



## ARLINGTON COUNTY COMMUTER SERVICES

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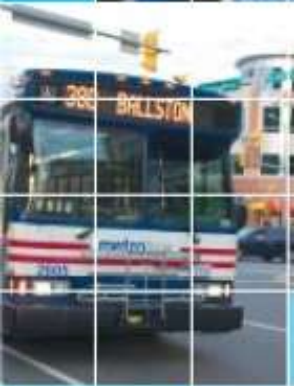
# 2009 Arlington County Resident Study Report



May 15, 2010

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# Study Background and Methodology



# Outline of Presentation

- Study Methodology
- Demographics overall and by study area
- Resident commute behavior
- Transit's role in travel behavior
- Transportation satisfaction and Quality of life
- Transportation investment
- Non-work travel
- Bicycle as a travel mode
- Interest in streetcar
- Awareness & use of travel info and services
- Worksite and residential TDM services
- Travel actions and motivations for changes
- Advertising
- APPENDIX
  - Generational results

# Study Objectives

- Second resident surveys – follow-up to 2006 survey
- Track residents' commute travel patterns
- Examine awareness and use of travel services provided by ACCS, employers, and other organization
- Explore differences in travel experience by County area
- Measure use of non-SOV travel options available in Arlington County
- Measure awareness, use and impact of County's transportation support organizations and services.

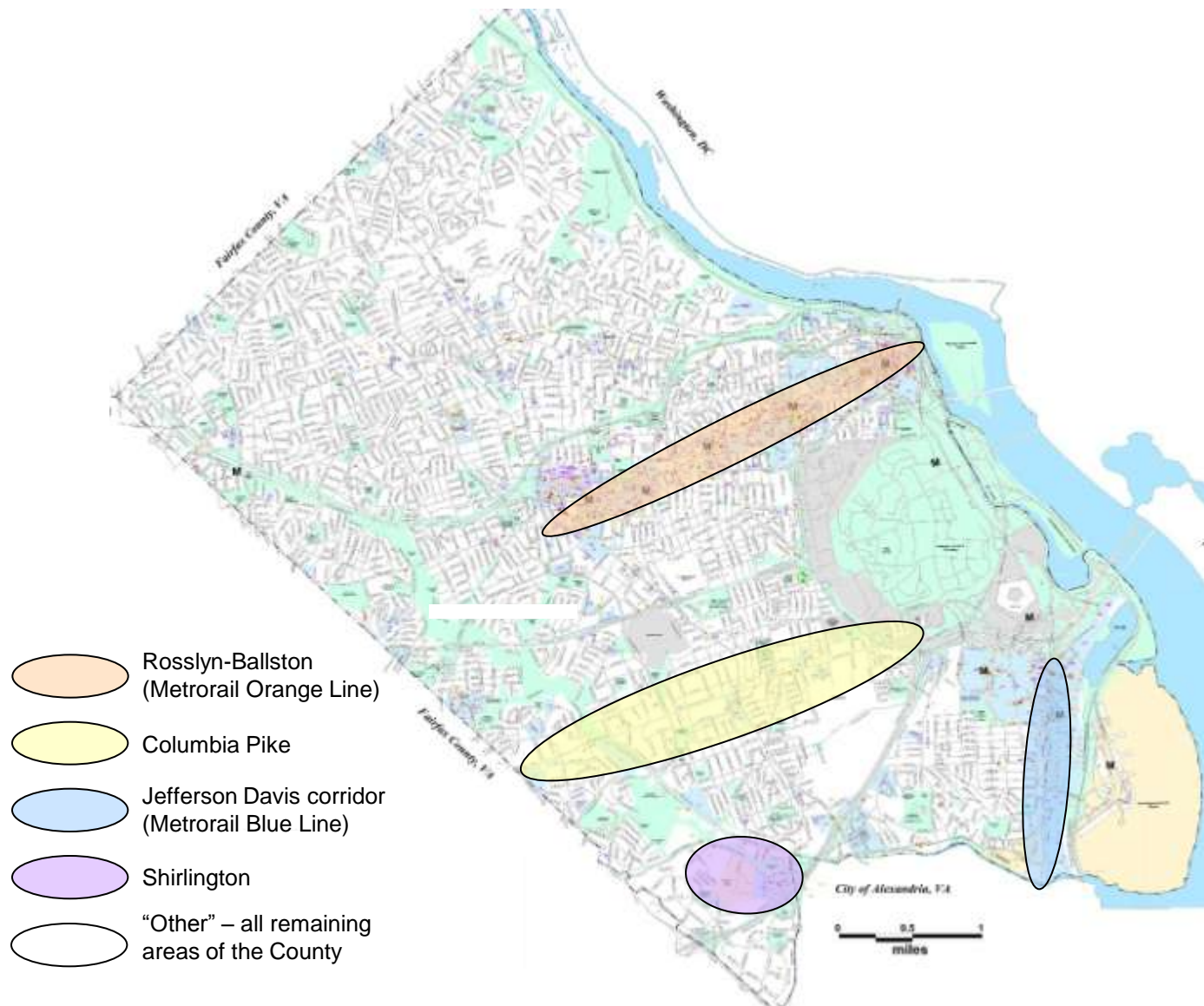
# Methodology

- Random digit dial telephone survey
- Respondents were residents of Arlington County, age 18 and older
- A total of 4,344 residents were surveyed:
  - 1,263 completed the entire “Long” survey
  - 3,081 completed a “Mini” survey with a sub-set of the questions on the Long survey
- The Mini survey collected data on:
  - Travel mode
  - Quality of life and transportation satisfaction
  - Awareness of services / programs
  - Demographics

# Survey Samples and Weighting

- Long Survey quotas established for five Co sub-areas:
  - Rosslyn-Ballston corridor (Orange line)
  - Jefferson Davis corridor (Blue line)
  - Columbia Pike corridor
  - Shirlington
  - Other areas
- Residents who were called after their residence area quota was filled were asked Mini Survey questions. The Mini Survey continued until Long Survey quotas were filled.
- Long Survey results were weighted to obtain accurate distribution of respondents across the County.
- Long and Mini Survey results were adjusted for age and ethnicity (using American Community Survey data)

# Survey Sample Areas



# Sample Sizes – Long and Mini Surveys

Long survey sampled residents of the five areas:

Sample Area	Sample Size	Sample Distribution	Actual Distribution	Margin of Error
Rosslyn-Ballston	301	24%	20%	+/-5.6
Jefferson Davis	219	17%	6%	+/-6.6
Columbia Pike	254	20%	8%	+/-6.1
Shirlington	115	9%	5%	+/-9.1
Other	374	30%	61%	+/-5.0
<b>Total “Long”</b>	<b>1263</b>	<b>100%</b>	<b>100%</b>	<b>+/-2.7</b>
<b>Long + Mini</b>	<b>4,344</b>			<b>+/-1.5</b>

# Geographic Analysis

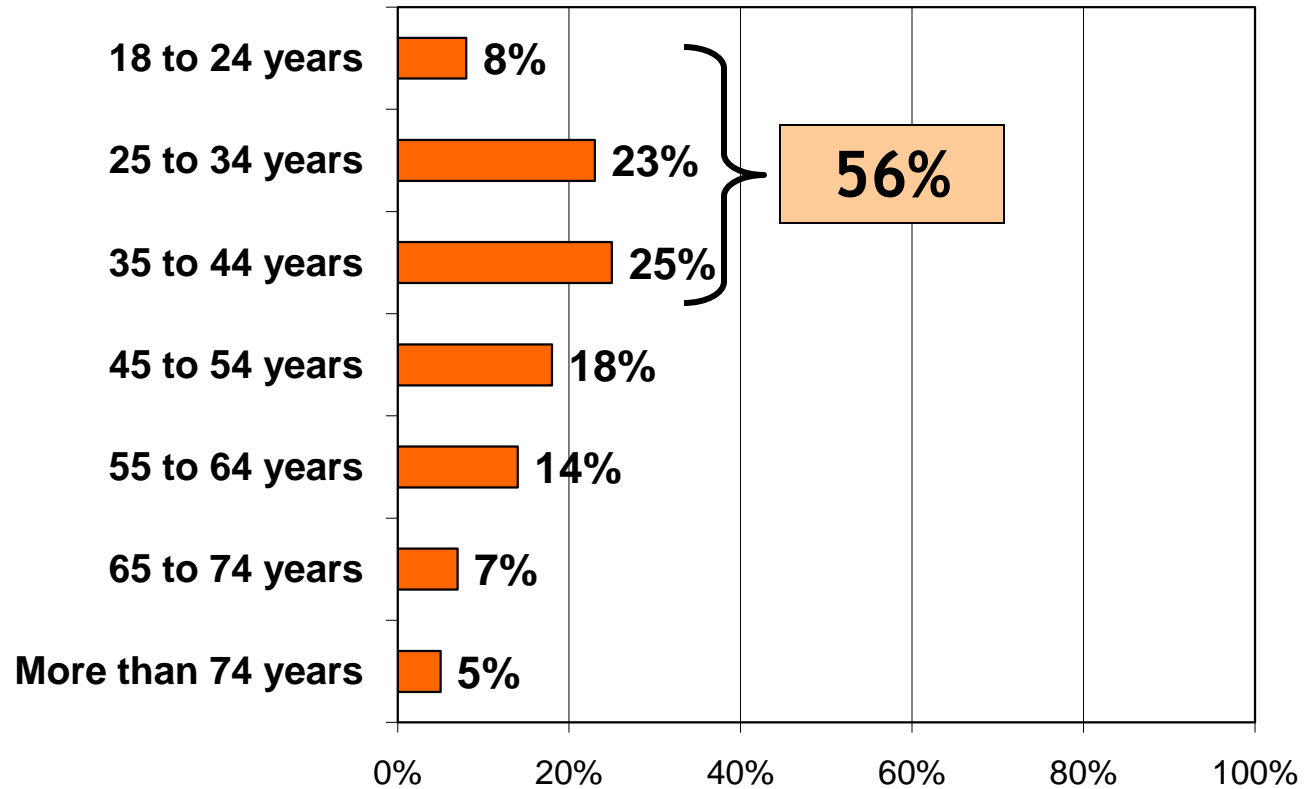
- The survey analysis also explored survey results for several geographic categories:
  - 5 sample areas
  - Urban Villages
  - Metrorail corridor vs Off-Metrorail
  - Distance from home to Metrorail station
- Variables examined included:
  - Demographic characteristics
  - Commute travel mode
  - Non-work travel patterns
  - Awareness and use of travel info services



# Demographics Overall and By Area

# Age

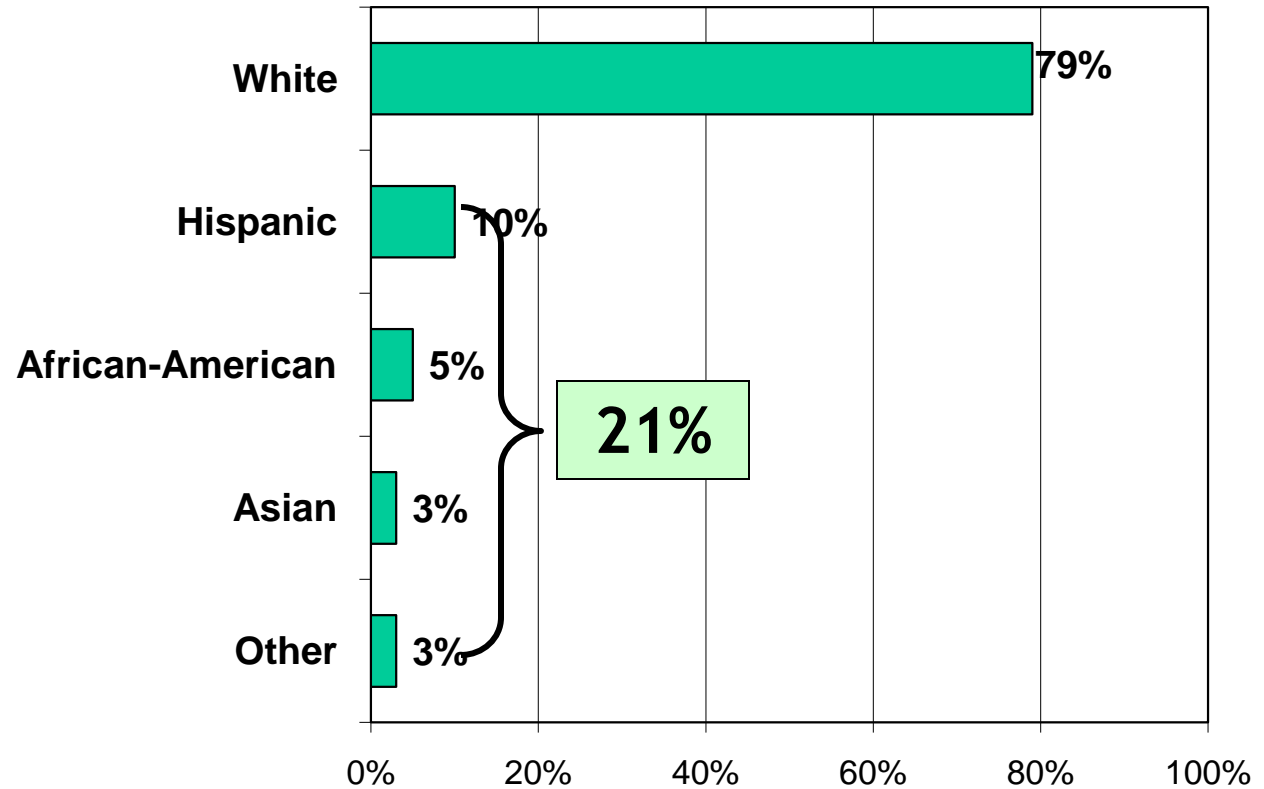
More than Half of Residents are Under 45 Years Old but 12% are Older than 64



Q58: In what year were you born?

# Ethnicity

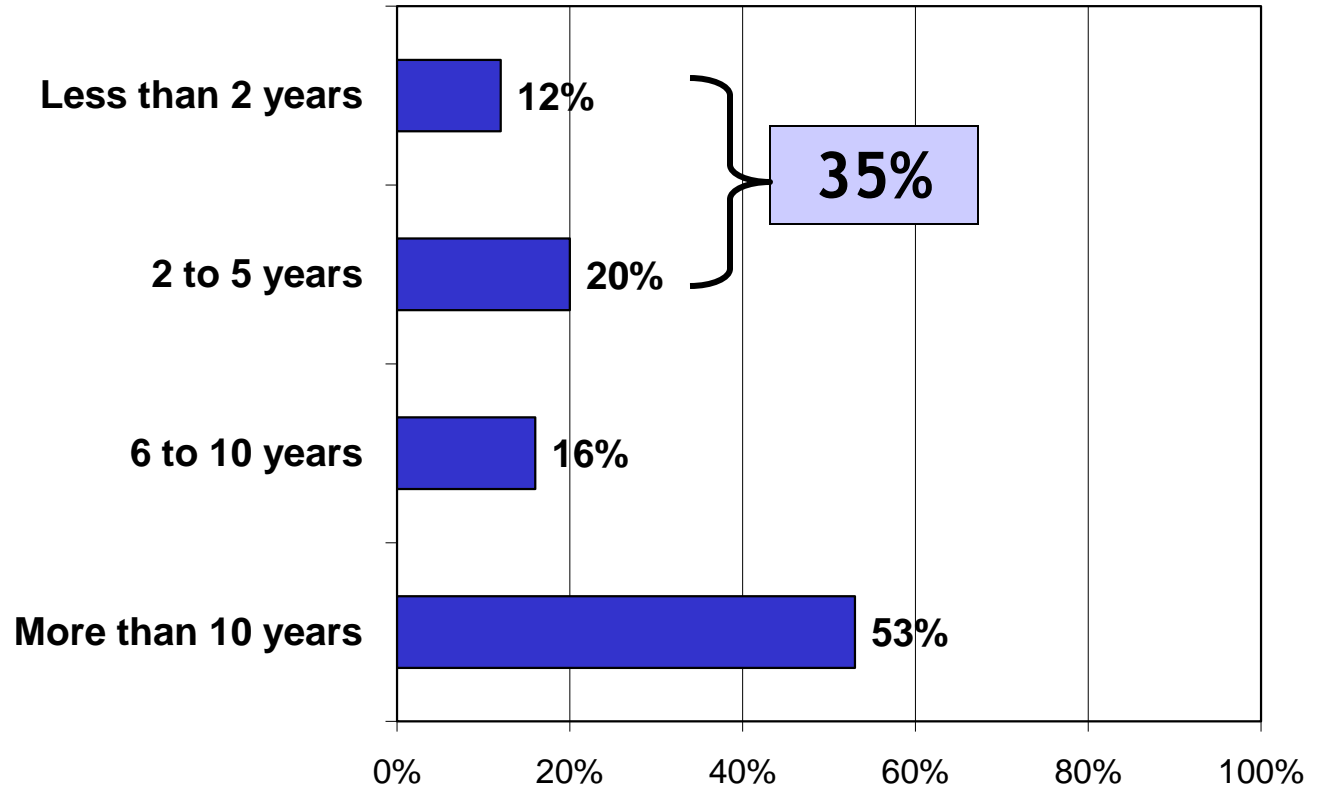
## Two in Ten Arlington Residents are of Non-White Ethnic Background



Q60: Do you consider yourself Spanish, Hispanic, or Latino?

Q61: Which of the following best describes your race?

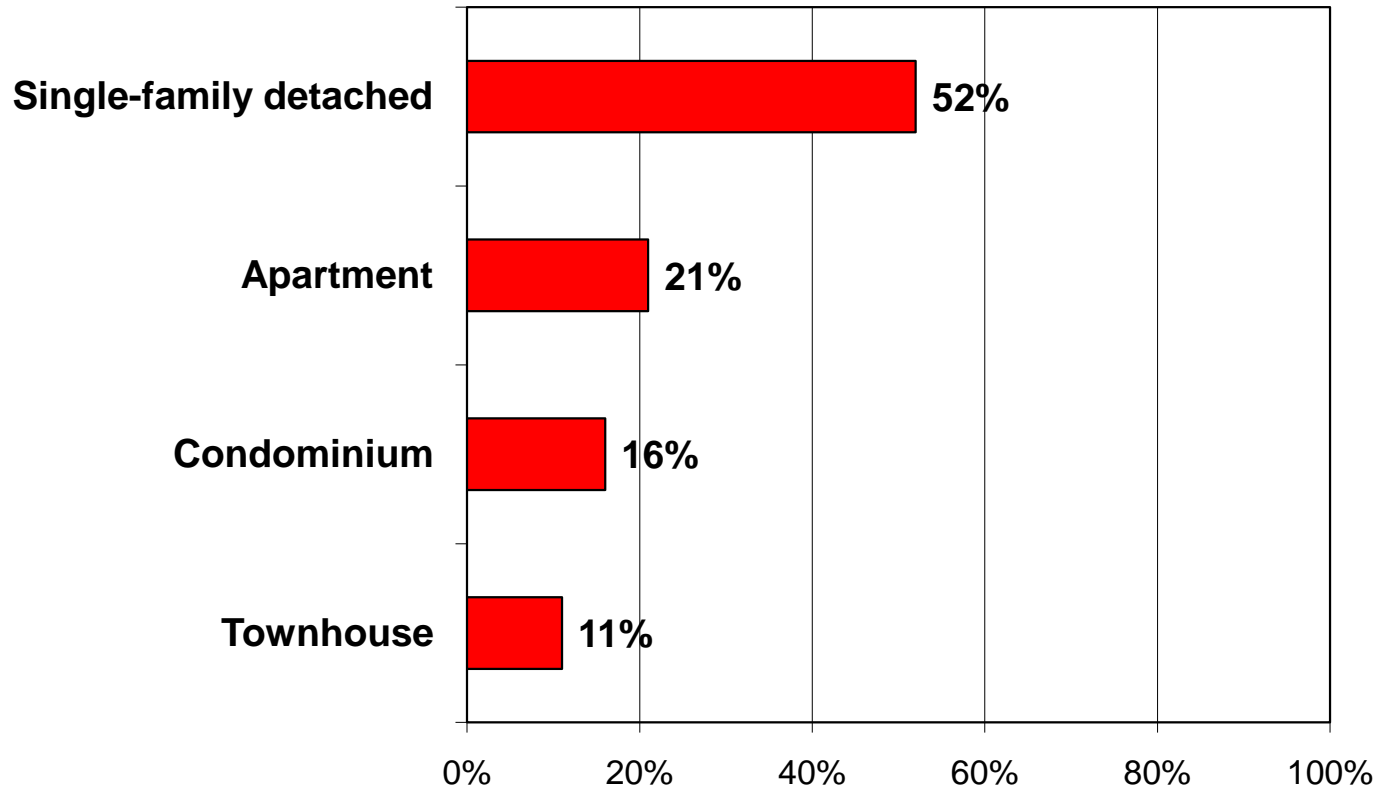
# Time Living in Arlington A Third of Residents Moved to Arlington Within the Past 5 Years



Q4: About how long have you lived in Arlington County .

# Type of Residence

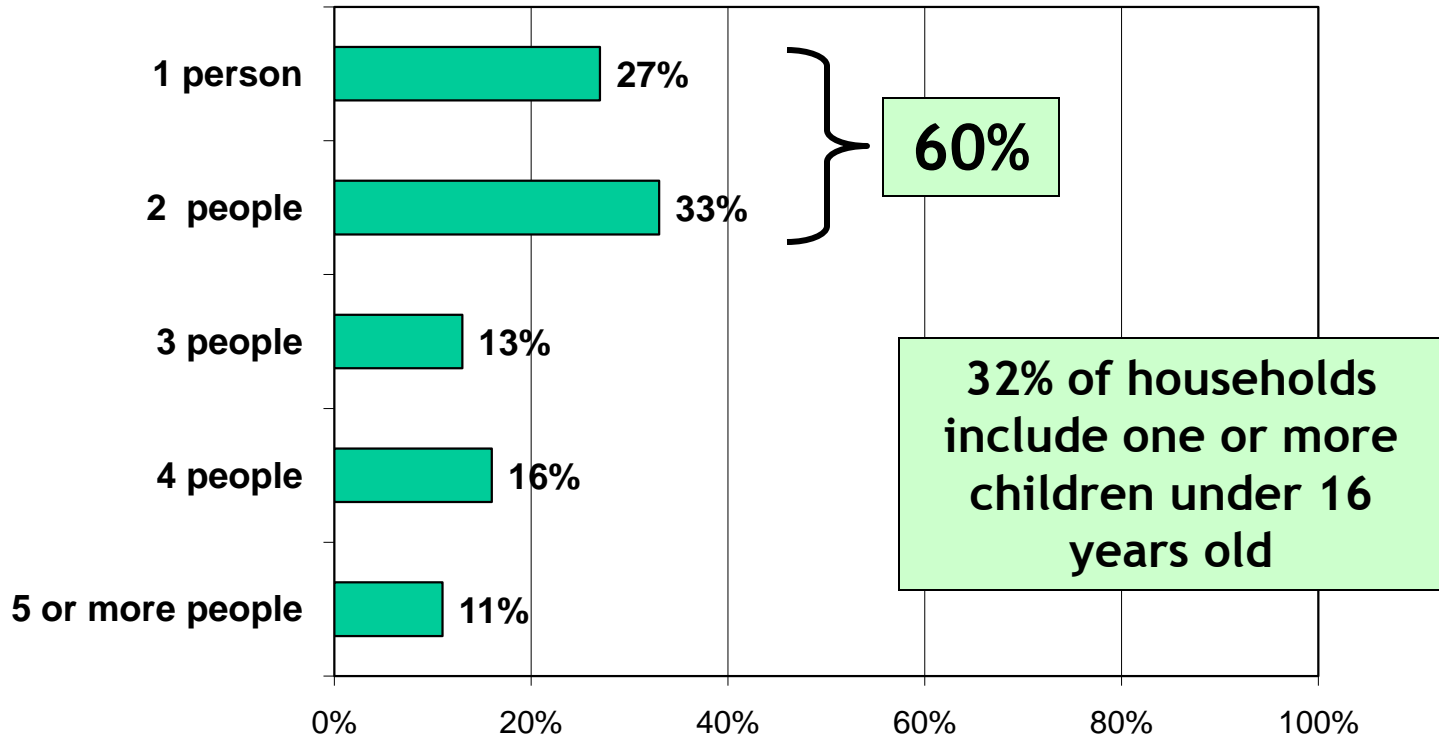
## More than Half of Residents Live in a Single-family Detached House



Q5. Which of the following types of housing best describes your home?

# Household Size

More than a Quarter of Households have Only One Person and a Third have Just Two

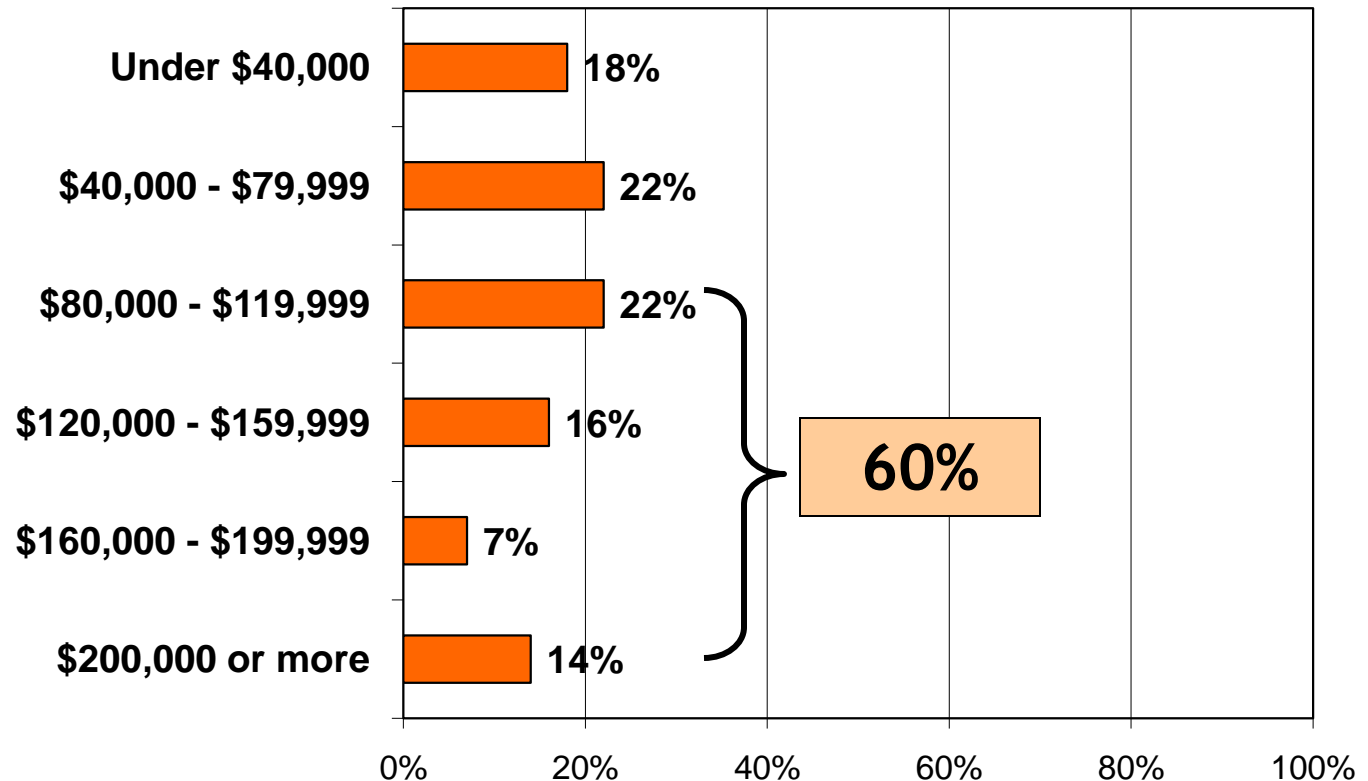


Q64A: How many total people, including children, live in your household?

Q64B: How many of these household members are under 16 years old?

## Income

Six in Ten Residents have an Annual Household Income of at Least \$80,000

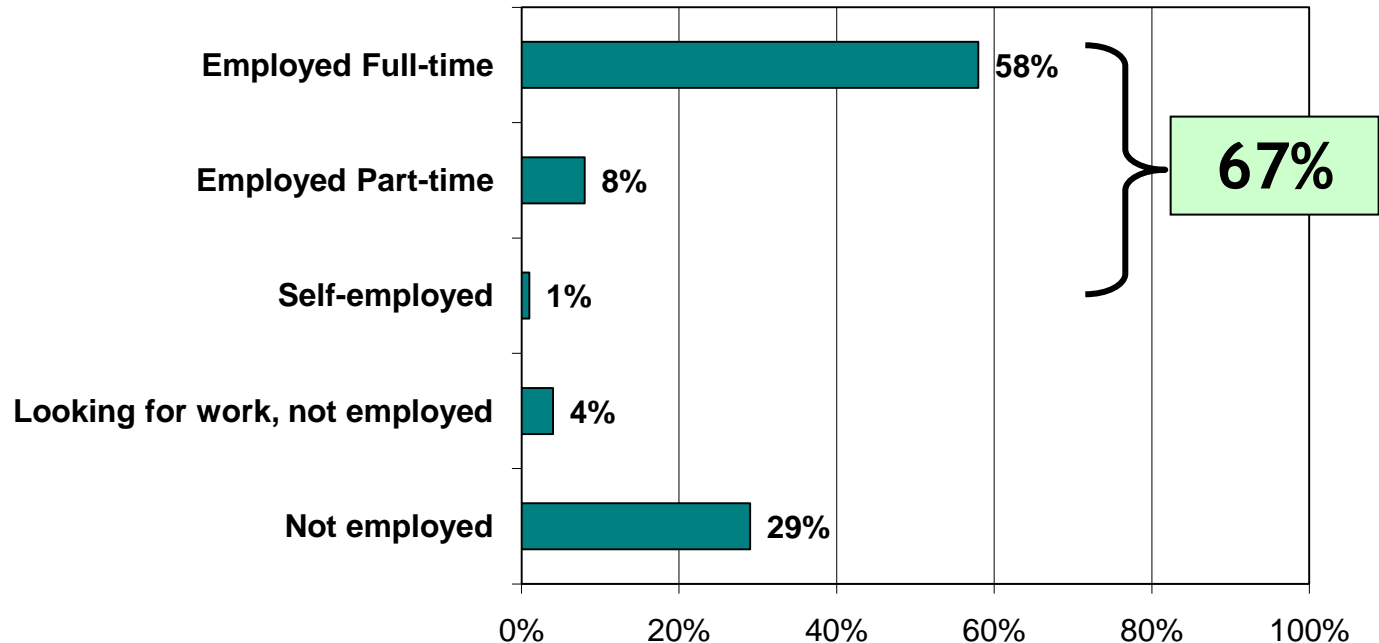


Q65A / Q65B: Please stop me when I reach the category that best represents your household's total annual income? Is it...

# Employment Status

## 67% of Residents are Employed

58% of residents work full-time, 8% work part-time and 1% report being self-employed. This is about the same percentage as in 2006 (68%). Additionally 4% of residents said they are “looking for work.”

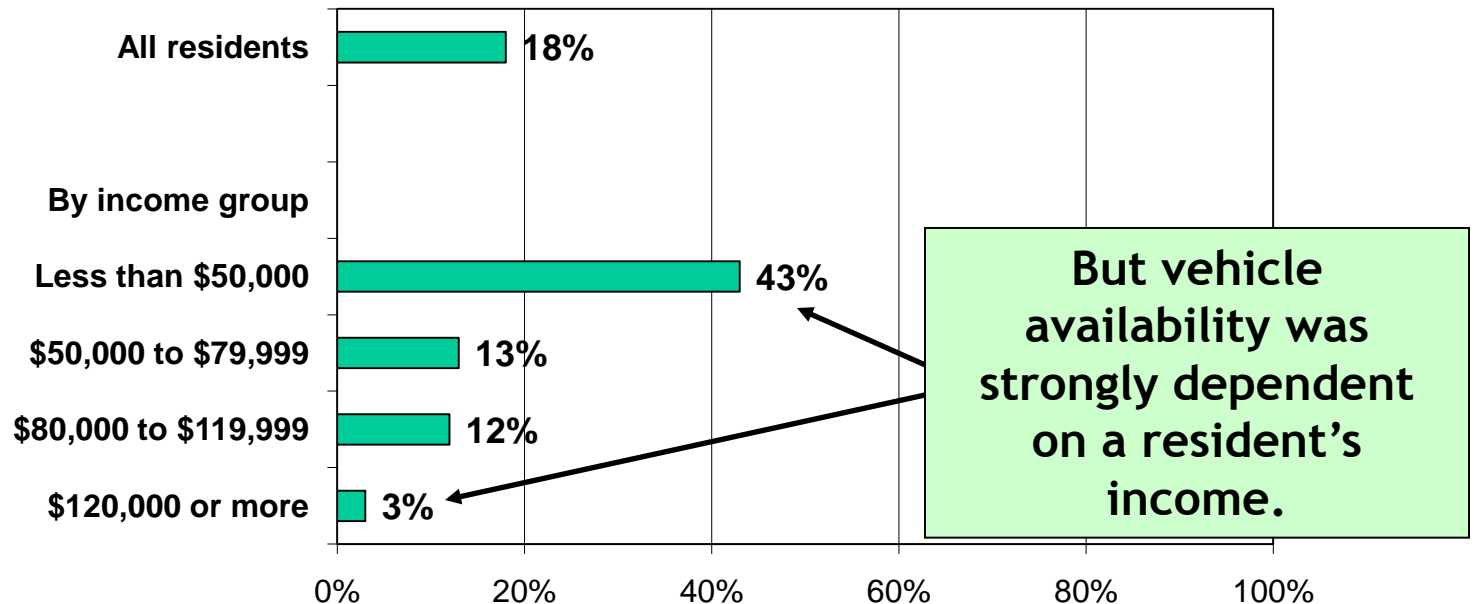


Q2. What is your current employment status? Are you... employed full-time, employed part-time, looking for work but not currently employed, not employed, other?

# Personal Vehicle Available

Almost 2 in 10 Residents said they Do Not have Regular Access to a Personal Vehicle for their Travel

## Percentage with no vehicle available



Q64: Do you have a personal car, SUV, truck, or other vehicle available to you on a regular basis for your travel?

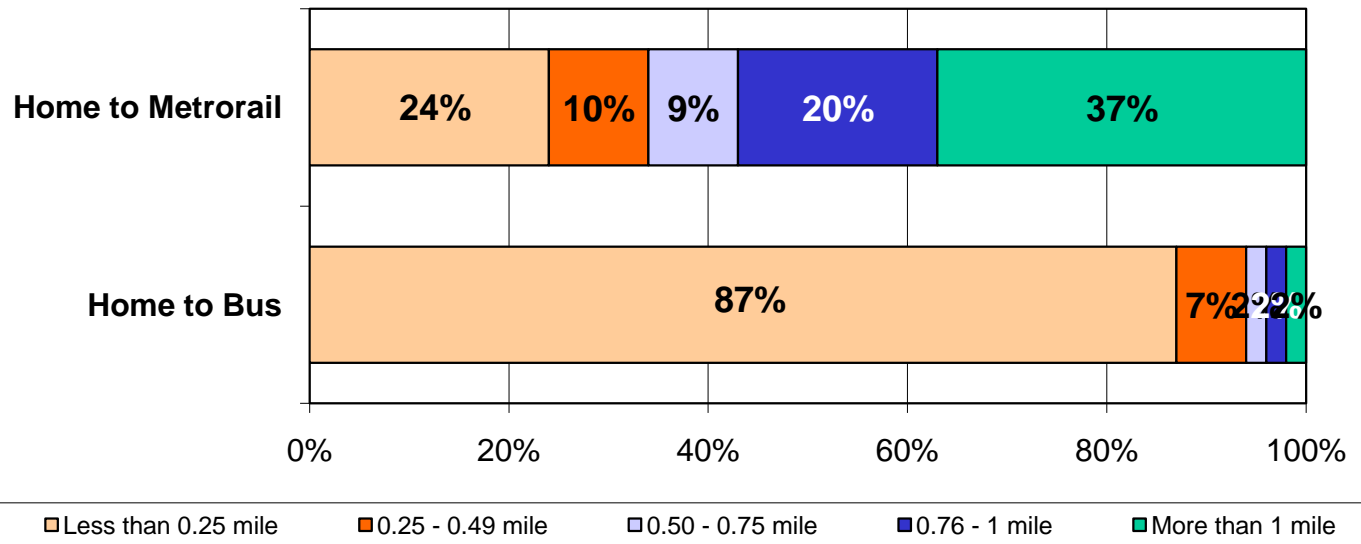
Long + Mini  
Survey  
Home to  
Metrorail  
n = 3,851

Long Survey  
Home to bus  
n = 1,223

# Distance to Transit

Arlington residents have excellent access to transit: 87% live within  $\frac{1}{4}$  mile of a bus stop and 94% live within  $\frac{1}{2}$  mile.

A third of residents live within  $\frac{1}{2}$  mile of a rail station.

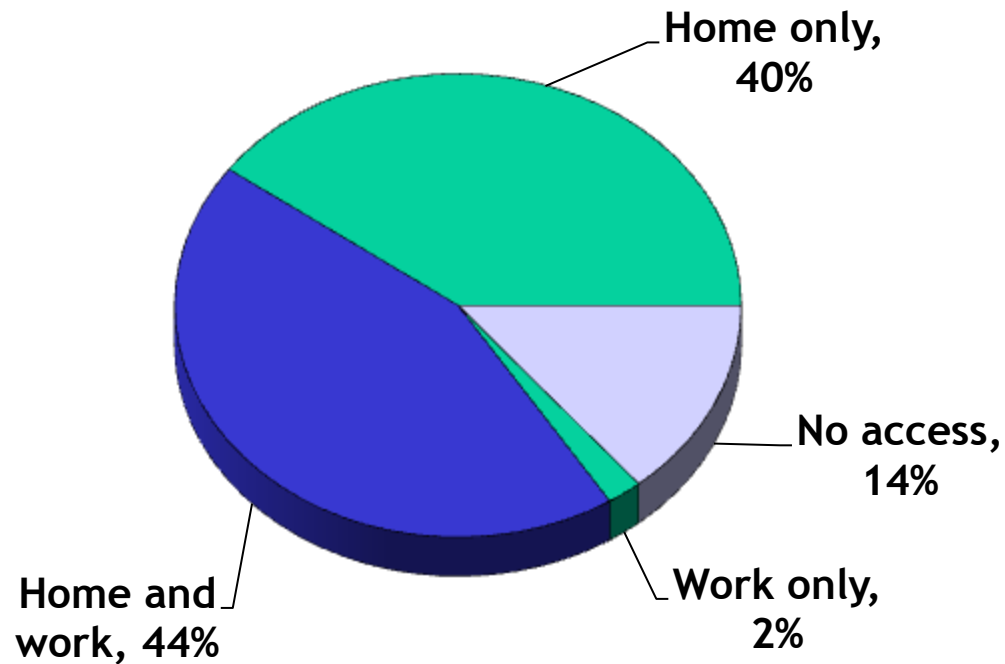


Q8 How far do you live from the nearest Metrorail station?

Q55 About how far is it from your home to the nearest bus stop?

# Internet Access

## 84% of Residents have Internet Access Either at Home

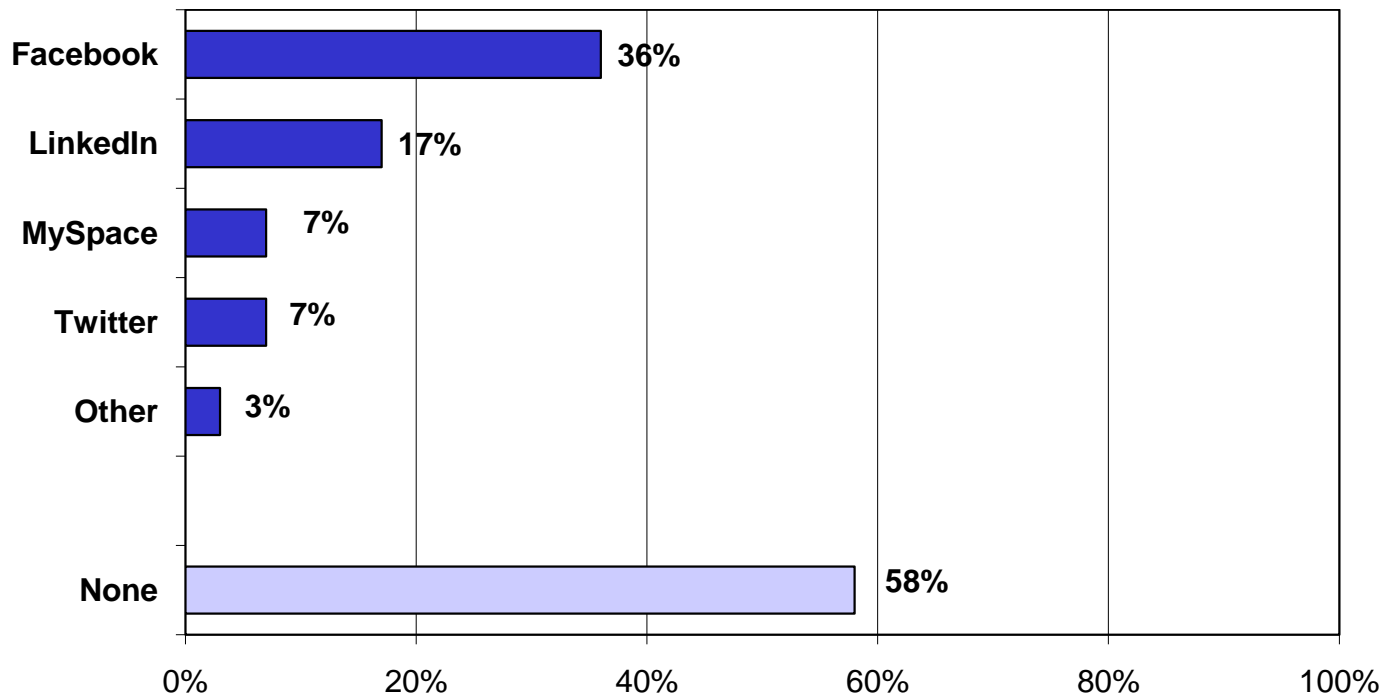


62. Do you have access to the Internet at home? Do you have access at work?

# Tech Savvy

## 42% of Residents Use Social Network Websites

### Most Common is Facebook, Used by a Third of Residents



Q62A. Do you currently use any of the following social networking sites or have you used any of them in the past?

# SUMMARY

## Arlington residents:

- Young population and growing senior population
- High income
- Mixed ethnic/racial profile, but still predominantly White
- Many small households
- Substantial in-migration / turnover in 5 years
- Excellent access to transit
- Technologically savvy and active

Long + Mini Survey

Shirlington  
n = 209

Rosslyn-  
Ballston  
n = 821

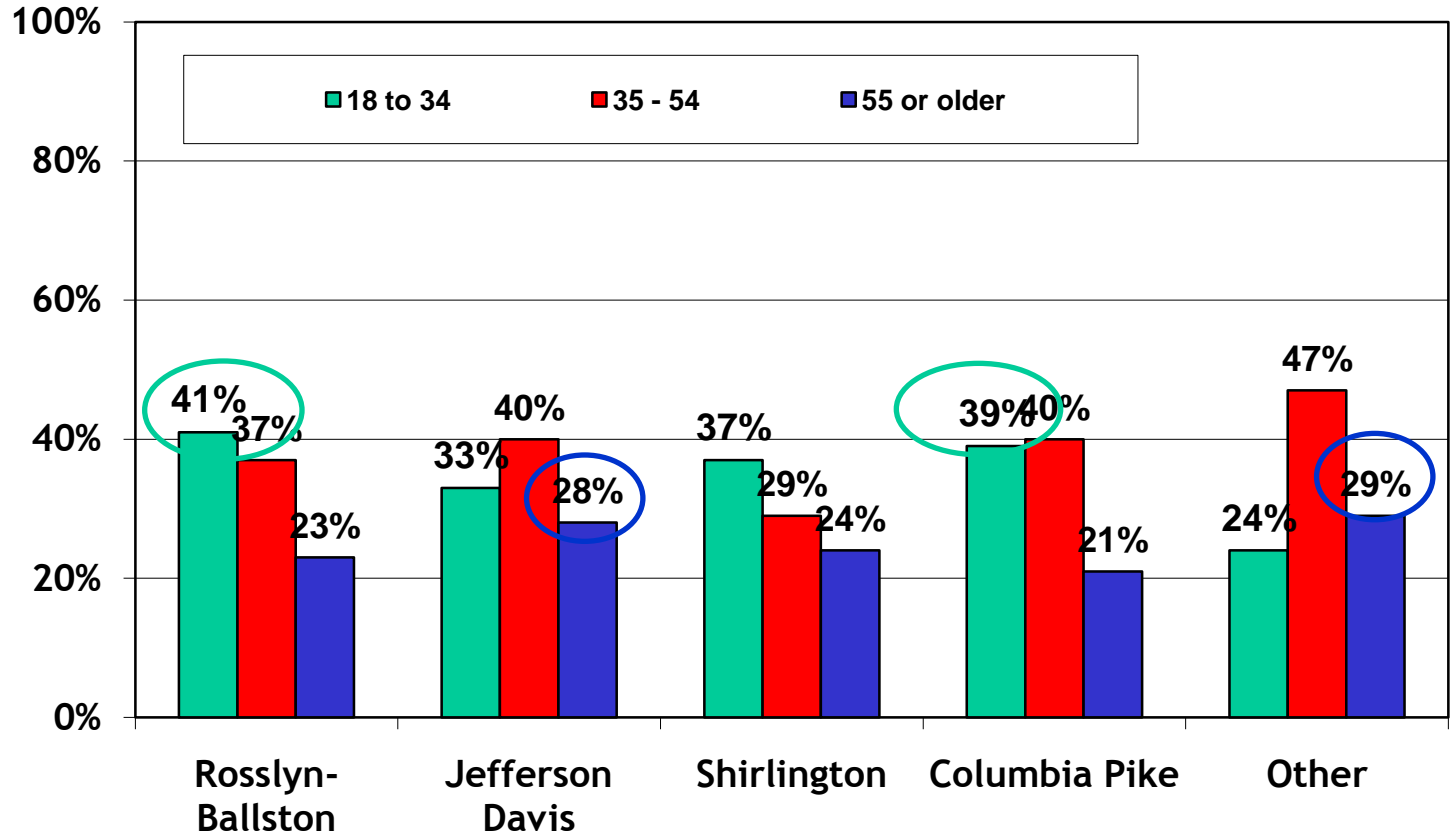
Jefferson  
Davis  
n = 250

Columbia  
Pike  
n = 347

Other  
n = 2,489

# Age by Area

Columbia Pike and R-B have the Youngest Population; JD and "Other" have the Oldest



Q58: In what year were you born?

Long + Mini  
Survey

Rosslyn-  
Ballston  
n = 853

Jefferson  
Davis  
n = 252

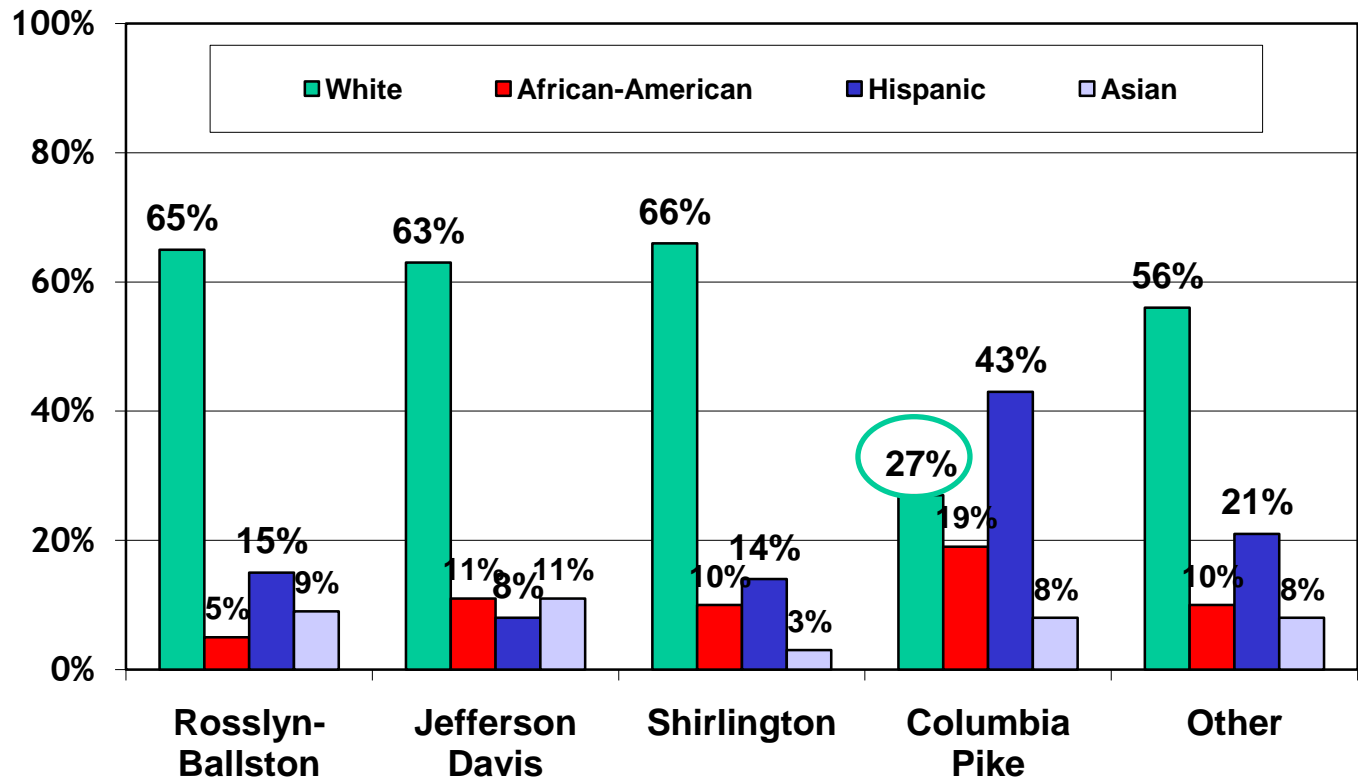
Shirlington  
n = 216

Columbia  
Pike  
n = 359

Other  
n = 2,606

# Race by Area

73% of Columbia Pike Residents are Non-white  
Compared to a Third of Residents in the Rest of  
the County



Q60I Do you consider yourself Spanish, Hispanic, or Latino?

Q61: Which of the following best describes your race?

Long + Mini  
Survey

Rosslyn-  
Ballston  
n = 863

Jefferson  
Davis  
n = 258

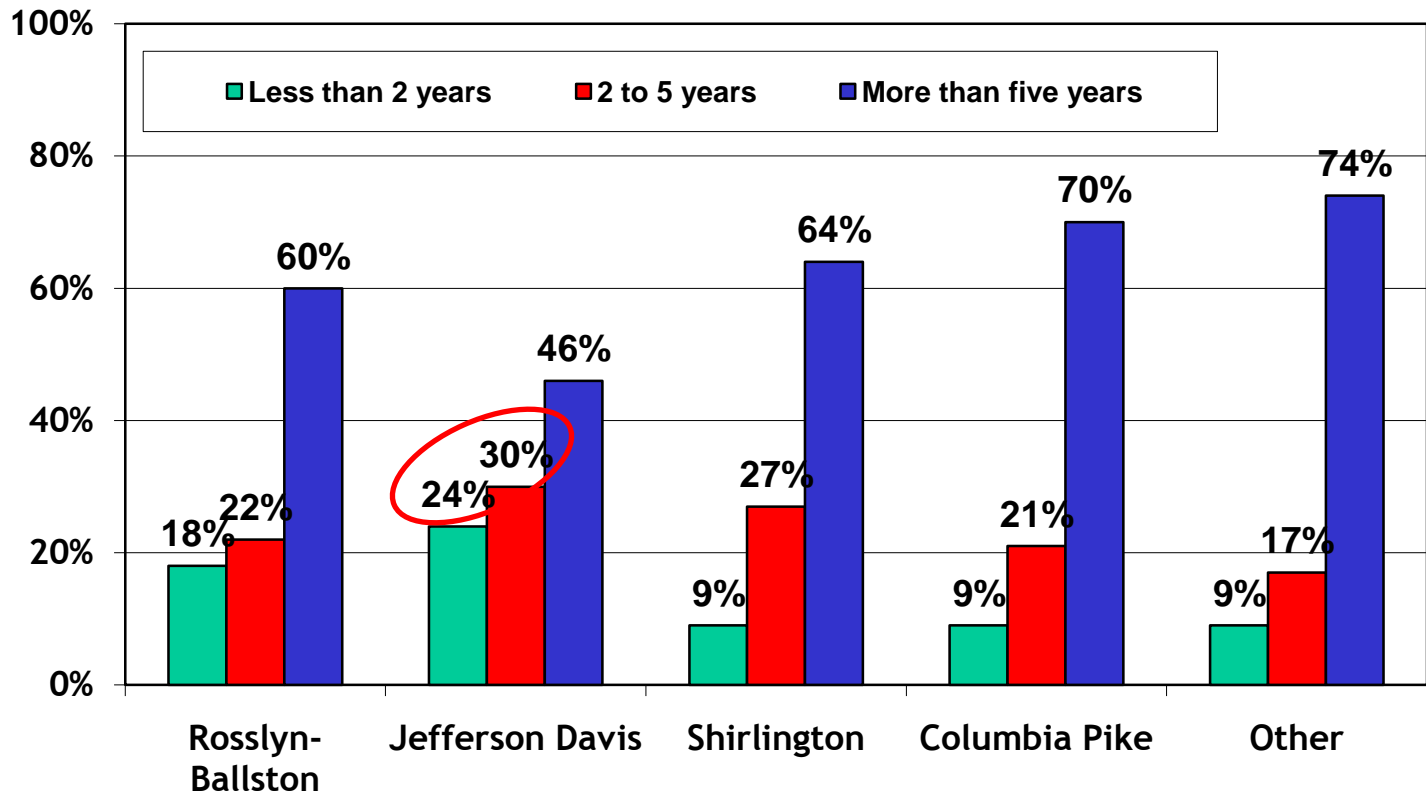
Shirlington  
n = 223

Columbia  
Pike  
n = 362

Other  
n = 2,609

# Time in Arlington by Area

## 54% of Jefferson Davis Residents Moved to Arlington within the Past 5 Years



Q4: About how long have you lived in Arlington County .

Long + Mini  
Survey

Rosslyn-  
Ballston  
n = 865

Jefferson  
Davis  
n = 258

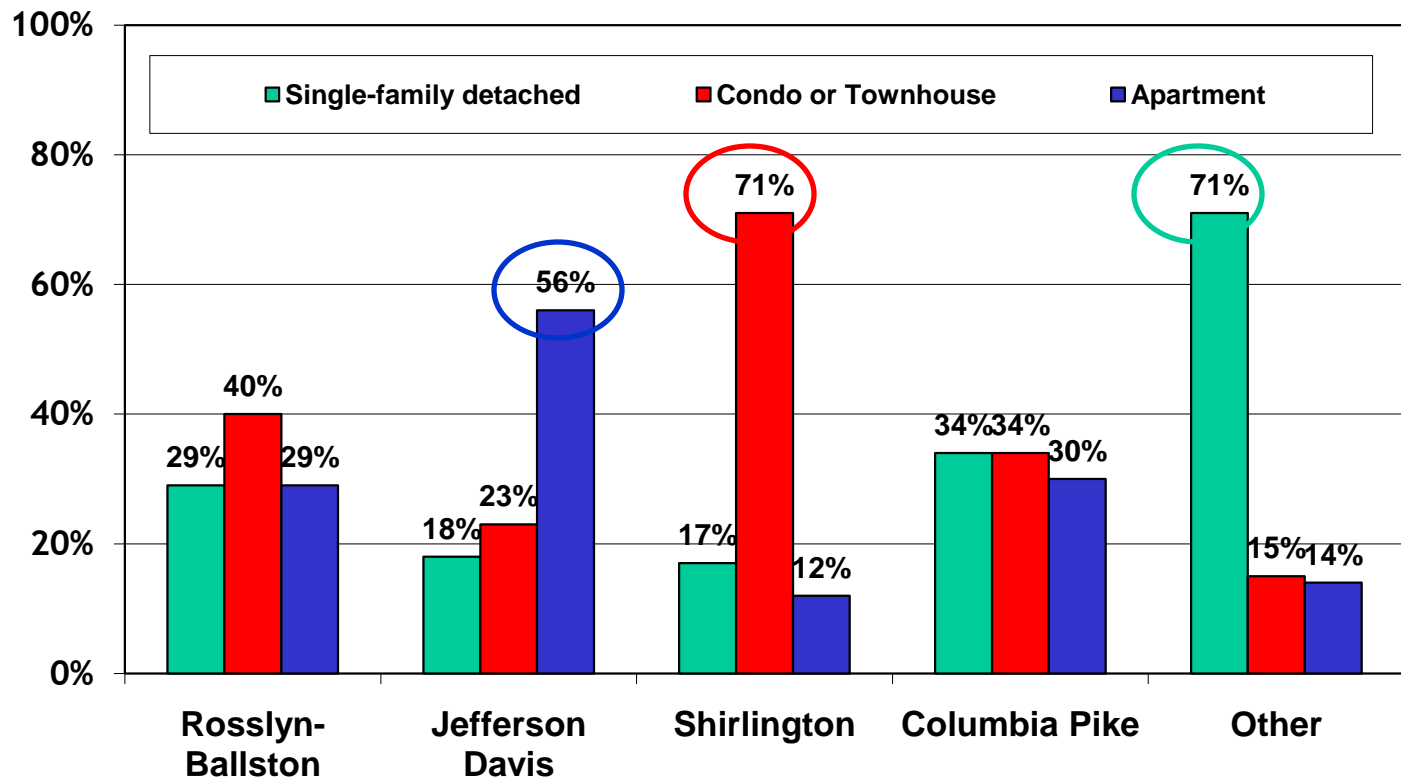
Shirlington  
n = 223

Columbia  
Pike  
n = 364

Other  
n = 2,623

# Type of Residence by Area

## Several County Areas are Dominated by One Type of Housing



Q5. Which of the following types of housing best describes your home?

Long Survey

Rosslyn-Ballston  
n = 263

Jefferson Davis  
n = 202

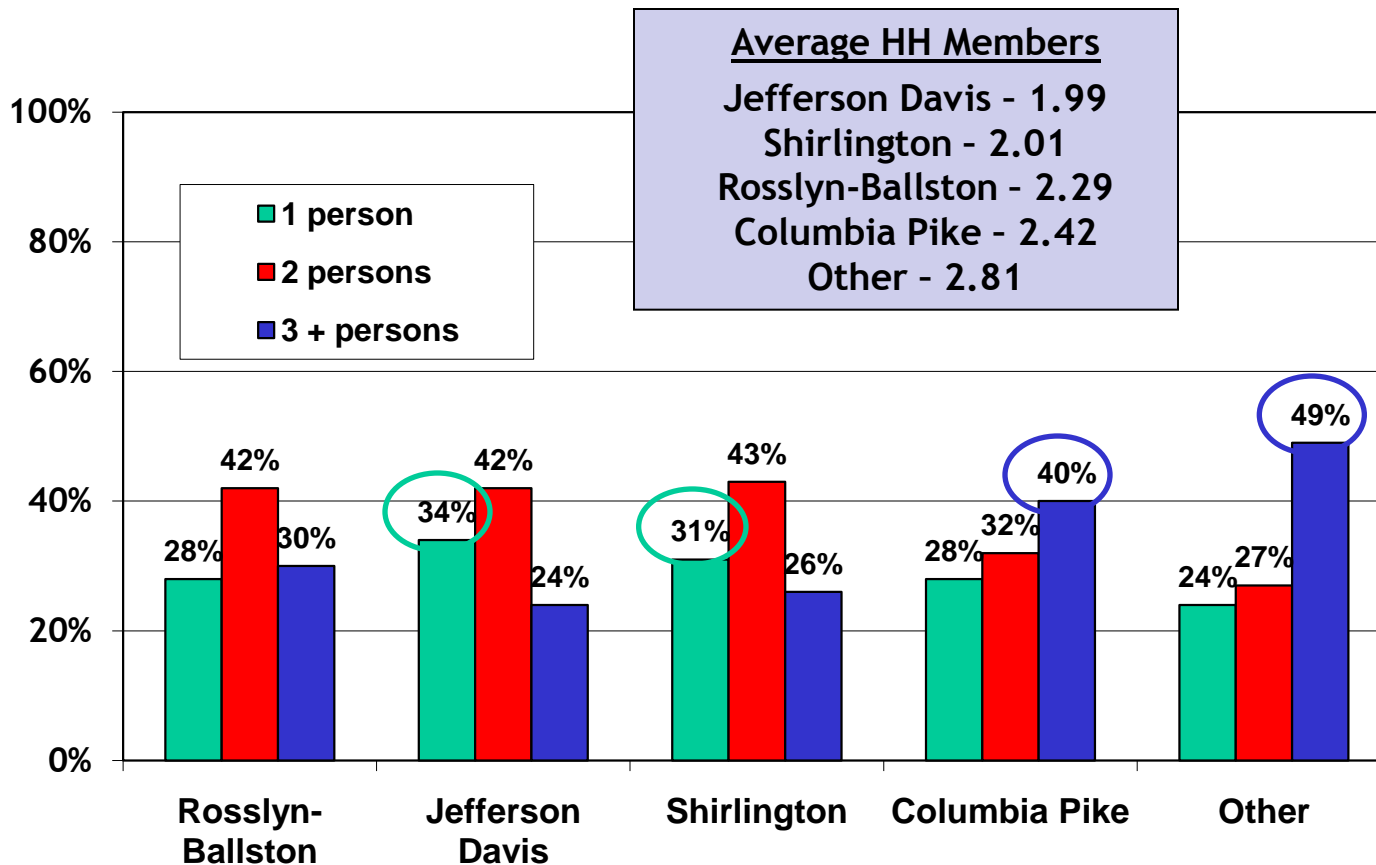
Shirlington  
n = 109

Columbia Pike  
n = 240

Other  
n = 204

# Household Size by Area

## Columbia Pike and "Other" Areas have Largest Households



Q64A: How many total people, including children, live in your household?



Shirlington  
n = 92

Rosslyn-  
Ballston  
n = 201

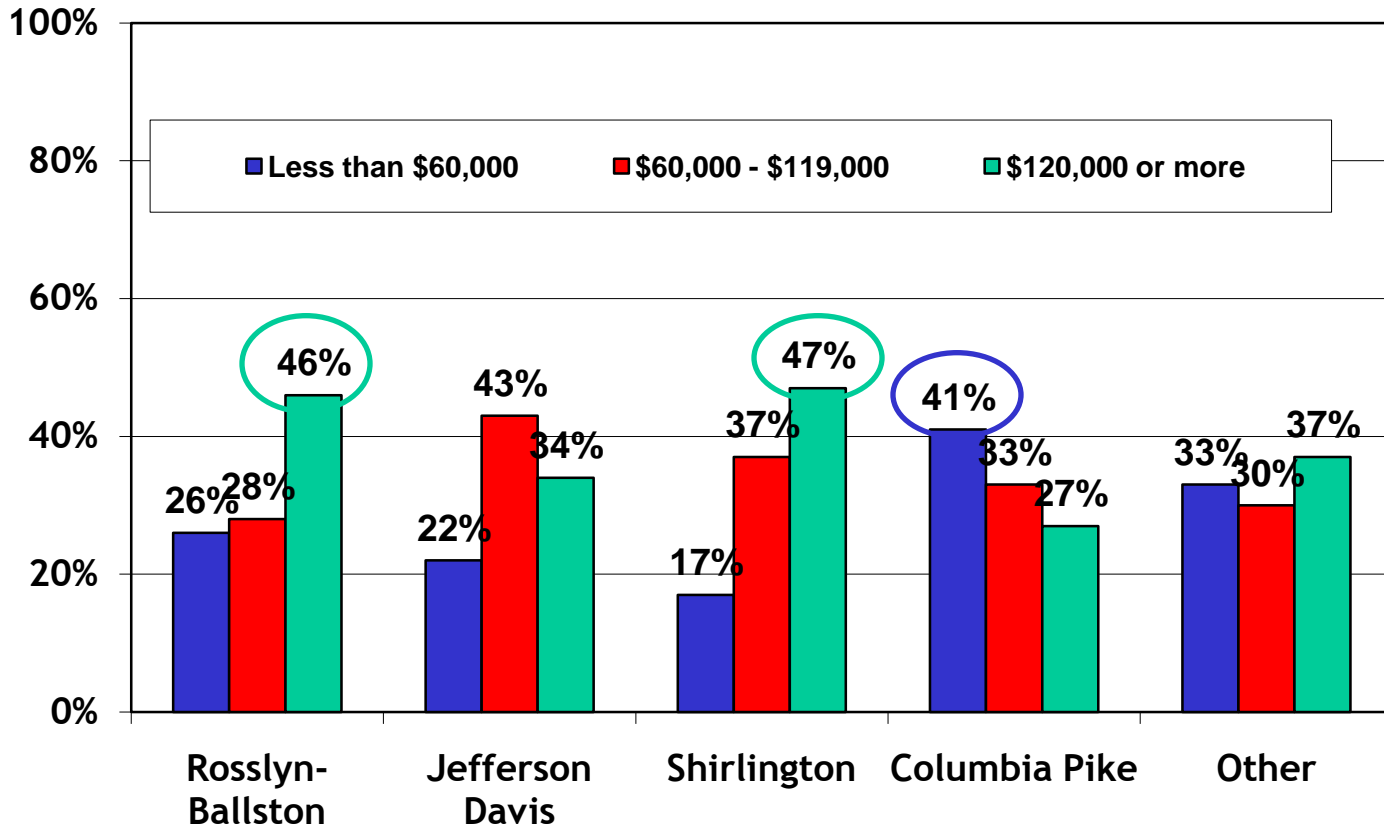
Jefferson  
Davis  
n = 161

Columbia  
Pike  
n = 195

Other  
n = 250

# Household Income by Area

Residents of Shirlington and Rosslyn-Ballston have the Highest Annual Incomes; Columbia Pike Residents have the Lowest



Q65A / Q65B: Please stop me when I reach the category that best represents your household's total annual income? Is it...



Long + Mini  
Survey

Rosslyn-  
Ballston  
n = 860

Jefferson  
Davis  
n = 259

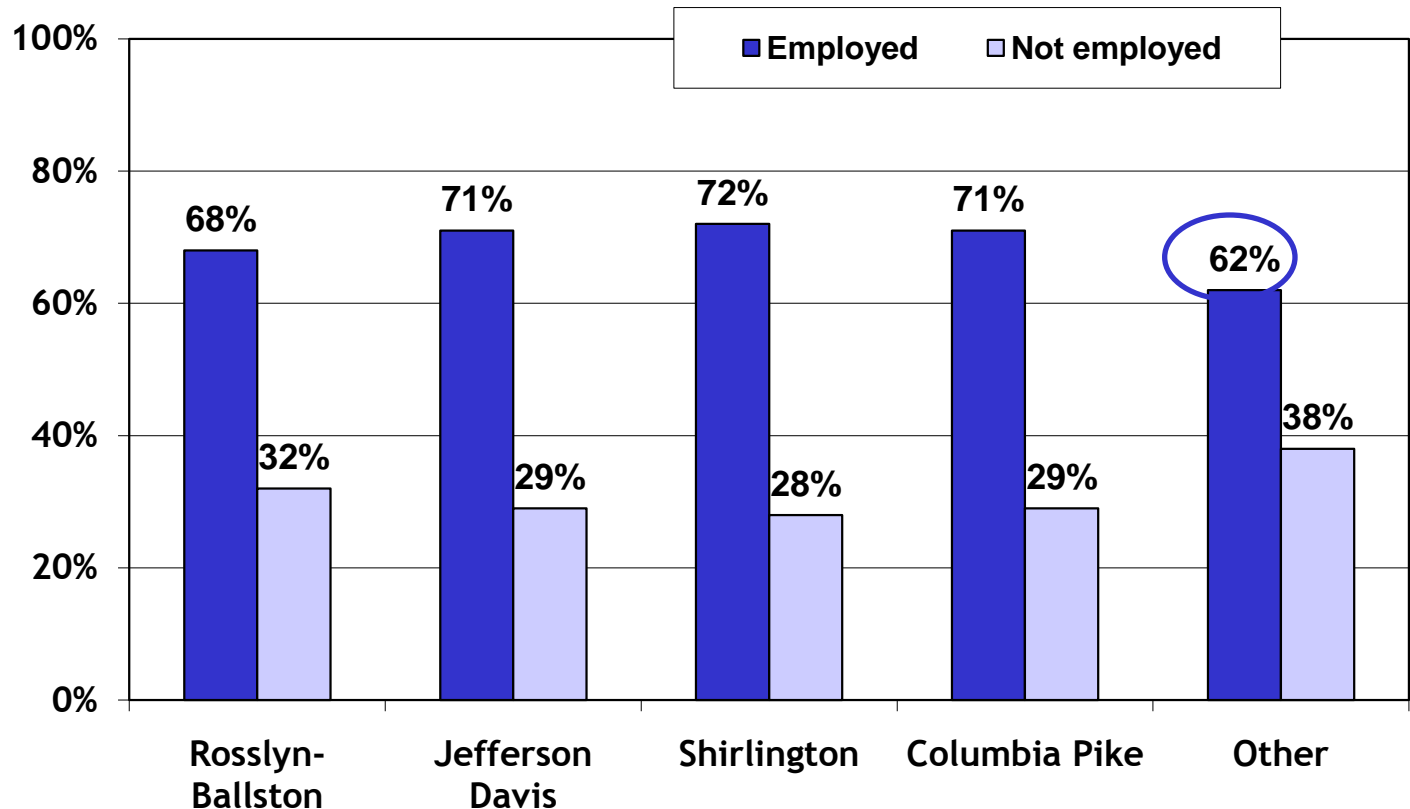
Shirlington  
n = 223

Columbia  
Pike  
n = 361

Other  
n = 2,623

# Employment Status by Area

Employment Rates are Lowest for Residents  
of "Other" Areas



Q2. What is your current employment status? Are you... employed full-time, employed part-time, looking for work but not currently employed, not employed, other?

Long + Mini  
Survey

Rosslyn-  
Ballston  
n = 867

Jefferson  
Davis  
n = 259

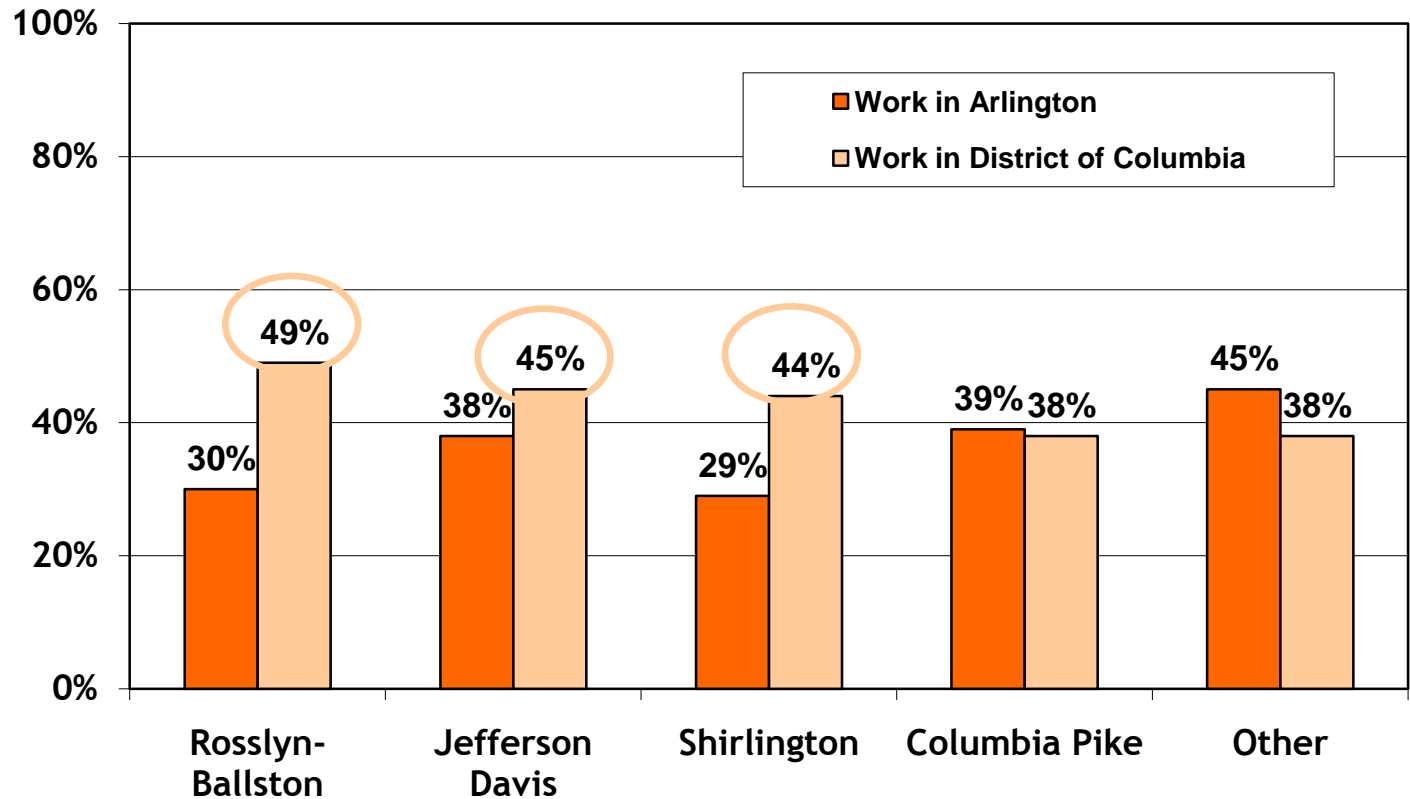
Shirlington  
n = 224

Columbia  
Pike  
n = 365

Other  
n = 2,629

# Work Location by Area

Residents who Live in Rosslyn-Ballston, Jeff Davis, and Shirlington are More Likely than are Other Residents to Work in the District of Columbia



Coded from: Q57. What is your work zip code?

Long Survey

Rosslyn-Ballston  
n = 301

Jefferson Davis  
n = 219

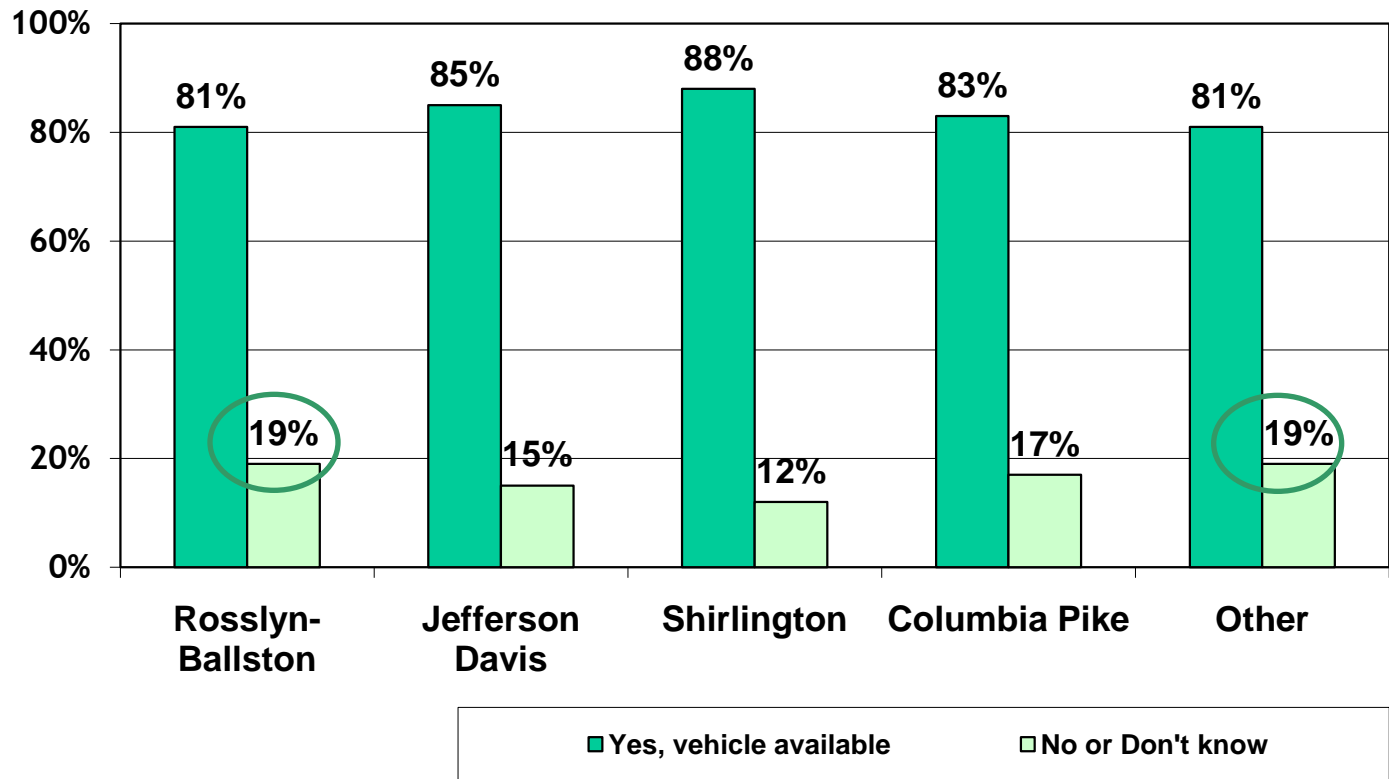
Shirlington  
n = 115

Columbia Pike  
n = 254

Other  
n = 374

# Vehicle Available by Area

## Availability of a Personal Vehicle Varies Slightly by Residential Area



Q64: Do you have a personal car, SUV, truck, or other vehicle available to you on a regular basis for your travel?



Long Survey

Rosslyn-Ballston  
n = 291

Jefferson Davis  
n = 206

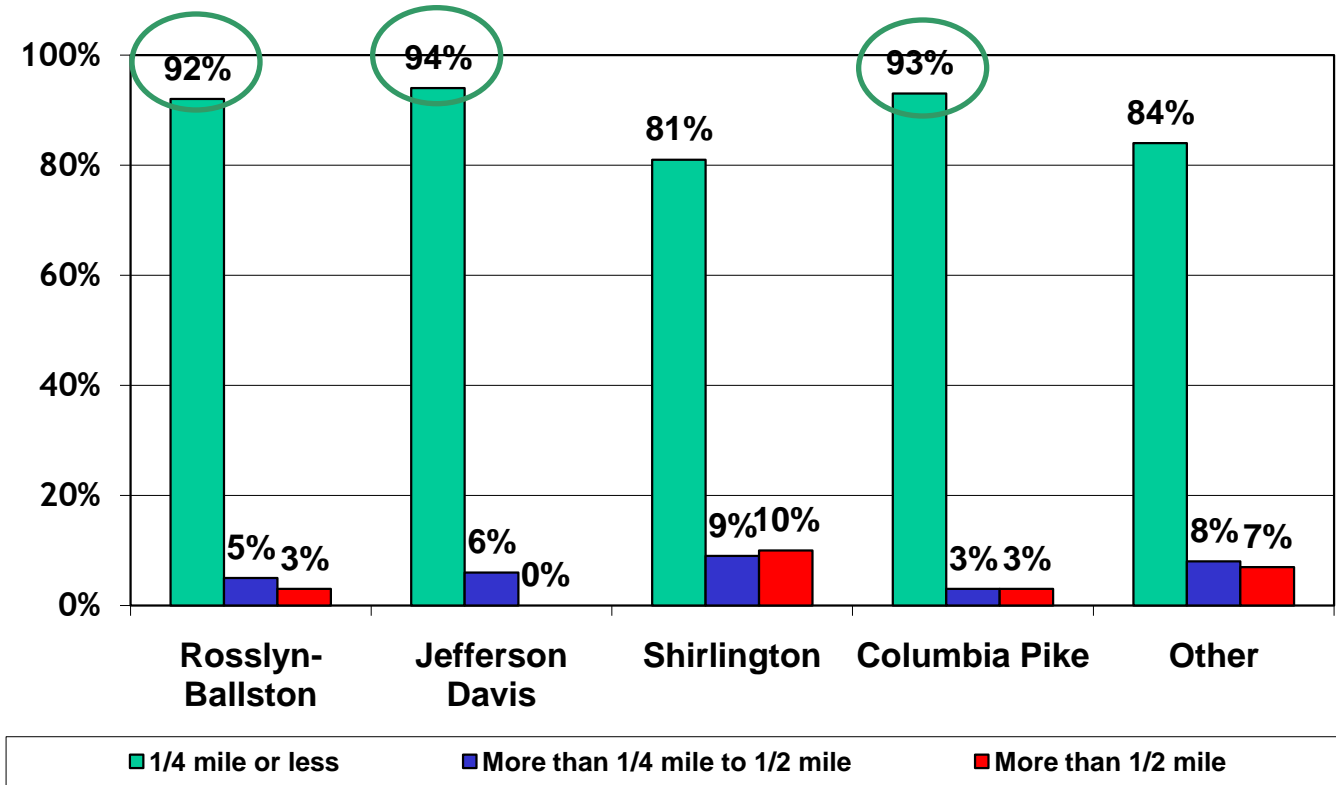
Shirlington  
n = 112

Columbia Pike  
n = 251

Other  
n = 363

# Bus Access by Area

Residents of Rosslyn-Ballston, Jeff Davis, and Columbia Pike have the Best Bus Access



Q55 About how far is it from your home to the nearest bus stop?



# Summary of Demographics by Area

	Rosslyn-Ballston	Jefferson Davis	Shirlington	Columbia Pike	Other
Sample Size - Long + Mini Survey	867	259	224	365	2,629
Age – % Under 35	<b>41%</b>	<b>33%</b>	<b>37%</b>	<b>39%</b>	<b>24%</b>
Age – % 55 or older	<b>23%</b>	<b>28%</b>	<b>24%</b>	<b>21%</b>	<b>29%</b>
% Non-White	<b>35%</b>	<b>37%</b>	<b>34%</b>	<b>73%</b>	<b>44%</b>
% 1 person Household *	<b>28%</b>	<b>34%</b>	<b>31%</b>	<b>28%</b>	<b>24%</b>
% Employed	<b>68%</b>	<b>71%</b>	<b>72%</b>	<b>71%</b>	<b>62%</b>
% Income \$100,000 or more *	<b>44%</b>	<b>39%</b>	<b>54%</b>	<b>30%</b>	<b>32%</b>

# Residence Characteristics by Area

	Rosslyn-Ballston	Jefferson Davis	Shirlington	Columbia Pike	Other
Sample Size – Long/Total	301 / 867	219 / 259	115 / 224	254 / 365	374 / 2,629
% Lived in AC less than 2 years	<b>18%</b>	<b>24%</b>	<b>9%</b>	<b>9%</b>	<b>9%</b>
% Lived in AC more than 10 years	<b>42%</b>	<b>35%</b>	<b>48%</b>	<b>54%</b>	<b>54%</b>
% Single-family home	<b>29%</b>	<b>18%</b>	<b>17%</b>	<b>34%</b>	<b>70%</b>
% Live within ½ mile of Metrorail	<b>88%</b>	<b>92%</b>	<b>0%</b>	<b>5%</b>	<b>11%</b>
% Live within ½ mile of bus*	<b>94%</b>	<b>91%</b>	<b>86%</b>	<b>96%</b>	<b>90%</b>
% Work within ½ mile of bus*	<b>85%</b>	<b>82%</b>	<b>62%</b>	<b>80%</b>	<b>75%</b>

# Characteristics of Metro Corridors

**Rosslyn-Ballston** – Young, high income, recent arrivals, high bus and rail access, slightly less likely to have vehicle available

**Jefferson Davis** – Apartment dwellers, recent arrivals, small households, high bus and rail access



# Characteristics of Non-Metro Areas

**Shirlington** – High income, condo/townhouse owners, small households, low access to rail

**Columbia Pike** – Young, non-white, lower income, larger households, long-time Arlington residents, high bus access

**Other Areas** – Home owners, largest households, long-time Arlington residents, less likely to be employed, slightly less likely to have vehicle available, less likely to be employed

# SUMMARY and IMPLICATIONS

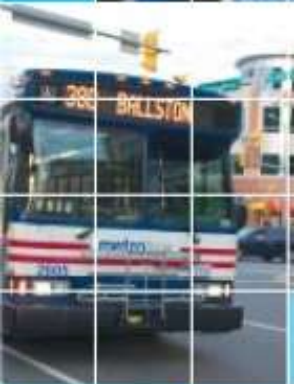
## Summary

Arlington County sub-areas are distinctly different in several characteristics that might influence residents' travel patterns.

## Implications

Tailor marketing and outreach to different population segments in each area, recognizing areas' transportation opportunities and constraints.





# Resident Commute Behavior



# Work Arrangements

**67%** of respondents are employed

– 57% Full-time, 8% Part-time, 1% “self-employed”

This is about the same percentage as in 2006 (68%)

## Among Employed Residents:

	<u>2009 Resident</u>	<u>2006 Resident</u>
• Work CWS*	8%	14%
• Telework	23%	14%
• Average TC frequency	1.3 d/wk	1.3 d/wk
• Average assigned days	4.7	4.8
• Average travel days	4.5	4.6

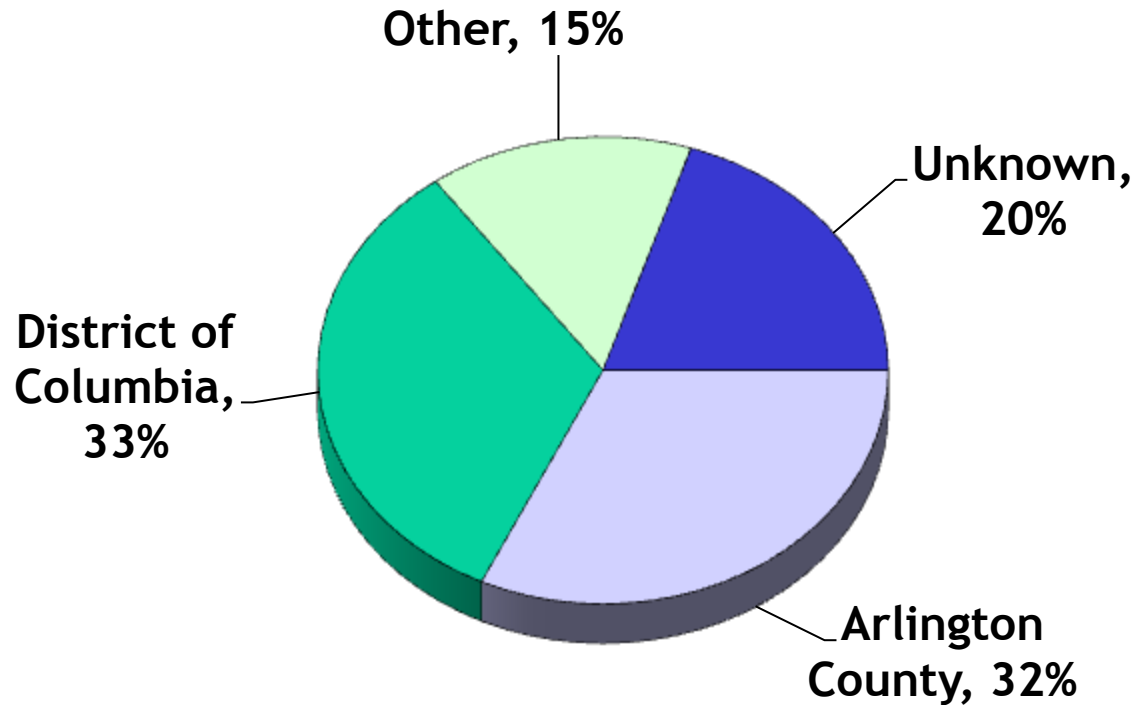
\* CWS = Compressed work schedule (9/80, 4/40, 3/36)

# A Third of Residents Work in Arlington County and a Third Work in the District of Columbia

Long Survey Only

n = 678

Note: 131 employed residents could not/did not report their work zip code



Coded from: Q57. What is your work zip code?

2007 SOC  
Regional  
Average  
n = 5,465

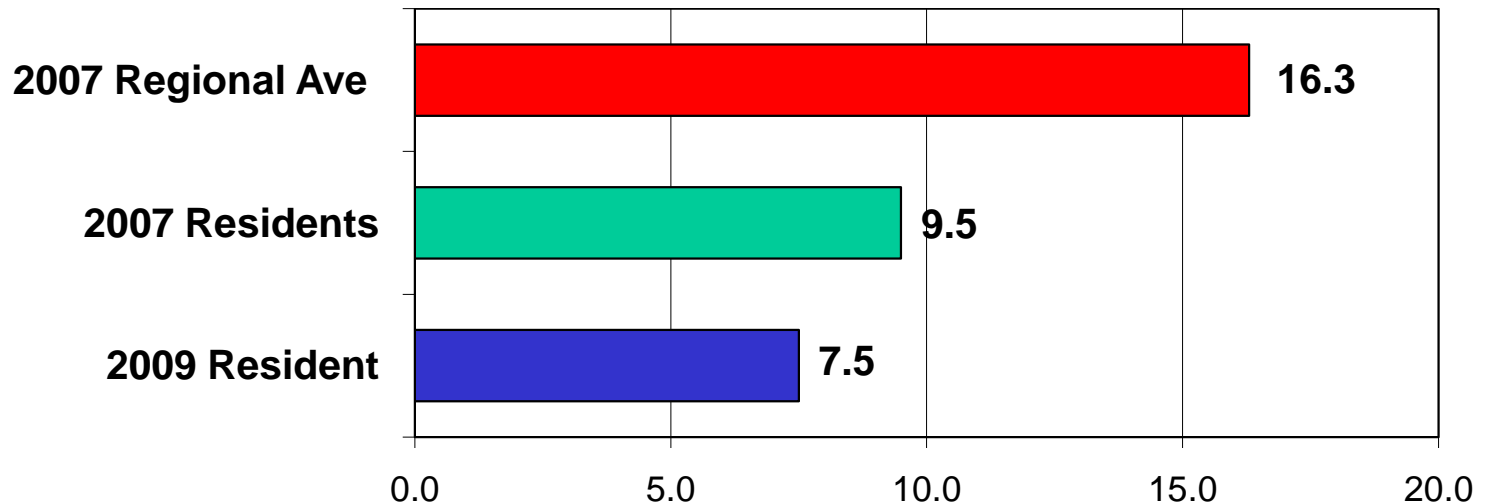
2007 SOC  
Arlington  
Residents  
n = 484

2009  
Resident  
Long Survey  
n = 602

# Commute Distance (miles)

Arlington residents travel **shorter distances to work** (7.5 miles) than do other commuters in the region (16.3 miles):

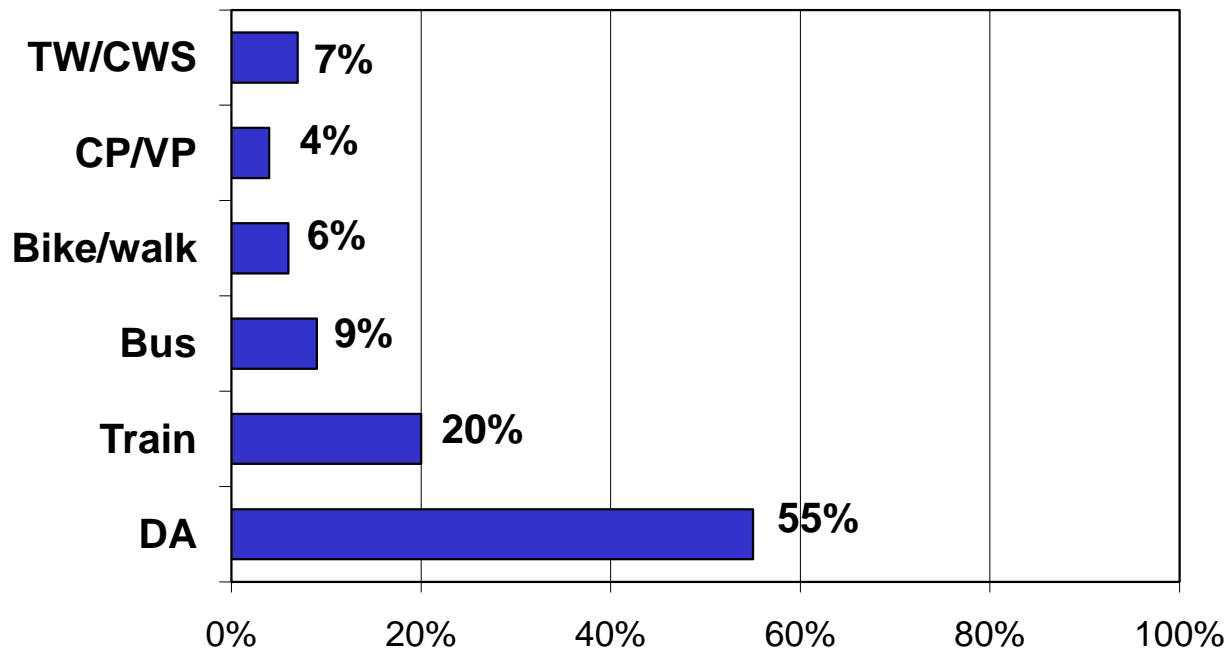
- 37% travel less than 5 miles
- 73% travel less than 10 miles



Q 26. How many miles is it from your home to your usual work location, one-way?

# Only **55%** of Residents' Weekly Commute Trips are Made by Driving Alone.

Nearly three in ten weekly commute trips are made by transit. Telework and compressed schedules eliminate 7% of weekly trips.



Q25: Now I'd like to know how you get to work. Thinking about LAST week, how did you get to work each day? Let's start with Monday? ... How about Tuesday? ... Wednesday? .... Thursday? .... Friday?

Long + Mini  
Survey

Drive alone  
n = 1,516

Metrorail/  
commuter  
rail  
n = 516

Bus  
n = 203

Carpool/  
vanpool  
n = 132

Bicycle  
n = 79

Walk  
n = 107

# Frequency of Mode Use

76% of residents use one commute mode 4+ days per week. Alt mode users tend to have slightly less frequent use of their primary modes than do drive alone commuters, thus, there is modest potential for greater alt mode use by **current** alt mode users.

Modes Used for Travel to Work	Avg. Days per Week
Drive alone	4.3
Metrorail/Commuter Rail	4.0
Bus	3.9
Carpool/vanpool	3.6
Walk	3.6
Bicycle	3.0

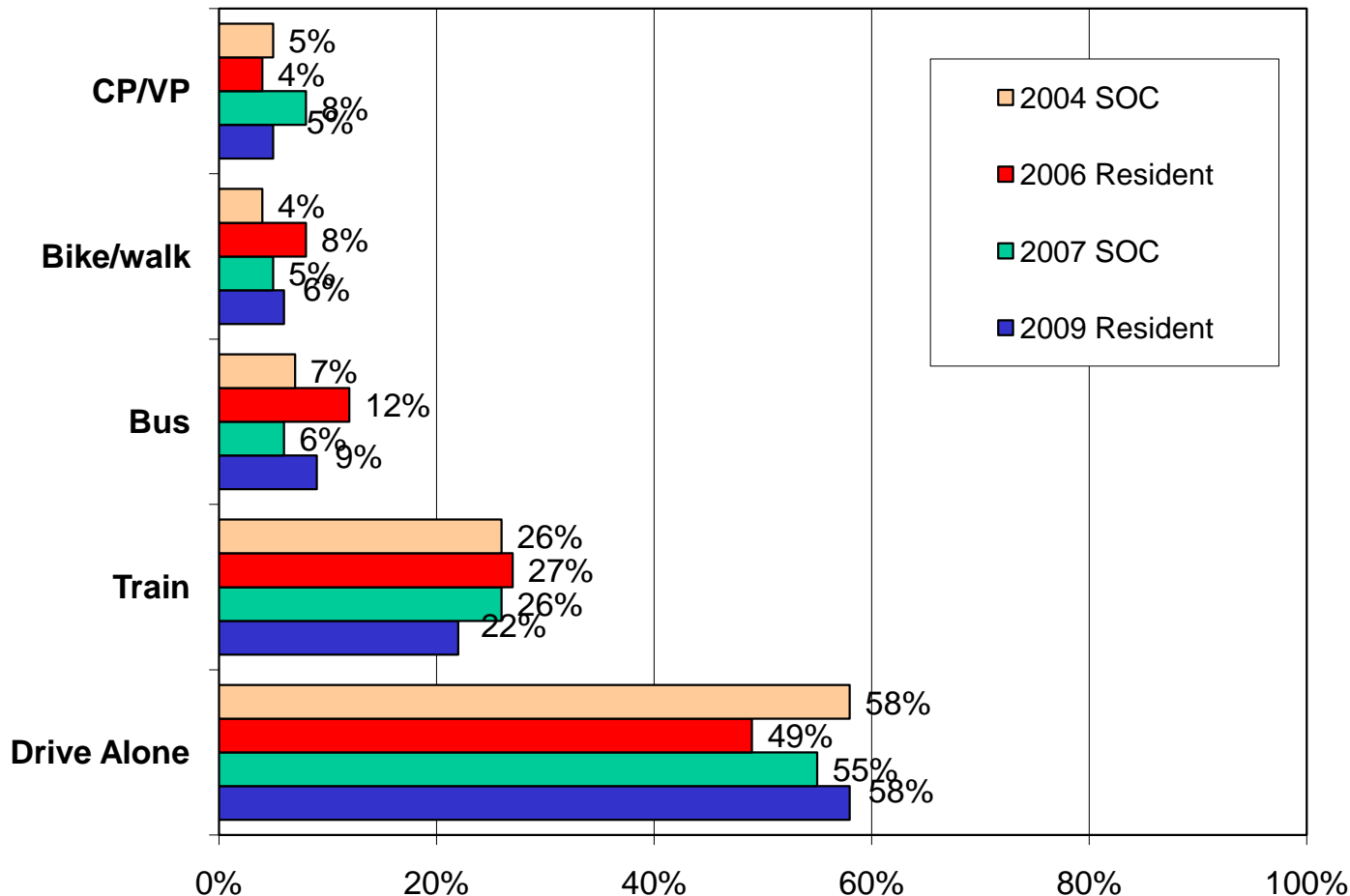
# The 2009 Drive Alone Rate Appears About the Same as in 2004

2004 SOC  
n = 552

2006  
Resident  
n = 328

2007 SOC  
n = 561

2009  
Resident  
Long + Mini  
Survey  
n = 2,529



Long Survey  
Only

Bike/walk  
n = 41

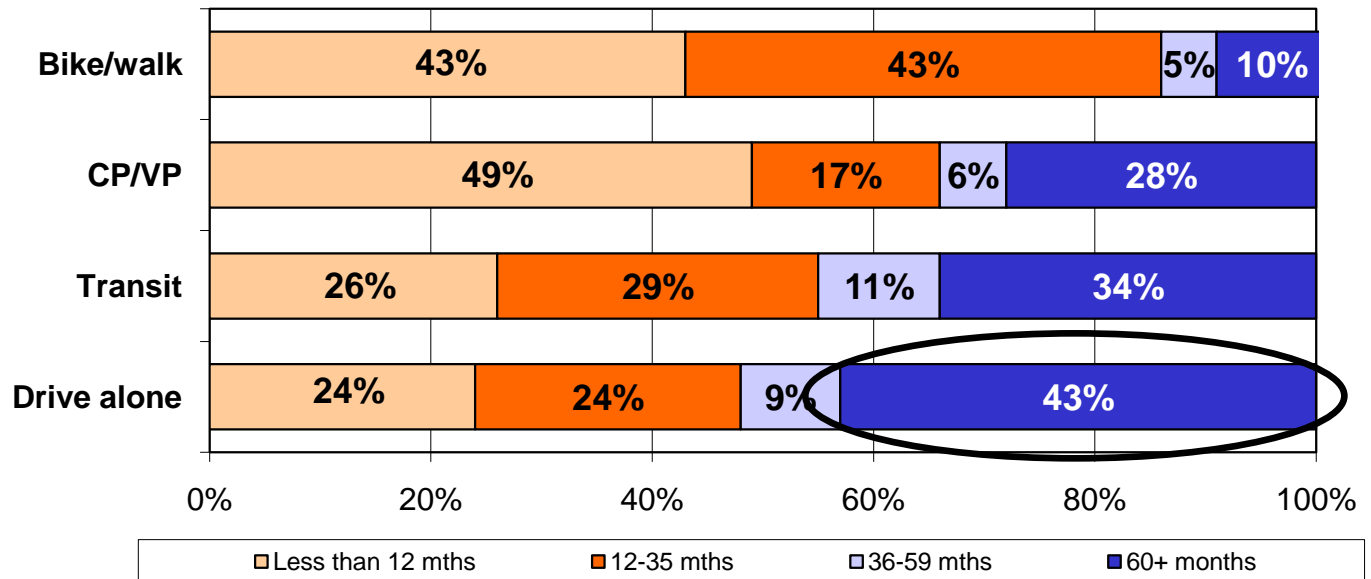
CP/VP  
n = 31

Transit  
n = 210

Drive alone  
n = 320

# Duration of Mode Use

Commuters who bike or walk are most likely to have started their modes recently. **Drive alone commuters are long time users** – 52% started driving alone 3 or more years ago and 43% have driven alone for at least five years.

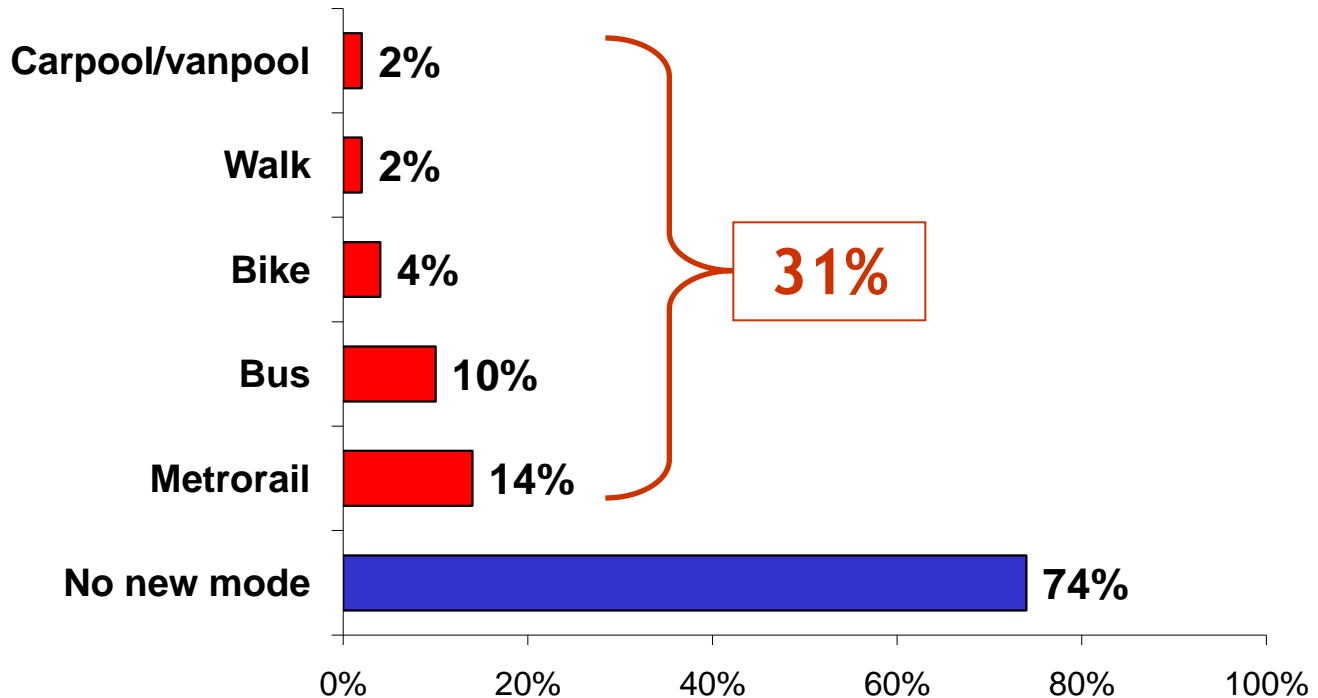


Q 27. how long have you been using this type of transportation for your trip to work?

# In the Past year, 31% of Employed Residents Tried/Used an Alternative Mode They Are Not Currently Using

Most used/tried Metrorail or bus

## Alternative Modes Tried/Used



Q30: In the past year, have you used or tried any other type of transportation that you're not using now for your trip to work? Note: multiple responses permitted

Long Survey  
Only

Primary  
Mode

Drive alone  
n = 335

Transit  
n = 220

Carpool/  
vanpool  
n = 33\*

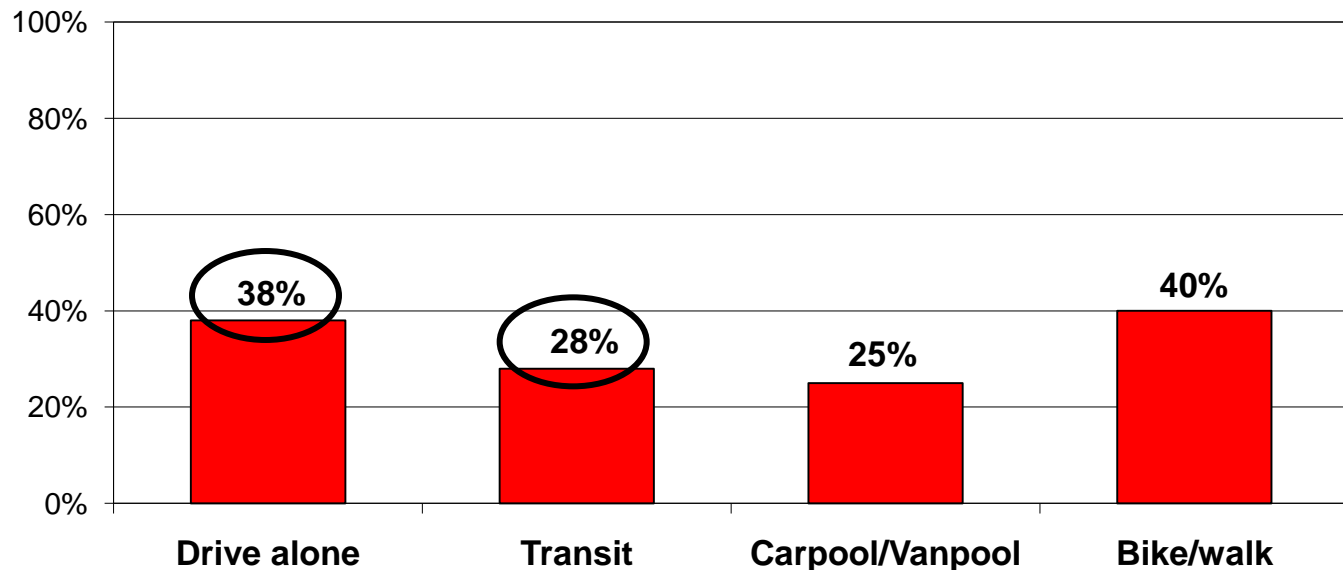
Bike/walk  
n = 43\*

\* Caution:  
Small  
samples

# Trial Use of New Mode by Primary Mode

38% of residents who are driving alone to work tried an alternative mode in the past year, compared with 28% of residents who ride transit to work

Percent Tried New Alternative Mode



Q30: In the past year, have you used or tried any other type of transportation that you're not using now for your trip to work? Note: multiple responses permitted

Long  
Survey Only

Rosslyn-  
Ballston  
n = 152

Jeff Davis  
n = 117

Shirlington  
n = 71

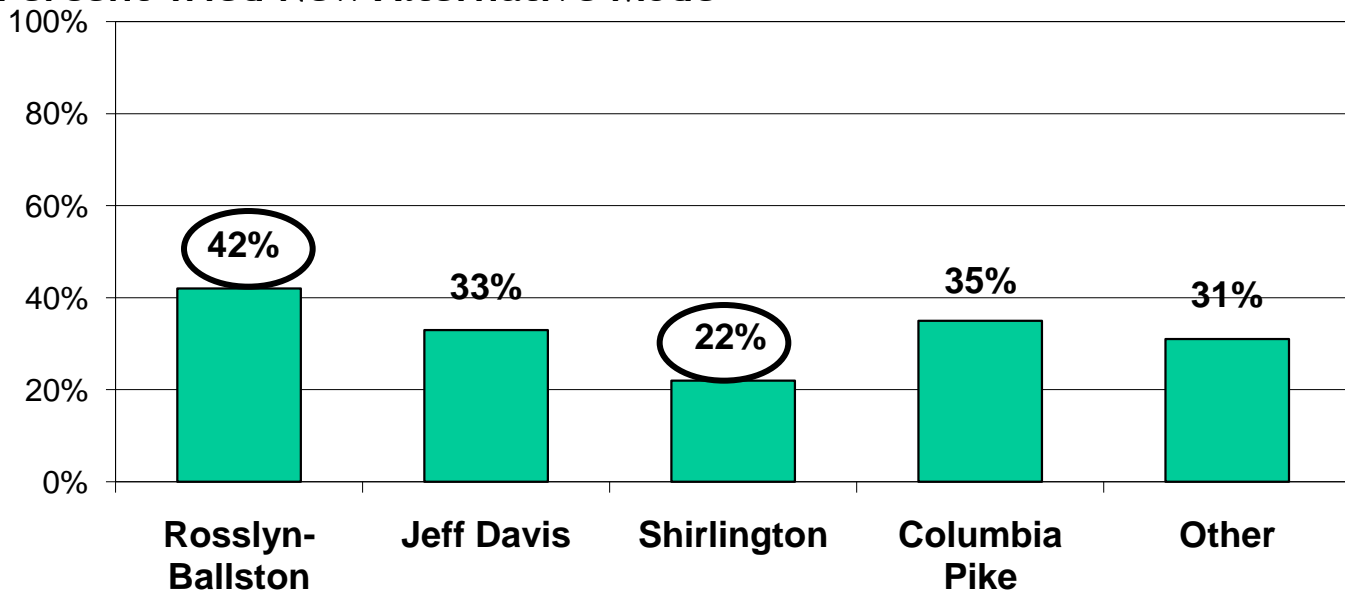
Columbia  
Pike  
n = 142

Other  
n = 162

# Trial Use of New Mode by Area

Trial use of new modes was most common for residents of Rosslyn-Ballston. Shirlington residents were least likely to have tried another mode, likely because they have fewer travel options.

Percent Tried New Alternative Mode



Q30: In the past year, have you used or tried any other type of transportation that you're not using now for your trip to work? Note: multiple responses permitted

# SUMMARY and IMPLICATIONS

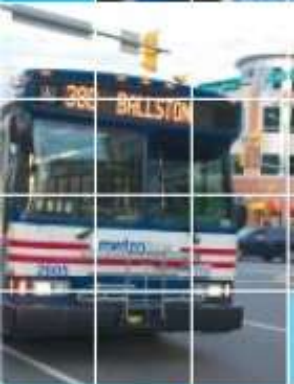
## Summary

- Mode use appears to have remained relatively stable since 2004, with driving alone accounting for just over half of residents' weekly commute trips.
- Residents who drive alone are more likely than are transit riders to have tried another mode in the past year, suggesting they might be receptive to using alternatives to driving alone.



## Implications

Continue appeals to drive-alone commuters. Many appear open to trying alternative modes. Position ACCS to be available when commuters' travel needs change and they consider other modes.



# Transit's Role in Travel Behavior



# Drive Alone and Transit Commuters have Different Demographic Profiles

**Drive Alone** – Female, White, older, higher income

**Transit** – Male, Non-white, young, lower income

Long + Mini Survey

Drive alone  
n = 1,389

Transit  
n = 622

Long Survey Only

Drive alone  
n = 333

Transit  
n = 220

\*Questions asked in Long Survey only

	<u>Drive alone</u>	<u>Transit</u>
<b>Male</b>	42%	<b>50%</b>
<b>Female</b>	<b>58%</b>	50%
<b>White</b>	<b>59%</b>	49%
<b>Hispanic</b>	17%	<b>25%</b>
<b>Age &lt;35 years old</b>	31%	<b>43%</b>
<b>Age 35-54 years old</b>	<b>53%</b>	46%
<b>Age 55 years or older</b>	<b>16%</b>	11%
<b>Income &lt;\$60K*</b>	19%	<b>24%</b>
<b>Income \$60-120K*</b>	31%	<b>37%</b>
<b>Income &gt;\$120K*</b>	<b>50%</b>	38%

# Residence Characteristics of Drive Alone and Transit Commuters Also Differ

**Drive Alone** – Long-time Arlington resident, single-family detached residence, longer commute distance

**Transit** – New resident, apartment housing, short commute distance

	<b><u>Drive Alone</u></b>	<b><u>Transit</u></b>
<b>Live in Arlington less than 2 years</b>	10%	<b>17%</b>
<b>Live in Arlington more than 5 years</b>	<b>49%</b>	41%
<b>Apartment housing</b>	14%	<b>32%</b>
<b>Single-family detached</b>	<b>57%</b>	33%
<b>Travel less than 10 miles to work*</b>	66%	<b>78%</b>
<b>Travel 10+ miles to work*</b>	<b>34%</b>	22%

Long + Mini Survey

Drive alone  
n = 1,389

Transit  
n = 622

Long Survey Only

Drive alone  
n = 333

Transit  
n = 220

\*Questions asked in Long Survey only

# Transit Commuters have Better Transit Access than do Drive Alone Commuters

**Drive Alone** – Live farther from rail, much farther from bus at work, personal vehicle available

**Transit** – Live close to rail, much closer to bus at work, less likely to have personal vehicle

	<b><u>Drive Alone</u></b>	<b><u>Transit</u></b>
<b>Live within 1/2 mile of Metrorail</b>	23%	<b>51%</b>
<b>Live more than 1 mile from Metrorail</b>	<b>45%</b>	16%
<b><u>Live</u> within 1/4 mile of bus*</b>	85%	89%
<b><u>Work</u> within 1/4 mile of bus*</b>	59%	<b>82%</b>
<b>Have personal vehicle available*</b>	<b>96%</b>	70%

Long + Mini Survey

Drive alone  
n = 1,389

Transit  
n = 622

Long Survey Only

Drive alone  
n = 333

Transit  
n = 220

\*Questions asked in Long Survey only

# Drive Alone Rate Increases and Transit Use Decreases as Distance from Home to Metrorail Increases

Long Survey Only

1/4 mile or less  
n = 492

More than 1/4 mile to 1/2 mile  
n = 236

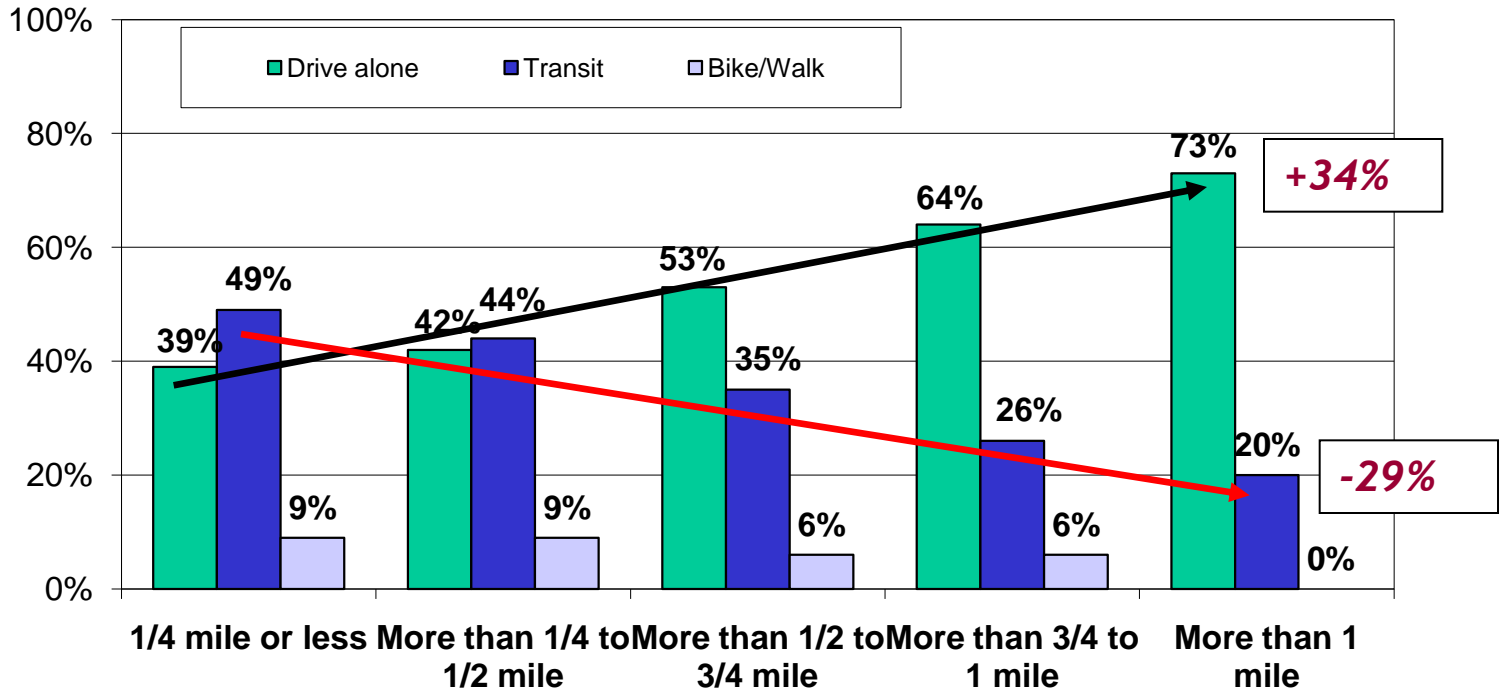
More than 1/2 mile to 3/4 mile  
n = 183

More than 3/4 mile to 1 mile  
n = 507

More than 1 mile  
n = 878

Note:  
Mode split excludes telework and compressed schedule

Percent of Weekly Commute Trips by Mode



Q25: ... Thinking about LAST week, how did you get to work each day?  
Q8 How far do you live from the nearest Metrorail station?



Long Survey Only

1/4 mile or less  
n = 492

More than 1/4 mile to 1/2 mile  
n = 236

More than 1/2 mile to 3/4 mile  
n = 183

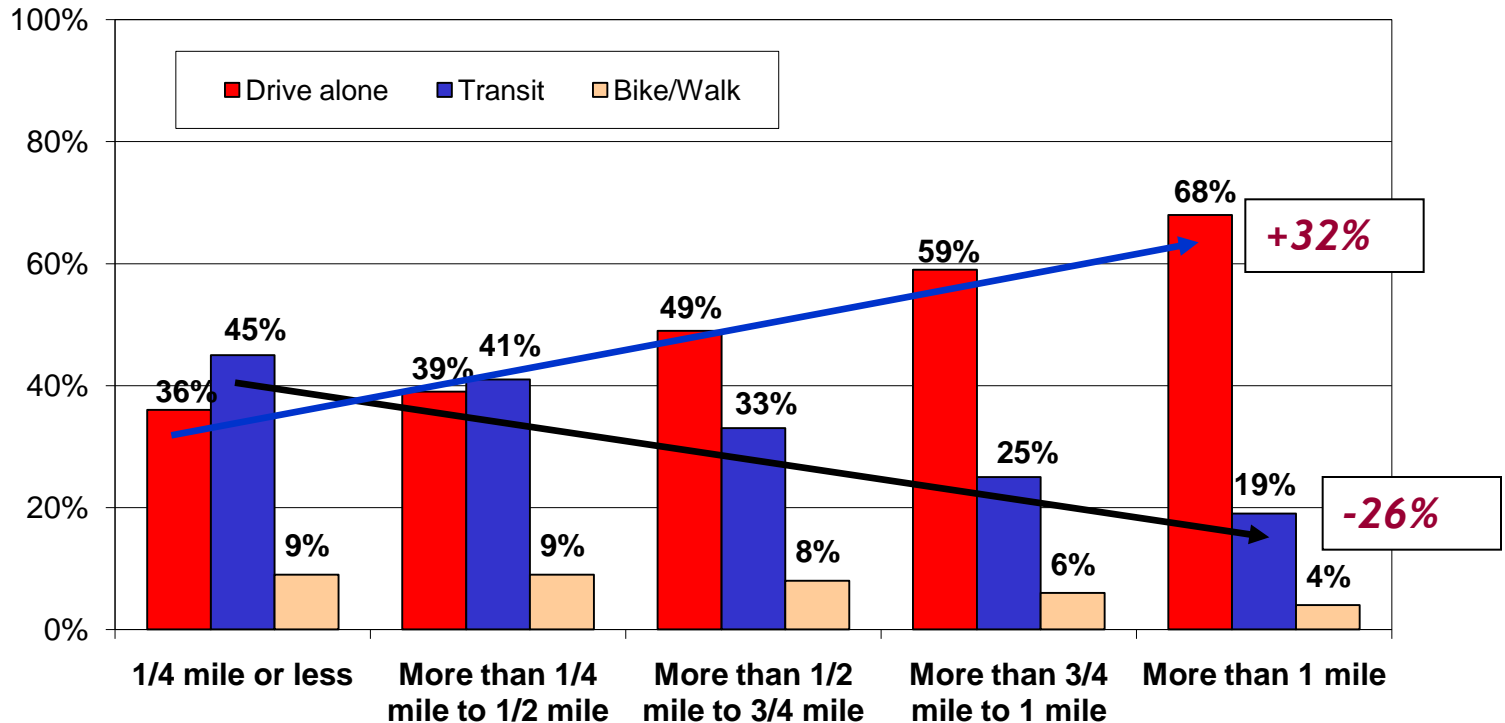
More than 3/4 mile to 1 mile  
n = 507

More than 1 mile  
n = 878

Note:  
Mode split excludes telework and compressed schedule

# A Similar Pattern is Noted for Increasing Distance from Home to Bus

### Percent of Weekly Commute Trips by Mode



Q25: ... Thinking about LAST week, how did you get to work each day?  
Q55 About how far is it from your home to the nearest bus stop?



Long + Mini  
Survey

Columbia  
Pike  
n = 230

Jeff-Davis  
n = 149

Rosslyn-  
Ballston  
n = 511

Shirlington  
n = 142

Other  
n = 1,497

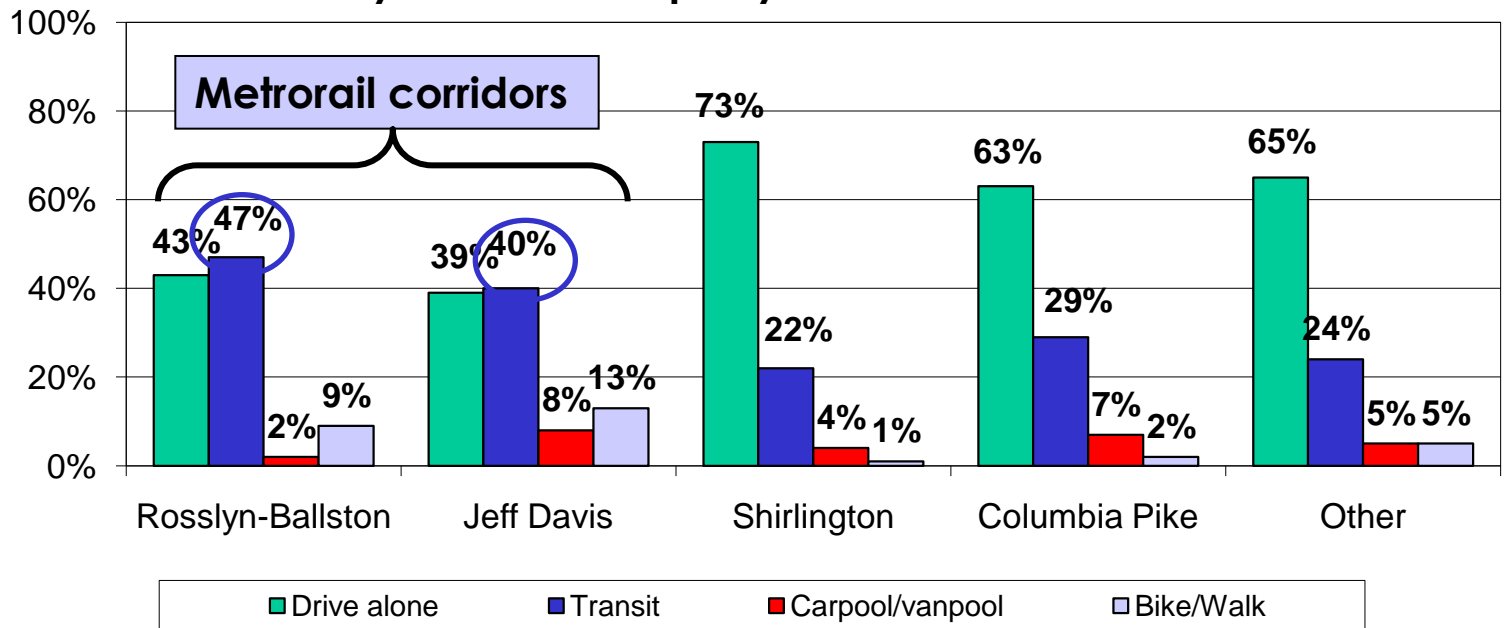
Note:  
Mode split  
excludes  
telework and  
compressed  
schedule

R-B and Jeff  
Davis were  
defined as  
being ½ mile  
from Metrorail

# Transit Use is Highest with Good Train and Bus Access

Commuters who live near Metrorail make 40%+ of their weekly commute trips by transit. Commuters with good bus service (Columbia Pike) use transit for 29% of their weekly commute trips. In area with lower transit access, transit is used for 2 in 10 trips.

Percent of Weekly Commute Trips by Mode



Q25: ... Thinking about LAST week, how did you get to work each day?

# Commute Travel by County Area

	Rosslyn-Ballston	Jefferson Davis	Shirlington	Columbia Pike	Other
Sample Size – Long/Total	301 / 867	219 / 259	115 / 224	254 / 365	374 / 2,629
Mode - % Drive alone	40%	37%	69%	63%	60%
<b>Mode - % Ride train</b>	<b>41%</b>	<b>30%</b>	<b>11%</b>	<b>10%</b>	<b>13%</b>
<b>Mode - % Bus</b>	<b>3%</b>	<b>8%</b>	<b>10%</b>	<b>17%</b>	<b>9%</b>
Mode - % Walk	<b>6%</b>	<b>10%</b>	<b>0%</b>	<b>1%</b>	<b>2%</b>
Mode - % Bike	<b>2%</b>	<b>2%</b>	<b>1%</b>	<b>0%</b>	<b>2%</b>
% Live within ½ mile of Metrorail	<b>88%</b>	<b>92%</b>	<b>0%</b>	<b>5%</b>	<b>11%</b>
% Live within ½ mile of bus*	<b>94%</b>	<b>91%</b>	<b>86%</b>	<b>96%</b>	<b>90%</b>
% Work within ½ mile of bus*	<b>85%</b>	<b>82%</b>	<b>62%</b>	<b>80%</b>	<b>75%</b>
Work Location - % Arlington*	<b>30%</b>	<b>38%</b>	<b>29%</b>	<b>39%</b>	<b>45%</b>
Work Location - % DC*	<b>49%</b>	<b>45%</b>	<b>44%</b>	<b>38%</b>	<b>38%</b>

Long Survey Only

Arlington  
n = 221

District of Columbia  
n = 238

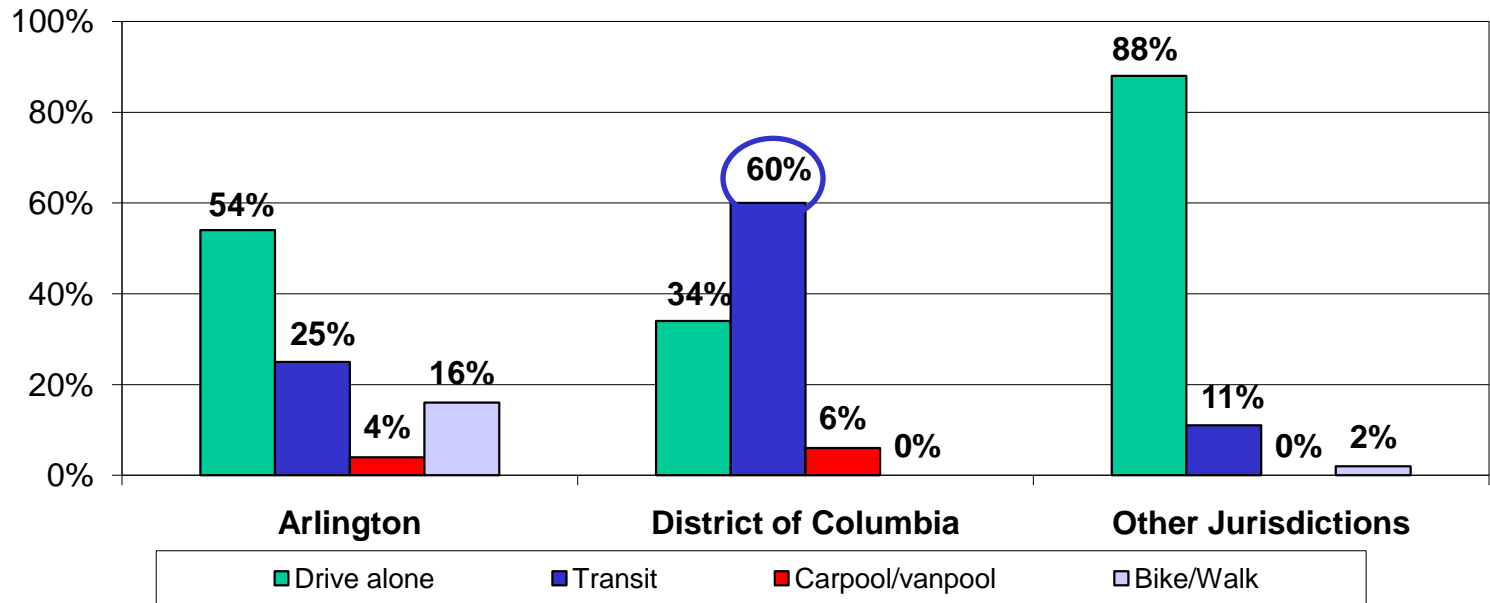
Other Jurisdictions  
n = 108

Note:  
Mode split  
excludes  
telework and  
compressed  
schedule

# Transit Use is Concentrated Among Residents who Work in DC

Residents who work in District of Columbia make 60% of commute trips by transit, compared with 25% for residents who work in Arlington and only 11% for residents who work in other jurisdictions.

### Percent of Weekly Commute Trips by Mode



Q25: ... Thinking about LAST week, how did you get to work each day?  
Work location coded from: Q57. What is your work zip code?

# And Drive Alone Rate Increases and Transit Use Decreases as Distance from Work to Bus Increases

Long Survey Only

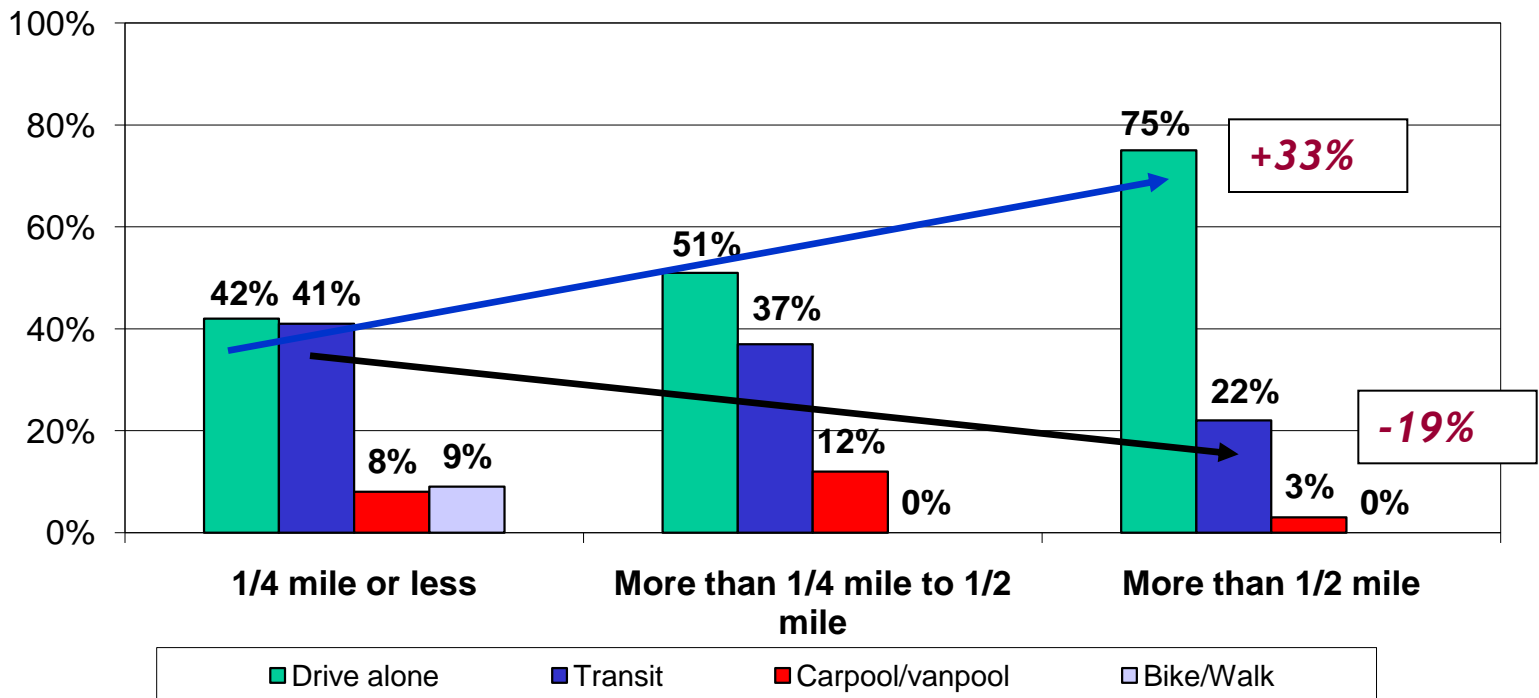
1/4 mile or less  
n = 499

More than 1/4 mile to 1/2 mile  
n = 43

More than 1/2 mile  
n = 55

Note:  
Mode split excludes telework and compressed schedule

Percent of Weekly Commute Trips by Mode



Q25: ... Thinking about LAST week, how did you get to work each day?

Q56 About how far is it from your primary work location to the nearest bus stop?

# SUMMARY and IMPLICATIONS

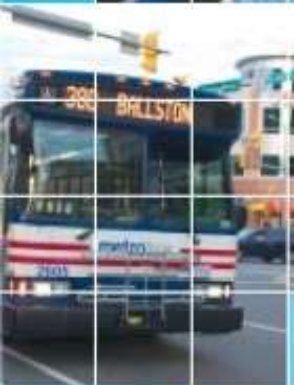
## Summary

- Residents who drive alone to work have different personal and residential characteristics than do residents who use transit.
- But transit access plays an important role in travel choice:
  - Residents who live near Metrorail and bus service drive alone less and use transit much more for their work trips.
  - Similarly, residents who work near transit use transit more and drive alone less for commuting.

## Implications

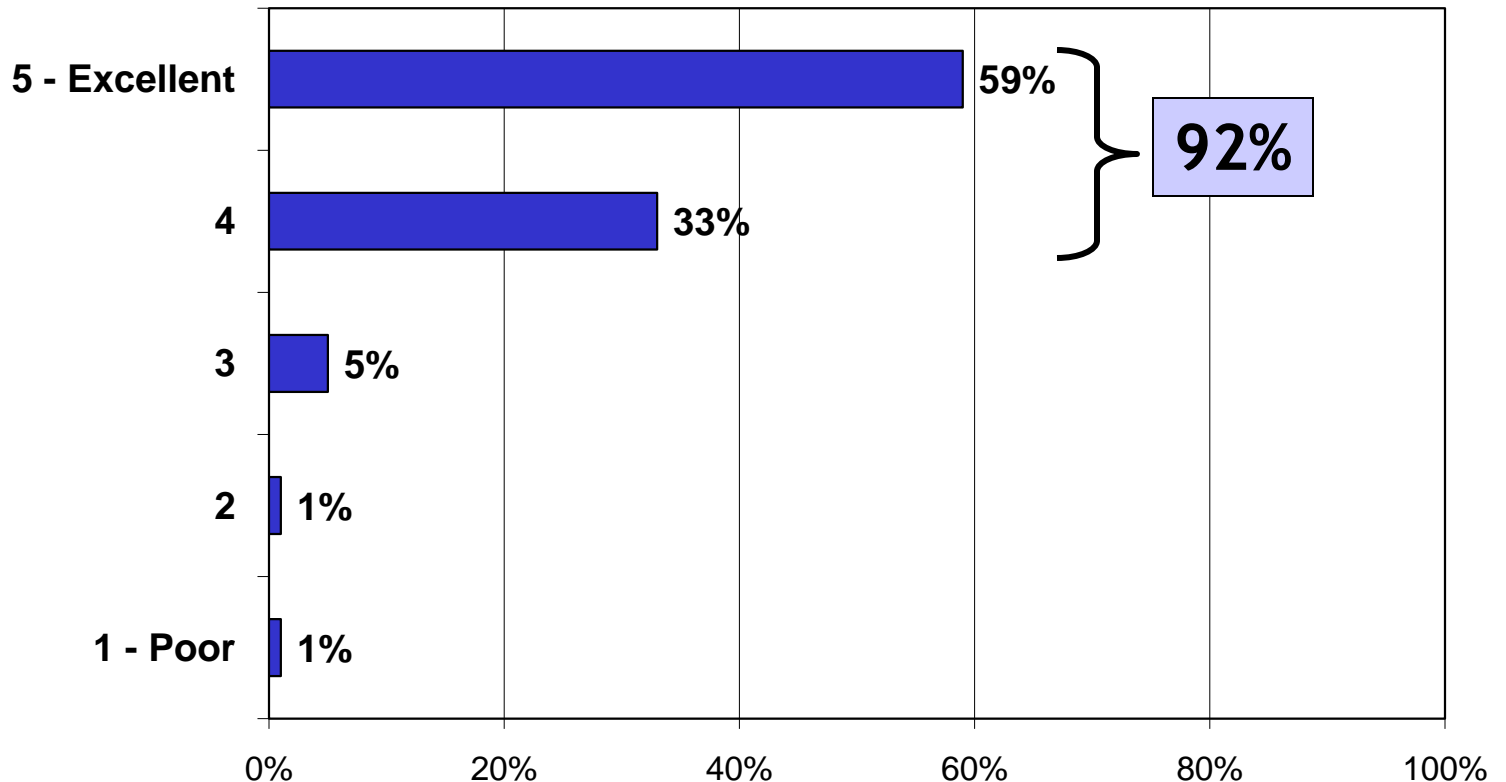
- Transit offers many benefits to Arlington County. Promote transit access as a benefit of living in Arlington and as an essential element of the County's transportation network and its sustainability efforts.





# Transportation Satisfaction And Quality of Life

# 9 in 10 Residents Give High Ratings for Overall Quality of Life



Q10 Overall, how would you rate the quality of life in Arlington County?

Long + Mini  
Survey

Jeff-Davis  
n = 257

Rosslyn-  
Ballston  
n = 865

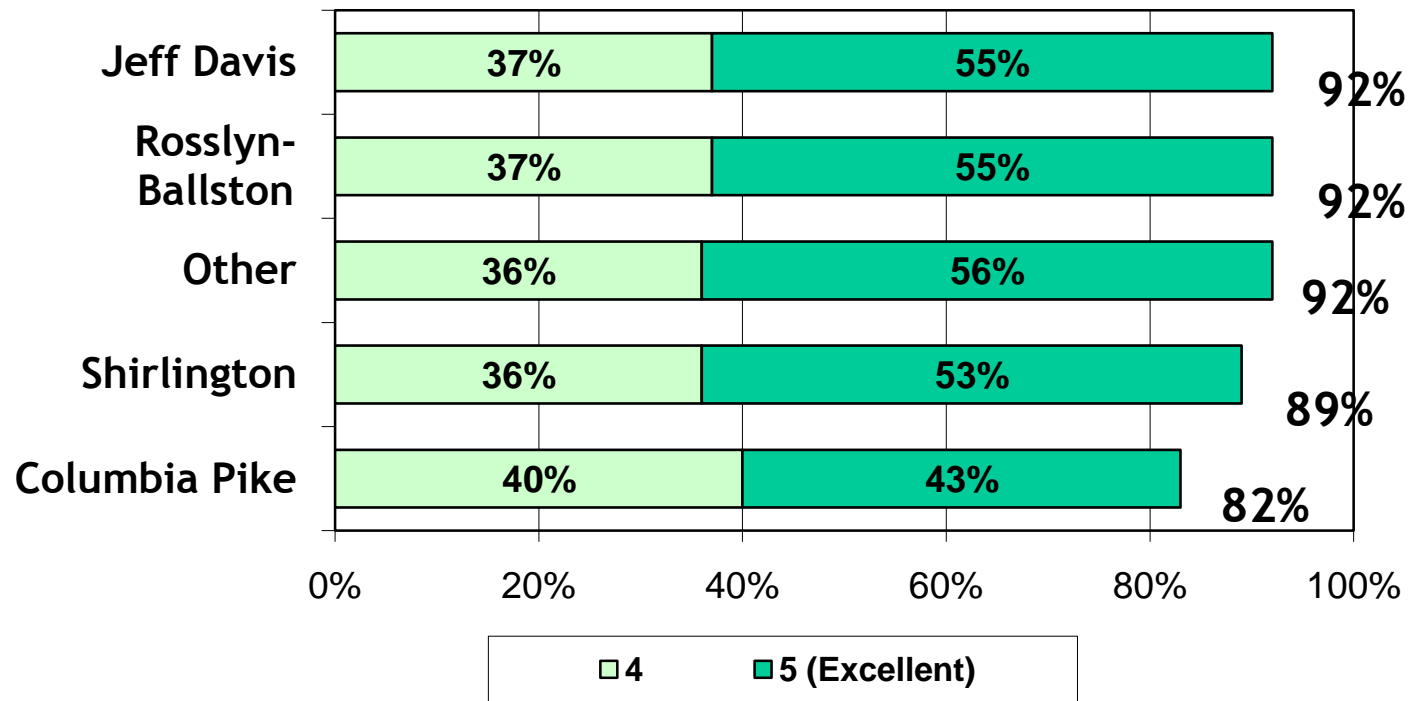
Other  
n = 2,620

Shirlington  
n = 223

Columbia  
Pike  
n = 360

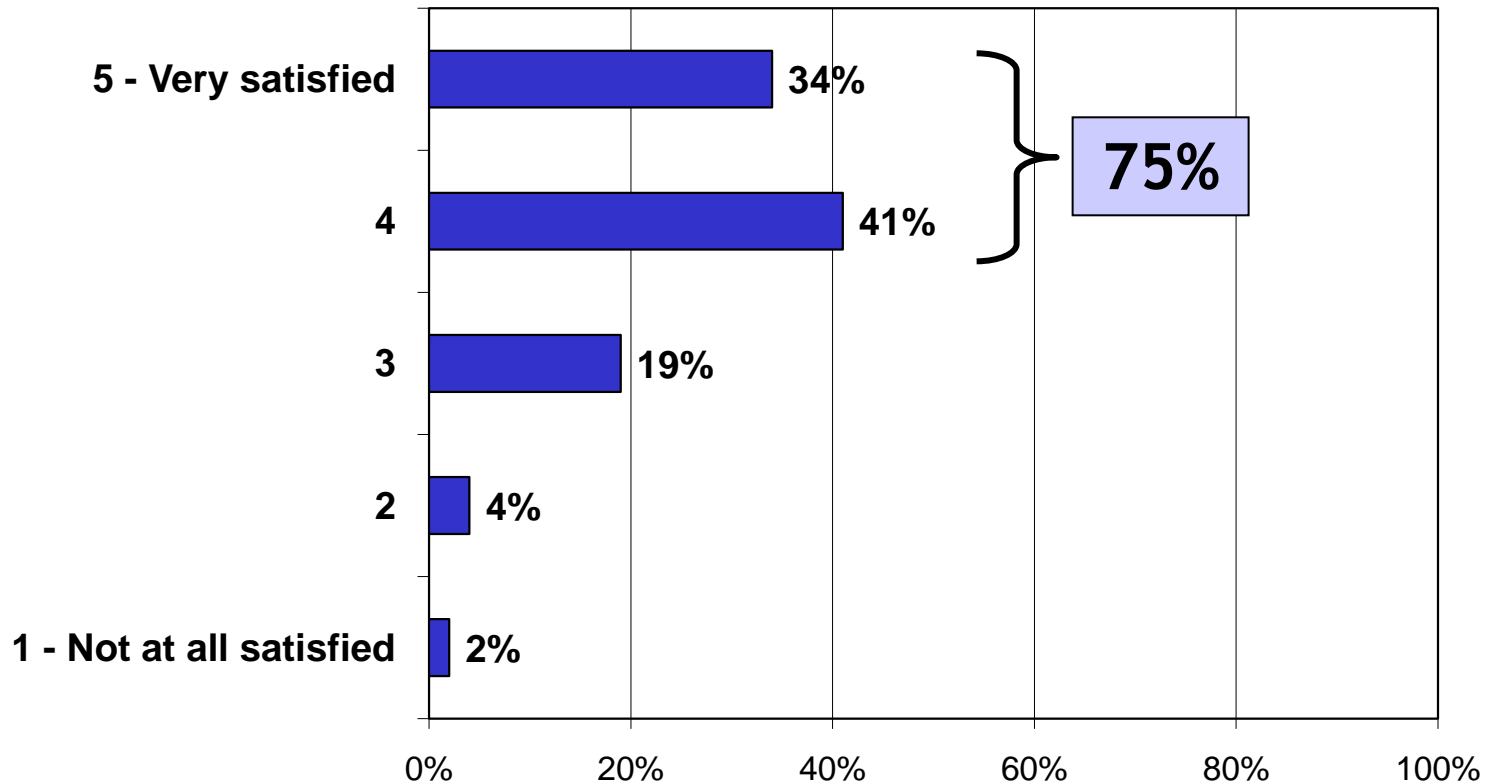
# QOL Ratings are Generally Positive Across Arlington Areas

Only Columbia Pike residents are slightly less positive about their QOL – 82% report high ratings, compared with about nine in ten residents in other areas.



Q10 Overall, how would you rate the quality of life in Arlington County?

# Three-Quarters of Residents are Satisfied with Arlington's Transportation System



Q11 How satisfied are you with the transportation system in Arlington County?

Long + Mini Survey

Jeff-Davis  
n = 251

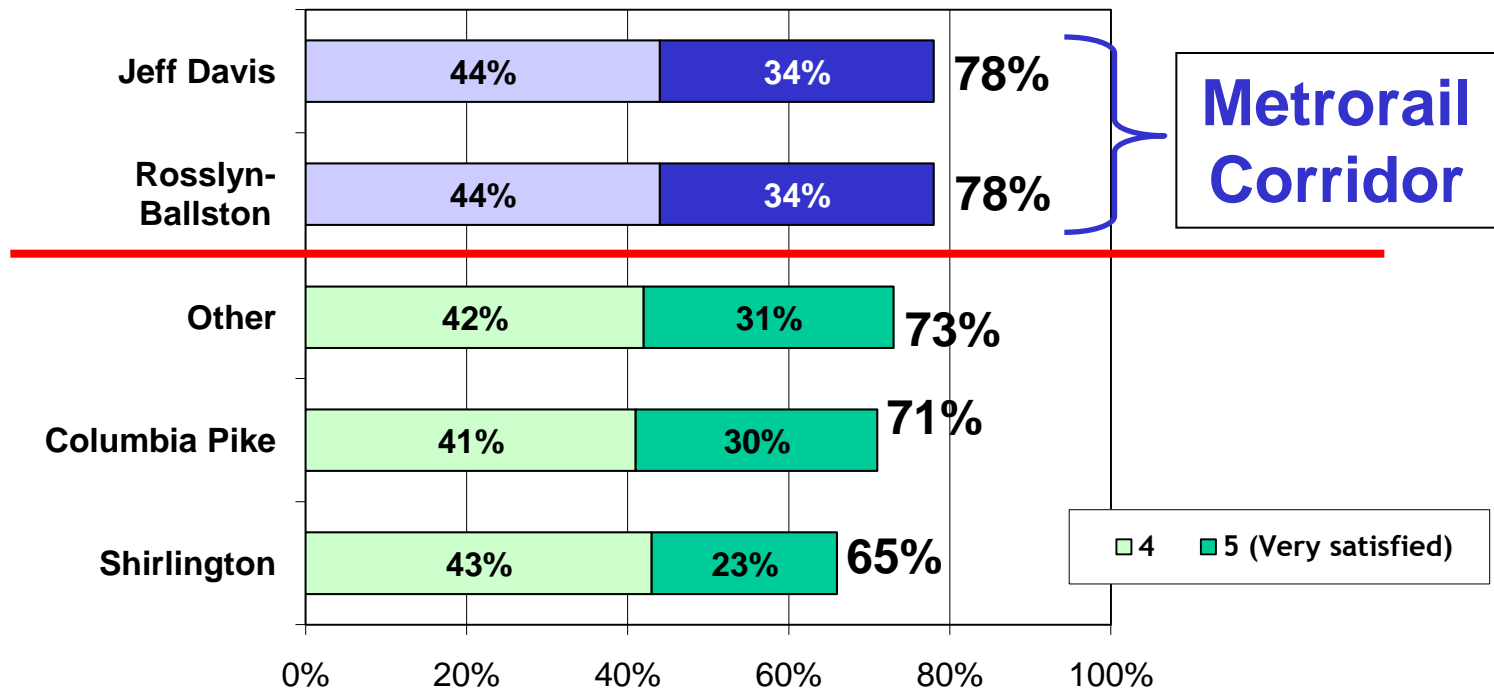
Rosslyn-Ballston  
n = 848

Other  
n = 2,537

Columbia Pike  
n = 351

Shirlington  
n = 219

# Residents Who Live Along Metrorail Lines are More Satisfied with Transportation Than are Residents in Non-Metro Areas

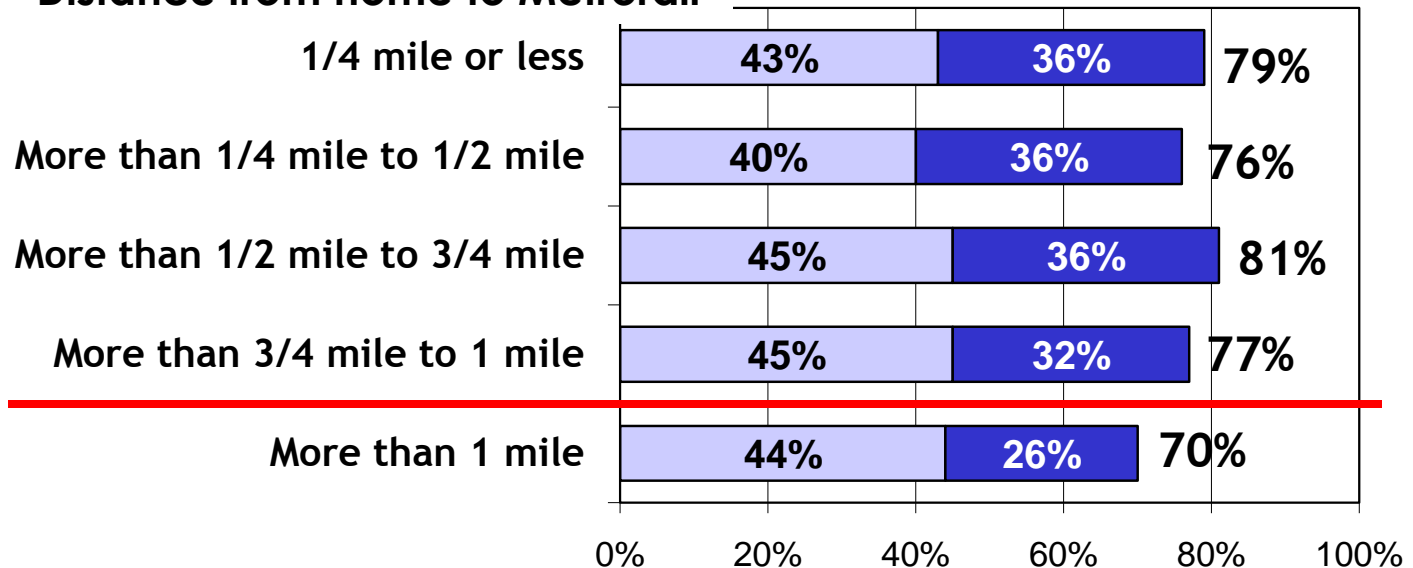


Q11 How satisfied are you with the transportation system in Arlington County?

# And the Benefits Extend to Nearly 1 Mile from Metrorail Lines

Transportation satisfaction ratings are similar for residents who live within 1 mile of a Metrorail station. Residents who live more than 1 mile away are less satisfied.

## Distance from home to Metrorail



Long + Mini Survey

1/4 mile or less  
n = 847

More than 1/4 mile to 1/2 mile  
n = 386

More than 1/2 mile to 3/4 mile  
n = 299

More than 3/4 mile to 1 mile  
n = 798

More than 1 mile  
n = 1,437

Q11 How satisfied are you with the transportation system in Arlington County?  
Q8 How far do you live from the nearest Metrorail station?

# Residents Who Commute by Alt Modes Report Slightly Higher Satisfaction with Transportation than Do Residents who Drive Alone

Long + Mini Survey

All alternative modes  
n = 857

Drive alone  
n = 1,364

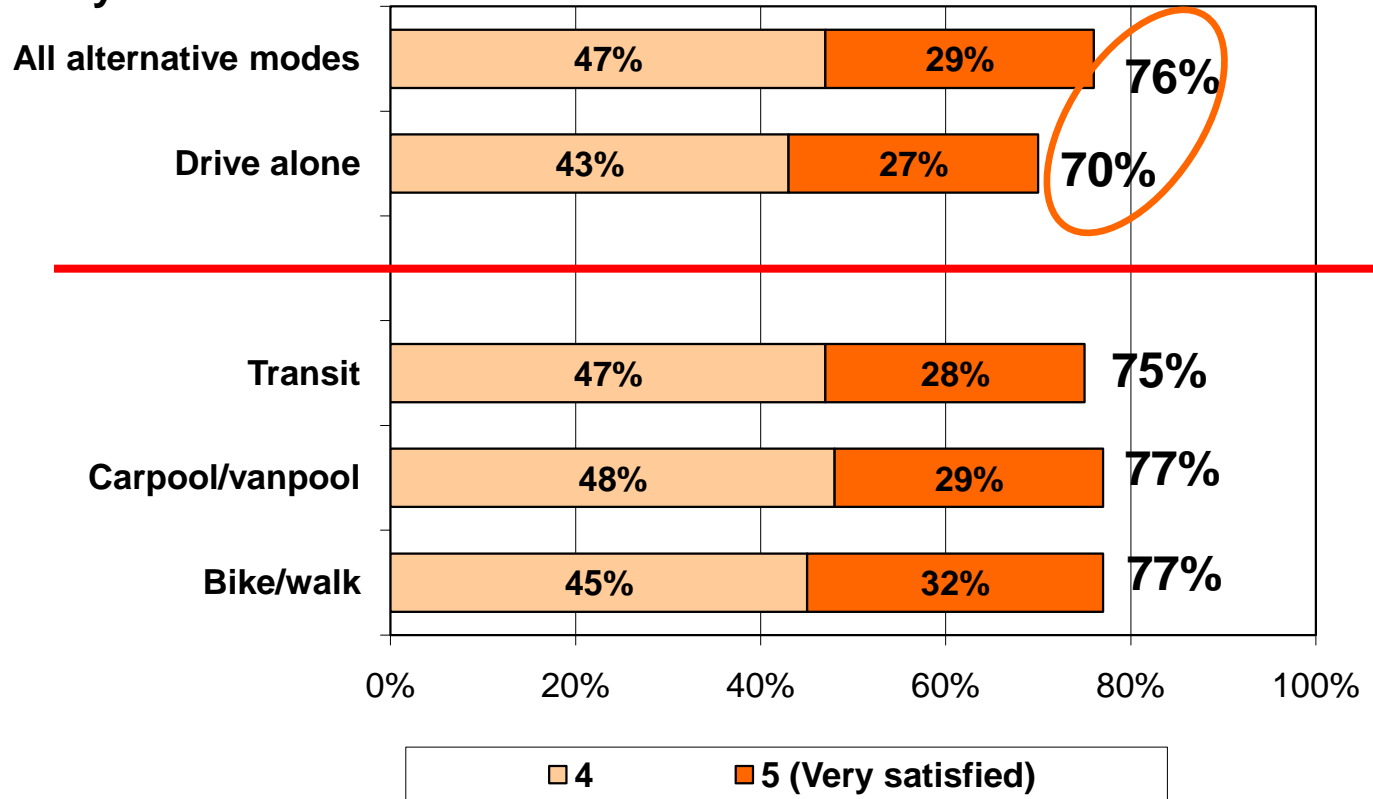
Transit  
n = 620

Bike/walk  
n = 137

Carpool/  
vanpool  
n = 100

Note:  
Primary commute mode is mode used most days of the week

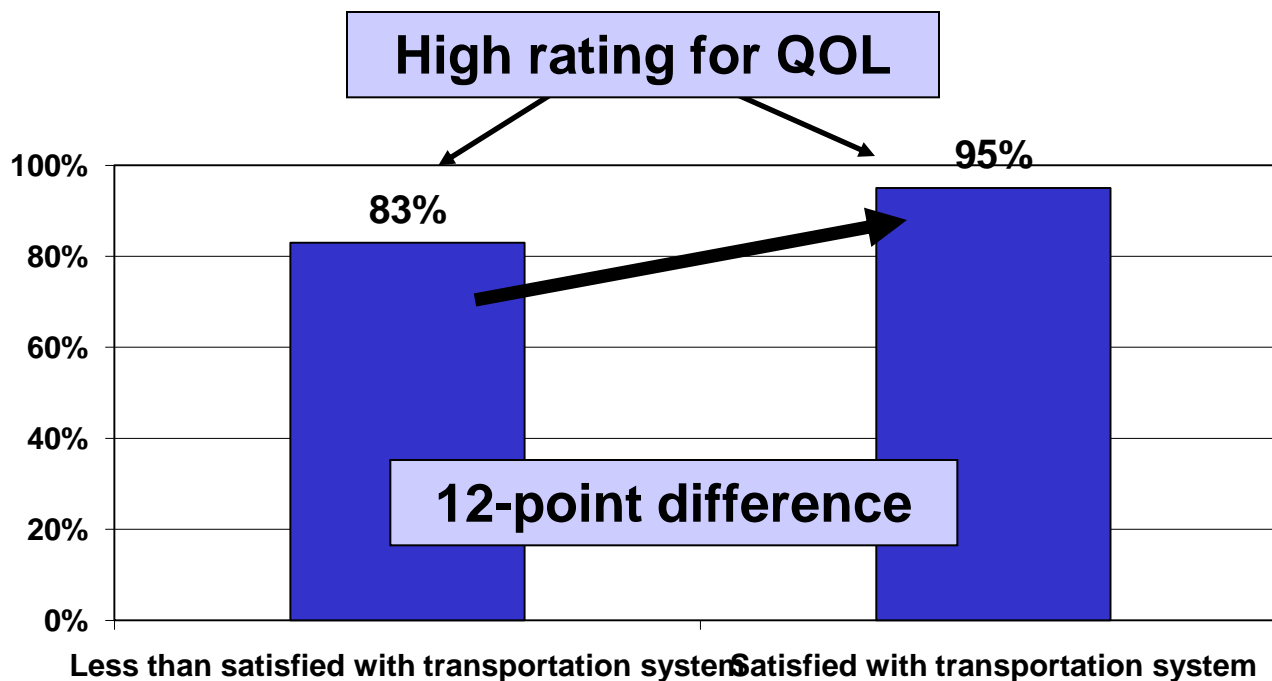
## Primary Commute Mode



Q11: How satisfied are you with the transportation system in Arlington County?  
Q25: ... Thinking about LAST week, how did you get to work each day?

# QOL Ratings are Higher for Residents who are Satisfied with Transportation System

95% of residents who are satisfied with the transportation system also rate quality of life favorably, compared with 83% who are less than satisfied with the transportation system.



Q10 Overall, how would you rate the quality of life in Arlington County?

# SUMMARY and IMPLICATIONS

## Summary

- Satisfaction with Arlington's transportation system is quite high and satisfaction with transportation is linked to high QOL ratings.



## Implications

- Continue to market non-SOV services currently available to residents in each County area and promote the role of the County in providing these services.
- Emphasize the link between transportation services and quality of life to decision makers – “livability” is of primary importance.

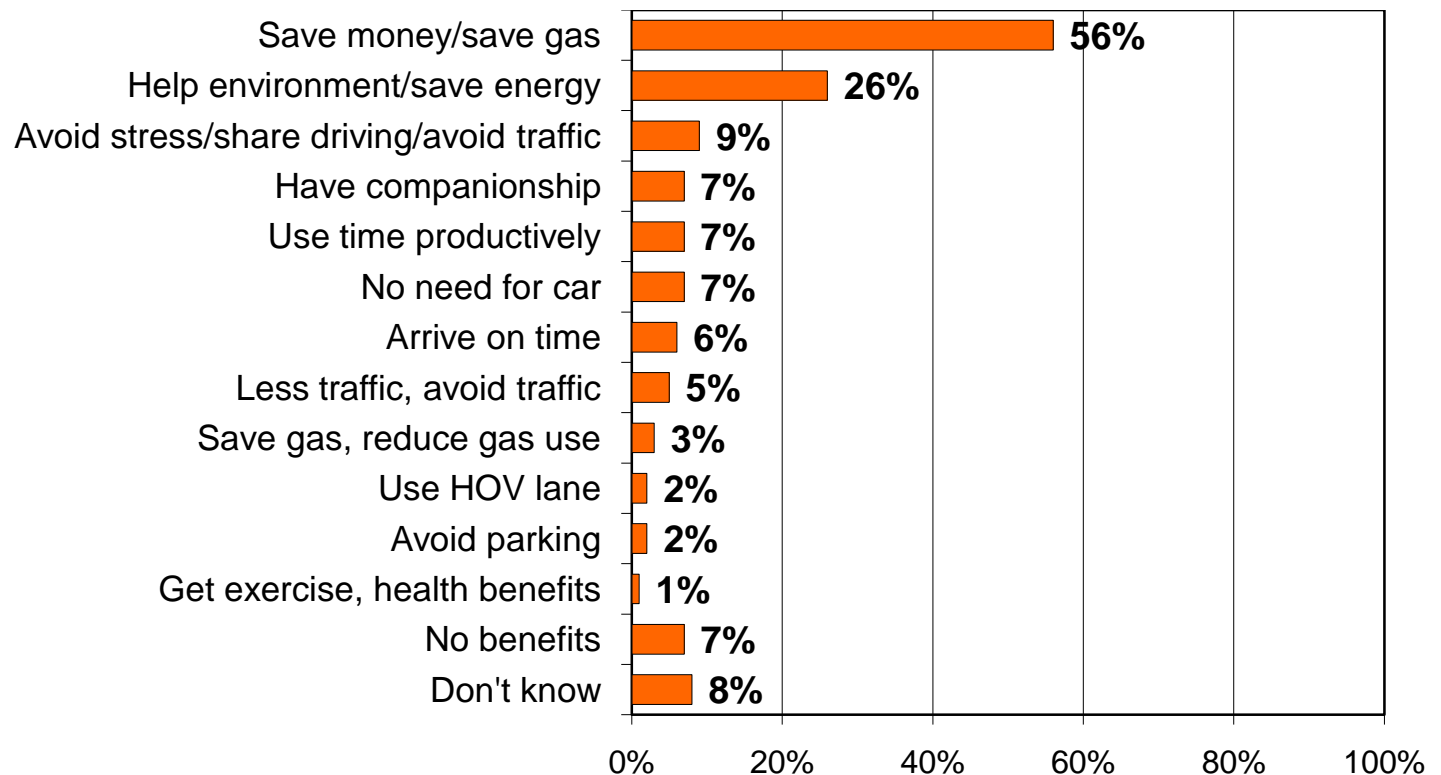


# Transportation Investment



# 87% of Residents Cite Personal Benefits of Ridesharing

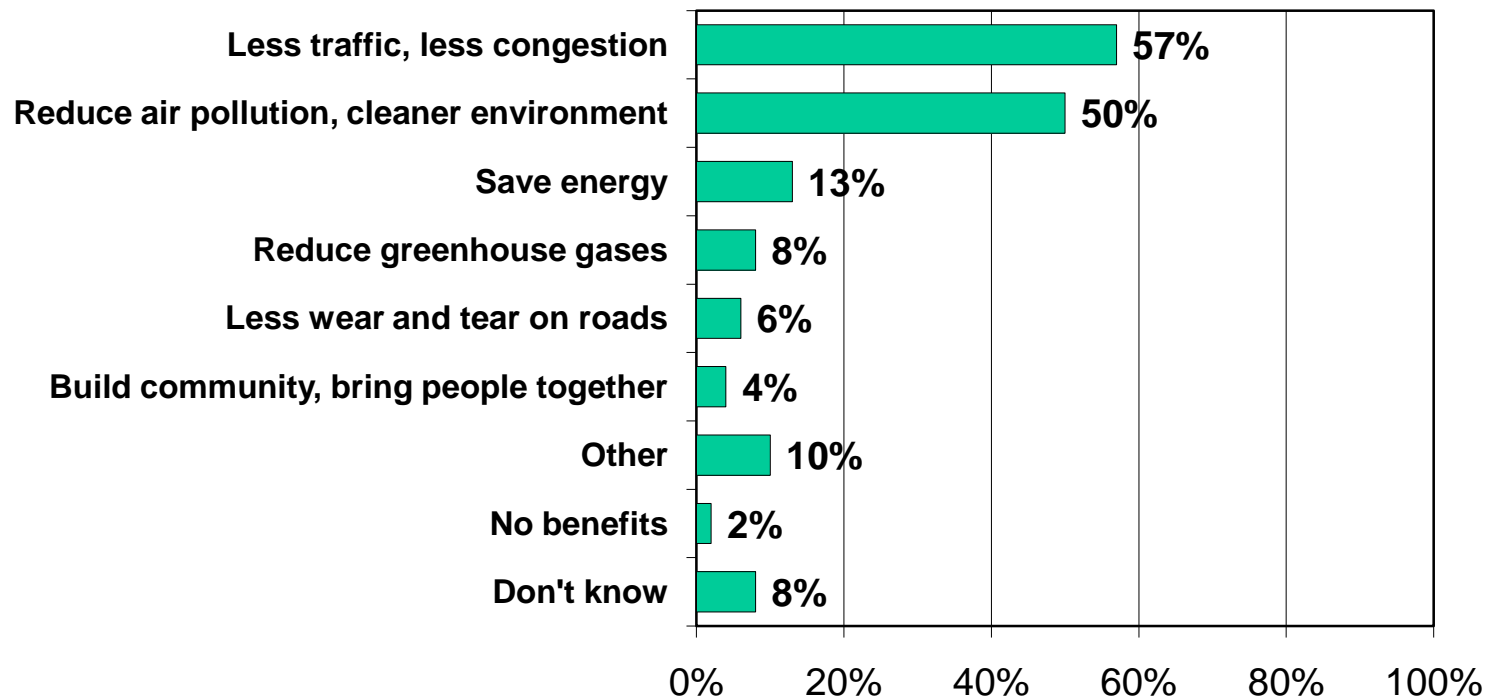
More than half of residents say people who rideshare receive a cost saving benefit and 26% note the benefit of helping the environment.



Q12a What personal benefits do you think people who rideshare receive from using these types of transportation?

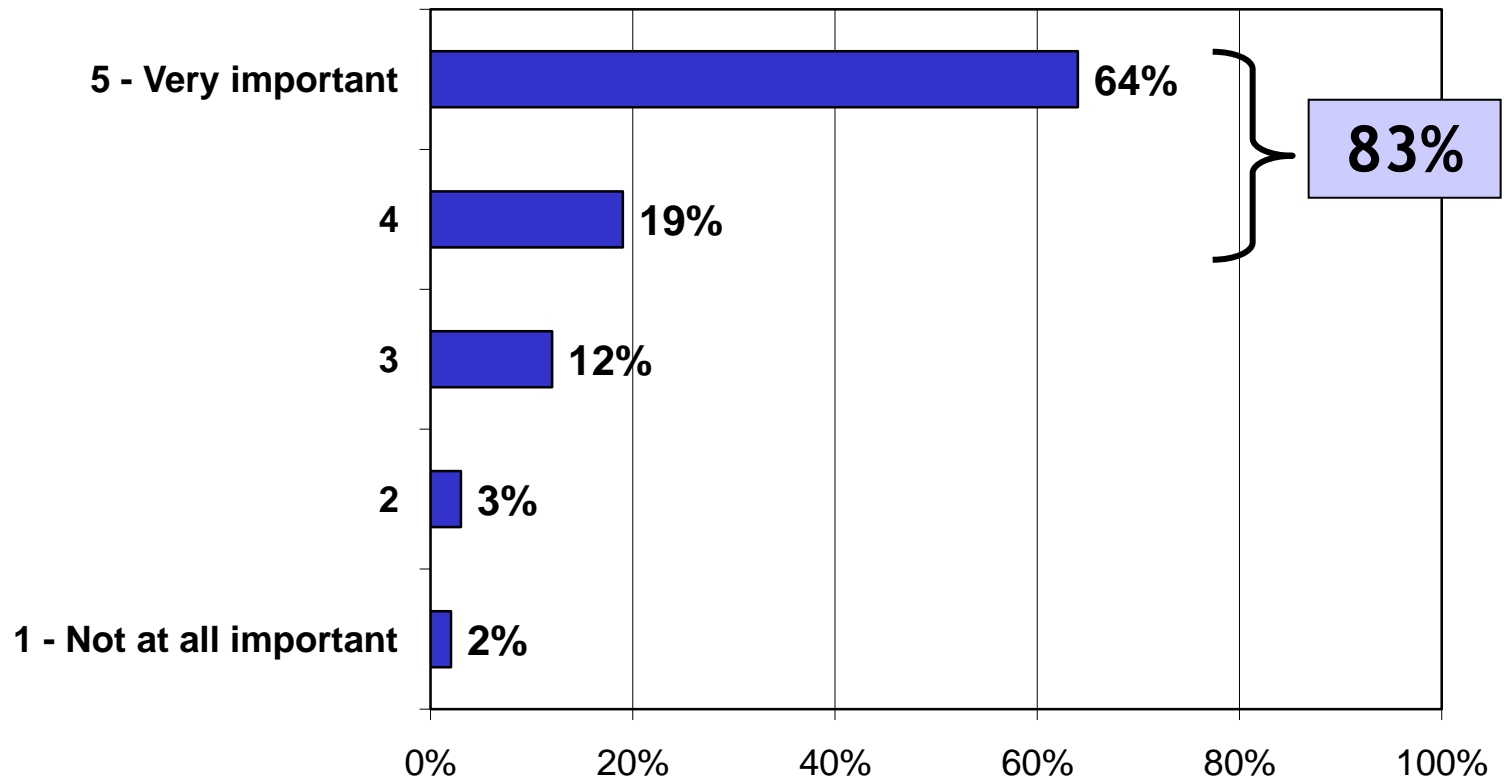
# Residents also Cite Societal Benefits from Ridesharing

About half of respondents perceive that commuters who rideshare help to reduce traffic and pollution, benefiting society as a whole.



Q12b How do you think society benefits from ridesharing?

# More than 8 in 10 Residents Believe It is Important to Invest in Services to Make Alternative Modes More Available



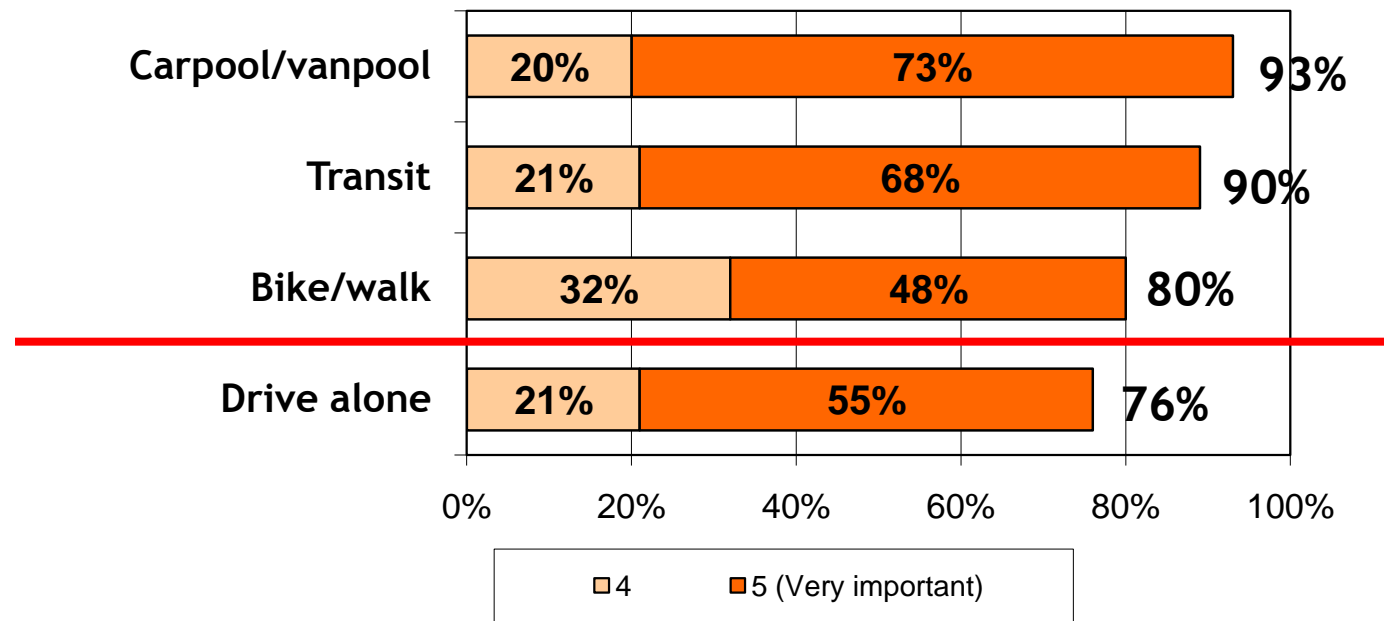
Q12c Even though you might not carpool, vanpool, or ride a bus, how important to you is it that Virginia invests in programs to support and make these transportation options more available to residents?

# Support for Non-SOV Investment is Evident Regardless of Commute Mode Used

Residents who use alt modes to travel to work are most likely to say it's important to invest in alt modes, but 76% of residents who drive also say it's important.

Long Survey Only  
Carpool/vanpool n = 33  
Transit n = 218  
Bike/walk n = 42  
Drive alone n = 334

Primary Commute Mode

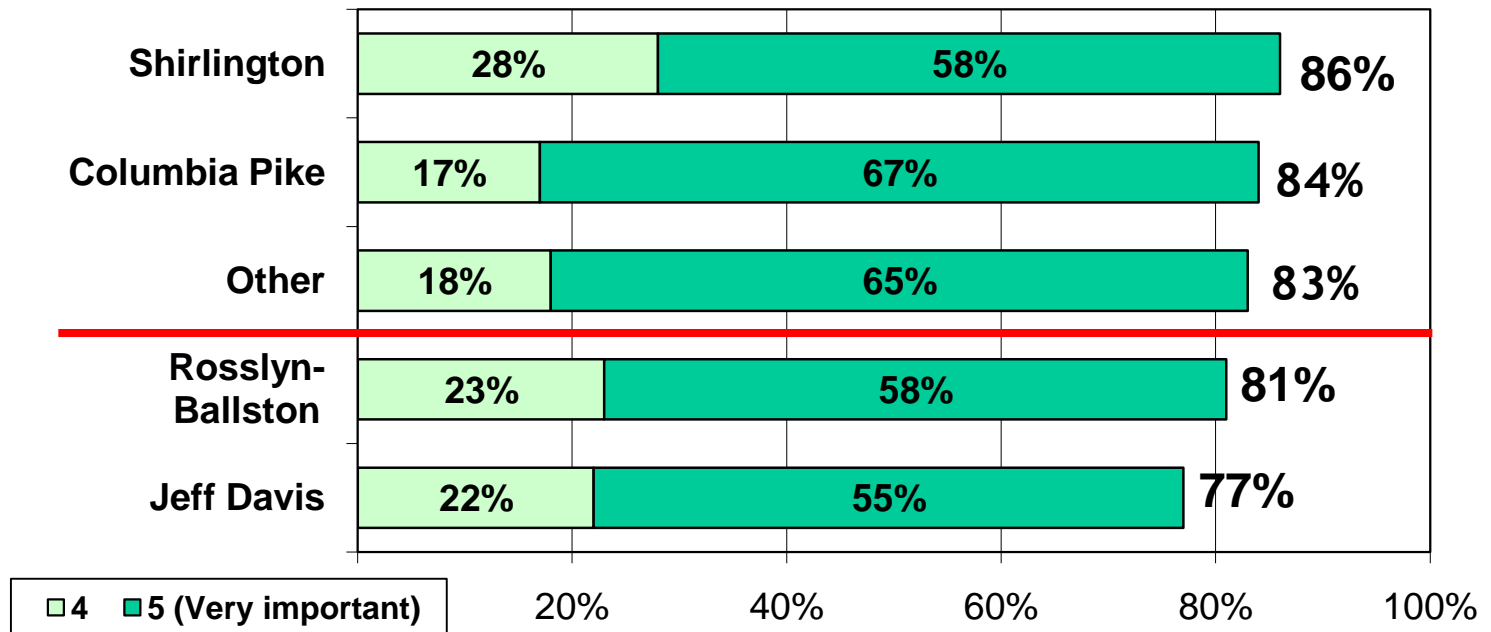


Q12c Even though you might not carpool, vanpool, or ride a bus, how important to you is it that Virginia invests in programs to support and make these transportation options more available to residents?



# Support for Non-SOV Investment is Strong Across all County Areas

But residents who live **outside** Metrorail corridors express the strongest support for non-SOV transportation investment, perhaps because they have fewer travel options available.

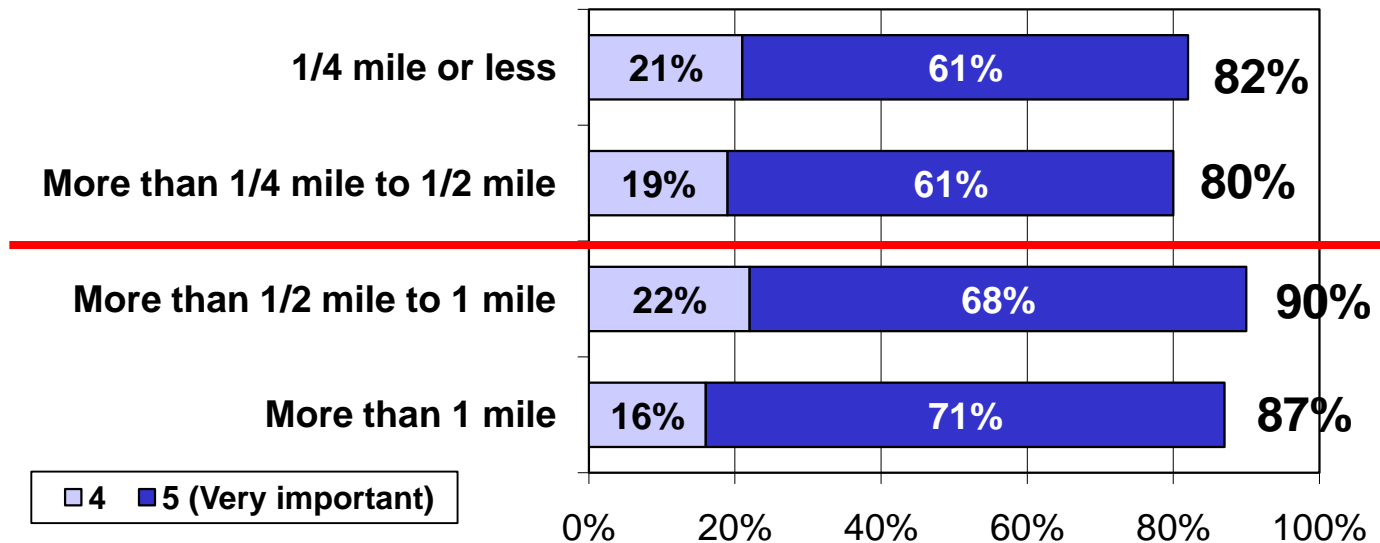


Q12c Even though you might not carpool, vanpool, or ride a bus, how important to you is it that Virginia invests in programs to support and make these transportation options more available to residents?

# Support for Non-SOV Investment is Higher for Residents who Live Farther from Metrorail

Residents who live more than 1/2 mile from a Metrorail station are most likely to think it's important to invest in transportation options.

**Distance from home to Metrorail**



Long + Mini Survey

1/4 mile or less  
n = 416

More than 1/4 mile to 1/2 mile  
n = 176

More than 1/2 mile to 1 mile  
n = 205

More than 1 mile  
n = 291

Q12c Even though you might not carpool, vanpool, or ride a bus, how important to you is it that Virginia invests in programs to support and make these transportation options more available to residents?

Q8 How far do you live from the nearest Metrorail station?

Long Survey Only

1/4 mile or less  
n = 1,060

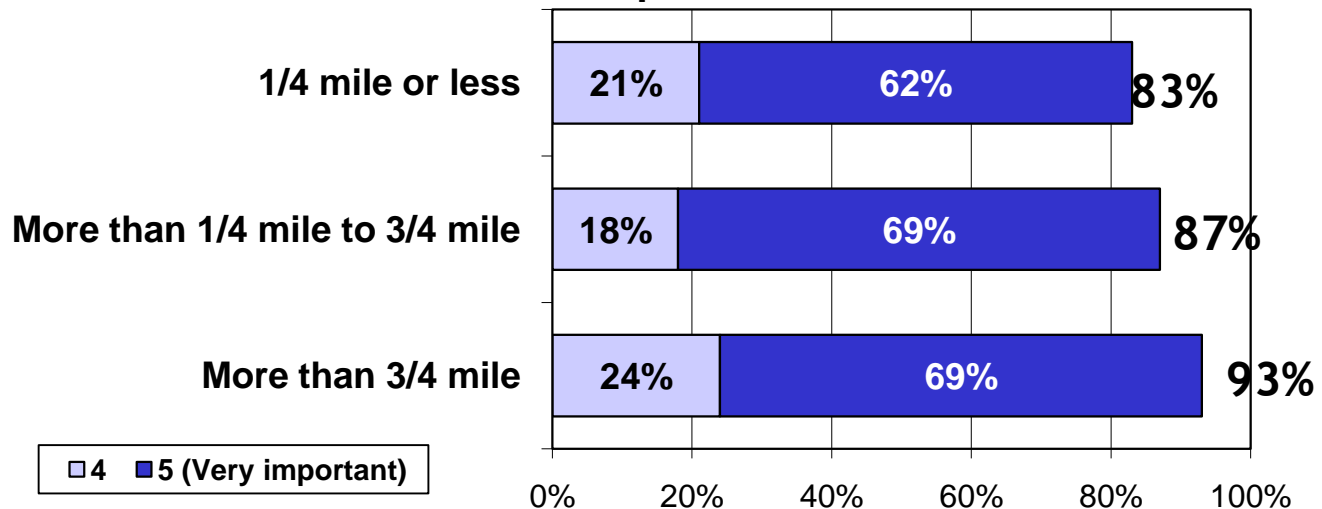
More than 1/4 mile to 3/4 mile  
n = 101

More than 3/4 mile  
n = 46

## Support for Non-SOV Investment also Increases with Distance from Home to Bus

93% of residents who live more than 3/4 mile from a bus stop say it's important to invest in transportation options, compared with 83% of those who live within a 1/4 mile.

### Distance from home to bus stop



Q12c Even though you might not carpool, vanpool, or ride a bus, how important to you is it that Virginia invests in programs to support and make these transportation options more available to residents?

Q55 About how far is it from your home to the nearest bus stop?

# SUMMARY and IMPLICATIONS

## Summary

- Even with high satisfaction for Arlington's transportation system, a large share of residents think it's important to invest in alternative mode options.
- Investment is supported by residents in all County areas, but especially among residents who live farther from transit.

## Implications

- Communicate residents' awareness of rideshare benefits and support for alt mode investment to decision-makers.
- Particularly note the importance of investment in areas not currently well-served by transit.





# Non-Work Travel



# Incidence of Non-Work Travel

**64%** of residents made a non-work trip “yesterday.” Employed and not-employed residents made equal numbers of non-work trips.

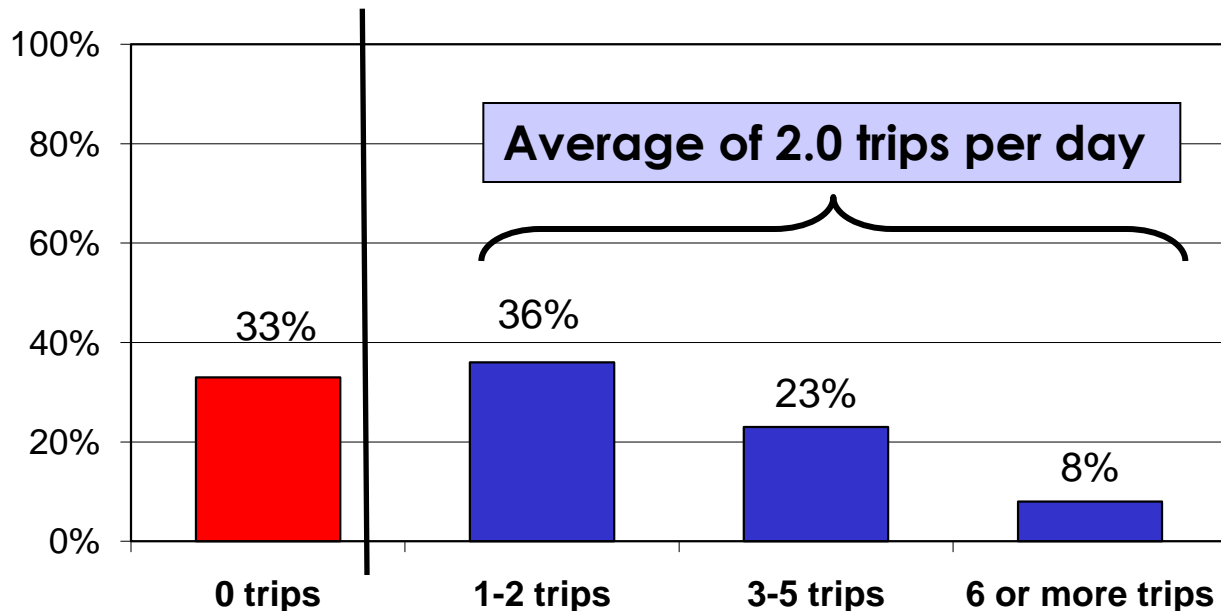
Number of daily non-work trips by commute mode:

Drive alone  
2.1 trips

Transit  
1.7 trips

Carpool  
2.1 trips

Bike/walk  
2.3 trips



Q 33. Did you make any such trips yesterday, even if they were short trips?

Q33a. About how many trips did you make? If you made more than one stop in a trip, such as dropping someone off on the way to shop, count them as separate trips. And please count the return trip also.

# Residents of Columbia Pike and “Other” Areas Make the Most Non-work Trips

Long + Mini Survey

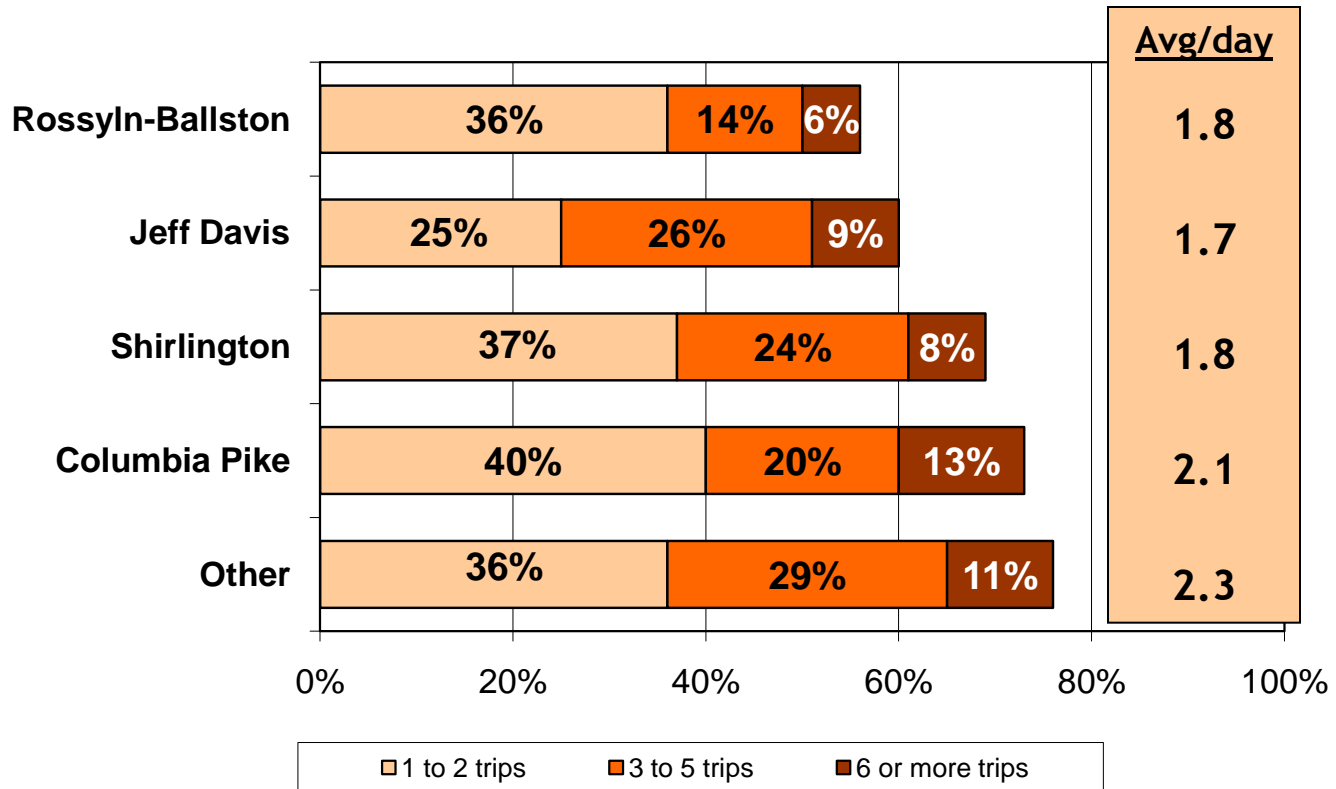
Columbia Pike  
n = 365

Jeff-Davis  
n = 259

Rosslyn-Ballston  
n = 867

Shirlington  
n = 224

Other  
n = 2,629

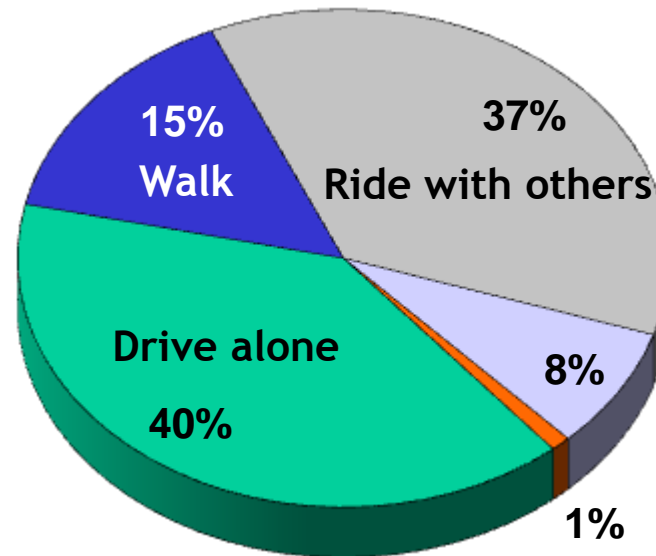


Q 33. Did you make any such trips yesterday, even if they were short trips?

Q33a. About how many trips did you make?

# 15% of Non-Work Trips are Made by Walking

Nearly half are made by driving alone and one-third are made by riding or driving with another person



■ Drive alone ■ Walk ■ Ride with others ■ Transit ■ Bike

Q33c About how many trips did you make by each of the following types of transportation?

Long Survey Only

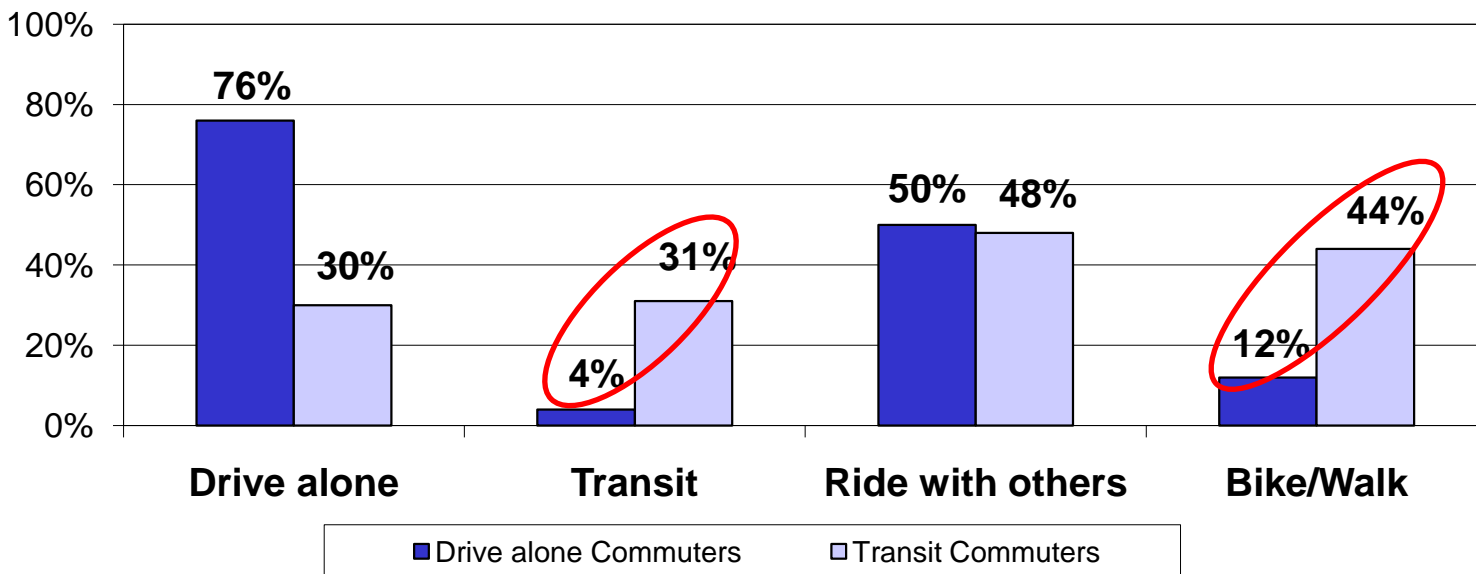
Drive alone commuters  
n = 335

Transit commuters  
n = 220

# Employed Residents who Ride Transit to Work also Use Transit for Non-Work Trips

Transit commuters are much more likely than are drive alone commuters to have used transit or bike/walk also for a non-work trip. They are equally likely to have made a non-work trip by “riding with others.”

### Percent of non-work Trips by Travel Mode



Q33c About how many trips did you make by each of the following types of transportation?  
Q25: ... Thinking about LAST week, how did you get to work each day?

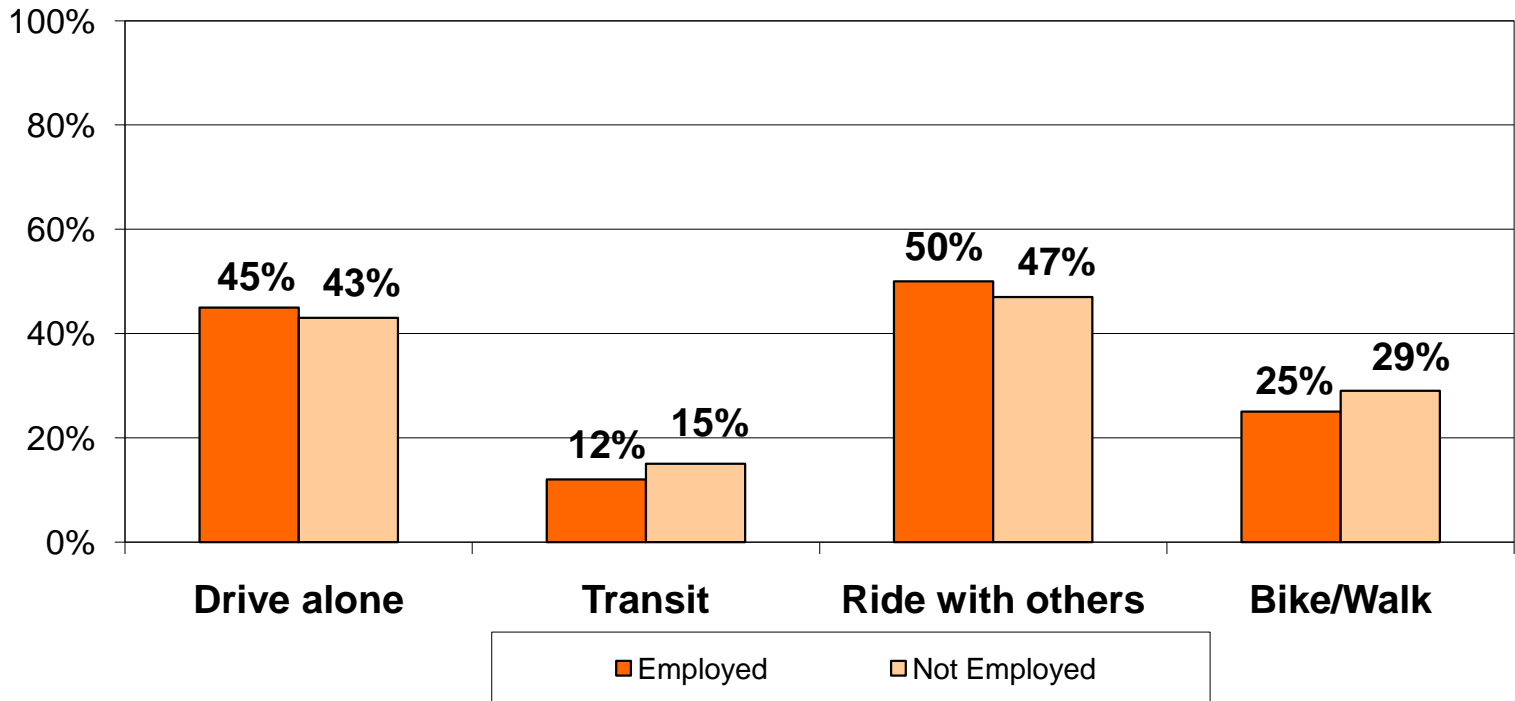
Long  
Survey Only

Employed  
n = 438

Not  
employed  
n = 353

# But Employed and Not-Employed Residents are Equally Likely to Use Alt Modes for Non-work Trips

Percent of non-work Trips by Travel Mode



Q33c About how many trips did you make by each of the following types of transportation?  
Q2. What is your current employment status?

# SUMMARY and IMPLICATIONS

## Summary

- 77% of non-work trips are made by private vehicle, but 37% are riding with others, e.g., “ridesharing” Thus alt modes are common for non-work trips.
- Residents who commute by transit are more likely to use transit and bike/walk for non-work trips also. This is perhaps because they live and/or work in areas that have good transit and pedestrian access.
- But employed and not-employed residents use alt modes for non-work trips at about the same rate.

## Implications

- Promote use of alt modes to all residents for non-work trips; non-work trips are more discretionary than are work trips. Highlight easy access of shopping and entertainment locations that have good transit access.

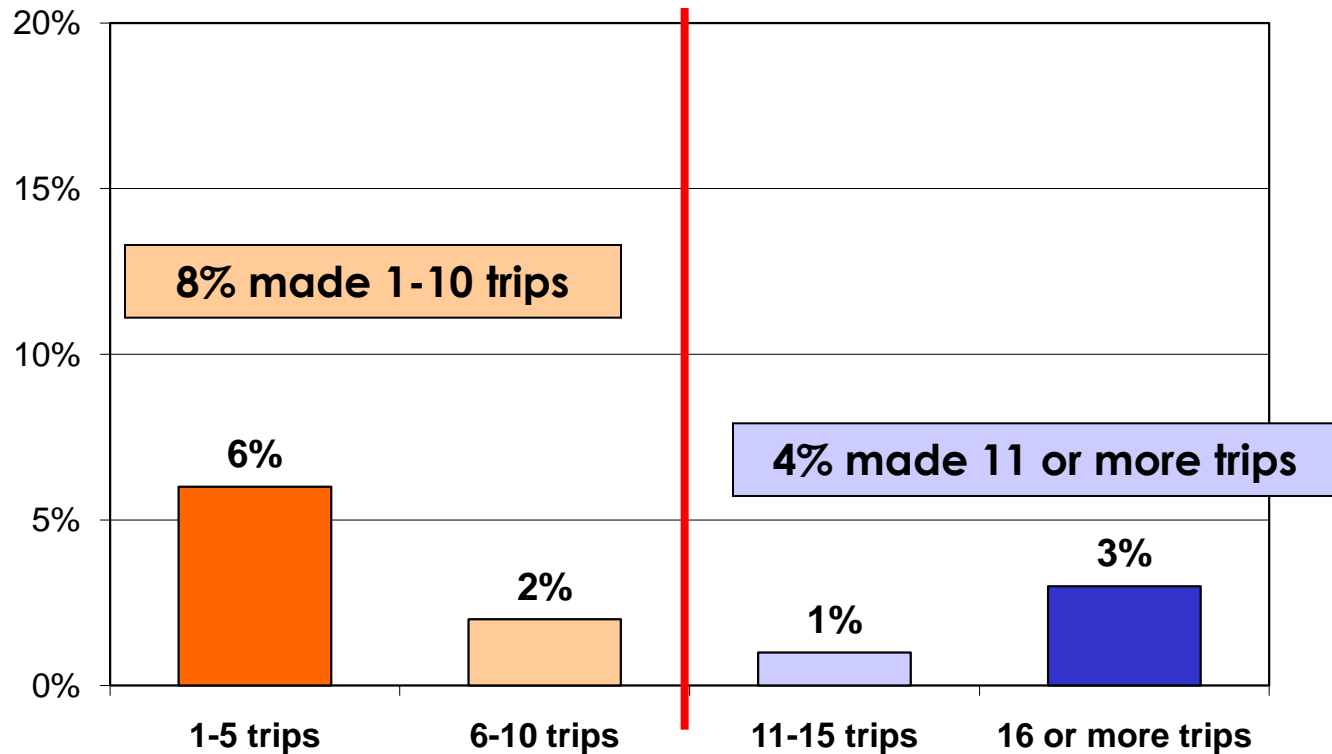


# Bicycle as Travel Mode



Note: The axis of this chart only goes to 20% instead of 100% due to small incidence of bicycling

# 12% of Residents Made a Trip by Bicycle in the Past 3 Months for a Purpose Other than Exercise / Recreation



33D. In the past three months, about how many times did you ride a bicycle for a purpose other than for exercise or recreation, such as to run errands, visit friends or family, etc?

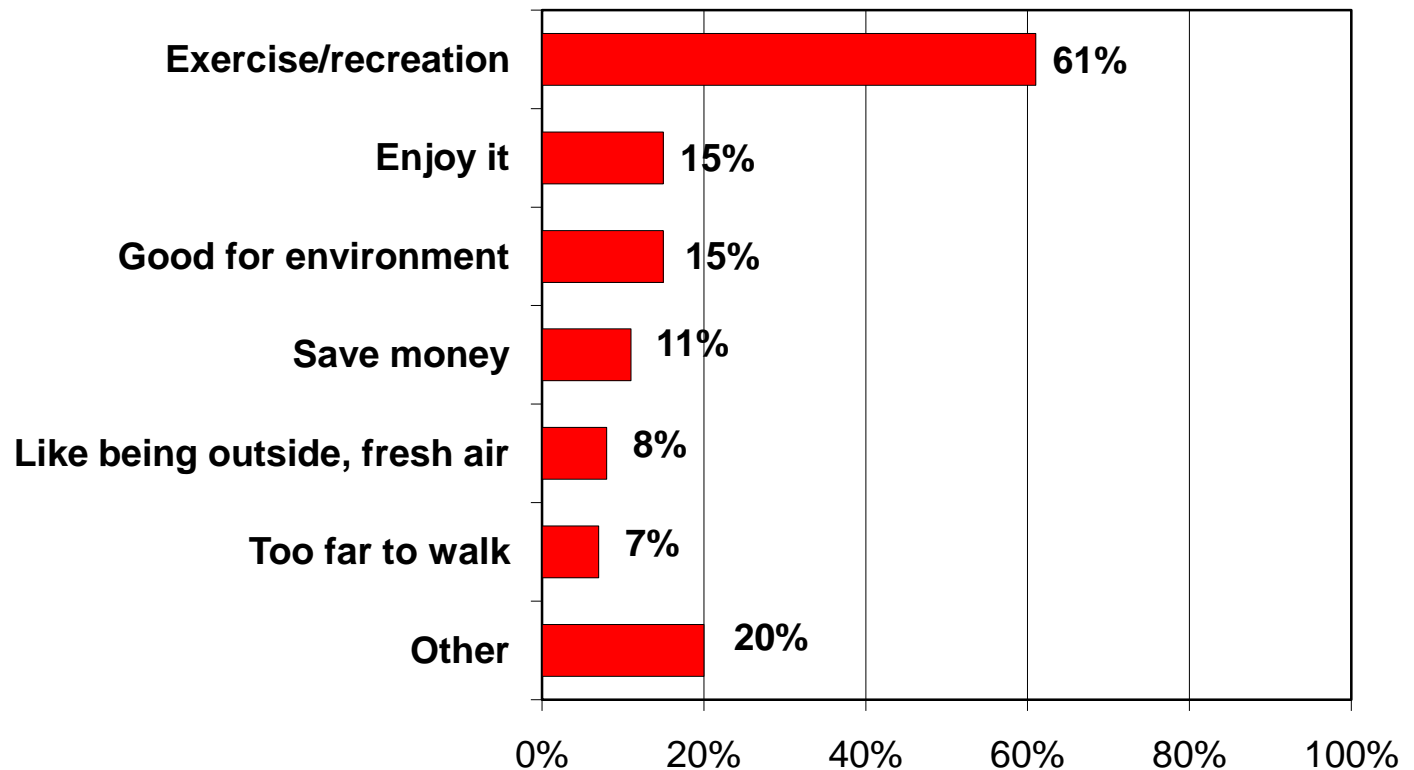
Long Survey  
Only

n = 125

multiple  
responses  
permitted

# Bicyclists Overwhelmingly Report Riding to Get Exercise

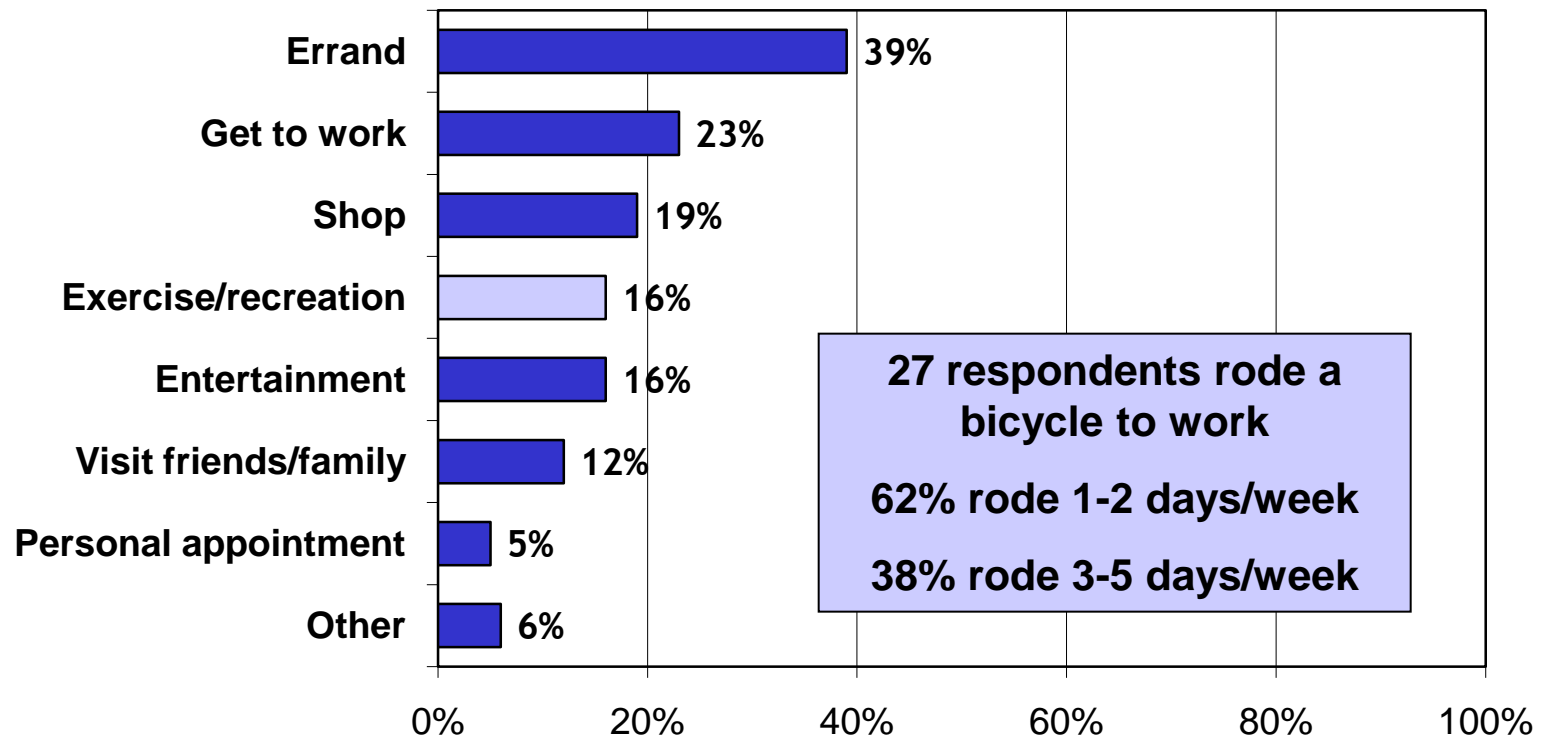
But 15% say they ride because they “enjoy it” and 15% ride because it’s good for the environment.



Q33e For what purposes did you make these bike trips?

# 39% of Respondents Who Bicycled in the Past 3 Months Made a Trip for an Errand

23% traveled by bicycle to work. About two in ten made a trip to shop.



Q33e For what purposes did you make these bike trips?

# Bicycling is Most Common for Residents of Rosslyn-Ballston, Shirlington, and "Other" Areas

Long + Mini Survey

Rosslyn-Ballston  
n = 867

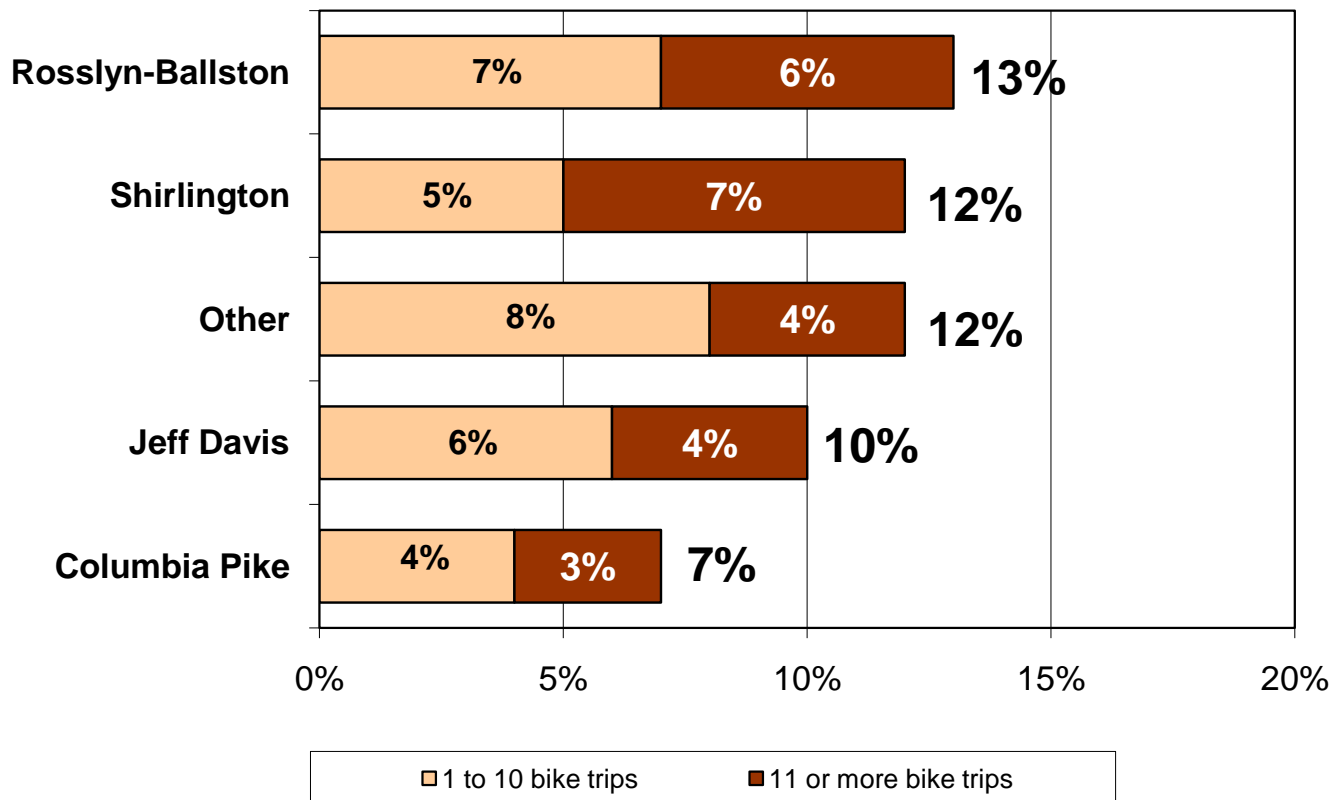
Shirlington  
n = 224

Other  
n = 2,629

Jeff Davis  
n = 259

Columbia Pike  
n = 365

Note: The axis of this chart only goes to 20% instead of 100% to highlight the differences.



33D. In the past three months, about how many times did you ride a bicycle for a purpose other than for exercise or recreation, such as to run errands, visit friends or family, etc?

Long + Mini Survey

18 to 24  
n = 75

25 to 34  
n = 406

35 to 44  
n = 737

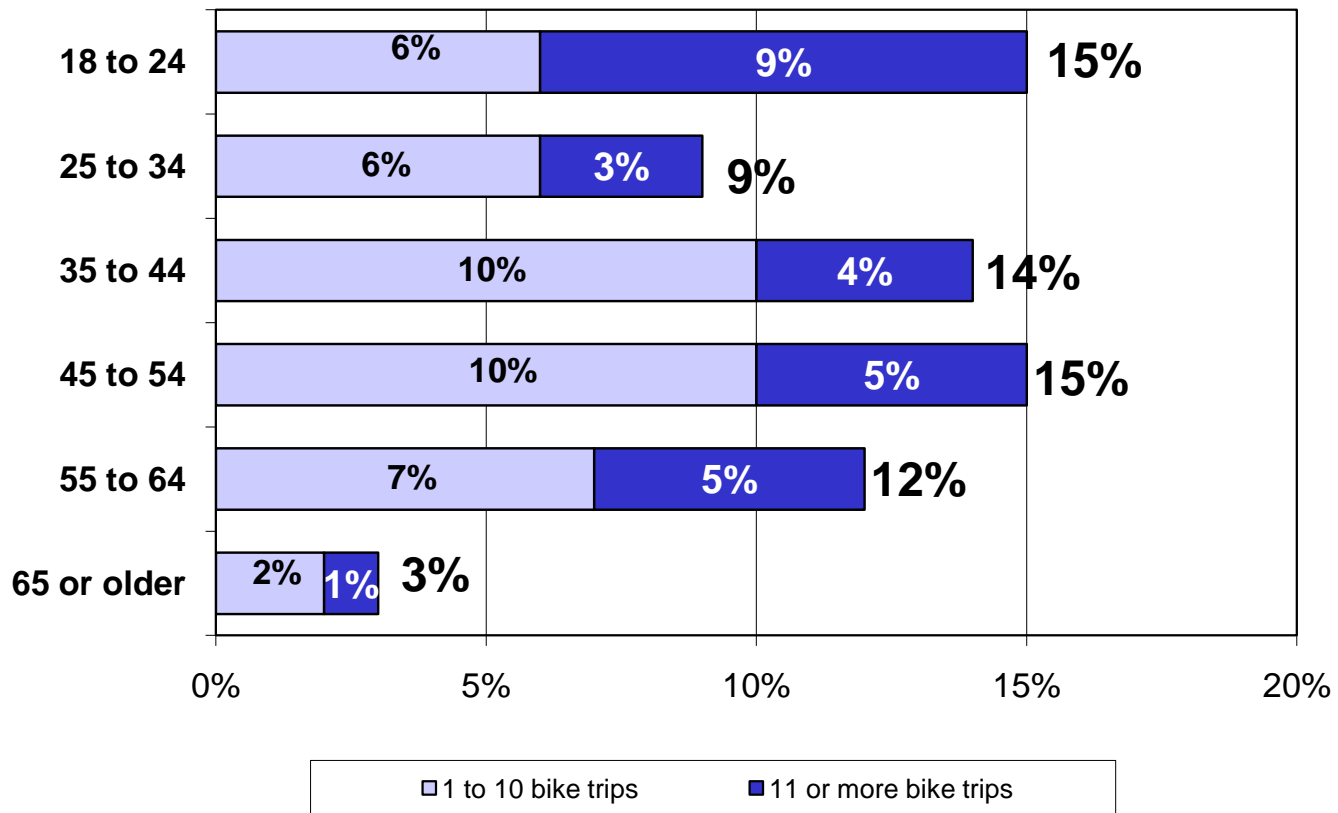
45 to 54  
n = 910

55 to 64  
n = 953

65 and older  
n = 1,062

Note: The axis of this chart only goes to 20% instead of 100% to highlight the differences

# Residents of all Age Groups Use Bicycle for Non-Work Trips



Q33d. In the past three months, about how many times did you ride a bicycle for a purpose other than for exercise or recreation, such as to run errands, visit friends or family, etc?  
Q58: In what year were you born?



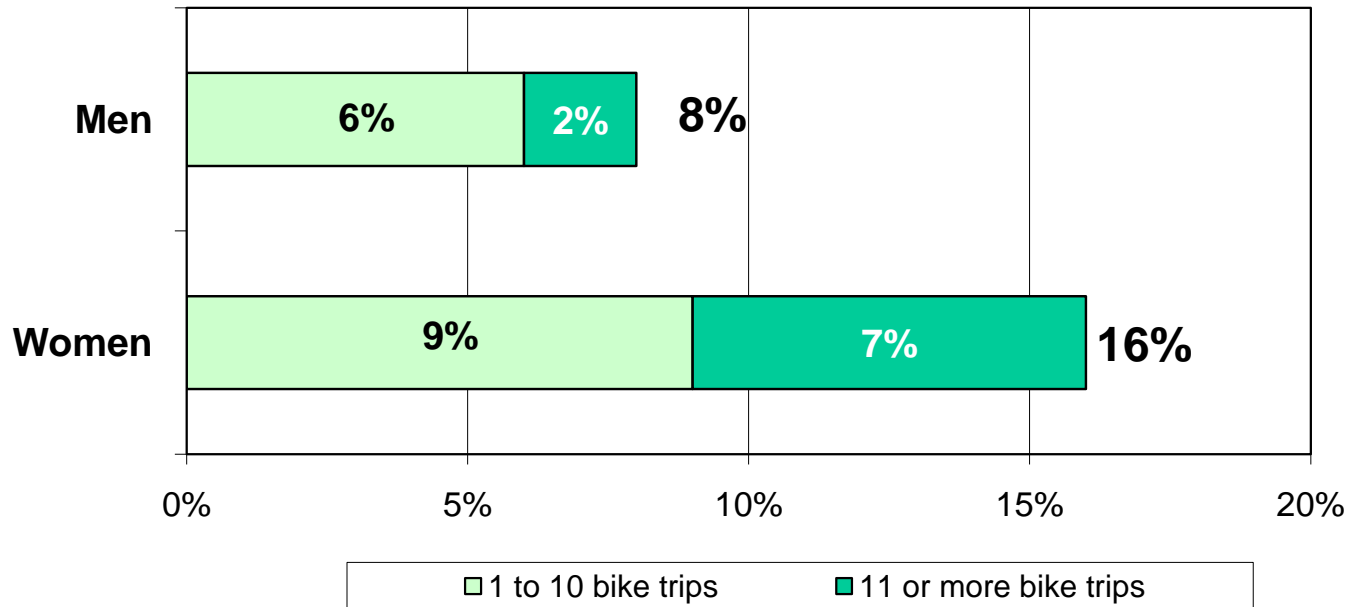
Long + Mini Survey

Women  
n = 2,565

Men  
n = 1,779

Note: The axis of this chart only goes to 20% instead of 100% to highlight the differences.

# But Men are Twice as Likely to Bicycle for a Non-Work Trip as are Women



Q33d. In the past three months, about how many times did you ride a bicycle for a purpose other than for exercise or recreation, such as to run errands, visit friends or family, etc?

Q66. Gender (by observation)

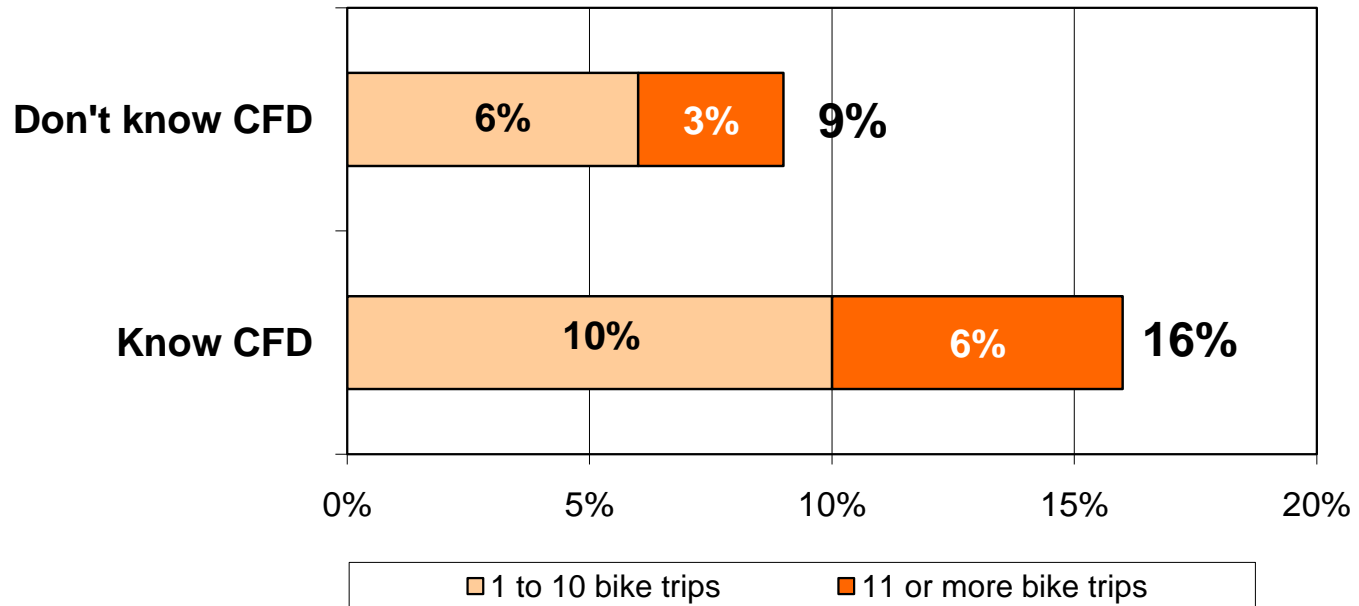
Long + Mini Survey

Know Car-Free Diet  
n = 1,529

Don't know Car-Free Diet  
n = 2,766

Note: The axis of this chart only goes to 20% instead of 100% to highlight the differences.

# And Residents Who Know of Car-Free Diet are More Likely to Use Bicycle for Non-Work Trips

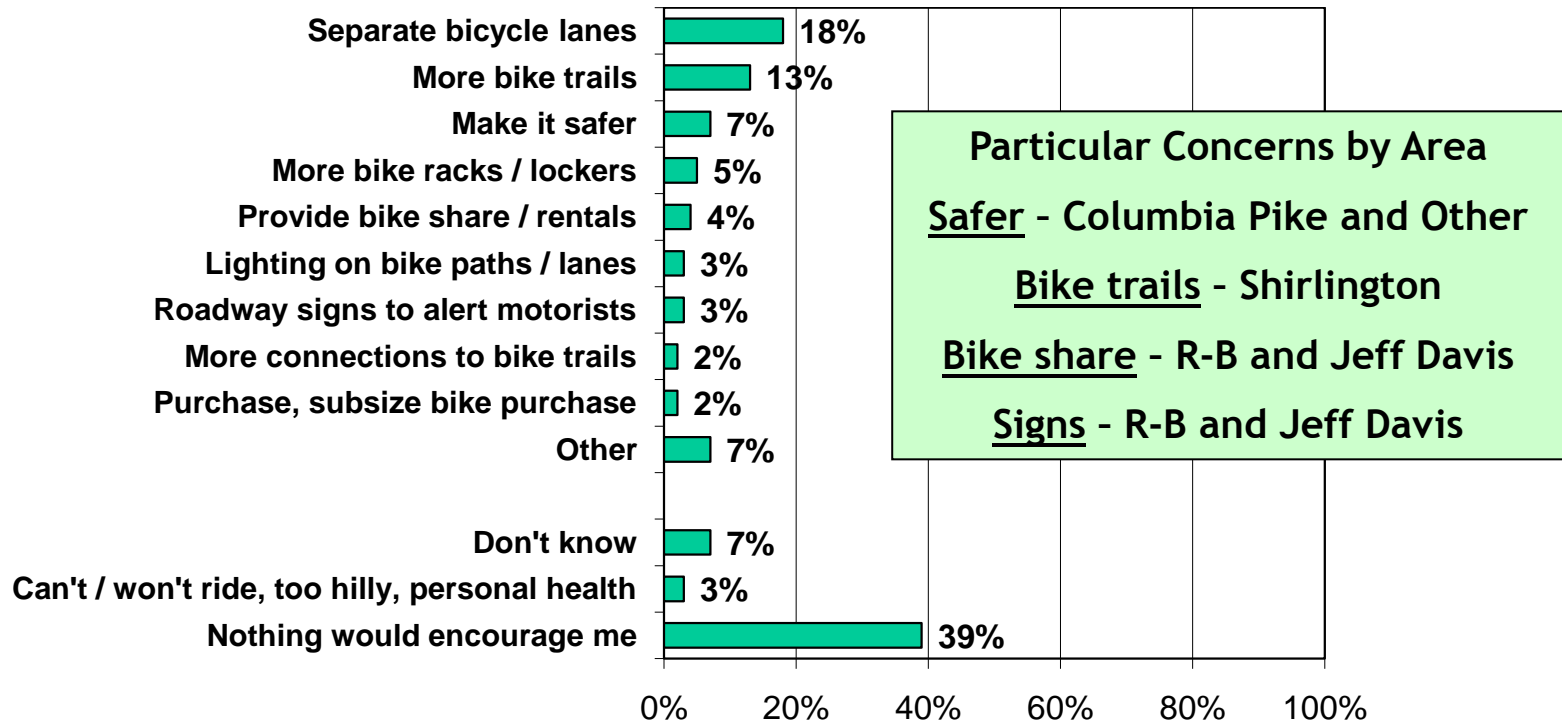


Q33d. In the past three months, about how many times did you ride a bicycle for a purpose other than for exercise or recreation, such as to run errands, visit friends or family, etc?

Q54. Have you ever seen or heard anything that mentions the statement, "Arlington's Car Free Diet?"

# 51% of Residents Note Actions that Could Make it Easier for Them to Bicycle

They primarily note a need for more extensive and separate bicycle facilities and for amenities to make cycling safer. But residents' particular concerns vary by area.



Q33j What could Arlington County do to make it easier for you to ride a bicycle?

# Younger Residents Are More Likely to Be Open to Ways Arlington Could Make it Easier for Them to Ride a Bicycle

Note: Chart only shows the top responses that exhibit significant differences between the segments and are above 3%.

Long + Mini Survey:

Weighted Bases

Gen Y

n = 398

Gen X

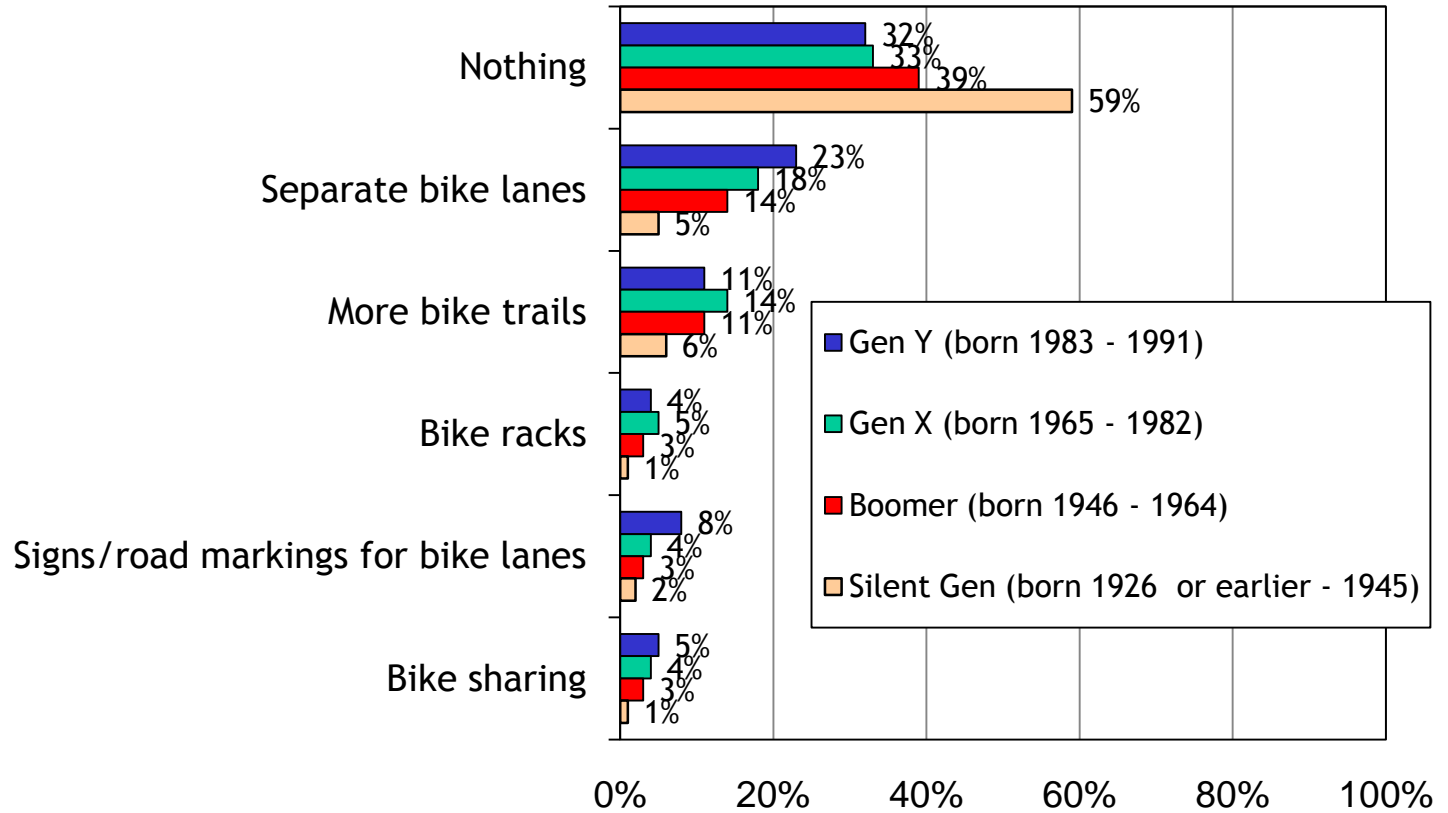
n = 1805

Boomers

n = 1253

Silent Gen

n = 524



Q33j What could Arlington County do to make it easier for you to ride a bicycle?

# SUMMARY and IMPLICATIONS

## Summary

- While bike is not a primary mode for most residents, 12% of residents made a bike trip in the past 3 months; 4% made more than 10 trips in that time.
- Most bike trips were made for non-work trip purposes, but a quarter of riders said they rode to work.
- More than half of all residents noted actions the County could take that would encourage them to ride or make it easier to ride. The primary motivator would be new bike facilities.

## Implications

- Promote bicycling as a non-work option and provide and promote services that will make it easy to bicycle.
- Explore locations where new bicycle facilities could be built and provide more bicycle amenities.



# Interest in Streetcar

# Columbia Pike and Route 1 Streetcars: Proposed Service Parameters

Residents who lived along Columbia Pike and in Crystal City/Pentagon City were asked about their interest in possible new streetcars in those corridors.

1 – How often they use a bus now along Columbia Pike or through Crystal City in a typical week.

2 – How often they would use a streetcar that operated along Columbia Pike or through Crystal City if the service operated:

- Every 10 minutes
- Every 5 minutes

Long Survey  
Only

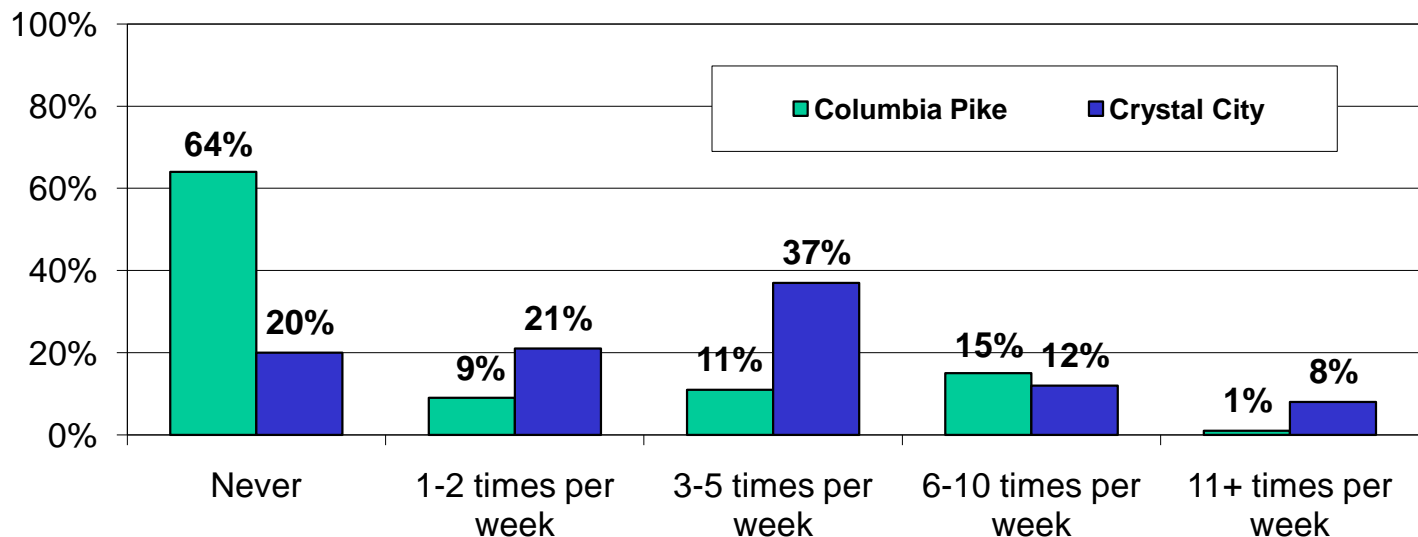
Columbia  
Pike  
n = 355

Crystal City  
n = 180

# Current Transit Use – Columbia Pike and Crystal City Corridors

About a third of Columbia Pike residents said they ride a bus now along that route one or more times per week.

Ridership among Crystal City residents was much higher; 80% rode a bus along the corridor at least once per week.

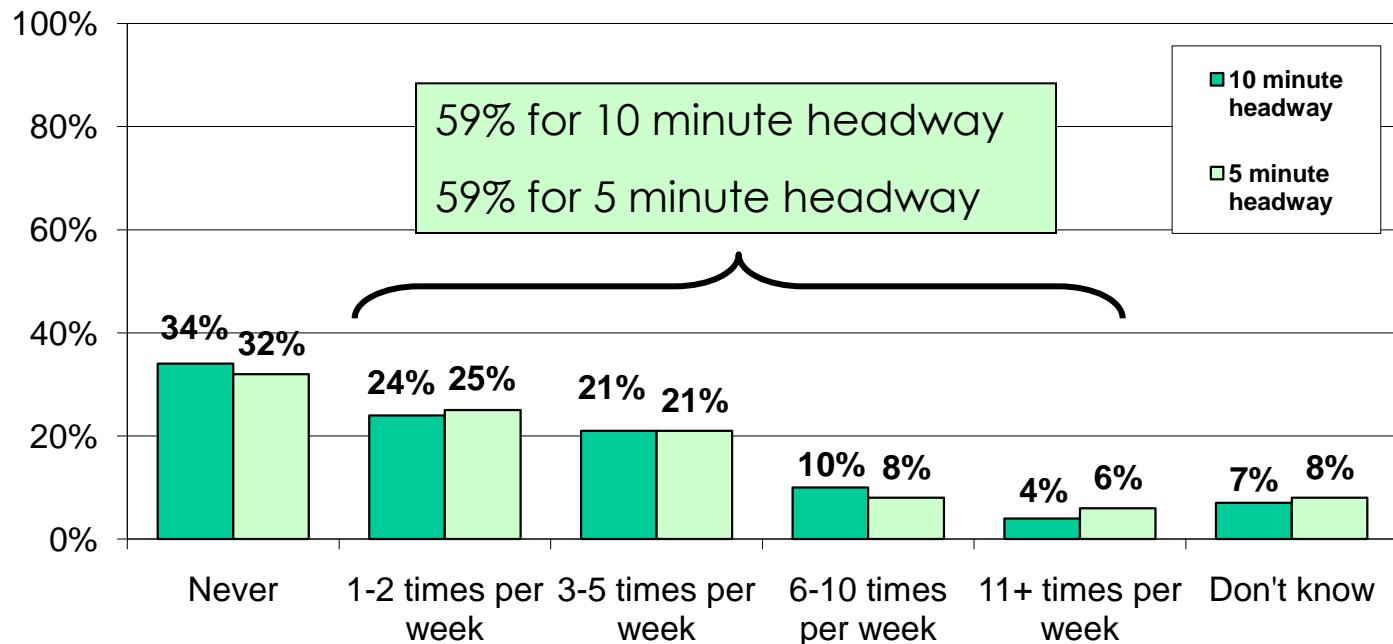


Q36 You mentioned that you live near Columbia Pike. In a typical week, how many times do you ride a bus traveling along Columbia Pike?

Q37 You mentioned that you live near the Metrorail Blue Line. In a typical week, how many times do you ride a bus or Metrorail to or through Crystal City or Pentagon City?

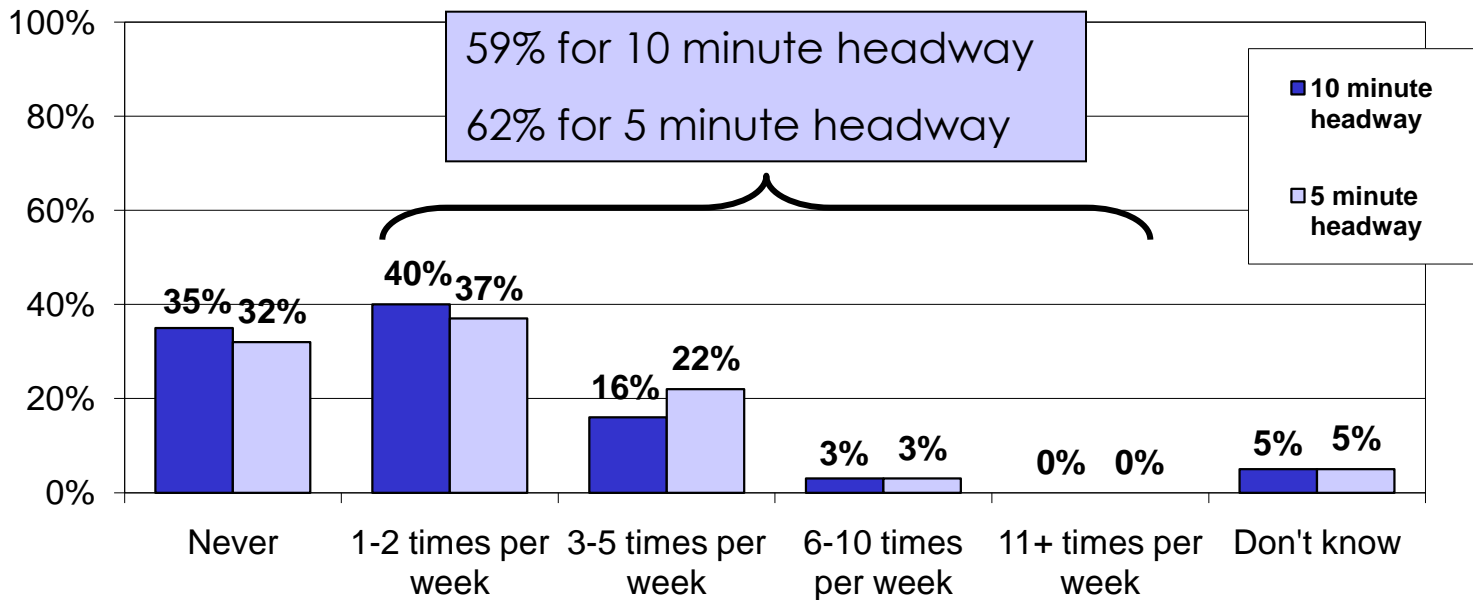
# Interest in Columbia Pike Streetcar

More than half of Columbia Pike residents said they would use a streetcar along the corridor at least once per week and about a quarter said they would use it 3 or more times per week. Reducing the headway to 5 minutes did not generate additional use.



# Interest in Crystal City Streetcar

Interest was similar for the Crystal City streetcar; 40% of area residents said they would use a streetcar through the area at least once per week and about two in ten would use it 3 or more times per week. Reducing the headway to 5 minutes had little impact on use.



Long Survey  
Only

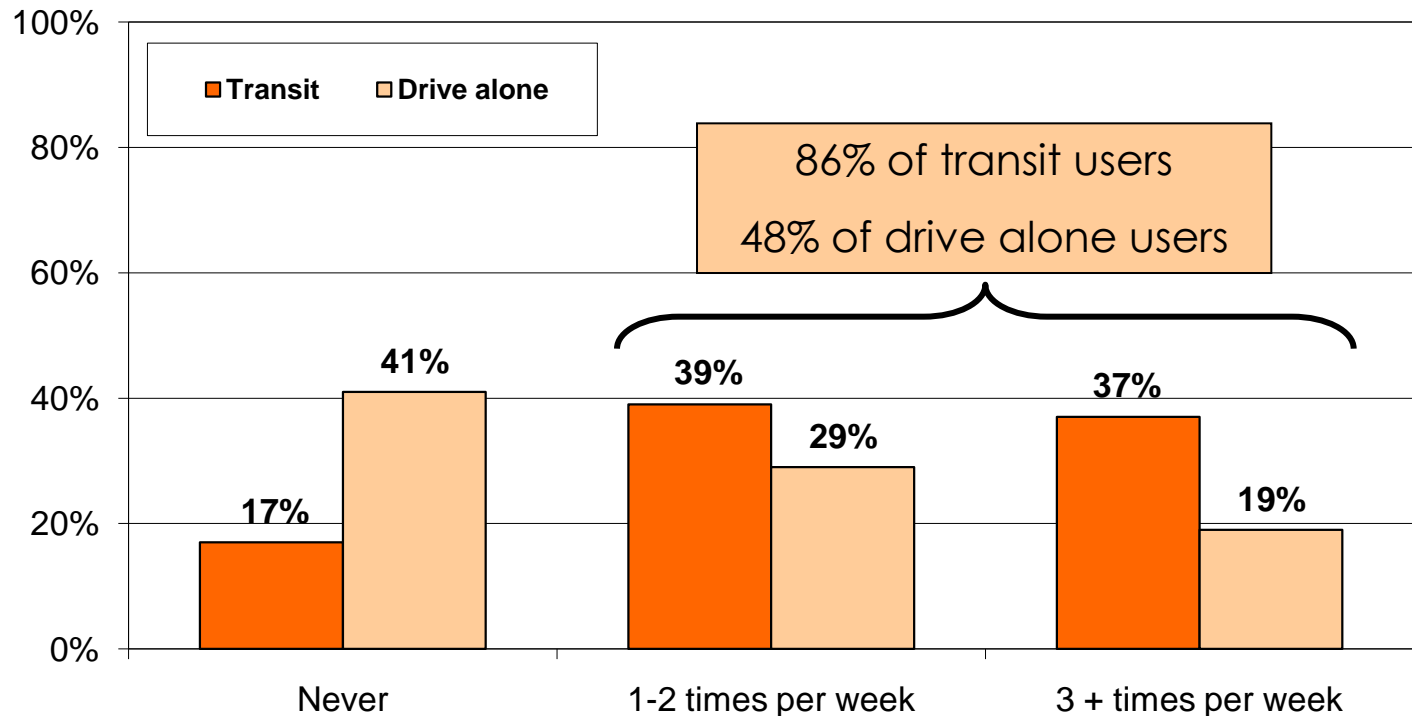
Drive alone  
n = 134

Transit  
n = 101

Combined  
results for  
Columbia  
Pike  
Corridor  
and Jeff  
Davis  
Corridor

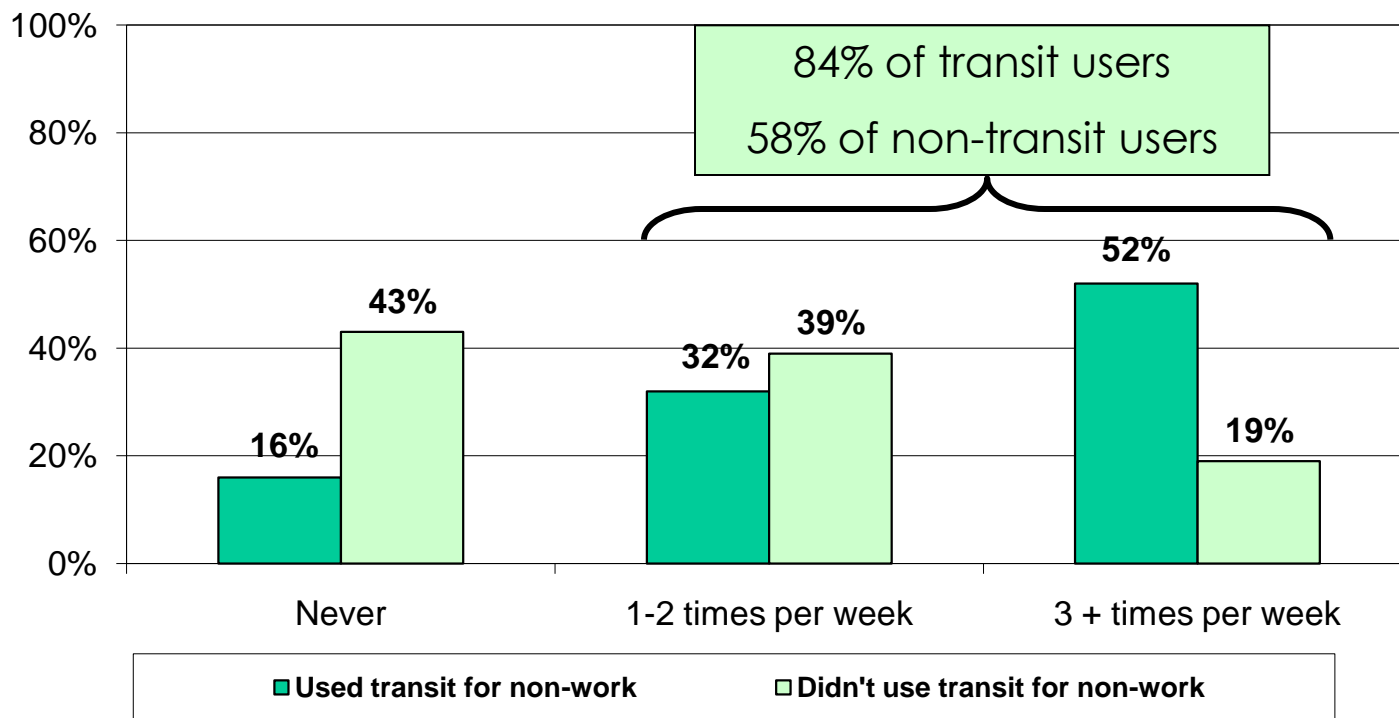
# Interest in Streetcar is Greatest Among Current Transit Commuters

More than eight in ten residents who currently use transit to travel to work said they would use the streetcar, compared to only six in ten residents who drive alone to work.



# Interest in Streetcar also is Higher Among Residents who Recently Used Transit for Non-work Trips

More than eight in ten residents who made a non-work trip by transit “yesterday” said they would use the streetcar, compared to 58% of residents who did not use transit.



Long Survey Only

Used transit for non-work trips  
n = 296

Didn't use transit for non-work trips  
n = 51

Combined results for Columbia Pike Corridor and Jeff Davis Corridor

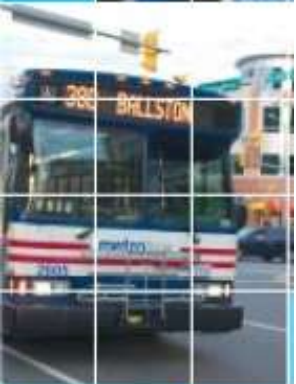
# SUMMARY and IMPLICATIONS

## Summary

- Substantial percentages of residents note interest in streetcars operating along Columbia Pike and through Crystal City; interest is greatest among transit riders.
- Interest is lower in Crystal City, but current bus use already is high in this area, suggesting residents don't see as much need for the service as for along Columbia Pike.
- There is little difference, in either corridor, in residents' interest if the service has 10 minute headway or 5 minute.

## Implications

- The Columbia Pike service appears to have the greatest need and interest of the two services.
- The County would gain little in terms of ridership by operating a 5-minute service – 10-minute service seems to be the threshold for resident interest.



# Awareness and Use of Travel Info and Services



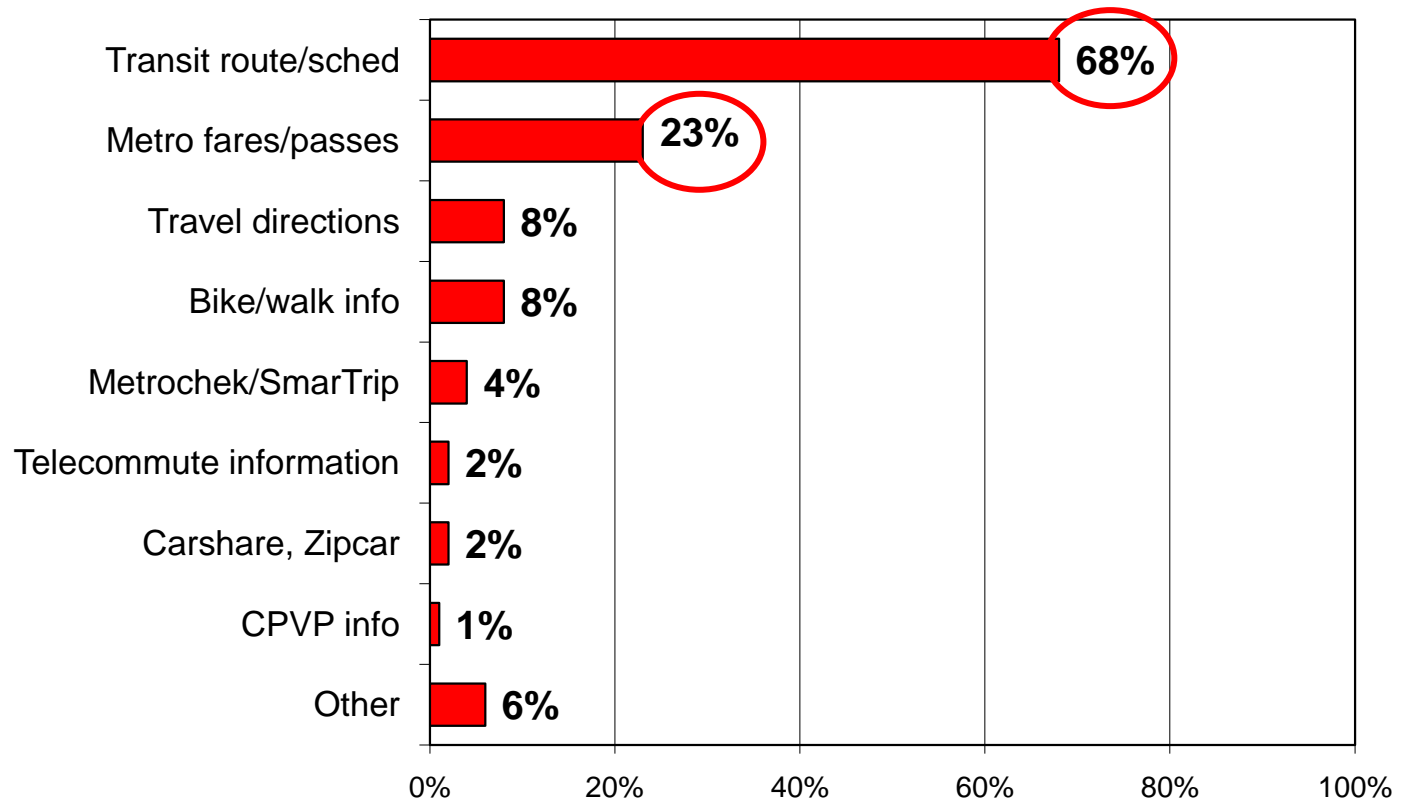
# 46% of Residents Sought Transportation Info or Services in the Past Year

## *Most Looked for Transit Info/Services*

Long Survey Only

Sought info  
n = 1,263

Info /  
Services  
Desired  
n = 689



Q40 . In the past year, have you sought information on types of transportation you could use to get around Arlington County or the Washington metropolitan region or services that could help you get around?

Long Survey  
Only

Carpool /  
vanpool  
n = 33

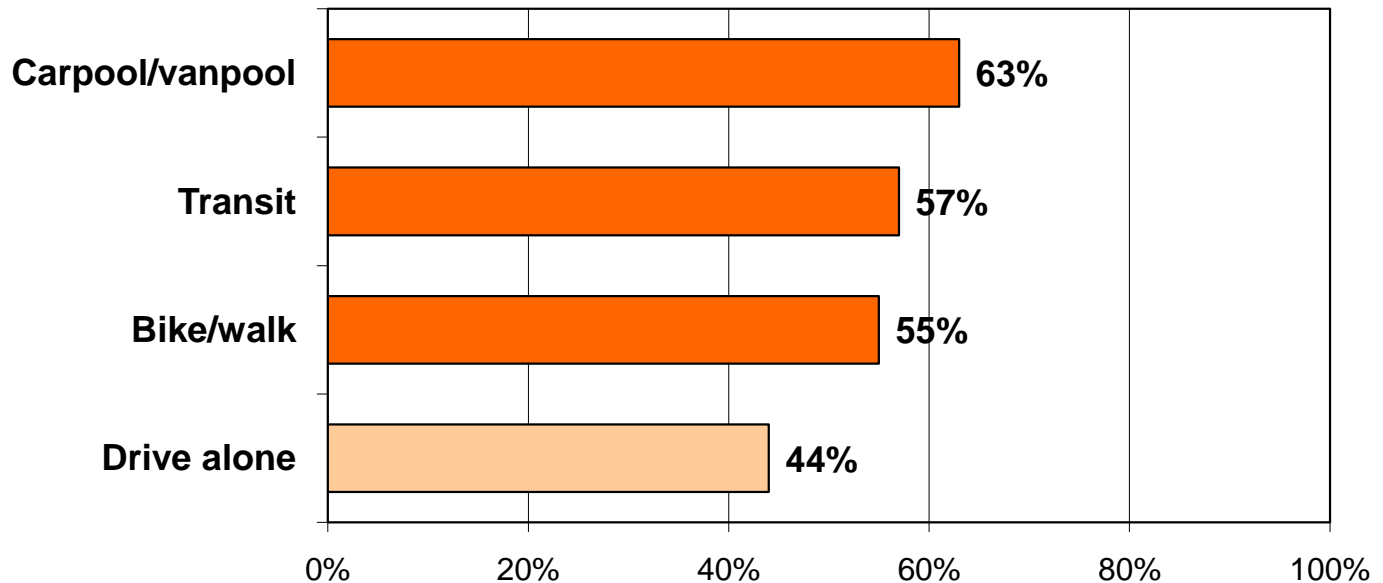
Transit  
n = 220

Bike/walk  
n = 43

Drive alone  
n = 335

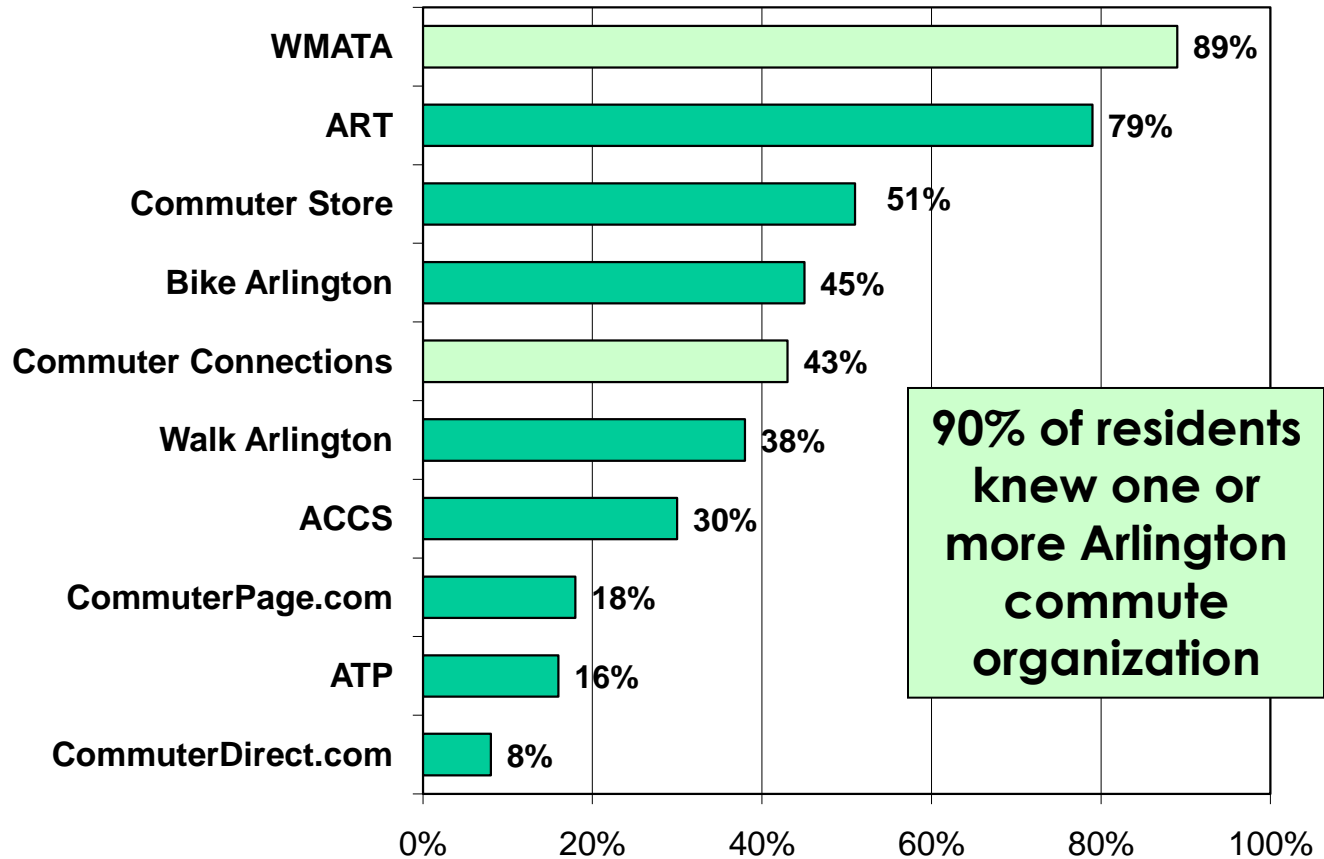
# Info/Services Sought by Primary Commute Mode

Residents who use an alternative mode to get to work were more likely to have sought transportation information or services than were residents who drive alone to work.



Q40 . In the past year, have you sought information on types of transportation you could use to get around Arlington County or the Washington metropolitan region or services that could help you get around?

# 90% of Residents Know One or More Arlington Commute Organization (aided)

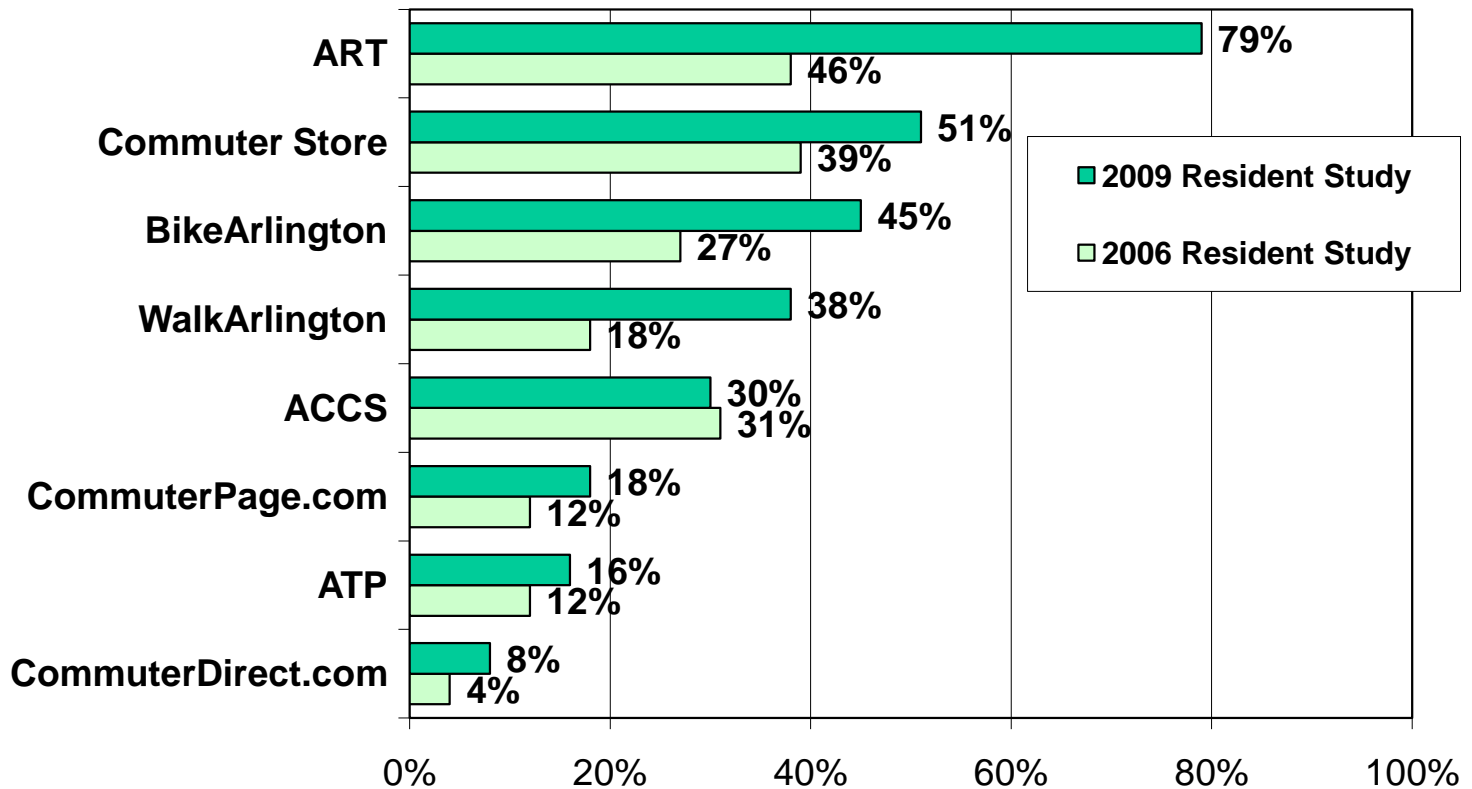


Q40 . Now, I'm going to read you a list of organizations and programs that provide transportation information and assistance to Arlington residents. As I read each one, please tell me if you have heard of the organization or service and if you have used it.

Long + Mini  
Survey  
2009  
n = 4,344

2006  
n = 447

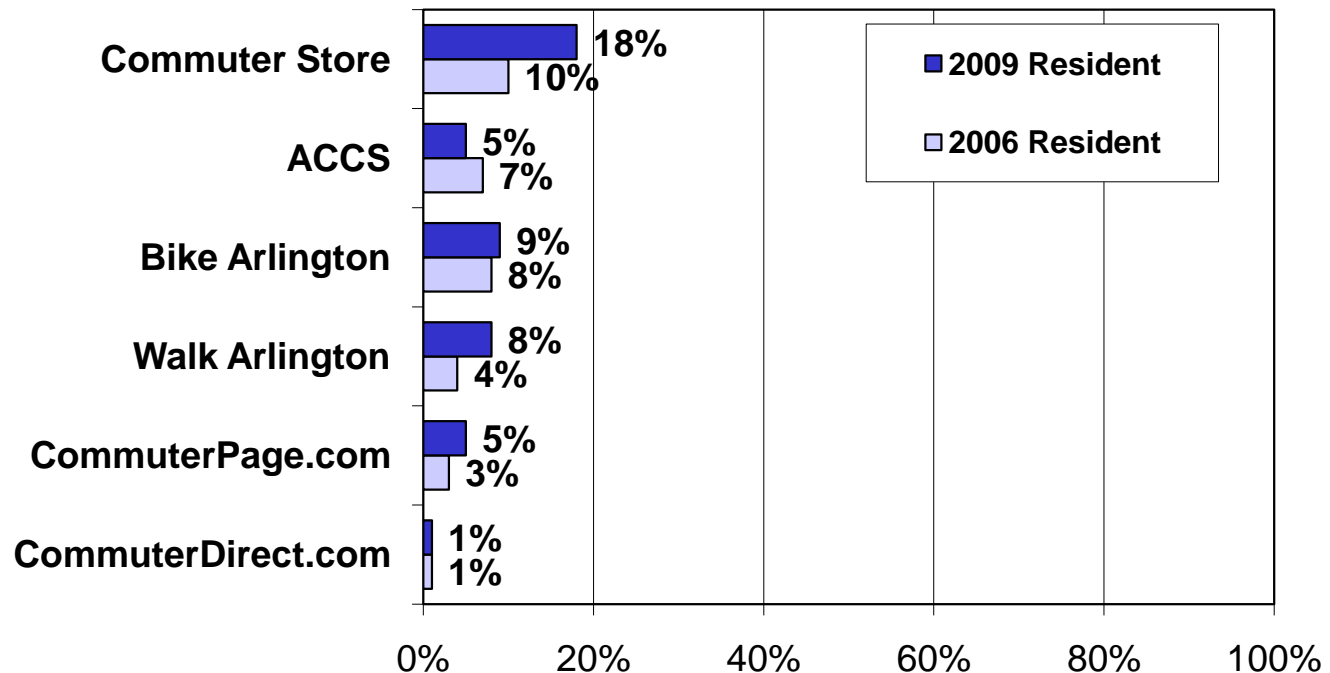
# Awareness of ART, BikeArlington, and WalkArlington Increased Substantially From 2006 to 2009



Q40 . Now, I'm going to read you a list of organizations and programs that provide transportation information and assistance to Arlington residents. As I read each one, please tell me if you have heard of the organization or service and if you have used it.

# Use of Arlington Services also Increased

35% of residents used an Arlington travel info service in 2009, higher than the 21% who used services in 2006. In 2009, 18% of residents used a Commuter Store.



Q40 . Now, I'm going to read you a list of organizations and programs that provide transportation information and assistance to Arlington residents. As I read each one, please tell me if you have heard of the organization or service and if you have used it.

# Awareness and Use of Information Services by Primary Commute Mode

Residents who drive alone are as likely to know about Arlington commute assistance services as are residents who use alt modes, but are less likely to use them.

Long + Mini  
Survey

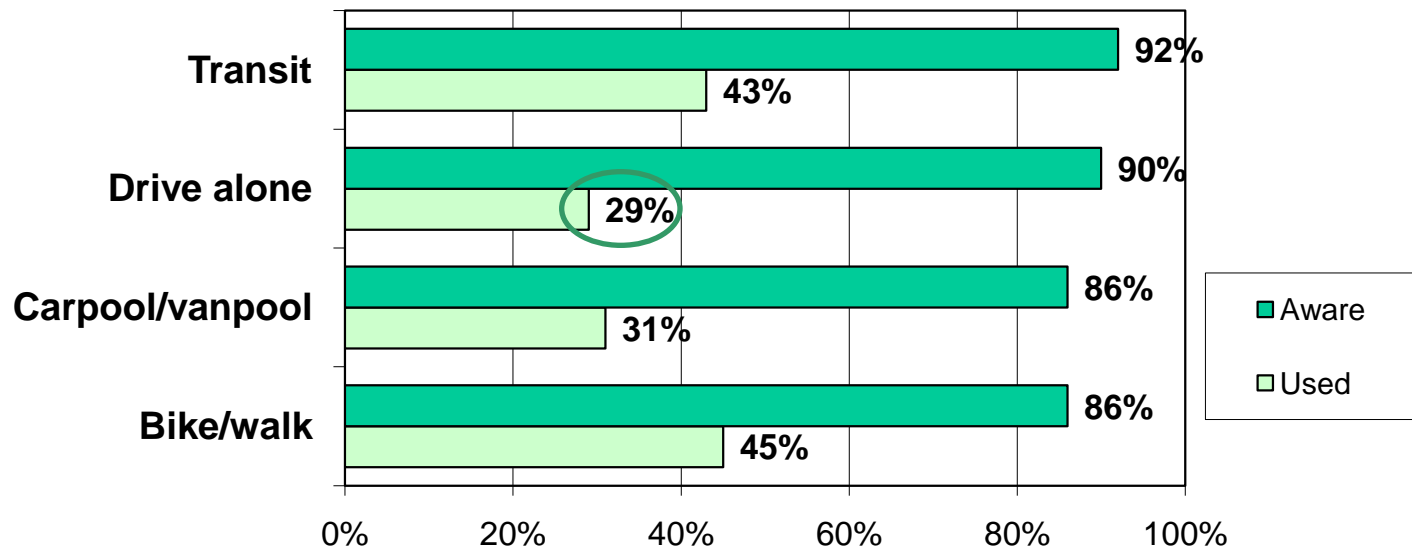
Carpool /  
vanpool  
n = 100

Transit  
n = 622

Bike/walk  
n = 137

Drive alone  
n = 1,389

Primary commute mode



Q40 . Now, I'm going to read you a list of organizations and programs that provide transportation information and assistance to Arlington residents. As I read each one, please tell me if you have heard of the organization or service and if you have used it.

Long + Mini  
Survey

Columbia  
Pike  
n = 357

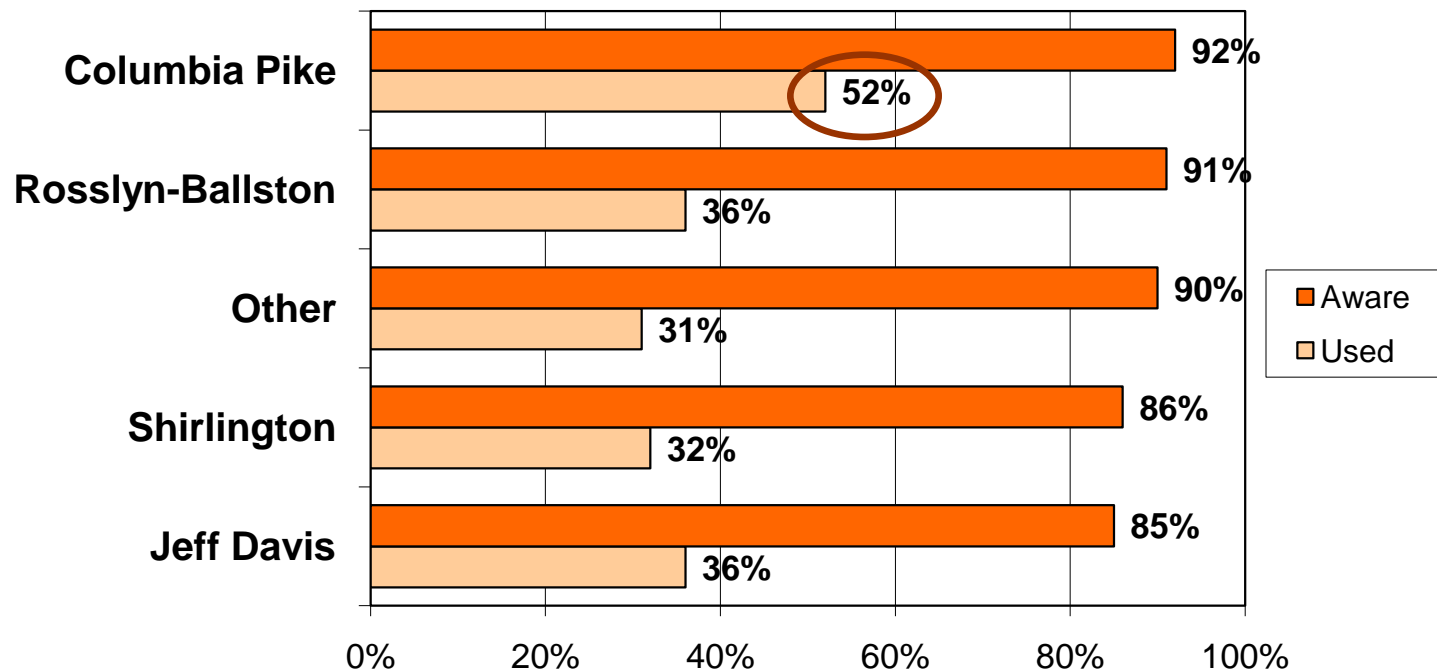
Jeff-Davis  
n = 254

Rosslyn-  
Ballston  
n = 860

Shirlington  
n = 221

Other  
n = 2,621

# Half of Columbia Pike Residents Used an Arlington Commuter Service in 2009, Compared with a Third of Residents who Live Elsewhere in the County



Q40 . Now, I'm going to read you a list of organizations and programs that provide transportation information and assistance to Arlington residents. As I read each one, please tell me if you have heard of the organization or service and if you have used it.

# Who Uses Arlington Organizations?

Residents who:

- **Are more satisfied with Arlington transportation** (37%) vs less than satisfied with transportation (30%)
- **Commute by transit** (43%) vs drive alone commuter (29%)
- **Recall hearing / seeing info message about transportation** (44%) vs don't recall info message (30%)
- **Know of Car Free Diet** (47%) vs don't know about Car Free Diet (28%)

Q42 . Now, I'm going to read you a list of organizations and programs that provide transportation information and assistance to Arlington residents. As I read each one, please tell me if you have heard of the organization or service and if you have used it.

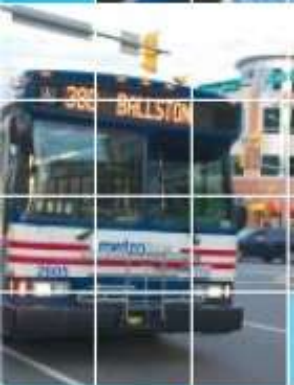
# SUMMARY and IMPLICATIONS

## Summary

- Residents are quite aware that Arlington provides services to help residents get around the County and region, but awareness is higher for many specific services than for ACCS.
- More than a third of residents used an Arlington service in 2009, 50% more than the number who used a service in 2006.
- Awareness of services is generally high across all Arlington areas, but use is concentrated in Columbia Pike and the Metrorail corridors, where transit is most available.

## Implications

- Target awareness outreach to Shirlington and Jeff Davis corridors, which lag behind the other areas in awareness.
- Increase awareness of ACCS as the sponsor of the individual services that residents know.



# Worksite and Residential TDM Services



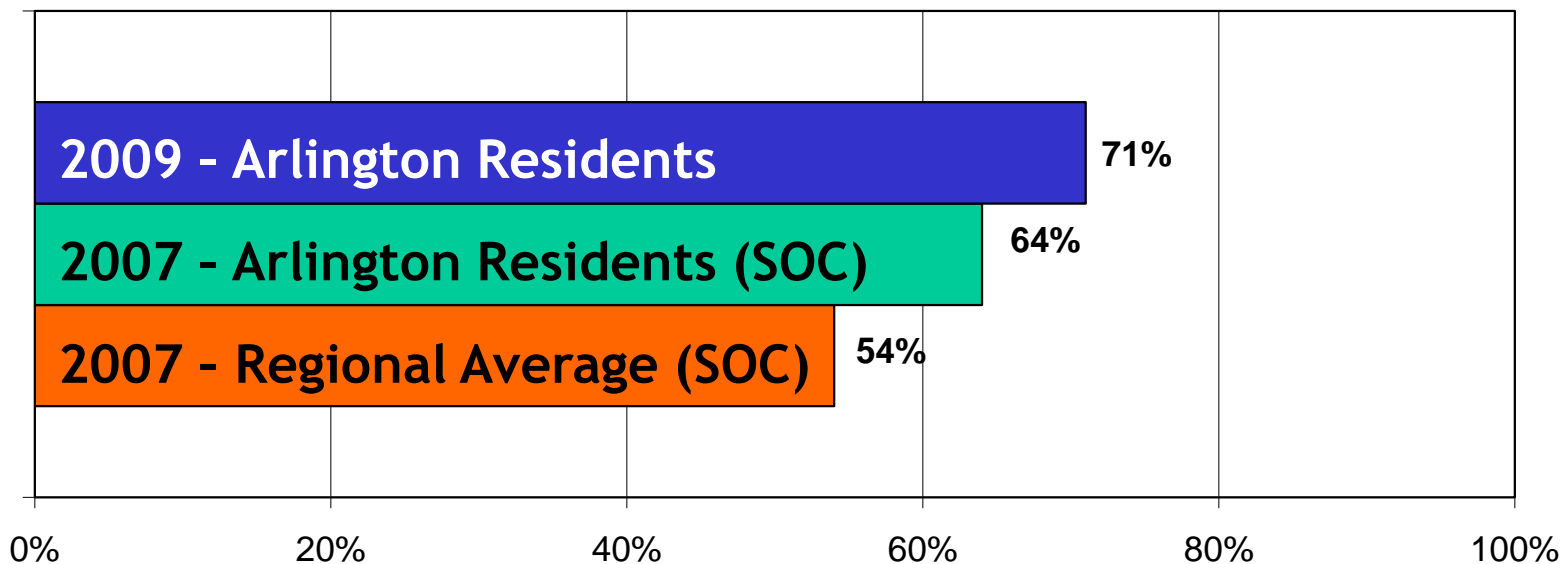
Long Survey  
2009  
Arlington  
n = 671

2007  
Arlington  
n = 552

2007  
Regional  
Average  
n = 6,076

# Access to Employer Commute Services

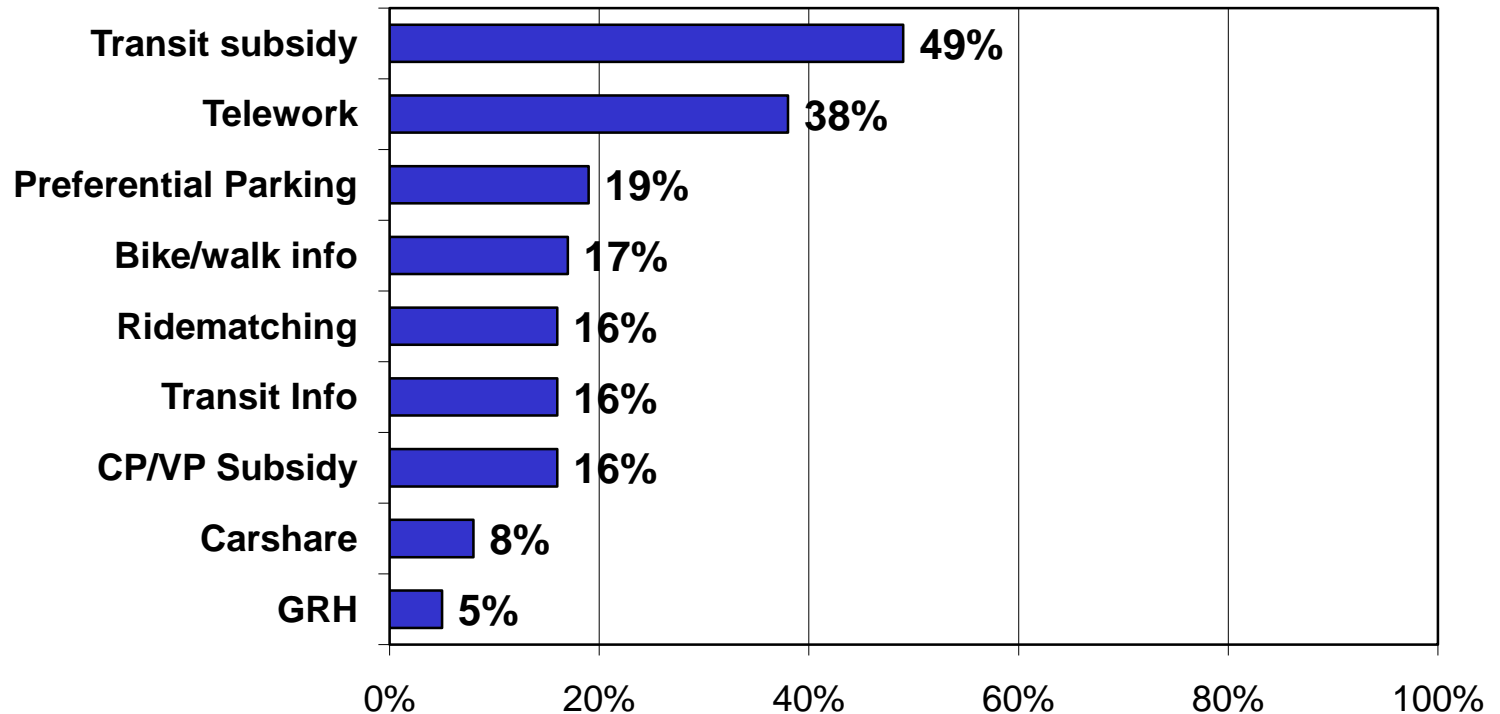
Seven in ten employed residents said their employer offers commute assistance services. This was consistent with the 64% noted by Arlington residents in the 2007 SOC and much higher than the 54% regional average.



Q44. Next, please tell me if your employer offers any of the following services or benefits to help you with your commute and if you have used the services? How about . . .

# Transit Subsidies and Telework are Most Commonly-Offered Employer Services

Almost half of employed residents said their employers offered a transit subsidy and 38% said they had access to telework.



Q44. Next, please tell me if your employer offers any of the following services or benefits to help you with your commute and if you have used the services? How about . . .

**Long Survey Only**

Samples of respondents who have services available

Transit subsidies  
n = 363

Telework  
n = 306

Pref parking  
n =

Bike/walk  
n = 128

Ridematch  
n = 131

Transit info  
n = 135

CP/VP sub  
n = 122

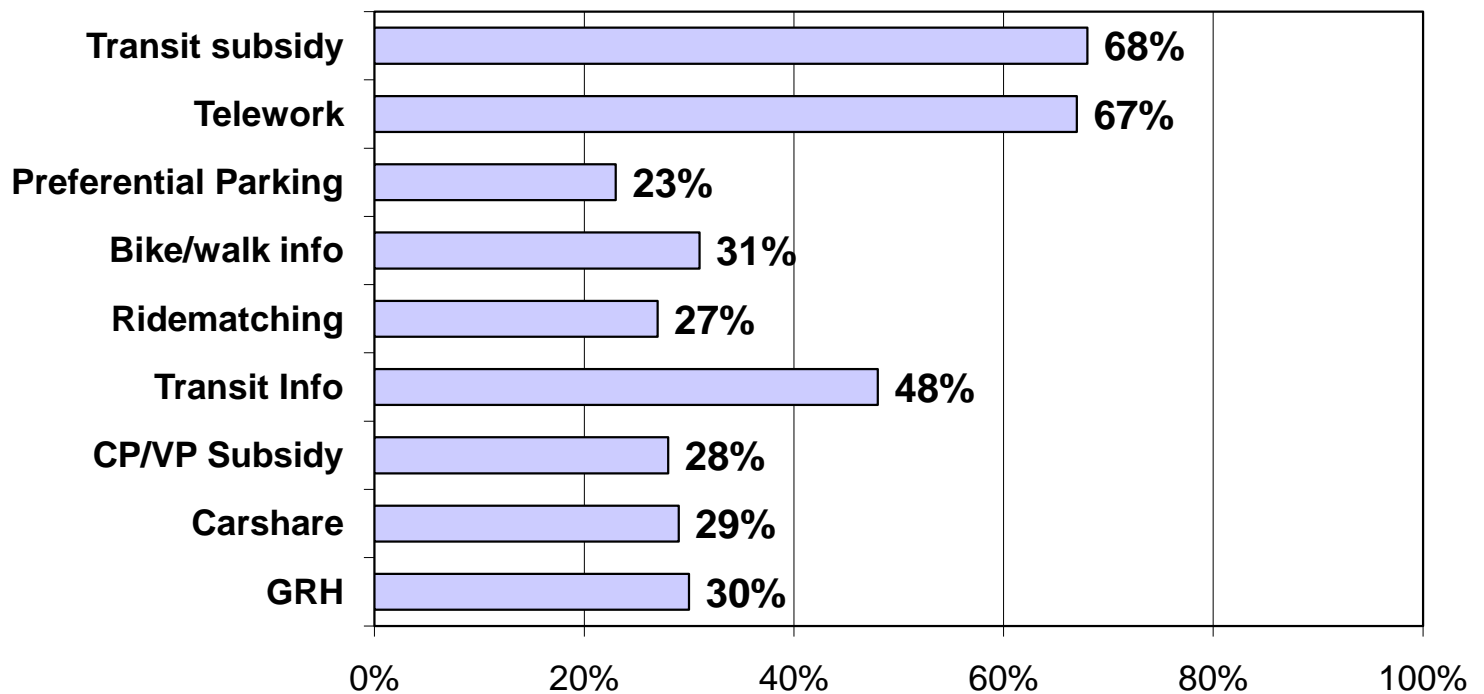
Carshare  
n = 49

GRH  
n = 51

# Transit Subsidies and Telework also are Most Commonly-Used Employer Services

When services are offered, employees are most likely to use transit subsidies, telework, and transit information.

Percentages based on employees with services available

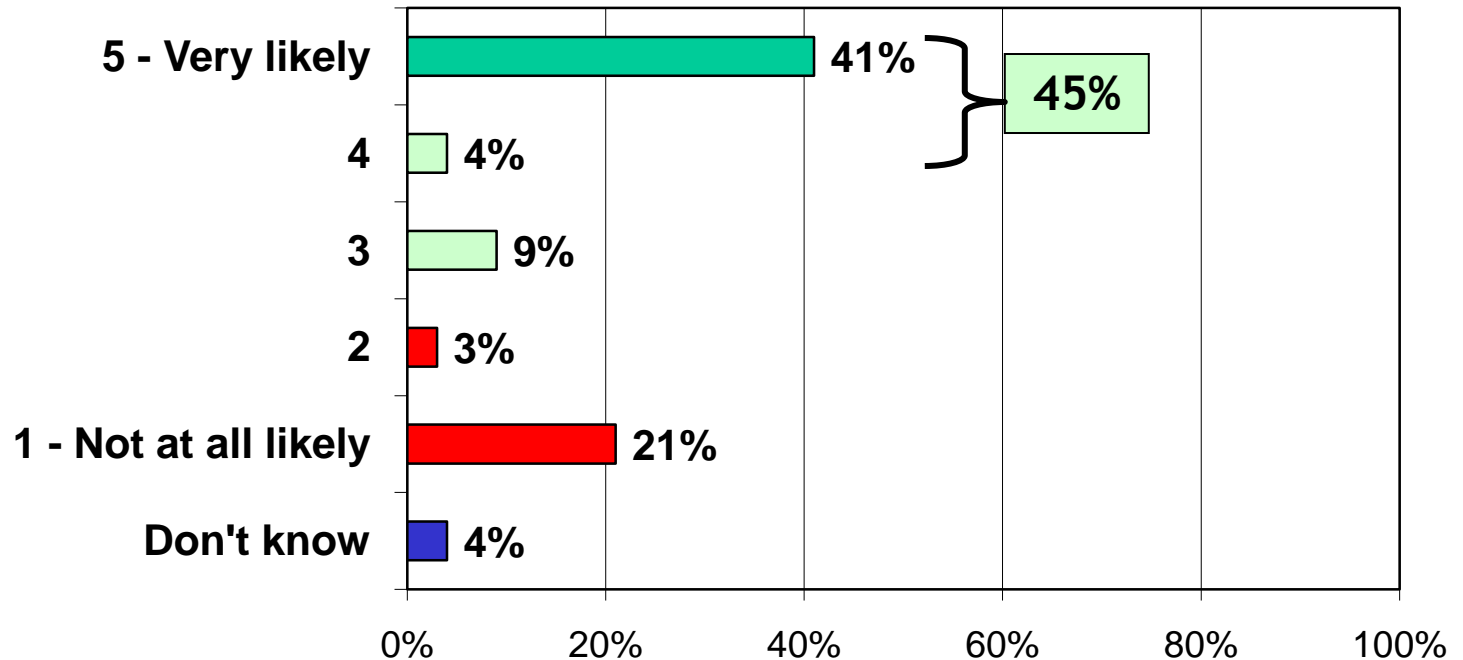


Q44. Next, please tell me if your employer offers any of the following services or benefits to help you with your commute and if you have used the services? How about . . .



# Employees Report High Interest in Financial Incentive

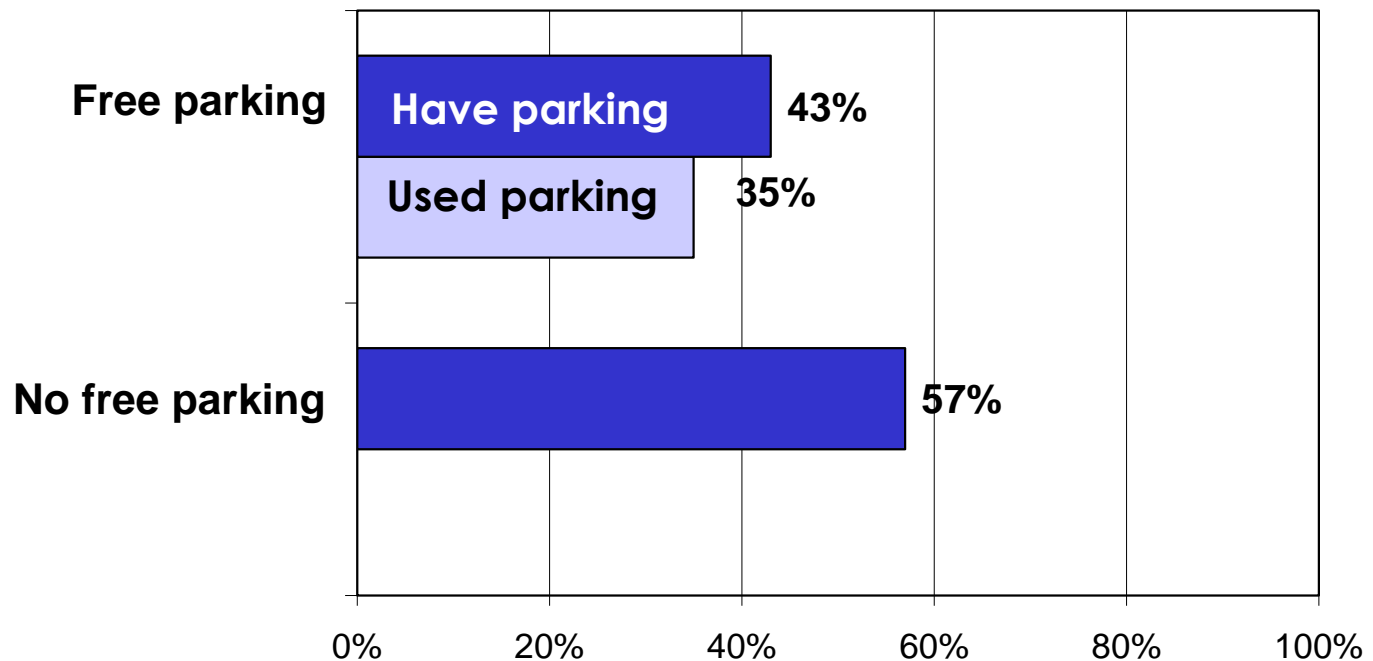
About half of employed residents who did not have access to a financial incentive said they would be likely to try an alternative mode if the subsidy was available.



Q46 If your employer or another organization offered a subsidy or other financial benefit for commuters who use transit, vanpooling, carpooling, or bicycling how likely would you be to try one of these types of transportation for your trip to work?

# Only 43% of Employed Residents Said their Employers Offered Free Parking at Work

But most employees who have free parking have used it



Q44. Next, please tell me if your employer offers any of the following services or benefits to help you with your commute and if you have used the services? How about . . . Free parking?

Long  
Survey Only

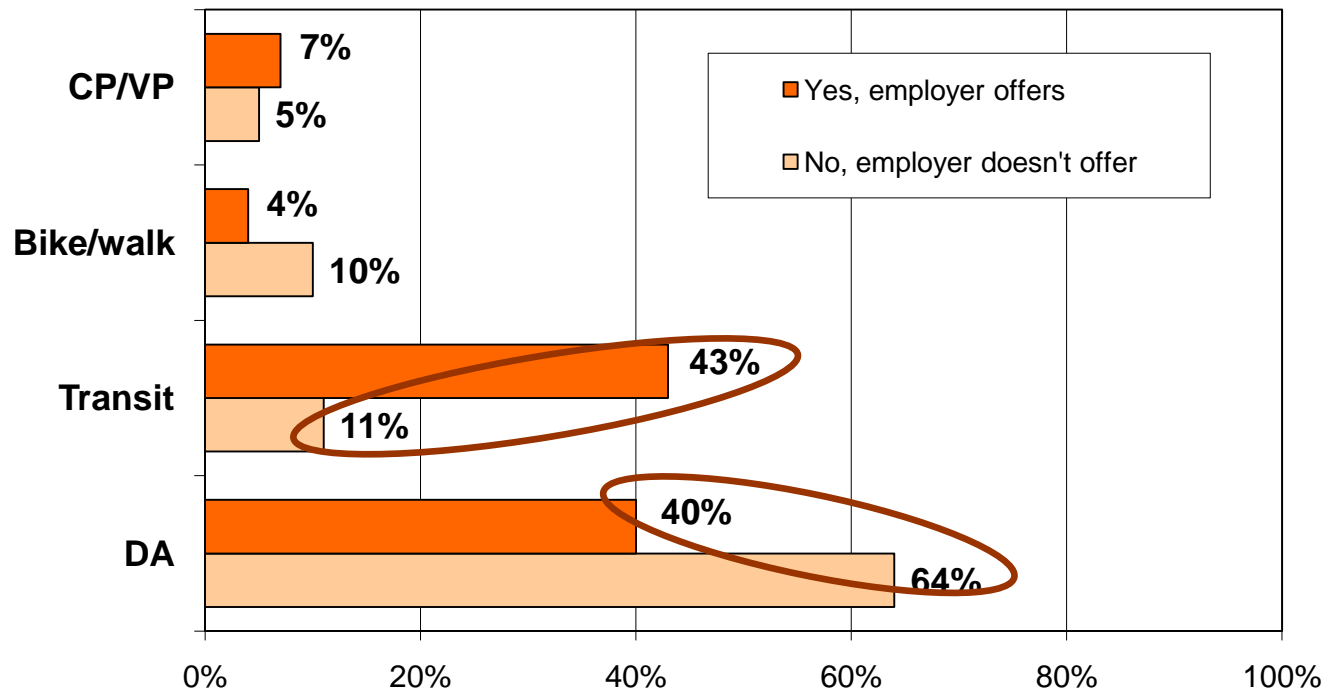
Employer  
offers  
n = 493

Employer  
doesn't  
offer  
n = 165

Note:  
Mode split  
excludes  
telework and  
compressed  
schedule

# Transit Use is Much Higher and Drive Alone is Much Lower When Employees have Access to TDM Services

Percent weekly trips by mode



Q25: Now I'd like to know how you get to work.

Q44. Next, please tell me if your employer offers any of the following services or benefits to help you with your commute and if you have used the services? How about . . .

Long Survey Only

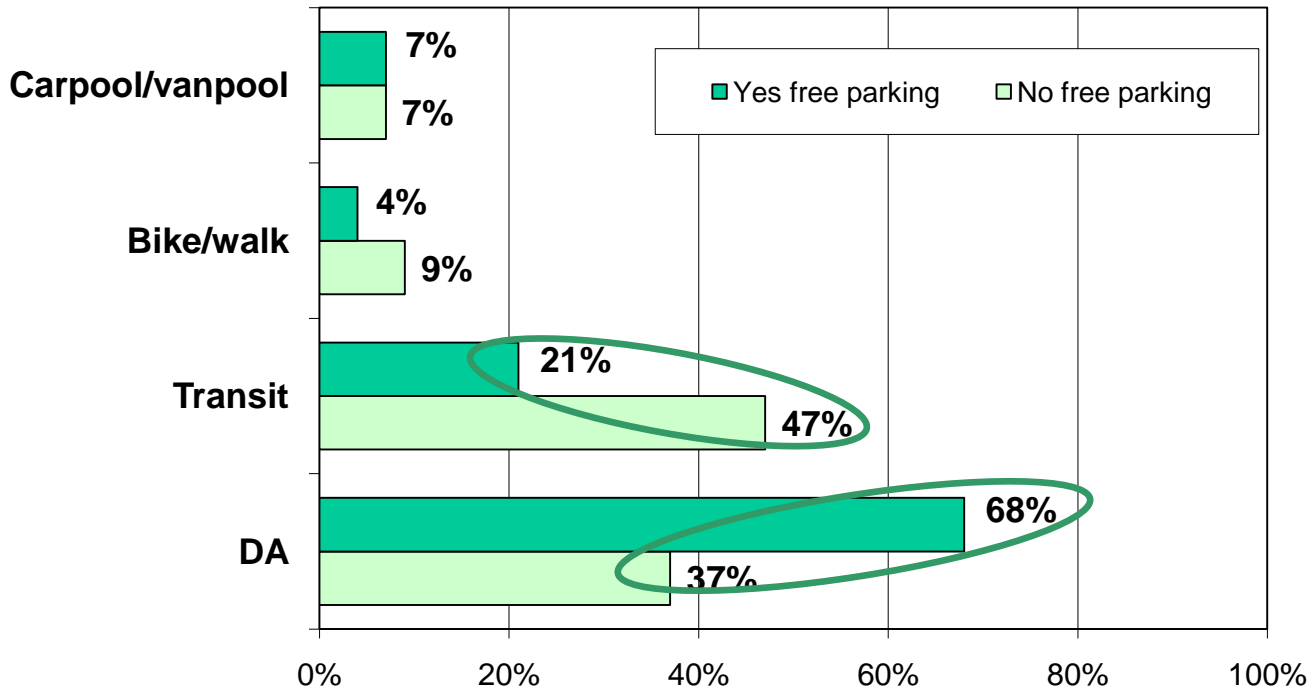
Yes free parking  
n = 316

No free parking  
n = 346

Note:  
Mode split  
excludes  
telework and  
compressed  
schedule

# Transit Use also is Higher and Drive Alone is Lower When Employees Do NOT have Free Parking at Work

Percent weekly trips by mode

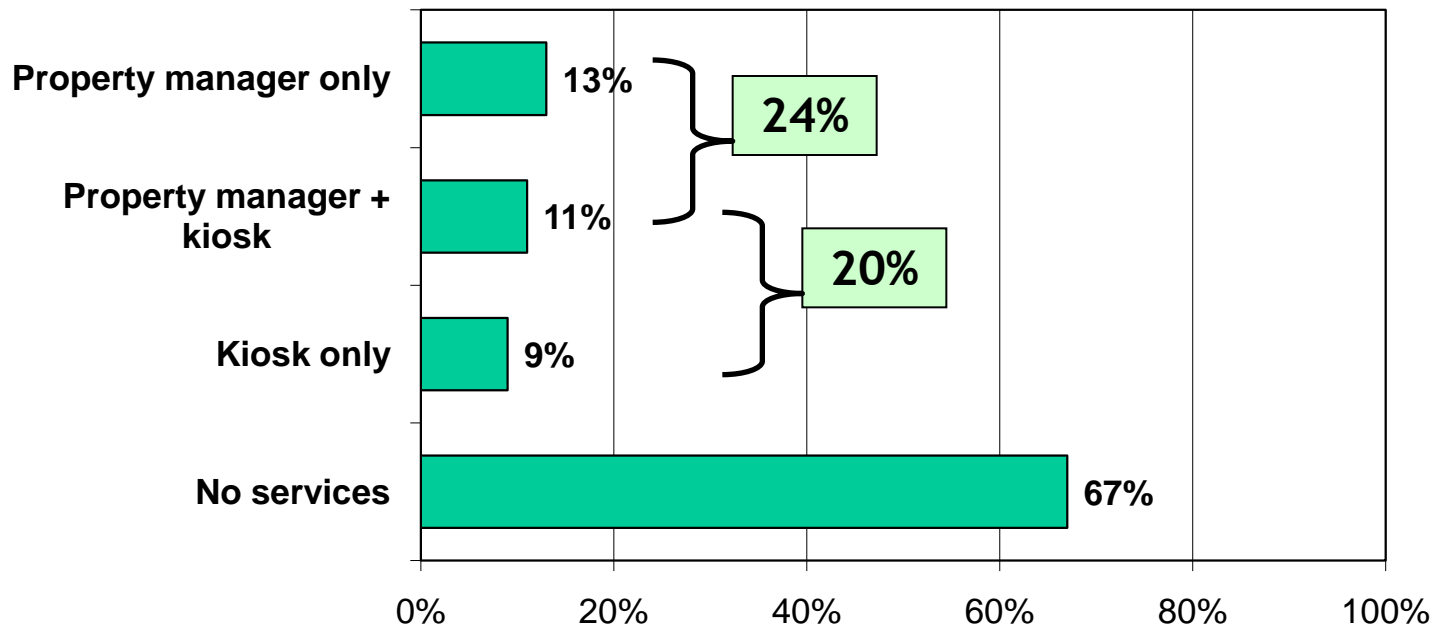


Q25: Now I'd like to know how you get to work.

Q44. Next, please tell me if your employer offers any of the following services or benefits to help you with your commute and if you have used the services? How about . . .

# Residential TDM Services

A quarter (24%) of residents who lived in a multi-family complex said a property manager or concierge provided transportation info at their home. 20% said there was a self-service info kiosk.

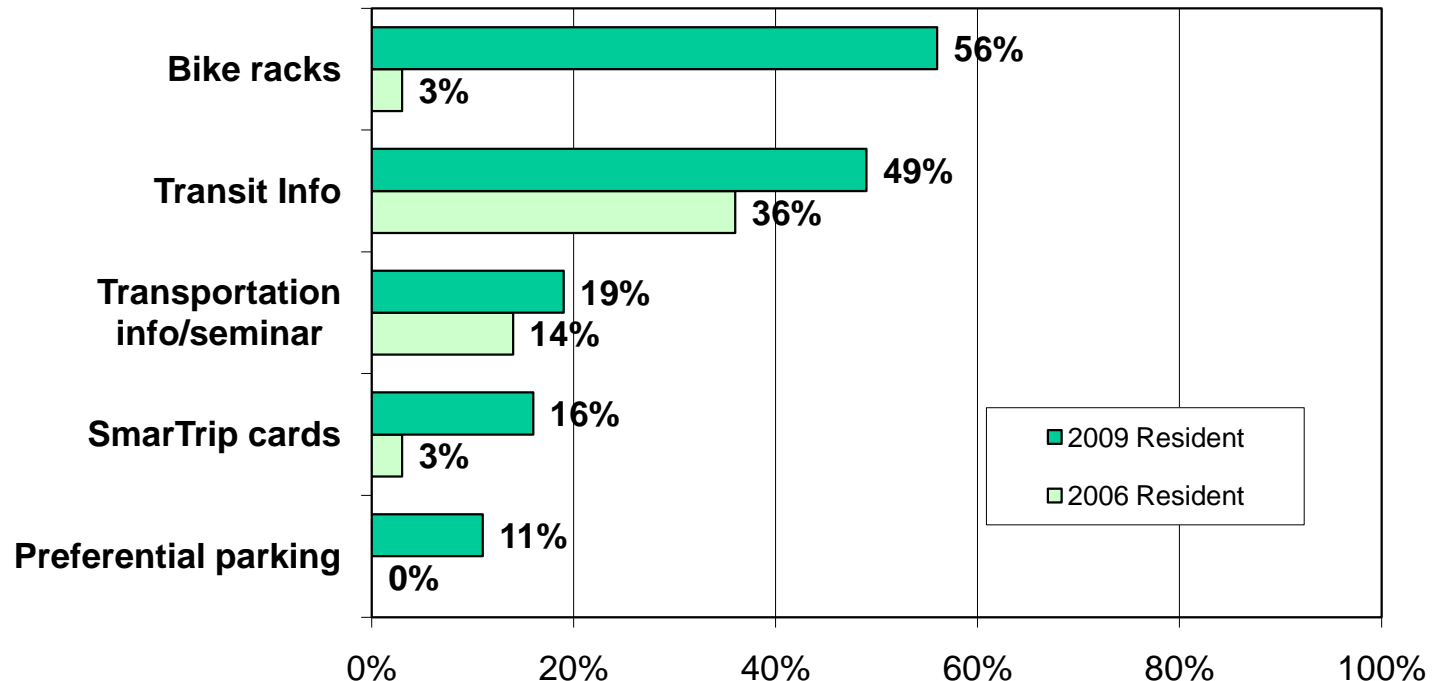


Q47. We are also interested in travel assistance services that might be available in your home area. Does anyone in your residential complex or building, such as a property manager or concierge, offer information or services to help you get around Arlington or around the Washington area?

Q48. Is there a self-service information display or kiosk in the complex or building that provides information on local transportation services?

# Types of Residential Services Offered

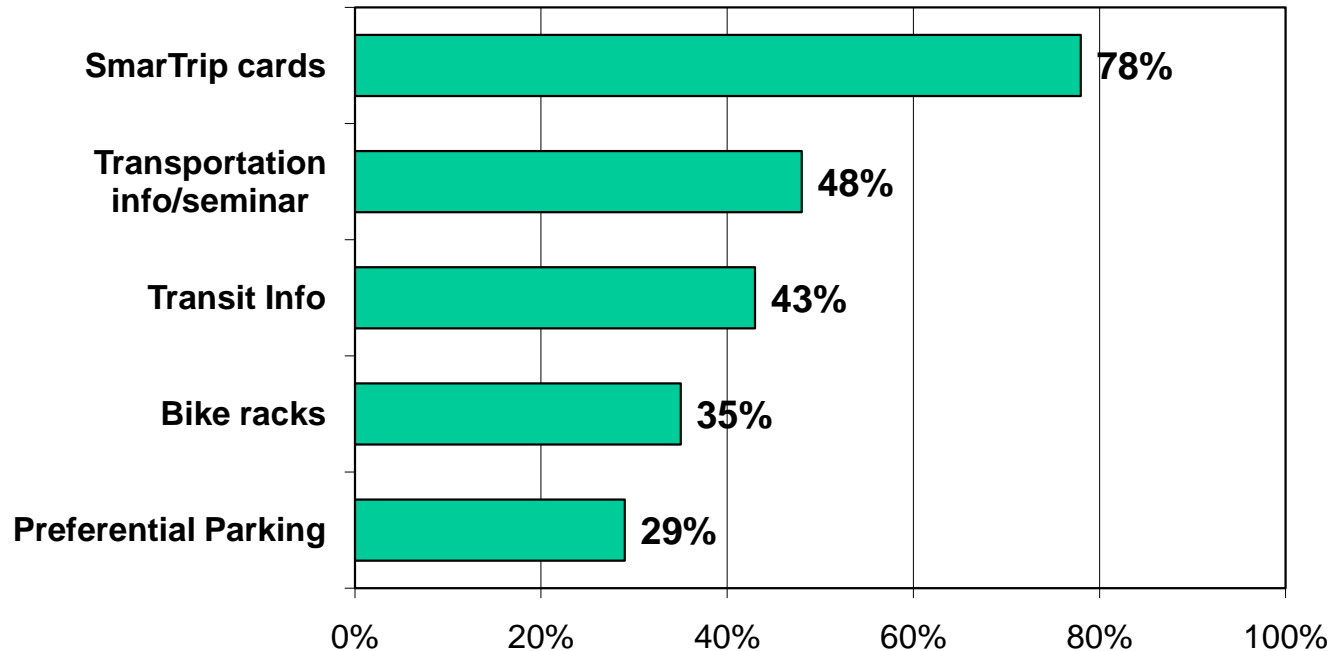
Bike racks and transit information are the most common services offered at residential complexes. Availability of many residential services has grown substantially since 2006.



Q49 Next, please tell me which of the following information or services are available to residents of your building or complex and if you have used the services?

# Used Residential TDM Services

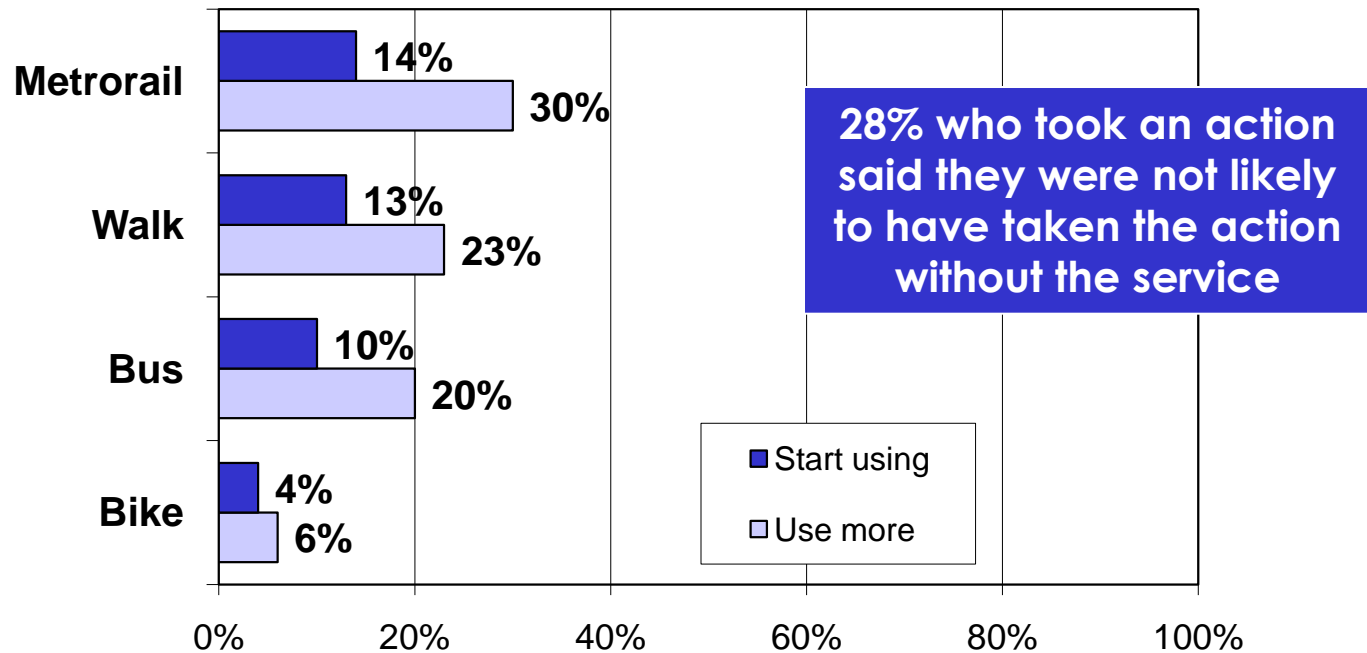
Most residents who had access to travel services at home have used one or more services: 78% have used Metro tickets and 48% have participated in a transportation information seminar.



Q49 Next, please tell me which of the following information or services are available to residents of your building or complex and if you have used the services?

# 64% of Residents Started / Increased Alt Mode Use after Receiving a TDM Service from a Commute Org, Employer, or Residential Property

Nearly half started or increased use of Metrorail and 3 in 10 started or increased use of bicycling and/or bus.



Q51 – Earlier you indicated that you have used travel information or services provided by a [County or regional organization, your employer, and/or your residential building or complex. After using these services, did you start using any of the following forms of transportation or begin using any of them more often?”

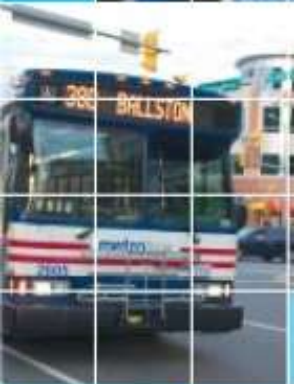
# SUMMARY and IMPLICATIONS

## Summary

- A large majority of Arlington residents have access to TDM services at work.
- Employer-sponsored TDM services and parking charges have a documented impact on employees' travel mode.
- Residential TDM offers additional potential to influence alt mode use for both work and non-work trips.

## Implications

- Employers and residential managers are important TDM partners in Arlington. Continue to encourage their participation in ATP services and to expand services offered directly to employees and residents.

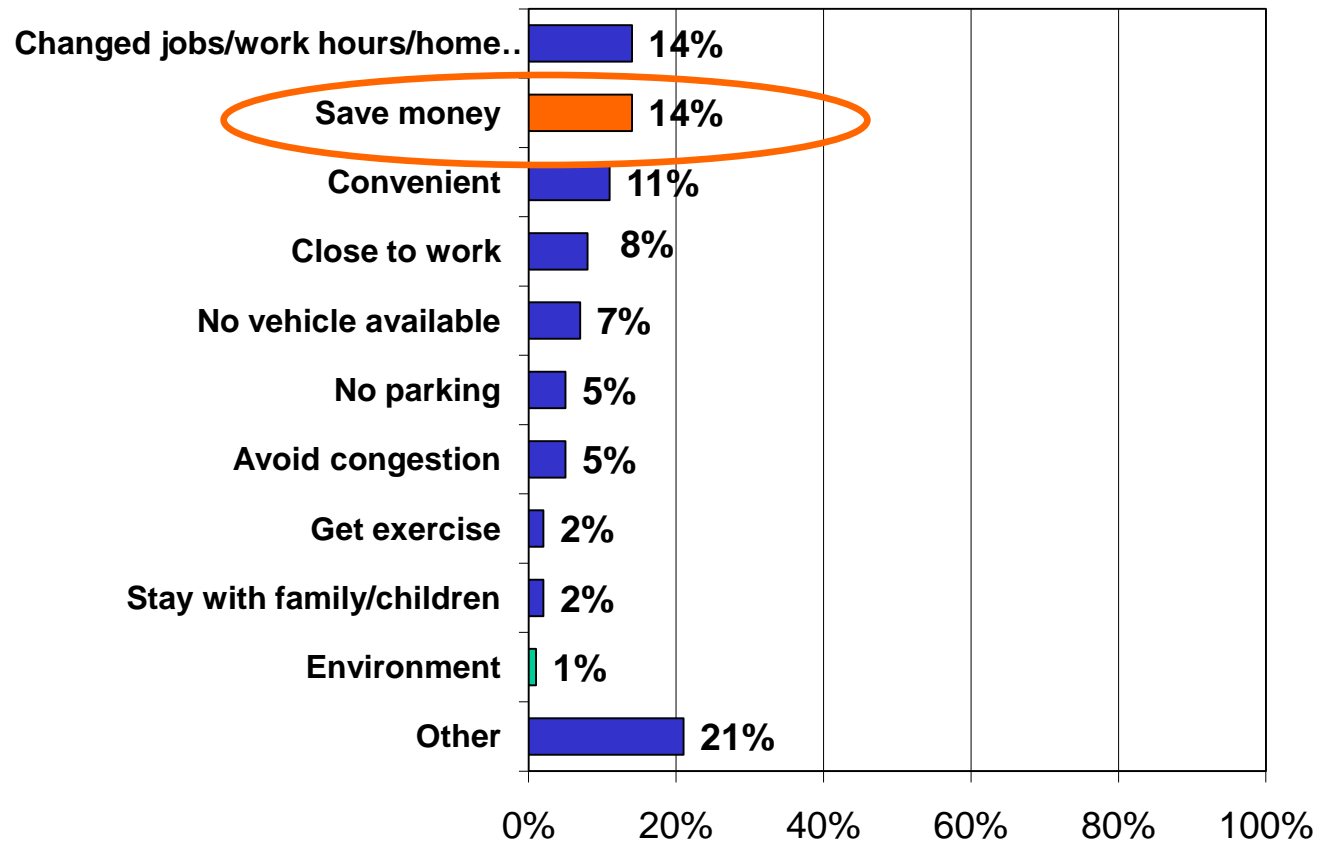


# Travel Actions And Motivations For Travel Changes

# Motivations for Travel Change

- The survey explored several types of travel changes
  - Actions taken after receiving travel information
  - Shifts to alternative modes for commuting
  - Trial use of alternative modes for commuting
  - Other travel-related changes made in past year
- Residents who took any of these actions were asked unprompted, open-ended questions about what **motivated** their choices
- They also were asked prompted questions about the importance of economic and environmental factors in their decisions.

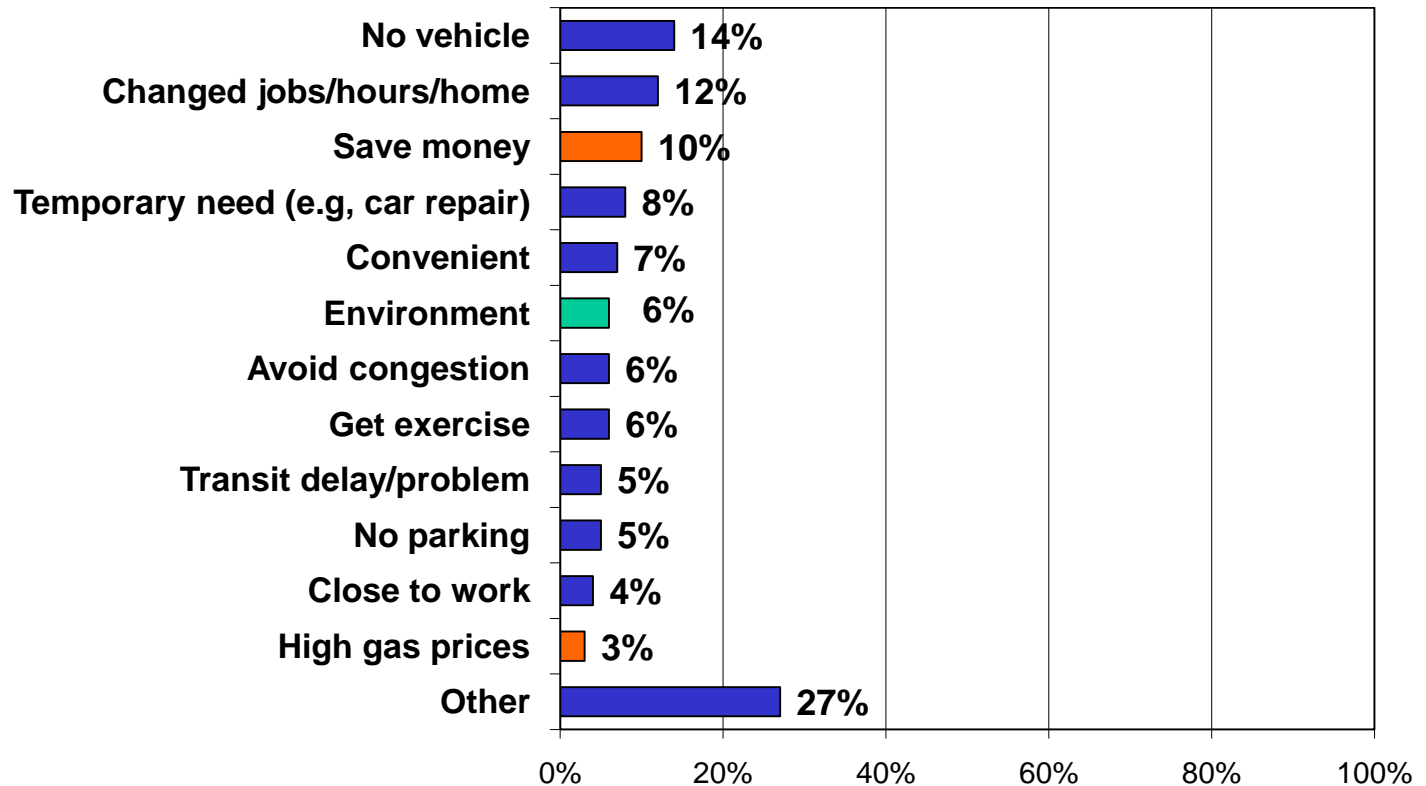
# 14% of Residents Who Use Alternative Modes for Commuting Started Using These Modes to Save Money



Q 28a – What motivated you to start [using current mode]?

# Trial Use of Alt Modes for Commute

Respondents cite similar reasons for trying new alt modes, even if they didn't continue using the mode.

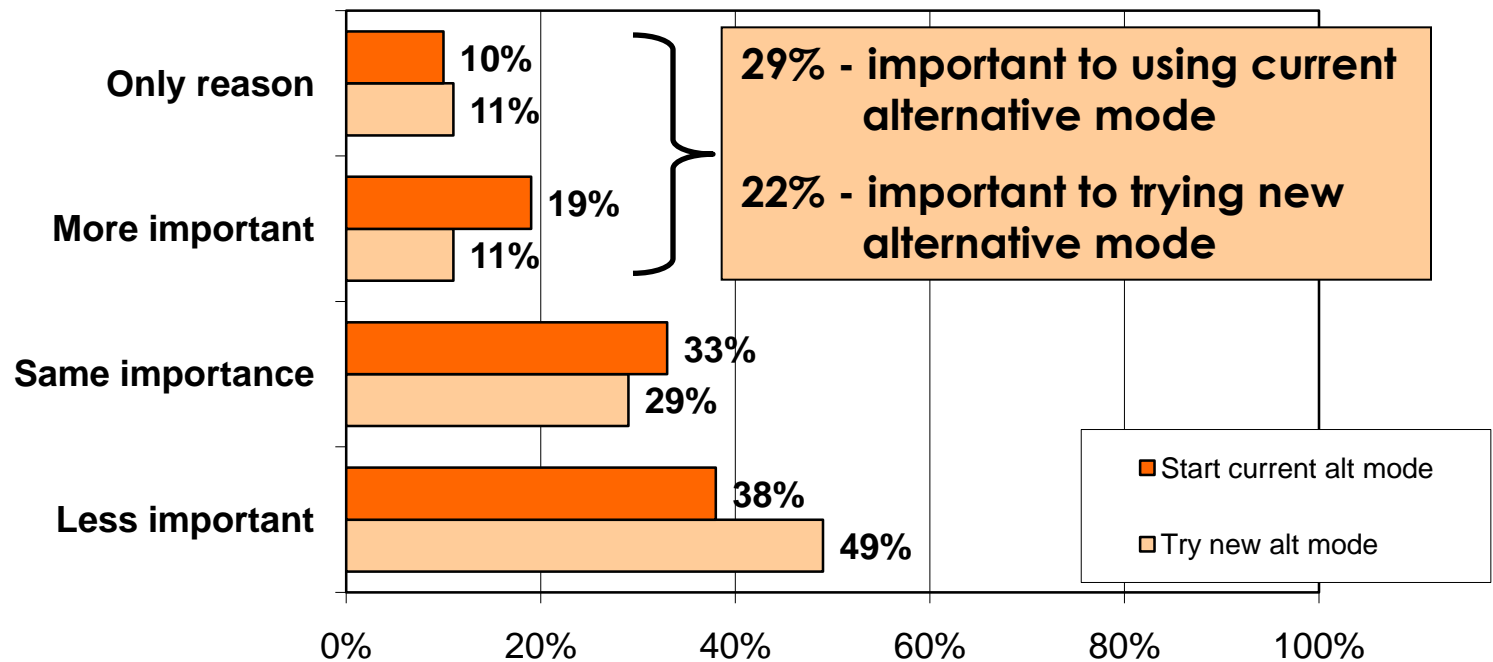


Q 31 – What motivated you to try a new type of transportation to work?

# About a Quarter of Residents Who Use or Tried Alt Modes Said Economic Factors Were Important to their Mode Choice

Start current alternative mode  
n = 264

Try alternative mode  
n = 204



Q28b How important were economic reasons (such as saving money or reducing your gas expense) in motivating you to make that switch, as compared to the other reasons you just mentioned?

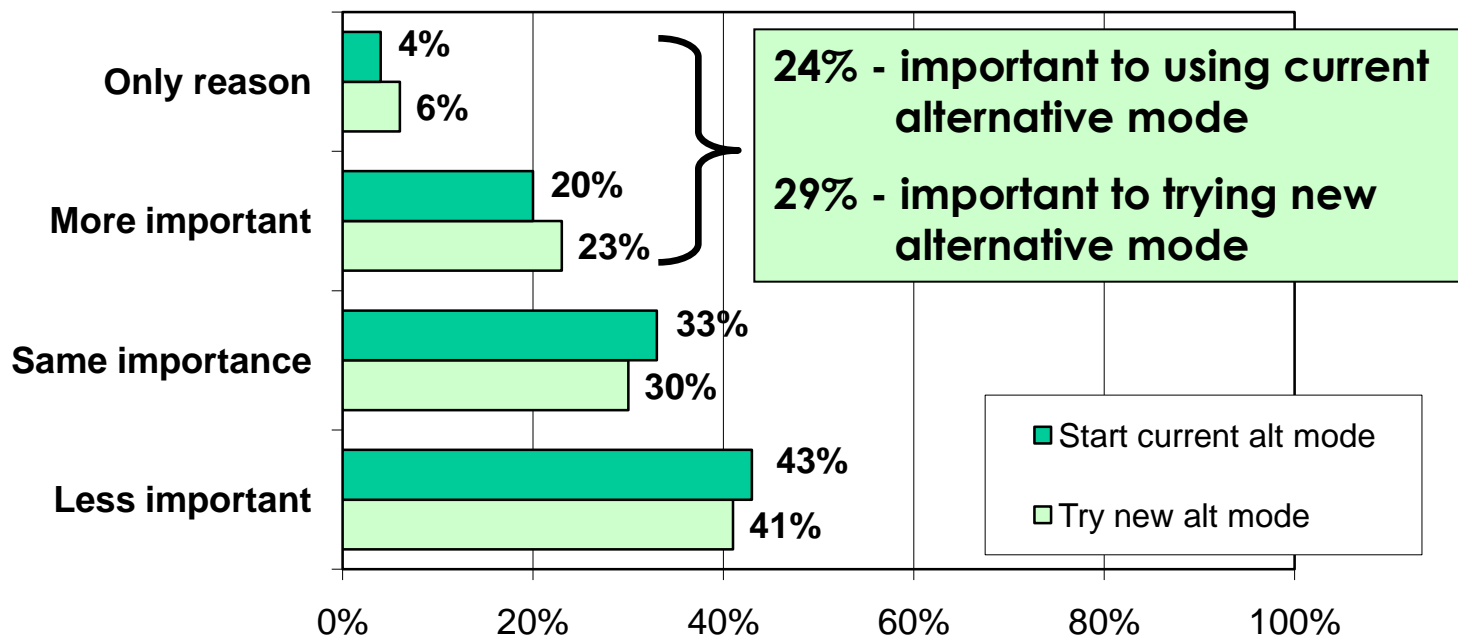
Q25 Primary mode (current mode used most days)

Q30 In the past year, have you used or tried any other type of transportation that you're not using now, for your trip to work?

Start current alternative mode  
n = 259

Try alternative mode  
n = 199

# A Quarter of Residents who Use or Tried Alternative Modes said Environmental Concerns were Important Influences on their Mode Choice



Q28c How important were environmental reasons in motivating you to make that switch, as compared to the other reasons you just mentioned?

Q25 Primary mode (current mode used most days)

Q30 In the past year, have you used or tried any other type of transportation that you're not using now, for your trip to work?

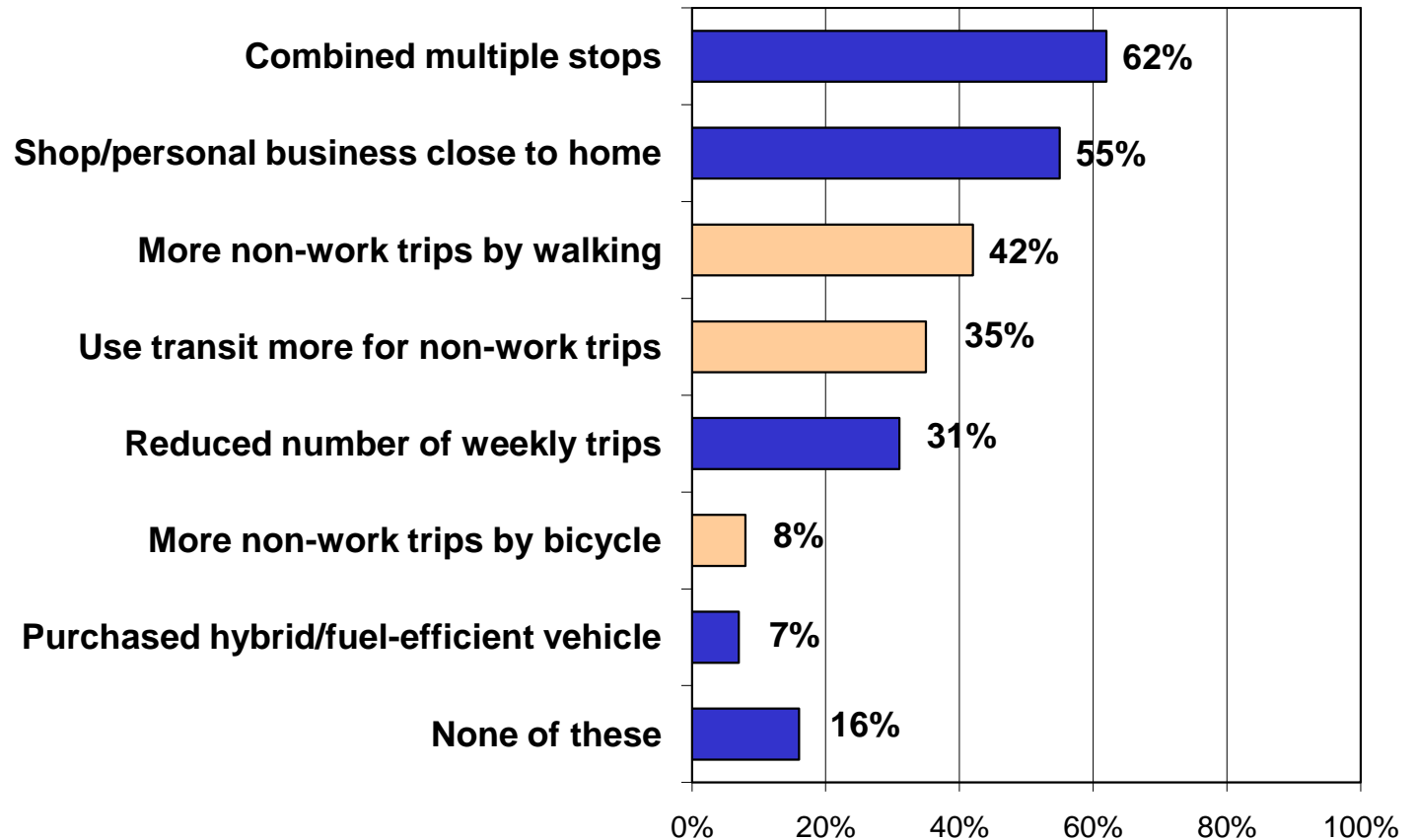
Long Survey  
Only

n = 1,263

multiple  
responses  
permitted

# 84% of Residents Made Changes that Reduced Non-Work Drive Alone Trips

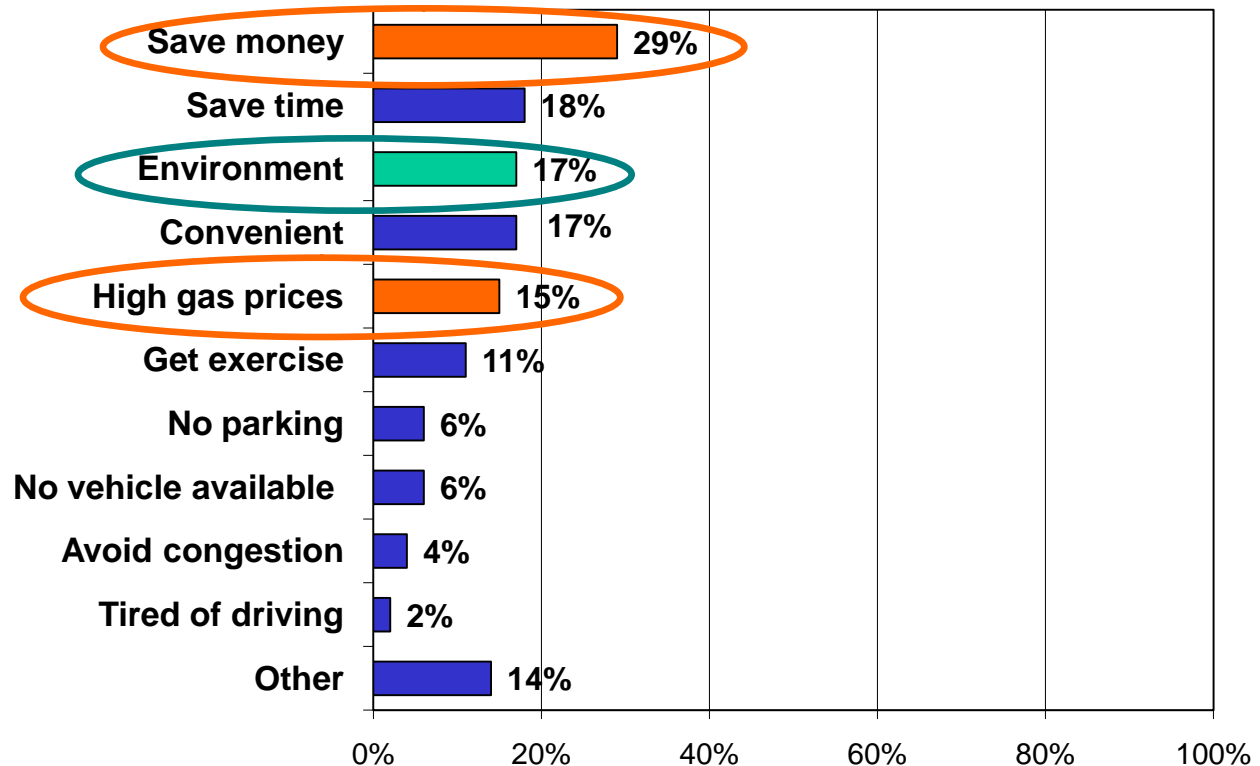
47% Increased Walking, Transit, and/or Bicycling



Q34. In the past year, have you made any of the following travel-related changes?

# What Influences Travel-Related Changes?

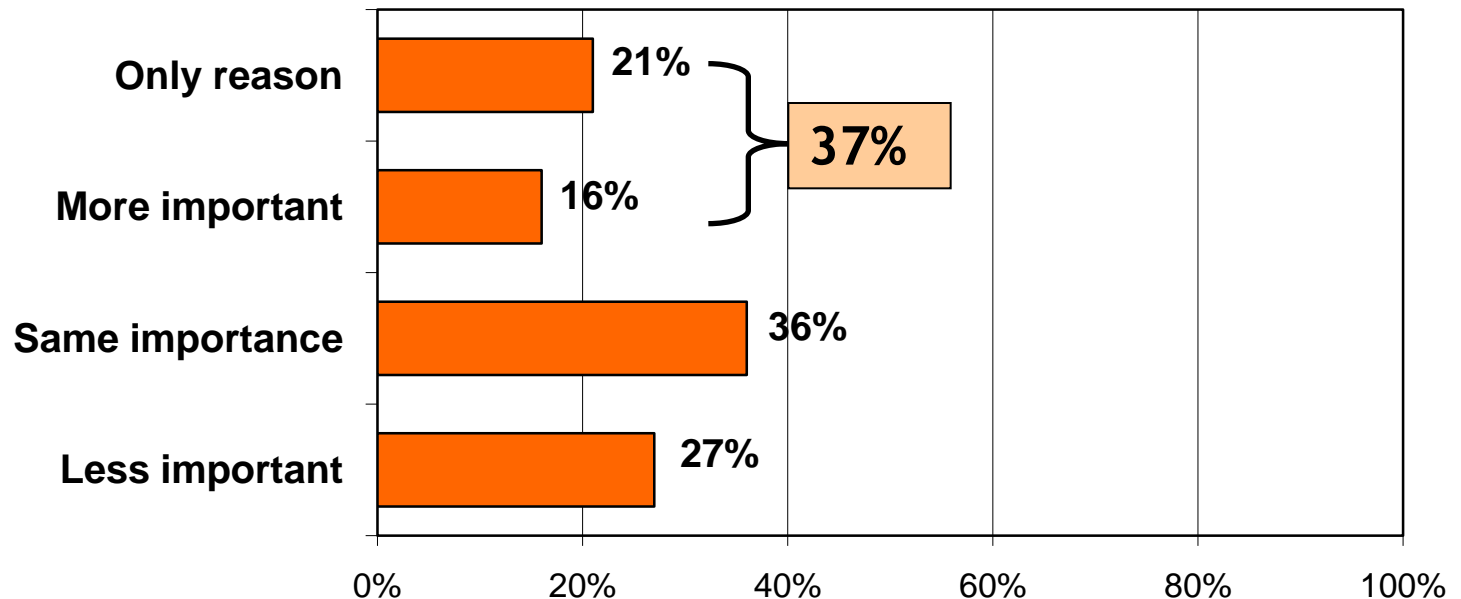
The most common reason to make these changes was to save money, but 18% wanted to save time and 17% made the changes to help the environment.



Q 35 – What motivated you to make those changes?

# Economic Factors are an Important Influence on Travel Choice

Almost 4 in 10 residents who made a travel change said **economic** factors were either the only reason or more important than other reasons in influencing the change.

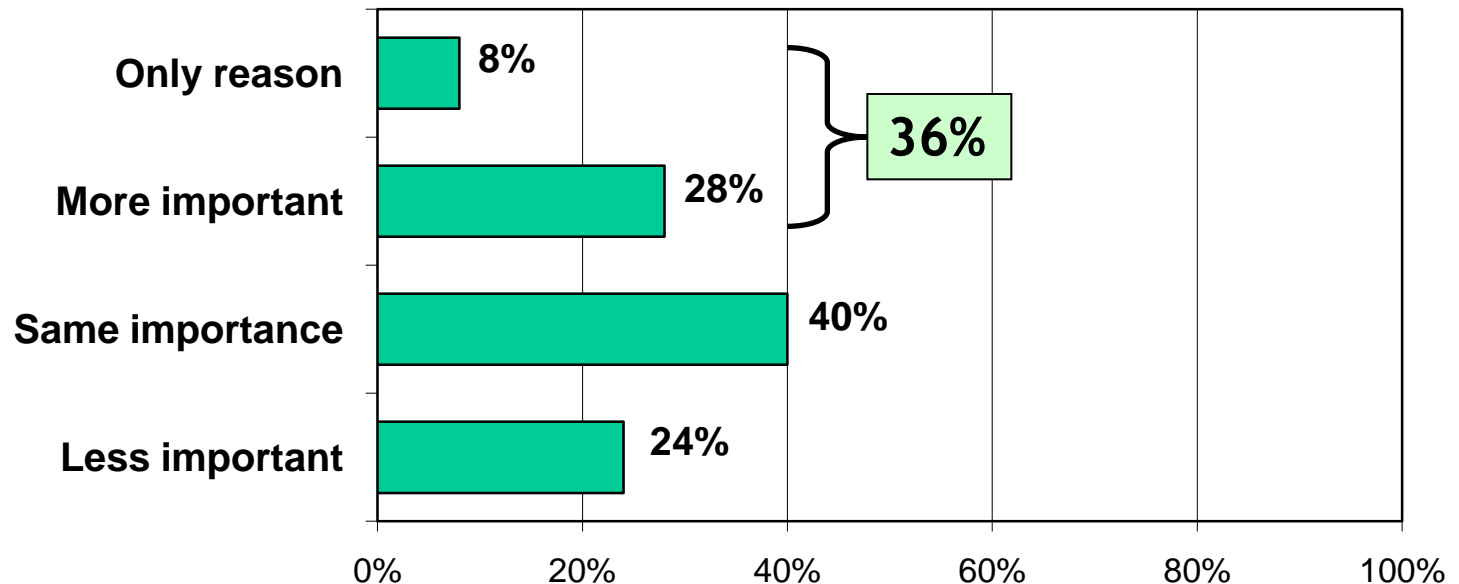


Q34. In the past year, have you made any of the following travel-related changes?

Q35a How important were economic reasons in motivating you to make a travel-related change, as compared to the other reasons you just mentioned?

# Importance of Environmental Factors in Influencing Travel Changes

A third of residents who made a travel change said **environmental** factors were either the only reason or more important than other reasons in influencing the change.



Q34. In the past year, have you made any of the following travel-related changes?

Q35b How important were environmental reasons in motivating you to make a travel-related change, as compared to the other reasons you just mentioned?

# SUMMARY and IMPLICATIONS

## Summary

- Saving money is a primary reason why residents make travel changes that reduce driving alone
- Concern for the environment also appears to influence residents' travel decisions

## Implications

- Even though gas prices are relatively low, continue to emphasize the cost-saving of non-drive alone modes, both for commute and non-work travel; residents typically have more discretion in non-work travel decisions.

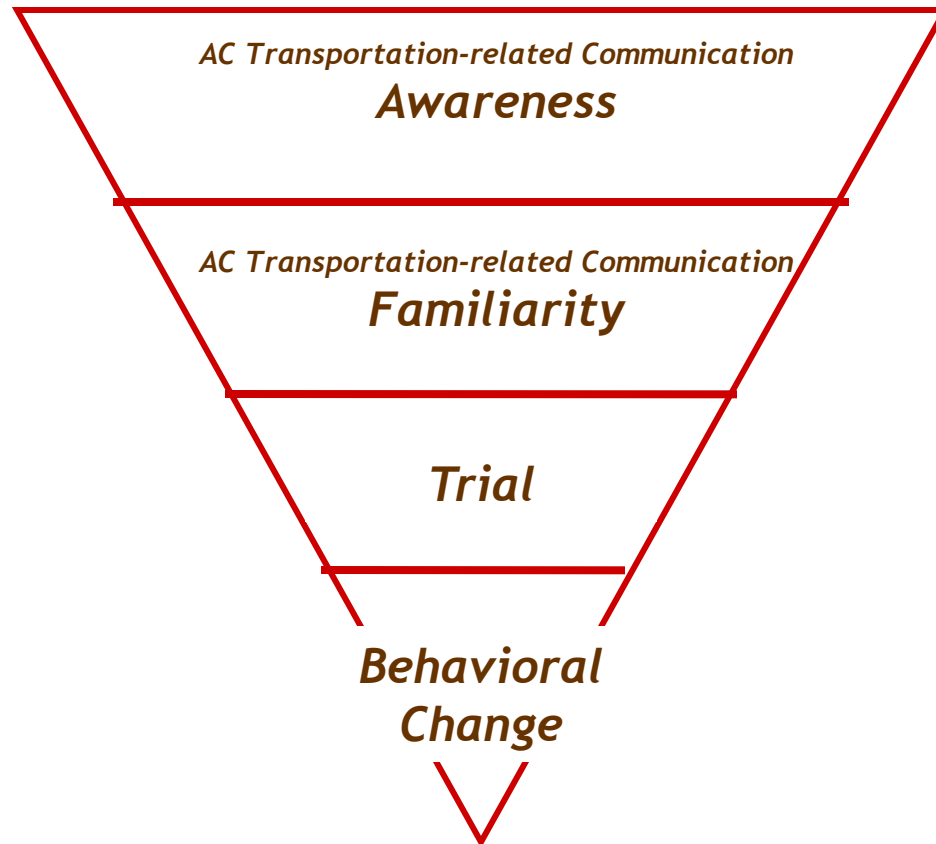




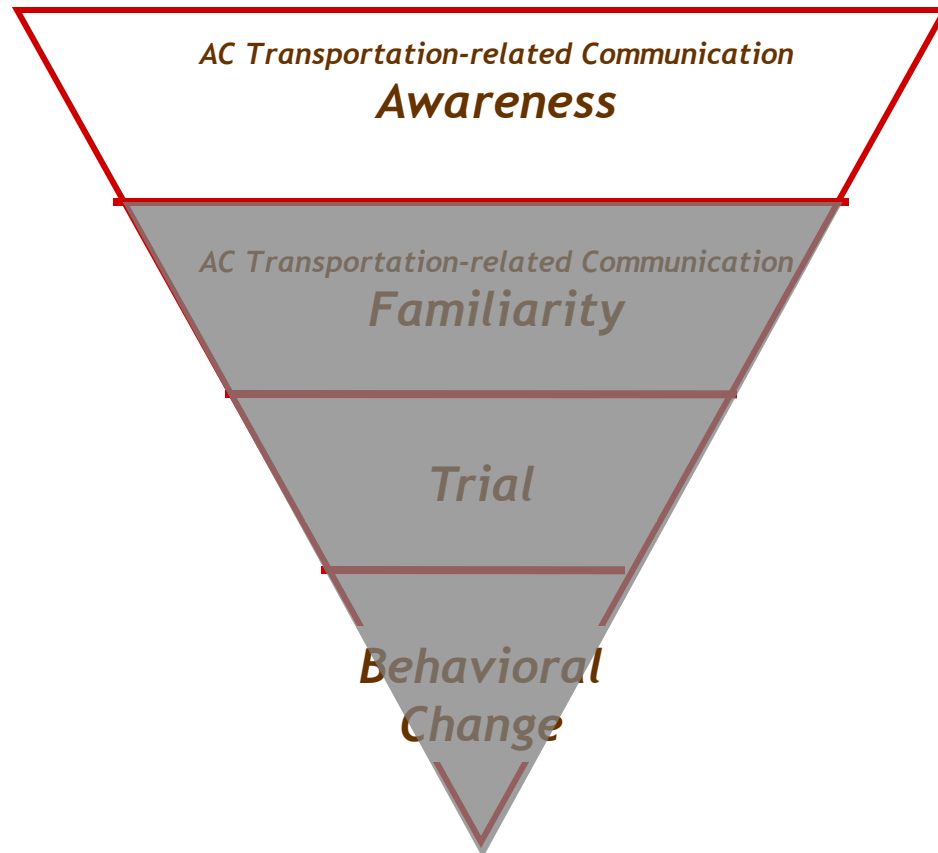
# Advertising



# Communication Impact Model



# Communication Impact Model



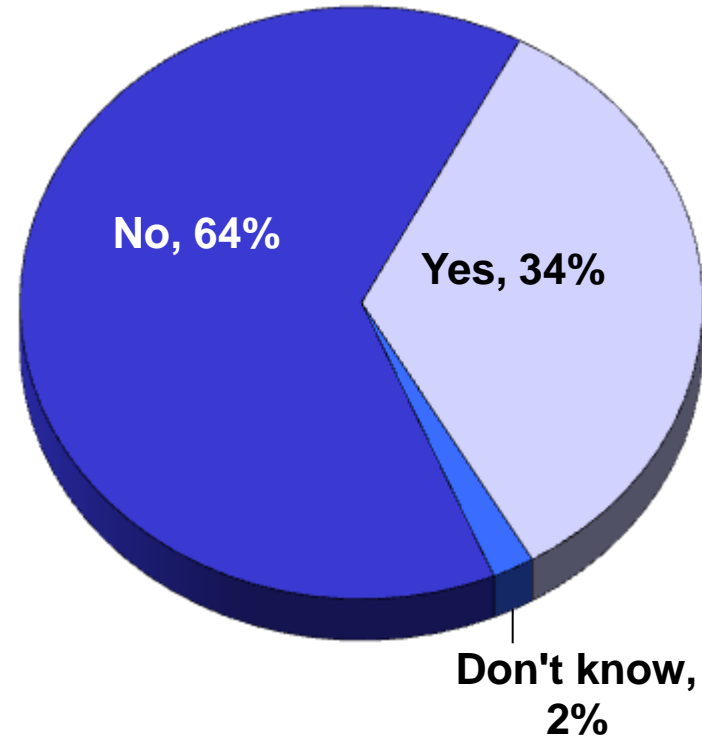
Two “Advertising Awareness” questions were asked in this study:

53. Do you recall seeing or hearing any informational messages recently for transportation or transportation services in Arlington County?
54. Have you ever seen or heard anything that mentions the statement, “Arlington’s Car Free Diet?”

# One-third Recalled Transportation Informational Messages

## Of those who recalled messages:

- 21% didn't remember the specific message
  - 5% said ART
  - 5% said Car Free Diet
  - 1% said ACCS
- 1% said Commuter Store
- 1% said Commuter Page



Q53. Do you recall seeing or hearing any informational messages recently for transportation or transportation services in Arlington County?

# Messages About Buses, Trains or Metrobus Are the Most Frequently Recalled General Messages in Total

## General messages

Bus or train, Metrobus	22%
Bicycling	11%
Walking	6%
Carpool, vanpool, rideshare	5%
New buses / trains are coming	4%
Reduce traffic	3%
Help the environment	2%
Carpool/vanpool information available	2%

Q53a What did those messages say?

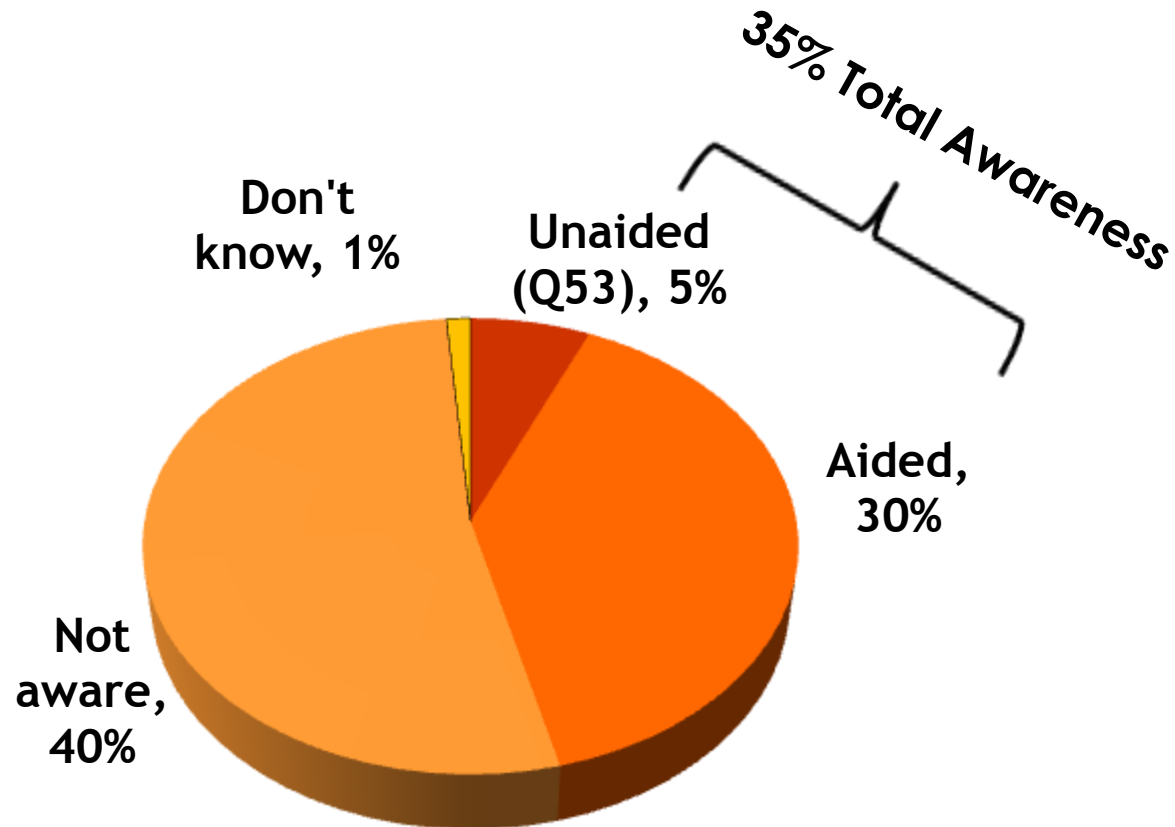
# A Variety of Transportation Programs or Services Are Recalled

## Transportation Programs or Services: Arlington County

Arlington Transit – ART	5%
Car Free Diet	5%
Bike to Work Day	2%
CommuterPage.com, CommuterDirect.com	2%
Guaranteed Ride Home	3%
Commuter Connections	2%
ACCS	1%
Commuter Store	1%

Q53a What did those messages say?

# One-third Are Aware of Car-Free Diet



46% of those who said they recalled informational messages are aware of Car Free Diet as opposed to 26% who did not recall any messages.

Q54. Have you ever seen or heard anything that mentions the statement, "Arlington's Car Free Diet?"

Q53a: What did those messages say or which messages for transportation or transportation services in Arlington County do you recall having seen or heard?

# Comparison of Demographics

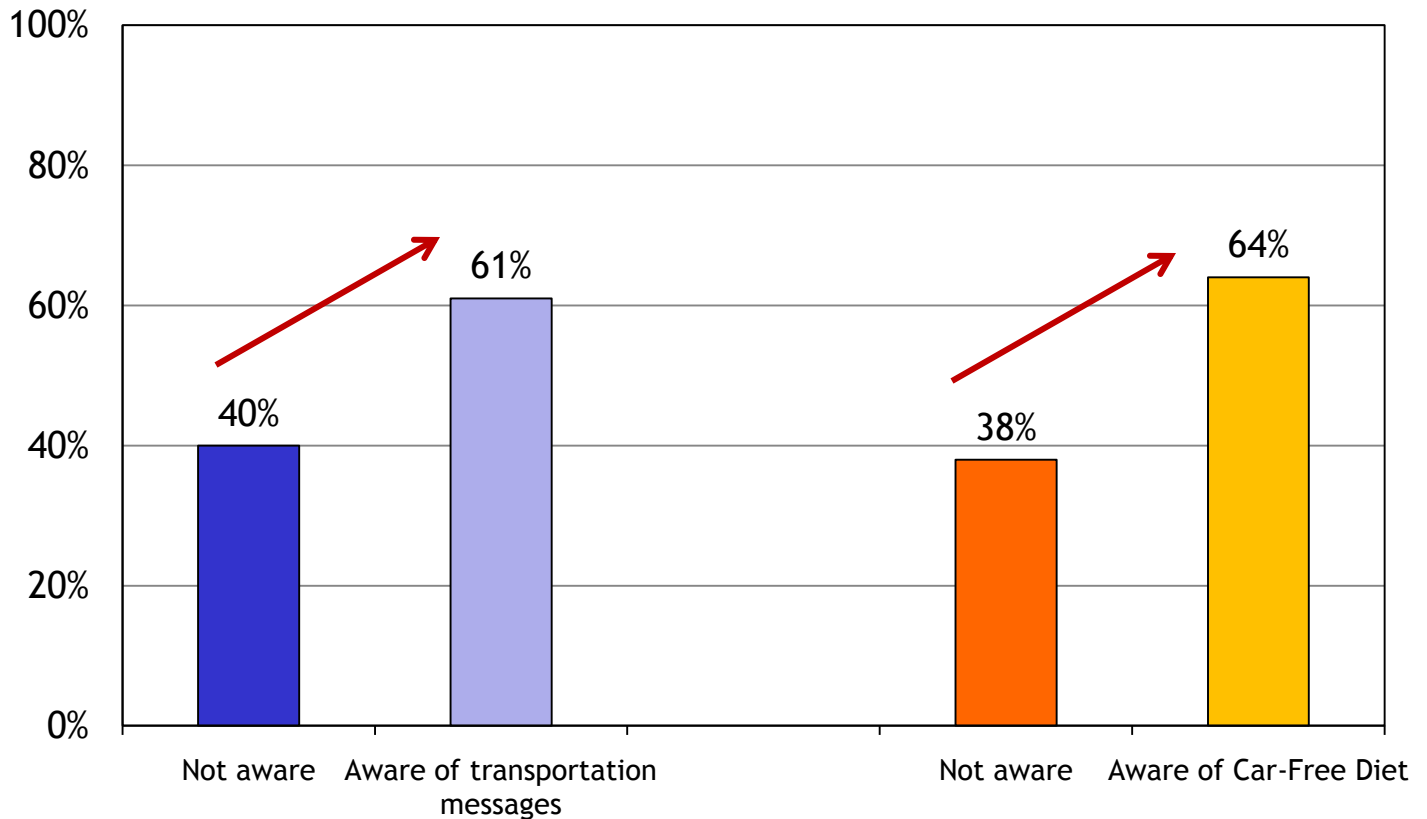
	Total	Aware of trans msg	Not aware of trans msg	Aware of Car-Free Diet	Not Aware of Car-Free Diet
Sample Size (Long Survey)	(1226)	(367)	(859)	(387)	(839)
Mean Age	45	47	43	45	45
% Male	42	38	43	33	45
% White	59	68	54	67	55
% Lived in AC more than 10 years	50	55	48	52	49
% Lived in AC less than 2 years	11	7	13	5	14
% Single-family Home	41	43	40	50	37
% Employed	60	64	59	67	57
% Work in AC	39	42	37	42	36
Mean Income (\$000)	105	97	108	119	99
% Without Access to Car	17	17	18	13	19
% Drive Alone (Primary Mode)	48	50	47	47	49

Note: This chart does not imply any causal relationships. It is just an examination of the differences between the two respondent bases.

The following slides explore the difference between those aware and those who are not.

# Those Aware of Ads and Informational Messages Are More Likely to Have Sought Transportation Information in the Past Year

Proportions represent those who said "yes."



Long Survey:

Aware of transportation messages  
n = 385  
Not aware  
n = 928

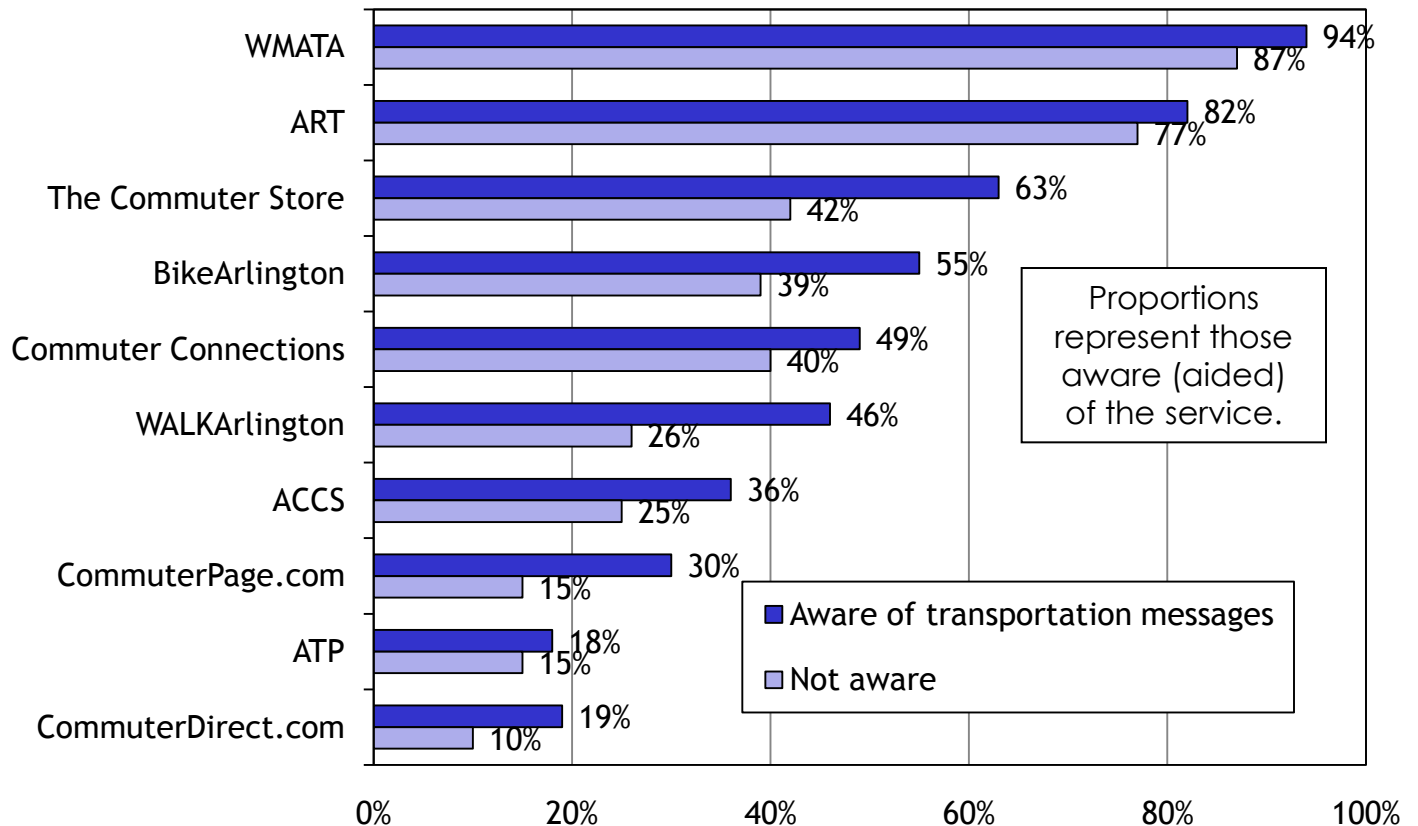
Aware of Car-Free Diet  
n = 402  
Not aware  
n = 911

Q38: In the past year, have you sought information on types of transportation you could use to get around Arlington County or the Washington metropolitan region or services that could help you get around?



# Those Aware of Transportation Messages Are Also More Likely to Be Aware of These Programs

Note: All of these differences are significant with the exception of ART and ATP



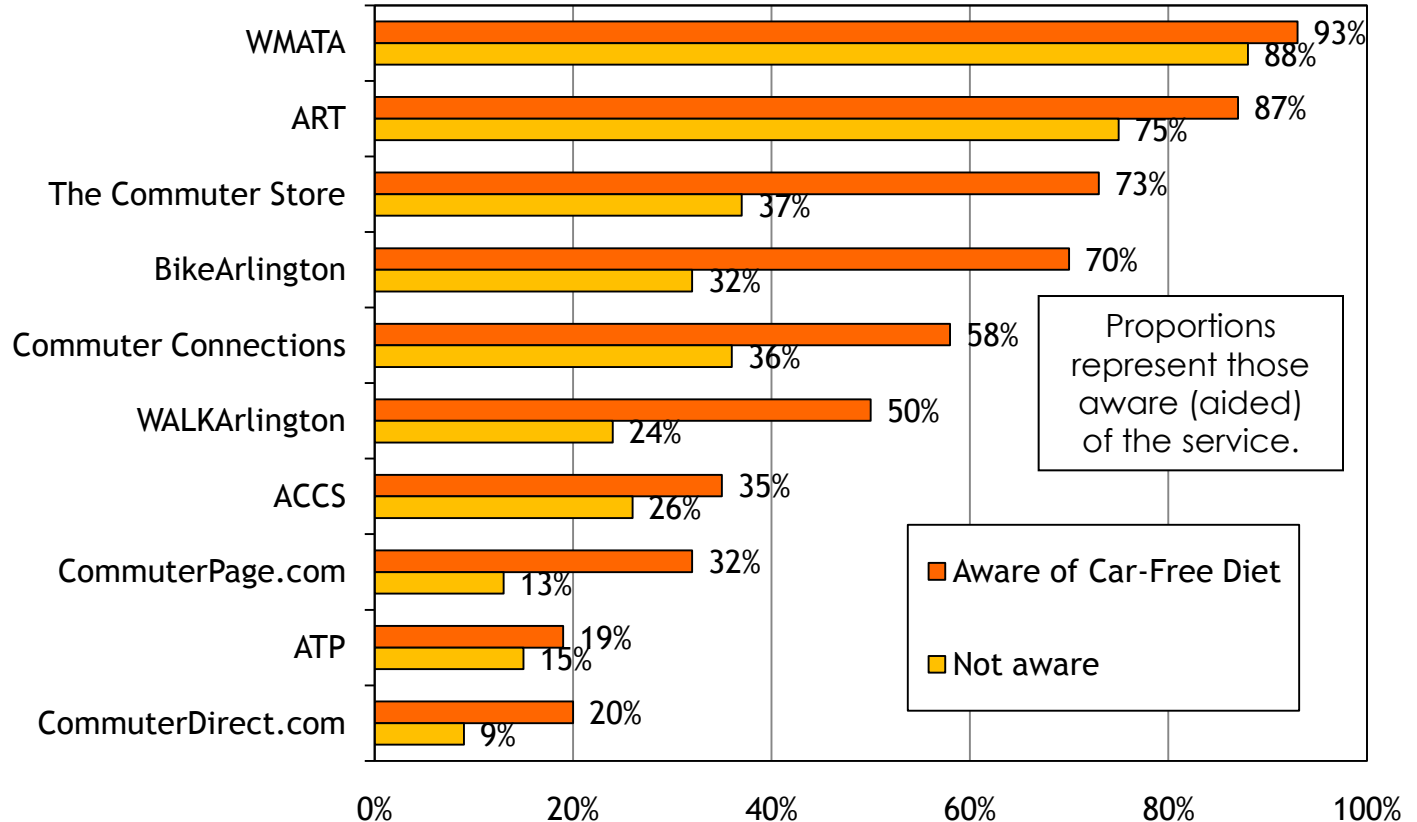
Long Survey:

Aware of transportation messages  
 n = 385  
 Not aware  
 n = 928

Q42: Now, I'm going to read you a list of organizations and programs that provide transportation information and assistance to Arlington residents. As I read each one, please tell me if you have heard of the organization or service, and if so, if you have used any of these services.

# Those Aware of Car-Free Diet Are Also More Likely to Be Aware of These Programs

Note: All of these differences are significant with the exception of ATP



Long Survey:

Aware of Car-Free Diet  
 n = 402  
 Not aware  
 n = 911

Q42: Now, I'm going to read you a list of organizations and programs that provide transportation information and assistance to Arlington residents. As I read each one, please tell me if you have heard of the organization or service, and if so, if you have used any of these services.



# Those Who Are Aware of Transportation Messages Are More Likely to Know of These Employer-offered Benefits

	Employer Offers	
	Aware of trans msg	Not aware
Transit financial benefits	51%	48%
Free parking	46%	42%
Telework opportunity	38%	38%
Carpool preferred parking	24%	16%
Bike/Walk Info/Services	21%	15%
Transit schedule/route info	20%	13%
Ridematching	18%	15%
Carpool financial benefits	18%	14%
Guaranteed Ride Home	12%	3%
Carshare, ZipCar account	10%	8%

Q44. Next, please tell me if your employer offers any of the following services or benefits to help you with your commute and if you have used the services?

**Long Survey:**

**Asked only of those employed**

**Aware of transportation messages**  
n = 234  
**Not aware**  
n = 521



# Those Who Are Aware of Car-Free Diet Are More Likely to Know of These Employer-offered Benefits

Q44. Next, please tell me if your employer offers any of the following services or benefits to help you with your commute and if you have used the services?

	Employer Offers	
	Aware of CFD	Not aware
Transit financial benefits	51%	48%
Telework opportunity	45%	34%
Free parking	42%	45%
Carpool preferred parking	22%	17%
Bike/Walk Info/Services	20%	15%
Transit schedule/route info	20%	13%
Carpool financial benefits	19%	14%
Ridematching	15%	17%
Carshare, ZipCar account	11%	7%
Guaranteed Ride Home	6%	5%

**Long Survey:**

**Asked only of those employed**

**Aware of Car-Free Diet  
n = 258  
Not aware  
n = 497**

Q49. Next, please tell me which of the following information or services are available to residents of your building or complex and if you have used the services?

**Long Survey:**  
**Asked only of those in Condos, Apts, Townhomes who ALSO say that they have concierge, property manager, or kiosk to help with getting around**

**Aware of transportation messages**  
**n = 66**  
**Not aware**  
**n = 126**

## Those Who Are Aware of Transportation Messages Are More Likely to Know of These Residentially Offered Benefits

	Property Offers	
	Aware of trans msg	Not aware
Bike racks	<b>69%</b>	<b>71%</b>
Schedules and maps	<b>56%</b>	<b>62%</b>
Info sessions or fairs	<b>29%</b>	<b>22%</b>
Carpool parking	<b>23%</b>	<b>10%</b>
SmarTrip cards	<b>15%</b>	<b>24%</b>

*Please note: These sample sizes are small.*



# Those Who Are Aware of Car-Free Diet Are More Likely to Say Their Property Offers Schedules and Maps But Less Likely to Say They Offer SmarTrip Cards

	Property Offers	
	Aware of CFD	Not aware
Bike racks	80%	67%
Schedules and maps	41%	66%
Info sessions or fairs	18%	26%
Carpool parking	13%	15%
SmarTrip cards	4%	27%

*Please note: These sample sizes are small.*

Q49. Next, please tell me which of the following information or services are available to residents of your building or complex and if you have used the services?

**Long Survey:**  
**Asked only of those in Condos, Apts, Townhomes who ALSO say that they have concierge, property manager, or kiosk to help with getting around**

**Aware of Car-Free Diet  
 n = 39  
 Not aware  
 n = 92**



# SUMMARY AND IMPLICATION

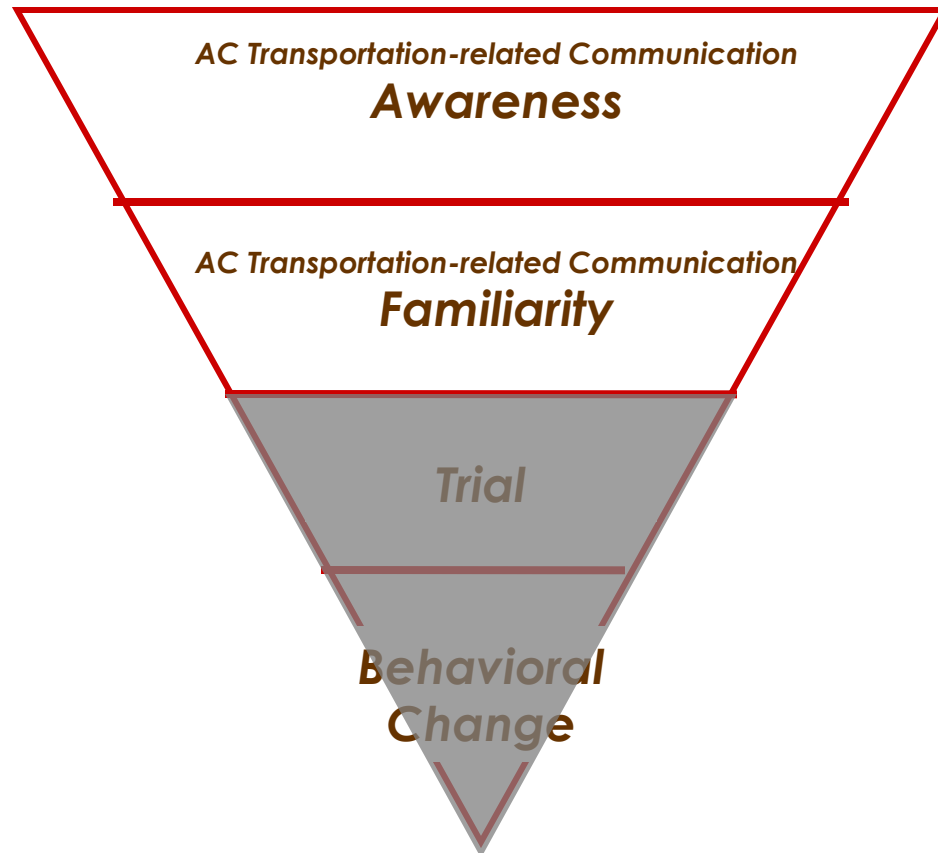
## Summary:

- About one-third of residents are aware of transportation informational messages, and one-third are aware of Car-Free Diet.
- Residents who are aware are more likely to
  - Have sought transportation information in the past year
  - Be aware of transportation services such as The Commuter Store
  - Be aware of some employer and property transportation offerings

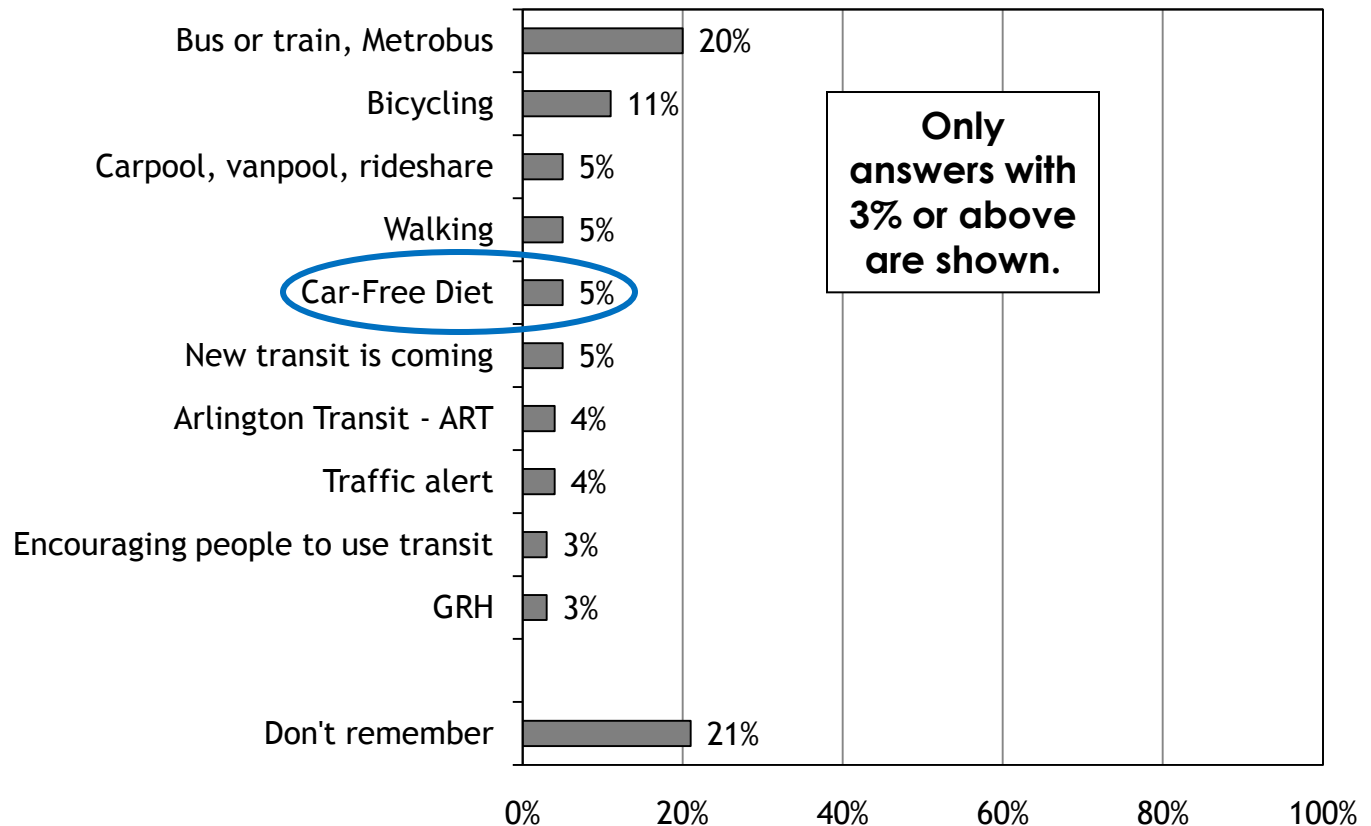
## Implication:

- Advertising appears to make a difference. Those who are aware of the messages that ACCS puts out are more likely to seek and use other information and services. Whether this is because of the type of people they are or because the messages compel them to learn more is inconclusive. However, increasing the amount of transportation messaging in the county should lead to increased awareness all around; it is the first step to increased use.

# Communication Impact Model



# Specific Messages Are Difficult for Residents to Recall – Not Uncommon, Especially in the Absence of a Widespread Campaign *But 5% Did Name “Car-Free Diet” Unaided*



Q53A: What did those messages say or which messages for transportation or transportation services in Arlington County do you recall having seen or heard?

Long + Mini Surveys:

Asked only of those who said they were aware of messages

n = 1488

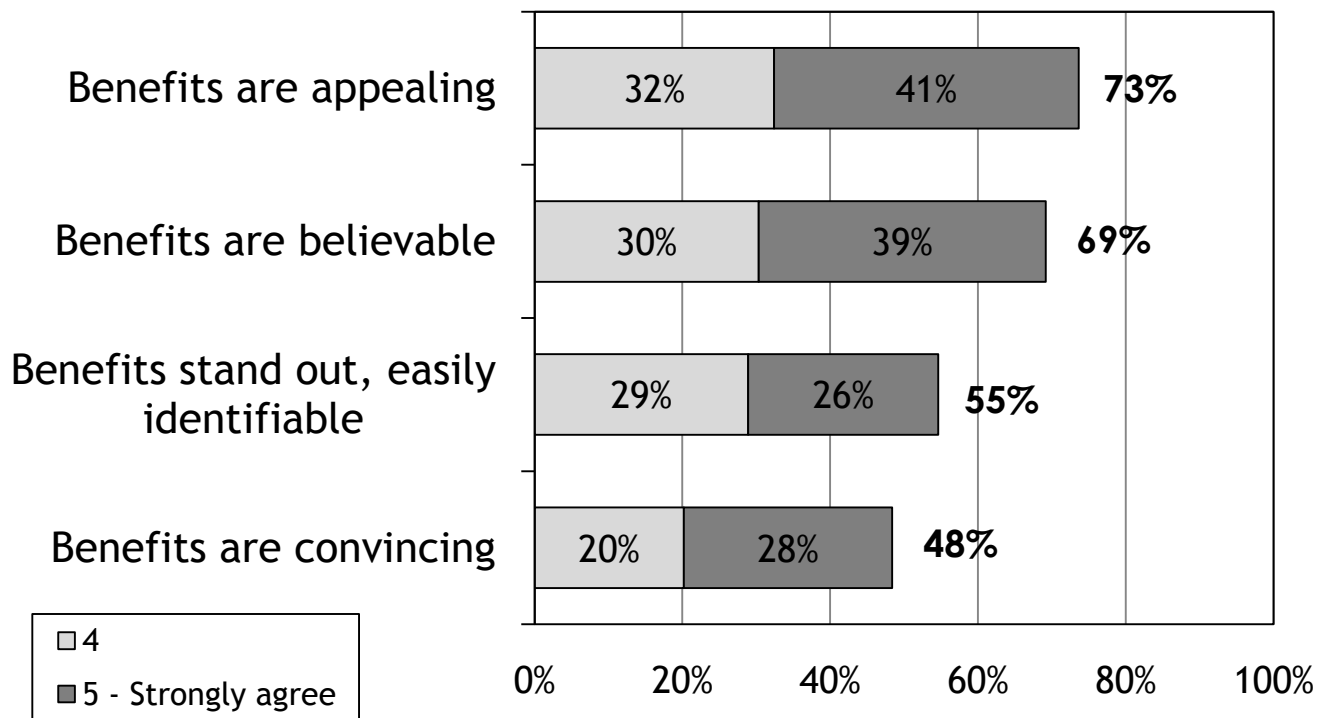
Long + Mini Surveys:  
Between 12% and 17% said "Don't know."

The percentages shown here do not include those who said Don't know.

563 (a little more than 1/3) of those who said they were aware of Car-Free Diet did not feel like they knew enough about the campaign to answer these questions. They were excluded prior to the 12 – 16% mentioned above.

# Almost Three-Quarters of Those Who Were Familiar Enough with Car-Free Diet to Give an Opinion Find the Benefits Appealing

## *Just Under Half Find Them Convincing*



Q54A: To what extent do you agree with each of these statements about "Arlington's Car Free Diet?"

# SUMMARY AND IMPLICATION

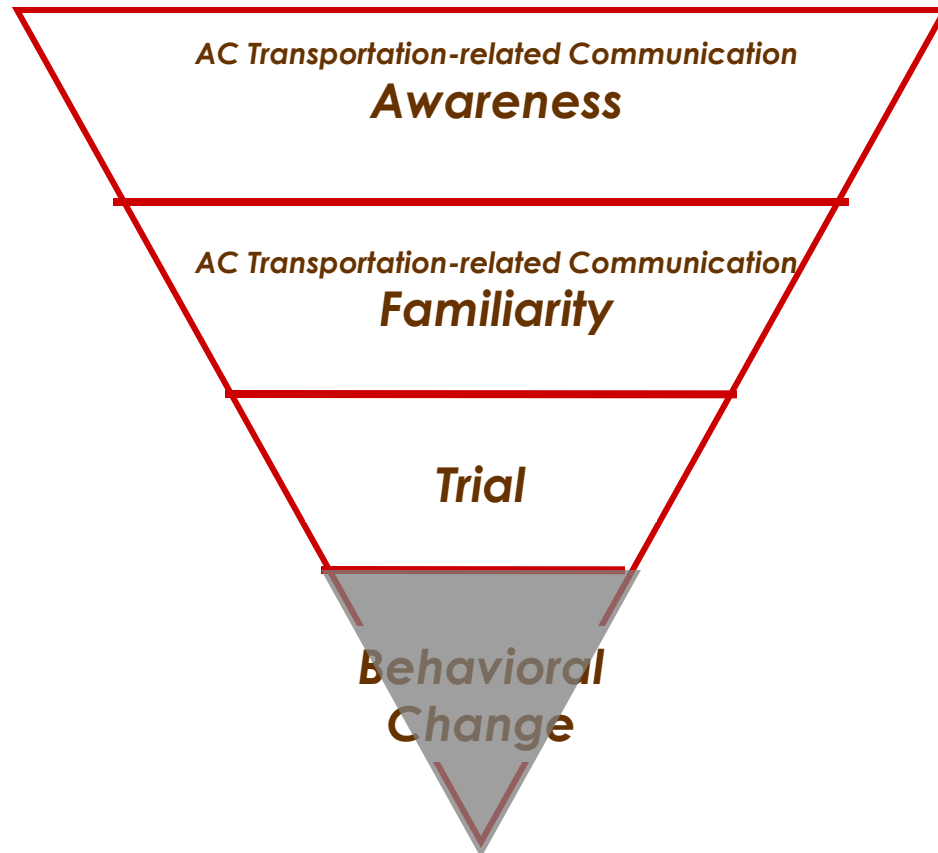
## Summary:

- Residents have a difficult time recalling specific messages about transportation that they have seen or heard.
- Only about half of those aware of Car-Free Diet are familiar enough with the campaign to answer questions about it.
- Of those who could answer the benefit questions, almost three-quarters found them appealing, more than two-thirds said they were believable, more than half said they stand out, and just under half found the benefits convincing.

## Implication:

- One campaign that encompasses all of ACCS's programs appears to help residents to remember and act on the key messages. Continue to use marketing and advertising to inform residents of Arlington's transportation services. Familiarity with the goals of ACCS and the benefits of alternate transportation is the second step to increased use.

# Communication Impact Model



# Those Aware of Car-Free Diet Are More Likely to Have Tried Transportation Other Than Their Primary Mode

Proportions represent those who said "yes."

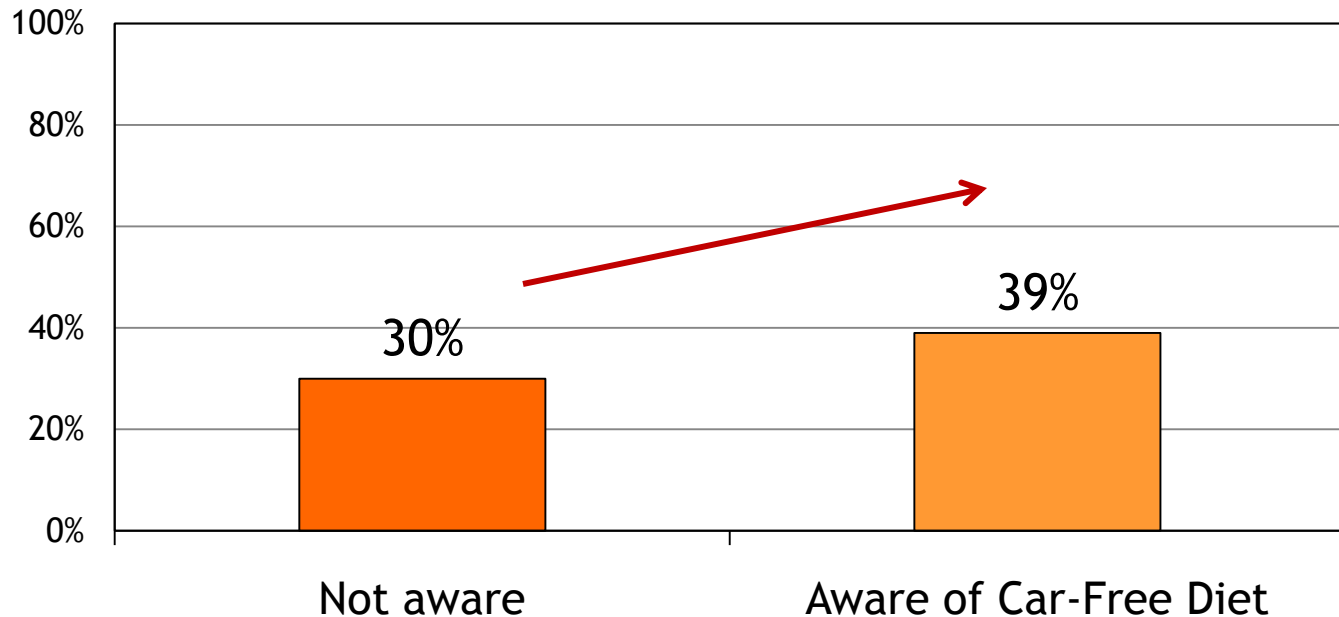
The difference between those aware of transportation messages and those not is not significant.

Long Survey:

Aware of Car-Free Diet

n = 217

Not aware  
n = 381



Q30: In the past year, have you used or tried any other type of transportation that you're not using now, for your trip to work?

# Those Aware of Transportation Messages and Car-Free Diet Are More Likely to be Motivated by *Benefits* of Alternate Transportation and Less Likely to be Motivated by *Necessity*

<u>Aware Trans Msg</u>	<u>Not Aware Trans Msg</u>	<u>Aware Car-Free Diet</u>	<u>Not Aware Car-Free Diet</u>
<ol style="list-style-type: none"> <li>1. No vehicle available</li> <li><b>2. Avoid congestion/ stress</b></li> <li>3. Changed jobs or hours</li> <li>4. Save money</li> <li>5. Convenient</li> </ol>	<ol style="list-style-type: none"> <li>1. No vehicle available</li> <li>2. Changed jobs or hours</li> <li>3. Save money</li> <li>4. Get exercise</li> <li>5. No parking, save time</li> </ol>	<ol style="list-style-type: none"> <li>1. Changed jobs or hours</li> <li><b>2. Save money</b></li> <li><b>3. Avoid congestion/ stress</b></li> <li>4. Convenient</li> <li>5. Get exercise</li> </ol>	<ol style="list-style-type: none"> <li><b>1. No vehicle available</b></li> <li>2. Change jobs or hours</li> <li>3. Save money</li> <li>4. No parking, save time</li> <li><b>5. Vehicle became available</b></li> </ol>

- The above boxes show the top five motivations for each segment. Items in red indicate that the difference from it's counterpart is statistically significant (higher). For instance, 17% of those aware of transportation messages said that "avoid congestion/stress" was a motivating factor in trying a new type of transportation to work vs. only 1% of those not aware.
- Those are aware of Car-Free Diet are also less likely to say that environmental motivations were less important than other reasons (27% for those aware vs. 51% for those not aware) but more likely to say environment is the only reason (12% vs. 2% for those not aware)..

Q31. What motivated you to try a new type of transportation to work? Q31B. How important were environmental reasons (such as reducing your carbon footprint or greenhouse gas emissions), in motivating you to try a new mode of transportation, as compared to the reasons you just mentioned? Were environmental reasons...

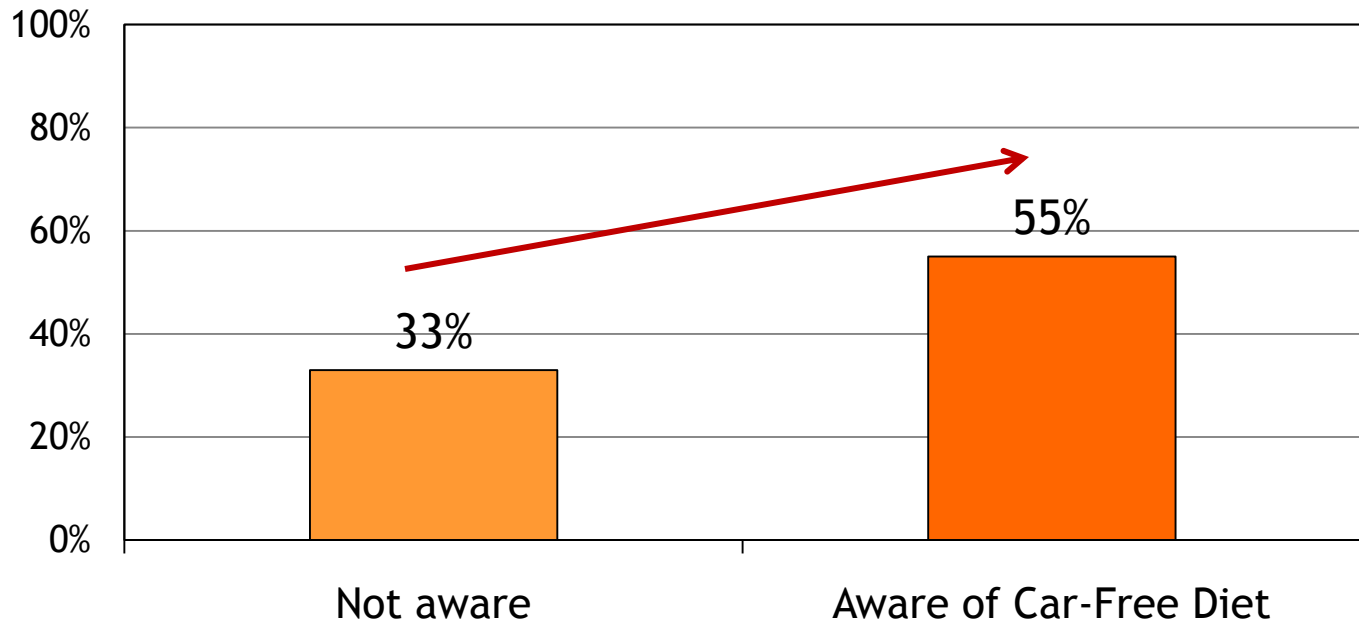
Long Survey sample sizes: Aware of transportation messages n = 81; Not aware of transportation messages n = 154; Aware of Car-Free Diet n = 93; Not aware of Car-Free Diet n = 143

# Those Aware of Car-Free Diet Are More Likely to Say They Would Try an Alternate Commute Mode if Offered a Subsidy by Their Employer

Proportions represent those who said 4 or 5 - "very likely."  
The difference between those aware of transportation messages and those not is not significant.

Long Survey:  
Doesn't include those who said "Don't Know" (about 4%) or "Employer Offers Now" (about 41%)

Aware of Car-Free Diet  
n = 83  
Not aware  
n = 159

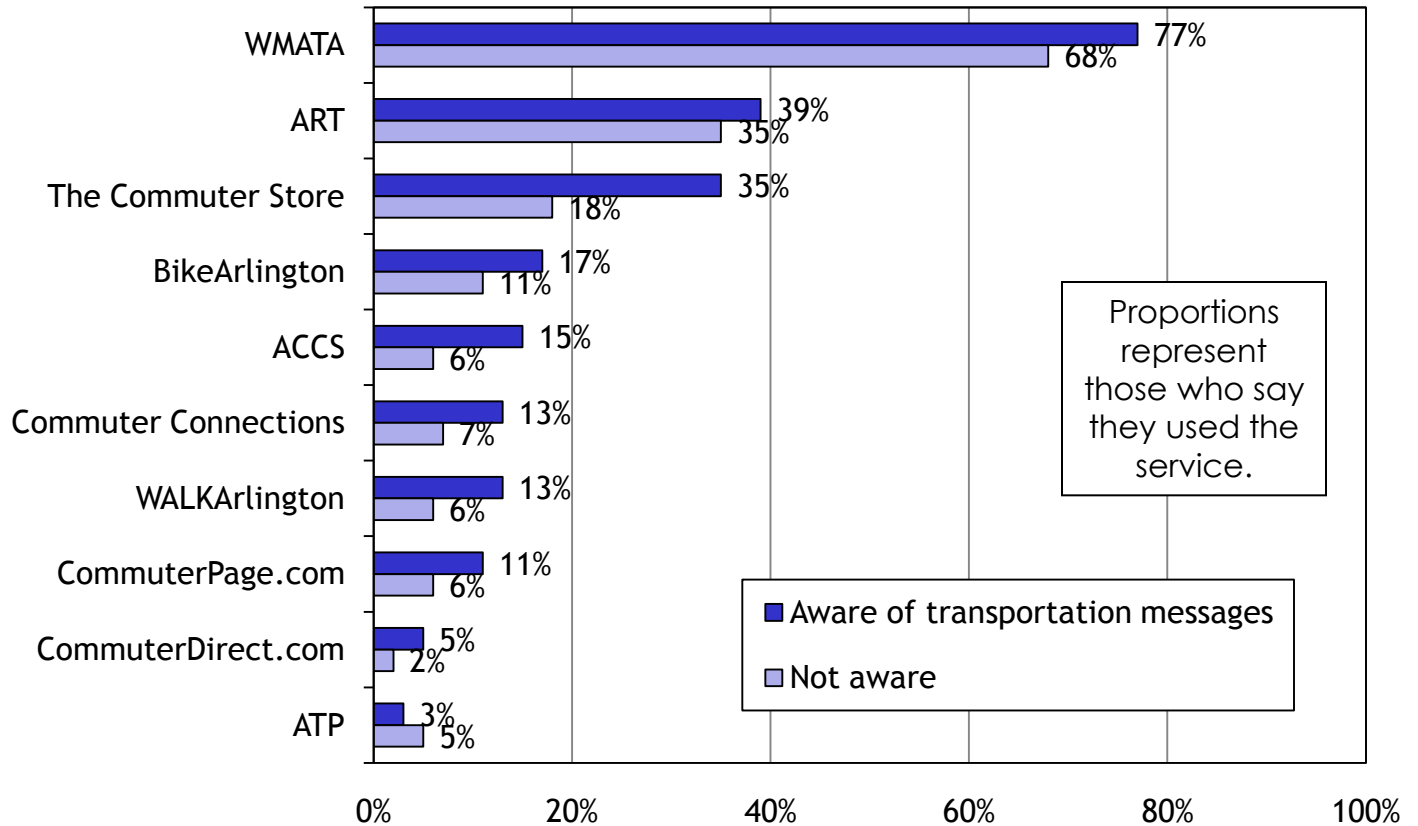


Q46. If your employer or another organization offered a subsidy or other financial benefit for commuters who use transit, vanpooling, carpooling, or bicycling how likely would you be to try one of these types of transportation for your trip to work?



# Those Aware of Transportation Messages Are More Likely to Have Used Most of These Programs

Note: All of these differences are significant with the exception of ART and ATP.



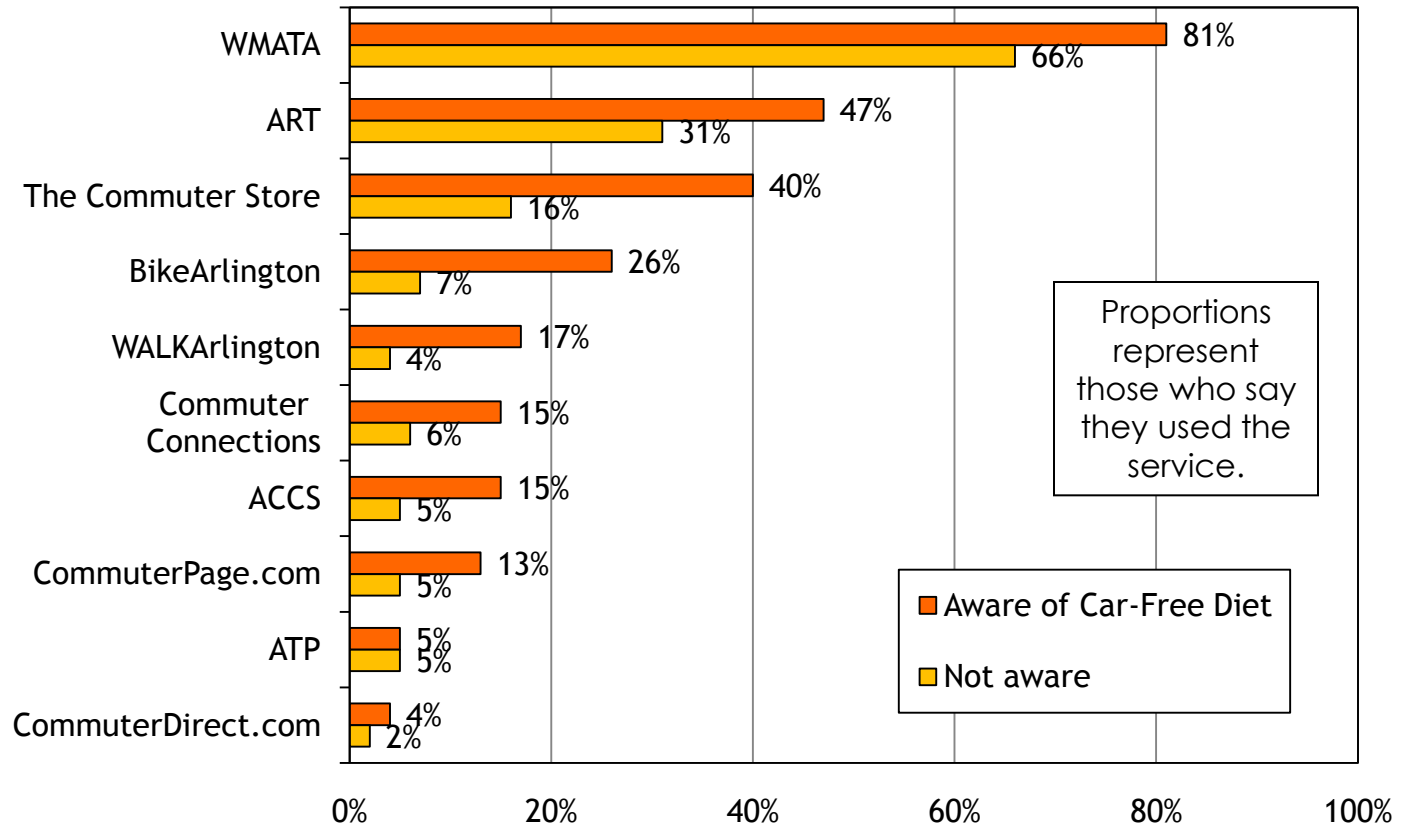
Long Survey:

Aware of transportation messages  
n = 385  
Not aware  
n = 928

Q42: Now, I'm going to read you a list of organizations and programs that provide transportation information and assistance to Arlington residents. As I read each one, please tell me if you have heard of the organization or service, and if so, if you have used any of these services.

# Those Aware of Car-Free Diet Are Also More Likely to Have Used These Programs

Note: All of these differences are significant with the exception of ATP



Long Survey:

Aware of Car-Free Diet  
 n = 402  
 Not aware  
 n = 911

Q42: Now, I'm going to read you a list of organizations and programs that provide transportation information and assistance to Arlington residents. As I read each one, please tell me if you have heard of the organization or service, and if so, if you have used any of these services.

Q44. Next, please tell me if your employer offers any of the following services or benefits to help you with your commute and if you have used the services?

# Those Who Are Aware of Transportation Messages Are More Likely to Know of and Use These Employer-offered Benefits

	Employer Offers		Respondent Uses	
	Aware of trans msg	Not aware	Aware of trans msg	Not aware
Transit financial benefits	51%	48%	30%	35%
Free parking	46%	42%	36%	34%
Telework opportunity	38%	38%	27%	25%
Carpool preferred parking	24%	16%	7%	3%
Bike/Walk Info/Services	21%	15%	7%	5%
Transit schedule/route info	20%	13%	11%	6%
Ridematching	18%	15%	4%	5%
Carpool financial benefits	18%	14%	8%	3%
Guaranteed Ride Home	12%	3%	5%	0%
Carshare, ZipCar account	10%	8%	3%	2%

**Long Survey:**  
**Asked only of those employed**  
**Aware of transportation messages**  
 n = 234  
**Not aware**  
 n = 521

Q44. Next, please tell me if your employer offers any of the following services or benefits to help you with your commute and if you have used the services?

# Those Who Are Aware of Car-Free Diet Are More Likely to Know of and Use These Employer-offered Benefits

	Employer Offers		Respondent Uses	
	Aware of CFD	Not aware	Aware of CFD	Not aware
Transit financial benefits	51%	48%	35%	32%
Telework opportunity	45%	34%	29%	23%
Free parking	42%	45%	34%	35%
Carpool preferred parking	22%	17%	6%	3%
Bike/Walk Info/Services	20%	15%	9%	3%
Transit schedule/route info	20%	13%	9%	6%
Carpool financial benefits	19%	14%	5%	4%
Ridematching	15%	17%	3%	5%
Carshare, ZipCar account	11%	7%	1%	3%
Guaranteed Ride Home	6%	5%	1%	2%

**Long Survey:**  
**Asked only of those employed**  
**Aware of Car-Free Diet**  
**n = 258**  
**Not aware**  
**n = 497**

Q49. Next, please tell me which of the following information or services are available to residents of your building or complex and if you have used the services?

## Those Who Are Aware of Transportation Messages Are More Likely to Know of and Use Carpool Parking, But Less Likely to Use SmarTrip Cards

	Property Offers		Respondent Uses	
	Aware of trans msg	Not aware	Aware of trans msg	Not aware
Bike racks	69%	71%	33%	20%
Schedules and maps	56%	62%	23%	27%
Info sessions or fairs	29%	22%	12%	11%
Carpool parking	23%	10%	12%	0%
SmarTrip cards	15%	24%	9%	20%

*Please note: These sample sizes are small.*

**Long Survey:**  
 Asked only of those in Condos, Apts, Townhomes who ALSO say that they have concierge, property manager, or kiosk to help with getting around  
 Aware of transportation messages n = 66  
 Not aware n = 126

Q49. Next, please tell me which of the following information or services are available to residents of your building or complex and if you have used the services?

**Long Survey:**  
 Asked only of those in Condos, Apts, Townhomes who ALSO say that they have concierge, property manager, or kiosk to help with getting around

**Aware of Car-Free Diet**  
 n = 49

**Not aware**  
 n = 143

# Those Who Are Aware of Car-Free Diet Are More Likely to Use Bike Racks and Carpool Parking, but Less Likely to Use SmarTrip Cards and Attend Info Sessions

	Property Offers		Respondent Uses	
	Aware of CFD	Not aware	Aware of CFD	Not aware
Bike racks	80%	67%	40%	19%
Schedules and maps	41%	66%	23%	26%
Info sessions or fairs	18%	26%	4%	14%
Carpool parking	13%	15%	10%	2%
SmarTrip cards	4%	27%	4%	20%

*Please note: These sample sizes are small.*



# SUMMARY AND IMPLICATION

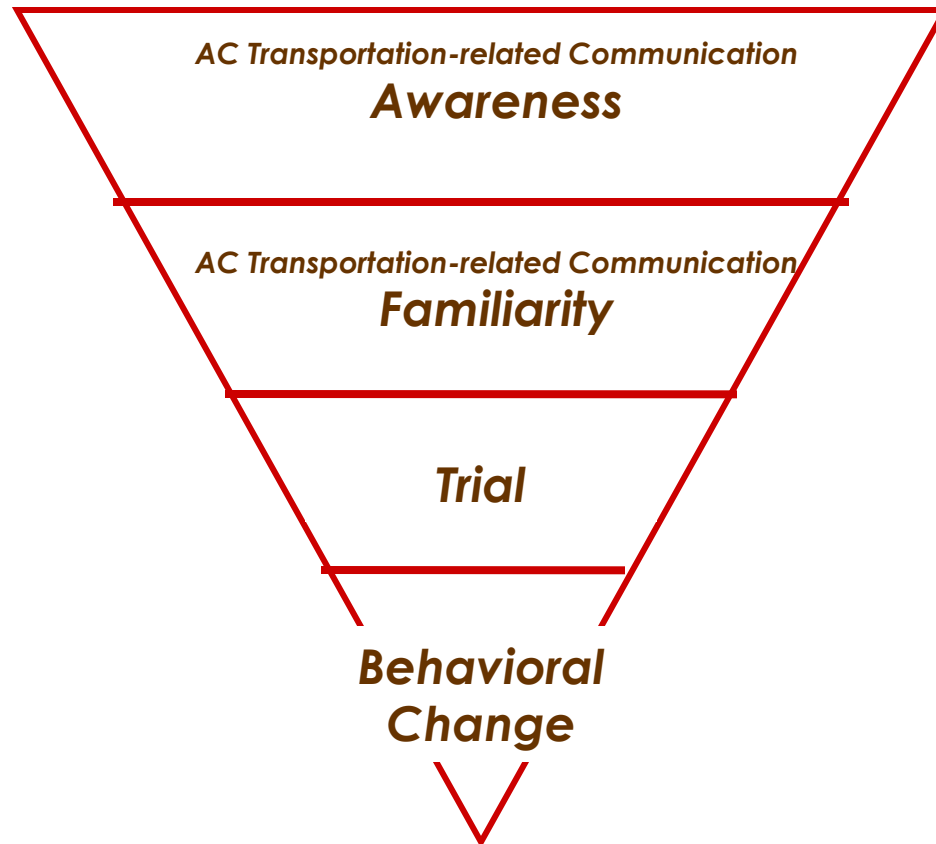
## Summary:

- Those who are aware of Car-Free Diet are more likely to try new modes – with or without the offer of a subsidy. They are more likely to be motivated by benefits of ridesharing.
- Those aware of transportation messages and Car-Free Diet are more likely to use many ACCS, employer, and residential benefits, the exception being SmarTrip cards sold in residential buildings.

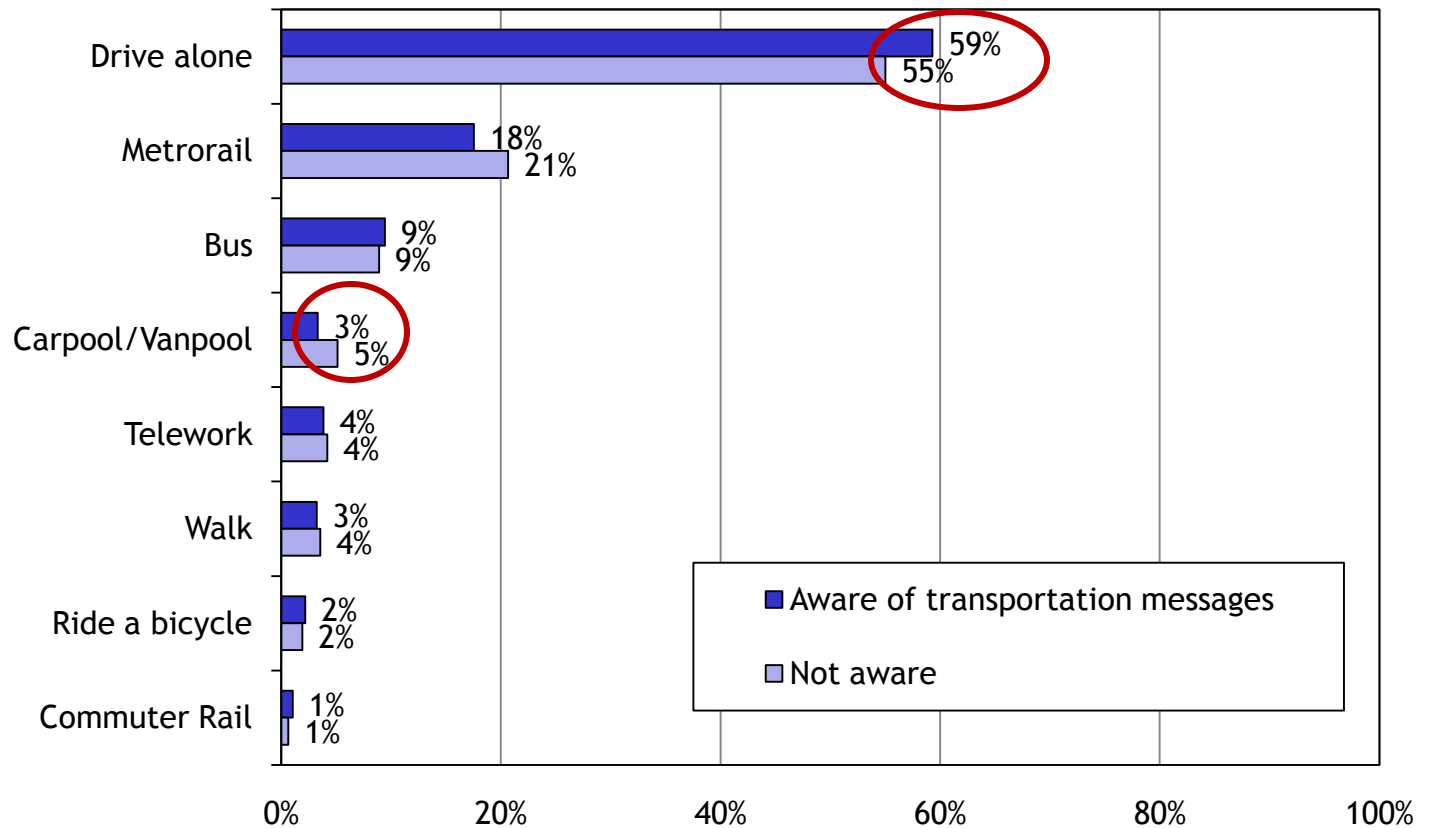
## Implication:

- Awareness of and familiarity with sustainable transportation programs lead to trial of those programs. It is important to continually use marketing and advertising to grow awareness. This will keep Arlington's transportation services top of mind for residents and inform new residents – given the high turnover.

# Communication Impact Model



# Those Aware of Transportation Messages Are More Likely to Drive Alone and Less Likely to Carpool/Vanpool



Primary Commute Mode based on Q25

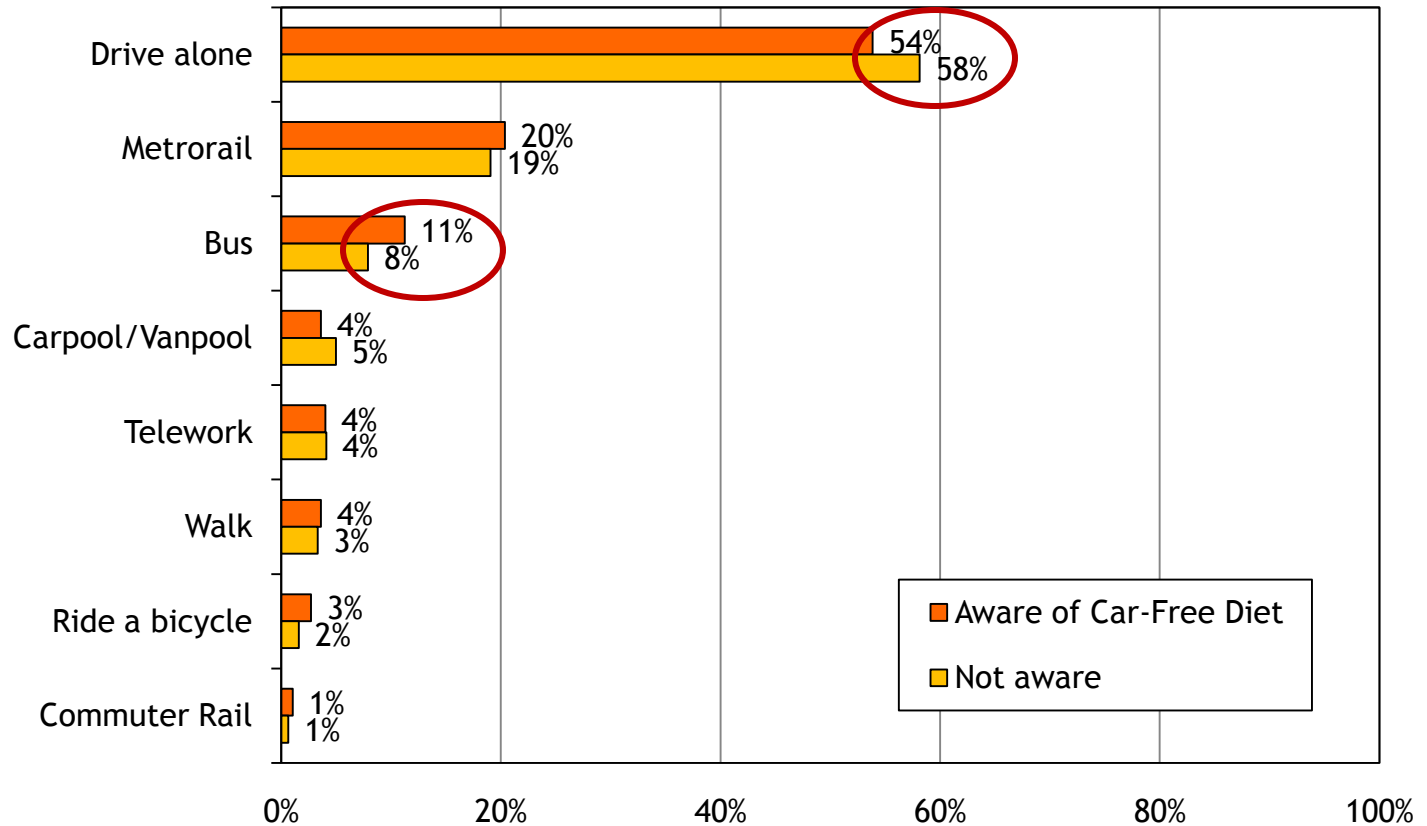
Long + Mini  
Survey:

Aware of  
transportation  
messages  
n = 963

Not aware  
n = 1718

Does not  
include  
Self-  
Employed  
Work at  
Home

# Those Aware of Car-Free Diet Are Less Likely to Drive Alone and More Likely to Commute By Bus



Long + Mini Survey:

Aware of Car-Free Diet

n = 997

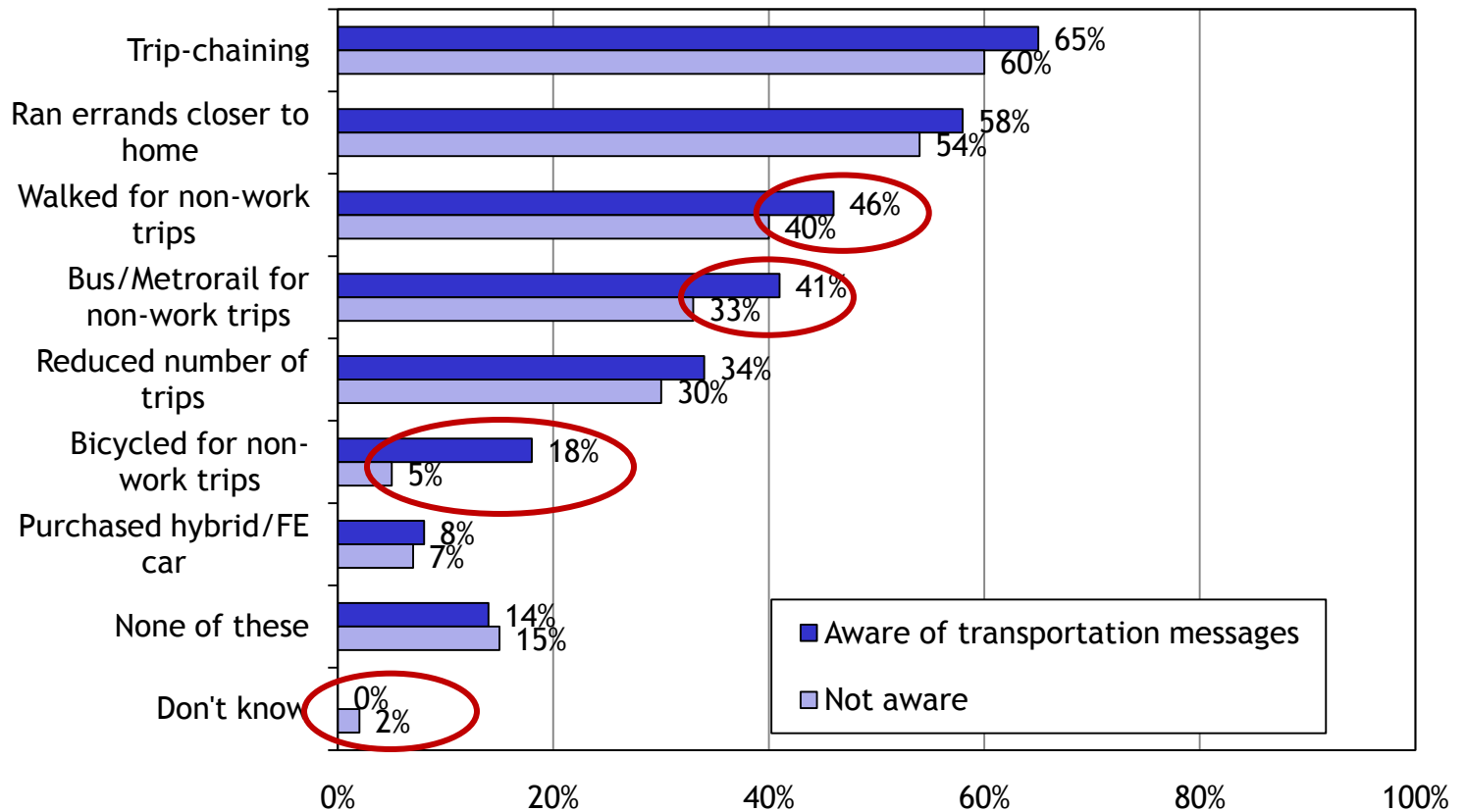
Not aware

n = 1684

Does not include Self-Employed Work at Home

Primary Commute Mode based on Q25

# Those Aware of Transportation Messages Are More Likely Than Those Not Aware to Have Increased the Amount of Bicycle Trips, Walked, or Used Transit for Non-work Purposes in the Past Year



Long Survey:

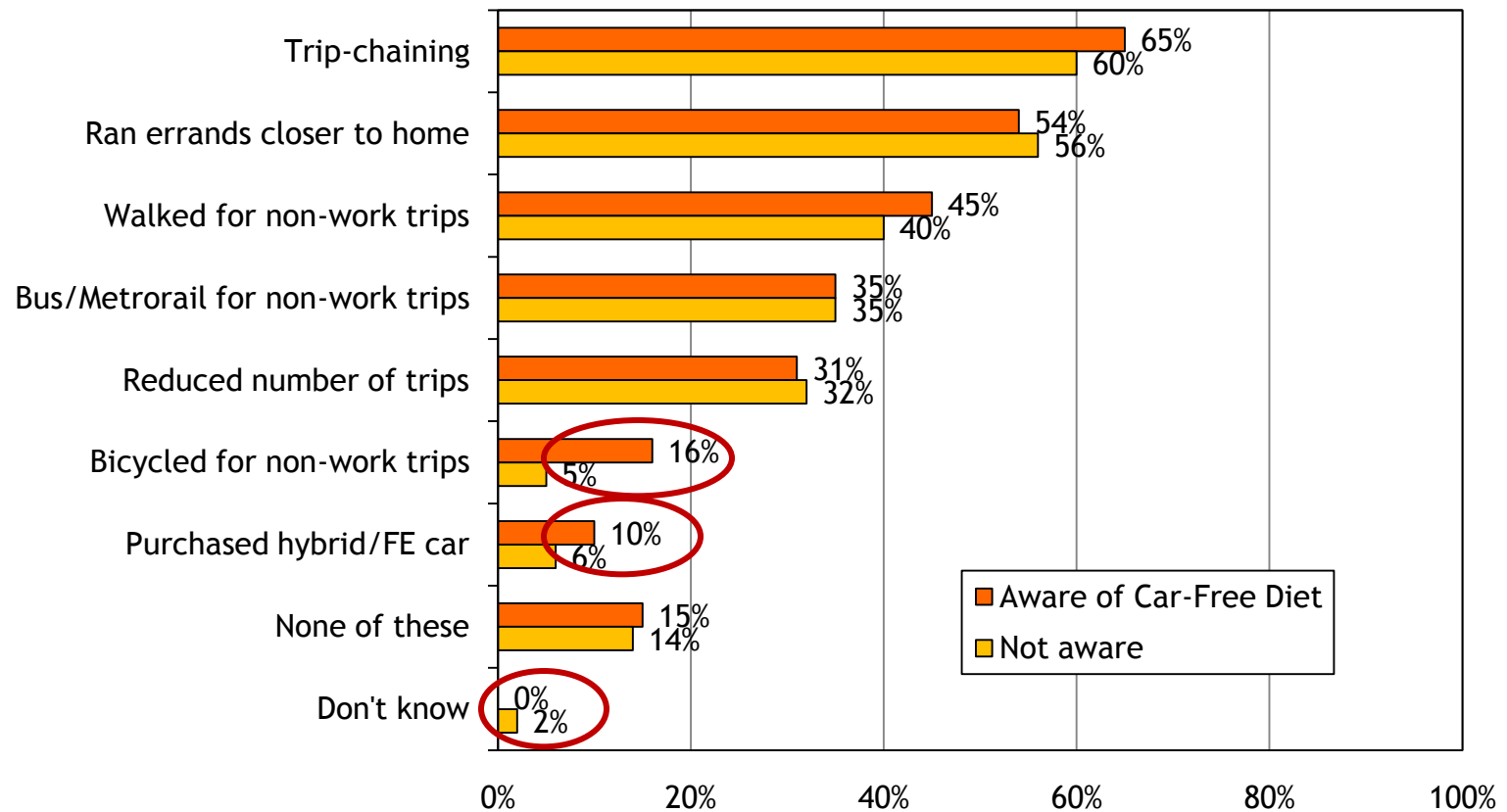
Aware of transportation messages  
n = 385  
Not aware  
n = 928

Q34: In the past year, have you made any of the following travel-related changes? Please answer yes or no to each of the following. Have you . . .

# Those Aware of Car-Free Diet Are More Likely Than Those Not Aware to Have Increased the Bicycle Trips for Non-work Purposes or Purchased a More Fuel-efficient Car in the Past Year

Those aware of transportation messages and those aware of Car-Free Diet are more likely than those not aware to site “environmental reasons” as a motive.

Those aware of Car-Free Diet are more likely to say that economic motivations were less important than other reasons and those aware of trans. msg. are less likely to say that environmental reasons were the only motivation.



Q34: In the past year, have you made any of the following travel-related changes? Please answer yes or no to each of the following. Q35. What motivated you to make those [travel-related] changes?

Q35A/B. How important were economic/environmental reasons in motivating you to make a travel-related change, as compared to the other reasons you just mentioned?

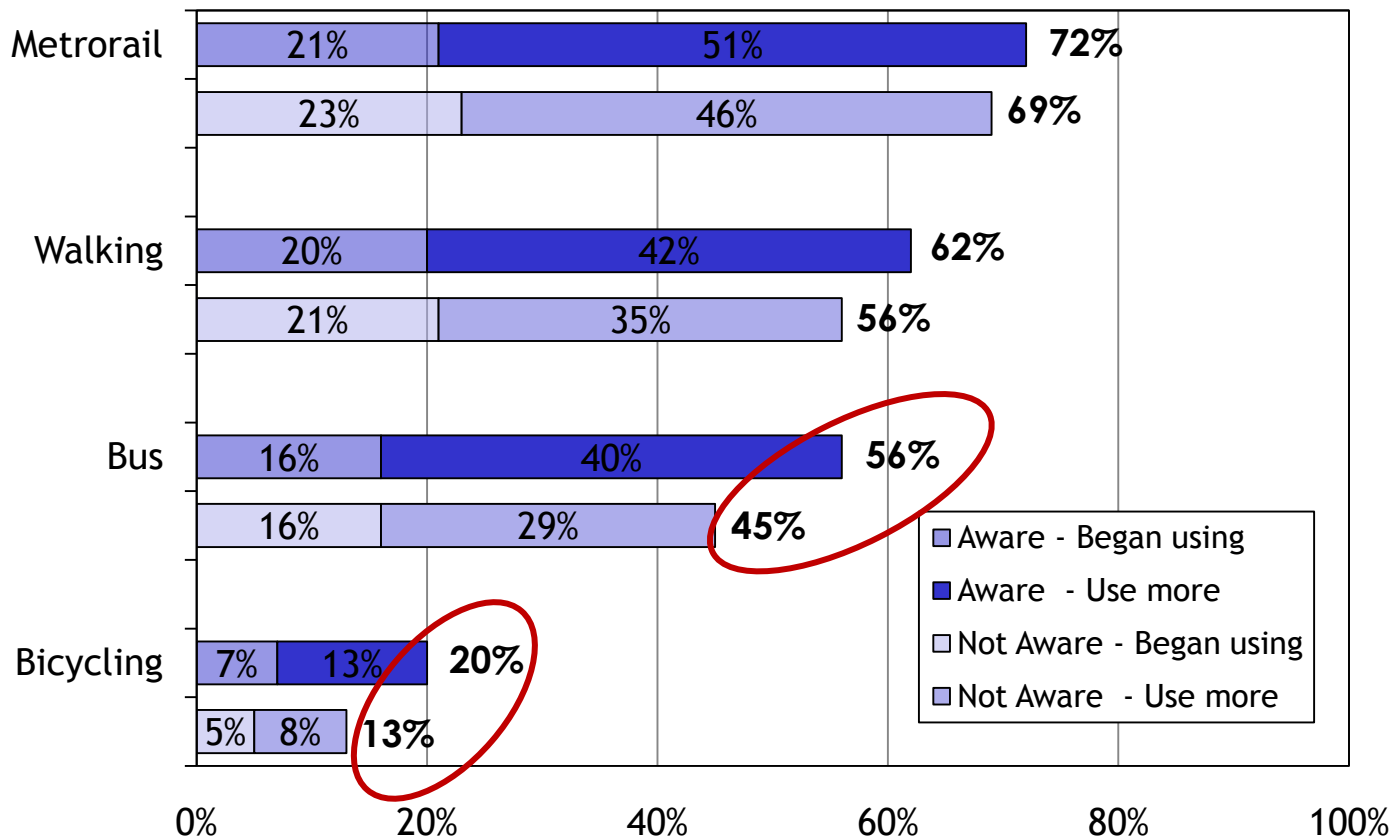
**Long Survey:**  
**Aware of Car-Free Diet**  
 n = 402  
**Not aware**  
 n = 911



# Those Aware of Transportation Messages Are More Likely to Make Some Change After Using County/Employer/Residential Services – Especially Regarding Riding the Bus and Bicycling

According to Q52 which combines the responses from Q51 and asks about additional changes, 24% of those aware and 34% of those not aware did **not** make any changes. This chart only shows the changes in using the four types of transportation asked in Q51.

Those **not** aware are more likely than those aware to have **not** taken action without the services.



Q51: After using these services, did you start using any of the following forms of transportation or begin using any of them more often:

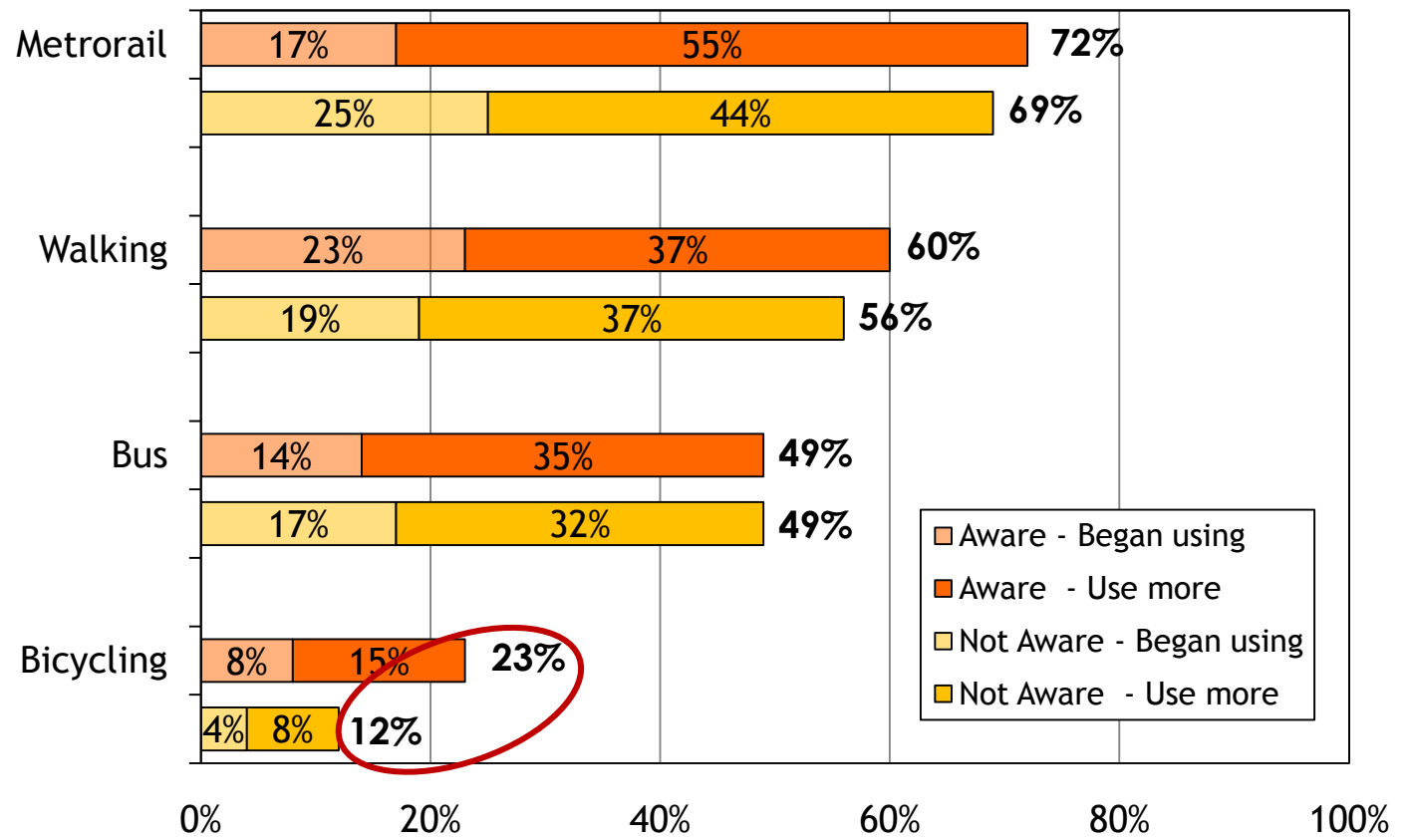
Q52: Did you take any other actions to try to change how you travel around Arlington or around the Washington region using the information or services?

**Long Survey: Those who say they used services  
Aware of transportation messages n = 264; Not aware n = 554**

# Those Aware of Car-Free Diet Are More Likely to Have Started Bicycling or Ride More Often After Using County/Employer/Residential Services

According to Q52 which combines the responses from Q51 and asks about additional changes, 30% of those aware and 31% of those not aware did **not** make any changes. This chart only shows the changes in using the four types of transportation asked in Q51.

There is not a significant difference between those aware and those not in terms of likelihood to **not** take action without the services.

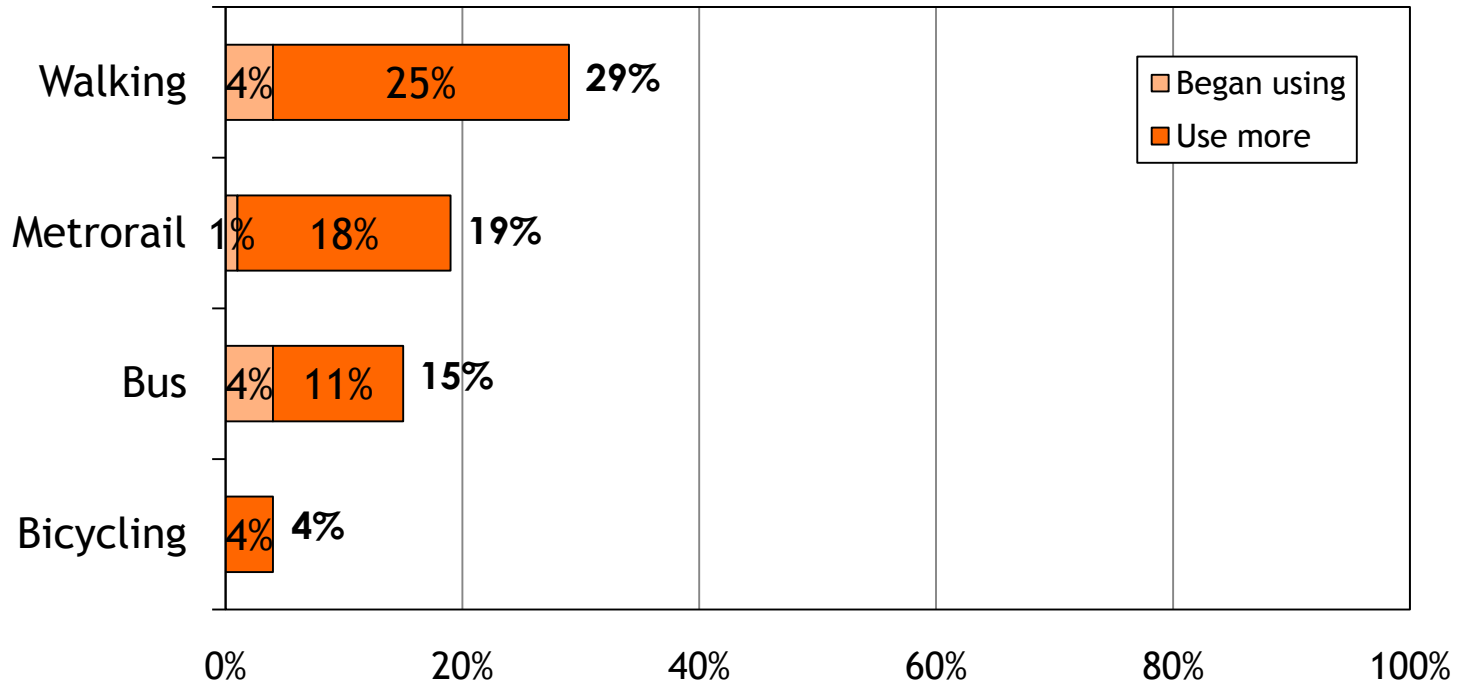


Q51: After using these services, did you start using any of the following forms of transportation or begin using any of them more often:  
 Q52: Did you take any other actions to try to change how you travel around Arlington or around the Washington region using the information or services?

**Long Survey: Those who say they used services  
 Aware of Car-Free Diet n = 244; Not aware n = 574**

# Many Made Some Change After Seeing or Hearing about Car-Free Diet

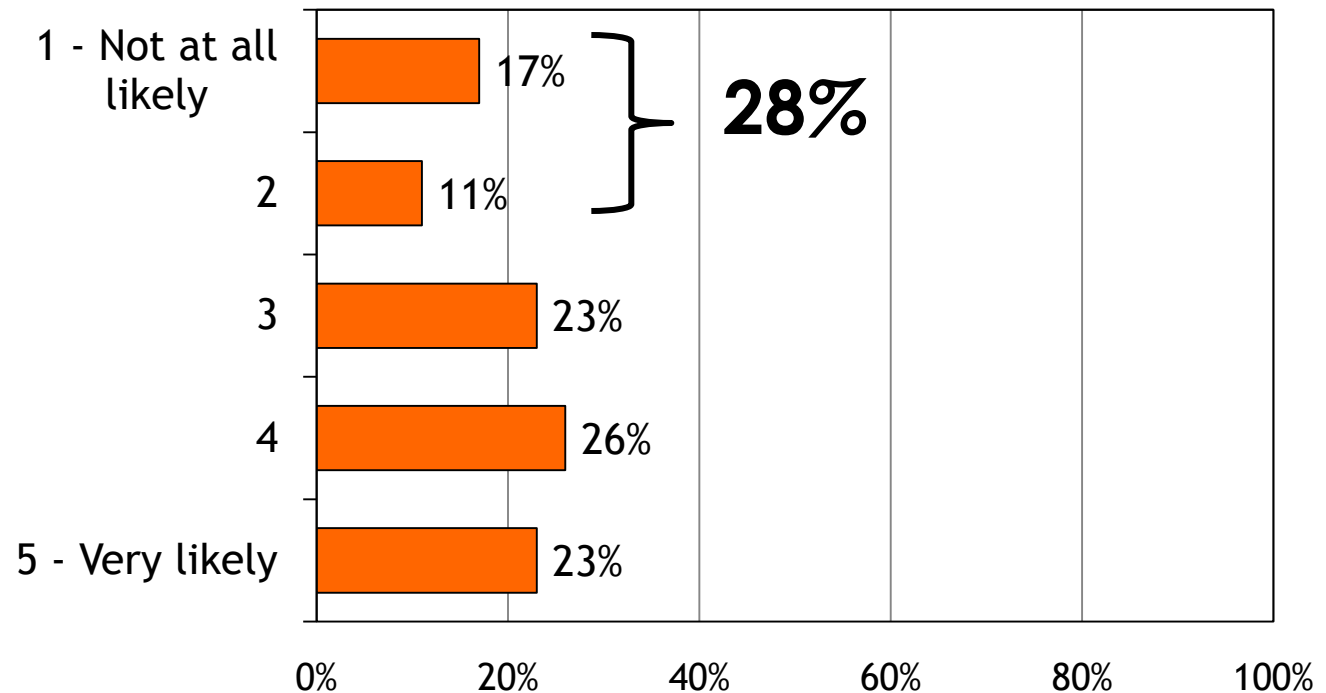
According to Q54D which combines the responses from Q54C and asks about additional changes, 58% did **not** make any changes. This chart only shows the changes in using the four types of transportation asked in Q54C.



**Aware of  
Car-Free  
Diet  
n = 195**

Q54C: After seeing or hearing about Car Free Diet, did you start using any of the following forms of transportation or did you begin using any of these forms of transportation more often. Q54D: After seeing or hearing about Car Free Diet, did you take any other actions to try to change how you travel around Arlington or around the Washington region?

# Almost Three in Ten Say that They Would Not Have Been Likely to Change Their Transportation Behavior Without Car-Free Diet



Took some action after seeing/hearing about Car-Free Diet  
n = 81

Q54E: If you had not heard about Car Free Diet, how likely would you have been to take this action?

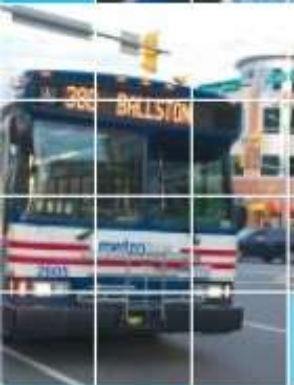
# SUMMARY AND IMPLICATION

## Summary:

- The most important metric – drive alone rate – is slightly lower for those that are aware of the Car-Free Diet.
- 69% made a change after using a transportation service in Arlington. 30% of those say they would not have made that change without the service.
- 42% made a change after seeing or hearing about the Car-Free Diet. 28% of those say they would not have made that change without Car-Free Diet.

## Implication:

- Advertising messages, including Car-Free Diet, are an important part of the effort to move to a 40/60 drive-alone/alternate-mode split. Awareness of the options that are available in and around Arlington leads to familiarity, which leads to trial and ultimately behavior change. It is necessary to continually educate the public about these options in order to meet the 40/60 goal. Arlington is just getting started with the Car-Free Diet campaign. Without spending millions of dollars, it will take awhile for these messages to sink in and to reach everyone.



# Other Advertising Observations



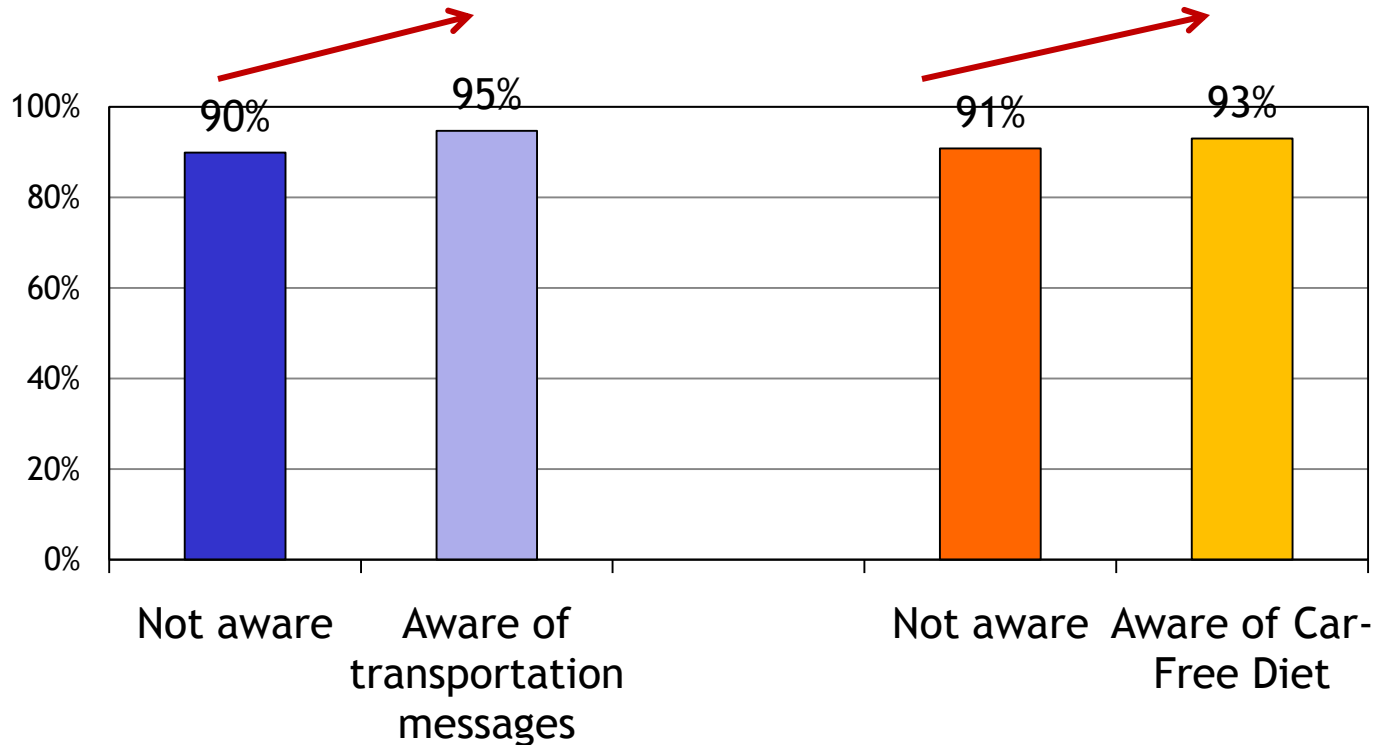
# Those Aware of Car-Free Diet and Informational Messages Tend to Give Higher Quality of Life Ratings

Proportions represent those who rated quality of life "4" or "5 – Excellent" on a scale of 1 to 5 and doesn't include "don't knows."

## Long + Mini Survey:

Aware of transportation messages  
n = 1490  
Not aware  
n = 2830

Aware of Car-Free Diet  
n = 1479  
Not aware  
n = 2841



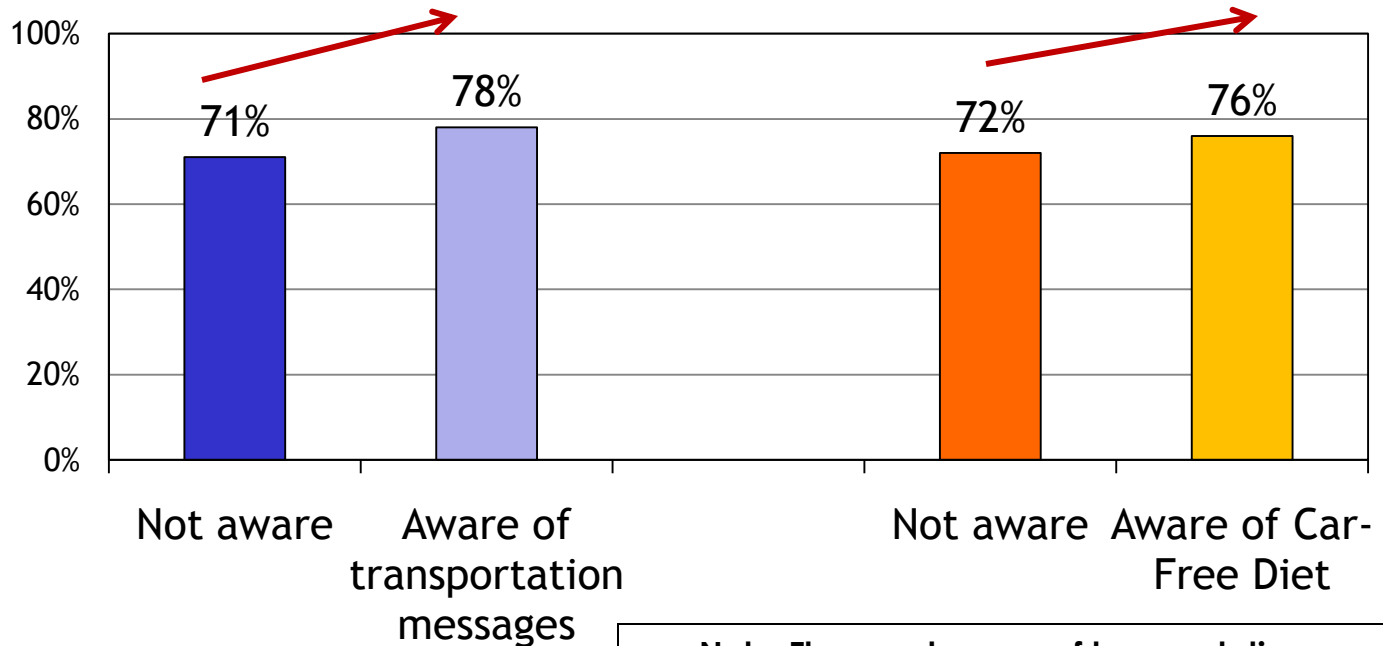
Q10: Overall, how would you rate the quality of life in Arlington County?

# Those Aware of Car-Free Diet and Informational Messages Are Also More Likely to Be Satisfied with the Transportation System in Arlington

Proportions represent those who rated satisfaction with AC transportation system "4" or "5 - Very satisfied" on a scale of 1 to 5 and doesn't include "don't knows."

Long + Mini Surveys:  
Aware of transportation messages  
n = 1482  
Not aware n = 2747

Aware of Car-Free Diet  
n = 1457  
Not aware n = 2772

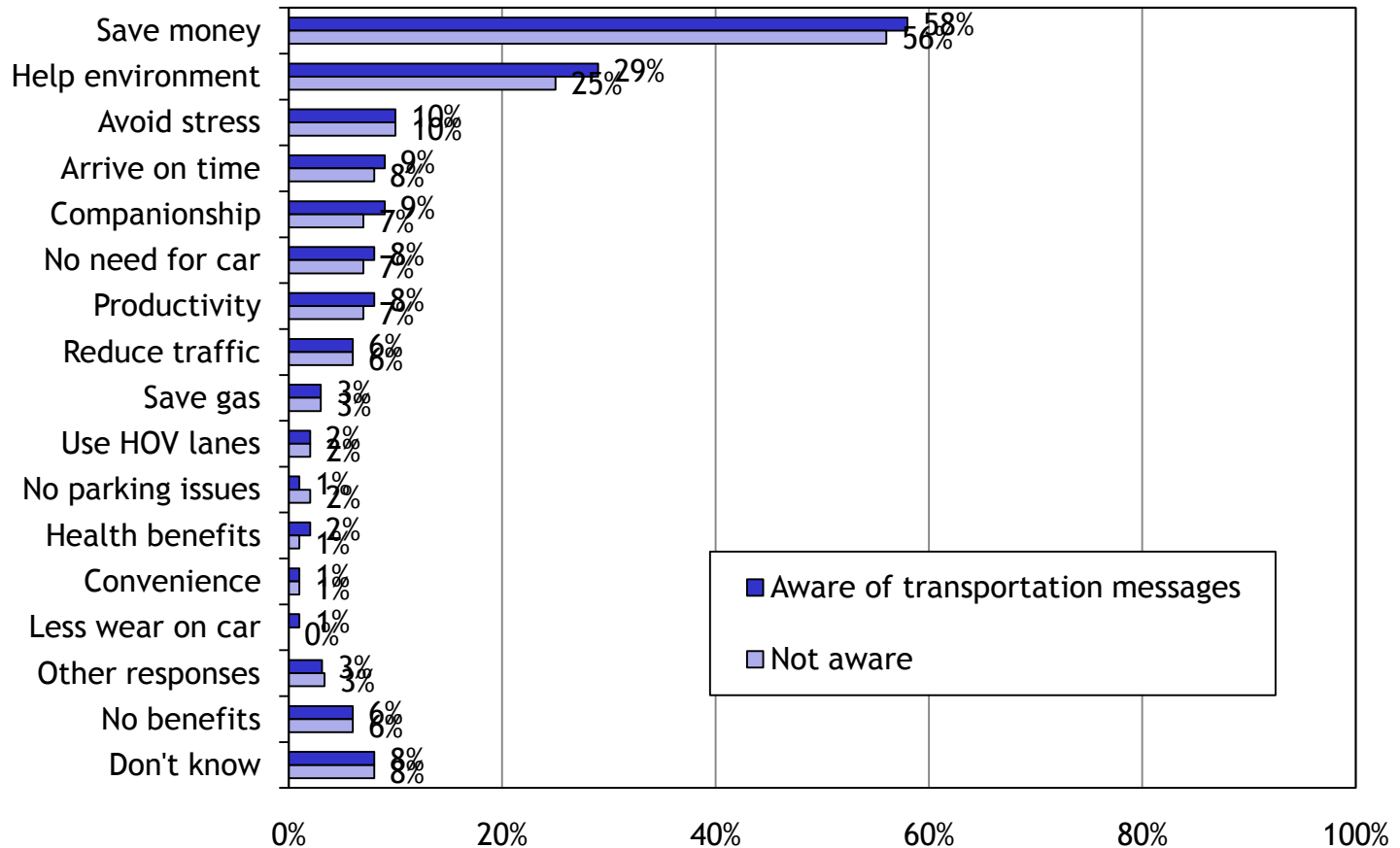


Note: Those not aware of transportation messages were also more likely than those aware to say "don't know."

Q11: Overall, how satisfied are you with the Arlington County transportation system?



# There Are No Notable Differences Between Those Aware of Transportation Messages and Those Not Aware in Terms of Personal Rideshare Benefits

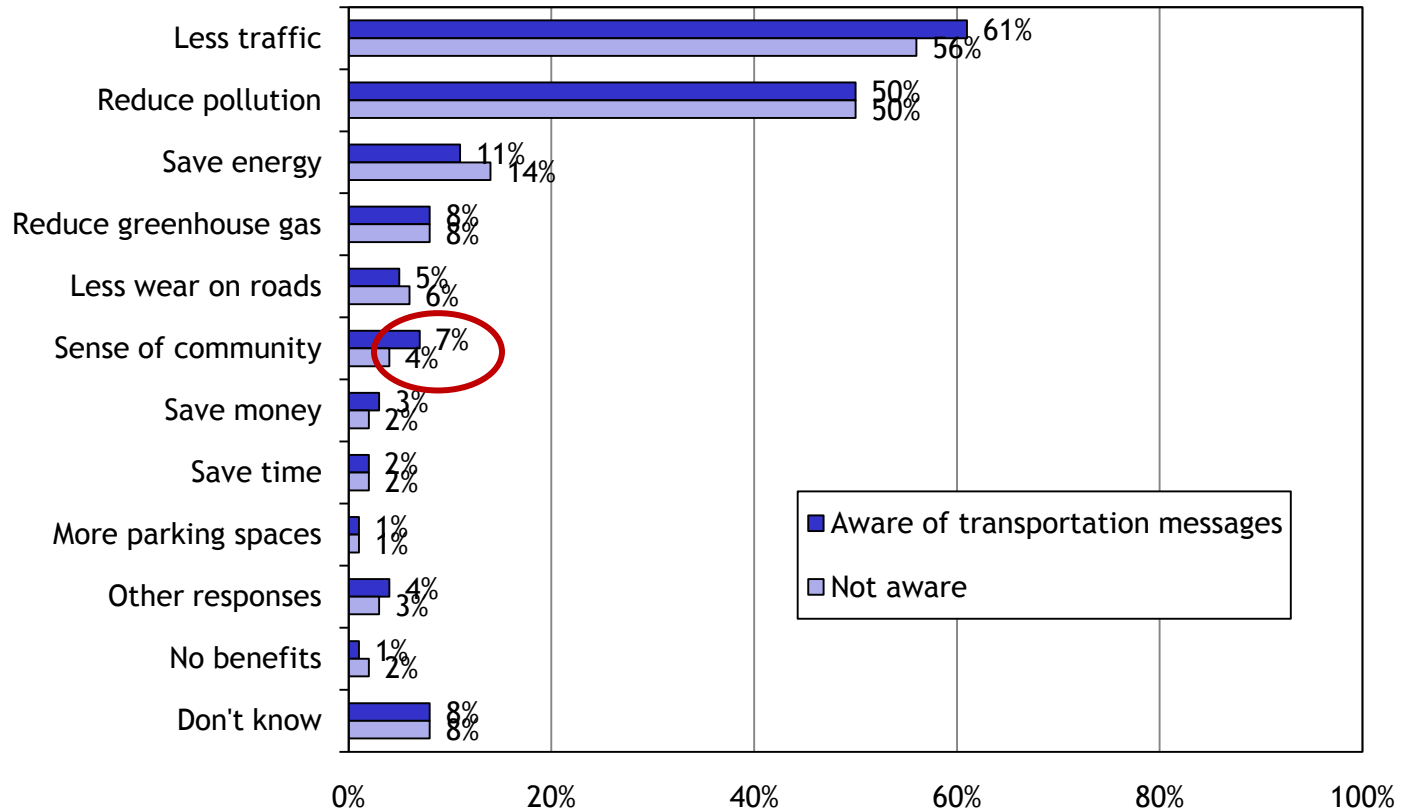


Q12A: What personal benefits do you think people who rideshare receive from using these types of transportation? MULTIPLE RESPONSES ACCEPTED

**Long Survey:**  
**Aware of transportation messages**  
 n = 385  
**Not aware**  
 n = 928



# The Only Significant Difference Between Those Aware of Transportation Messages and Those Not Aware in Terms of Societal Rideshare Benefits is Creating Sense of Community/Meeting New People

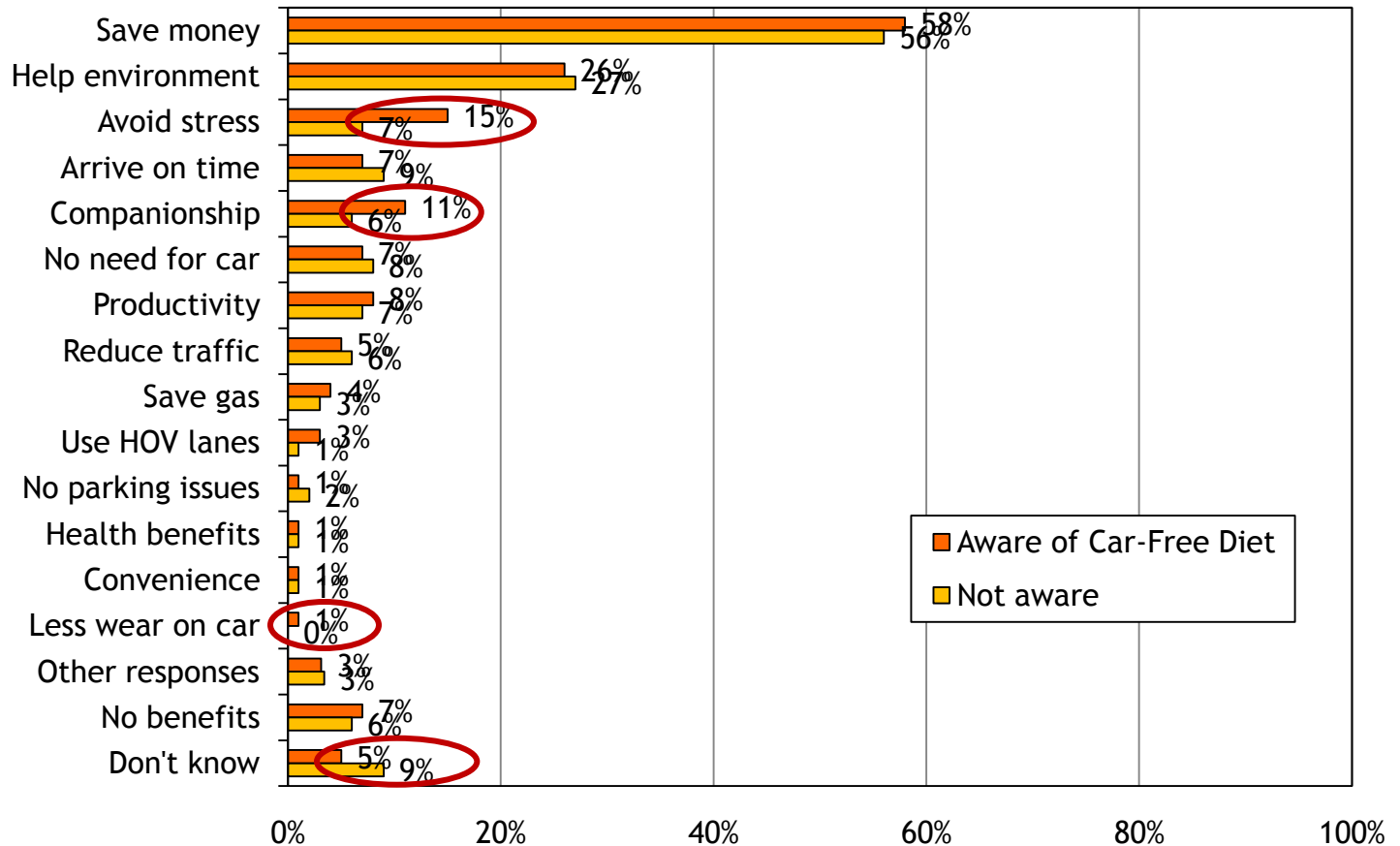


Long Survey:

Aware of transportation messages  
n = 385  
Not aware  
n = 928

Q12B: How do you think society benefits from ridesharing? That is, what impact or benefit does a community receive when people rideshare? MULTIPLE RESPONSES ACCEPTED

# Those Aware of the Car-Free Diet Campaign Are More Likely Than Those Not Aware, To Think Avoiding Stress, Companionship, and Less Wear and Tear on Car Are Personal Benefits of Ridesharing

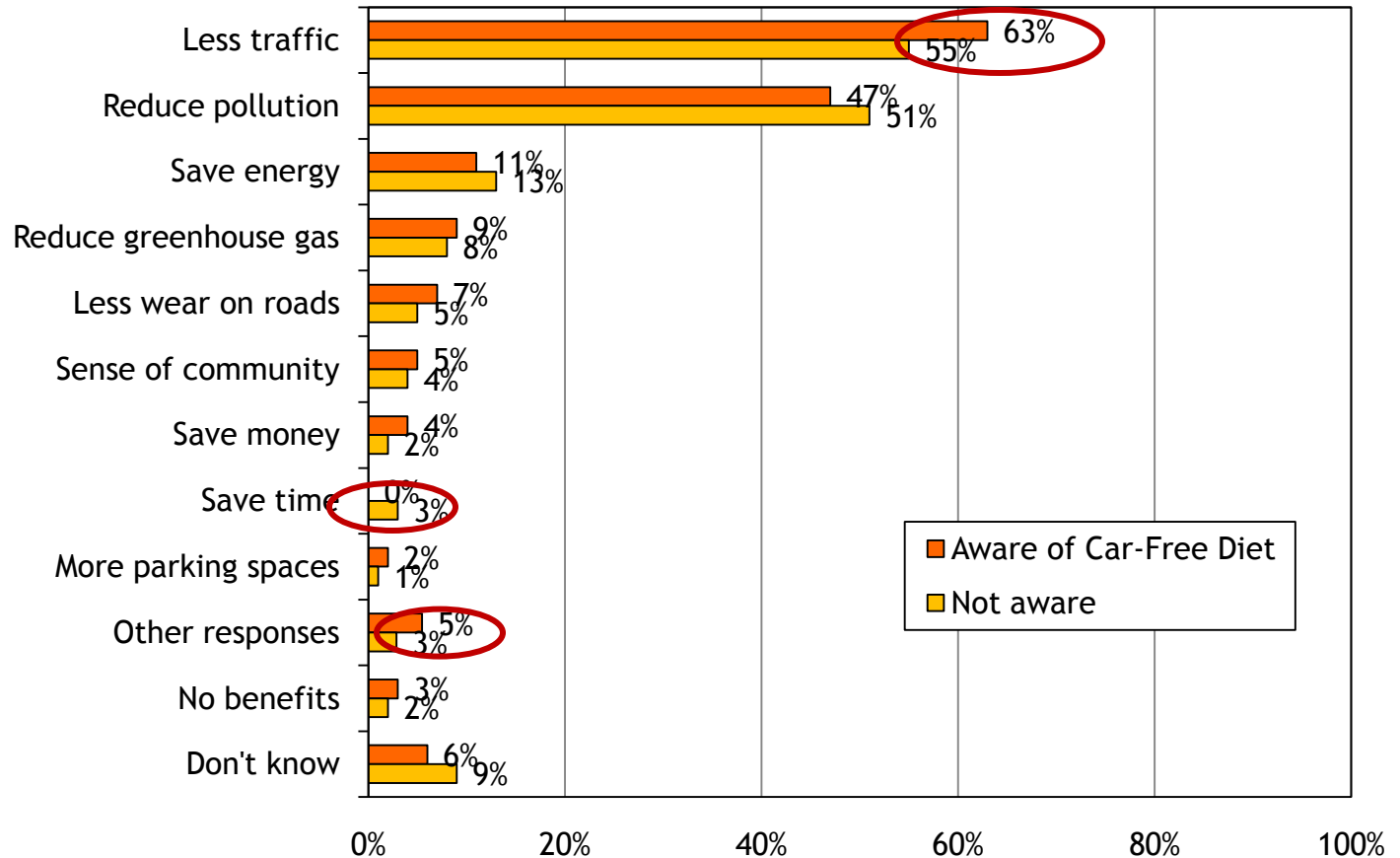


Long Survey:  
 Aware of Car-Free Diet  
 n = 402  
 Not aware  
 n = 911

Q12A: What personal benefits do you think people who rideshare receive from using these types of transportation? MULTIPLE RESPONSES ACCEPTED



# Those Aware of the Car-Free Diet Campaign Are More Likely Than Those Not Aware To Think Less Traffic is a Societal Benefit of Ridesharing

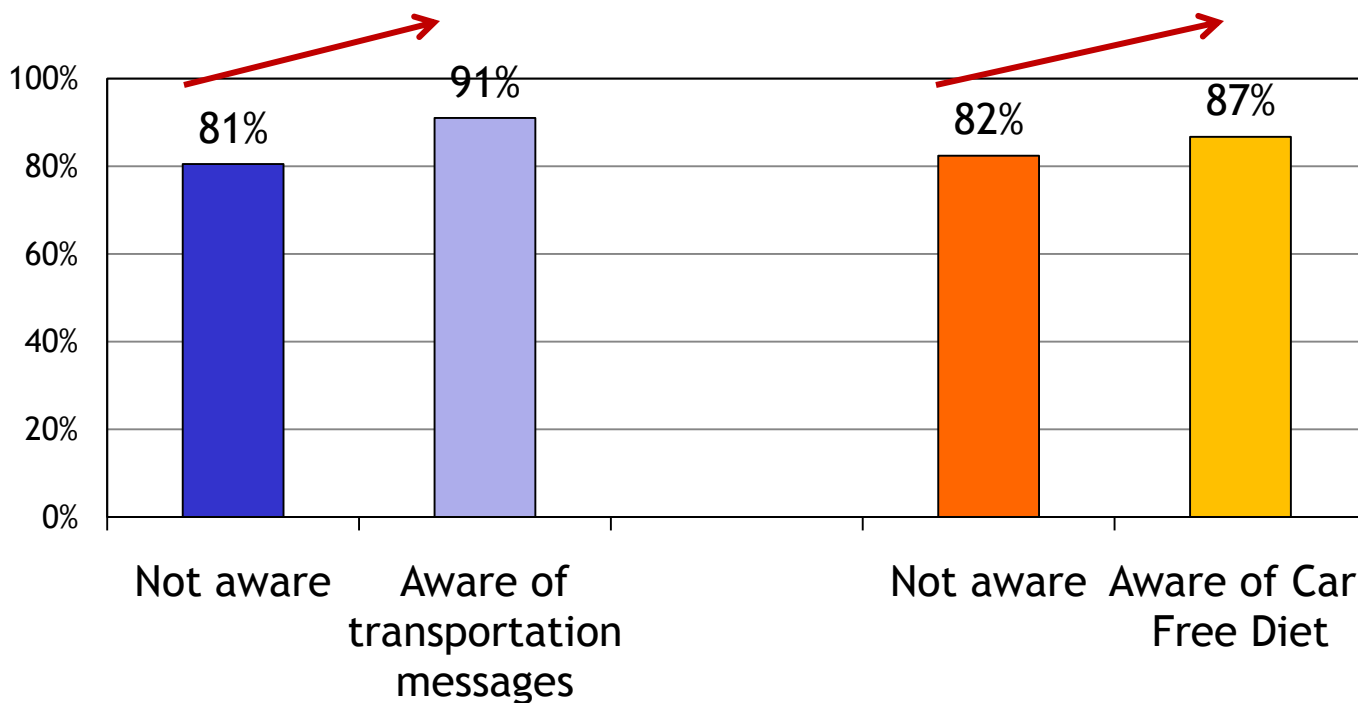


Q12B: How do you think society benefits from ridesharing? That is, what impact or benefit does a community receive when people rideshare?  
 MULTIPLE RESPONSES ACCEPTED

Long Survey:

Aware of Car-Free Diet  
 n = 402  
 Not aware  
 n = 911

# Those Aware of Advertising and Informational Messages Are More Likely to Support Virginia Investment in Transportation Options



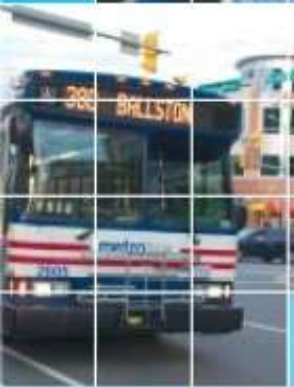
Proportions represent those who rated satisfaction with AC transportation system "4" or "5 – Very important" on a scale of 1 to 5, and don't include "don't knows."

Long Survey:  
 Aware of transportation messages  
 n = 379  
 Not aware  
 n = 914

Aware of Car-Free Diet  
 n = 399  
 Not aware  
 n = 894

Q12C: Even though you might not carpool, vanpool, or ride a bus, how important to you is it that Virginia invests in programs to support and make these transportation options more available to residents?

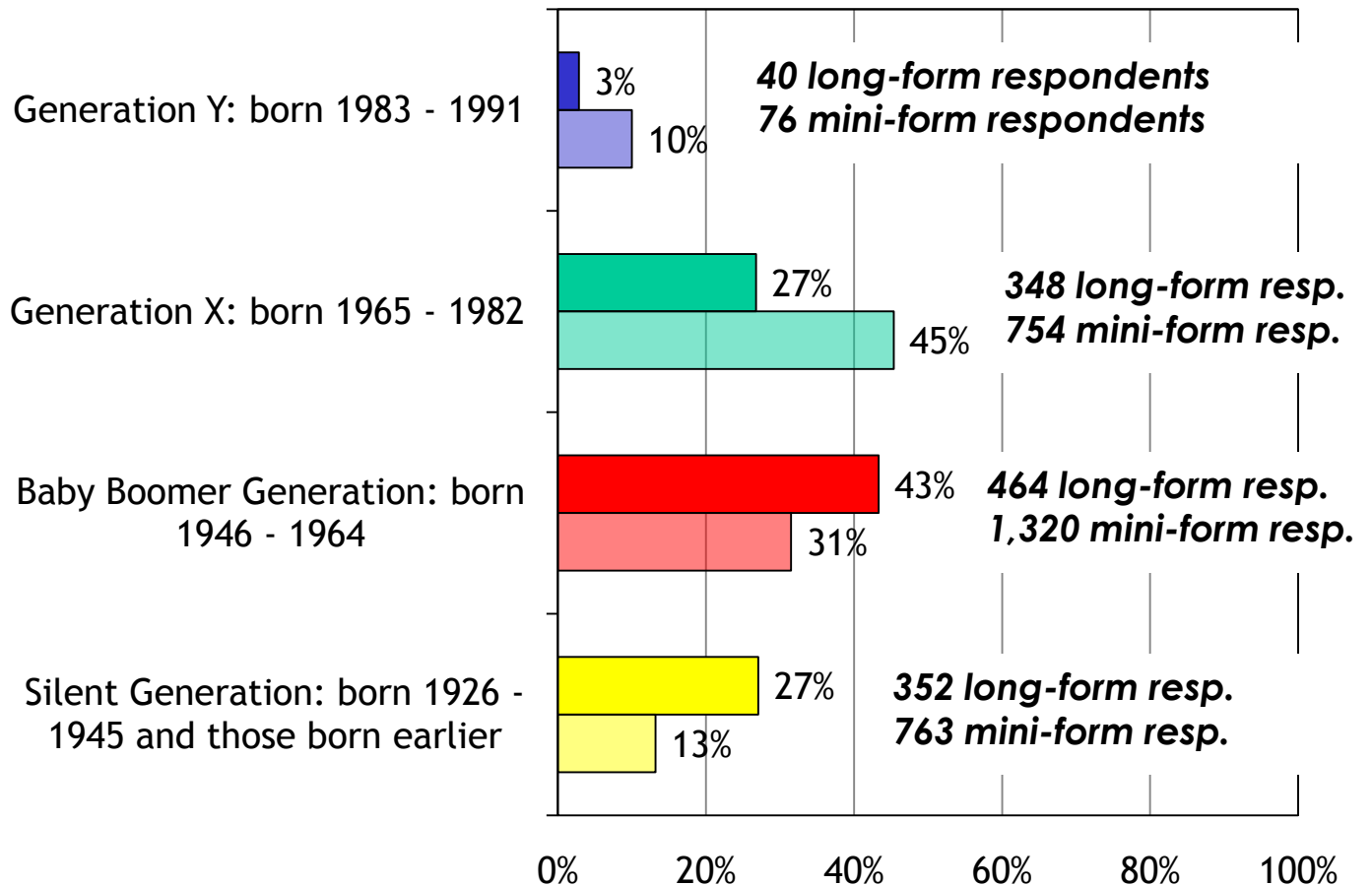




# APPENDIX: Generational Differences

# Segments Explored in the Next Several Slides

The top bars represent unweighted data and the bottom represent weighted data.



Generation based on Q58. In what year were you born?

# Demographic Profiles

The Silent Generation respondents are more likely to be female (64% vs. 55-57% for younger generations)

## Generation Y

- 56% Not Employed
- 34% lived in AC less than 2 years
- 33% live in single-family home, 25% in townhouse
- 90% use/have used social networking sites
- 71% have a vehicle available
- Mean Income - \$100

## Generation X

- 78% Employed
- 33% lived in AC 2 to 5 years
- 35% live in single-family home, 32% in apartment, 22% in condo
- 75% use/have used social networking sites
- 84% have a vehicle available
- Mean Income - \$113

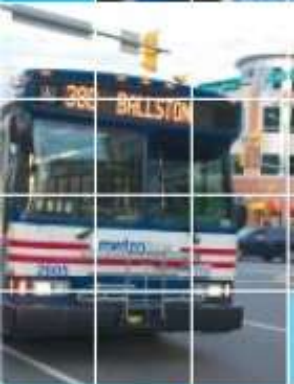
## Baby Boomer Generation

- 64% Employed
- 69% lived in AC more than 10 years
- 50% live in single-family home, 23% in apartment
- 42% use/have used social networking sites
- 87% have a vehicle available
- Mean Income - \$114

## Silent Generation

- 85% Not Employed
- 86% lived in AC more than 10 years
- 48% live in single-family home, 21% in apartment, 21% in condo
- 21% use/have used social networking sites
- 76% have a vehicle available
- Mean Income - \$64

Based on the Long-form Survey

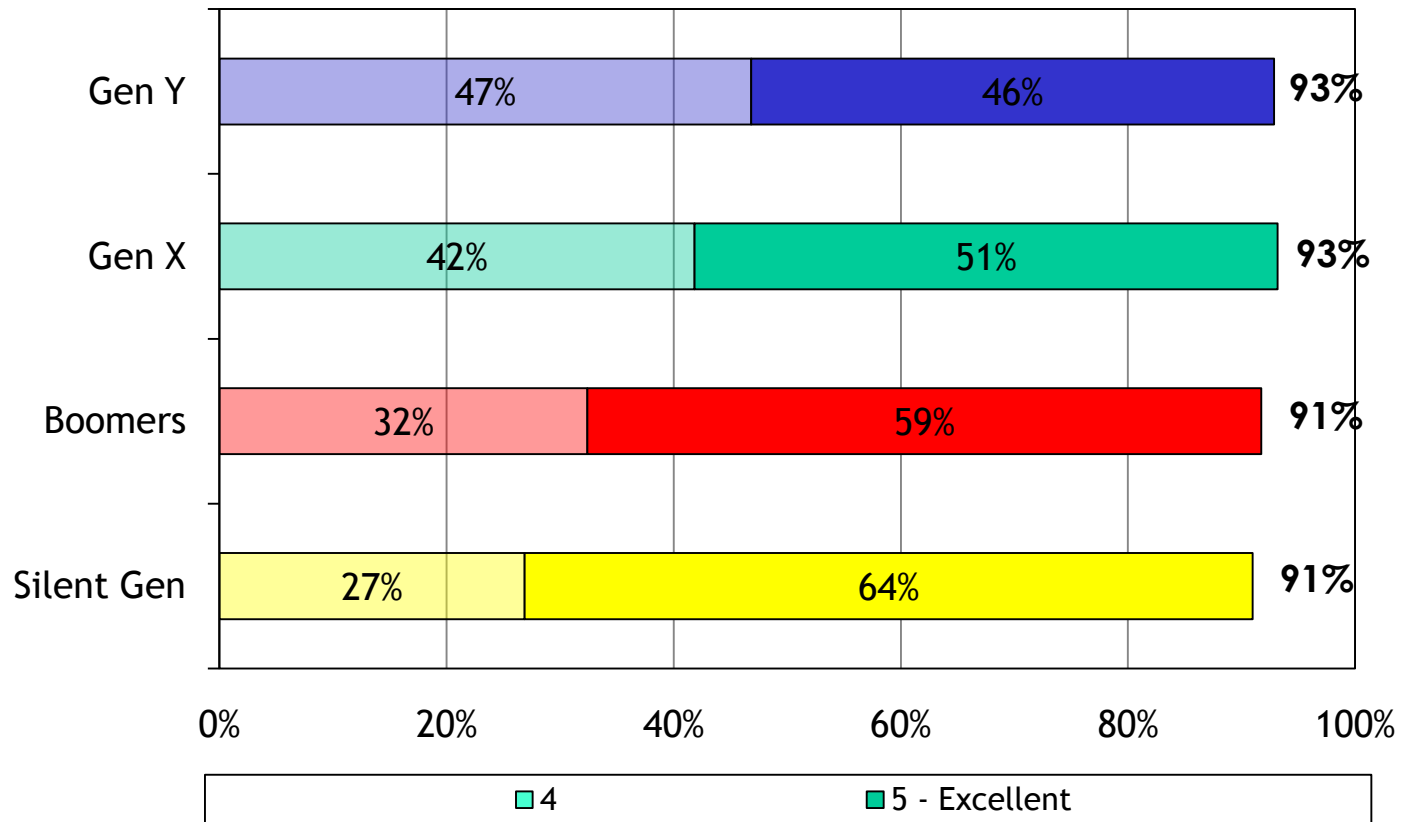


# Generations: Quality of Life And Transportation



# There Are No Significant Differences in the Combined Highest Ratings for Quality of Life

*But There Are Differences in the Intensity – Older Generations are More Likely to say Excellent*



Long + Mini Survey:

Weighted Bases

Gen Y  
n = 393

Gen X  
n = 1800

Boomers  
n = 1247

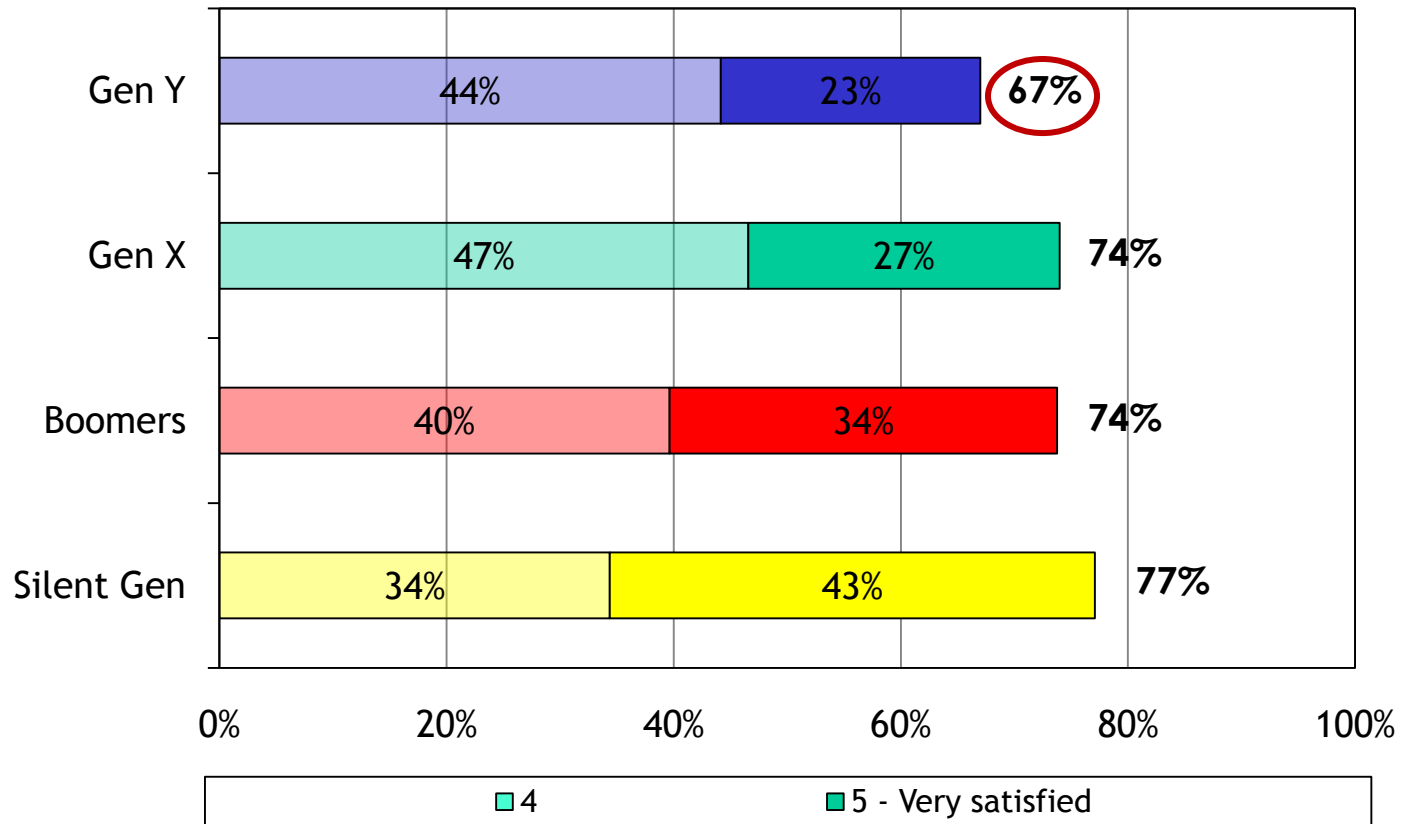
Silent Gen  
n = 521

Does not include those who said "Don't know."

Q10: Overall, how would you rate the quality of life in Arlington County?

Silent Gen respondents are more likely to say "Don't know."

# Generation Y Respondents Are Least Satisfied with the Transportation System



Long + Mini Survey:

Weighted Bases

Gen Y

n = 385

Gen X

n = 1784

Boomers

n = 1224

Silent Gen

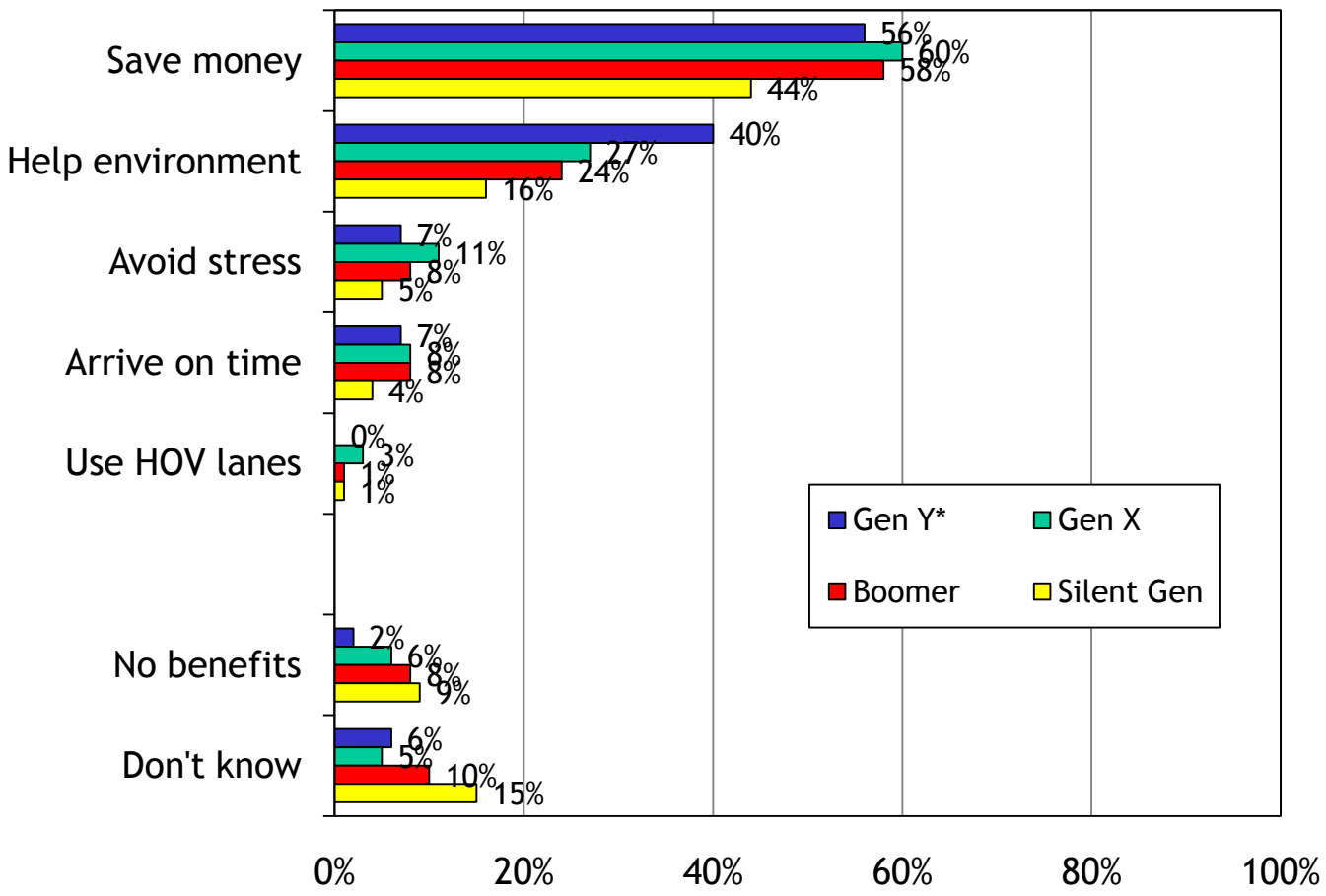
n = 489

Does not include those who said "Don't know."

Q11: Overall, how satisfied are you with the Arlington County transportation system?

Note: Chart only shows responses that exhibit significant differences between the segments.

# Silent Generation Respondents Are Less Likely to See These Personal Benefits of Ridesharing



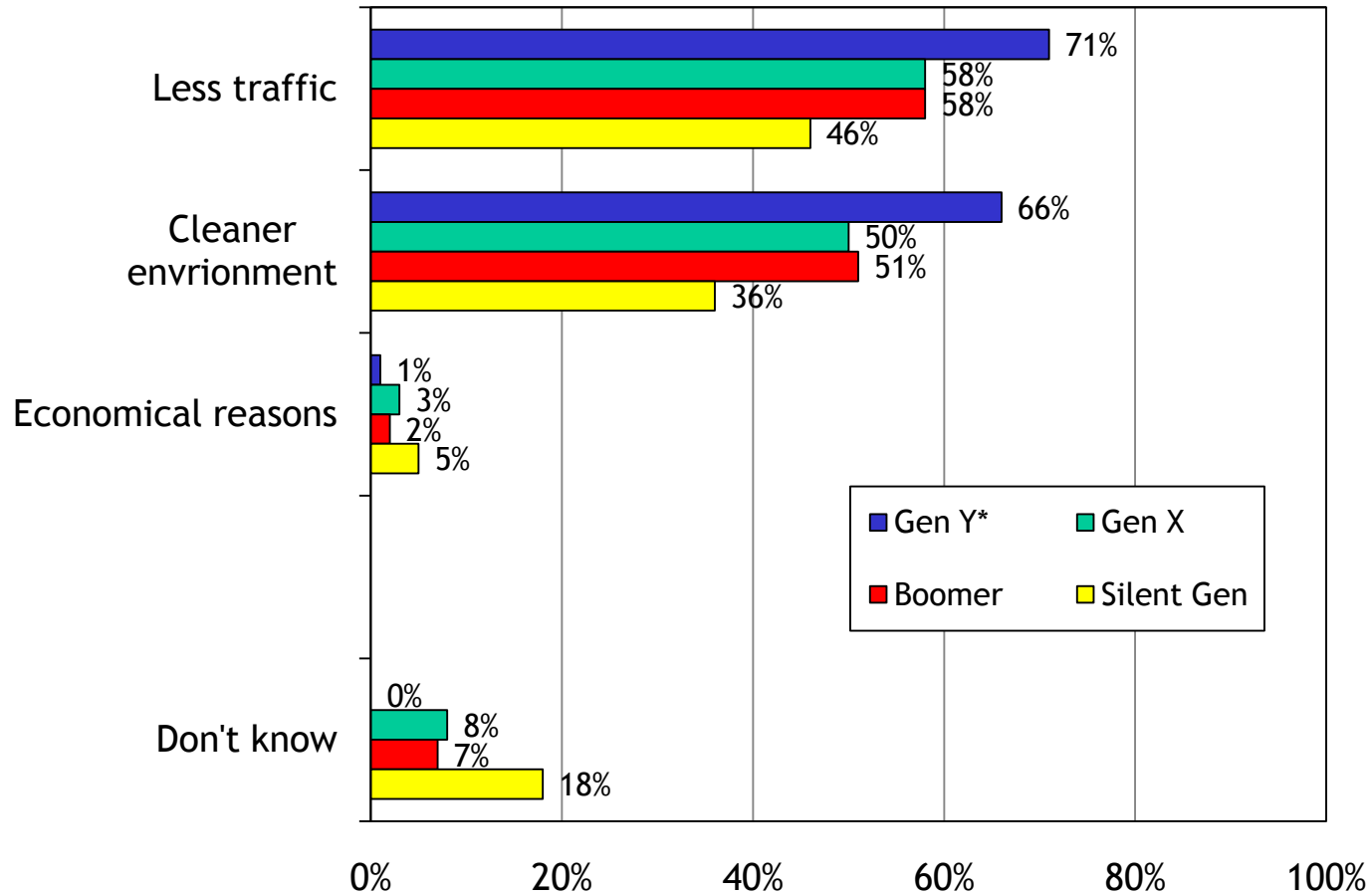
Long Survey:  
Un-weighted Bases  
\*SMALL SAMPLE  
Gen Y n = 40  
Gen X n = 348  
Boomers n = 464  
Silent Gen n = 352

Q12A: What personal benefits do you think people who rideshare receive from using these types of transportation?



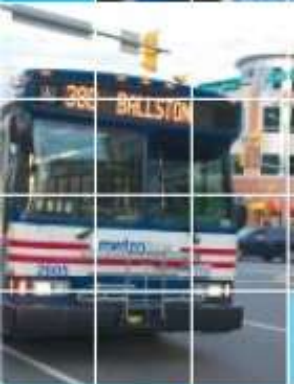
Note: Chart only shows responses that exhibit significant differences between the segments.

# Silent Generation Respondents Are Less Likely to See These Societal Benefits of Ridesharing: Less Traffic, Cleaner Environment and More Likely to Think Society Benefits Economically



Q12B: How do you think society benefits from ridesharing?

Long Survey:  
Un-weighted Bases  
\*SMALL SAMPLE  
Gen Y n = 40  
Gen X n = 348  
Boomers n = 464  
Silent Gen n = 352

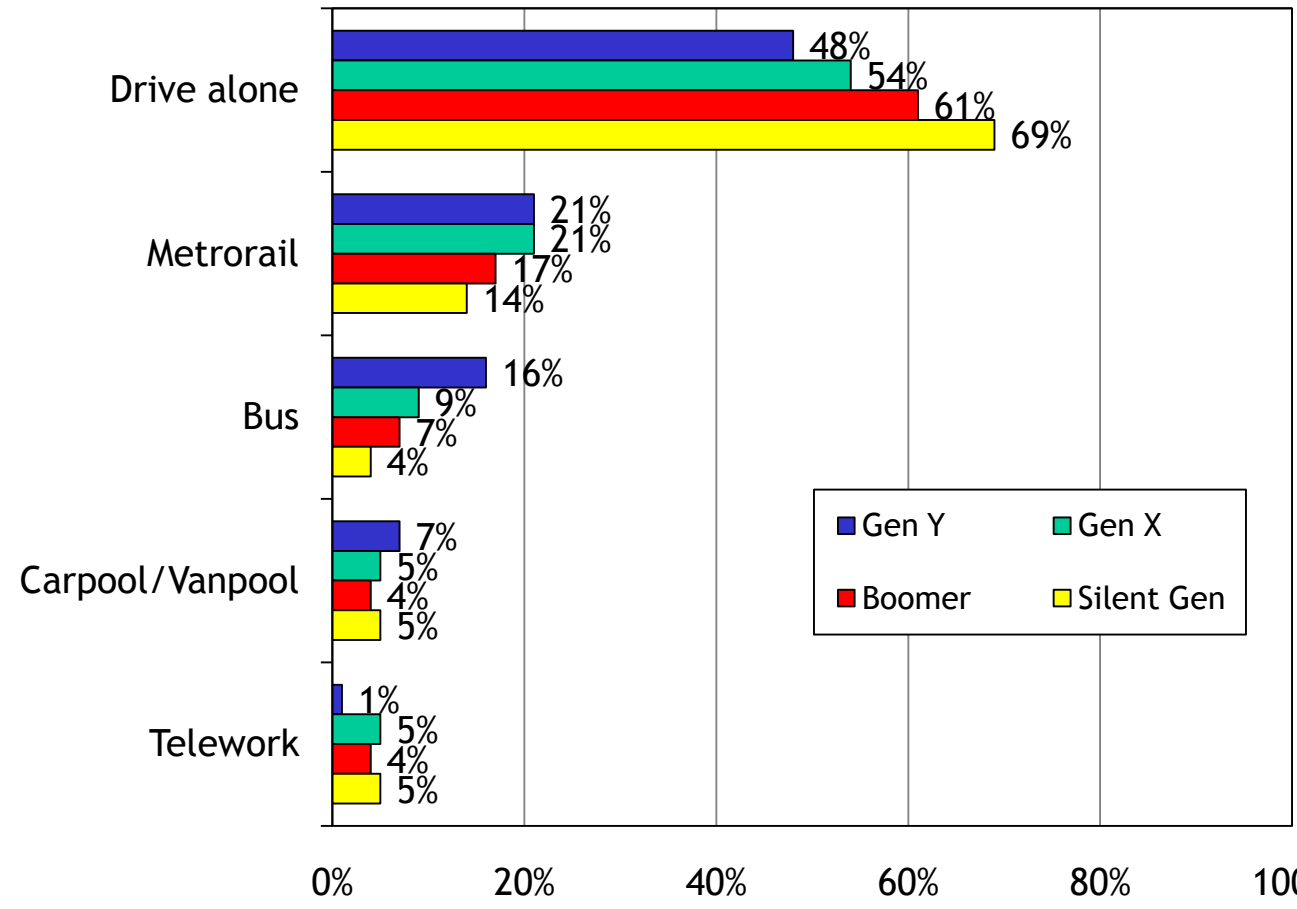


# Generations: Commute Travel Patterns

Note: Chart only shows top 5 modes.

# Silent Generation Respondents Who Are Employed Are More Likely to Drive Alone to Work

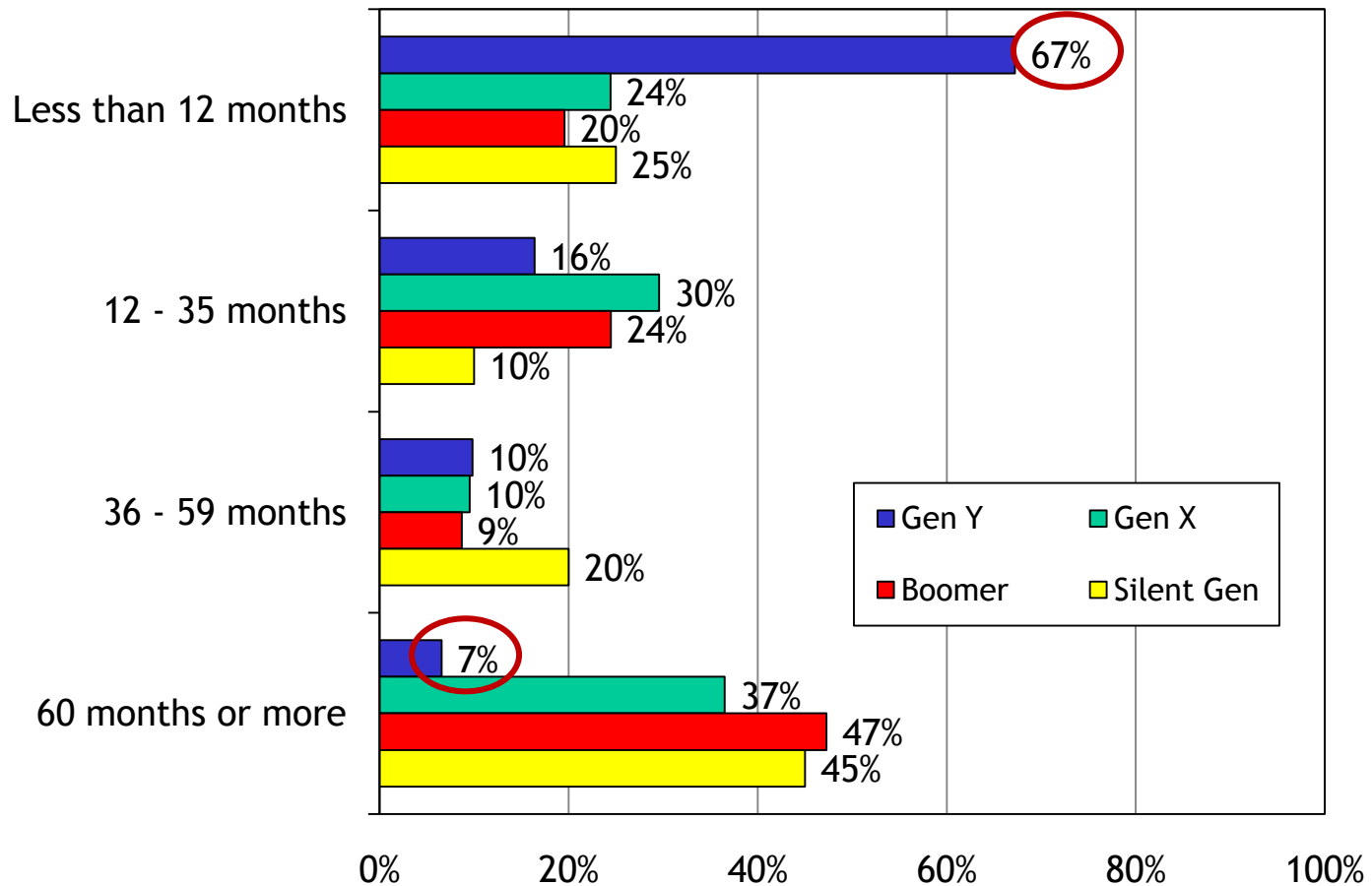
Long + Mini Survey:  
 Of those Employed  
 Weighted Bases  
 Gen Y n = 222  
 Gen X n = 1380  
 Boomers n = 816  
 Silent Gen n = 81  
 Does not include Self-Employed, Work at Home



Primary Mode Based on Q25



# Not Surprisingly, Age Correlates with Length of Mode Use



Long Survey:  
Of Those Employed

Un-weighted Bases  
\*SMALL SAMPLE  
Gen Y n = 23  
Gen X n = 263  
Boomers n = 284  
\*SMALL SAMPLE  
Silent Gen n = 45



Q27. How long have you been using [PRIMARY MODE] for your trip to

work?



# Boomers Are More Likely Than Gen X to Only Be Motivated by Economy in Choosing Their Latest Commute Mode

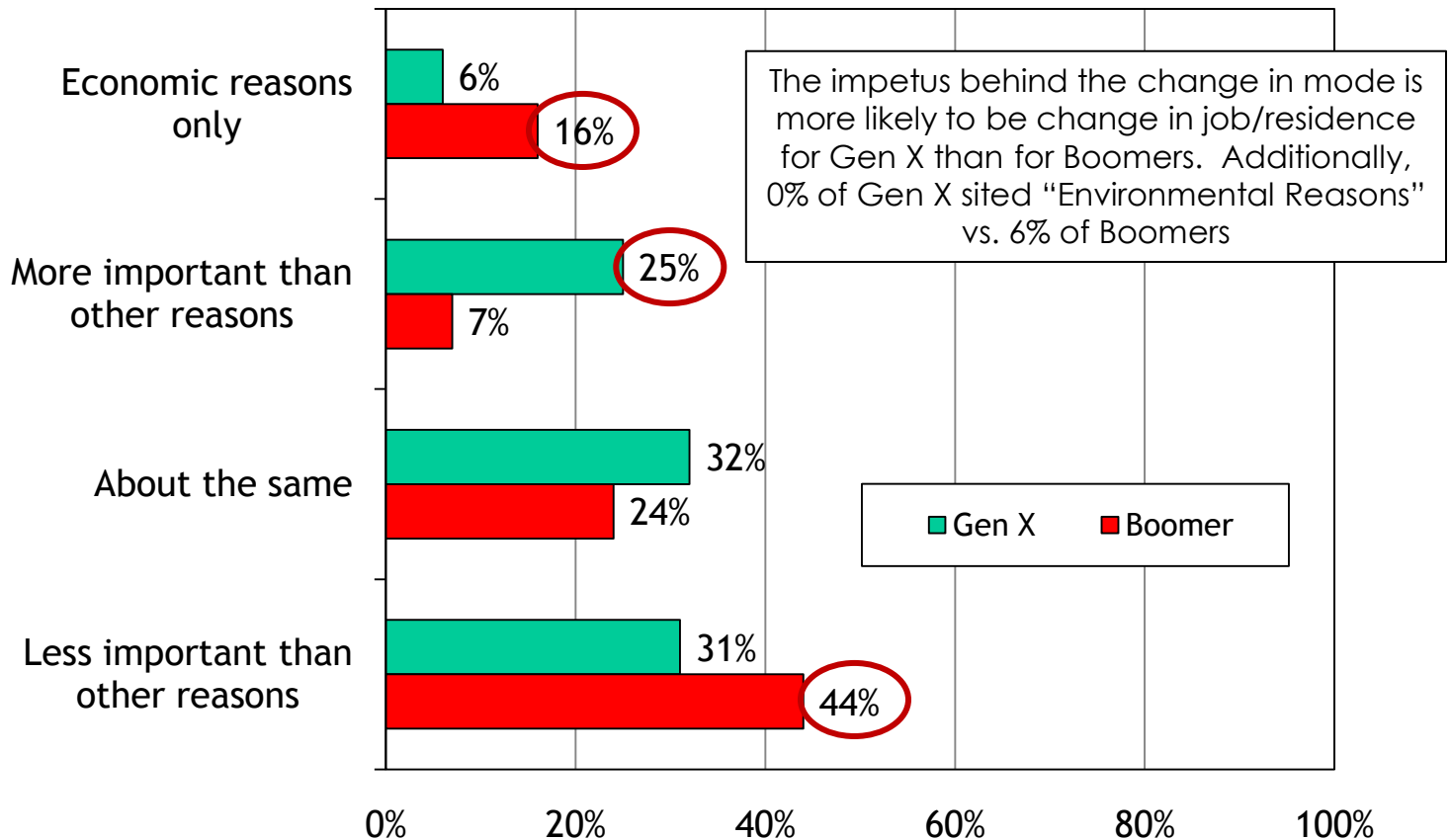
*But of Those Who Have Multiple Reasons, Gen X Are More Likely to Say Economy is More Important*

Long Survey:

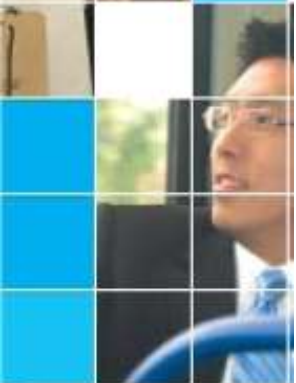
Of those Employed who began using primary mode in last 24 months

Un-weighted bases  
Gen X n = 136  
Boomers n = 114

Gen Y and Silent Gen – bases too small to show



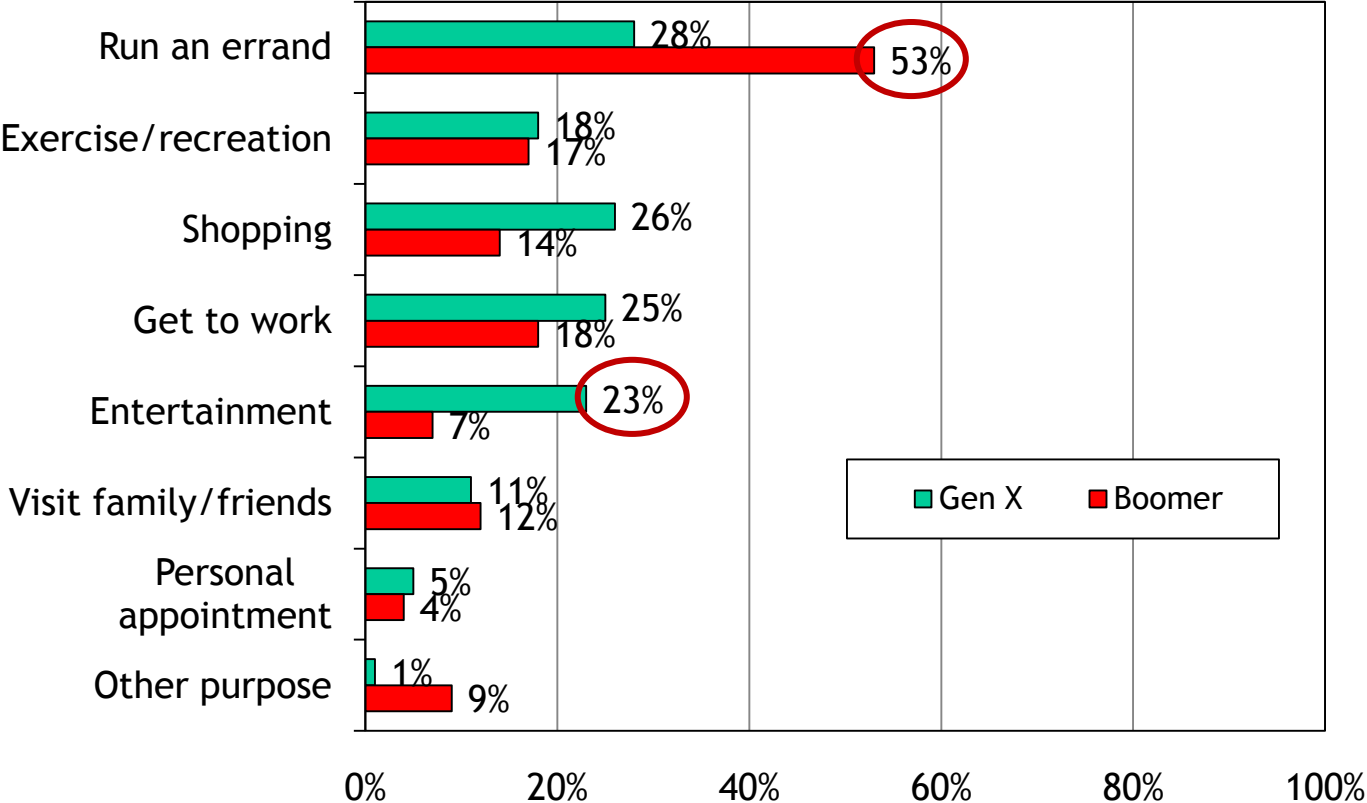
Q28B. How important were economic reasons (such as saving money or reducing your gas expense) in motivating you to make that switch, as compared to the other reasons you just mentioned?



# Generations: Non-Commute Trips

# Of Those Who Rode a Bicycle in the Past Three Months, Boomers Are More Likely than Generation X to Have Done So to Run an Errand

Long Survey:  
Of those who rode a bicycle in the past three months  
Un-weighted Bases SMALL SAMPLE  
Gen X n = 46  
Boomers n = 59  
Gen Y and Silent Gen – bases too small to show



In the past three months, about how many times did you ride a bicycle for a purpose other than for exercise or recreation, such as to run errands, visit friends or family, etc? If more than 0: Q33E. For what purposes did you make these trips?

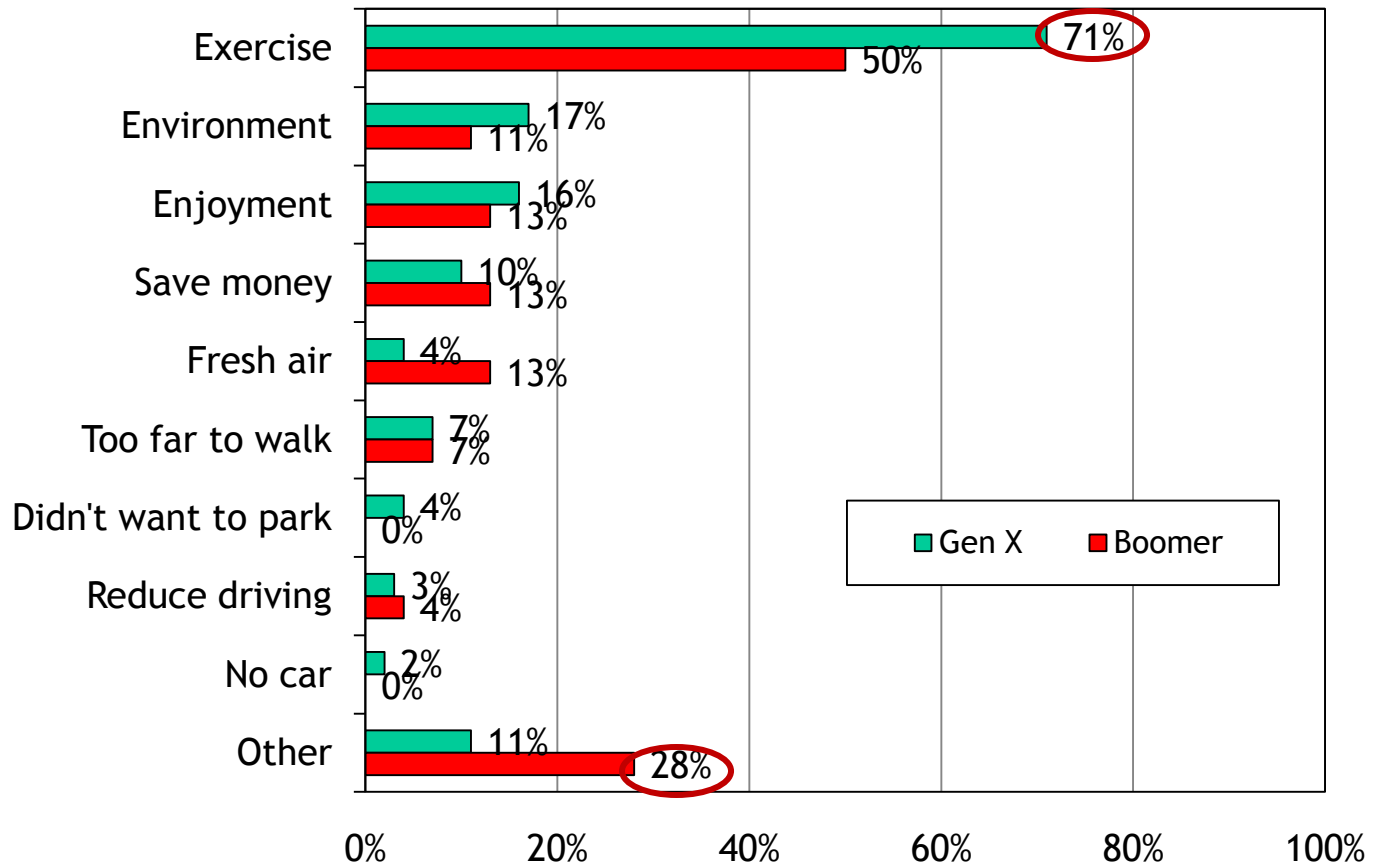
# Of Those Who Rode a Bicycle in the Past Three Months, Gen Xers Are More Likely to Have Done So For the Exercise

Long Survey:

Of those who rode a bicycle in the past three months

Un-weighted Bases  
SMALL SAMPLE  
Gen X  
n = 46  
Boomers  
n = 59

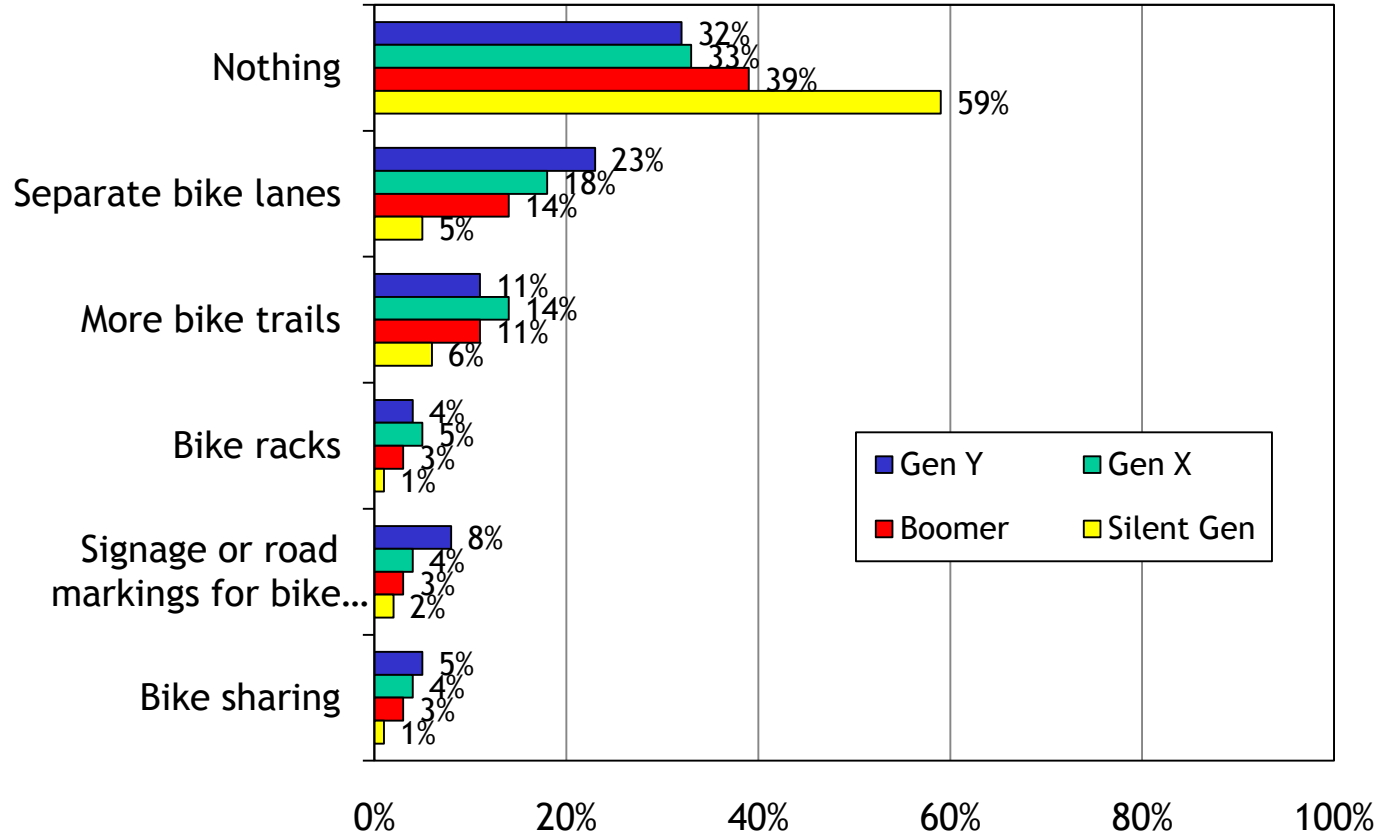
Gen Y and Silent Gen – bases too small to show



Q33F. Why did you choose to ride a bicycle for these trips?

Note: Chart only shows the top responses that exhibit significant differences between the segments and are above 3%.

# Younger Generations Are More Likely to Be Open to Ways Arlington Could Make it Easier for Them to Ride a Bicycle



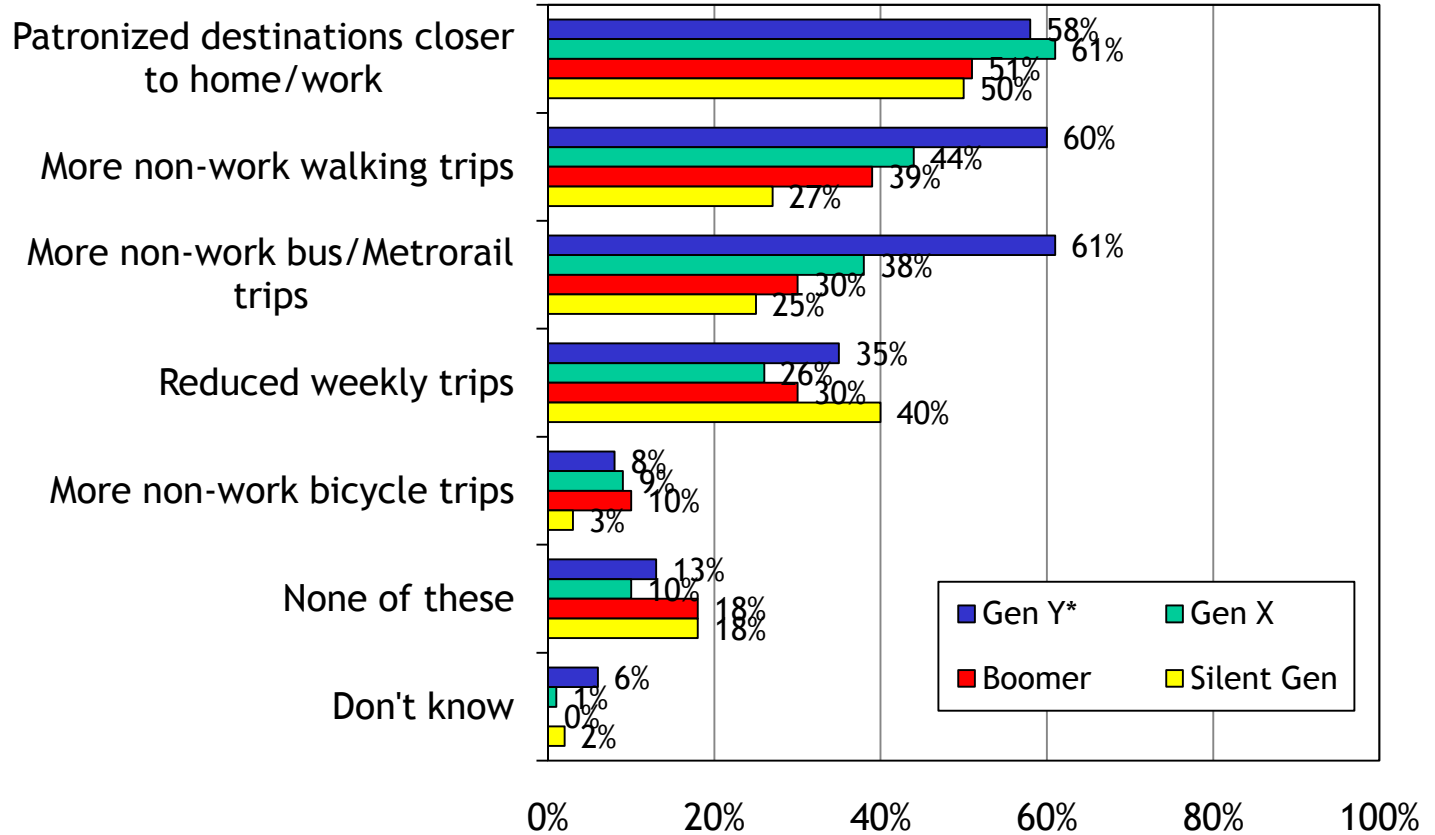
Q33J: What could Arlington County do to make it easier for you to [ride a bicycle, ride a bicycle more often]?

Long + Mini Survey:

Weighted Bases  
 Gen Y n = 398  
 Gen X n = 1805  
 Boomers n = 1253  
 Silent Gen n = 524

# Younger Generations Are More Likely to Have Made Travel-related Changes

Note: Chart only shows the top responses that exhibit significant differences between the segments.



Q34: In the past year, have you made any of the following travel-related changes? Please answer yes or no to each of the following.



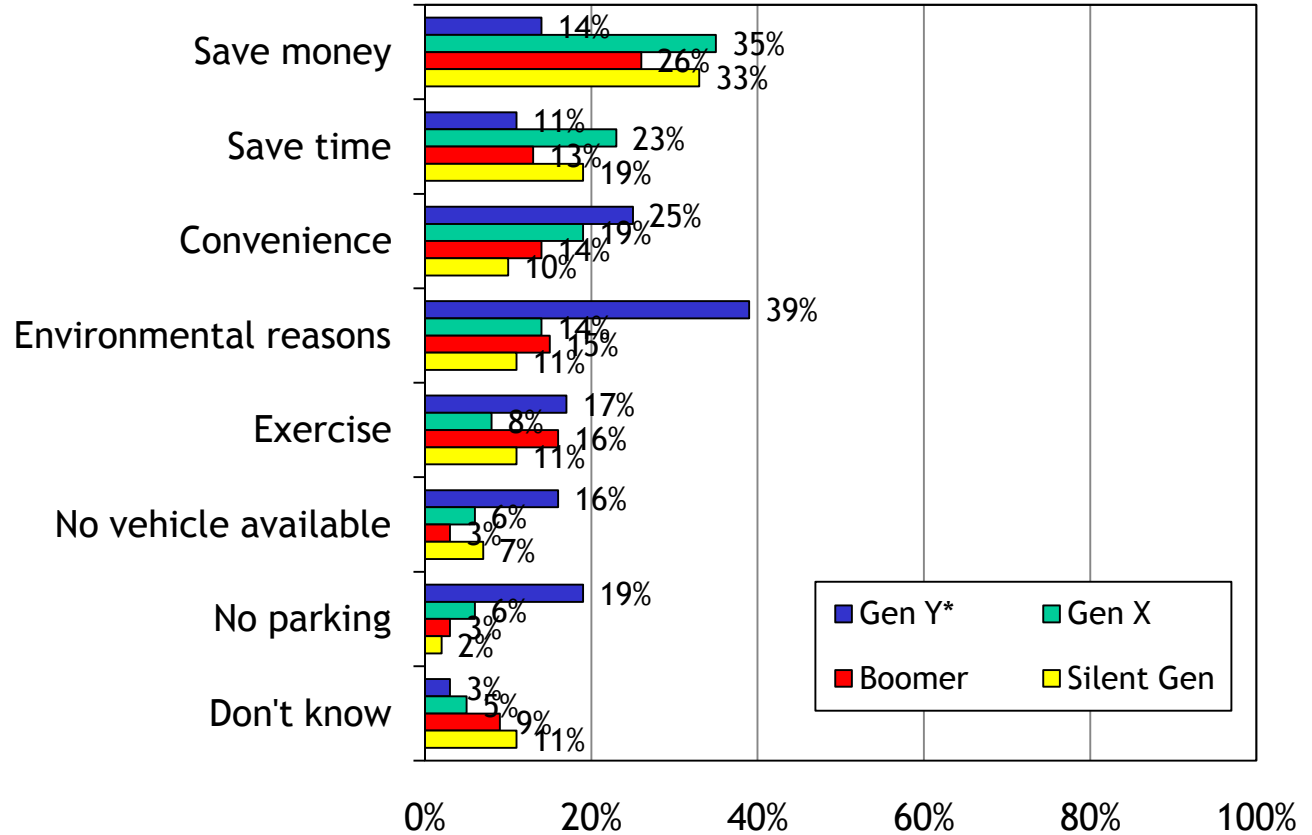
Have you ...



Long Survey:  
Unweighted Bases  
\*SMALL SAMPLE  
Gen Y n = 40  
Gen X n = 348  
Boomers n = 464  
Silent Gen n = 352

# Generation Y is More Likely to Have Been Motivated By Environmental Reasons

Note: Chart only shows the top responses that exhibit significant differences between the segments and are above 2%.



Long Survey:

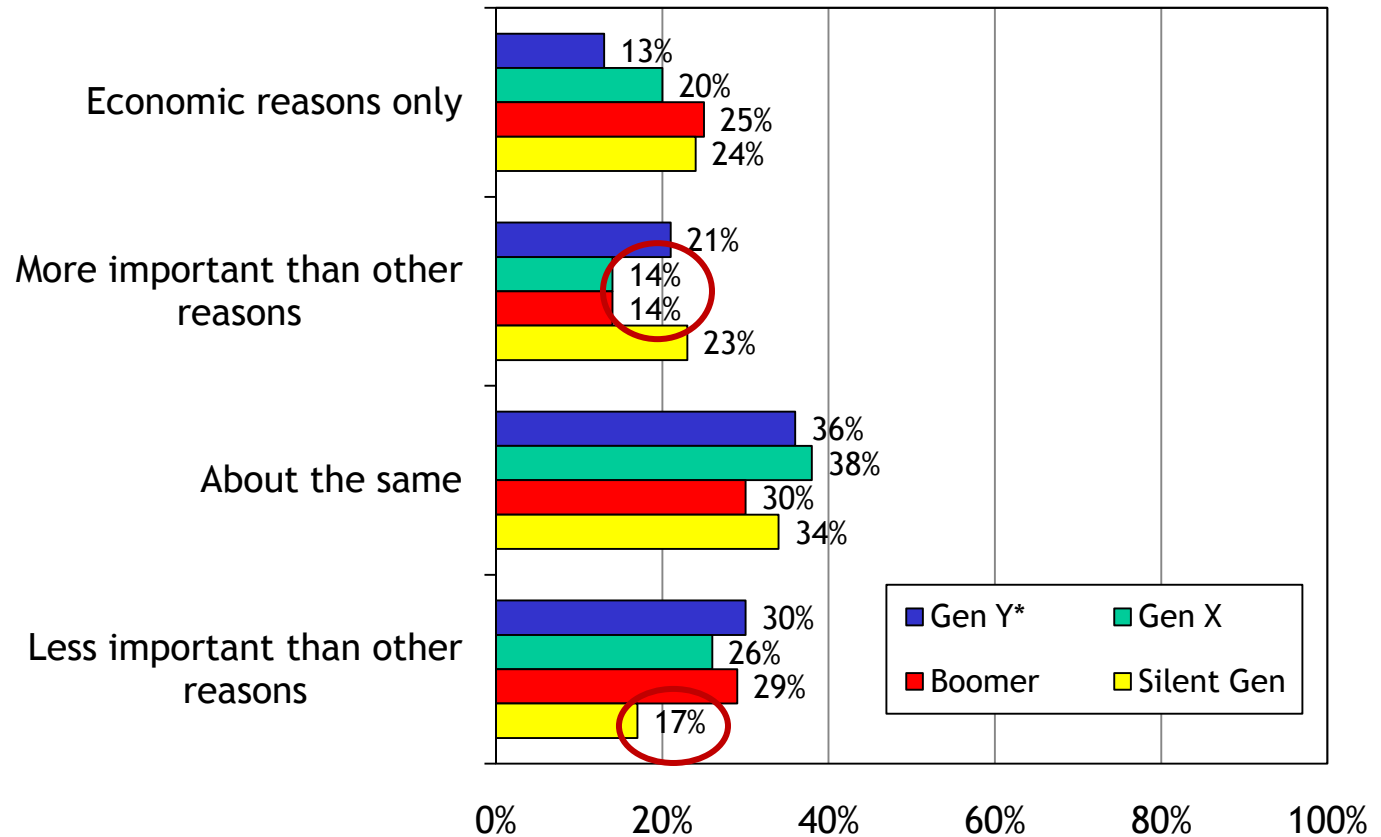
Un-weighted Bases

\*SMALL SAMPLE  
 Gen Y n = 33  
 Gen X n = 304  
 Boomers n = 392  
 Silent Gen n = 286

Q35: What motivated you to make those changes? ASKED OF THOSE WHO MADE CHANGES



# Economic Reasons Are More Important to the Silent Generation



Q35A: How important were economic reasons (such as saving money or reducing your gas expense) in motivating you to make a travel-related change, as compared to the other reasons you just mentioned? ASKED OF THOSE WHO MADE CHANGES

Long Survey:

Un-weighted Bases

\*SMALL SAMPLE

Gen Y

n = 32

Gen X

n = 292

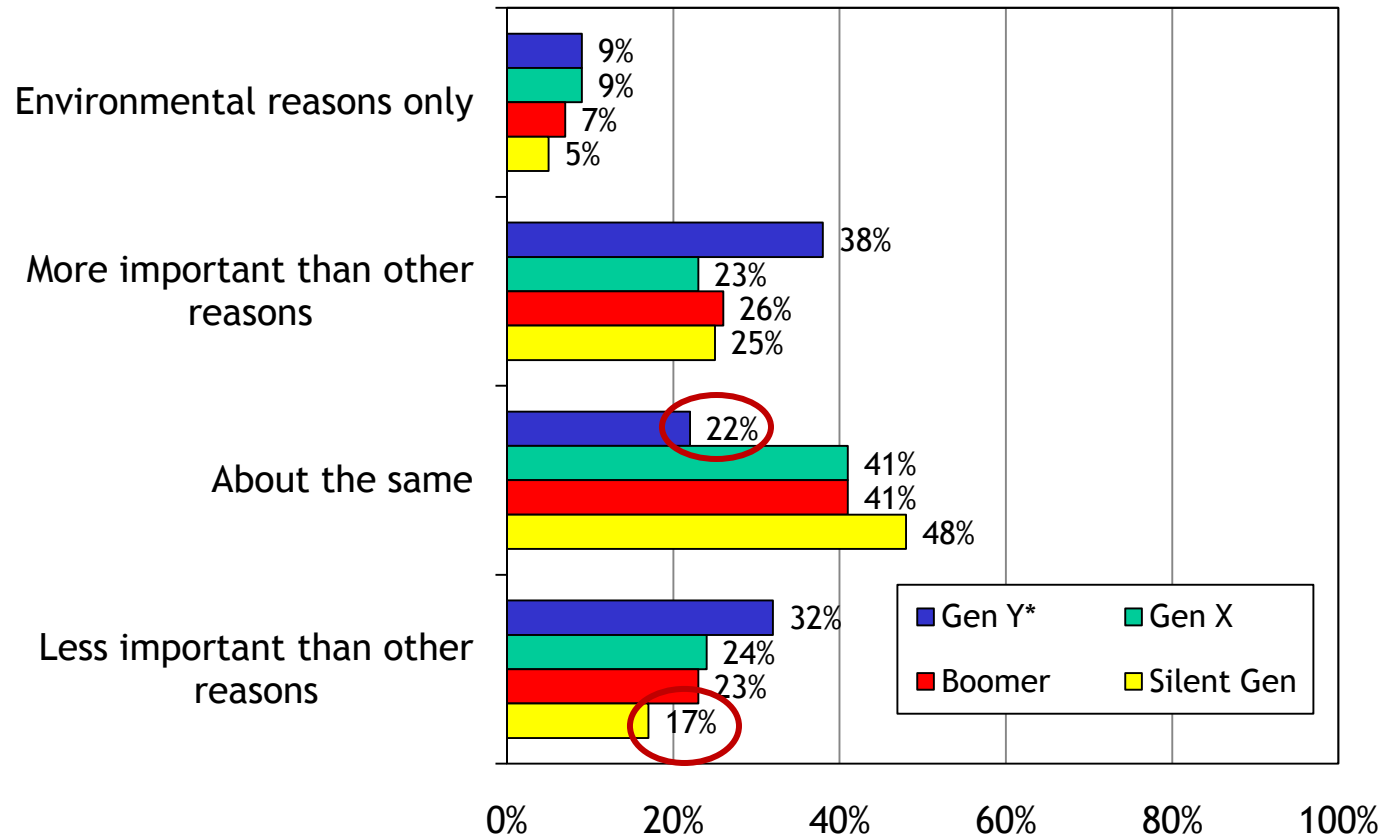
Boomers

n = 369

Silent Gen

n = 258

# The Silent Generation is Less Likely to Find Environmental Reasons Less Important



Q35B: How important were environmental reasons (such as reducing your carbon footprint or greenhouse gas emissions) in motivating you to make a travel-related change, as compared to the other reasons you just mentioned? ASKED OF THOSE WHO MADE CHANGES

Long Survey:

Un-weighted Bases

\*SMALL SAMPLE

Gen Y

n = 32

Gen X

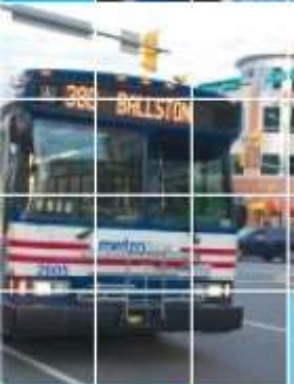
n = 292

Boomers

n = 369

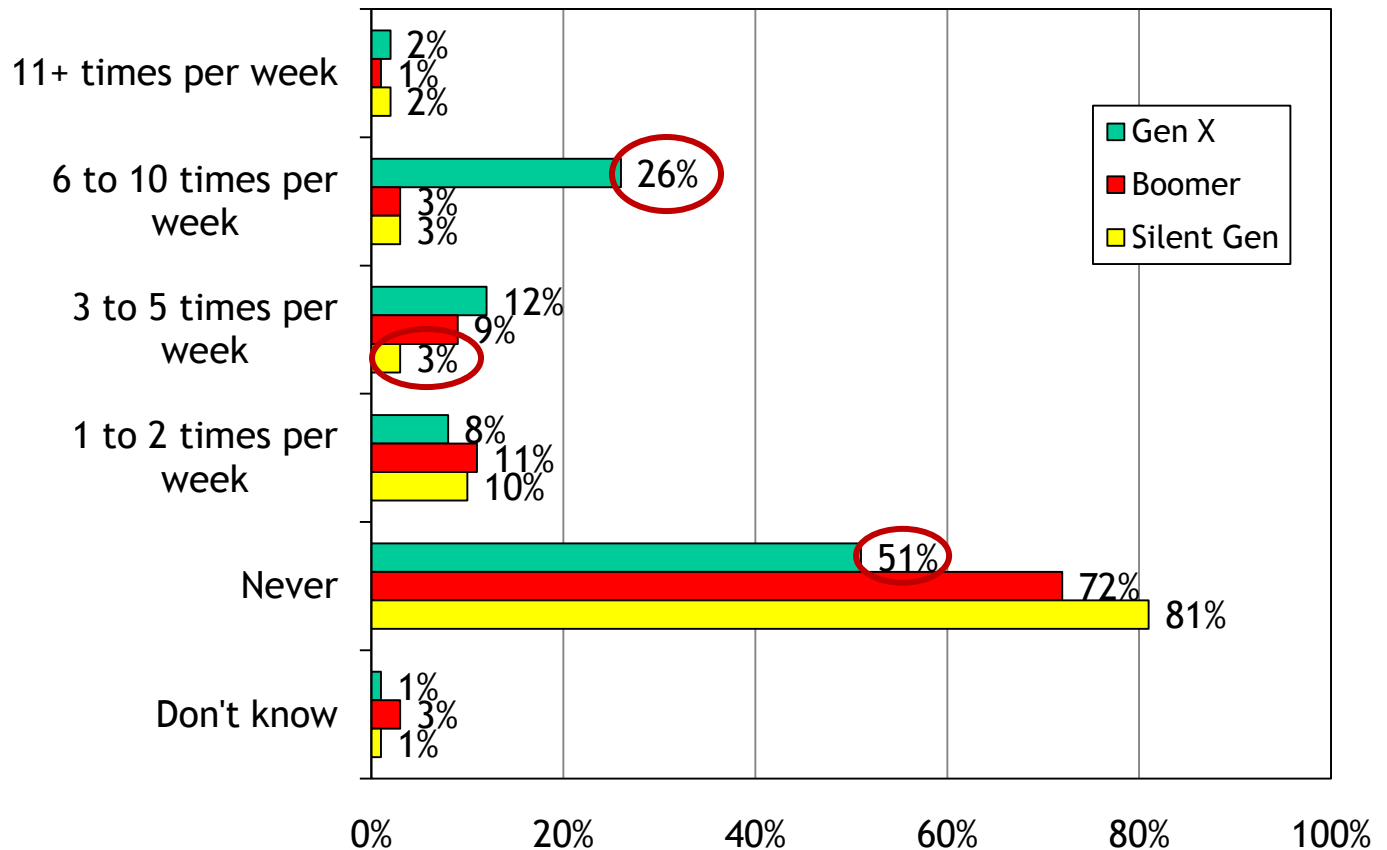
Silent Gen

n = 258



# Generations: Street Car Service

# Younger Respondents Are More Likely to Ride a Bus on Columbia Pike



Long Survey:

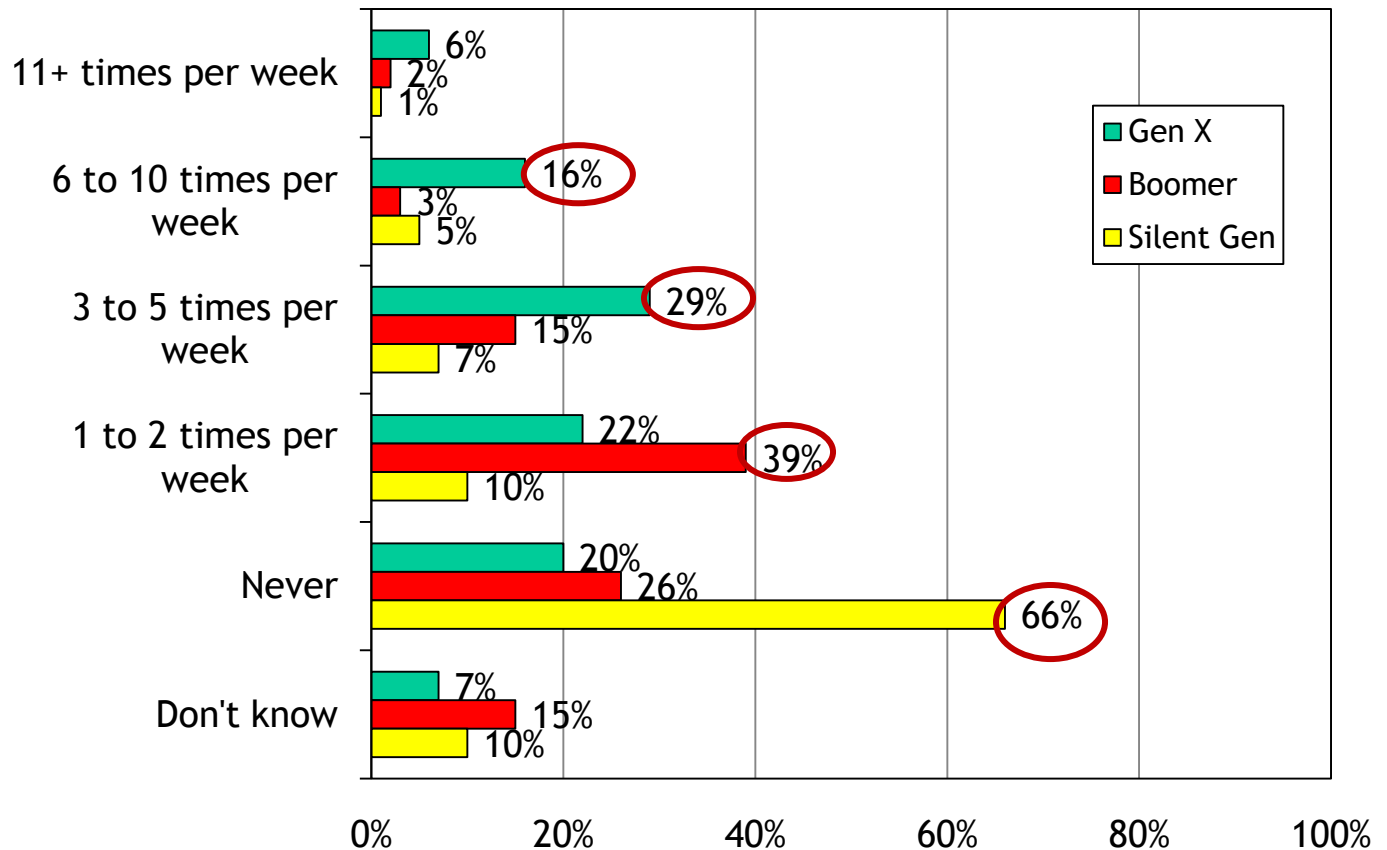
Un-weighted bases  
 Gen X  
 n = 109  
 Boomers  
 n = 131  
 Silent Gen  
 n = 95

Gen Y base too small to show

Q36. You mentioned that you live near Columbia Pike. In a typical week, how many times do you ride a bus traveling along Columbia Pike?



# Younger Respondents Are More Likely to Ride a 10-Minute Streetcar on Columbia Pike



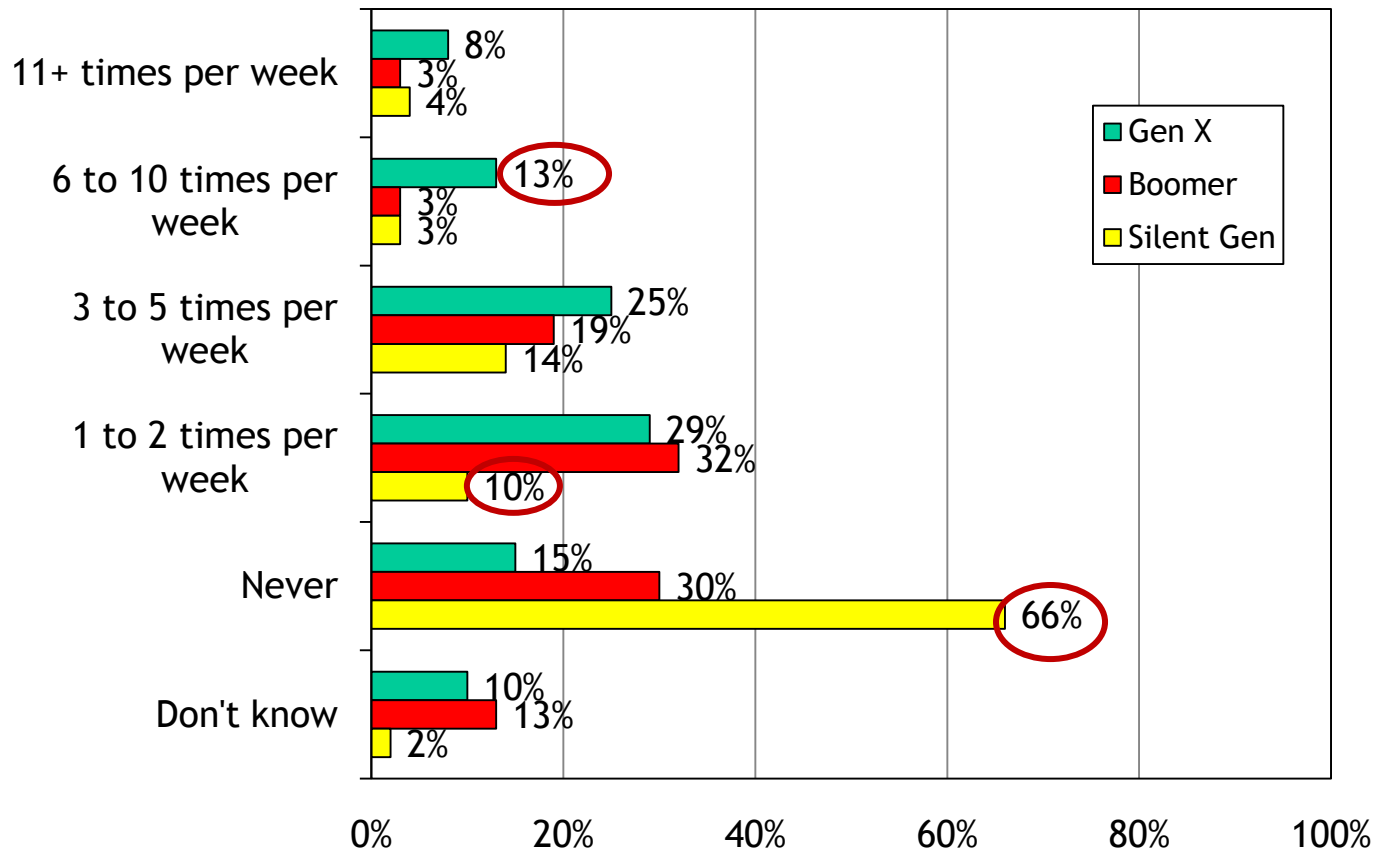
Q36A. If a streetcar operated along Columbia Pike, running every 10 minutes, with connections to Metrorail, Pentagon City, and Crystal City, how many times per week do you think you would use this service?

Long Survey:

Un-weighted bases  
Gen X  
n = 109  
Boomers  
n = 131  
Silent Gen  
n = 95

Gen Y  
base too small to show

# Younger Respondents Are Also More Likely to Ride a 5-Minute Streetcar on Columbia Pike



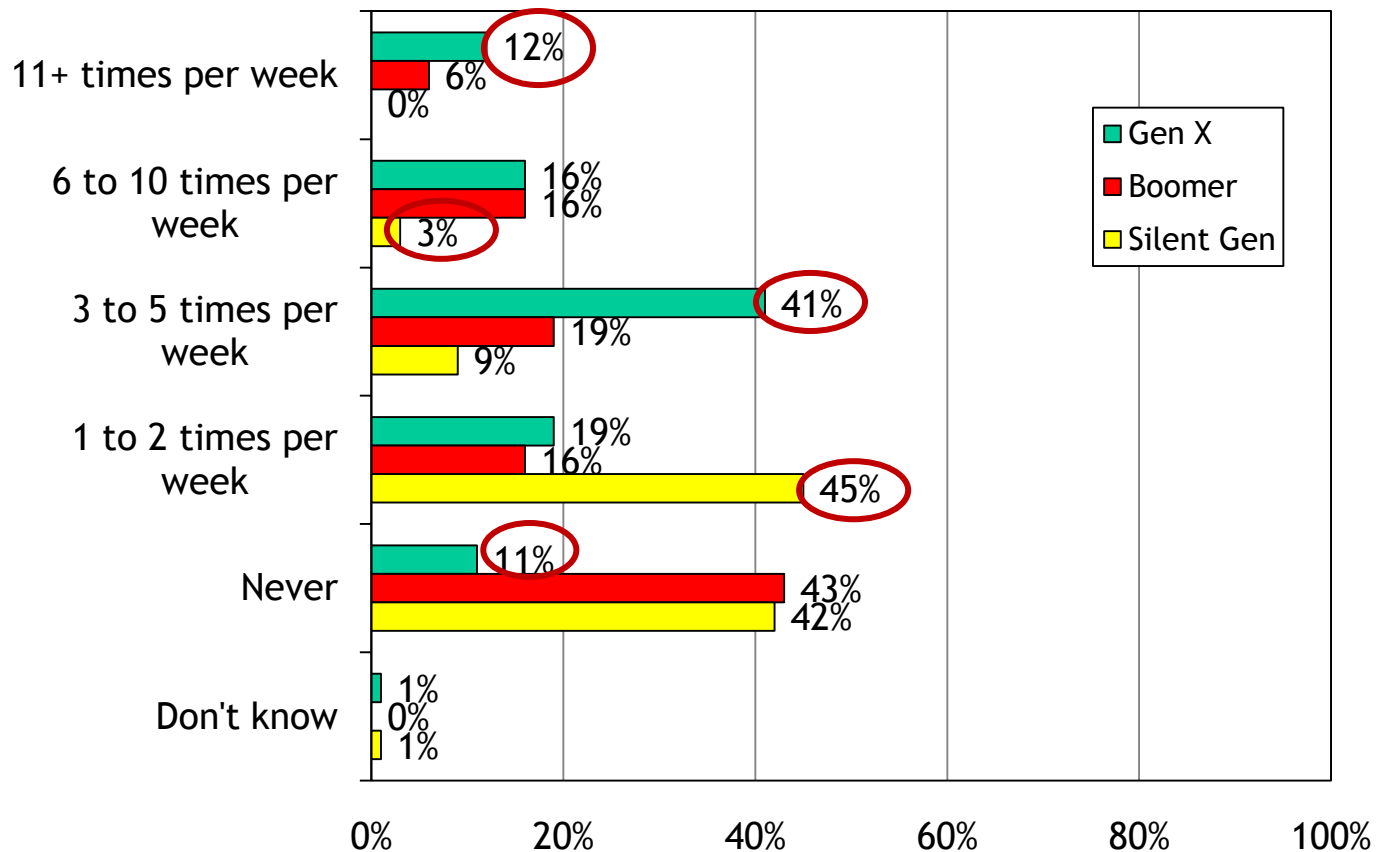
Long Survey:

Un-weighted bases  
 Gen X  
 n = 109  
 Boomers  
 n = 131  
 Silent Gen  
 n = 95

Gen Y base too small to show

Q36B. If this streetcar ran every 5 minutes, how many times per week do you think you would use the service?

# Younger Respondents Are More Likely to Ride a Bus in the R-B Corridor



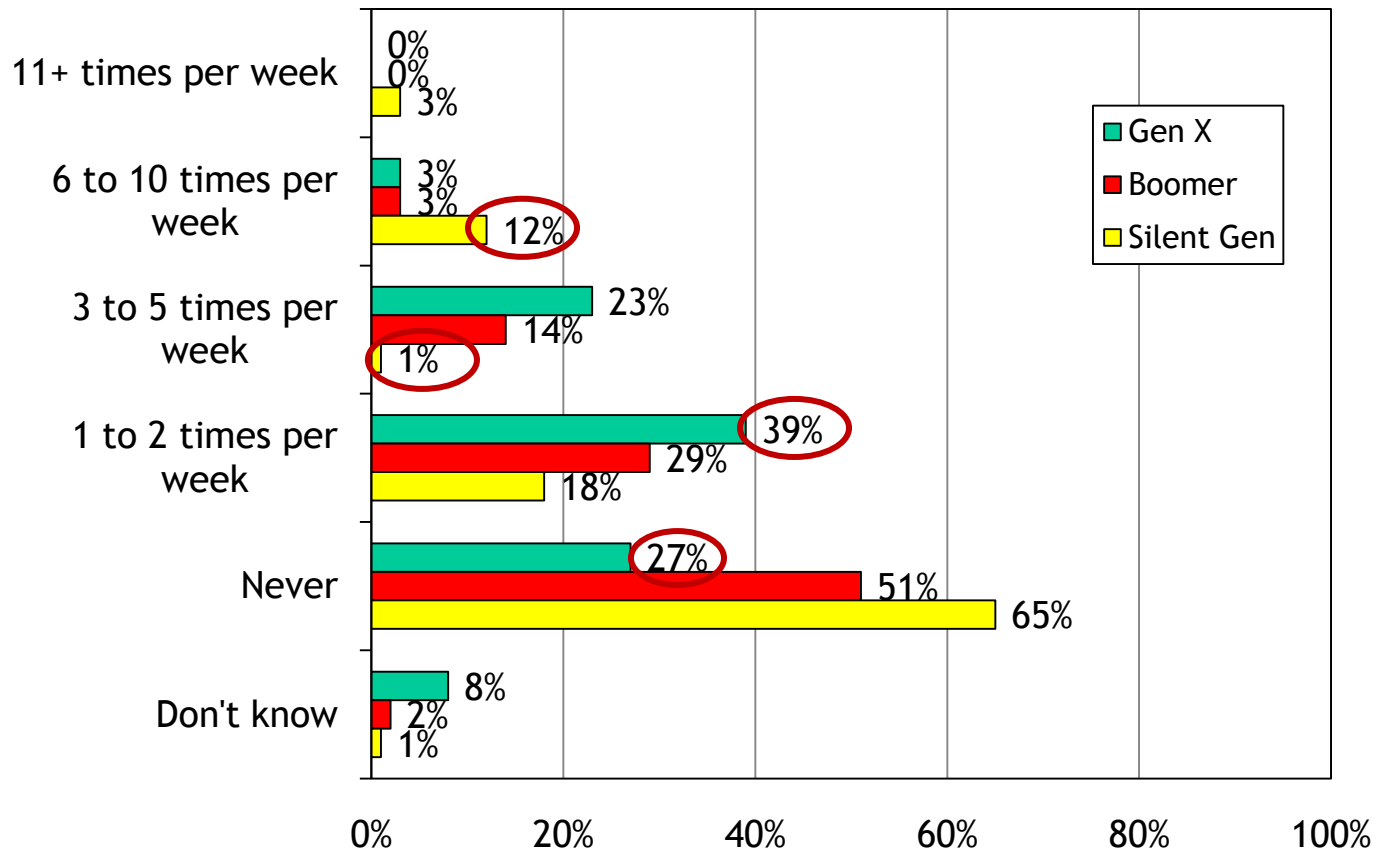
Q37. You mentioned that you live near the Metrorail Blue Line. In a typical week, how many times do you ride a bus or Metrorail to or through Crystal City or Pentagon City?

Long Survey:

SMALL SAMPLE SIZES  
Un-weighted bases  
Gen X n = 52  
Boomers n = 63  
Silent Gen n = 54

Gen Y base too small to show

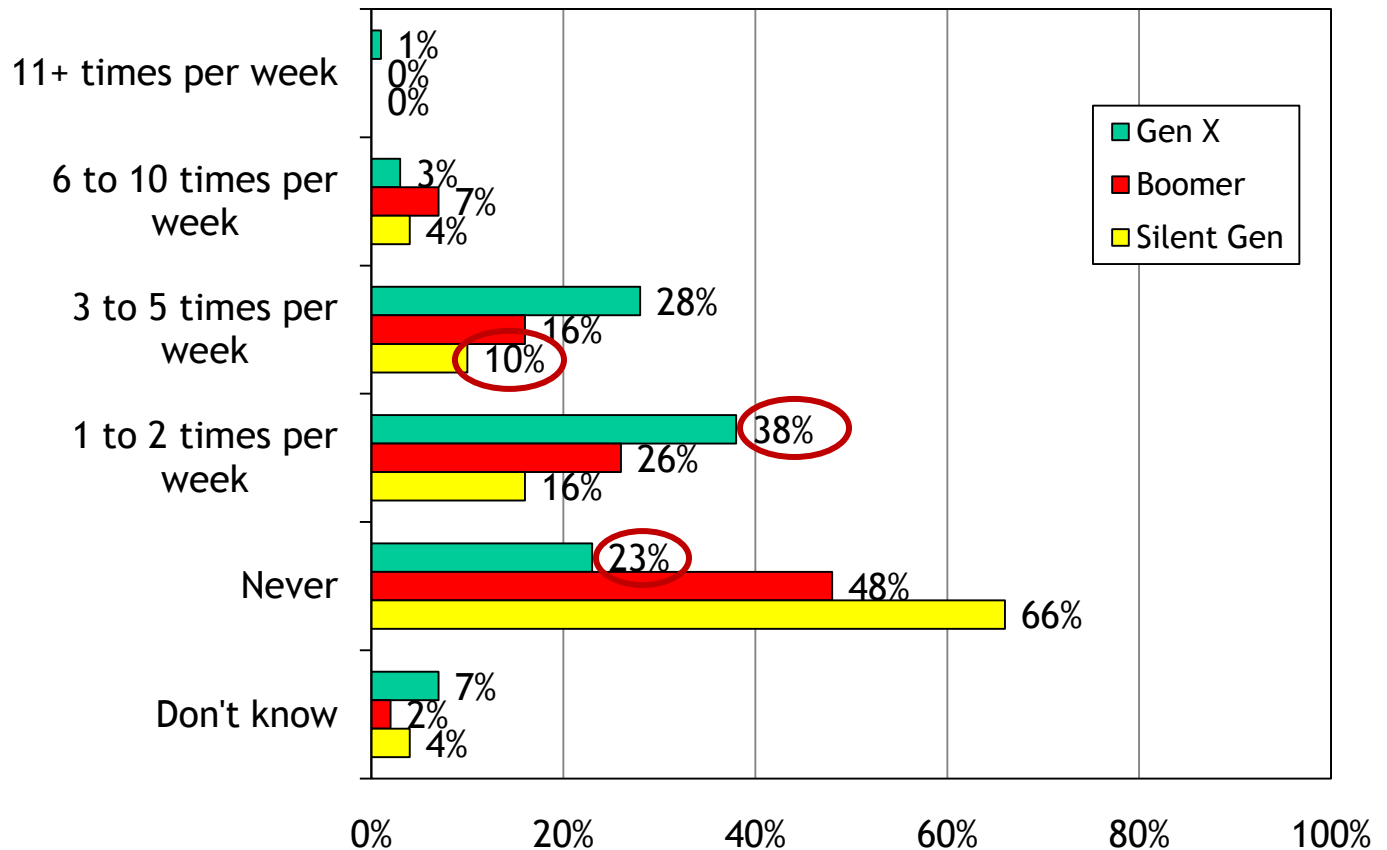
# Younger Respondents Are More Likely to Ride a 10-Minute Streetcar in the R-B Corridor



Q37A. If a streetcar operated into or through Crystal City and Pentagon City, running every 10 minutes, with connections to Metrorail and Columbia Pike, how many times per week do you think you would use this service?

Long Survey:  
SMALL SAMPLE SIZES  
Un-weighted bases  
Gen X n = 52  
Boomers n = 63  
Silent Gen n = 54  
Gen Y base too small to show

# Younger Respondents Are More Likely to Ride a 5-Minute Streetcar in the R-B Corridor



Q37B. If this streetcar ran every 5 minutes, how many times per week do you think you would use the service?

Long Survey:

SMALL SAMPLE SIZES Un-weighted bases  
 Gen X n = 52  
 Boomers n = 63  
 Silent Gen n = 54

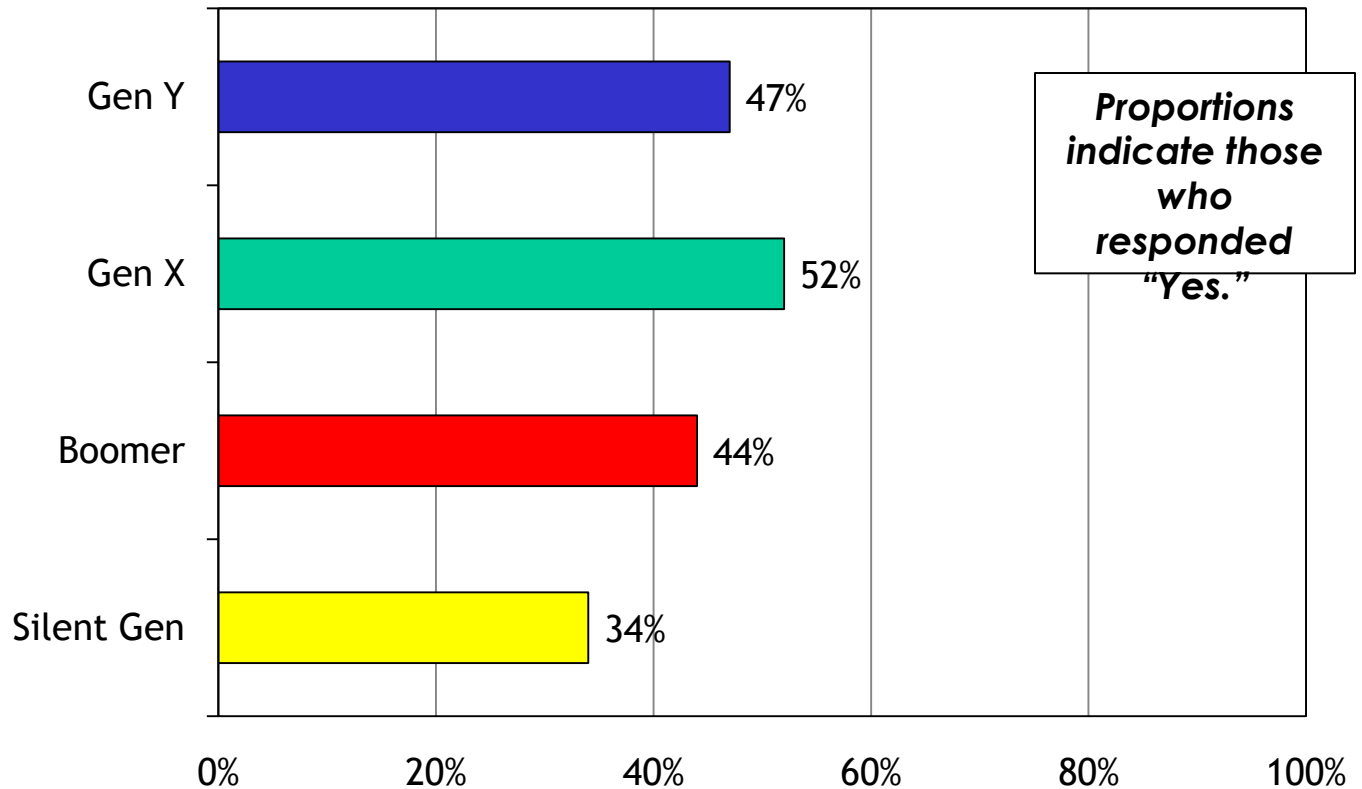
Gen Y base too small to show



# Generations: Transportation Services

All differences are statistically significant with the exception of Gen Y.

## Younger Respondents Are More Likely to Have Sought Transportation Information



Q38. Next, I'd like to know about transportation information or services you might have seen or used recently. In the past year, have you sought information on types of transportation you could use to get around Arlington County or the Washington metropolitan region or services that could help you get around?

Long Survey:

Un-weighted Bases

\*SMALL SAMPLE

Gen Y

n = 40

Gen X

n = 348

Boomers

n = 464

Silent Gen

n = 352

Note: Chart only shows the top responses that exhibit significant differences between the segments.

Long Survey:

SMALL SAMPLE SIZES

Un-weighted bases

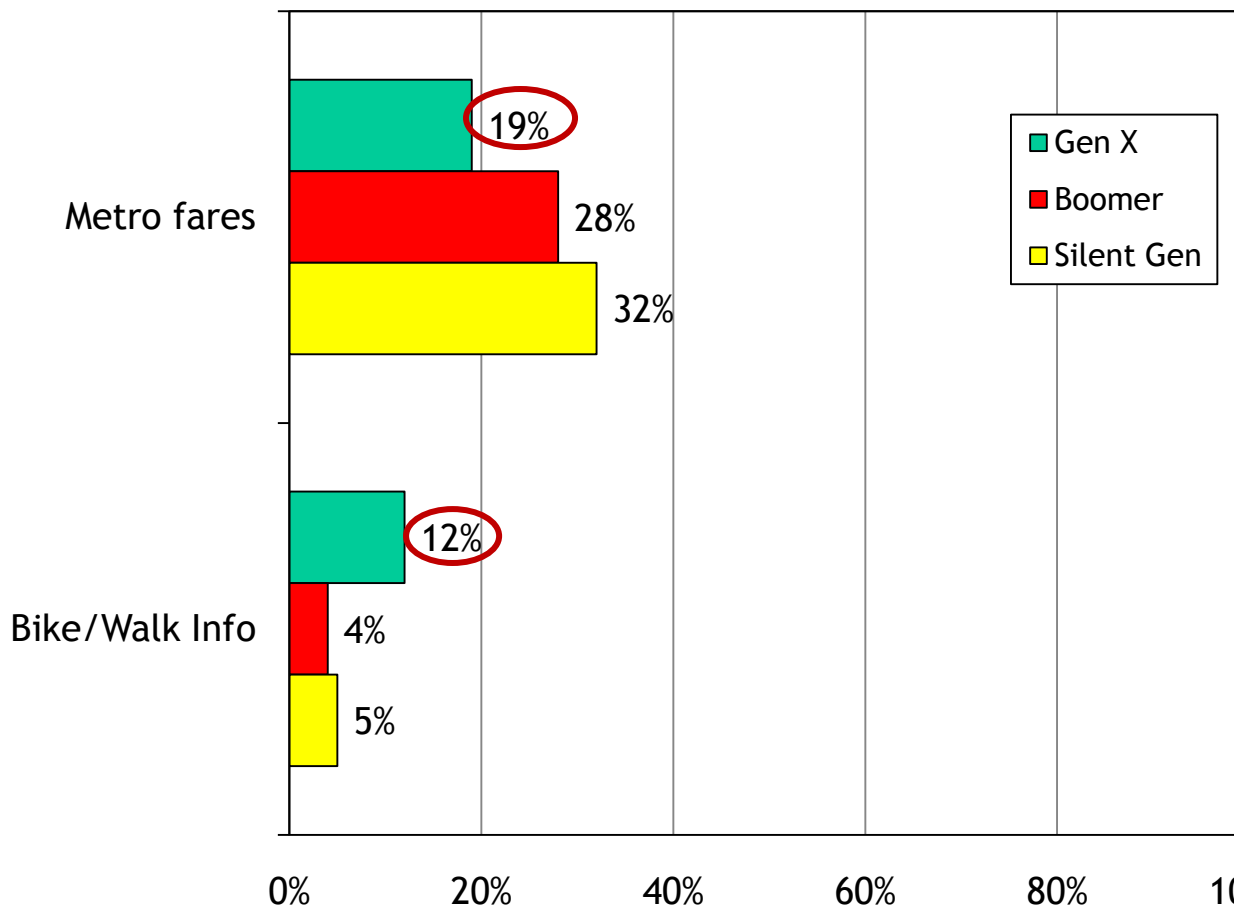
Gen X  
n = 196

Boomers  
n = 222

Silent Gen  
n = 117

Gen Y base too small to show

# Generation X Respondents Were Less Likely to Be Seeking Metro Fare Information And More Likely To Be Seeking Biking or Walking Information



Q40. What information or services were you seeking?

# Awareness Varies By Generation

## Awareness

	Gen Y	Gen X	Boomer	Silent Gen
ACCS	17%	29%	29%	32%
Commuter Store	<b>17%</b>	53%	54%	53%
CommuterPage	20%	25%	16%	<b>9%</b>
CommuterDirect	2%	16%	13%	<b>8%</b>
WALKArlington	<b>12%</b>	30%	41%	39%
BikeArlington	<b>28%</b>	45%	53%	38%
ATP	11%	<b>13%</b>	23%	19%
ART	75%	77%	81%	76%
Metro/WMATA	85%	91%	94%	<b>84%</b>
Commuter Connections	28%	<b>49%</b>	<b>45%</b>	31%

Q42. Please tell me if you have heard of the organization or service, and if so, if you have used any of these services.

Long Survey:

Un-weighted Bases

\*SMALL SAMPLE

Gen Y  
n = 40

Gen X  
n = 348

Boomers  
n = 464

Silent Gen  
n = 352

# Use Also Varies By Generation

## Use of Service

	Gen Y	Gen X	Boomer	Silent Gen
ACCS	6%	9%	10%	7%
Commuter Store	11%	25%	23%	<b>32%</b>
CommuterPage	9%	11%	6%	<b>3%</b>
CommuterDirect	2%	3%	3%	1%
WALKArlington	3%	8%	11%	7%
BikeArlington	7%	16%	13%	<b>5%</b>
ATP	9%	3%	<b>6%</b>	3%
ART	36%	36%	40%	<b>30%</b>
Metro/WMATA	68%	74%	81%	<b>50%</b>
Commuter Connections	2%	11%	10%	<b>6%</b>

Q42. Please tell me if you have heard of the organization or service, and if so, if you have used any of these services.

Long Survey:

Un-weighted Bases

\*SMALL SAMPLE

Gen Y

n = 40

Gen X

n = 348

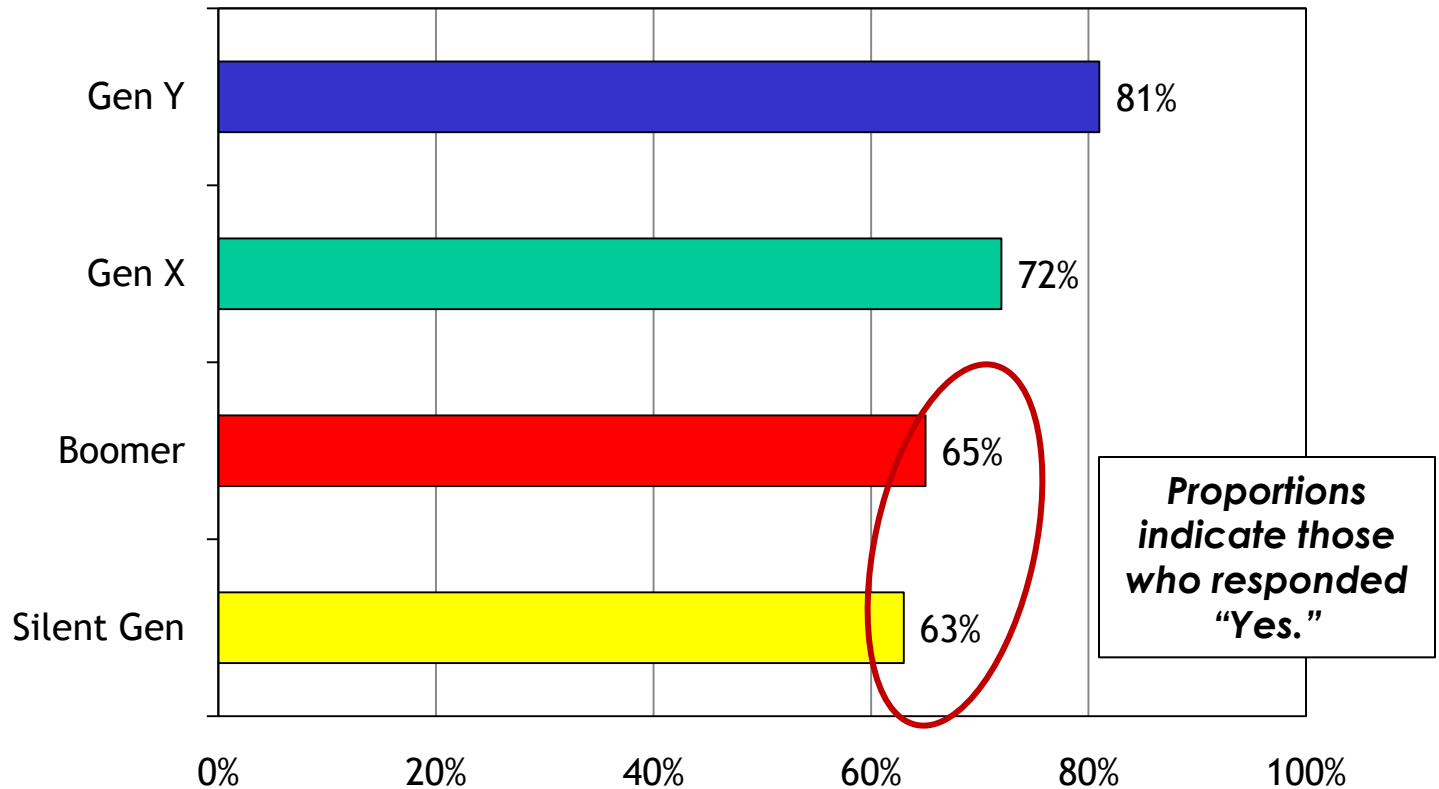
Boomers

n = 464

Silent Gen

n = 352

# Younger Respondents Are More Likely to Have Taken Travel Actions After Using County, Employer, or Residential Services



Long Survey:

Un-weighted Bases

\*SMALL SAMPLE

Gen Y

n = 40

Gen X

n = 348

Boomers

n = 464

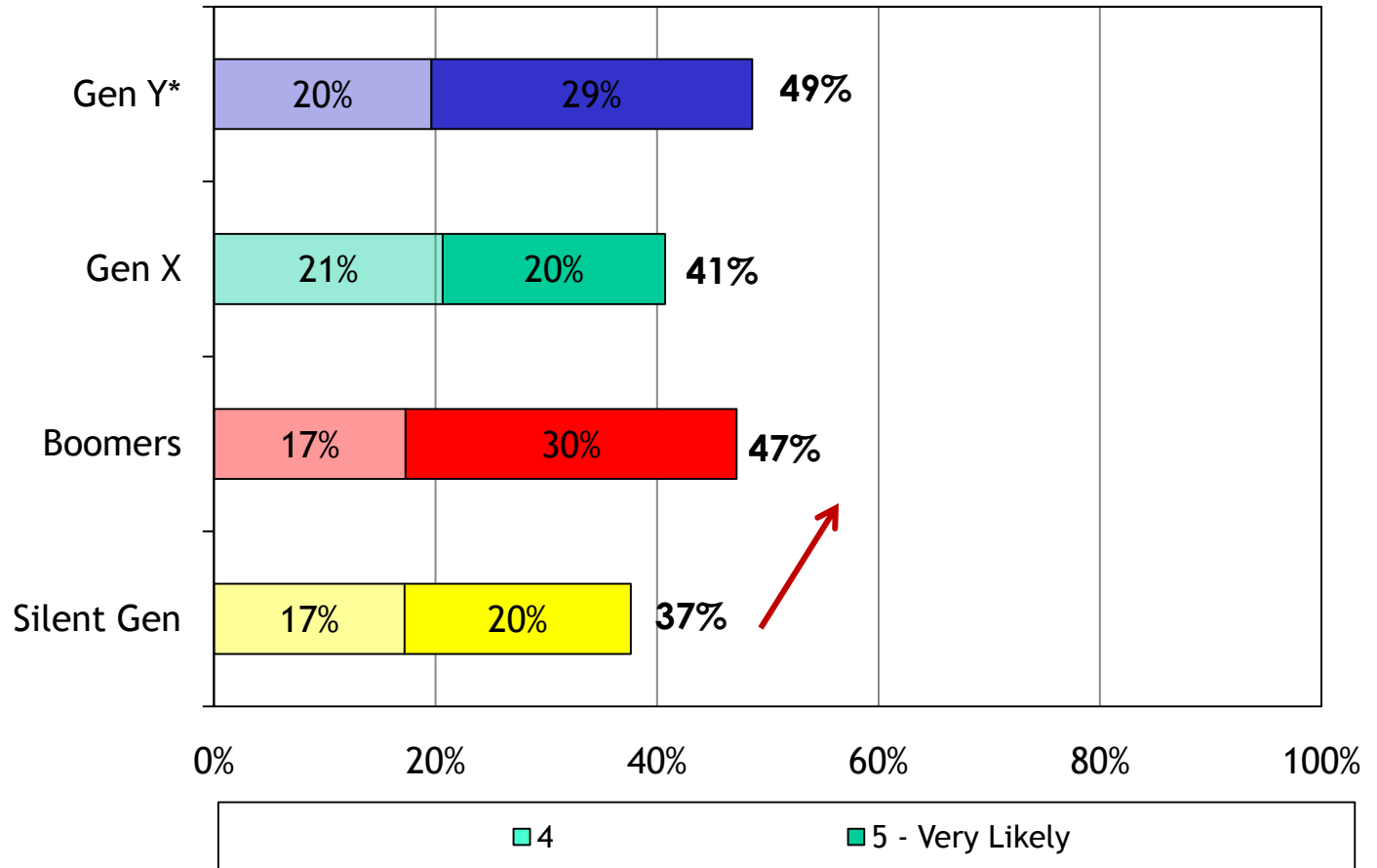
Silent Gen

n = 352

Q51/52. Did you take any actions to try to change how you travel around Arlington or around the Washington region using the information or services?



# Silent Generation Respondents Are Less Likely to Have Taken Action Without the Information Gained from County, Employer, Residential Services



Q52A: If you had not received this information or these services, how likely would you have been to take this action? ASKED ONLY OF THOSE WHO SAID THEY RECEIVED SERVICES (COUNTY, EMPLOYER, OR

Long Survey:

Un-weighted Bases

\*SMALL SAMPLE

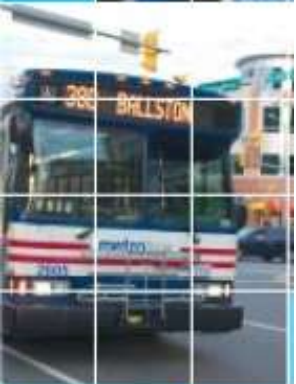
Gen Y n = 32

Gen X n = 219

Boomers n = 291

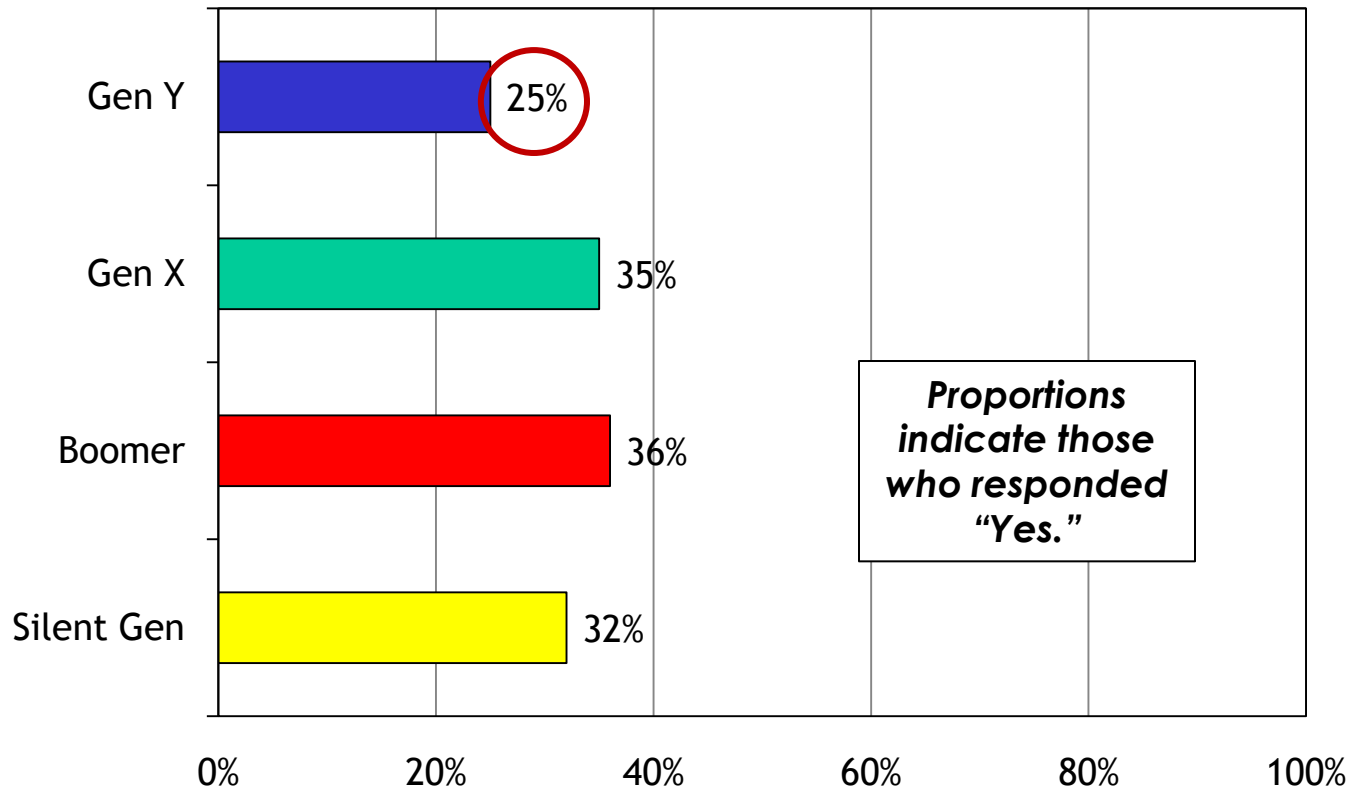
Silent Gen n = 183

Does not include those who said "Don't know."



# Generations: Advertising

# Generation Y is Less Likely to Recall Transportation Informational Messages



Long + Mini Survey:

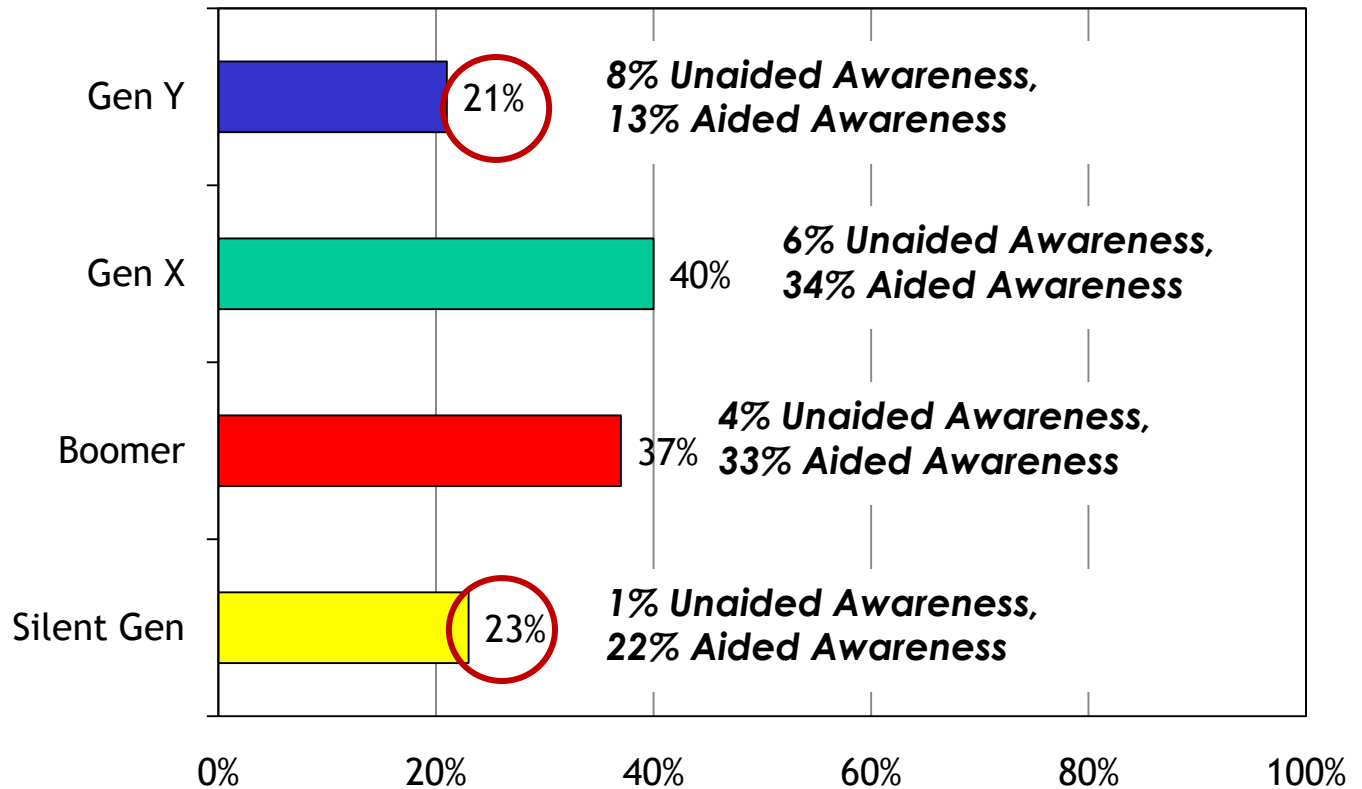
Weighted Bases  
Gen Y  
n = 398  
Gen X  
n = 1805  
Boomers  
n = 1253  
Silent Gen  
n = 524

Q53. Do you recall seeing or hearing any informational messages recently for transportation or transportation services in Arlington

# Gen X and Boomers Are More Likely to Be Aware of Car-Free Diet

*But Unaided Awareness is Highest Among Generation Y*

Proportions indicate those who responded "Yes."

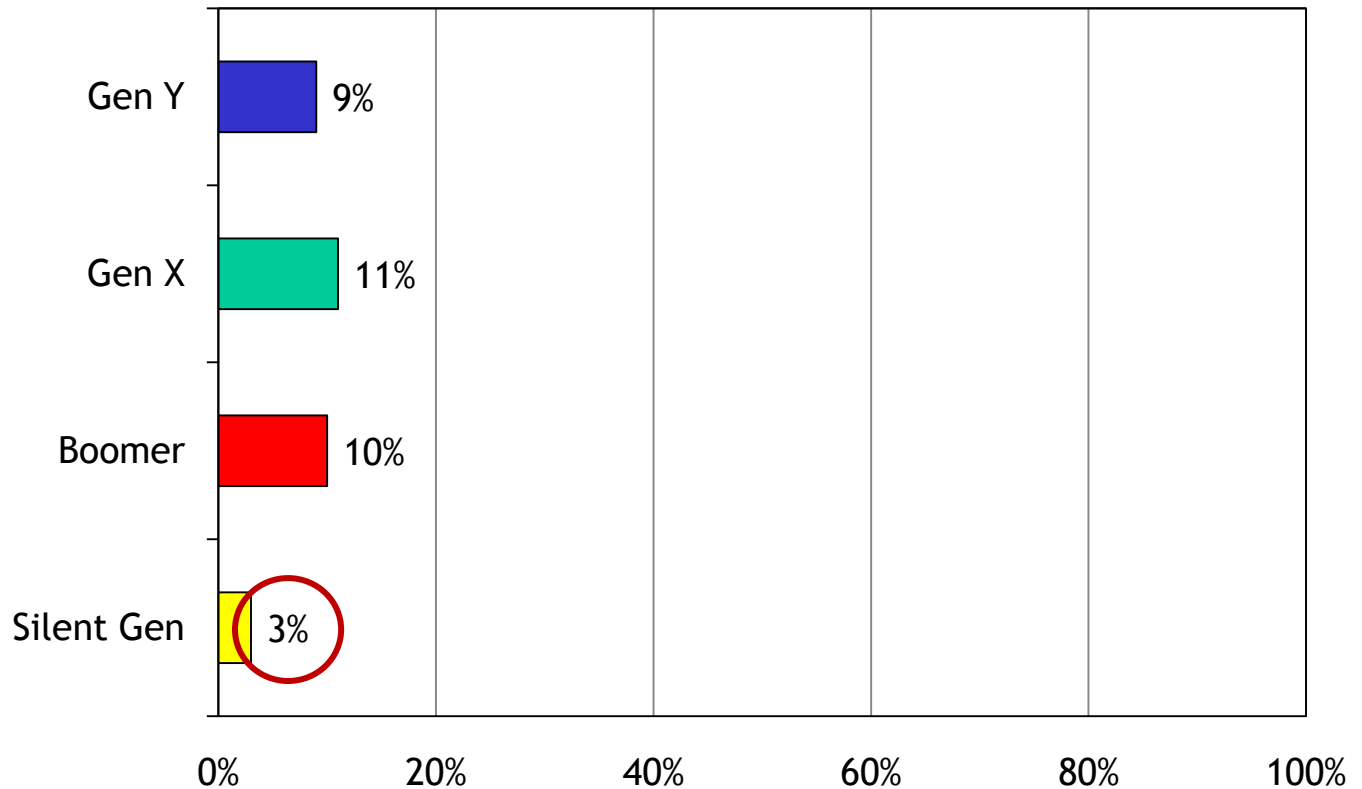


Long + Mini Survey:

Weighted Bases  
Gen Y  
n = 398  
Gen X  
n = 1805  
Boomers  
n = 1253  
Silent Gen  
n = 524

Q53A. What did those messages say or which messages for transportation or transportation services in Arlington County do you recall having seen or heard? Q54. Have you ever seen or heard anything that mentions the statement, "Arlington's Car Free Diet?"

# Silent Generation Respondents Are Least Likely to Have Visited the Car-Free Diet Web Site



Long + Mini  
Survey:

Asked of  
those  
aware of  
CFD

Weighted  
Bases

Gen Y  
n = 88

Gen X  
n = 730

Boomers  
n = 463

Silent Gen  
n = 123



Q54B. Have you ever visited the Web site CarFreeDiet.com?

