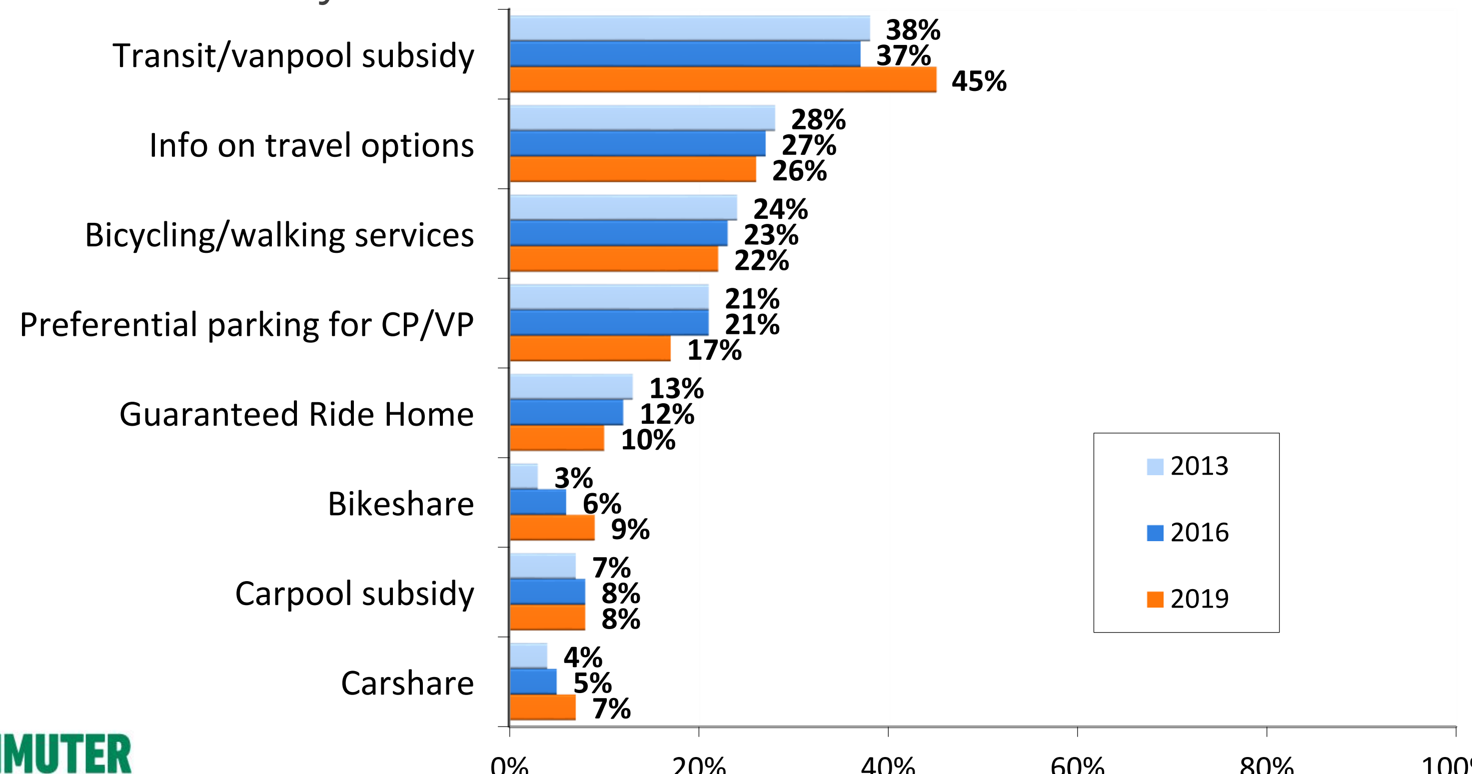
Transit/Vanpool Subsidies

31% Pre-tax deduction (employee-paid)

26% Direct cash payment (employer-paid)

10% SmarTrip card or voucher

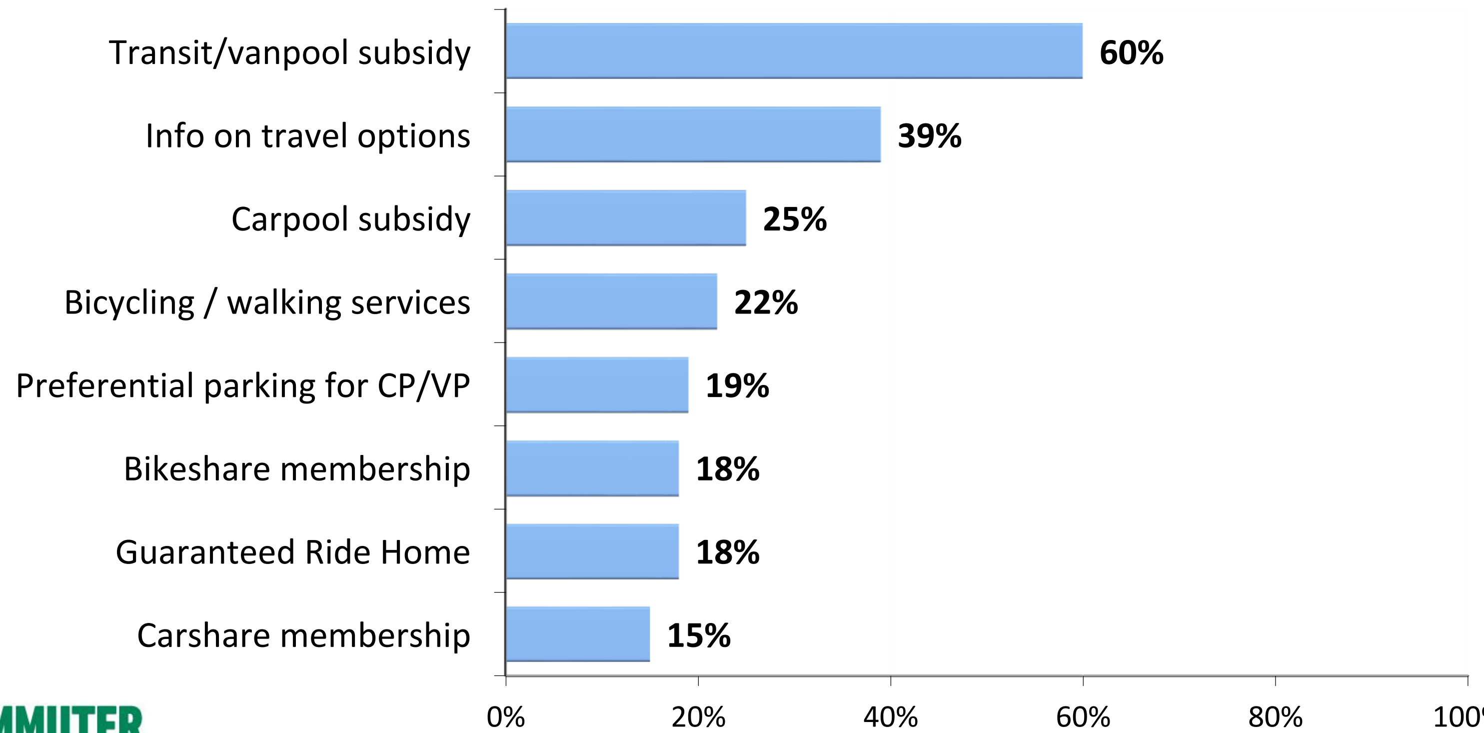
33% Unknown



Use of Employer Commute Services

Transit/VP Subsidy Also Was Most Widely USED Employer Service – by 60% of respondents with access to the service

39% with access used travel option info and 25% used carpool subsidy; other services used by about two in ten with access



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Driverless Cars

One-third of Respondents Were "Very Familiar" with Concept of Driverless Cars; 58% Were "Somewhat Familiar"

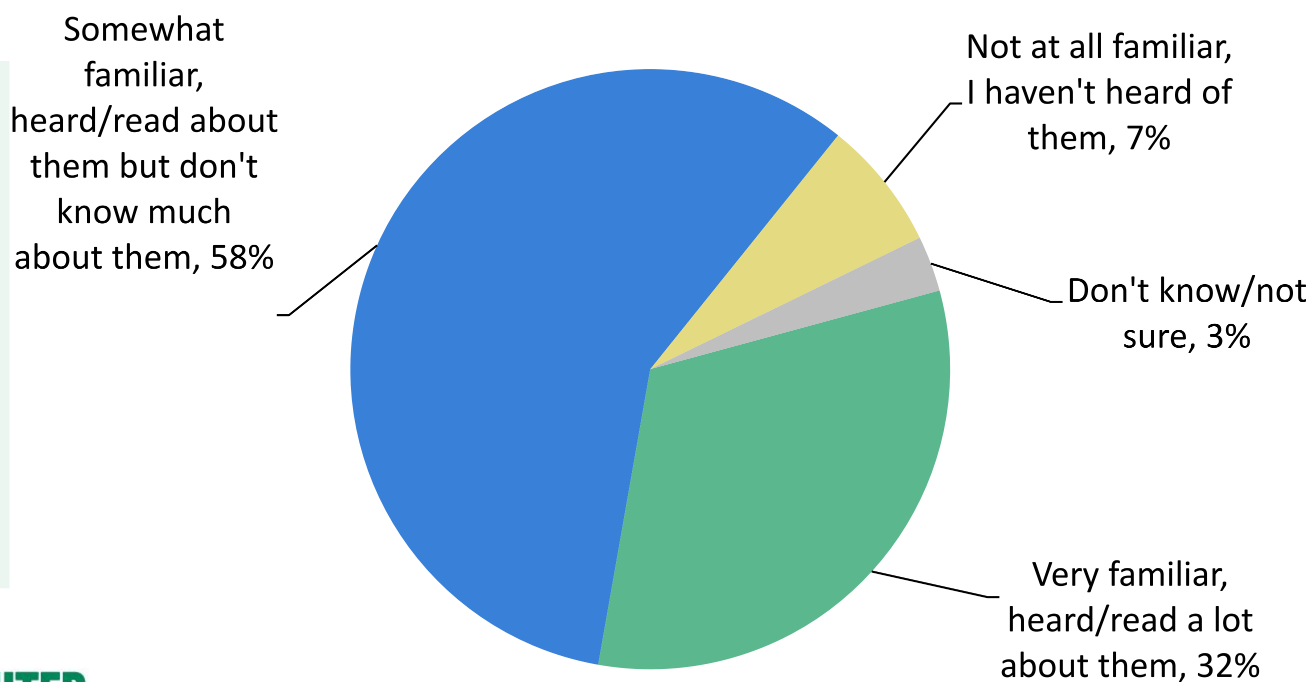
Familiarity was higher among males and higher income respondents; there was very little difference by age

Reported Being <u>very familiar</u>:

Male – 44%
Female – 22%

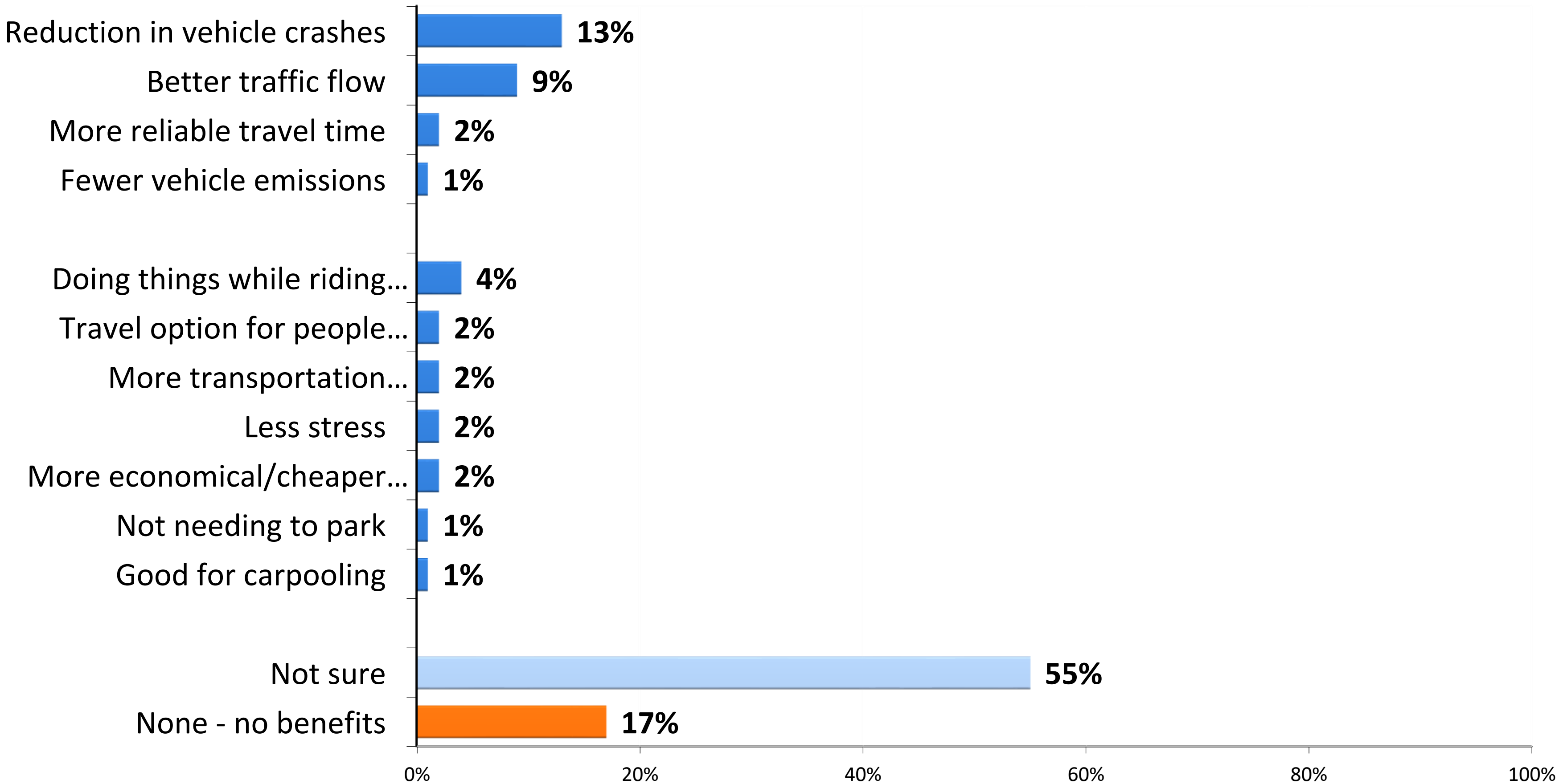
$160K+ – 44%
$100-$159K – 36%
< $100K – 25%

< 35 years – 34%
35-54 years – 30%
55+ years – 33%



Driverless Car Benefits

72% respondents could not describe a benefit, either because they did not feel there were any benefits (17%) or because they weren't sure that there were benefits (55%).



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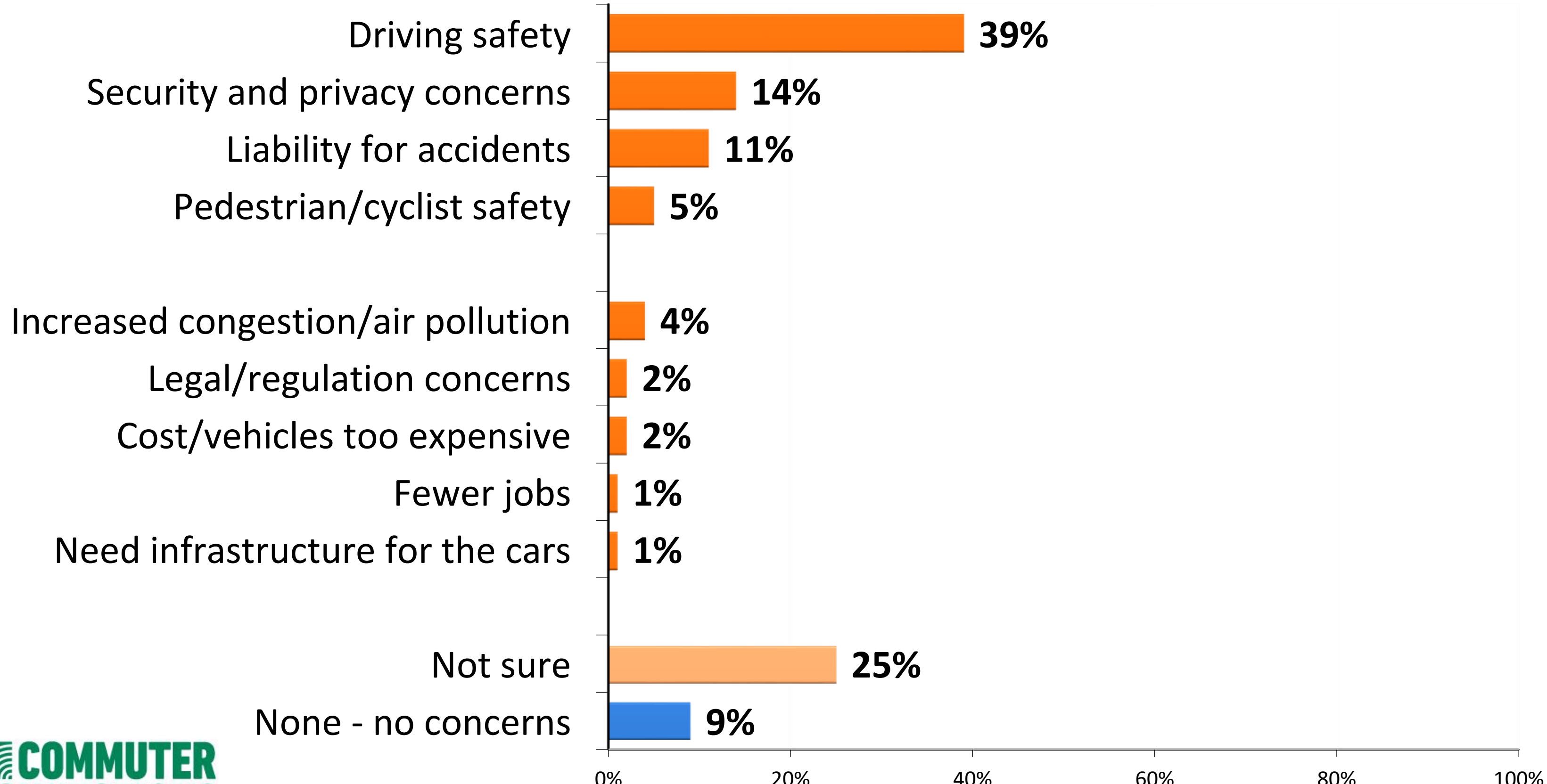
Concerns With Driverless Cars

Respondents were more likely to mention concerns about driverless cars than they were to cite potential benefits.

66% noted at least one concern that they had with driverless cars versus 28% who had mentioned a benefit



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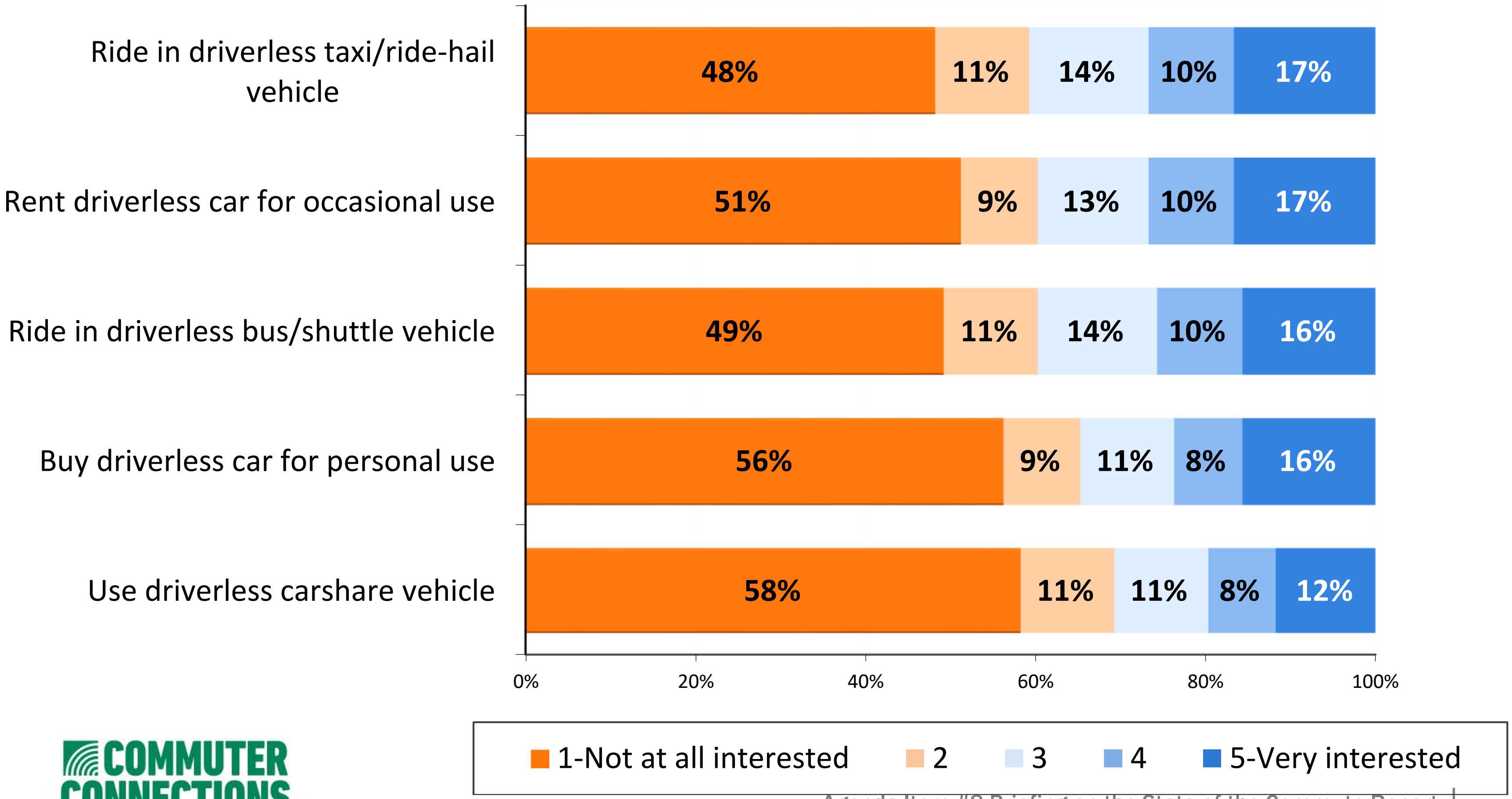
Interest in Driverless Cars

Overall level of interest was similar across scenarios, regardless of the type of vehicle described in the scenario and/or whether the vehicle was owned or rented by the respondent.



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