



Appendix B: Public Engagement Summaries



TransAction Technical Report

(This page intentionally left blank)

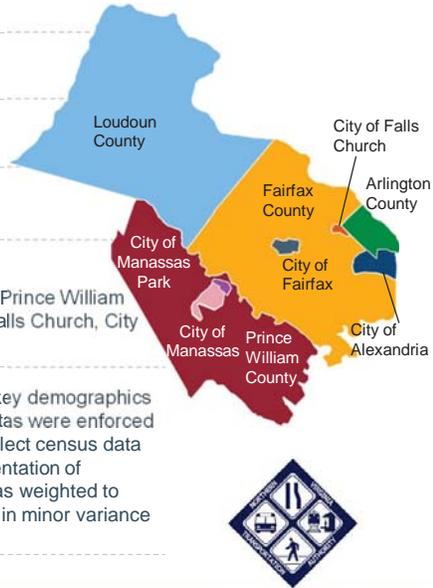
TRANSACTION BENCHMARK SURVEY RESULTS

In October 2015 NVTA administered a Benchmark Survey, designed to reach a full cross-section of Northern Virginia residents and workers to better understand how their quality of life is affected by transportation conditions, and how they perceive transportation investments and agency performance.

(This page intentionally left blank)

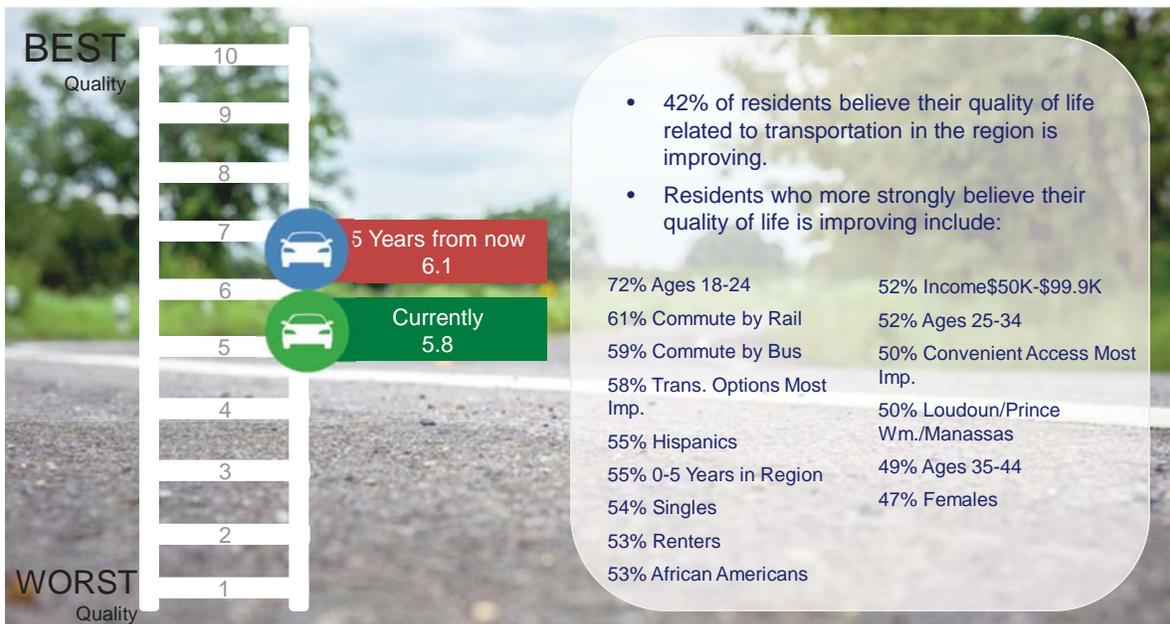
NVTA TransAction 2015 Benchmark Survey

	AUDIENCE	Residents 18+ in NVTA member jurisdictions n=610
	DATES	October 8-15, 2015
	MODE	Online Survey
	LENGTH	12 minutes
	GEOGRAPHY	Northern Virginia Arlington County, Fairfax County, Loudoun County, Prince William County, City of Alexandria, City of Fairfax, City of Falls Church, City of Manassas, City of Manassas Park
	DATA WEIGHTING	This survey was designed to be representative on key demographics such as jurisdiction, gender, age and ethnicity. Quotas were enforced among panel member participants in an effort to reflect census data for the region. Final sample reflected under representation of Hispanics and African Americans, therefore data was weighted to align with census ethnicity. Data weighting resulted in minor variance (avg. 0-2 percentage points) in actual results.



Northern Virginia Transportation Authority
The Authority for Transportation in Northern Virginia

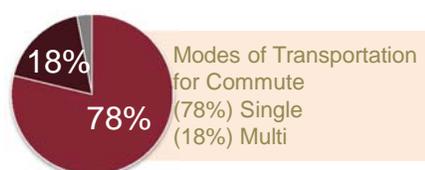
Quality of life with regard to transportation is viewed as mediocre yet improving slightly in the short term



BASE: ALL RESPONDENTS (n=610)
Q300 Think for a moment about the impact of transportation on your overall quality of life here in Northern Virginia. Imagine a ladder with ten steps representing the "ladder of life." Let's suppose the top of the ladder, the tenth step, represents the best possible life for you from a transportation perspective; and the bottom, the first step, the worst possible life for you from a transportation perspective. On a scale of 1 to 10, on which step of the ladder do you personally stand at the present time?
Q305 Just as your best guess, on which step will you stand in the future, say about five years from now? Again please think about the impact of transportation on the overall quality of life here in the Northern Virginia and use a scale of 1 to 10, where 10 represents the best possible life for you and 1 the worst possible life for you.

Northern Virginia Transportation Authority
The Authority for Transportation in Northern Virginia

Commuter Profile

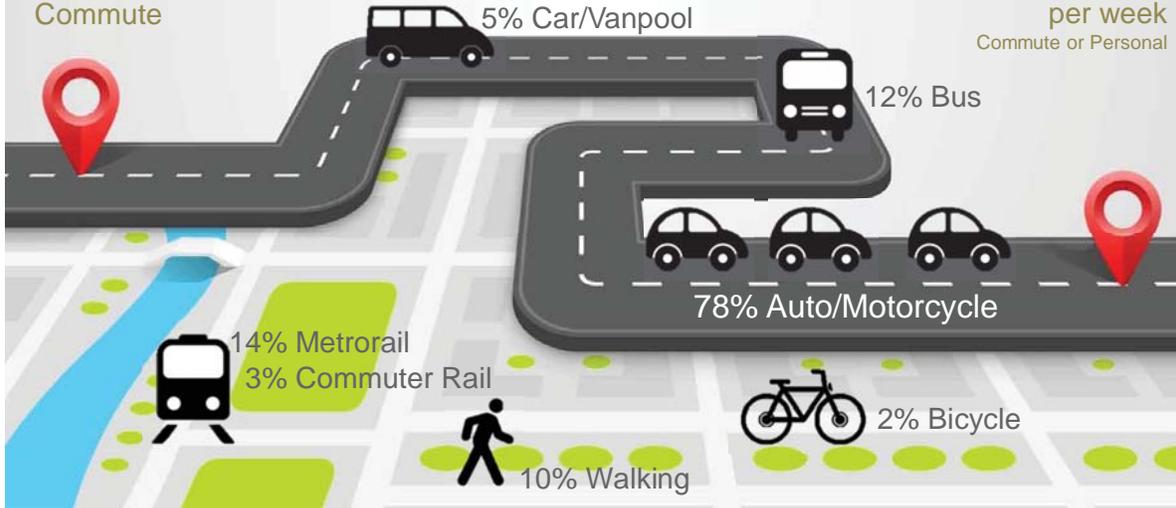


64 minutes

Average Round Trip Commute

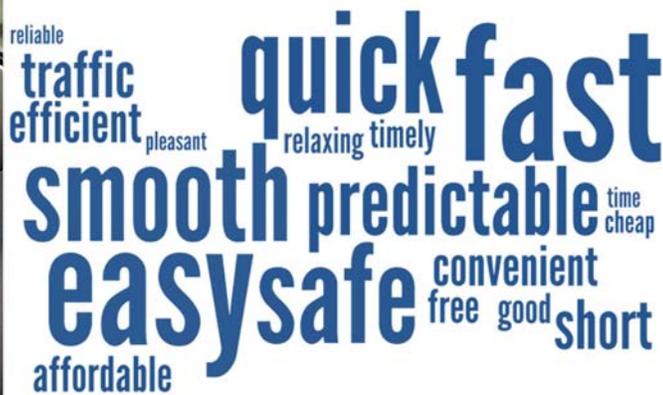
7.4 trips

Average Trips per week Commute or Personal



The ideal travel experience is described as quick, smooth or easy, safe and predictable

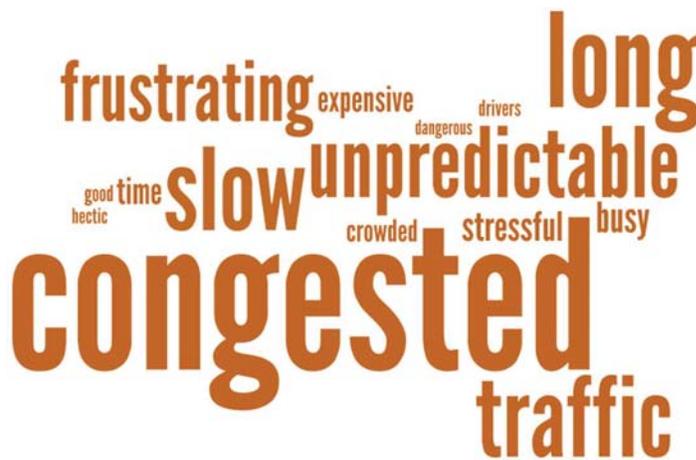
Ideal Travel Description



BASE: All Respondents (n=610)
Q711. What three words best describe your ideal travel experience?

Typical Northern VA travel is described as slow and congested, unpredictable and frustrating

Typical Travel Description



BASE: All Respondents (n=610)
 Q710. Imagine that you are describing your typical travel to someone from outside the region. What three words best describe your typical travel experience?

Northern Virginia
 Transportation Authority
 The Authority for Transportation in Northern Virginia

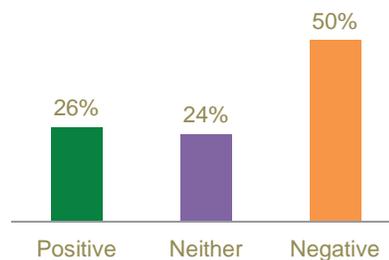
Of those aware of issues, one quarter heard something positive, mostly related to Metro/Wmata extensions or road projects

Top-of-Mind for Transportation Issues

Positive (Unprompted responses)

- **44% Metro/Wmata Mentions**
 - There is on-going work being done on metro expansion from D.C. out to Dulles airport and some other extensions allowing easier access to metro.
 - Extending Metrorail to Woodbridge and Haymarket.
 - Possibility of metro coming to Prince William county.
- **29% Road Mentions**
 - I-95 extending down to Fredericksburg. Route 7 expanding near Sterling to three lanes.
 - Rt. 1 widening project.
 - Approval for road changes at Belmont Ridge Rd. in Leesburg. Continued work on the interchange at Rt.7 and Rt. 9.
- **24% I-66 Mentions**
 - The possibility of making I-66 a toll road in certain areas.
 - Possible HOT lanes on 66. Extending the third lane on 66 between Ballston and Falls Church.
 - I-66 toll lanes in the works and widening I-66 inside the beltway.
- **8% HOV/Express Lanes Mentions**
 - Expansion of the HOV lane south of DC.
 - Expanding HOT lanes.

Is what you heard...



Most Likely to Hear Something Positive:

- 46% Aware of TransAction
- 45% Hispanics
- 39% Loudoun/Prince Wm./Manassas
- 37% Children in HH
- 36% Income <\$50K
- 35% Some College

BASE: ALL RESPONDENTS (n=610; Positive (n=99)
 Q400. What, if anything, have you heard, read or seen recently regarding transportation issues, actions or news in the Northern Virginia region?
 BASE: HEARD, READ, SEEN TRANSPORTATION ISSUES (n=400)
 Q405. Would you consider what you have heard, read, or seen positive or negative?

Northern Virginia
 Transportation Authority
 The Authority for Transportation in Northern Virginia

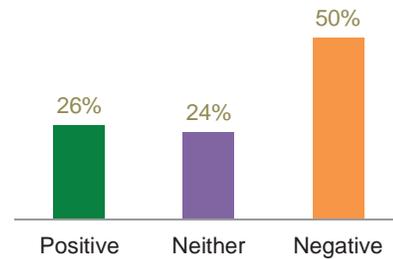
Of those aware of issues, half heard something negative, primarily about Metro/WMATA issues and fees or I-66 tolls

Top-of-Mind for Transportation Issues

Negative (Unprompted responses)

- 45% Metro/WMATA Mentions
 - The Metrorail system in VA/DC has been dealing with a lot of issues lately, from a smoke incident to derailment of a non-passenger train.
 - Metro is losing ridership and considering fare increases.
 - Metro system is expensive and unreliable.
 - Metro closures and delays. Silver line phase 2 delays and weekend track work issues.
- 45% I-66 Mentions
 - Proposed tolls on Rt. 66.
 - Making 66 inside the beltway Hot Lanes and charging expensive tolls.
 - Expansion of I-66 is coming, but it will mainly be for expensive tolls.
- 20% Road Mentions
 - The roads we have cannot support the continuing growth of the infrastructure.
- 18% Traffic/Congestion Mentions
 - Congestion in the DC area is one of the worse in the Nation
- 9% Toll Mentions

Is what you heard...



Most Likely to Hear Something Negative:

- 65% Commute by Rail
- 67% Arlington/Alexandria/Falls Church
- 63% Trans. QOL Decreasing
- 55% White
- 55% No Children in HH

BASE: ALL RESPONDENTS (n=610); Negative (n=206)
 Q400. What, if anything, have you heard, read or seen recently regarding transportation issues, actions or news in the Northern Virginia region?
 BASE: HEARD, READ, SEEN TRANSPORTATION ISSUES (n=400)
 Q405. Would you consider what you have heard, read, or seen positive or negative?

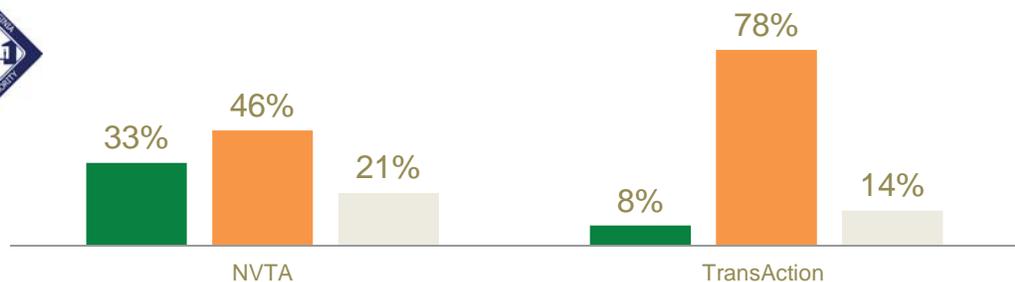


One third have heard of NVTA – typically older residents who have lived in the region over 15 years – but only 8% have heard of TransAction

Have you ever heard of...



■ Yes ■ No ■ Unsure



...an organization called the Northern Virginia Transportation Authority, also known as NVTA?

...the TransAction long range transportation plan?

Most Likely to Have Heard of the NVTA:

- 55% Aware of TransAction
- 45% Influencers
- 44% Ages 65+
- 41% Ages 55-64
- 39% In Region >15 Years
- 39% Males
- 38% White
- 38% Income \$100K+

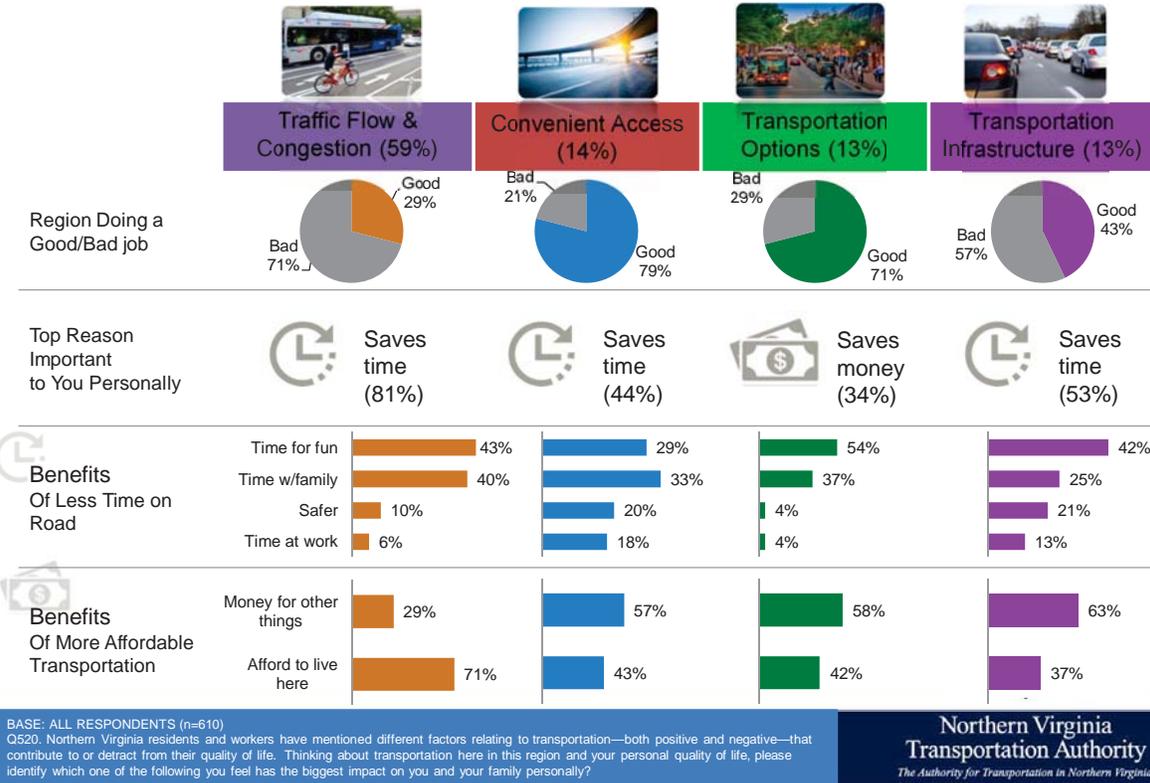
Most Likely to Have Heard of TransAction:

- 21% Ages 18-24
- 18% Hispanics
- 17% Influencers
- 15% In Region 1-5 Years
- 14% Trans. Infrastructure Most Imp.

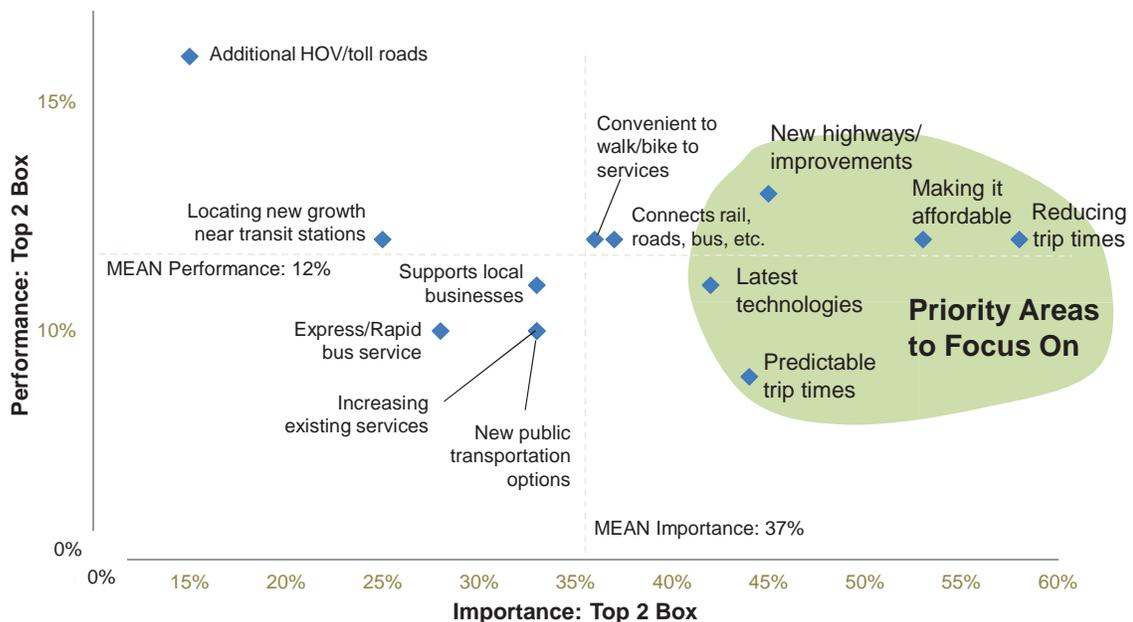
BASE: ALL RESPONDENTS (n=610)
 Q417. Have you ever heard of an organization called the Northern Virginia Transportation Authority also known as NVTA?
 Q420. Have you ever heard of the TransAction long range transportation plan?



Values Report Card Summary



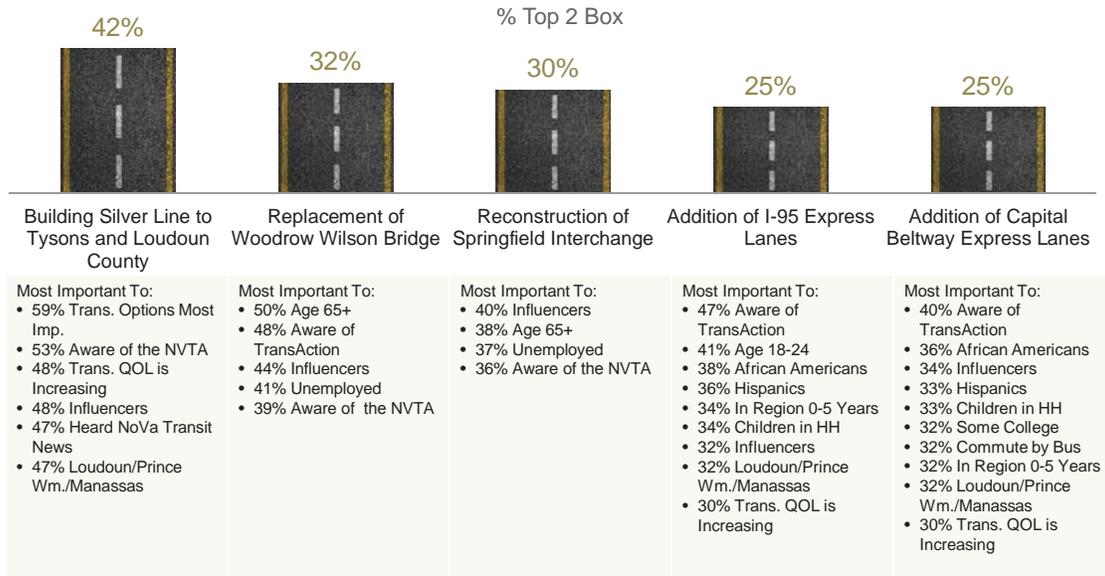
Focus on reducing trip times, making transportation affordable, and implementing new highways/ improvements



BASE: ALL RESPONDENTS (n=610)
 Q600. Thinking specifically about transportation issues and priorities, please rate each of the following where 1 means "Not at all important to the future of the region" and 10 means "Extremely important priority for the future of the region".
 Q605 Please indicate how well you think Northern Virginia is performing on each of these priorities using the scale where 1 means the region is not performing well at all and 10 means the region is performing extremely well.

Building the Silver Line is the most important recent project

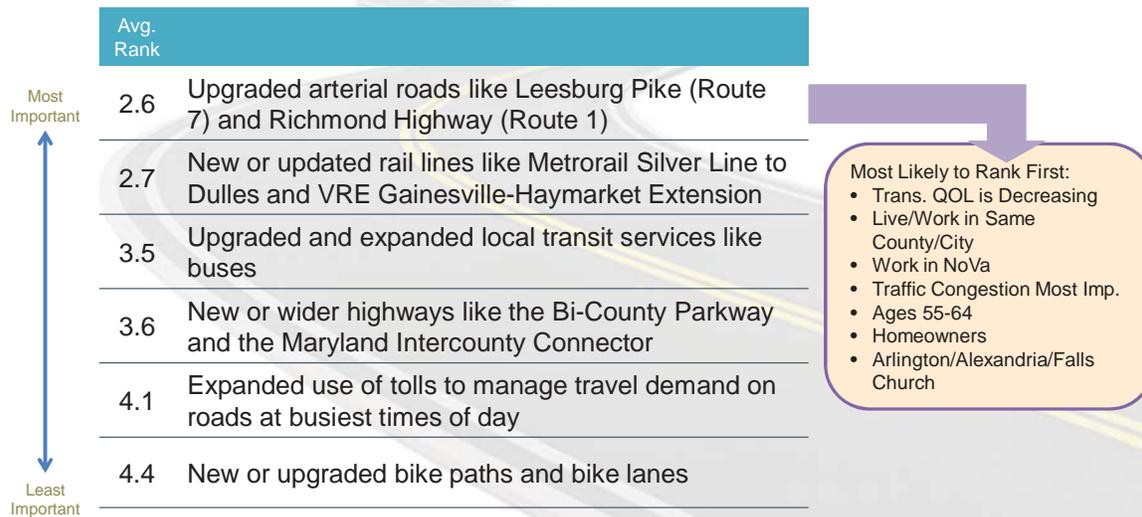
Importance of Recent Projects to Region



BASE: ALL RESPONDENTS (n=610)
 Q610. Thinking about recently and soon-to-be completed projects in the region please indicate how important each of the following have been for the region. Please use a scale where a 1 means "not at all important" and a 10 means "extremely important".

The highest ranking potential project is upgraded arterial roads, particularly among those who work in NoVa or live and work in the same area

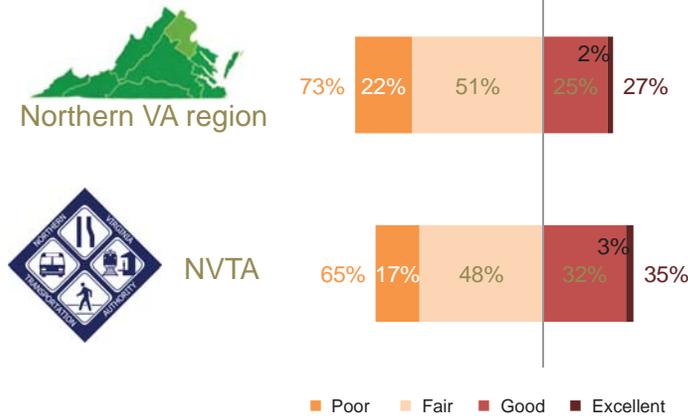
Importance of Potential Projects to Region



BASE: ALL RESPONDENTS (n=610)
 Q620. Now, thinking about potential projects and improvements in the region, please rank the following from 1 to 6 where 1 is the "most important" and 6 is the "least important".

Those aware of the NVTA rate the organization's performance on implementing solutions slightly more favorably than that of the region

Performance on Planning and Implementing Transportation Solutions



- Most Likely to Rate NoVa Good/Excellent:**
- 53% Aware of TransAction
 - 39% Aware of the NVTA
 - 39% Hispanics
 - 36% Influencers
 - 36% Trans. Options Most Imp.
 - 36% Children in HH
 - 35% Renters
 - 34% Trans. Infrastructure Most Imp.
 - 33% In Region 6-10 Years
 - 32% In Region 1-5 Years

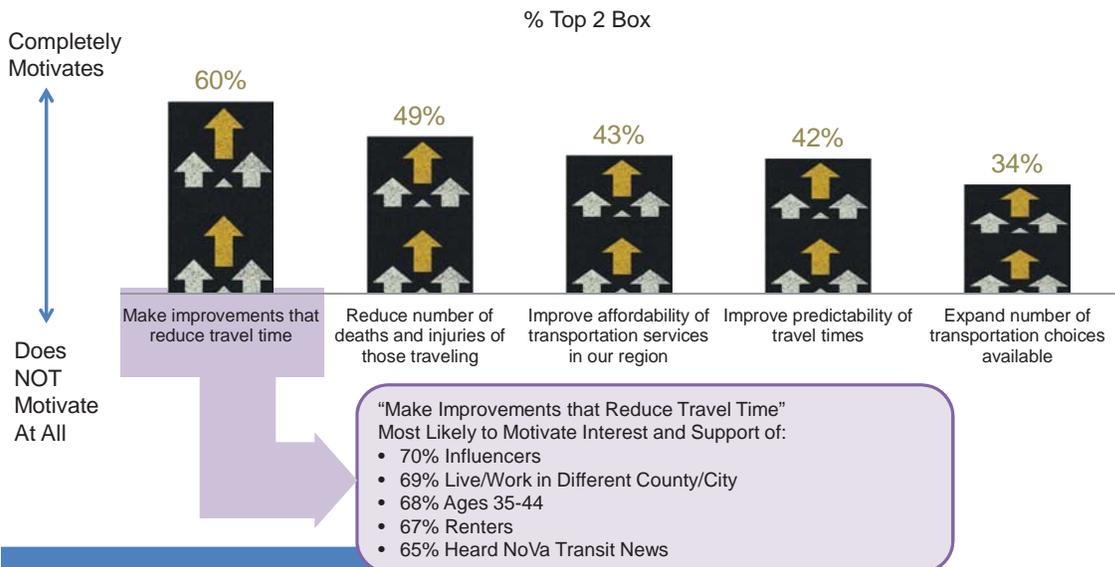
- Most Likely to Rate the NVTA Good/Excellent:**
- 48% Children in HH
 - 46% Influencers
 - 46% Renters
 - 44% Trans. QOL is Increasing

BASE: ALL RESPONDENTS (n=610)
 Q630. How would you rate the performance of Northern Virginia region when it comes to planning and implementing transportation solutions in the region?
 BASE: Have Heard of NVTA (n=207)
 Q645. How would you rate the performance of Northern Virginia Transportation Authority (NVTA) when it comes to planning and implementing transportation solutions in the region?



Reducing travel time best motivates interest and support among residents, particularly among those that live and work in different jurisdictions

Motivates Interest and Support



BASE: ALL RESPONDENTS (n=610)
 Q705. The following are strategies to help fulfill the regional values and priorities we have been talking about. There are different ways to talk about these priorities and goals. Please indicate the degree to which the goal captures your interest and motivates your interest and support by rating the statements from 1 to 10 where 1 means “does not motivate your interest and support at all” and 10 means “completely motivates your interest and support”.



Residents would allocate the majority of investment to roads, followed by rail/transit with bike and pedestrian improvements receiving about 14%

Proportion of Investment in Transportation Improvements

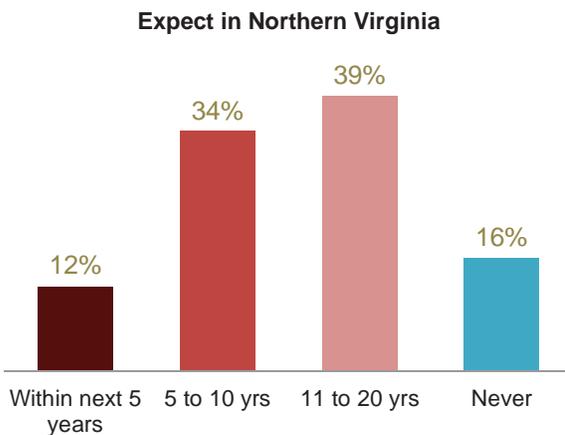


BASE: ALL RESPONDENTS (n=610)
 Q735. If you had money to invest in transportation infrastructure improvements what proportion would you spend on roads, rail/transit and bicycle/pedestrian improvements? Please allocate 100 points to demonstrate how you would invest in each of the following...

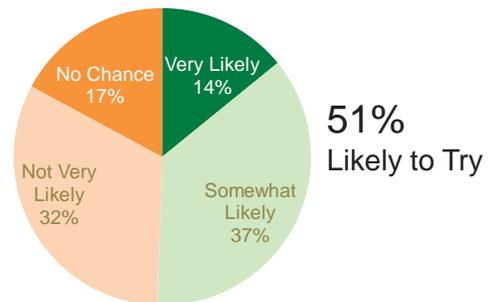
Northern Virginia
 Transportation Authority
 The Authority for Transportation in Northern Virginia

Self-driving cars are expected within the 5 to 20 years and residents are split on whether they would give the new technology a try

Self-Driving Cars



Likelihood to Try



Those Very/Somewhat Likely to Try:

- 72% Commute as a Pedestrian
- 66% Aware of TransAction
- 65% Ages 18-24
- 65% Hispanics
- 59% In Region 0-5 Years
- 58% Ages 25-34
- 57% Renters
- 56% Males

BASE: ALL RESPONDENTS (n=610)
 Q715. Several auto manufacturers are working to develop driverless vehicles, which promise to be safer and significantly reduce congestion. Google predicts fully self-driving cars will be on U.S. highways by 2020 and this fall the company is testing them on public streets in Austin, Texas and Mountain View, California. When do you believe driverless cars will be driving on Northern Virginia highways?
 Q720. If self-driving cars make it to Northern Virginia roads by 2020, how likely would you be to try one out?

Northern Virginia
 Transportation Authority
 The Authority for Transportation in Northern Virginia

TRANSACTION TRACKING SURVEY RESULTS

In December 2016 NVTA followed up with a Tracking Survey (one year after the Benchmark Survey) to quantify changes in perceptions around transportation conditions and agency performance.

(This page intentionally left blank)

NVTA TransAction 2016 Tracking Survey



AUDIENCE

Residents in NVTA member jurisdictions of Northern Virginia
n=606



DATES

December 12-21, 2016



MODE

Online Survey



LENGTH

8 minutes



GEOGRAPHY

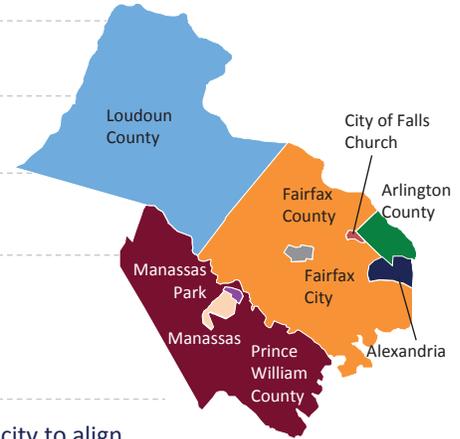
Northern Virginia

Arlington County, Fairfax County, Loudoun County, Prince William County, Alexandria, Fairfax City, City of Falls Church, Manassas, Manassas Park



DATA WEIGHTING

All 2016 data weighted by gender and ethnicity to align with 2015 data.

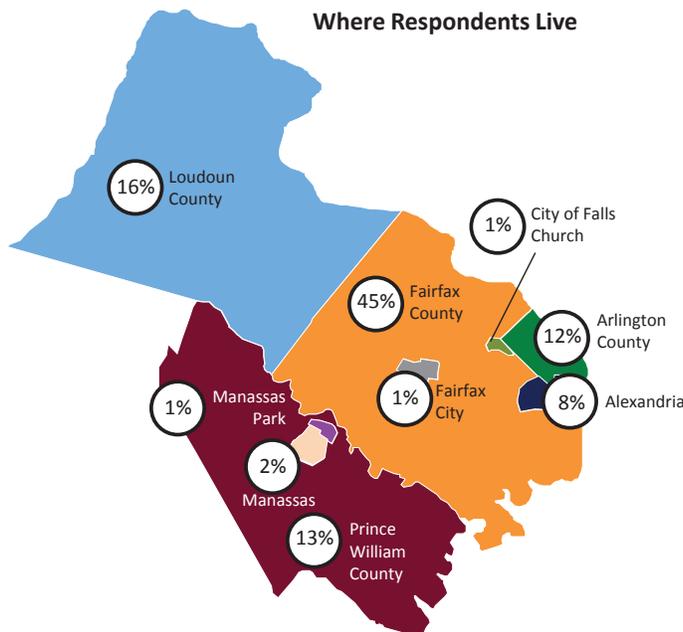


Denotes significant differences between 2015 and 2016



Resident Profile

Where Respondents Live



County/City of Employment	2015	2016
Fairfax County	37%	36%
District of Columbia	18%	12%
Arlington County	11%	11%
Loudoun County	8%	13%
Alexandria	7%	9%
Prince William County	6%	8%
Manassas	4%	2%
Fairfax City	2%	2%
City of Falls Church	1%	1%
Manassas Park	*	*
Other county in Virginia	1%	1%
Other county in Maryland	3%	2%
Other	1%	3%

Years of Residency

Less than 1 year	3%	2%
1 to 5 years	19%	16%
6 to 10 years	14%	12%
11 to 15 years	12%	14%
More than 15 years	51%	56%

Own/Rent Home

Own	65%	70%
Rent	32%	26%
Neither	2%	3%
Decline	1%	1%





EXECUTIVE SUMMARY



Executive Summary

- Northern Virginia residents' interest in and knowledge of transportation issues is on the rise since 2015.
- Quality of life in the context of transportation continues to be moderate, receiving a 6 out of 10 rating.
 - The factor that most impacts quality of life for Northern Virginia residents is "reducing traffic congestion and improving transportation options."
- The primary information sources continues to include TV, print and radio but, social media has increased significantly as a source of information (from 24% up to 31% as a source for recent information.)
- One quarter of residents report having heard something positive about transportation in the Northern Virginia region and one half have heard something negative. These trends are in line with 2015.
- Awareness of the NVTAs is on par with that of 2015, while awareness of TransAction has nearly doubled in the past year (from 8% to 15% in 2016).



Executive Summary

- Northern Virginians who drive to work will tolerate some congestion for their commute, but current congestion is already close to acceptable levels.
- While the impact of traffic flow and congestion on residents' lives has decreased slightly since 2015 (from 59% to 53%), it remains the most impactful factor.
 - It is of particular concern to Prince William residents, those with incomes of \$100K or more, and those who have not lived in the region most of their lives.
- Since 2015 the impact of transportation options and transportation infrastructure has increased up from 13% to 17%, though not significantly.
- Regarding transportation infrastructure, 68% of residents perceive the region is doing a good job, a 25-point uptick from 2015.



Executive Summary

- Importance of each regional transportation priority remains on par with 2015, except for new public transportation options where a significant increase in importance is noted.
- Performance on these same priorities has undergone a slight positive shift with a few areas of significant improvement. Those include: predictable trip times, increased routes and locating new growth near transit.
- Among recent transportation projects, building the Silver Line remains most important to residents.
- Among potential projects, upgraded arterial roads and rail lines top the list.
- Ratings of both Northern VA and the NVTA's performance with regard to planning and implementing transportation solutions remain unchanged.



Executive Summary

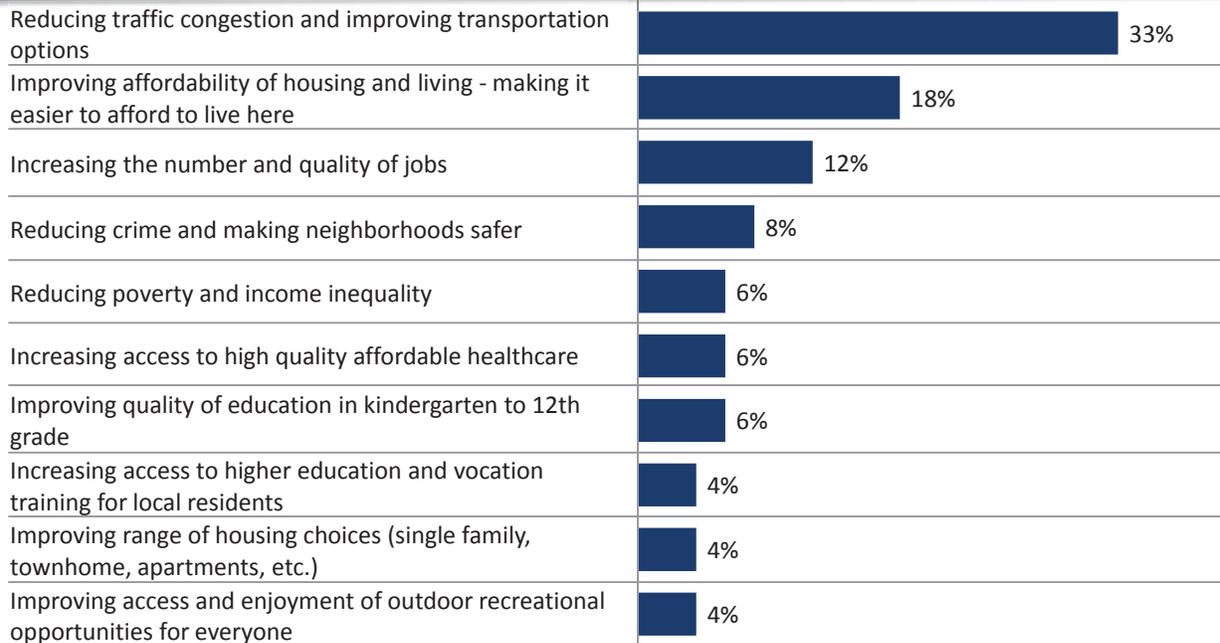
- In terms of communication, a focus on reducing travel time continues to best motivate interest and support among residents.
- When asked to prioritize investment, residents allocate the majority to roads, followed by rail/transit and finally by measures to incentivize less driving at peak times.
- Self-driving cars are viewed as “scary” or “dangerous” with a smaller group of residents also categorizing them as “good.”
- Uber and Lyft are the most frequently used alternatives to owning a car. Furthermore, residents expect usage to increase in the next year.
- On average, three quarters of Northern Virginia residents conduct online shopping once a month or more.



KEY FINDINGS

One-third of residents consider "Reducing traffic congestion and improving transportation options" the most impactful factor on their quality of life.

Significant Impact on Quality of Life



9

BASE: ALL RESPONDENTS (n=606)
Q156 People in different regions of the country mention many factors that contribute to their quality of life. Thinking about the quality of life specifically in the Northern Virginia region, please identify which one of the following factors has the most significant impact on the overall quality of life for you personally.



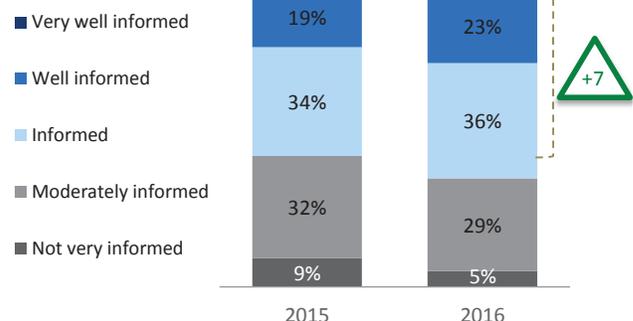
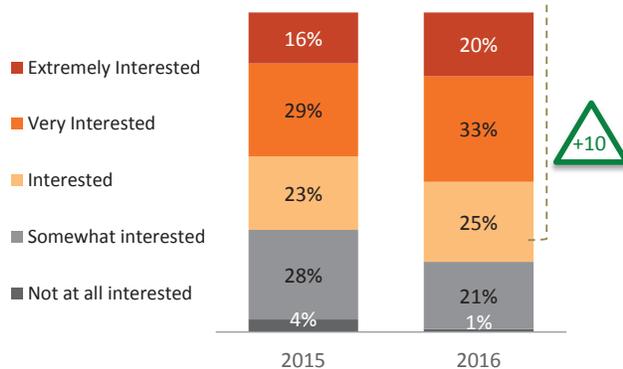
Since 2015, significantly more Northern VA residents are interested in and informed about transportation issues - nearly 6 in 10 are Influencers.

Interest

Issues related to Transportation in Northern Virginia

Informed

Issues related to Transportation in Northern Virginia



INFLUENCERS
(Interested AND Informed)



Most Likely to Be Influencers:

- 87% Aware of TransAction
- 75% Aware of the NVTA
- 66% Loudoun County
- 65% Heard NoVa Transit News
- 65% Male
- 64% \$50K - \$99.9K
- 63% Kids in HH
- 62% College Grad+

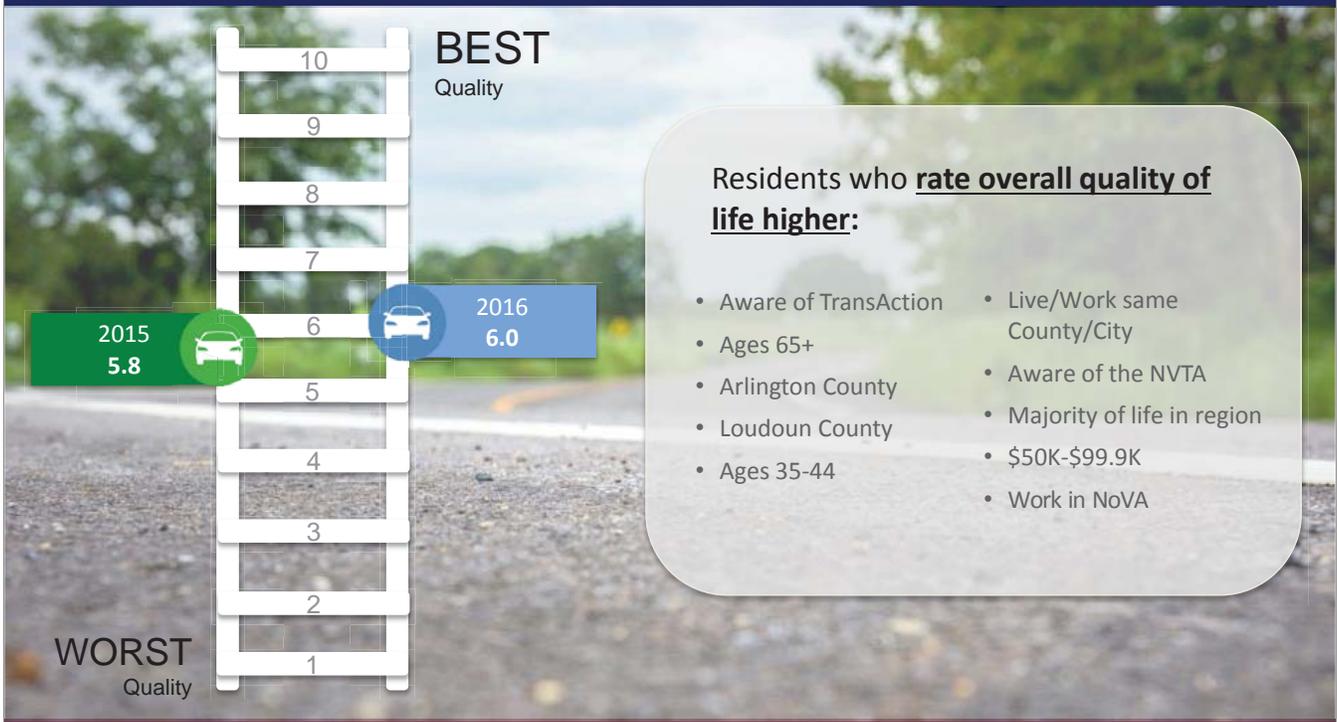
10

BASE: ALL RESPONDENTS (n=606)
Q200. There are a lot of issues in the news, and it is hard to keep up with them every day. Please indicate how interested you are in issues relating to transportation in the Northern Virginia region (such as roads, traffic, commuting, public transportation, biking, trails, etc.).
Q205. How informed are you about issues relating to transportation in the Northern Virginia region (such as roads, traffic, commuting, public transportation, biking, trails, etc.)?



19

Quality of life with regard to transportation is still seen as mediocre among Northern VA residents.

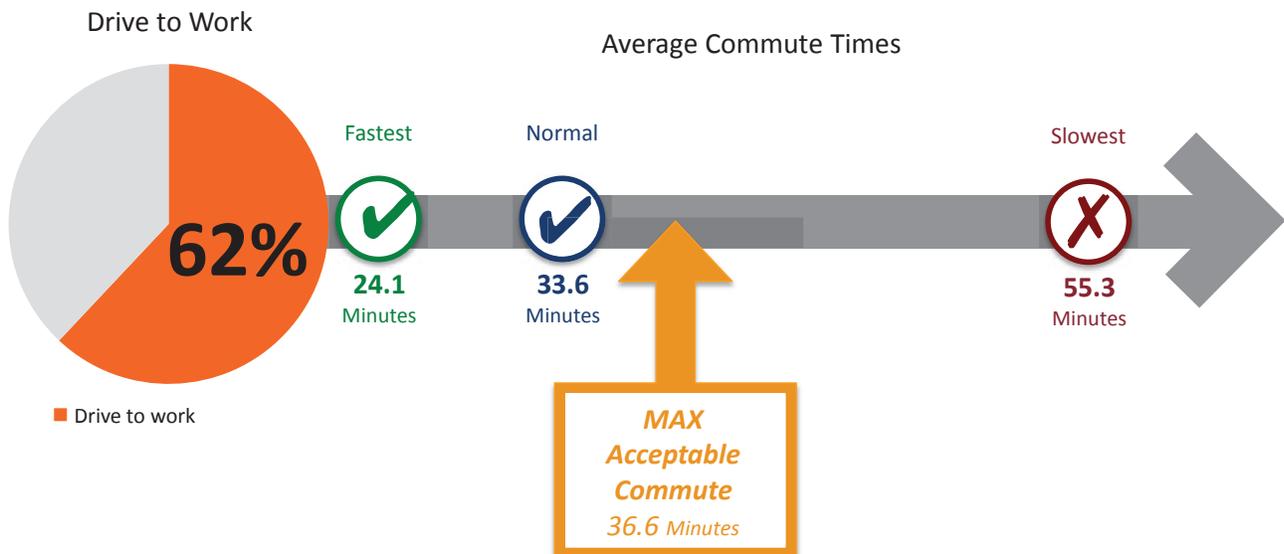


11 BASE: ALL RESPONDENTS (n=606)
Q300 Think for a moment about the **impact of transportation on your overall quality of life here in Northern Virginia**. Imagine a ladder with ten steps representing the "ladder of life." Let's suppose the top of the ladder, the tenth step, represents the best possible life for you from a transportation perspective; and the bottom, the first step, the worst possible life for you from a transportation perspective. On a scale of 1 to 10, on which step of the ladder do you personally stand at the **present time**?



Typically, residents' max acceptable commute only allows for approximately 3 minutes additional flexibility from their average commute time.

Impact of Traffic Congestion Levels on Commute Time



12 BASE: ALL RESPONDENTS (n=606)
Q580. Do you drive to work?
BASE: DRIVE TO WORK (n=374)
Q585. In a vibrant region like Northern Virginia, some level of traffic congestion is inevitable for people who drive to work. Thinking about your regular morning commute trip, please provide an estimated number of minutes for each of the following:



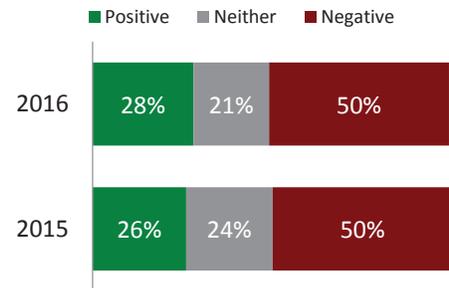
Similar to 2015, a quarter heard something positive largely related to either Metro/WMATA improvements or road projects.

Top-of-Mind for Transportation Issues

Positive

- **36% Metro/WMATA Mentions**
 - I know they are connecting the Dulles airport with the metro, they are repairing some of the metro lines, and they are privatizing the metro parking lots.
 - Metro is working on issues with its system to make it safer.
 - Plans are underway to extend the Metro to Fredericksburg, VA.
- **27% Road Mentions**
 - Infrastructure budget for road improvement has been approved.
 - Continued enhancements of route 7 with fly overs for cross roads, making biking trail safer so not to cross over busy roads.
 - Much construction of roads around Fort Belvoir.
- **15% I-66 Mentions**
 - Interstate 66 will be widened inside the beltway and turned into a toll road.
 - The sale of the right to collect tolls on I-66 and the potential road improvements related to it. Biggest plus in the contract is that it was not given to the 495 hot lanes who gouged people for violations which weren't really their fault.
- **5% Bus Mentions**

Is what you heard...



Most Likely to Hear Something Positive:

- 55% Aware of TransAction
- 40% Loudoun County
- 39% Kids in HH
- 38% Ages 65+
- 37% Ages 25-34
- 35% Aware of the NVTA
- 33% Influencers

13 BASE: ALL RESPONDENTS (n=606); Positive (n=115)
 Q400. What, if anything, have you heard, read or seen recently regarding transportation issues, actions or news in the Northern Virginia region?
 BASE: HEARD, READ, SEEN TRANSPORTATION ISSUES (n=411)
 Q405. Would you consider what you have heard, read, or seen positive or negative?



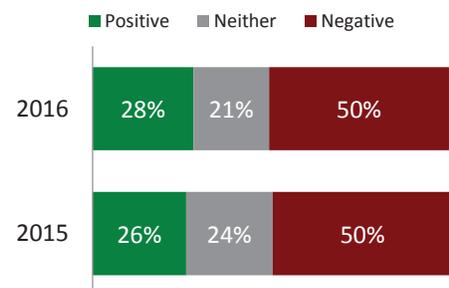
Half of residents heard something negative, focused primarily on Metro/WMATA issues.

Top-of-Mind for Transportation Issues

Negative

- **62% Metro/WMATA Mentions**
 - Metro is going to be cutting hours for the next two years and a train de-coupled yesterday.
 - Problems with Metro and disputes over how to fund it.
 - There are a lot of Metro delays and as a result it affects your work schedule.
 - Metro is being sued and has been in financial trouble.
- **22% I-66 Mentions**
 - Push for toll road on I-66. This is a total disaster, especially if they let single drivers with deep pockets clutter up the road instead of encouraging carpools.
 - I-66 toll lanes will impact my commute.
- **20% Road Mentions**
 - Need to replace deteriorating bridges and roads. Need for additional capacity to roads to support area growth.
 - Terrible road conditions (potholes, etc.), bridges are old and need repairs.
- **16% Traffic/Congestion Mentions**
 - Increased traffic congestion around the opening of the MGM casino in Maryland.
- **8% Toll Mentions**

Is what you heard...



Most Likely to Hear Something Negative:

- 73% Work in DC
- 68% Work outside NoVA
- 65% Arlington County
- 62% Live/Work different County/City
- 62% Rent home
- 57% Fairfax County/Falls Church
- 56% No Kids in HH
- 55% Not Aware of TransAction

14 BASE: ALL RESPONDENTS (n=606); Negative (n=213)
 Q400. What, if anything, have you heard, read or seen recently regarding transportation issues, actions or news in the Northern Virginia region?
 BASE: HEARD, READ, SEEN TRANSPORTATION ISSUES (n=411)
 Q405. Would you consider what you have heard, read, or seen positive or negative?



TV, print and radio remain the primary transportation information sources in 2016. However, social media has increased significantly as a source of information over the past year.

Most Recent Information Sources for Transportation Issues

	2015	2016
Television/News story	54%	57%
Print article or ad In newspaper, magazine, flyer or information packet	46%	45%
Radio ad, news, discussion	41%	38%
Social Media	24%	31%
Website	8%	9%
Community Meeting	7%	9%
Other	7%	4%
Do not recall	3%	3%

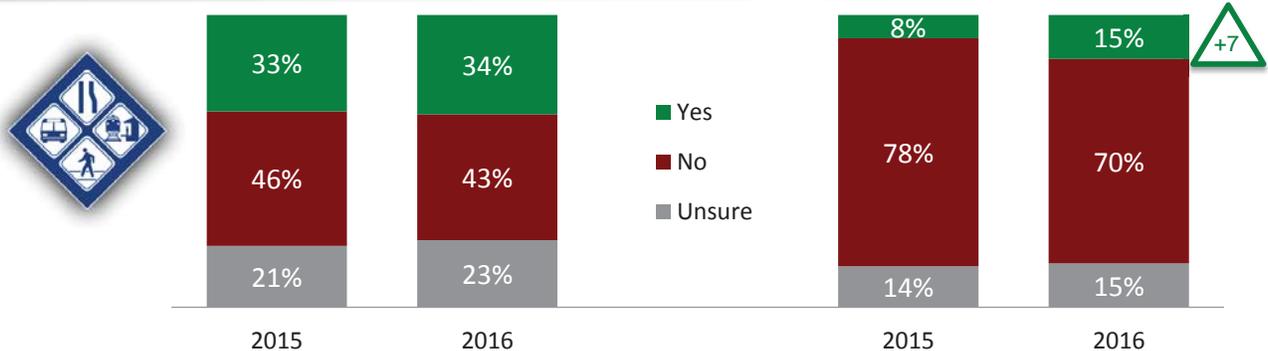
15

BASE: HEARD, READ, SEEN TRANSPORTATION ISSUES (n=411)
Q410. Where did you hear or see this information? Choose all the apply.



Awareness of TransAction has nearly doubled since 2015, and is more likely to be recognized by those also aware of the NVTA.

Have you ever heard of...



...an organization called the **Northern Virginia Transportation Authority**, also known as NVTA?

Most Likely to Have Heard of the NVTA:

- 72% Aware of TransAction
- 56% Loudoun County
- 50% Ages 65+
- 44% Influencer
- 41% Heard NoVA Transit News
- 40% \$100K+
- 40% White
- 40% Married/Live with Partner

...the **TransAction** long range transportation plan?

Most Likely to Have Heard of TransAction:

- 31% Aware of the NVTA
- 24% Loudoun County
- 24% Ages 25-34
- 23% Kids in HH
- 22% Influencer
- 20% Live/Work same County/City
- 20% \$50K - \$99.9K

16

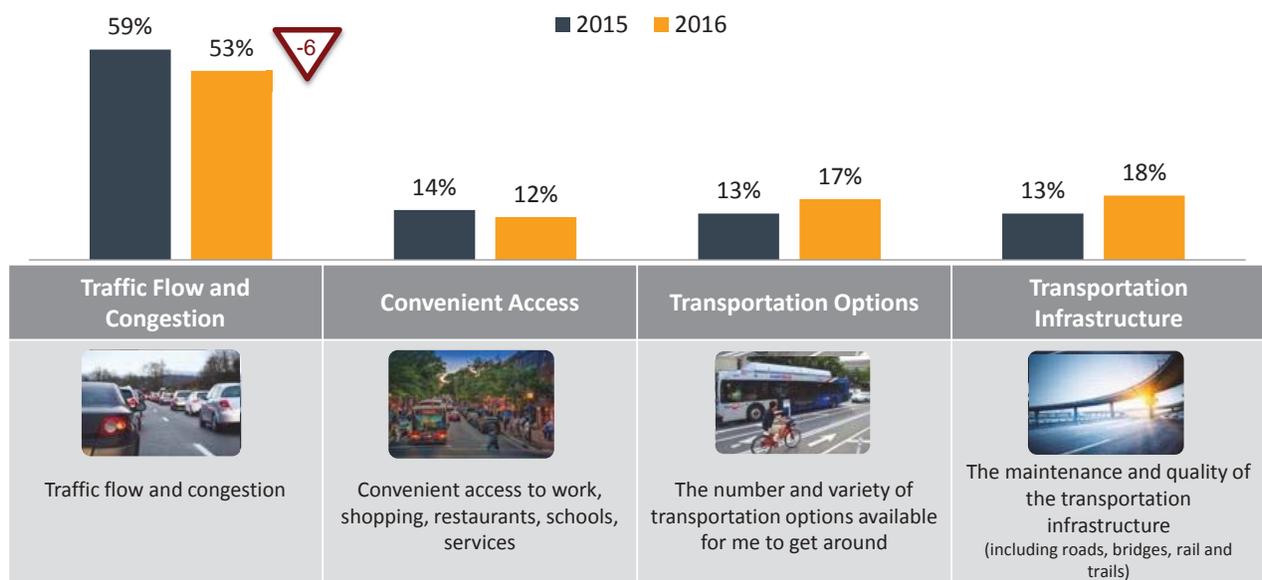
BASE: ALL RESPONDENTS (n=606)
Q417. Have you ever heard of an organization called the Northern Virginia Transportation Authority also known as NVTA?
Q420. Have you ever heard of the TransAction long range transportation plan?



Transportation PERSONAL VALUES

Traffic flow and congestion remains the greatest influence on the quality of residents' lives, but has significantly decreased in the past year, while the impact of both transportation options and infrastructure have increased moderately.

Biggest Impact on Your Quality of Life



Traffic congestion is of particular concern among Prince William residents, those with incomes of \$100K or more, and those who have not lived in the region most of their life.

Biggest Impact on Your Quality of Life – Subgroup Analysis

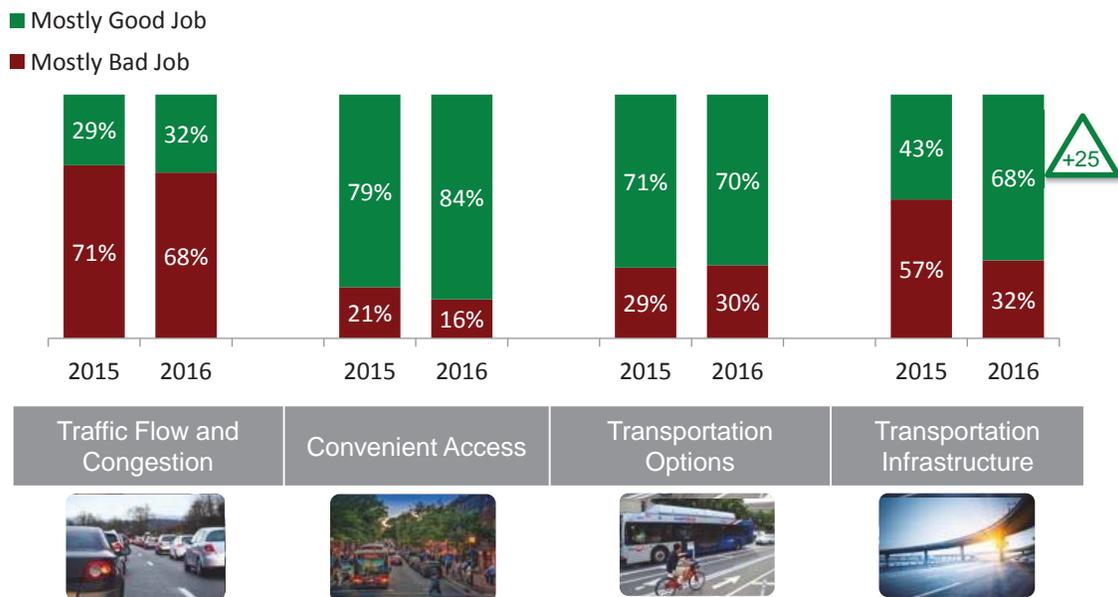
 Traffic Flow and Congestion (53%)	 Convenient Access (12%)	 Transportation Options (17%)	 Transportation Infrastructure (18%)
<ul style="list-style-type: none"> 71% Prince William County 61% \$100K+ 59% White 59% Majority of life outside region 59% Drive to work 58% Female 58% Married/with Partner 	<ul style="list-style-type: none"> 18% Single, Never Married 17% \$50K-\$99.9K 	<ul style="list-style-type: none"> 28% Aware of TransAction 24% Ages 55-64 23% Do not drive to work 	<ul style="list-style-type: none"> 32% Ages 65+ 28% Arlington County 28% Alexandria 27% Aware of TransAction 23% Male

19 BASE: ALL RESPONDENTS (n=606)
 Q520. Northern Virginia residents and workers have mentioned different factors relating to transportation—both positive and negative—that contribute to or detract from their quality of life. Thinking about transportation here in this region and your personal quality of life, please identify **which one of the following you feel has the biggest impact on you and your family personally?**



There is a strong positive 25-point shift in the perception that the region is doing a good job when it comes to Transportation Infrastructure.

Region is Doing A...



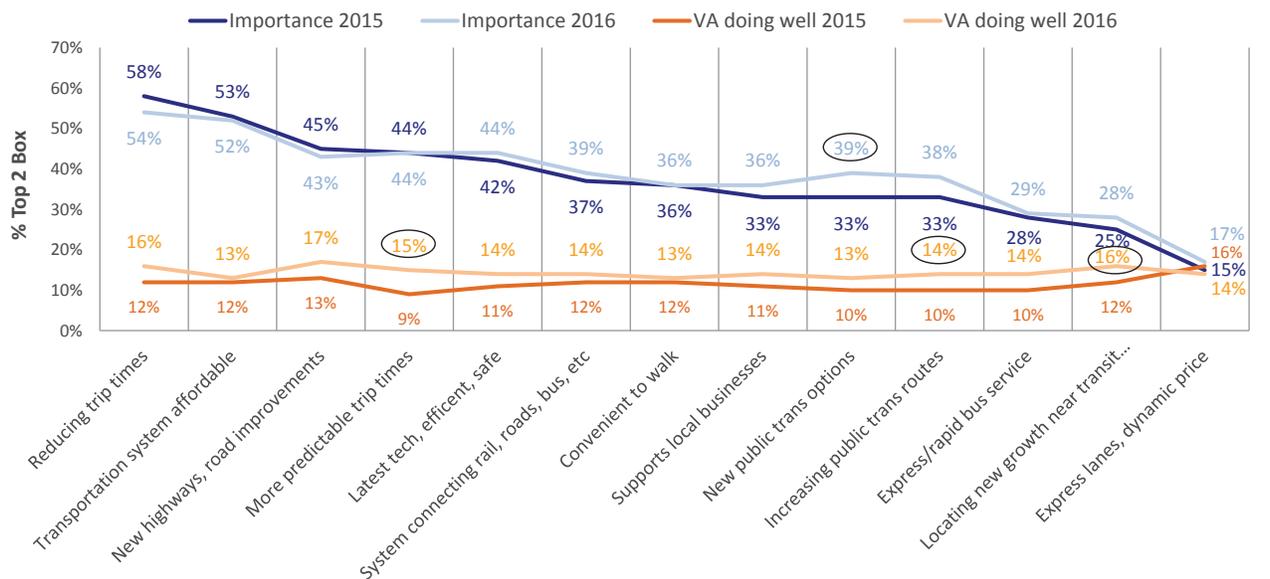
20 BASE: SELECTED IN Q520 (Q530 n=97; Q540 n=101; Q550 n=71; Q560 n=337)
 Q530. Currently, when it comes to the number and variety of transportation options, do you feel that the region is doing a good job or a bad job?
 Q540. Currently, when it comes to the maintenance and quality of the transportation infrastructure do you feel that the region is doing a good job or a bad job?
 Q550. Currently, when it comes to convenient access to work, shopping, restaurants, schools and services, do you that like the region is doing a good job or a bad job?
 Q560. Currently, when it comes to improving traffic flow and reducing congestion, do you feel that the region is doing a good job or a bad job?



Transportation REGIONAL VALUES

Regional performance on key metrics has had a marginal positive shift with a few areas of significant improvement, including predictable trip times, increased routes and locating new growth near transit.

Importance vs. Performance on Regional Transportation Priorities



○ Denotes significant differences between 2015 and 2016

Although the gap between importance and performance has been moderately reduced among the top priorities, there remains a sizable difference and room for further improvement.

Importance vs. Performance on Regional Transportation Priorities

% Top 2 Box	■ Important Priority to Region	■ No. VA Performing Well	Difference (Perf – Imp)	Change in Difference vs. 2015
Reducing trip times	54%	16%	-38	+8
Making sure that our transportation system is affordable	52%	13%	-39	+2
Investing in new highways and road improvements	43%	17%	-26	+6
More predictable trip times	44%	15%	-29	+6
Making sure our transportation system takes advantage of the latest technologies to make it more efficient and safer	44%	14%	-30	+1
Providing a transportation system that connects rail, roads, bus, biking and pedestrians	39%	14%	-25	0
Making it convenient to walk or bike to neighborhood stores, businesses, and schools	36%	13%	-23	+1

23

BASE: ALL RESPONDENTS (n=606)
 Q600. Thinking specifically about transportation issues and priorities, please rate each of the following where 1 means 'Not at all important to the future of the region' and 10 means 'Extremely important priority for the future of the region':
 Q605 Please indicate how well you think Northern Virginia is performing on each of these priorities using the scale where 1 means the region is not performing well at all and 10 means the region is performing extremely well.



On lower priority items, there is still quite a bit of room for improvement.

Importance vs. Performance on Regional Transportation Priorities

% Top 2 Box	■ Important Priority to Region	■ No. VA Performing Well	Difference (Perf – Imp)	Change in Difference vs. 2015
Building a transportation system that supports local businesses and the regional economy	36%	14%	-22	No change
Providing new public transportation options	39%	13%	-26	-3
Increasing existing service and routes of public transit systems	38%	14%	-24	-1
Creating express or rapid bus service for key corridors	29%	14%	-15	+3
Locating new growth in the region near transit stations	28%	16%	-12	+1
Building additional express lanes (high-occupancy-toll) that are dynamically priced (i.e., toll rates are higher during high demand periods)	17%	14%	-3	-4

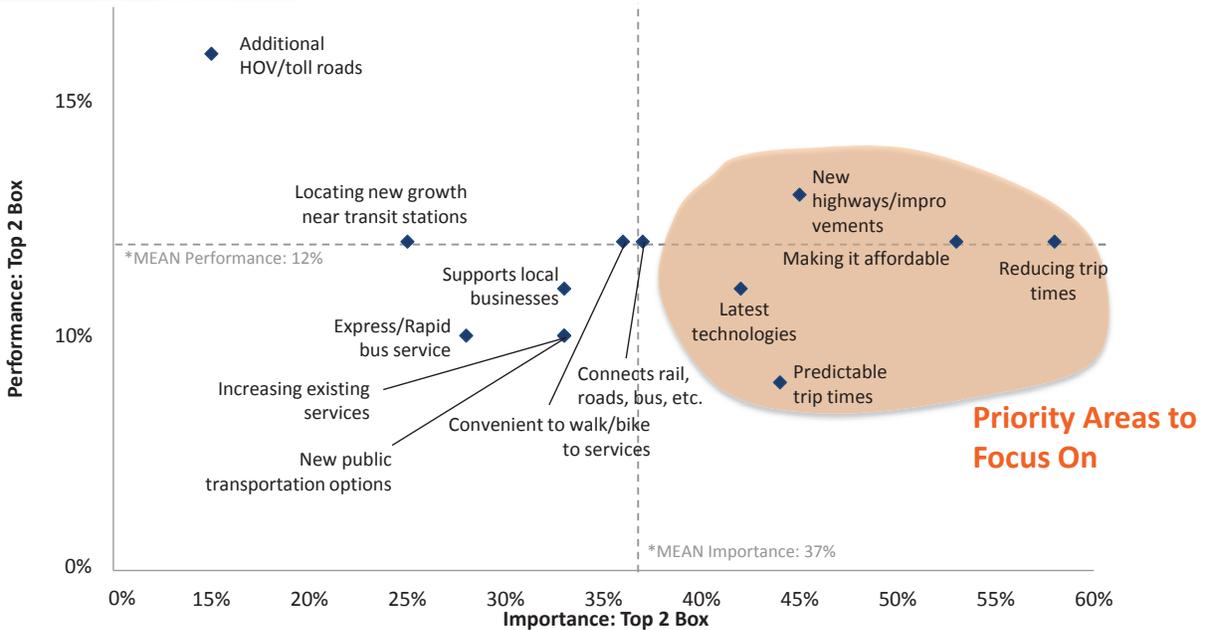
24

BASE: ALL RESPONDENTS (n=606)
 Q600. Thinking specifically about transportation issues and priorities, please rate each of the following where 1 means 'Not at all important to the future of the region' and 10 means 'Extremely important priority for the future of the region':
 Q605 Please indicate how well you think Northern Virginia is performing on each of these priorities using the scale where 1 means the region is not performing well at all and 10 means the region is performing extremely well.



The 2015 recommendation was to focus efforts on trip times and making transportation affordable through new highways, improvements and technologies.

2015: Performance vs. Importance



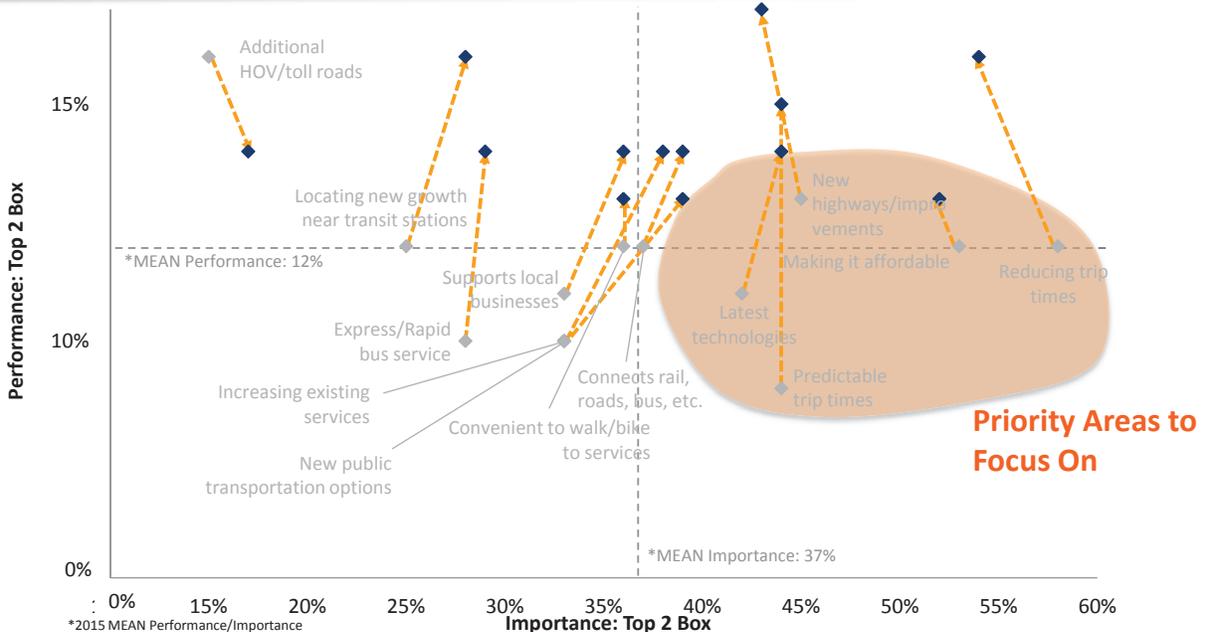
BASE: ALL RESPONDENTS (2015 n=610)
 Q600. Thinking specifically about transportation issues and priorities, please rate each of the following where 1 means 'Not at all important to the future of the region' and 10 means 'Extremely important priority for the future of the region':
 Q605 Please indicate how well you think Northern Virginia is performing on each of these priorities using the scale where 1 means the region is not performing well at all and 10 means the region is performing extremely well.



25

The 2016 focus has created marginal lift among all metrics with the exception of "Additional HOV/toll roads."

2015 to 2016: Performance vs. Importance



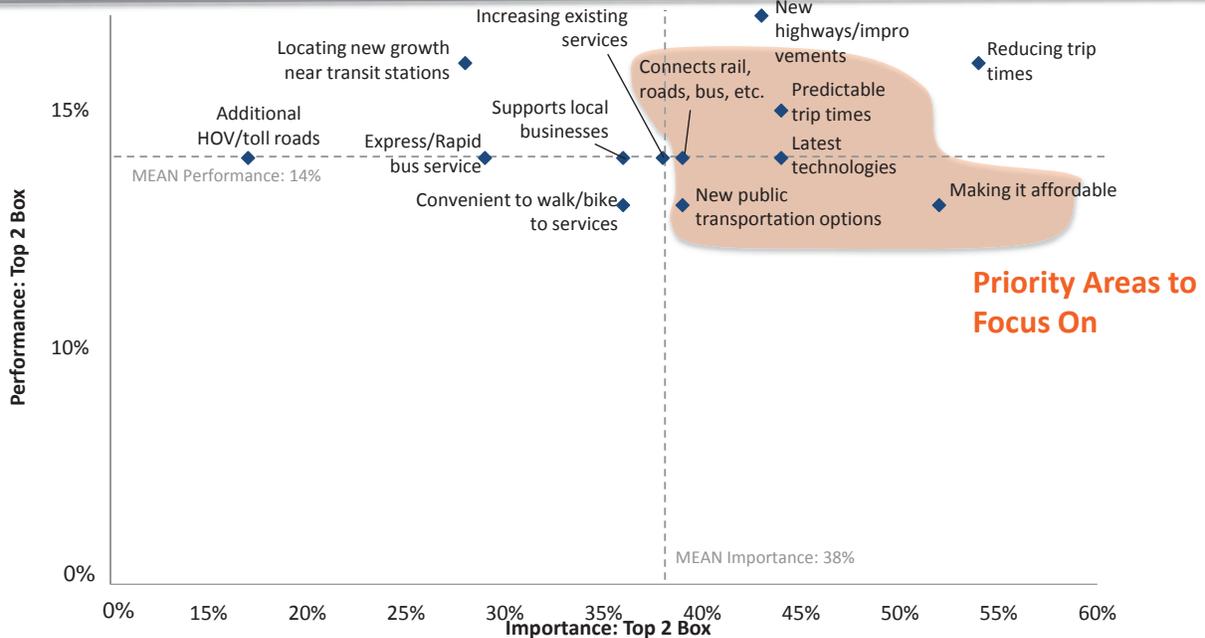
BASE: ALL RESPONDENTS (2016 n=606); (2015 n=610)
 Q600. Thinking specifically about transportation issues and priorities, please rate each of the following where 1 means 'Not at all important to the future of the region' and 10 means 'Extremely important priority for the future of the region':
 Q605 Please indicate how well you think Northern Virginia is performing on each of these priorities using the scale where 1 means the region is not performing well at all and 10 means the region is performing extremely well.



26

In 2017, the NVTA should continue to focus its efforts on reducing trip times and making transportation affordable, but by way of new transportation options and technologies.

2016: Performance vs. Importance

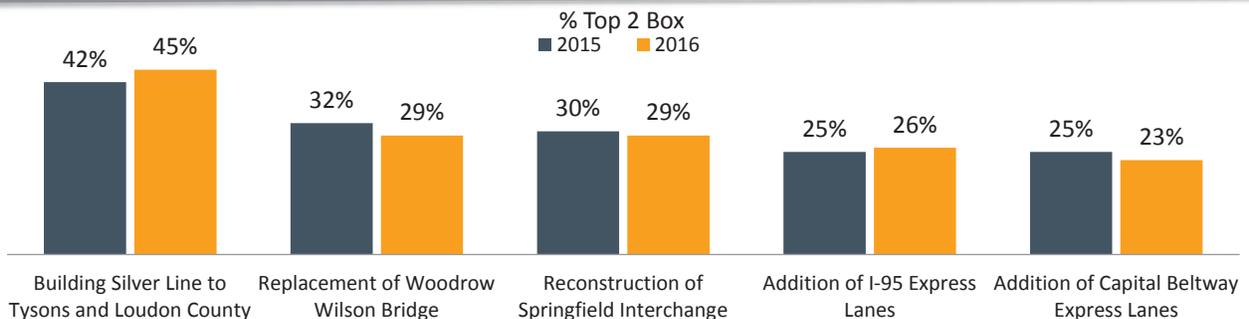


BASE: ALL RESPONDENTS (n=606)
 Q600. Thinking specifically about transportation issues and priorities, please rate each of the following where 1 means 'Not at all important to the future of the region' and 10 means 'Extremely important priority for the future of the region':
 Q605 Please indicate how well you think Northern Virginia is performing on each of these priorities using the scale where 1 means the region is not performing well at all and 10 means the region is performing extremely well.



Building the Silver Line remains the most important recent project to residents, particularly to those age 65 or older.

Importance of Recent Projects to Region



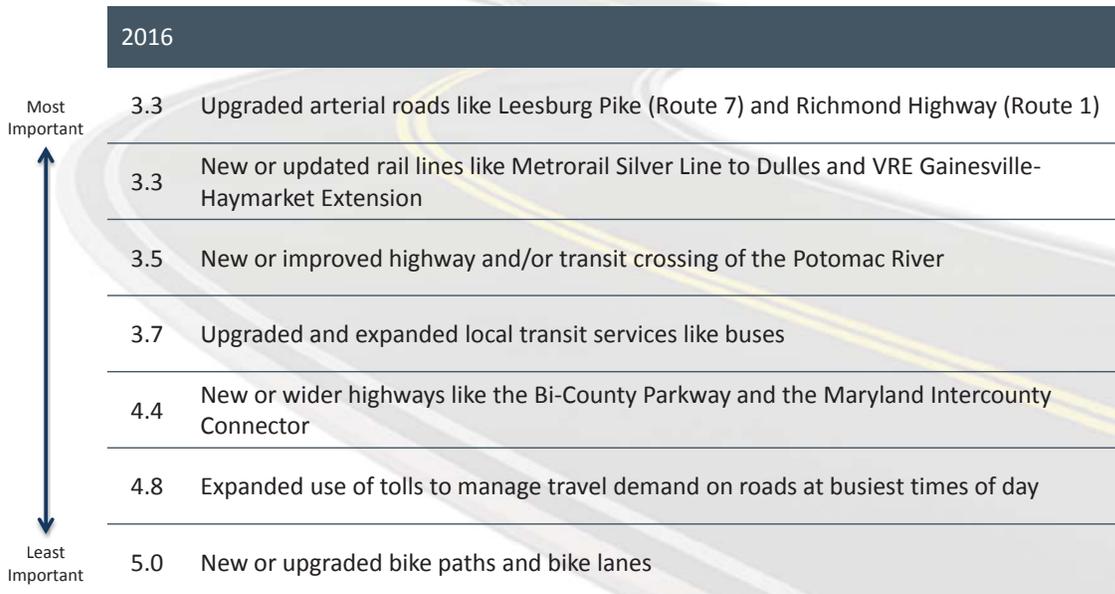
Project	Most Important To:
Building Silver Line to Tysons and Loudoun County	<ul style="list-style-type: none"> 63% Ages 65+ 59% Loudoun County 59% Aware of TransAction 57% Unemployed 54% Ages 55-64 53% Aware of the the NVTA 50% Heard NoVA Transit News 50% Male
Replacement of Woodrow Wilson Bridge	<ul style="list-style-type: none"> 54% Aware of TransAction 50% Ages 65+ 41% Unemployed 40% Aware of the NVTA 39% Hispanic 37% Ages 55-64 36% Loudoun County 35% Influencer 34% Do not drive to work
Reconstruction of Springfield Interchange	<ul style="list-style-type: none"> 49% Aware TransAction 39% Unemployed 39% Ages 65+ 38% Aware of the NVTA 36% Ages 25-34 36% Ages 55-64
Addition of I-95 Express Lanes	<ul style="list-style-type: none"> 43% Aware of TransAction 38% 0-5 Years in region 34% Ages 25-34 34% Aware of the NVTA
Addition of Capital Beltway Express Lanes	<ul style="list-style-type: none"> 44% Aware of TransAction 33% 0-5 Years in region 30% Ages 25-34 28% Aware of the NVTA

BASE: ALL RESPONDENTS (n=606)
 Q610. Thinking about recently and soon-to-be completed projects in the region please indicate how important each of the following have been for the region. Please use a scale where a 1 means "not at all important" and a 10 means "extremely important".



The highest ranking potential projects are upgraded arterial roads and updated rail lines, particularly among Alexandria and Prince William residents, respectively.

Importance of Potential Projects to Region

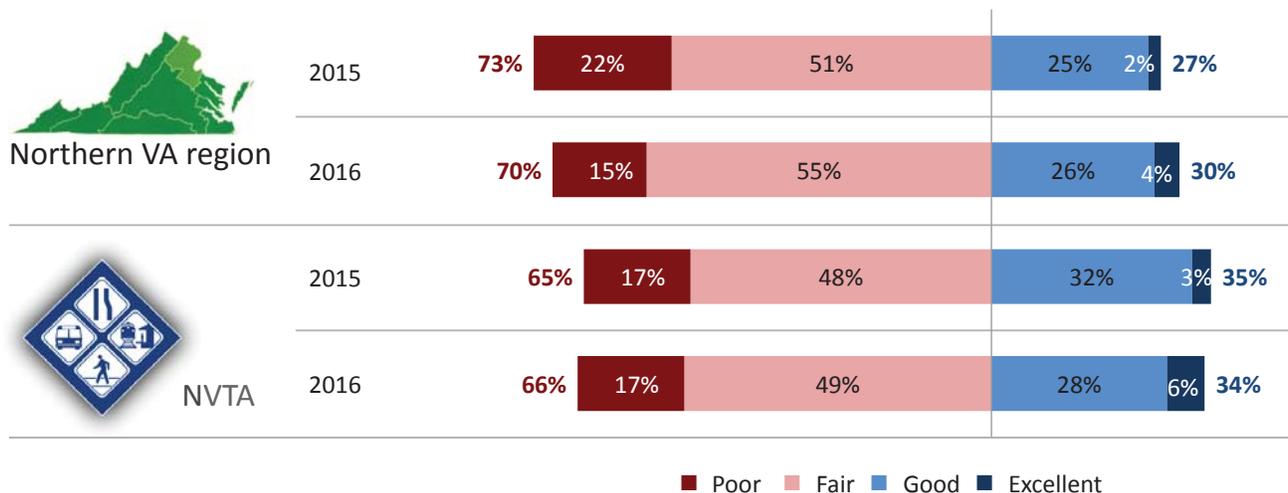


29 BASE: ALL RESPONDENTS (n=606)
Q620. Now, thinking about potential projects and improvements in the region, please rank the following from 1 to 6 where 1 is the "most important" and 6 is the "least important".



Ratings of both Northern VA and NVTA's performance with regard to planning and implementing transportation solutions are on par with 2015. About three in ten rate Northern VA good/excellent and about one third rate the NVTA good/excellent.

Performance on Planning and Implementing Transportation Solutions



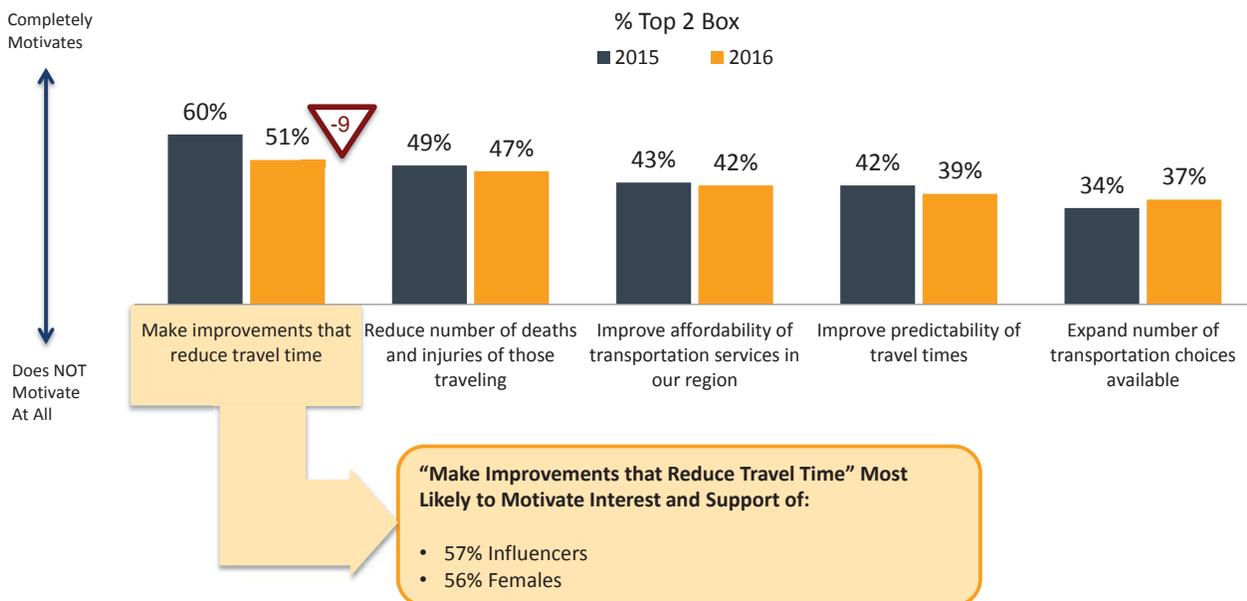
30 BASE: ALL RESPONDENTS (n=606)
Q630. How would you rate the performance of Northern Virginia region when it comes to planning and implementing transportation solutions in the region?
BASE: Have Heard of the NVTA (n=212)
Q645. How would you rate the performance of Northern Virginia Transportation Authority (the NVTA) when it comes to planning and implementing transportation solutions in the region?



MESSAGING

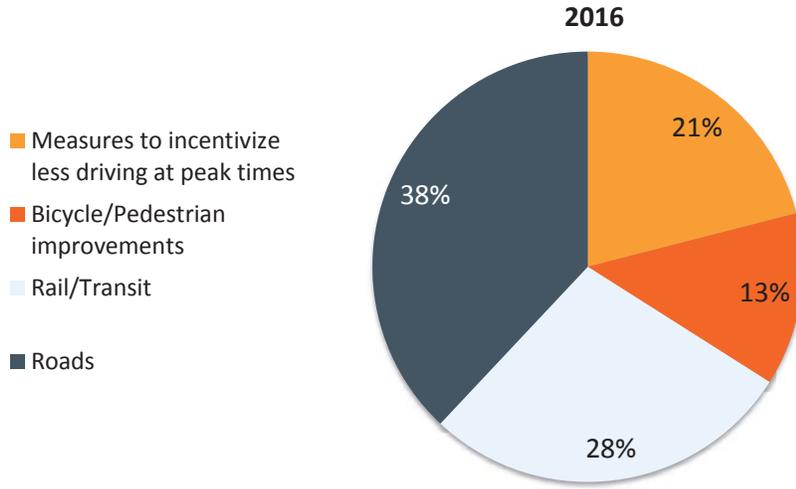
Reducing travel time continues to best motivate interest and support among residents, but it has significantly declined since 2015.

Motivates Interest and Support



Residents allocate the majority of investment to roads, followed by rail/transit and measures to incentivize less driving at peak times.

Proportion of Investment in Transportation Improvements



Fairfax, Loudoun, Alexandria, and Prince William allocate greater portion towards roads while Arlington allocates greater portion towards rail/transit.

33 BASE: ALL RESPONDENTS (n=606)
Q735. If you had money to invest in transportation infrastructure improvements what proportion would you spend on roads, rail/transit and bicycle/pedestrian improvements? Please allocate 100 points to demonstrate how you would invest in each of the following...



The majority of residents view self-driving cars as "scary" or "dangerous" with apprehensions about their safety.

Opinions on Self-Driving Cars

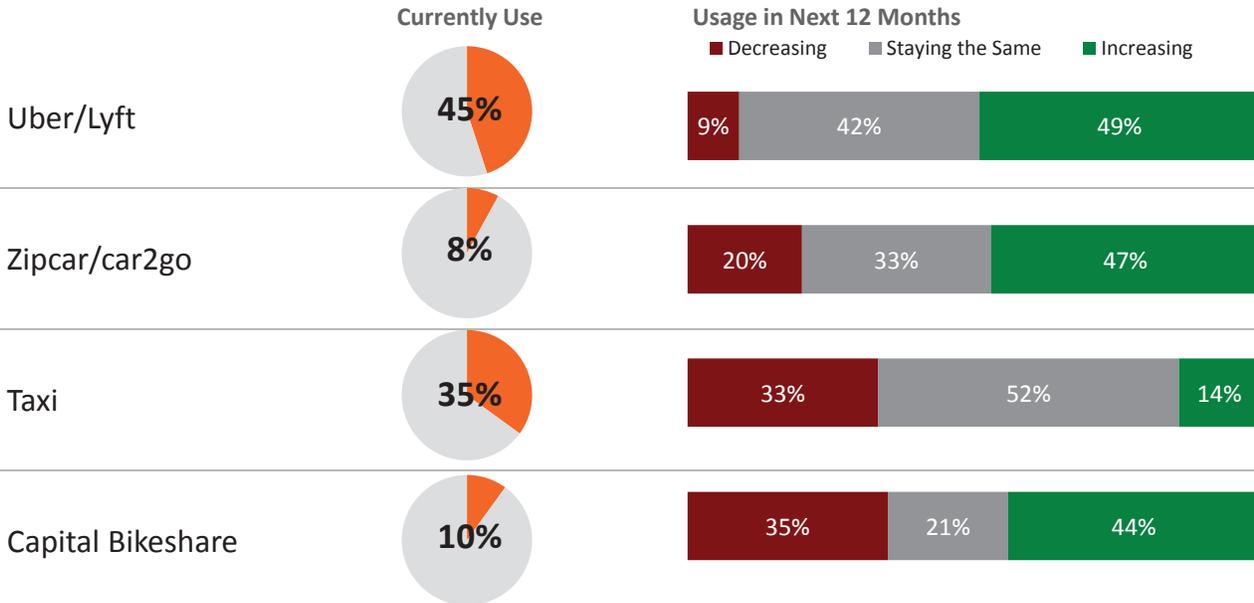


34 BASE: ALL RESPONDENTS (n=606)
Q725. What one word or phrase would you use to describe your overall feelings of self-driving cars being on the road in Northern Virginia in the near future?



Uber and Lyft are the most used alternatives and are expected by residents to have the largest increase in usage over the next year.

Usage of Car Ownership Alternatives

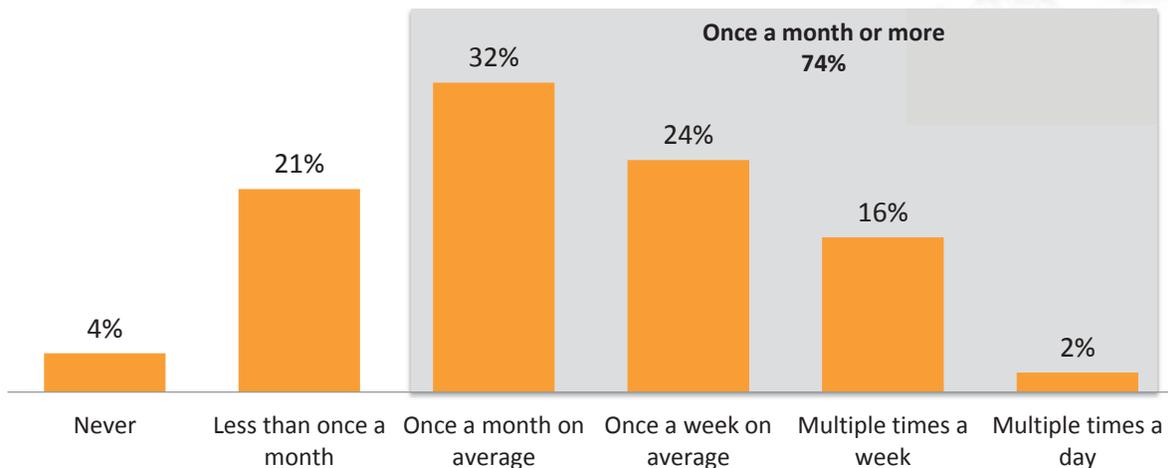


35 BASE: ALL RESPONDENTS (n=606)
 Q740. There are a number of alternatives to owning a car that are being used by people living in the region. Which of the following do you currently use?
 BASE: USE SERVICE (Uber/Lyft n=265; Zipcar/car2go n=46; Taxi n=208; Capital Bikeshare n=55)
 Q745. Do you anticipate your usage increasing, decreasing or staying the same over the next 12 months for each of the following?



Three quarters of Northern VA residents use online shopping at least once a month on average.

Frequency of Online Shopping



36 BASE: ALL RESPONDENTS (n=606)
 Q750. Many people are taking advantage of online shopping today. Over the past year, how many times have you placed an online order for goods to be delivered to your home?





DEMOGRAPHICS

Demographic Profile

Gender	2015	2016
Male	48%	48%
Female	52%	52%

Age	2015	2016
18-24	7%	11%
25-34	22%	22%
35-44	24%	21%
45-54	20%	21%
55-64	15%	14%
65+	12%	11%

Race/Ethnicity	2015	2016
White	58%	58%
Black	11%	11%
Hispanic	15%	15%
Asian	14%	14%
American Indian/Alaskan native	*	*
Native Hawaiian/Pacific Islander	*	*
Multi-race	2%	2%
Other	*	*

Employment	2015	2016
Employed (NET)	73%	72%
Full-time	64%	58%
Part-time	5%	9%
Self-employed	4%	5%
Student	3%	7%
Not Employed (NET)	24%	20%
Not employed/looking	2%	1%
Not employed/not looking	*	1%
Not employed/unable	*	1%
Retired	13%	13%
Stay home spouse/partner	8%	5%
Decline to answer	*	1%

Education	2015	2016
HS or less	5%	7%
Some college	15%	14%
Associates Degree	6%	6%
Bachelor's Degree	35%	37%
Master's Degree	28%	27%
Professional Degree	7%	5%
Doctorate Degree	4%	4%
Decline to answer	*	*

Income	2015	2016
<\$50K	13%	16%
\$50K but less than \$75K	15%	16%
\$75K but less than \$100K	17%	18%
\$100K but less than \$150K	25%	21%
\$150K but less than \$200K	11%	11%
\$200K or more	11%	10%
Decline to answer	9%	8%

Marital Status	2015	2016
Married	60%	56%
Single, never married	24%	32%
Divorced/Separated/Widowed	11%	8%
Living with Partner	5%	3%
Decline to answer	*	*

Household	2015	2016
Avg. Number of Adults	2.1	2.1
Avg. Number of Children <18	0.6	0.6

(This page intentionally left blank)

**SPRING 2016 PUBLIC INVOLVEMENT: WHAT'S YOUR
(TRANSPORTATION) PROBLEM?**

(This page intentionally left blank)

Table of Contents

1	Overview	1
2	Communications	4
3	Feedback.....	6
3.1	Comments (Activity Board 1, Online Survey).....	6
3.2	Work Trips (Activity Board 2, Online Survey)	8
3.3	Non-Work Trips (Activity Board 3, Online Survey)	9
3.4	Transportation Trends (Activity Board 4, Online Survey).....	9
3.5	Workshops	10
3.6	Input Summary by Geography	11

Appendix A: Outreach Summary Sheets

List of Figures

Figure 1-1:	Pop-Up Outreach Event, Manassas Heritage Railway Festival	1
Figure 1-2:	Workshop Outreach Event, Loudoun Cascades Senior Center	1
Figure 1-3:	Map of Outreach Events	2
Figure 1-4:	Comments Received at Outreach Events.....	3
Figure 2-1:	VRE Ride Magazine (May)	5
Figure 3-1:	Transportation Change Question, Manassas Heritage Railway Festival	6
Figure 3-2:	Comments by Mode and Topic	7
Figure 3-3:	Mapped Work Trips, Lorton Springfest.....	8
Figure 3-4:	Mapped Work Trips, Manassas Heritage Railway Festival	8
Figure 3-5:	Non-Work Trip Duration and Mode Choice, Falls Church Memorial Day Event.....	9
Figure 3-6:	Transportation Trends and Impacts on Congestion, Bike to Work Day Event.....	10
Figure 3-7:	Workshop Event (in Spanish), Queen of the Apostles Church, Alexandria.....	10
Figure 3-8:	Common Transportation Priorities by Geography.....	12

List of Tables

Table 1-1: Outreach Events	1
Table 2-1: Online Congestion Poll.....	4
Table 3-1: Comment Topics	7
Table 3-2: Non-Work Trip Mode Choice and Duration	9
Table 3-3: Transportation Trends and Impacts on Congestion.....	10

(This page intentionally left blank)

1 Overview

To gather public input on regional transportation needs for the TransAction 2040 update, the NVTa held twelve pop-up and five workshop events in three counties and five municipalities throughout Northern Virginia (see **Table 1-1** below). In addition to pop-ups (**Figure 1-1**) and workshops (**Figure 1-2**) the public also had the opportunity to submit their feedback online at *NVTATransAction.org*.

Table 1-1: Outreach Events

Event or Location	Type	Date	Time	Jurisdiction
NoVa Chamber of Commerce	Pop-Up	March 15, 2016	6:30 am – 9:30 am	Fairfax County
Loudoun Chamber of Commerce	Pop-Up	April 12, 2016	7:30 am – 10:30 am	Loudoun County
Lorton Springfest	Pop-Up	April 30, 2016	9:00 am – 4:00 pm	Fairfax County
Queen of the Apostles Catholic Church	Workshop	May 1, 2016	9:00 am – 10:00 am	City of Alexandria
Tysons Mall Plaza	Pop-Up	May 7, 2016	2:00 pm – 4:00 pm	Fairfax County
Bike to Work Day	Pop-Up	May 20, 2016	6:30 am – 8:30 am	City of Alexandria
Manassas Park Community Center	Workshop	May 21, 2016	10:00 am – 12:00 pm	City of Manassas Park
Loudoun County Cascades Senior Center	Workshop	May 24, 2016	10:00 am – 12:00 pm	Loudoun County
Rock the Block	Pop-Up	May 27, 2016	6:00 – 8:00 pm	City of Fairfax
Memorial Day Parade, Race, and Festival	Pop-Up	May 30, 2016	10:00 am – 2:00 pm	City of Falls Church
Manassas Heritage Railway Festival	Pop-Up	June 4, 2016	10:00 am – 3:00 pm	City of Manassas
Ballston-MU Metrorail Station	Pop-Up	June 7, 2016	5:00 pm – 7:00 pm	Arlington County
Wiehle-Reston Metrorail Station	Pop-Up	June 8, 2016	5:00 pm – 7:00 pm	Fairfax County
NVTa Public Hearing on Draft FY2017 Budget	Pop-Up	June 9, 2016	6:00 pm – 7:00 pm	Fairfax County
Celebrate Fairfax	Pop-Up	June 11, 2016	10:00 am – 12:00 pm	City of Fairfax
1776 Crystal City	Workshop	June 16, 2016	7:00 pm – 9:00 pm	Arlington County
Providence District Office	Workshop	June 21, 2016	7:00 pm – 9:00 pm	Fairfax County



Figure 1-1: Pop-Up Outreach Event, Manassas Heritage Railway Festival

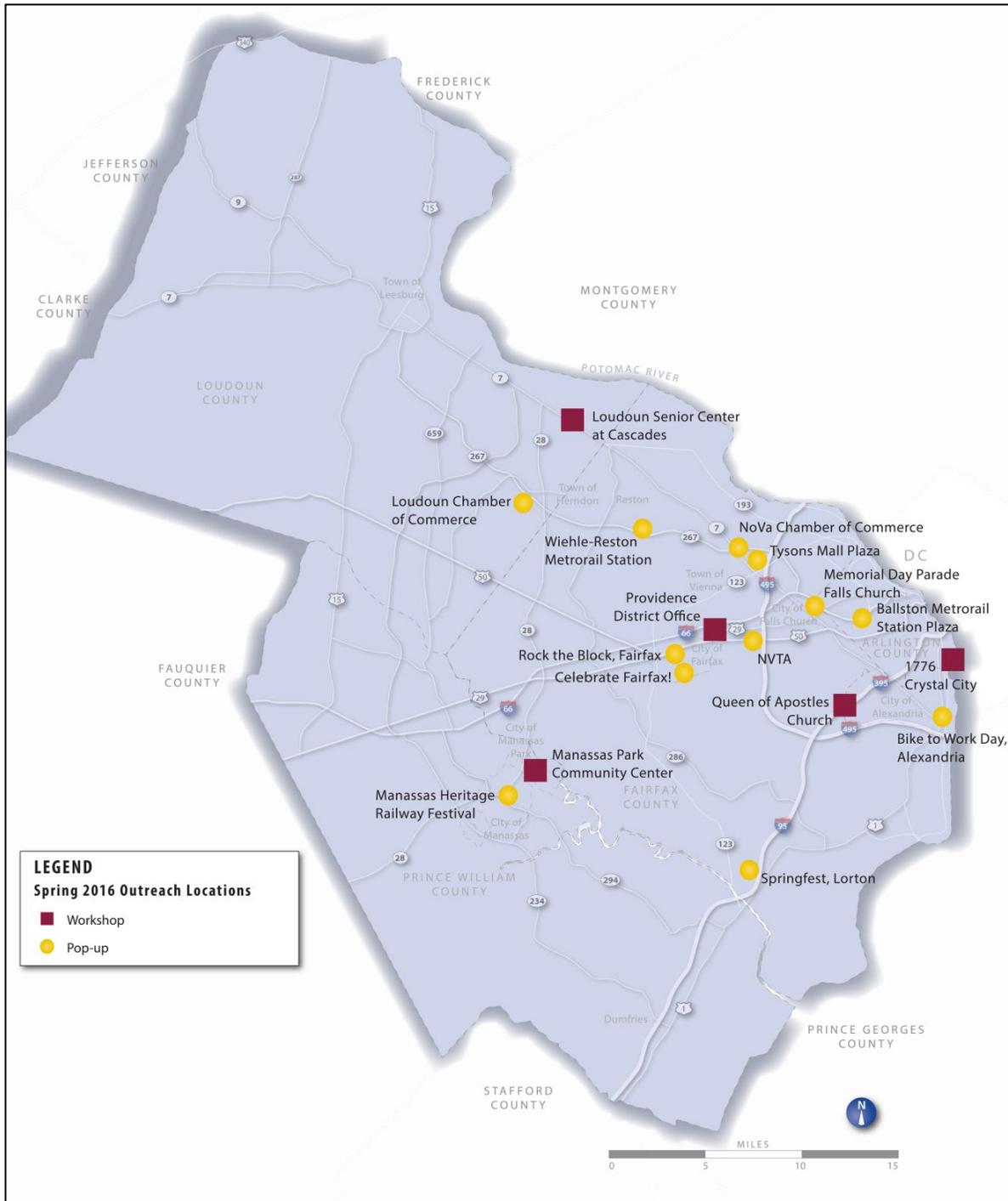


Figure 1-2: Workshop Outreach Event, Loudoun Cascades Senior Center

The NVTA sought to include participants from all counties and municipalities within Northern Virginia. **Figure 1-3** displays the locations of outreach events in the context of Northern Virginia jurisdictions served by the NVTA. Six events were held within walking distance to Metrorail. Two events were located at Metrorail stations to capture the opinions of transit users and one event was hosted as part of a Bike to Work Day event to engage cyclists. The NVTA also sought to include people of all backgrounds and ages, such as senior citizens, Spanish-speakers, millennials, and families. Comments were collected via comment sheets, via an activity board, and via the project website (*NVTATransAction.org*).

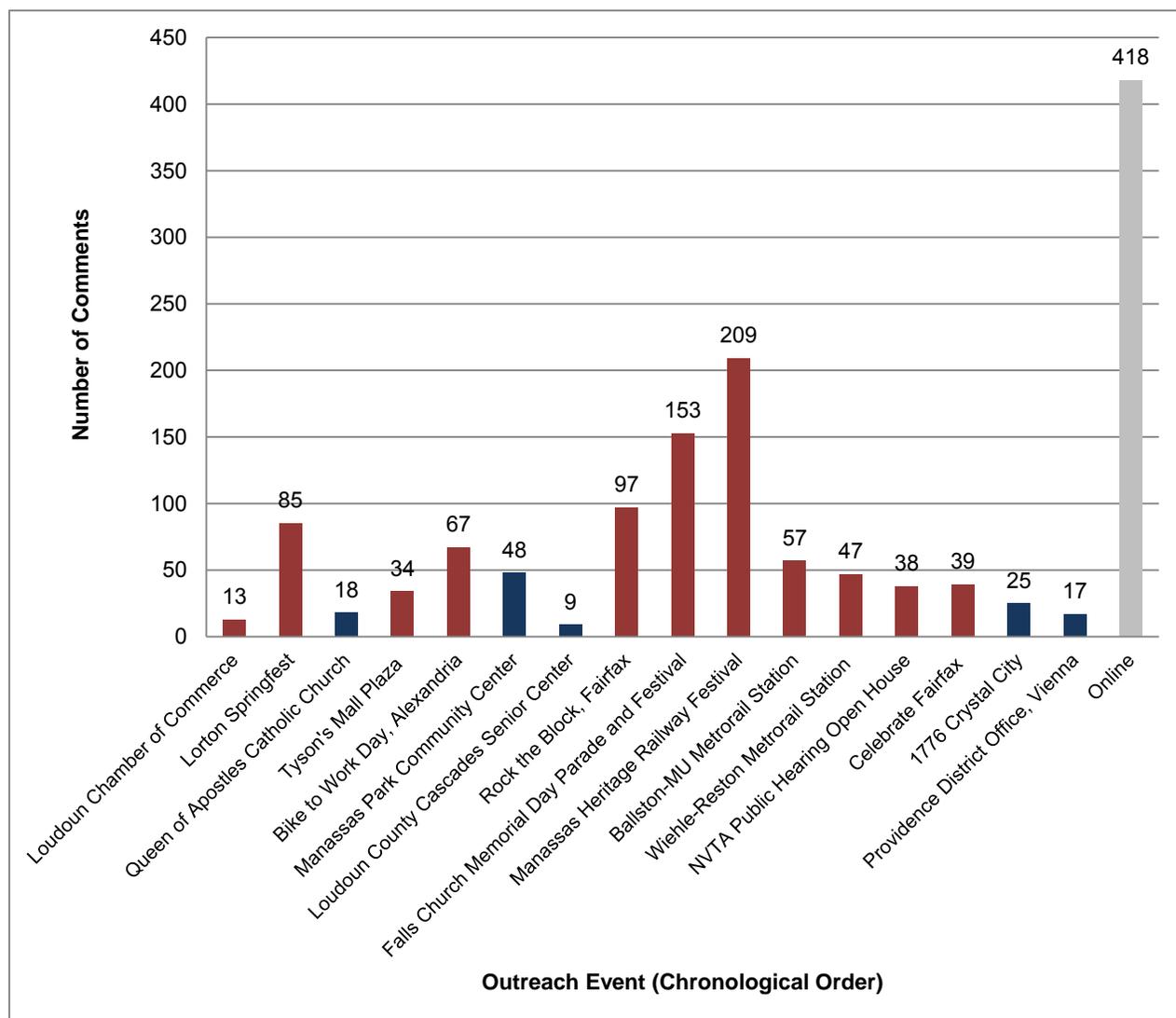
Figure 1-3: Map of Outreach Events

Figure 1-4 displays the number of comments received at each outreach event, including the project



website.

Figure 1-4: Comments Received at Outreach Events



Among in-person events, pop-up events attracted feedback from the greatest number of participants. Comments from the top three events (Fairfax City's Rock the Block, Falls Church Memorial Day Parade and Festival, and Manassas Heritage Railway Festival) accounted for about half of all in-person comments received. While workshops attracted fewer participants, the format encouraged more in-depth conversation with the project team. Each event is described in more detail in **Appendix A: Outreach Summary Sheets**. Online feedback included responses to a survey that mirrored in-person events (384 responses) as well as an open ended comment form (34 responses).

In addition to outreach events, the NVTA distributed communications, including automated presentations, press releases, e-blasts, and social media, and maintained the project website. These are described in **Section 2: Communications**.

2 Communications

In order to gauge public opinions and attitudes towards transportation in Northern Virginia, the project team conducted an initial “Benchmark Survey” from October 8-15, 2015. The results from this survey were used as a communications tool for public interest, outreach, and awareness. Various media outlets used the results to introduce TransAction and the NVTA to the public, including:

- Washington Post
- Fairfax News
- Washington’s Top News (WTOP)
- Connection Newspaper
- NewsChannel 8 NewsTalk
- ABC-7 News
- NBC-4 News

Following the “Benchmark Survey” the TransAction 2040 Update was formally launched at a November 2015 press event.

The TransAction website (*NVTATransAction.org*) is an important communications tool that has garnered nearly 15,000 views since November 2015. The website provides detailed information about the TransAction Plan and process, including public events. It is an important source of information for stakeholders and also facilitates continued engagement with the public by featuring opportunities to complete polls, provide comments, and sign up for the TransAction listserv.

The NVTA TransAction website featured an online poll from February to July 2016, asking participants to choose one of four responses to the question “Which one of the following best describes why reducing congestion is important to you personally?” A total of 230 website visitors responded to the poll. Over 70% cited saving time as their primary personal motivation for reducing congestion. Results of the poll are shown in **Table 2-1**.

Table 2-1: Online Congestion Poll

Which one of the following best describes why reducing congestion is important to you personally?	Votes	Percent
Saves time driving (or commuting)	163	71%
Fewer cars on the highway (improves air quality)	36	16%
It is safer (fewer accidents)	22	10%
More affordable (saves money)	9	4%
Total	230	101%*

*Total is greater than 100% due to rounding.

Social media platforms such as Facebook and Twitter were also employed to provide information about upcoming meetings, send updates about TransAction’s status, and encourage followers to voice their opinion online. The Twitter and Facebook pages provided an additional forum to advertise events and raise interest. The TransAction-specific Twitter page has over 80 followers as of May 2016. TransAction posts have been retweeted 49 times, not including the 11 direct replies.

A TransAction introductory video was launched in January 2016 to convey the purpose of the TransAction Plan and public involvement process. It was posted on the TransAction website, including the NVTA YouTube page. The video currently has 300+ views and is often used as a complementing media tool to summarize the TransAction plan.

The project team also sent e-mail messages via “E-Blast” to stakeholders through the MailChimp email service. Informational emails or “E-blasts” were sent to over 450 recipients to promote public involvement and input for the TransAction Plan. A total of 13 E-blasts were sent between March 24 and July 5 to coincide with, and advertise Spring 2016 outreach events. Outreach events, including pop-ups and workshops, resulted in an additional 100 emails for the TransAction stakeholder contact list.

Engaging with local jurisdictions resulted in additional media and public attention and advertisement. The TransAction Plan and outreach activities were featured by the Falls Church New Press and City of Manassas Park. The Virginia Railway Express (VRE) also highlighted the TransAction 2040 Update in its monthly newsletter, which is circulated and available to VRE riders (**Figure 2-1**).

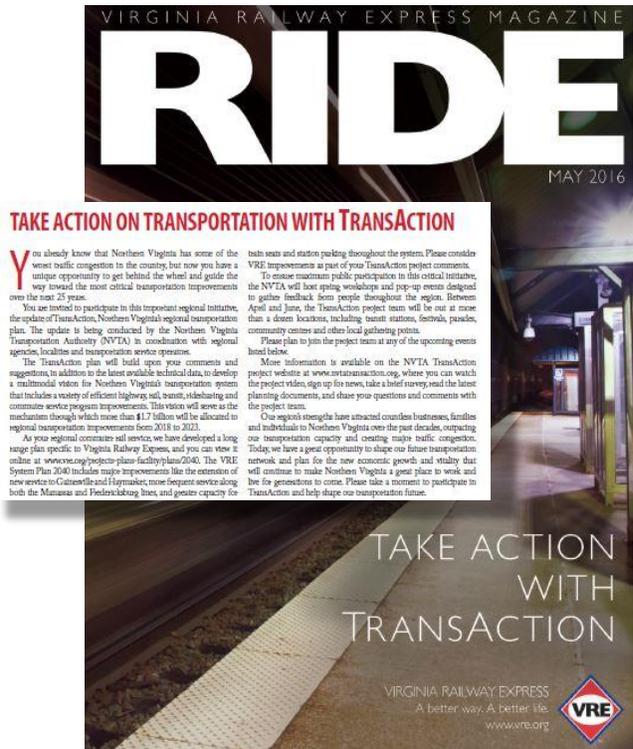


Figure 2-1: VRE Ride Magazine (May)

3 Feedback

The project team utilized four activity boards throughout the outreach process. The results of those activity boards (featured at pop-ups, workshops, and online) as well feedback from workshops are summarized in this section.

3.1 Comments (Activity Board 1, Online Survey)

Participants had the opportunity to respond to the question: “What one thing would you change about transportation in Northern Virginia?” This activity, shown in **Figure 3-1**, garnered the highest level of participation. Including 418 online comments, there were a total of 1,373 comments. These comments were categorized for analysis and summary purposes. Each comment could fit into up to three categories.

The most common topics were improving transit access or coverage; addressing congestion or improving auto capacity; and improving transit service, reliability, or safety. The categorization for all comments can be seen in **Figure 3-2** and **Table 3-1**.



Figure 3-1: Transportation Change Question, Manassas Heritage Railway Festival

Figure 3-2: Comments by Mode and Topic

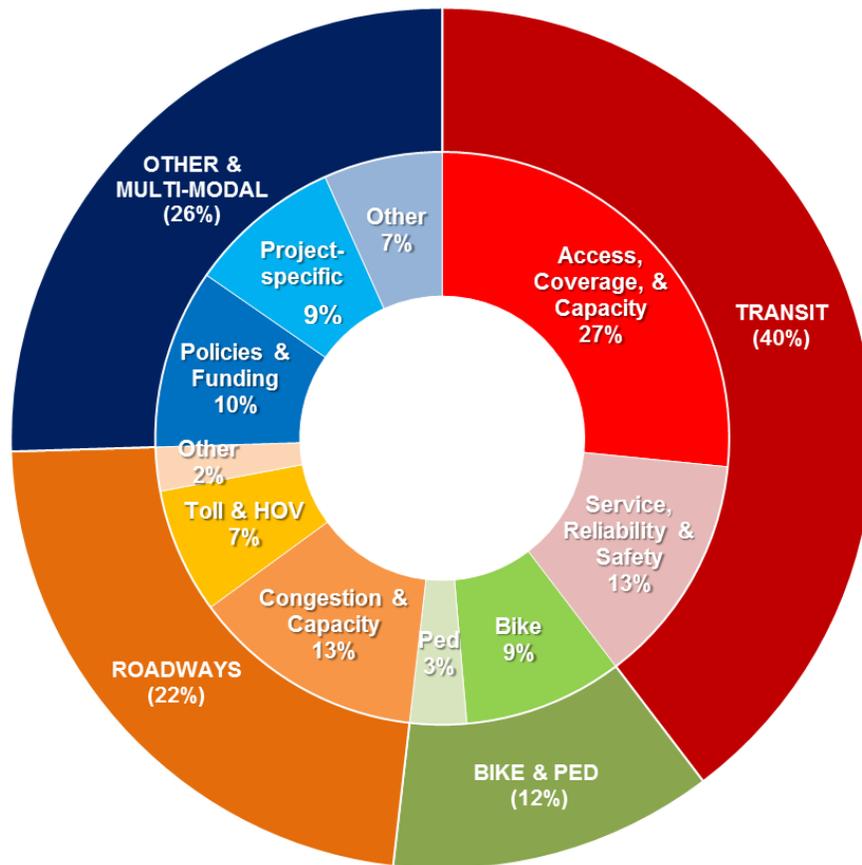


Table 3-1: Comment Topics

Topic	Comments	Percent
Improve transit access or coverage.	409	27%
Address congestion or improve auto capacity.	202	13%
Improve transit service, reliability, or safety.	201	13%
Improve planning, development, transportation policy, or funding processes.	156	10%
Improve bike infrastructure.	138	9%
(Do not) build, widen, or extend specific project.	133	9%
Address issue with toll, HOT, HOV, or express lanes.	109	7%
Improve walkability or pedestrian infrastructure.	49	3%
Improve regional connectivity.	34	2%
Improve technology (driverless cars, etc.).	32	2%
Improve transit capacity (8-car trains, third rail, etc.).	29	2%
Maintain or monitor existing roads (pot holes, police presence, snow clearance, etc.).	28	2%
Improve transportation design.	15	<1%
Comment on the outreach process itself	13	<1%
Improve driver training, attitude, or behavior.	10	<1%
Transportation in Northern Virginia is already good.	9	<1%
Total	1,567*	100%

*Total is greater than the number of comments received because some comments were categorized into multiple topics. No comments addressed more than three topics.

3.2 Work Trips (Activity Board 2, Online Survey)

Participants had the opportunity to map their work trips on an erasable map of Northern Virginia using whiteboard markers, as shown in **Figures 3-3** and **3-4**. Participants indicated the location of their home with a dot and drew a line with an arrow to the location of their office or worksite. In some cases, participants who work at home or walk to work drew only a dot. Participants who commuted beyond the scope of the map often drew arrows pointing off the board or wrote the name of their destination. This activity was geared towards those with regular work-related routines. Parents with children were able to participate in this activity more easily because the whiteboard provided a space for their children to draw while they completed the activity.

As expected, at most events, participants lived near the location of the event and commuted to employment centers like Washington, DC and Tyson's Corner. Events that occurred at Metrorail stations were an exception. The arrows drawn at those events indicated that many participants were only part way through their commute home.

Web survey respondents also completed a similar exercise, informing NVTa of both the city where they live and the city where they work. The most common response for living location, representing 28% of participants, was Woodbridge in Prince William County. Another 12% of respondents stated that they lived in Manassas. The most common working location responses were DC with about 60% of responses and Arlington with about one-quarter of responses.

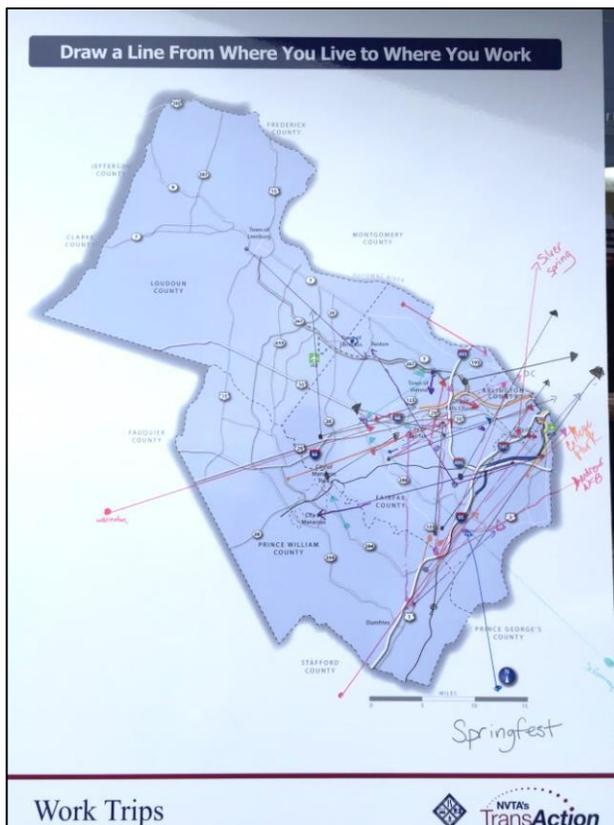


Figure 3-3: Mapped Work Trips, Lorton Springfest

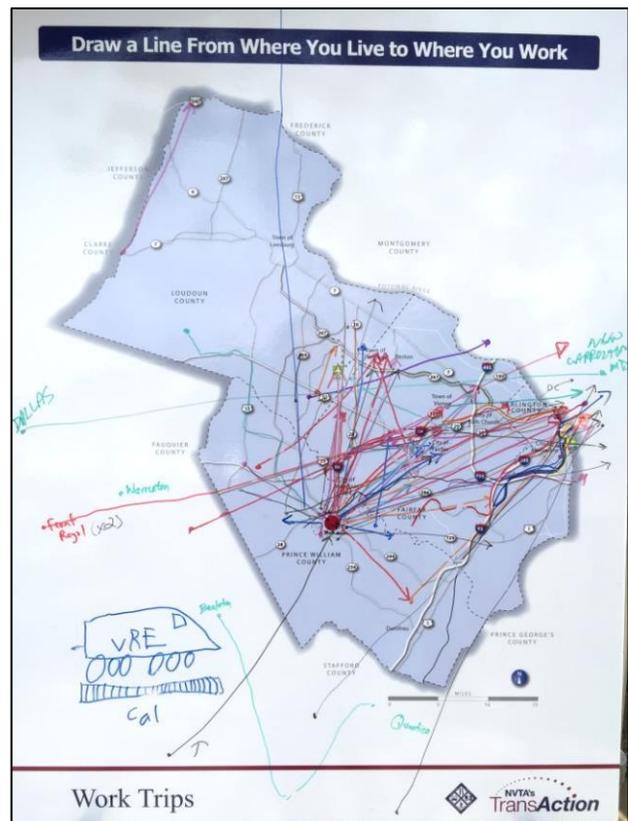


Figure 3-4: Mapped Work Trips, Manassas Heritage Railway Festival

3.3 Non-Work Trips (Activity Board 3, Online Survey)

Participants were asked to identify modal choice and duration for their non-work trips by placing an adhesive dot on a board. Approximately 400 people responded to the question at outreach events, indicating modal choice by dot color and trip duration by dot placement, as shown in **Figure 3-5**. All 384 web survey respondents each provided three responses to the question. Their responses were weighted at one-third to avoid over-representing their responses in comparison with in-person respondents.

Approximately 72% of respondents conduct non-work

trips by car. About 29% of non-work trips last between 5 and 10 minutes. Another 30% of trips last between 10 and 20 minutes. The full results are shown in **Table 3-2**. It should be noted that web survey respondents were about 26% more likely to make non-work trips by car and 62% less likely to make non-work trips by walking or bicycling compared to in-person respondents.

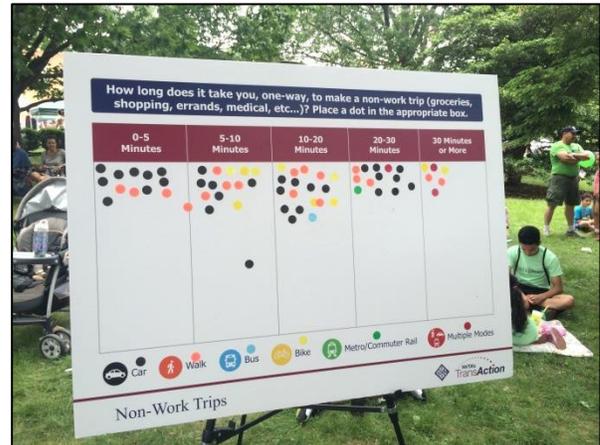


Figure 3-5: Non-Work Trip Duration and Mode Choice, Falls Church Memorial Day Event

Table 3-2: Non-Work Trip Mode Choice and Duration

	Car	Walk	Bus	Bike	Metro/ Commuter Rail	Multiple Modes	Total
0-5 minutes	76	10	0	7	0	1	94 (12%)
5-10 minutes	162	37	2	17	1	1	220 (29%)
10-20 minutes	180	19	6	21	3	2	231 (30%)
20-30 minutes	83	8	6	4	2	8	111 (15%)
30 minutes or more	48	6	14	10	9	15	102 (13%)
Total	549 (72%)	80 (11%)	28 (4%)	59 (8%)	15 (2%)	27 (4%)	758

3.4 Transportation Trends (Activity Board 4, Online Survey)

Participants were asked to reflect on five transportation trends that may affect congestion by the year 2040 and place dots on a board indicating their thoughts, as shown in **Figure 3-6**. Approximately 270 people responded at outreach events or online, placing a green dot below the trend they thought would most reduce or mitigate congestion and a red dot below the trend they thought would most increase congestion. The full results, including web survey responses, are shown in **Table 3-3**.

Table 3-3: Transportation Trends and Impacts on Congestion

Trend 1: The population of Northern Virginia increases by 25%		Trend 2: The cost of driving increases significantly		Trend 3: Autonomous vehicles and ridesharing become widespread		Trend 4: Information technology in transportation increases		Trend 5: The need to travel for work and shopping decreases	
Increase Congestion	Reduce Congestion	Increase Congestion	Reduce Congestion	Increase Congestion	Reduce Congestion	Increase Congestion	Reduce Congestion	Increase Congestion	Reduce Congestion
565	22	39	128	30	101	7	90	5	324

As shown, the majority of respondents (approximately 87%) believe that the 25% predicted population increase would most worsen congestion. Six percent believe the increased cost of driving would most increase congestion. Many of those who chose this response were concerned that increased tolling would cause congestion in HOV lanes or non-toll roads. Opinions on the trend that would most mitigate or reduce congestion were more mixed. Around half of respondents thought that the decreasing need to travel for shopping or work would have the biggest positive impact, while another 19% thought escalating driving costs

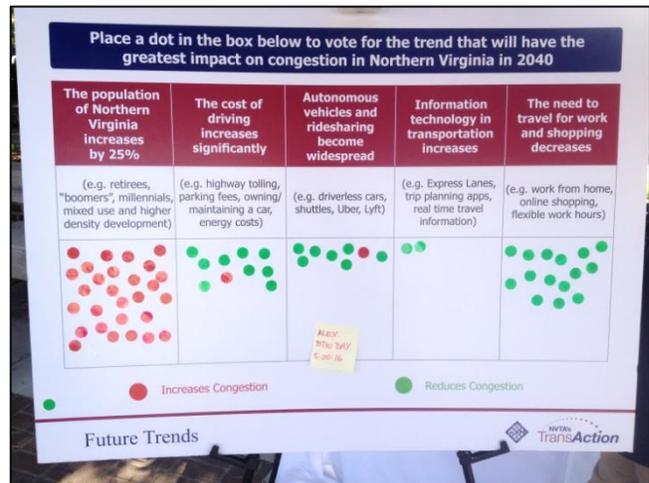


Figure 3-6: Transportation Trends and Impacts on Congestion, Bike to Work Day Event

3.5 Workshops

The NVTAs held five workshop events at a senior center, community center, district office, start-up, and church (see **Figure 3-7**). These events attracted fewer people than pop-up events, but encouraged participants to contribute more in-depth feedback. Workshop events were targeted towards diverse populations, such as seniors, Spanish-speakers, and millennials.

Each group discussed the five transportation trends that may occur in Northern Virginia by the year 2040. Ideas expressed across all groups are outlined by trend:

Trend 1: The population of Northern Virginia increases by 25%

- Participants emphasized that the region’s infrastructure network must keep up with increasing population and development. They were particularly concerned about transit and bicycle/pedestrian infrastructure.



Figure 3-7: Workshop Event (in Spanish), Queen of the Apostles Church, Alexandria

Trend 2: The cost of driving increases significantly

- There is a need for more affordable housing near transit and more efficient transit service and coverage in outer jurisdictions. People who have the choice may still drive.

Trend 3: Autonomous vehicles and ridesharing become widespread

- Participants generally believed that autonomous vehicles and ridesharing services would become more widespread and had the potential to save money, increase options, and improve safety. However, it is uncertain whether or not they will reduce congestion.

Trend 4: Information technology in transportation increases

- Participants thought that improving traveler information through better technology will promote more efficient transportation choices.

Trend 5: The need to travel for work and shopping decreases

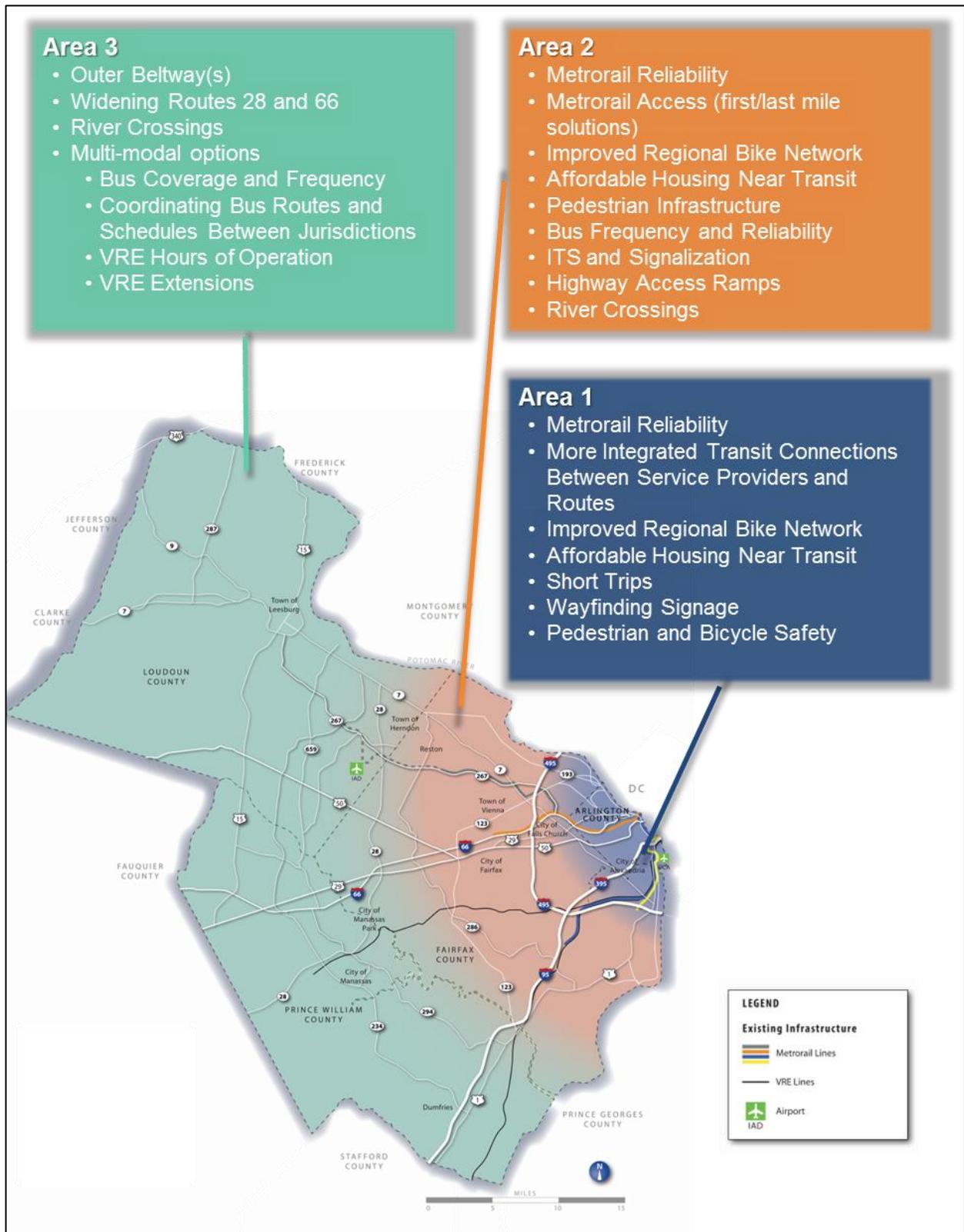
- Northern Virginians value their time. With more flexible work hours pedestrian and bicycle trips throughout the day will increase and should be prioritized. Participants stated that more truck delivery traffic may need to be accommodated.

3.6 Input Summary by Geography

Comments also differed by geography.

Common needs expressed by these groups are outlined in **Figure 3-8**.

Figure 3-8: Common Transportation Priorities by Geography



Appendix A:
Outreach Summary Sheets

NVTA TRANSACTION SPRING 2016 OUTREACH SUMMARY WEBSITE SURVEY AND POLL FEBRUARY – JULY 2016

NVTA garnered public input via a survey and poll on the **NVTATransAction.org website**. A total of **384 individuals** participated in the web survey, and **230 individuals** participated in the online poll.

Poll (230 participants)

Participants had the opportunity to answer the poll “Which one of the following best describes why reducing congestion is important to you personally?” Of the four choices provided, the most common response, representing 71% of respondents, was “saves time driving (or commuting).” Another 16% chose “fewer cars on the highway (improves air quality)”; 10% chose “It is safer (fewer accidents)” ;and 4% chose “more affordable (saves money).” The highest volume of responses was seen in February, when 44% of participants answered the poll.

Web Survey (384 participants)

Comments

383 participants provided a response to the question “What is one thing would you change about transportation in Northern Virginia?” About one-third of comments related to improving transit access or coverage. Another 17% related to policies or funding mechanisms; 12% related to vehicular congestion or capacity; 9% related to tolls, HOV, or HOT lanes; and 8% related to bicycle or pedestrian infrastructure improvements.

Trips and Future Trends Input

Almost 90% of the 384 respondents believed increasing population would most increase congestion in Northern Virginia. About 55% of respondents thought that “the need to travel for work and shopping decreases” would most mitigate congestion. Another 22% cited the escalating cost of driving as the biggest mitigating factor.

Each web survey respondent provided information for three non-work trip destinations and durations, for a total of 1,152 trips. About 81% of trips were conducted by car. Among these car trips, about one-third lasted between 10 and 20 minutes and 29% lasted between 5 and 10 minutes. Only 10% were bicycle or pedestrian trips. Transit or multiple mode trips accounted for 9% of all trips but 35% of trips lasting 30 minutes or more.

All participants answered the open-ended questions “City where you live?” and “City where you work?” Response format was not restricted, so they provided responses in a variety of ways. The majority of respondents wrote the name of the city, while others wrote zip codes, neighborhoods, or other information. The most common response for living location, representing 28% of participants, was Woodbridge in Prince William County. Another 12% of respondents stated that they lived in Manassas. The most common working location responses were DC with about 60% of responses and Arlington with about one-quarter of responses.

**NVTA TRANSACTION SPRING 2016 OUTREACH SUMMARY
NOVA CHAMBER OF COMMERCE
SATURDAY, MARCH 15, 2016 FROM 6:30 AM – 9:00 AM**

The NVTA held a TransAction outreach event in conjunction with the **Northern Virginia Chamber of Commerce** at Tysons Galleria in **McClean**. The event, entitled “The Future of Innovative Transportation” featured a keynote speech by the U.S. Deputy Secretary of Transportation Victor Mendez and a panel of transportation experts and businesspeople. The NVTA was still developing its activity boards and did not collect data at the event. However, the event provided networking and marketing opportunities. **Seven individuals** provided their business cards to be contacted in regards to the TransAction Update.

**NVTA TRANSACTION SPRING 2016 OUTREACH SUMMARY
LOUDOUN CHAMBER OF COMMERCE
TUESDAY, APRIL 12, 2016 FROM 7:30 AM – 10:00 AM**

The NVTA held a TransAction outreach event in conjunction with Loudoun County Chamber of Commerce’s “The State of Transportation” PolicyMaker Series event. The event included breakfast, networking, and a transportation-themed presentation by Congresswoman Barbara Comstock and Paul J. Wiedefeld, WMATA’s General Manager. It attracted business and transportation professionals. **13 individuals** provided feedback.

Comments (13 Total)

8 comments (62%) addressed vehicular travel issues, such as road standards, the number of Potomac River crossings, tolls, and shoulders. 3 comments (23%) addressed transit. Two additional comments addressed transportation technology and house-building.

Trips and Future Trends Input

Trips and trend input was not sought at this event as the activity boards for those questions had not yet been designed.

NVTA TRANSACTION SPRING 2016 OUTREACH SUMMARY SPRINGFEST AT WORKHOUSE ARTS CENTER IN LORTON SATURDAY, APRIL 30, 2016 FROM 10 AM – 4 PM

The NVTA held a TransAction pop-up outreach event for at **Springfest**, Fairfax County's official Earth Day and Arbor Day event, on **April 30, 2016** from **10:00 am to 4:00 pm** in **Lorton**, Virginia. The event attracted many families. **85 individuals** provided input on transportation trends and issues affecting Northern Virginia.

Comments (85 Total)

The most common responses to the transportation problem question addressed improvements to transit service and reliability (19%) and improvements to transit access and coverage (18%). If given the opportunity to change one thing about transportation in Northern Virginia, participants would like to reduce congestion and improve transit by increasing frequency, improving reliability, and adding new services or extensions. 14 respondents indicated auto congestion and capacity as their highest priority problem.

Trips and Future Trends Input

Many commute trips originated in Lorton or Fairfax and ended in Washington DC or Route 29 near the end of the Orange Line. Overall, participants showed a preference for making non-work trips by car and indicated that these trips generally took them approximately 10 minutes one-way.

Participants predicted that increasing population and employment would worsen congestion and that more opportunities to tele-commute and shop online would mitigate congestion.

NVTA TRANSACTION SPRING 2016 OUTREACH SUMMARY QUEEN OF THE APOSTLES CATHOLIC CHURCH, ALEXANDRIA SUNDAY, MAY 1, 2016 9 AM – 10 AM

The NVTA held a TransAction 2040 outreach event targeting **Spanish speakers** on **Sunday, May 1st, 2016** from **9:00am to 10:00am** at **Queen of the Apostles Catholic Church** in **Alexandria**. A total of approximately **fifteen primarily Spanish-speaking members** of the public listened to a presentation given by the project staff, participated in group conversations, provided feedback on presentation boards, and/or spoke with project staff about transportation trends and issues in Northern Virginia.

Comments (18 Total)

The NVTA received 12 comments in Spanish and 6 comments in English. Nine of these comments (50%) related to public transit. Another five comments (27%) related to bicycle and pedestrian infrastructure. Less than a quarter of comments addressed vehicular travel.

Trips and Future Trends Input

About 14 people gave their input on transportation trends in Northern Virginia over the next 25 years. Half thought that the increase in population would most increase congestion while half thought the increase in driving cost would most increase congestion. Over half indicated that they thought the decreasing need for travel to work and shopping destinations would most mitigate congestion.

Three people provided information on the mode and duration of their non-work trips. All three of these people utilized a car. One person drew their daily commute from Route 50 near Falls Church to the City of Manassas.

Breakout Group Discussion

Two breakout group discussions were held, one in English and one in Spanish, each with facilitators and scribes. Popular topics included the high and increasing cost of transportation, especially toll roads and parking; the need for safe bicycle and pedestrian infrastructure; and the desire for more frequent and reliable bus service. In general, participants thought that increased population and employment would worsen congestion and transportation issues while the decreased need for trips due to tele-commuting or online shopping opportunities would improve congestion. Participants expressed that the increasing cost of driving would be an important factor but that it might not incentivize transit usage unless bus service and bicycle and pedestrian infrastructure were improved. Each group's contributions are summarized below:

English-Speaking Group (3 members of the public)

Population and Employment Increases

- Incentivizing transit through work/government benefits
- Development out-pacing transportation improvements
- Possible counter-trend (toward rural)
 - Lower cost of living
 - Opportunity for off-the-grid living

Cost of Driving Increases

- Parking costs increase (especially DC)
- Needs might outweigh cost impacts; people may drive anyway

Autonomous Vehicles and Ridesharing Become Widespread

- Need for accurate technology (programming)

Information Technology in Transportation Increases

- Possible attractor of population
- Might not influence in some cases

Need to Travel for Work and Shopping Decreases

- Online shopping increases
- Walking when possible
- Some jobs require commute (e.g. construction)
- Scheduling or flexibility can help to alleviate congestion (work trips)

Spanish-Speaking Group (4 members of the public)

Population and Employment Increases

- Improve infrastructure.
- Congestion is worse during the afternoon.

Cost of Driving Increases

- The cost is already too high. Toll roads are expensive.
- One saves a lot by using public transport to travel to DC because of the expensive parking.
- Traveling by car is faster than by bus. Participants would use the bus and Metro more if they were faster. There is a long delay between one bus/train and the next. The buses should be smaller with less capacity but more frequent.
- The increasing cost of driving worsens congestion.

Autonomous Vehicles and Ridesharing Become Widespread

- Uber is faster than taxi.
- Safety in Uber is improved by the use of photos.
- The traffic is equal if people use Uber. It is also a car than is on the road.

Information Technology in Transportation Increases

- Bus riding is expensive in part because the same card cannot be used in all the buses throughout the metropolitan area. This makes transfers expensive. Transfers are too expensive in general, including within the same system.
- Information technology will reduce/mitigate congestion.

Additional Comments

- Bicycle infrastructure needs to be improved. Trails and bicycle parking are lacking, for instance, in shopping centers. Bicycling is a good way to exercise while traveling.

**NVTA TRANSACTION SPRING 2016 OUTREACH SUMMARY
THE PLAZA AT TYSONS MALL, FAIRFAX COUNTY
SATURDAY, MAY 7, 2016 2 PM – 4 PM**

The pop-up event for NVTA TransAction took place on **May 7, 2016** from **2:00pm to 4:00pm** at “**The Plaza**” at **Tysons Mall** in **Fairfax County**, Virginia. The booth was strategically located at the plaza to capture foot traffic between the mall entrance and the Tysons Corner Metrorail station. In addition to being a major footpath to the mall, the plaza also has numerous amenities that allow visitors to leisurely use the space. The booth was placed near sitting and activity areas to also draw individuals using the plaza, in addition to those passing through. Approximately **45 individuals** participated in the board activities.

Comments (34 Total)

Approximately 30% of comments (11) requested improved transit service and reliability. Another 12 comments (35%) specifically requested improved transit access and coverage. Five comments pertained to toll and HOV/HOT issues, including costs, access, and expansion.

Trips and Future Trends Input

The mapping activity demonstrated that the large number of commuters worked and/or lived in Fairfax County, Arlington, and Alexandria. Most commutes had short geographical distances. For non-work trips, approximately half of participants indicated that they used a car. Car usage was spread between the four intervals from 0 to 30 minutes, however not a single participant indicated a non-work trip of over 30 minutes in which they used a vehicle. The large majority of walking trips were between 5 and 10 minutes (6 out of 7). Metro/Commuter rail and/or multiple mode trips were all 20 minutes or longer. Only one respondent indicated using a bike for non-work trips.

Most individuals believed that population increases (even if they are boomers/millennials in high density/mixed use areas) will result in more congestion. Participants uniformly agreed that trends in information technology and the need to travel to work/shopping will result in less congestion.

**NVTA TRANSACTION SPRING 2016 OUTREACH SUMMARY
BIKE TO WORK DAY, ALEXANDRIA
FRIDAY, MAY 20, 2016 6:30 AM – 8:30 PM**

The pop-up event coincided with **Bike to Work Day** activities at the **Alexandria City Hall Plaza** on **May 20, 2016** from **6:30am to 8:30am**. The booth was co-located in the plaza with a number of other vendors and sponsors. The programmed activities, giveaways, and vendors encouraged foot traffic. About **70 individuals** visited the NVTA booth to speak with pop-up staff.

Comments (67 Total)

Approximately 58% of comments (39) requested improved bicycle infrastructure. In total, approximately two-thirds of the comments pertained to pedestrian and cyclist infrastructure or improvements. 6 other comments (9%) specifically requested improved transit service and reliability.

Trips and Future Trends Input

Nearly all participants in the mapped commute activity indicated that Washington, DC was their final destination for work. A number of commuters also lived and worked in the vicinity of Old Town Alexandria, making short trips for work. A significant portion of the trips originated in Alexandria and South Fairfax County. The share of non-work trips performed by bike was also significantly higher than at past events as a result of the “Bike to Work” event theme. Bikes and walking represented half of the responses for trips lasting between 0 and 20 minutes. The other half was performed by car. All individuals who used transit (bus, metro/rail) and multiple modes indicated that their trips exceed 20 minutes.

Population increase was identified as the most likely cause of future increased congestion by 28 out of 31 participants. Approximately half of participants (15) believed that a decrease in the need for work and shopping trips will result in reduced congestion. A total of 16 individuals believed increased driving costs and autonomous vehicle/ride-sharing availability will contribute the most to reduced congestion. Only two individuals indicated that improved information technology will have the greatest impact on reduced congestion.

NVTA TRANSACTION SPRING 2016 OUTREACH SUMMARY MANASSAS PARK COMMUNITY CENTER SATURDAY, MAY 21, 2016 10 AM – 12 PM

The Manassas Park Community Center workshop took place on **May 21, 2016** from **10:00am to 12:00pm** at in **Manassas Park**, Virginia. **Nine individuals attended the workshop**, all of whom participated in the breakout groups. Most attendees were representatives and staff from area governments; however two members of the general public were also present. An impromptu pop-up in the lobby of the community center garnered input from additional members of the public.

Comments (48 Total)

Approximately 35% of comments (17) addressed a specific transportation-related project. 14 comments (29%) related to transit access, capacity, safety, or coverage. An additional 9 comments (19%) addressed auto capacity or congestion, and 3 comments (6%) addressed HOT/HOV or toll lanes.

Trips and Future Trends Input

The commutes mapped by participants were notably longer than those mapped at previous events. The majority of commutes were regional in nature, crossing multiple jurisdictions using multiple regional thoroughfares. For the non-work trip activity, 5 of the six participants indicated that they used a car for their non-work trips.

Half of participants (3) believed that a population and employment increase would have the greatest impact on increased congestion by 2040. There was a balanced distribution of opinions regarding the transportation-related trend that will have the greatest impact on reduced congestion. “Increased driving costs” was the only trend with responses for both increased congestion and reduced congestion.

Breakout Group Discussion

Six members of the public participated in the first, planned breakout group session. Two facilitators were present. The breakout group’s ideas are summarized below by trend:

Summary

- Need for inter-jurisdictional coordination in Northern Virginia (holistic approach for land use and transportation). There are 2 planning approaches that can be utilized to help reduce congestion:
 - Optimize infrastructure that we have now
 - Plan for diverse needs of region (closer to core vs. outer western periphery), alter transportation system to fit society that is evolving
- In Prince William County, there is a need for improved public transportation access and options, and there is also a need for increased roadway capacity
- Infrastructure is currently designed to get people in and out of DC, and we need to think about moving people throughout region (we have hub and spoke but need to complete wheel)
 - Solve for congestion in and out of activity centers as well (need for multi-modal access to multiple activity centers and within activity centers)
- Teleworking (and work hour flexibility) and new technology may help reduce congestion the most (region will need to make sure that lower income communities have the same access)

Population and Employment Increases

- Infrastructure needs to precede development
- Solve for how to get people to VRE hubs through first and last mile improvements (bike lanes)
- There is a need for increased transportation options in western portion of region
 - Need for multi-modal access to multiple activity centers and within activity centers

- Need to consider road widenings/increased capacity where appropriate (however single mode fix is not a long-term solution)
 - Need to fix/improve travel on Route 28 (from Manassas/Manassas Park north to Centreville (I-66 access) needs to be solved for)
- Consider future security/emergency access issues that may arise with more residents/workers
- Rush hour is going away and is being replaced with transportation activity throughout the day
- As jobs come to Loudoun and Prince William, there will be more traffic from outside in
- Wonder whether boomers and retirees will stay in region (because of transportation issues)

Cost of Driving Increases

- As transit dependent populations migrate to areas without transit in Loudoun and Prince William, their public transportation needs should be met. The only people that currently use buses in Prince William and Loudoun are those who have to.
- Need to plan for populations that cannot telework or afford alternative travel options
- As costs go up, most people will continue to pay (however VMT may decrease if HOV increases)
 - Need to stop incentivizing parking (single mode)
- Taxation is not a good solution to congestion

Autonomous Vehicles and Ridesharing Become Widespread

- Autonomous vehicles will require certain infrastructure needs (roadway retrofits)
- Driverless cars will reduce the number of accidents (fewer distracted drivers)

Information Technology in Transportation Increases

- Transition to different ways of communication
- We now have continuous connectivity to information

Need to Travel for Work and Shopping Decreases

- Teleworking means that more money can be spent supporting local economy
- We will need to be able to communicate the benefits of teleworking
- Millennials require flexibility and have different view on travel (easier access, sense of place)

Three members of the public participated in an impromptu second breakout group discussion with two facilitators. The discussion is summarized below by trend:

Summary

- There is no one size fits all solution for transportation in region; a range of solutions from parking policy to autonomous vehicles to regional bike network is needed
- Tolling and information technology may be increasing congestion on others roadways. It is unclear whether this is solving problem.

Population and Employment Increases

- As population increases, the infrastructure that we have isn't enough
- Agree that increased population will increase congestion, but it depends on how it is distributed
- Should region prioritize transit or roadway congestion?
- The rate of population growth will matter

Cost of Driving Increases

- There are too many variables to predict whether the cost of traveling will increase or reduce congestion
- Tolling confuses the issue because it can increase congestion on other roadways

Autonomous Vehicles and Ridesharing Become Widespread

- Autonomous vehicles and ridesharing may increase congestion
- Are there safety and security issues with this trend?
- The only way this will decrease congestion is if there are multiple passengers
- Need to consider parking and storage options

Information Technology in Transportation Increases

- IT can help when it works the way it is supposed to
- This could be shifting congestion to other roadways, not solving for it
- Synchronization of signals could help reduce congestion

Need to Travel for Work and Shopping Decreases

- If people shopped online, that wouldn't necessarily reduce their trip making. They may use the time to make trips for other purposes including more/other shopping
- How are flexible work hours being viewed (culturally)?
- With online shopping, packages are still being delivered (truck traffic)

NVTA TRANSACTION SPRING 2016 OUTREACH SUMMARY LOUDOUN COUNTY CASCADES SENIOR CENTER TUESDAY, MAY 24, 2016 10 AM – 12 PM

This event took place on **May 24, 2016** from **10:00am to 12:00pm** at the **Loudoun County Cascades Senior Center** in **Sterling**, Virginia. The workshop was open to the general public; however the location strategically **targeted an older audience**. The event was scheduled to take place during normal senior center activity hours to draw additional foot traffic; morning shuttle drop-offs at the senior center take place at 10:00 and 10:30. Over **40 individuals** attended the workshop to receive information about the TransAction plan. Around **18 individuals** stayed for the breakout group discussions.

Comments (9 Total)

Approximately 44% of comments (4) requested improved transit access and coverage. Two other comments (22%) requested specific projects be built. Other comments addressed increased transit capacity, pedestrian/bike-friendly alternatives, project budgeting, and the outreach effort itself.

Trips and Future Trends Input

Activity board participants indicated that they no longer commute to work. Although many noted that driving had become increasingly difficult for them, the majority of non-work trips (71%) were achieved by car. The average duration of non-work trips was notably high; over 70% of one-way trips took a minimum of 20 minutes. The non-car trips were performed via bus (2), walking (2), and multiple modes (2).

6 out of 7 respondents believed that an increase in population will have the greatest impact in terms of increased congestion. Approximately half of the activity participants indicated that “the need to travel for work/ shopping decreases” will result in less congestion. The breakout group discussion notes further detail these conclusions below:

Breakout Group Discussion

Three facilitated breakout groups with a total of 18 participants garnered the following input on transportation trends:

Population and Employment Increases

- Infrastructure hasn't been keeping up with development.
- There is a need for improved transit service.
 - Need for increased coverage in Ashburn area and Cascades
 - Participants desire more all day transit (bus) service because there are so many exciting things to do in the region. Seniors in Loudoun don't want to rely on car to get around.
 - Need for better seamless inter-county transit (bus) connections
 - Need for better bus service to Silver Line, not just during rush hour
 - It can be an all-day affair to go to the doctor's office at Fairfax and return to Cascades

Cost of Driving Increases

- Seniors desire affordable transit
 - Need for transit discount for seniors
 - Buses aren't at capacity so why not make them free
 - Metro senior card doesn't work for seniors in Loudoun County
- Cost of tolling, for instance on the Greenway, is a concern and residents wonder who is benefiting

Autonomous Vehicles and Ridesharing Become Widespread

- Every senior does not have access to home to service transportation options because they may not meet the criteria yet.

- Participants would like to utilize shared vehicles (like Uber), but they are only available to reserve with Smart Phones, which is a challenge for seniors.
- Consider shared mobility (Circulator) small routes throughout Loudoun (Cascades)
 - See the routes that larger senior homes are offering and how they are being operated

Information Technology in Transportation Increases

- There is a need to improve transportation information so everyone can know their options

Need to Travel for Work and Shopping Decreases

- Seniors would like more day-time options for getting around

**NVTA TRANSACTION SPRING 2016 OUTREACH SUMMARY
ROCK THE BLOCK, CITY OF FAIRFAX
FRIDAY, MAY 27, 2016 6 PM – 8 PM**

The **Rock the Block** pop-up event took place on **May 27, 2016** from **6:00pm to 8:00pm** in the **City of Fairfax**. The NVTA TransAction booth was adjacent to another public input tent. People passed by the tent in order to access the stage/concert area and to sit at nearby tables to eat dinner. **Approximately 100 individuals** participated in at least one of the activity boards.

Comments (97 Total)

Over 40% of comments addressed transit access, coverage, service, or reliability. About 20% requested improved bicycle or pedestrian infrastructure and another 20% addressed issues related to roadways, such HOT, HOV, or toll roads, traffic, or maintenance.

Trips and Future Trends Input

15 out of 19 respondents believed that an increase in population will have the greatest impact in terms of increased congestion. Approximately half of the 33 non-work trip activity participants indicated that autonomous vehicles and ridesharing services will result in less congestion.

Participants indicated that about three-quarters of their non-work trips were performed by car and that about half of their non-work trips lasted 10 minutes or less. Most participants' mapped commute trips originated in the City of Fairfax. Their destinations were located in all cardinal directions.

**NVTA TRANSACTION SPRING 2016 OUTREACH SUMMARY
FALLS CHURCH MEMORIAL DAY PARADE
MONDAY, MAY 30, 2016 10 AM – 2 PM**

The **Falls Church Memorial Day Festival** took place on **May 30, 2016** from **10:00am to 2:00pm** at the **Falls Church City** Hall grounds. The event included a parade and various activities that commemorate the holiday. The event was well attended by the general public, including many families. The NVTA booth was located beside the City of Falls Church Recreation Department. About **150 individuals** participated in at least one of the activity boards.

Comments (153 Total)

Approximately 40% of comments requested improved transit service, reliability, access, coverage, or funding policy. Another 30% addressed auto congestion or capacity. Only 10% addressed pedestrian or bicycle infrastructure improvements.

Trips and Future Trends Input

Of 35 respondents, 29 indicated that population and employment growth would most increase congestion. Opinions were about equally divided as to whether autonomous vehicles and ridesharing, information technology, or decreasing need to travel would most reduce congestion.

65 people provided information on their non-work trips. About half use a car and 35% walk or bicycle to perform non-work trips. About 40% of participant's non-work trips lasted under 10 minutes. The mapped commute activity board indicated that most participants commenced their commutes near Falls Church and traveled to DC. A portion of participants also traveled from Falls Church area to Herndon, Tysons Corner, or Reston.

**NVTA TRANSACTION SPRING 2016 OUTREACH SUMMARY
MANASSAS HERITAGE RAILWAY FESTIVAL
SATURDAY, JUNE 4, 2016 10AM – 3PM**

The Manassas Heritage Railway Festival took place on **June 4, 2016** from **10:00am to 3:00pm** at in the **City of Manassas**. The event included a historic train ride, farmer's market, food trucks, model train demonstrations, and children's activities. The event was well attended by the general public, including the NVTA booth where the sign, tent, and boards were set up. **Over 250 people** visited the tent to learn about the TransAction Plan. **210 individuals** participated in at least one of the activity boards.

Comments (209 Total)

Participants provided 209 comments in response to the question "What one thing would you change about transportation in Northern Virginia?" Around 45% of these comments addressed transit while only about 5% addressed walking or bicycling. About 15% of comments addressed congestion or auto capacity in general while many additional comments addressed those issues in relation to a specific road or area.

Trips and Future Trends Input

The commute mapping activity indicated that most participants live in Manassas and commute to DC, Reston area, or the City of Fairfax. A total of 67 participants provided data on their non-work trip length and mode choice. 60 respondents (90%) stated that they make non-work trips via car. About three-quarters of trips take between 5 and 20 minutes.

57 people provided input on transportation trends. Of these, 53 (93%) stated that increased population and employment in Northern Virginia would increase congestion. Opinions on the trend that would most reduce congestion were more divided. 26 people (46%) stated that "the need to travel for work and shopping decreases" would most reduce congestion; 21% placed a green dot under the information technology trend; 18% placed a green dot under the driving cost trend; and 14% placed a green dot under the autonomous vehicle and ridesharing trend.

NVTA TRANSACTION SPRING 2016 OUTREACH SUMMARY
BALLSTON-MU METRORAIL STATION
TUESDAY, JUNE 7, 2016 5 PM – 7 PM

The Ballston-MU Metrorail Station pop-up took place on **June 7, 2016** from **5:00pm to 7:00pm** in **Arlington County**. The event occurred during the evening peak period, attracting transit riders to the NVTA booth where the sign, tent, and boards were set up. **About 60 individuals** participated in at least one of the activity boards.

Comments (57 Total)

Over 60% of comments addressed issues related to transit. Participants were especially focused on transit reliability and safety. Only about 10% of comments addressed roadway congestion. Other comments focused on an array of issues, including transportation policy or funding; toll, HOT, or HOV lanes; and bicycle infrastructure.

Trips and Future Trends Input

13 people responded to the question regarding transportation trends and congestion. 7 people (62%) thought increased population and employment would worsen congestion the most. 4 people (31%) thought increased driving cost would worsen congestion the most. In terms of improving congestion, opinions were about evenly divided between trends 3, 4, and 5 (autonomous vehicles and ridesharing, information technology, and decreasing need to travel for shopping and work).

6 people responded to the question about non-work trips. 4 of these took non-works trips by car. Most trips took between 5 and 10 minutes. 7 people participated in the mapped commute activity. The activity showed two participants commuting from other areas of Virginia to Ballston and four participants commuting from Ballston to DC or Tysons Corner. One participant commutes from Frederick County to Ballston.

**NVTA TRANSACTION SPRING 2016 OUTREACH SUMMARY
WIEHLE-RESTON METRORAIL STATION
WEDNESDAY, JUNE 8, 2016 5 PM – 7 PM**

The Wiehle-Reston Metrorail Station pop-up took place on **June 8, 2016** from **5:00pm to 7:00pm** in **Fairfax County**. The event occurred during the evening peak period. The NVTA set up boards and signage at a fixed kiosk area within the station. **About 50 individuals** participated in at least one of the activity boards.

Comments (47 Total)

Approximately 40% of respondents' comments addressed issues related to transit. Another 20% addressed roadway congestion and about 15% addressed bicycle usage or infrastructure.

Trips and Future Trends Input

The mapped commute trip activity indicated that most participants lived near the Wiehle-Reston Metrorail station or in Herndon and commuted to DC. Two participants lived as far as Leesburg or Maryland. 11 people informed the NVTA about their non-work trip length and modal choice. 8 of these people (73%) use a car for their non-work trips which usually take between 5 and 10 minutes.

7 people provided their input on transportation trends and their effects on congestion. All respondents thought that population and employment changes would most contribute to increased congestion by 2040. 4 respondents (29%) thought autonomous vehicles and ridesharing would most decrease congestion.

NVTA TRANSACTION SPRING 2016 OUTREACH SUMMARY
NVTA PUBLIC HEARING OPEN HOUSE
THURSDAY, JUNE 9, 2016 6 PM – 7 PM

An open house took place at the **NVTA offices** in the **City of Fairfax** on **June 9, 2016** from **6:00pm to 7:00pm** before the public hearing for NVTA's draft FY2017 plan. The TransAction team set up boards, signage, and table in front of the elevators used to access the public hearing space. Due to limited space, only two activity boards were utilized. About **50 people** participated in at least one of the activity boards. Many of these were government officials or transportation professionals.

Comments (38 Total)

Over 50% (20 comments) addressed issues related to vehicular travel, while about 37% (14 comments) related to other modes such as bicycles, walking, and transit. Additional comments addressed aspects of all modes of transit, including funding and telecommuting.

Future Trends Input

5 people completed the board activity on transportation trend impacts by the year 2040. All participants agreed that increased population and employment would most increase congestion. 4 participants stated that autonomous vehicles and ridesharing would most reduce congestion. Only 1 participant thought that increasing cost of driving would most improve congestion.

**NVTA TRANSACTION SPRING 2016 OUTREACH SUMMARY
CELEBRATE FAIRFAX
SATURDAY, JUNE 11, 2016 10 AM – 12 PM**

The NVTA TransAction team held a pop-up event at **Celebrate Fairfax** in the **City of Fairfax** on **June 11, 2016** from **10:00am to 12:0 pm**. The booth was located towards the back of the event space and experienced light foot traffic. Due to limited space, only two activity boards were utilized. About **40 people** participated in at least one of the activity boards.

Comments (39 Total)

About 55% (22 comments) addressed issues related to vehicular travel, while about 20% (8 comments) related to other modes such as bicycles, walking, and transit. Additional comments addressed aspects of all modes of transit, including funding and telecommuting.

Future Trends Input

9 people completed the board activity on transportation trend impacts by the year 2040. Most participants (7) agreed that increased population and employment would most increase congestion. 2 participants thought that increasing cost of driving would most increase congestion, while no participant thought that increased cost of driving would do otherwise. 4 participants stated that decreased need to travel for work and shopping would most reduce congestion.

NVTA TRANSACTION SPRING 2016 OUTREACH SUMMARY
1776 CRYSTAL CITY
THURSDAY, JUNE 16, 2016 7 PM – 9 PM

The 1776 Crystal City workshop took place on **June 16, 2016** from **7:00pm to 9:00pm** at **1776 Crystal City**, a “global incubator and seed fund helping startups transform industries.” The event was targeted towards **millennials**. **Three individuals** participated.

Comments (25 Total)

16 comments (60%) related directly to transit, while 7 comments (28%) related to issues associated with driving, such as congestion. The remaining 2 comments addressed bicycles and cost.

Trips and Future Trends Input

Three participants provided information on their non-work trips. One participant, traveling by bicycle, took about 5 to 10 minutes while the other participants, traveling by car and rail, took between 10 and 20 minutes. Two people participated in the activity board about transportation trends. They agreed that a population increase would most worsen congestion. One stated that an increased cost of driving would most mitigate congestion while the other stated that the decreasing need to travel for shopping and work would most mitigate congestion.

Breakout Group Discussion

Three members of the public, a retired couple and an apartment complex manager, participated in the breakout group session. Their ideas are summarized below by trend:

Summary

- Pedestrian and bicycle improvements should be built into other infrastructure projects.
- Participants were concerned for transit.
- Information technology will improve people’s ability to make better, more efficient transportation choices.
- The behavior of retirees and millennials is different than other groups. These groups value time and quality of life. These values are demonstrated by trends such as “apodments,” small well-designed housing units, usually located in urban areas.
- Participants have learned short cuts, even for short trips.
- More affordable housing is needed in Arlington County.
- The cost of owning a car is too high for many millennials. They tend to prioritize housing, social life, and location over a car in their budget.

Population and Employment Increases

- Concern over transit is the biggest issue.
 - Families are staying in small units in Arlington County. These families need more transit.
 - Employees in service jobs are giving up on transit and shifting to cars. As a result, they are dealing with congestion.
 - More affordable housing is needed near transit.
 - Bus service is more essential. Millennials and retirees want bus service.
- I-395 and Memorial Bridge Circle divide the community.
- Residents will pay more taxes as the population and employment increases.
- Way finding is also important.

Cost of Driving Increases

- The cost of cars is increasing, so there is less and less car ownership.
- There is a need for transit to offer other non-car options. Transit service needs to be reliable. People value their time.
- Sprawl and cost do not go hand in hand. Suburban sprawl encourages driving.
- Employers pay the costs as well.

Autonomous Vehicles and Ridesharing Become Widespread

- Services offer the possibility to save money on transportation.
- People are weighing the costs of owning a car with using Uber or Lyft services.

Information Technology in Transportation Increases

- Arlington Transit (ART) offers the app "CarFreeAtoZ," which shows all forms of single mode or multi-mode routes.
- Information technology will allow people to make better transportation choices.
- People will still get into accidents.

Need to Travel for Work and Shopping Decreases

- Housing
 - Currently purchasing a house is a ball and chain.
 - Vacancy rates are lower.
 - We're on the cusp of identifying if we're going to grow.
 - Increase in senior living centers.
 - People pay more for housing and having items delivered, which is harder for families.
- Employment
 - Job growth and job location influence transportation.
 - Flex schedules decrease traffic.
 - There is less traffic on Monday and Friday.
 - Participants' fears include working from home and job security.
- Shopping and Recreation
 - Street-level stores are becoming more of display areas.
 - People still want to see other people.
 - Add pedestrian and bike amenities.
 - Different trips through the day

**NVTA TRANSACTION SPRING 2016 OUTREACH SUMMARY
PROVIDENCE DISTRICT OFFICE
TUESDAY, JUNE 21, 2016 7 PM – 9 PM**

The Providence District Office workshop took place on **June 21, 2016** from **7:00pm to 9:00pm** at **Providence District Office** in **Fairfax County**. **Three individuals** participated in the workshop.

Comments (17 Total)

6 comments (35%) related directly to transit, while 10 comments (59%) related to issues associated with driving, such as congestion, tolls, and HOV lanes. The remaining comment stated “turn to electric.”

Trips and Future Trends Input

The three participants present chose to contribute via the workshop and did not participate via the activity boards.

Breakout Group Discussion

Three members of the public participated in the breakout group session. Their ideas, which covered four of the five trends, are summarized below:

Population and Employment Increases

- It is important to define congestion. Congestion is ultimately decided by both density and distribution.
- Not everyone stays at the same job. Unpredictable employment and employment distribution impacts congestion increases or decreases.
- There needs to be an emphasis on other transit modes.
- Retirees may stay and not change.

Cost of Driving Increases

- Policy and energy costs, including parking fees and carbon taxes ,may increase.
- Consumers may adjust, but people may drive anyways.

Autonomous Vehicles and Ridesharing Become Widespread

- Ridesharing can fill transit gaps and promote cost-sharing.
- Ridesharing can lead to more congestion at places like transit stations and often involves short trips.
- There may be upcoming companies in these industries.

Information Technology in Transportation Increases

- Highway pricing and routing maps
- Fairfax Connector is currently not on Google Maps.
- A single screen does not help with the overall bus network or reliability. Car is still more reliable. Transit must compete with non-transit.

(This page intentionally left blank)

**FALL 2016 PUBLIC INVOLVEMENT: FOCUS GROUP AND WORKSHOP
SUMMARIES**

(This page intentionally left blank)

TABLE OF CONTENTS

	<u>Page Number</u>
I. Executive Summary	1
A. Key Takeaways	1
B. Key Findings.....	1
II. Research Methodology	3
A. Methodology	3
B. Participant Demographics	4
C. Key Segments	5
D. Research Caveats and Limitations.....	5
III. Detailed Findings	6
A. How they get Around	6
B. Congestion.....	8
C. Priority Measures	12
D. Priority Improvements	17
E. Government Working to Improve Transportation	22
F. Greatest Impact on Transportation	23
Appendix	24
A. Quotes Regarding Location Specific Transportation Issues	
B. Discussion Guide	
C. Recruitment Screener	

EXECUTIVE SUMMARY

Key Takeaways

- Reducing delays during commute hours is the greatest priority for residents, followed by increasing travel time reliability.
- Increasing transportation options throughout Northern Virginia, including building new roads and widening roads, more connections between business and residential centers, access to rail, and increased frequency and reduced crowding on public transit.
- Residents living “Inside the Beltway” and/or who travel into the District are open to the idea of expanding public transportation and increasing their use of it for both commutation and discretionary purposes. Furthermore, many of those “Outside the Beltway” and/or who commute to destinations in Northern Virginia, even though they may not ride it, are willing to support increased public transportation if it would mitigate the impact of congestion.
- Residents are cautiously willing to support new roads. However, they are not sure where there is room for them, would use them only in a limited fashion/as a last resort if they were tolled, and are concerned about eminent domain issues.

Key Findings

Four focus groups were conducted among Northern Virginia residents on November 9 and 10, 2016. A total of 40 residents representing a cross-section of Northern Virginia participated in these groups.

Mode choice is often determined by where residents need to travel. When traveling into the District, public transportation (i.e., Metrorail) is the mode of choice, whereas cars are the preferred method when traveling throughout Northern Virginia. The second determining factor is from where they are traveling. Those living Inside the Beltway are more likely to consider public transportation, while those living Outside the Beltway are more likely to drive.

Access to public transportation is the number one barrier to its use. Many living Outside the Beltway describe getting to public transportation as a “double commute” – drive to public transportation followed by riding it. For them, once they get in their car they would just as soon continue on to their destination. There are several other barriers to public transportation use, including long headways and limited service off-peak and on weekends. Other barriers to public transportation include long trips with no perceived cost savings, the difficulty of making transfers on time, and no perceived improvement in the quality of transit after fare increases.

“If you want something reliable, drive.”
Inside the Beltway Resident

Driving, however, does have its limiting factors, most notably the effects of **congestion**. Many “plan their life” around congestion, as it:

- Reduces the amount of time they work or spend with their family;
- Makes people turn down higher paying jobs;
- Forces them to pass up opportunities to go out for shopping, entertainment, or social reasons; and
- Limits trips and makes people chain trips together in order to reduce the frequency with which they leave home.

“You think, is this worth it to go into DC? To drive you have to park, it’s an issue. You take Metro, is it going to be too late getting back? If you Uber? You literally have to go through all these different scenarios to figure out, ‘okay is this worth it?’ As opposed to hey, let’s just jump in the car and drive.”

Alexandria Resident

Some residents say congestion is a driving factor in where they choose to live and/or work, though for most it has not (yet) become a determining factor.

Many see traffic congestion as bad and only getting worse, with the typical rush “hour” extending longer and longer. While most have learned to live with recurrent congestion, **non-recurrent congestion in particular is a problem**. Blame for congestion is placed primarily on local governments’ seeming inability to account for traffic and plan appropriately.

Congestion has led to adaptation, which can include:

- Teleworking, when possible;
- Changing departure times;
- Changing work schedules;
- Being prepared to change transportation modes daily;
- Having an *E-ZPass* to use HOV and express lanes, when necessary; and
- Working while driving/on public transit.

Acceptable Congestion

Congestion resulting in a trip that is 50% to 100% longer than it would otherwise be is considered acceptable.

There are **barriers to teleworking**. First would be that many have jobs where teleworking is not an option, either due to the nature of their work or because it is not allowed. Even those whose employers ‘allow’ for telework say that there is either no formal policy for teleworking or it is frowned upon.

Express and HOT lanes are seen as alternatives during heavy congestion periods, but due to their cost are only used when absolutely necessary, such as when on-time arrival is essential.

Inside the Beltway residents and/or those who travel into the District are, in general, more open to the idea of using public transportation themselves, and not only for travel into the District but even for travel in Northern Virginia. Those who commute to locations in Northern Virginia say they are not likely to travel using public transportation. However, **they are willing to support public transportation as a means to reduce congestion**.

The ability to overcome cynicism toward local governments’ ability to improve transportation will be a challenge. Many believe that local governments do not often work together effectively on these issues, particularly in terms of communication between one another and to residents, and with sharing the cost burden.

RESEARCH METHODOLOGY

Methodology

A total of four focus groups were held on Wednesday, November 9th and Thursday, November 10th at a focus group facility in Alexandria, VA. In order to qualify, residents needed to be 18 years of age or older and live in one of the nine cities or counties that make up Northern Virginia. Two of the focus groups were held among residents living inside the beltway and two among those living outside the Beltway.

Zip Codes Inside Beltway			
<u>Zip Code</u>	<u>City</u>	<u>Zip Code</u>	<u>City</u>
22101	McLean	22312	Alexandria
22207	Arlington	22151	Springfield
22201	Arlington	22003	Annandale
22209	Arlington	22044	Falls Church
22211	Ft Myer	22041	Falls Church
22202	Arlington	22311	Alexandria
22305	Alexandria	22206	Arlington
22214	Arlington	22203	Arlington
22204	Arlington	22205	Arlington
22314	Alexandria	22046	Falls Church
22301	Alexandria	22213	Arlington
22302	Alexandria	22043	Falls Church
22304	Alexandria	22042	Falls Church

A total of 40 residents participated in the focus groups – 20 Inside the Beltway and 20 Outside the Beltway. Participants received a \$100 to \$125 gratuity, depending upon how far they had to travel. Each focus group lasted approximately two hours and was overseen by Steve Markenson, a professional focus group moderator from WBA Research.

The table on the following page shows a demographic profile of participants.

Participant Demographics			
<u>Residence</u>		<u>Auto Available</u>	
Fairfax County	13	Yes	38
Alexandria	8	No	2
Arlington	7		
Prince William County	5	<u>Age</u>	
Loudoun County	2	18-34	14
Manassas	2	35-44	11
Fairfax City	1	45-54	7
Falls Church	1	55 or older	8
Manassas Park	1		
		<u>Employment Status</u>	
<u>Work/School¹</u>		Full-time	32
Fairfax County	16	Part-time	5
Washington, DC	9	Not employed	3
Arlington	5		
Alexandria	3	<u>Race/Ethnicity</u>	
Loudoun County	1	White	16
Prince William County	1	Black/African-American	10
Fairfax City	1	Hispanic	6
Somewhere else	1	Asian	5
		Other	3
<u>Commute</u>		<u>Gender</u>	
Yes	36	Male	22
No	4	Female	18
<u>Primary Means of Commute¹</u>		<u>Income</u>	
Drive	21	Less than \$50K	9
Public transportation	14	\$50K-\$99K	13
Other	1	\$100K or more	18

¹Among those employed

Key Segments

When examining the reactions of participants, they will be looked at as they represent various segments of the population. Common segments include demographics such as gender or age. In addition to these, the following segments will be compared:

- *Inside the Beltway vs. Outside the Beltway* – Those who live “Inside the Beltway” are more likely to use public transportation and to prefer walkable communities.
- *Drivers vs. Public Transportation Users* – Public transportation users are, for obvious reasons, more supportive of public transportation projects. However, many of those who do not use public transportation themselves still support it, oftentimes as a means to decrease congestion.
- *Travel into the District vs. Travel in Northern Virginia* – When traveling into the District even otherwise regular drivers prefer modes other than their own car. When traveling in Northern Virginia, driving is the norm, though buses, walking, and even the occasional bike ride are used...when it’s a viable alternative.

Research Caveats and Limitations

Typically, qualitative research is used to provide answers to attitudinal questions, as well as to provide insight and in-depth understanding of consumer perceptions and opinions.

By nature, this research method does not usually allow for statistical analysis and interpretation. Rather, it is a tool for decision-making purposes. The findings from this type of research should be used to provide insight and direction into decision-making rather than as a sole basis for decision-making.

Qualitative research tends to provide answers to questions like “Why?” and “How?”, whereas quantitative research tends to provide answers to questions such as “How many?” or “How much?”

The statements made in this report, including the conclusions and implications or any recommendations, are based upon the attitudes and opinions of the participants and are not necessarily projectable or generalizable to the population at large.

DETAILED FINDINGS

HOW THEY GET AROUND

Driving and Public Transportation. Those living Inside the Beltway are far more likely to use public transportation for their commutes, whereas those outside the Beltway are typically single-occupancy vehicle (SOV) drivers. The key motivating factor for mode choice, however, is *where* they are traveling. ***Most of those who travel into the District use public transportation.*** As one Fairfax County resident put it, “I drive into DC, life sucks!”

- Traffic and parking are seen as significant barriers to driving into. However, the lack of access to public transportation, coupled with its perceived unreliability, prevent many District-bound residents from using this option.
- Many, particularly among those living Outside the Beltway, describe using public transportation, for them meaning Metrorail, as a ***“double commute.”*** They have to make one trip to get to Metrorail, often driving away from the District, and then a second trip once on Metrorail. For them, the time and multi-step process is simply not worth it.
- SafeTrack, and the resulting ***long headways, are a second barrier.*** Awareness of SafeTrack is high, even among non-riders. Several residents spoke of 15 to 30 minute waits at stations. While it does not seem as if it is pushing many Northern Virginia residents to completely give up using Metrorail, it is definitely putting downward pressure on the frequency of use.



Now, this is not to say that Metrorail is the only mode of public transportation used. Many Inside the Beltway residents use buses, often in conjunction with Metrorail or when making trips locally. However, as mentioned earlier, multi-mode trips (i.e., transfers) are a barrier to use. ***Service ending early and particularly long headways on weekends also suppress ridership.*** “Metro is so limiting, it’s a curfew” said one Loudoun County resident.

⇒ Bear in mind that the ***vast majority of residents are not transit-dependent.***

Transportation Network Companies. There is also a significant amount of reliance on transportation network companies (TNCs) such as Uber or Lyft, so they see themselves as having options beyond driving themselves and public transportation.

- Note that TNC use is particularly high among younger and middle-aged residents, and seems to drop off notably with those who are older.
- TNCs are also seen as providing direct access to many areas, such as the National Harbor, where there are limited public transportation options.
- For some, TNCs are an alternate means of transportation if public transportation is delayed or overcrowded.

- For many, taxis are an option of last resort. They are only used when they are hailed, they are never called. TNCs are seen as less expensive and far easier to access through an app. However, it is not clear whether TNCs are taking away taxi riders, or if these people would have driven or used public transportation or have not taken these trips at all.

Walking and Bicycling. Walking and bicycling is very limited. A few residents said they walk to certain places close to where they live, but most, particularly those living in the suburbs and exurbs, say there simply is not anything near them that is worth walking to. They describe Northern Virginia as too spread out and designed to make people car dependent. With that, only a couple of participants said they would consider moving to an area such as Alexandria with more public transportation and walkable options.

- Almost no one said they use bicycles, and it is not something that would be considered by many. ***Even those who do bike do so more often recreationally rather than as a means of transportation.*** For many, it is simply seen as impractical for commuting. As one woman put it, “I’m not riding a bike in a pencil skirt.” Others cite a lack of bicycle lanes as a barrier. It was said that Northern Virginian drivers do not think to look for bicyclists the way that drivers in the District might, creating an unsafe situation. There is also a lack of knowledge as to where bike trails are available.
 - It should be cautioned, however, that there ***did not seem to be enthusiasm for bicycling*** among participants. At least among them, the addition of safe bicycle lanes and greater driver awareness of bicyclists would likely still not lead them to consider this as an option.

What Congestion Means to Them. Not surprisingly, there was an almost visceral response to the term “congestion.” Congestion is seen as bad and is only getting worse. It is not simply about a longer commute; **congestion affects many aspects of their lives.** Several say they “plan (their) life around it.” Congestion has...

- Reduced the amount of time they work or spend with their family;
- Impacted residents’ decision to turn down higher paying jobs;
- Made people pass up opportunities to go out for shopping, entertainment, or social reasons; and
- Limited trips and made people chain trips together in order to reduce the frequency with which they leave home.

“It’s hard to do anything on weekdays.”
Inside the Beltway Resident

“Taking a new job, you’ve got to factor in the money, because what happens is, you got to factor in the commute time. You have to (consider) is it really worth it, in terms of gas, parking, whatever, to do it? So unless it’s going to be a significant increase in income, a lot of times financially it’s just not worth it.”

Inside the Beltway Resident

This may have been best summed up by one Loudoun County resident who described travel in Northern Virginia as a “cost/benefit analysis.”

While congestion in any form is an issue for residents, there is a significant difference in *expected vs. unexpected* (recurrent vs. non-recurrent) congestion. Recurrent congestion is peak time, rush hour congestion from high traffic volume. As described by one Loudoun County resident who regularly commutes into Fairfax County, “My mindset is there is going to be traffic and I’m happy when there’s not.” Although no one likes it, most have learned to accept and adapt to it. It is the **unexpected congestion, from accidents or at unexpected times** (e.g. weekends) **that generates the greatest degree of frustration.**

“You think, is this worth it to go into DC? To drive you have to park, it’s an issue. You take Metro, is it going to be too late getting back? If you Uber? You literally have to go through all these different scenarios to figure out, ‘okay is this worth it?’ As opposed to hey, let’s just jump in the car and drive.”

Alexandria Resident

Acceptable Congestion

Congestion resulting in a trip that is *50% to 100% longer* than it would otherwise be is considered acceptable.

Interestingly, several residents said it is more important to them that they are moving than the actual length of the trip. They indicated that they would **take a longer trip timewise if it meant they could avoid being at a**

"I would go way out of my way just to keep moving."

Outside the Beltway Resident

standstill. For them, the feeling that they are making progress is most important.

Why is There Congestion? The main drivers of congestion are considered to be increased development, roads that are not designed for the volume of traffic, and a lack of alternative options. A "circle feeding into itself" as described by one Inside the Beltway resident. The **blame for this is placed on local government for not accounting for traffic and planning appropriately.**

- With this, a couple of Outside the Beltway residents wondered if the fact that most employers seem to be clustered into certain specific areas added to congestion.

Dealing with Congestion. Several say they are **getting up earlier and earlier to get to work on time.** Others time when they leave work so as to avoid congestion, knowing that leaving even a few minutes later than planned can add an hour or more to their commute. However, they face the problem of **peak congestion times that seem ever longer,** starting earlier and ending later.

"I changed my hours and took a little less sleep at night to improve my commute."

Loudoun County Resident

The simplest description of the results of congestion is that it is a "waste of time." Time spent in congestion is time that could be spent with family, working, or doing anything else. With that, **congestion has led to adaptation.**

Teleworking is becoming more common, at least for those for whom it is available.

- Security limitations at some federal agency and federal contractor workplaces mean people are not allowed to work remotely.
- A couple of others said that, while their workplaces do 'technically' allow telework, there is no formal policy in place or it is looked down upon if done too frequently. Also, there are jobs that require employees to report to a facility or location and cannot be performed remotely.
- Employees also need to be taught how to telework. It was pointed out that this requires discipline and a dedicated workspace at home.

Adapting to Congestion

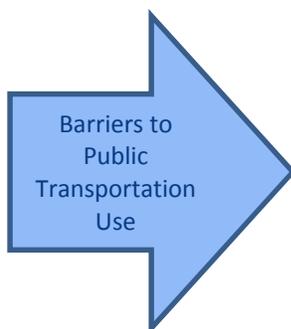
- Telework
- Change departure times
- Change work schedule
- Be prepared to change transportation mode daily
- Have an *E-ZPass* to use HOV and express lanes, when necessary
- Take calls while driving/on public transit
- Take public transit so you can work

A couple of Inside the Beltway residents said they ***moved to where they live now because of regional congestion***. Others have said they have not moved in order to avoid a longer commute. Similarly, a couple of other Northern Virginians said they have changed jobs to reduce their commute. However, others said they do not have this option, or that congestion is not quite bad enough to force them to do so.

Many use apps – such as Google Maps, Apple Maps, and Waze – to monitor traffic conditions before and while driving, and to determine the best possible route.

Improvements that may Reduce Congestion. Views toward express and high-occupancy toll (HOT) lanes are mixed. They are seen as a good option when there is a great deal of congestion and on-time arrival is essential. However, the ***price of tolls is a significant barrier*** for many, leading to a ‘use only in an emergency’ view of these options. This is particularly true when considering the express/HOT lane option for commuting. The Dulles Toll Road was the only toll road that anyone said they would regularly use to commute, and even then a few said increased congestion on that road is making them wonder if there was still a benefit. No one said they would use other tolled express lane options with regularity, all saying the price was anywhere from a significant barrier to making it simply impossible.

Public transportation is met with mixed views in terms of a means to avoid congestion. The barriers to use that public transportation faces in Northern Virginia are ones common to public transportation across many areas in the United States – long trips and limited frequency of service, particularly during non-peak times.



- Public transportation can ***take longer***, often with ***no perceived cost savings***.
- Waiting for public transportation adds to commute length. Public transportation ***lacks flexibility***, the ability to ‘get up and go’ that cars provide.
- Buses ***lack frequency and reliability***, and the lack of reliability leads to

congestion issues. One bus rider described how she boards her bus early in its route, then sees it bypass bus stops with waiting passengers at later stops once the bus is full. Other bus riders described when they have been on the other side of this, seeing full buses pass them by. This lack of reliability may deter choice riders.

“If you want something reliable, drive.”
Inside the Beltway Resident

- Metrorail has similar problems with train cars being at capacity. The Blue Line in particular was cited by several as having significant congestion issues, with the Orange Line being mentioned as well.
 - Note that many residents said they think a lack of buses and trains, as well as longer headways, leads to this overcrowding.

- Buses are forced to travel the same roads and ***deal with the same congestion as cars***. “You can walk faster than the bus” one Inside the Beltway resident lamented.
- Several Outside the Beltway residents also said that they thought increased public transportation fares are meant to lead directly to improvements in service, and they are frustrated that they have ***never perceived an improvement in regional transit service after a fare increase***.

Inside the Beltway residents and/or those who travel into the District are, in general, more open to the idea of using public transportation themselves, and not only for travel into the District but even for travel in Northern Virginia. Those who commute to locations in Northern Virginia say they not likely to travel using public transportation. However, ***they are willing to support public transportation as a means to reduce congestion***. If it can get other cars off the road, it would improve their drive.

While it was generally accepted that congestion is getting worse, there was some optimism. The ***Silver Line was seen as a positive addition***, both because it provides another mode option and because it increases home values.

PRIORITY MEASURES

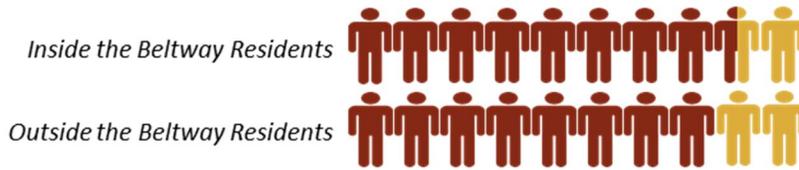
Participants were asked to rate the importance of 10 key priority measures as being of:



- Reduce delays during commute hours
- Increase travel time reliability throughout the day
- Reduce crowding on buses and rail
- Increase connections between businesses and residential centers
- Reduce household transportation costs
- Improve roadway safety to reduce vehicle crashes
- Increase access to rail stations for pedestrians, bikes, and buses
- Increase the number of travel options (e.g., bus, rail, rideshare)
- Reduce the number of single-occupancy vehicles during rush hour
- Reduce the impact of transportation on the environment

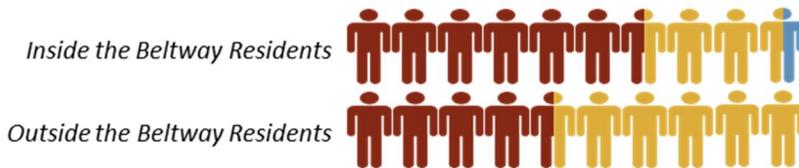
Reducing delays during commute hours was seen as being of the greatest priority, followed by ***increasing travel time reliability*** throughout the day.

Reduce delays during commute hours



Reducing delays was the number one priority for residents regardless of where they live. Residents were very open to any ideas, be it increased public transit, promoting telework, more HOV or express lanes, or any other options. However, there was skepticism expressed by some that more roads would reduce congestion, as more roads would seem to them to simply lead to more drivers. It should be noted that others did not agree with this logic.

Increase travel time reliability throughout the day

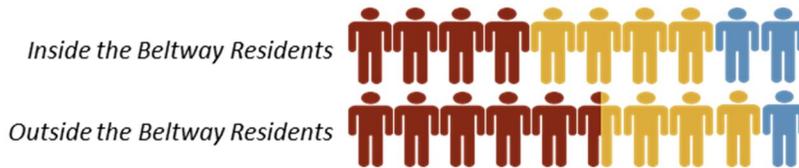


Reducing congestion can also simply mean making commuting predictable. If they know their commuting time, regardless of what it is, they can plan for it. Travel time reliability seemed to be of greatest importance to those who use public transportation, particularly with reduced availability during off-peak times and on weekends. It is also a problem for them when one vehicle in a multi-mode trip is off schedule. As one Inside the Beltway resident colorfully put it, “If the bus comes 15, 20 minutes late I’m screwed!”

“You don’t want to take all day to get there and you don’t want to be fired for being late.”
Inside the Beltway Resident

Some puzzlement was expressed as to why service is not increased prior to weather events similar to additional service provided during sporting events.

Improve roadway safety to reduce vehicle crashes



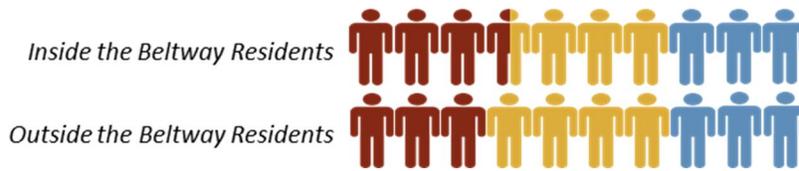
Accidents create unreliability, and non-recurrent congestion with its effect on travel times are a key concern for area residents. “Reducing accidents” for them does not mean ensuring their own safety, rather it means reducing the likelihood of non-recurrent congestion. Some residents reported delays as long as three hours caused by accidents.

Suggestions included:

- Greater enforcement of bans on using cell phones while driving;
- Moving traffic past accidents (i.e., decrease rubbernecking) and clearing accidents more quickly;
- Improving lane markings;
- Reducing potholes;
- More traffic calming measures;
- Encouraging driver awareness;
- Improving on-ramps; and
- Enforcing traffic rules with bicyclists.

However, a few wondered if anything could really be done, and that the current physical road conditions are actually quite good. “The roads are perfectly paved,” described one resident.

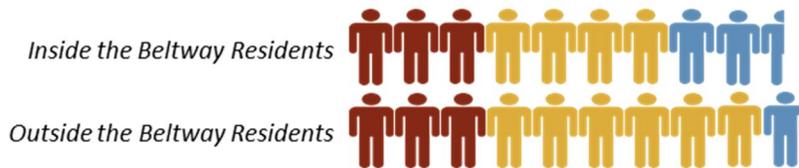
Increase the number of travel options



Increasing travel options included increasing access to public transportation, notably expanding Metrorail, and adding roadways when possible. However, to the latter there were questions as to whether there is room to add yet more roads. Furthermore, some were concerned about eminent domain issues, particularly those Inside the Beltway.

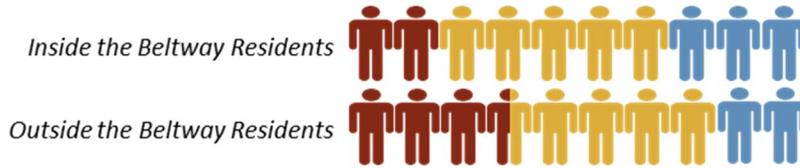
“I think this area might be maxed out.”
Inside the Beltway Resident

Reduce household transportation costs



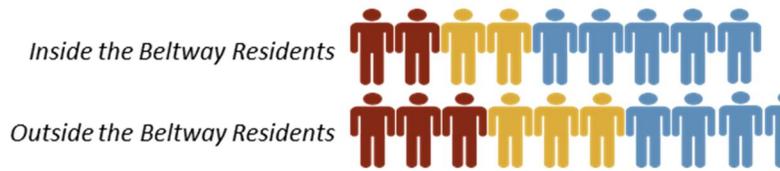
This could be done by reducing tolls, which are seen as very expensive, as well as reducing public transportation fares and congestion, which would lead to reduced gasoline costs.

Increase access to rail stations for pedestrians, bikes, and buses



As mentioned earlier, one of the key barriers to public transportation use is having to drive to it. This problem is particularly acute outside the Beltway. Once in their cars, drivers would prefer to continue on to their destinations.

Reduce the number of SOV's during rush hour



Reducing single occupancy vehicles seemed to be common sense to many, though not necessarily a high priority. This may be due to the fact that many drove, often in SOVs, and would prefer to continue to drive.

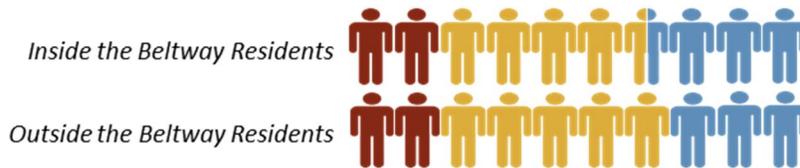
Another challenge, pointed out by someone who works in Fairfax County, is finding people to carpool with whose work schedules coincide.

“If you don’t have enough people basically on the same schedule, you can’t (carpool).”

Fairfax City Resident

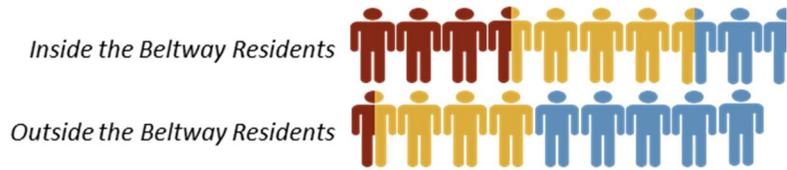
In addition, though many support HOV and HOT lanes, a few admitted that they use carpool lanes when driving alone. Some also figured that if other issues are addressed this problem “will take care of itself.”

Increase connections between businesses and residential centers



Residents interpreted this as meaning increasing bus routes. A few said they would take advantage of bus routes to business centers if they were direct.

Reduce crowding on buses and rail

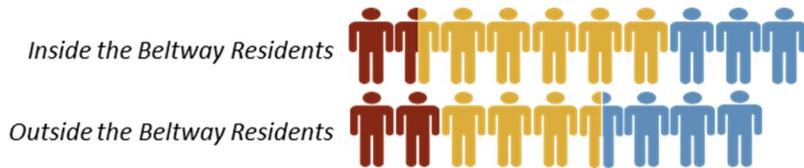


Reducing crowding on public transportation was a much greater concern for those living Inside the Beltway. This was also seen as a way to reduce traffic congestion. Increasing the number and frequency of buses and trains was seen as the obvious solution. However, some thought that public transportation agencies, notably WMATA, were going in the opposite direction.

“What [WMATA General Manager Paul Wiedefeld] says now is he wants to reduce the hours of operation, so that’s not going to help.”

Falls Church Metrorail Rider

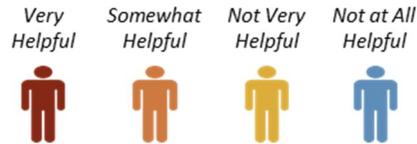
Reduce the impact of transportation on the environment



While there was some discussion of reducing carbon emissions, promoting bike lanes, and other measures to reduce the environmental impact of transportation, this simply was not a priority for many.

PRIORITY IMPROVEMENTS

Participants were also asked to prioritize 10 potential transportation improvements, rating them as being:

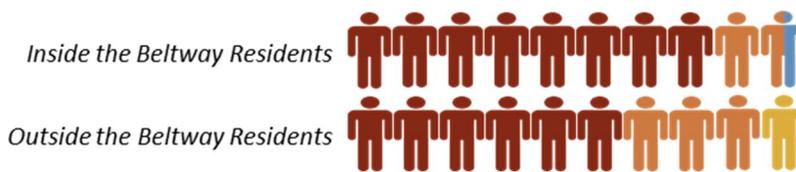


- Improve and expand bike lanes and the regional bike network
- Build new roads or widen roads
- Increase the frequency of public transit
- Expand public transit to different parts of Northern Virginia (e.g. rail and bus)
- Implement coordinated traffic signal timing on major roads
- Implement safety improvements, such as sidewalks, crosswalks, and traffic calming measures (e.g., speed bumps, reducing roadway widths, and changing road texture)
- Expand park & ride capacity
- Expand connections within Northern Virginia between businesses and residential centers
- Improve connections beyond Northern Virginia (e.g. DC, Maryland, and West Virginia)
- Add more limited access (toll and HOV) highways

Three improvements were seen as particularly helpful:

- Expanding public transit to different parts of Northern Virginia,
- Building new roads and widening roads, and
- Increasing the frequency of public transit.

Expand public transit to different parts of Northern Virginia



Many, especially those living Inside the Beltway, said they would like to use public transportation more for travel inside Northern Virginia, particularly for discretionary travel. Lack of public transportation options and limited off-peak frequency prevents them from doing this. As mentioned previously, overcrowding is another barrier, and residents' impression is that expanded public transportation might alleviate some of that congestion.

"Expanding public transit expands the work zone, gives people a choice."
Outside the Beltway Resident

Even for those living Outside the Beltway there is a strong interest in expanded public transportation, though part of this is to reduce traffic congestion. They approve of the Silver Line, and several look forward to its eventual extension to Dulles Airport. A couple also expressed interest in the planned Purple Line. They would like to see public transportation increased up I-66, with many saying they would prefer that to HOV lanes.

That said, several residents conceded that it "takes a cultural change" to move people to public transportation. As one Outside the Beltway resident lamented, "I cannot get my husband on public transit for the life of me!"

Build new roads or widen roads



As most residents drive, there is understandably a great deal of interest in improving regional roadways; however, most understand that the details are complicated. There is a realization that current roadways cannot support ever increasing traffic.

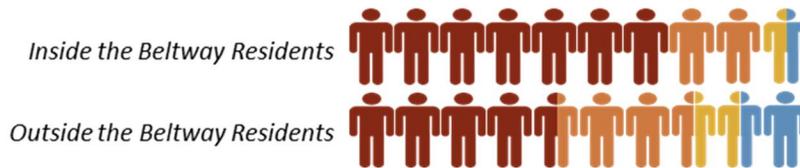
Many think that new roadway projects will involve toll roads. Currently, toll roads are largely seen as providing an alternative but not a primary travel route. There are also questions as to where new roads would be and how they would be financed. Expanding the Beltway, providing an east-west route through Northern Virginia, and additional options for travel into Maryland and across the Potomac were potential projects

"Part of the problem is you've got all the different jurisdictions, they have to agree, otherwise you don't connect."
Outside the Beltway Resident

frequently mentioned. Yet, several residents did not believe that the multiple jurisdictions could coordinate the funding necessary.

There was also some concern that new construction could make congestion worse for an extended period of time.

Increase the frequency of public transit



Once again, the greatest interest in increasing the frequency of public transportation is among those living Inside the Beltway. Reducing wait times and overcrowding are key issues for them. It was also pointed out that the lack of frequency during off-peak hours reduces their ability to take advantage of flex-time. A few Outside the Beltway residents said they would use public transportation if it ran more frequently, but the majority were more concerned with reducing traffic congestion.

“It will remove some people from the road.”
Outside the Beltway Resident

The general consensus was that headways need to be capped at 10 minutes to make public transportation viable.

Implement coordinated traffic signal timing on major roads



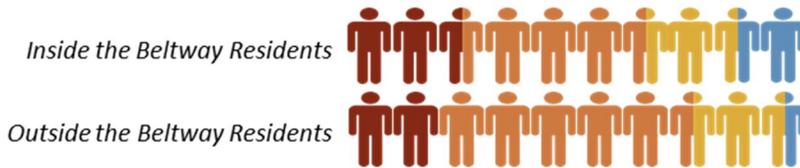
“There are a lot of intersections near where I live where the side streets get as much time as the main streets with the green light. So I’ll see the cars backed up maybe a mile, and maybe see three or four cars go through a light that’s up for 2 minutes.”

Inside the Beltway Resident

This is seen as more of a problem in more densely populated areas, notably Woodbridge, Falls Church, Fairfax City, and Alexandria. It is not just the timing of lights but also the number of lights. A term used a few times was “irrational” to describe dealing with the combination of untimed lights, blocked intersections, difficult left turns, and obstacles such as pedestrians and double-parked vehicles.

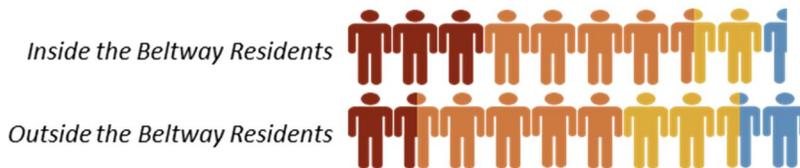
- A few suggested roundabouts as another possible solution, though one Outside the Beltway resident described area drivers as being “scared of them.”

Expand connections within Northern Virginia between business and residential centers



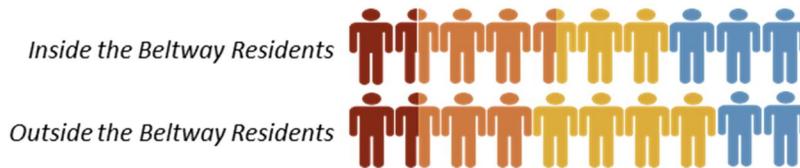
There are questions as to whether or not transportation planning takes into account “where people actually live.” It was questioned whether the current move to “live where you work” (as described by one resident) was realistic. They see the current layout of Northern Virginia as spread out residential areas with employment centers being consolidated into a few specific and separate areas.

Improve connections beyond Northern Virginia



Areas of interest included having more options to cross the Potomac River into Maryland or Washington, DC.

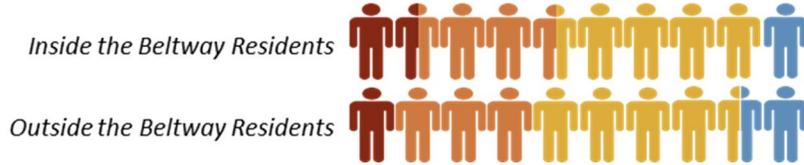
Add more limited access (toll and HOV) highways



“It’s regressive. If you have the capacity, why don’t you use it.”
Fairfax County Resident

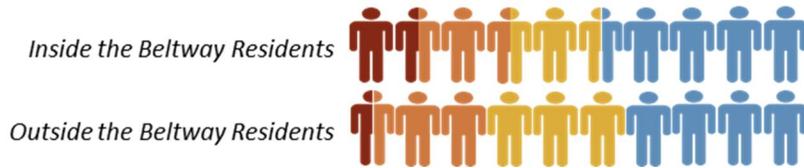
The upside to limited access lanes is that, while not everyone can use them (no passengers, cannot afford tolls), at least they “take the pressure off.” The primary barrier to tolled road usage is cost (several residents derided these as being “Lexus lanes”). With that, many question the value of constructing special lanes or roads that are only used by a limited number of people.

Implement safety improvements



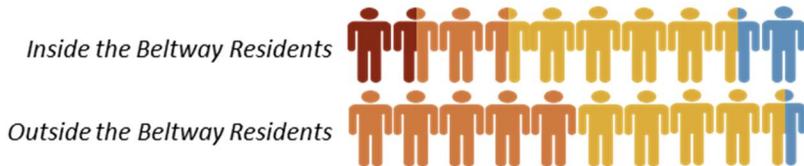
Safety improvements such as sidewalks, crosswalks, and traffic calming measures were seen as being of some value, though of less importance than the other improvements discussed. A few residents would like it to be easier for residents to request such improvements. One Fairfax County resident spoke of the difficult time he had getting speed bumps put into his neighborhood.

Improve and expand bike lanes and the regional bike network



While some residents say they support bike lanes, it seems they do so more because they feel they should rather than actual interest in using them. Knowledge of what is currently available is extremely limited.

Expand park & ride capacity



Residents had limited experience with current park & ride lots, so this was a difficult improvement for them to consider. Some with experience said they had little difficulty finding parking, while a couple of others said they had to arrive early to find spots.

GOVERNMENT WORKING TO IMPROVE TRANSPORTATION

What should not be a surprise is that ***there is a certain level of cynicism*** toward regional governments being able to improve transportation. The reason most cited is getting the various jurisdictions to work together. Several cited their inability to fund Metro properly as an example. As one Outside the Beltway resident wryly said, “try to get that to happen.” However, there were those who did have some faith that local governments *could* work together. One Metrorail rider from Alexandria cited the promotion and execution of SafeTrack as an example that gave him confidence.

“They want to do something flashy that maybe isn’t needed; for example, the DC streetcar. It felt like something politicians wanted to do because they wanted to do it and not because there was a need. There were already buses that ran along that route and a lot of people take that because its faster than the streetcar. And then there was a thing in Arlington about them building like a million-dollar bus stop. It was just, things like that, where they don’t inspire confidence.”

Outside the Beltway Resident

Communication was the key thing they wanted to see local governments do better. This can include:

- Communicating the current status of public transportation through apps and social media;
- Updates on the status of construction projects, both current and planned;
- Communication of local events that may disrupt traffic and/or public transportation;
- Communication and promotion with area employers, promoting the benefits of flex-time, carpooling, and transit subsidies.

In the end, for most residents seeing is believing.

GREATEST IMPACT ON TRANSPORTATION

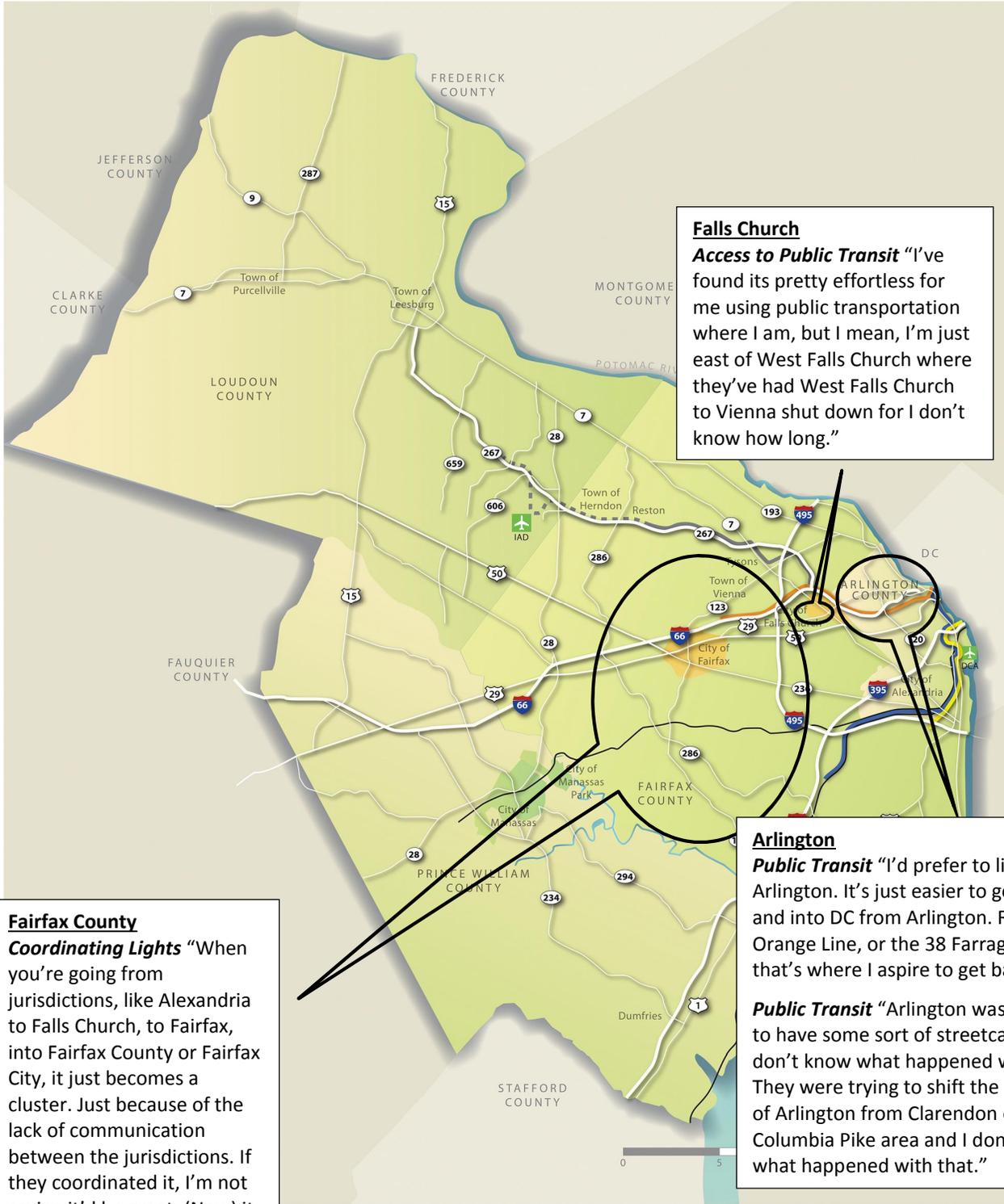
Participants were asked to participate in an activity where they would create a list, as a group, of the ideas they believe would have the greatest impact on improving the transportation network/layout for Northern Virginia, specifically with a focus on reducing congestion. The table below shows the lists of priority improvements created by each group:

<p><i>Inside the Beltway Residents (Group 1)</i></p>	<ol style="list-style-type: none"> 1. Increase frequency of public transit in the entire NOVA/DMV area 2. Expand connections within DMV area for public transportation 3. Increase hours of public transit (both bus and rail) 4. Limit environmental impact by promoting regional bike network 5. Increase communications to the public 6. Improve access to rail/bus stations 7. Limit construction/maintenance work to off-peak hours
<p><i>Inside the Beltway Residents (Group 2)</i></p>	<ol style="list-style-type: none"> 1. Adding more HOV/express Lanes 2. Better traffic light coordination 3. More express lanes to Dulles/Richmond 4. Incentive/tax break for people who ride-share/carpool 5. More bridges/tunnels 6. More access into/out of DC
<p><i>Outside the Beltway Residents (Group 1)</i></p>	<ol style="list-style-type: none"> 1. Increase frequency and reliability for public transportation 2. Improve communication between jurisdictions 3. Increase the span/reach/modes for public transportation 4. Improve funding for transit solutions 5. Incentivize telework options for government and private industry
<p><i>Outside the Beltway Residents (Group 2)</i></p>	<ol style="list-style-type: none"> 1. Expand Metro to outlying regions with more bus support 2. Better and more funding for metro 3. Increased Potomac River crossings in Virginia 4. Widening existing roads and improving interchanges 5. Telework and flex time 6. Affordable housing in city centers (to increase access to public transportation)

APPENDIX

QUOTES REGARDING LOCATION SPECIFIC TRANSPORTATION ISSUES

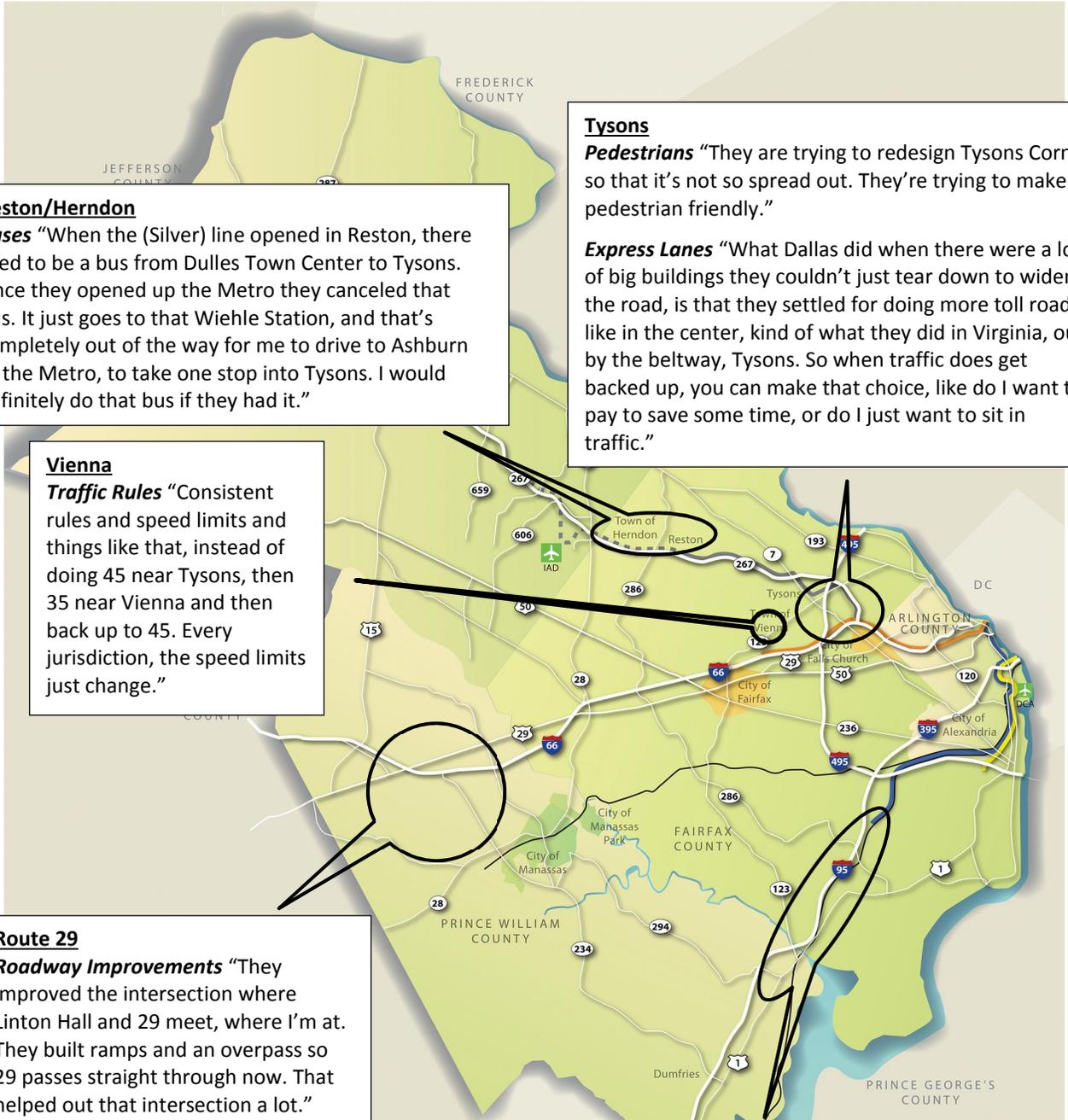
Throughout the course of the focus groups residents made references to transportation issues in specific areas. The maps on the following pages show many of these comments.



Falls Church
Access to Public Transit "I've found its pretty effortless for me using public transportation where I am, but I mean, I'm just east of West Falls Church where they've had West Falls Church to Vienna shut down for I don't know how long."

Arlington
Public Transit "I'd prefer to live in Arlington. It's just easier to get around and into DC from Arlington. Really the Orange Line, or the 38 Farragut bus, that's where I aspire to get back to."
Public Transit "Arlington was supposed to have some sort of streetcar, and I don't know what happened with that. They were trying to shift the population of Arlington from Clarendon over to the Columbia Pike area and I don't know what happened with that."

Fairfax County
Coordinating Lights "When you're going from jurisdictions, like Alexandria to Falls Church, to Fairfax, into Fairfax County or Fairfax City, it just becomes a cluster. Just because of the lack of communication between the jurisdictions. If they coordinated it, I'm not saying it'd be great. (Now) it might take 10-15 minutes of your commute by just sitting at red lights."



Reston/Herndon
Buses “When the (Silver) line opened in Reston, there used to be a bus from Dulles Town Center to Tysons. Once they opened up the Metro they canceled that bus. It just goes to that Wiehle Station, and that’s completely out of the way for me to drive to Ashburn to the Metro, to take one stop into Tysons. I would definitely do that bus if they had it.”

Vienna
Traffic Rules “Consistent rules and speed limits and things like that, instead of doing 45 near Tysons, then 35 near Vienna and then back up to 45. Every jurisdiction, the speed limits just change.”

Route 29
Roadway Improvements “They improved the intersection where Linton Hall and 29 meet, where I’m at. They built ramps and an overpass so 29 passes straight through now. That helped out that intersection a lot.”

Tysons
Pedestrians “They are trying to redesign Tysons Corner so that it’s not so spread out. They’re trying to make it pedestrian friendly.”
Express Lanes “What Dallas did when there were a lot of big buildings they couldn’t just tear down to widen the road, is that they settled for doing more toll roads like in the center, kind of what they did in Virginia, out by the beltway, Tysons. So when traffic does get backed up, you can make that choice, like do I want to pay to save some time, or do I just want to sit in traffic.”

I-95 Express Lanes
Tolls “I know if I really need to get somewhere at a certain time I’ll pay for the E-ZPass into Woodbridge. I mean on some days its crazy expensive, but just because I can predict what time I’m going to get somewhere”
Express Lanes “It’s got those LED billboards that tell you Springfield or Woodbridge – \$3, 10 minutes. And you say, ‘okay,’ you’re looking at traffic in the local lanes and you need to get to where you need to get down there. Okay, it’s going to cost me \$3, but I’m going to be able to zoom right through. So it allows for flexibility.”

Dulles Toll Road

Tolls "I've used the Dulles Toll Road a lot, and until this year, I was like 'yay, its saving me so much time!' Now everyone's taking the Dulles Toll Road and why did I pay for it?"

Tolls "If I know I have to be at Fairfax at a certain time in the morning, I will bite the bullet and take the Green Way. I will pay that \$6 and whatever toll, just because it's worth it to me to know that I can be there on time than to take my usual route and basically roll the dice."

Nutley Street

Accidents "The most accidents are happening right around Nutley Street. It's that design that VDOT has that's causing accidents, with that barrier and the way the exit is. It's just a terrible design and people then use that exit lane to bypass the traffic."

Bicycles "You don't want to be riding a bike down Nutley Street, you'll get run over."

Mt Vernon Avenue

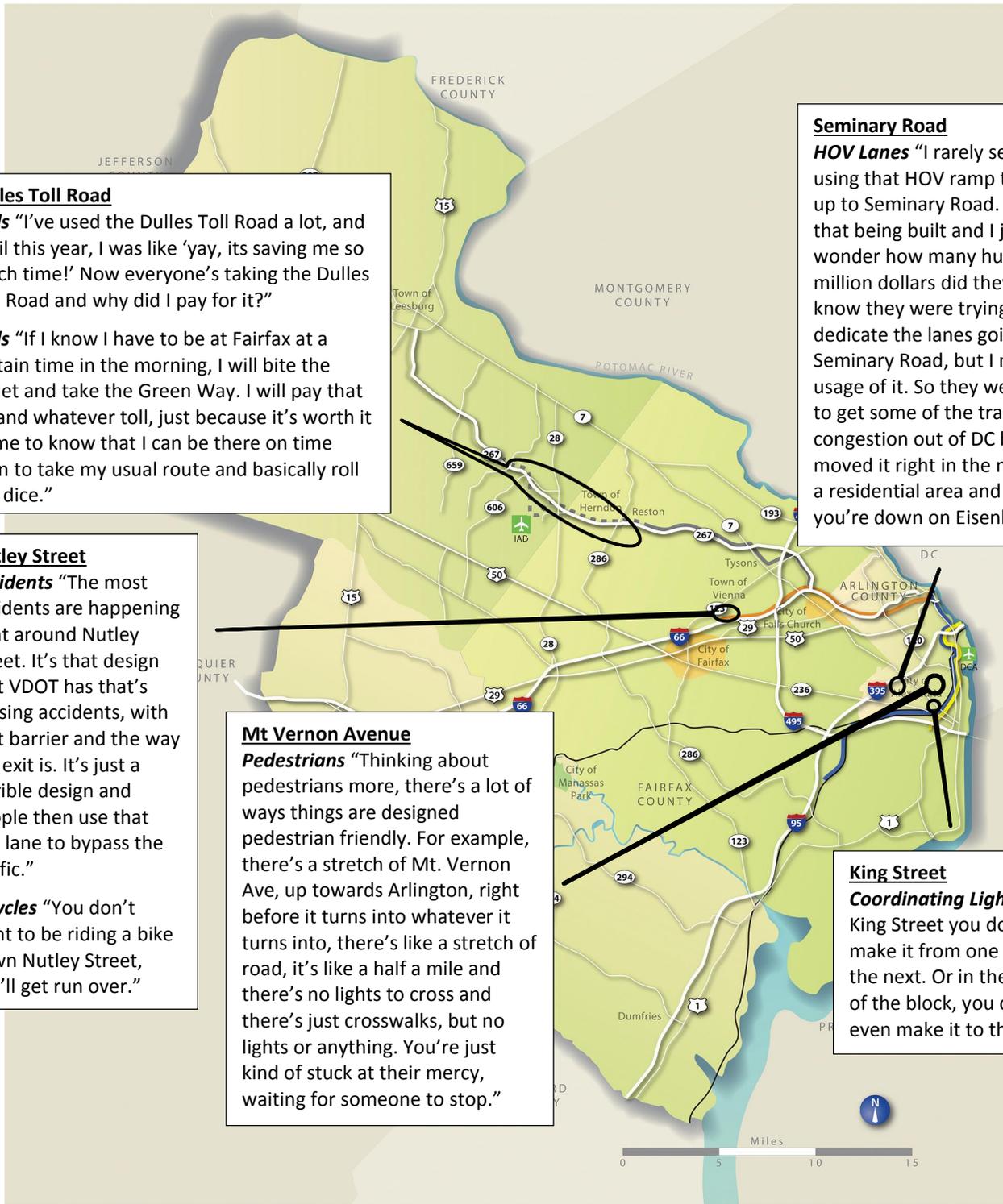
Pedestrians "Thinking about pedestrians more, there's a lot of ways things are designed pedestrian friendly. For example, there's a stretch of Mt. Vernon Ave, up towards Arlington, right before it turns into whatever it turns into, there's like a stretch of road, it's like a half a mile and there's no lights to cross and there's just crosswalks, but no lights or anything. You're just kind of stuck at their mercy, waiting for someone to stop."

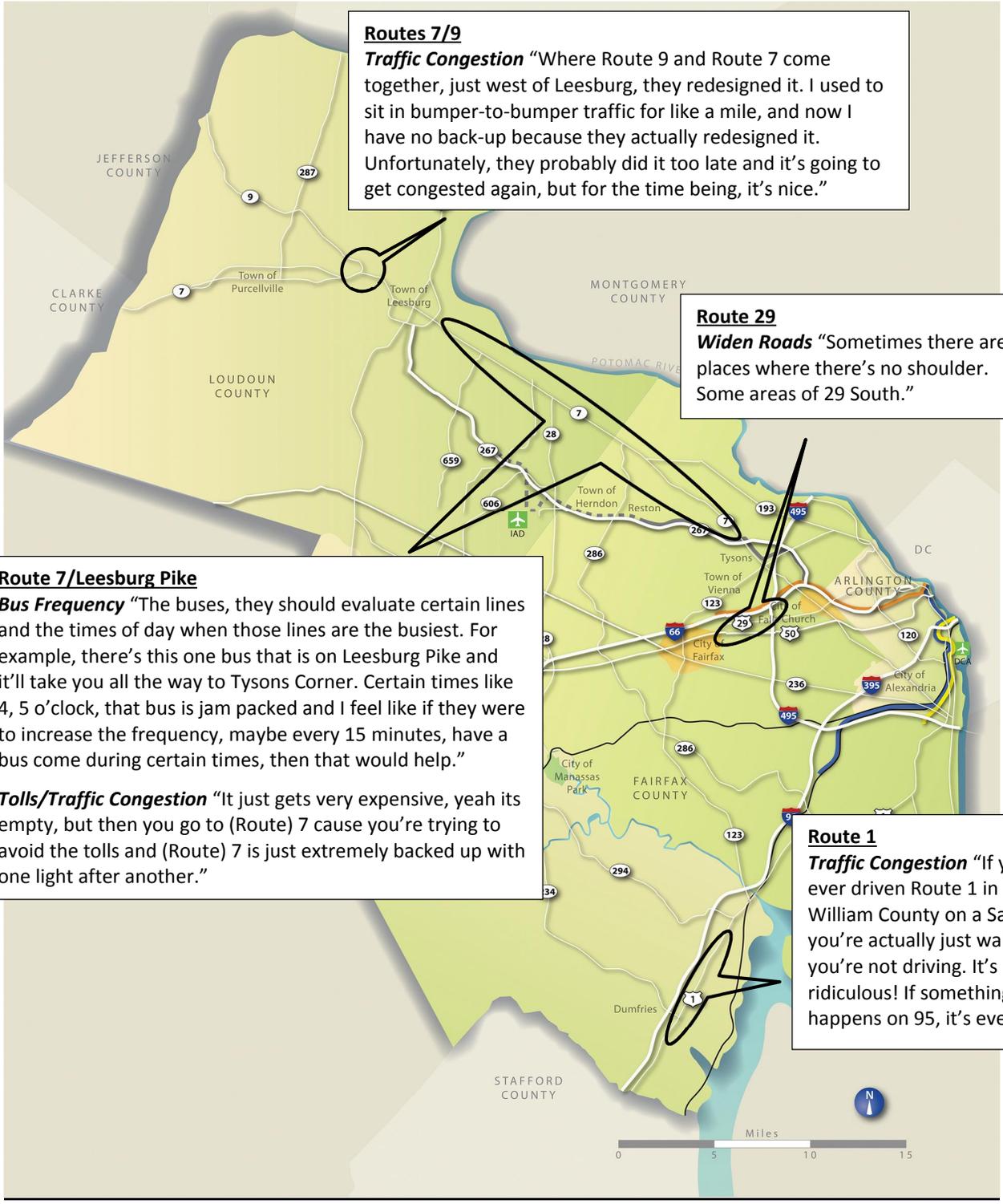
Seminary Road

HOV Lanes "I rarely see anyone using that HOV ramp that goes up to Seminary Road. I watched that being built and I just wonder how many hundred million dollars did they spend. I know they were trying to dedicate the lanes going up to Seminary Road, but I never see usage of it. So they were trying to get some of the traffic congestion out of DC but then moved it right in the middle of a residential area and then you're down on Eisenhower."

King Street

Coordinating Lights "Even King Street you don't make it from one light to the next. Or in the middle of the block, you can't even make it to the light."





Routes 7/9
Traffic Congestion "Where Route 9 and Route 7 come together, just west of Leesburg, they redesigned it. I used to sit in bumper-to-bumper traffic for like a mile, and now I have no back-up because they actually redesigned it. Unfortunately, they probably did it too late and it's going to get congested again, but for the time being, it's nice."

Route 29
Widen Roads "Sometimes there are places where there's no shoulder. Some areas of 29 South."

Route 7/Leesburg Pike
Bus Frequency "The buses, they should evaluate certain lines and the times of day when those lines are the busiest. For example, there's this one bus that is on Leesburg Pike and it'll take you all the way to Tysons Corner. Certain times like 4, 5 o'clock, that bus is jam packed and I feel like if they were to increase the frequency, maybe every 15 minutes, have a bus come during certain times, then that would help."
Tolls/Traffic Congestion "It just gets very expensive, yeah its empty, but then you go to (Route) 7 cause you're trying to avoid the tolls and (Route) 7 is just extremely backed up with one light after another."

Route 1
Traffic Congestion "If you've ever driven Route 1 in Prince William County on a Saturday, you're actually just walking, you're not driving. It's ridiculous! If something ever happens on 95, it's even worse."

I-395

New/Widen Roads "There's too many roads and they weren't built for the amount of cars that are now getting on it. You have things that were originally planned, where 395, and now they have the overpass. I remember before, you couldn't even get off 295 to 395 and that's because, well there had a been a whole lot of issues – 14th street was supposed to go underneath the mall and that didn't get built like it was supposed to."

Traffic Congestion "In September, the new school year, it just seems to get worse and worse. So I only live 7 miles from work, and no traffic if I left maybe 11 o'clock if I drive in. I could make it to work with lights, that's getting into DC with lights, in like 10 minutes. And so it's that easy in the morning. Now I am trying to leave earlier and earlier. So now I'm just Metro-ing because I could see (from) my car, I'd get on 395 and just go 'oh my gosh!' You'd see the lights on 395 on the overpass and you'd see it all the way up. So it keeps getting earlier and earlier where you see the stop. It's like 'ok, I'm leaving at a quarter till and it used to be I could leave at 7:30 and I'd be fine, and then it was 7:15, now its 7, and now I leave at 6:45. So I can just see how there are just more and more people on the roads and it's just what is going on?"

HOV Lanes "Lower the HOV on 395 from 3 people to 2 people."

Beltway

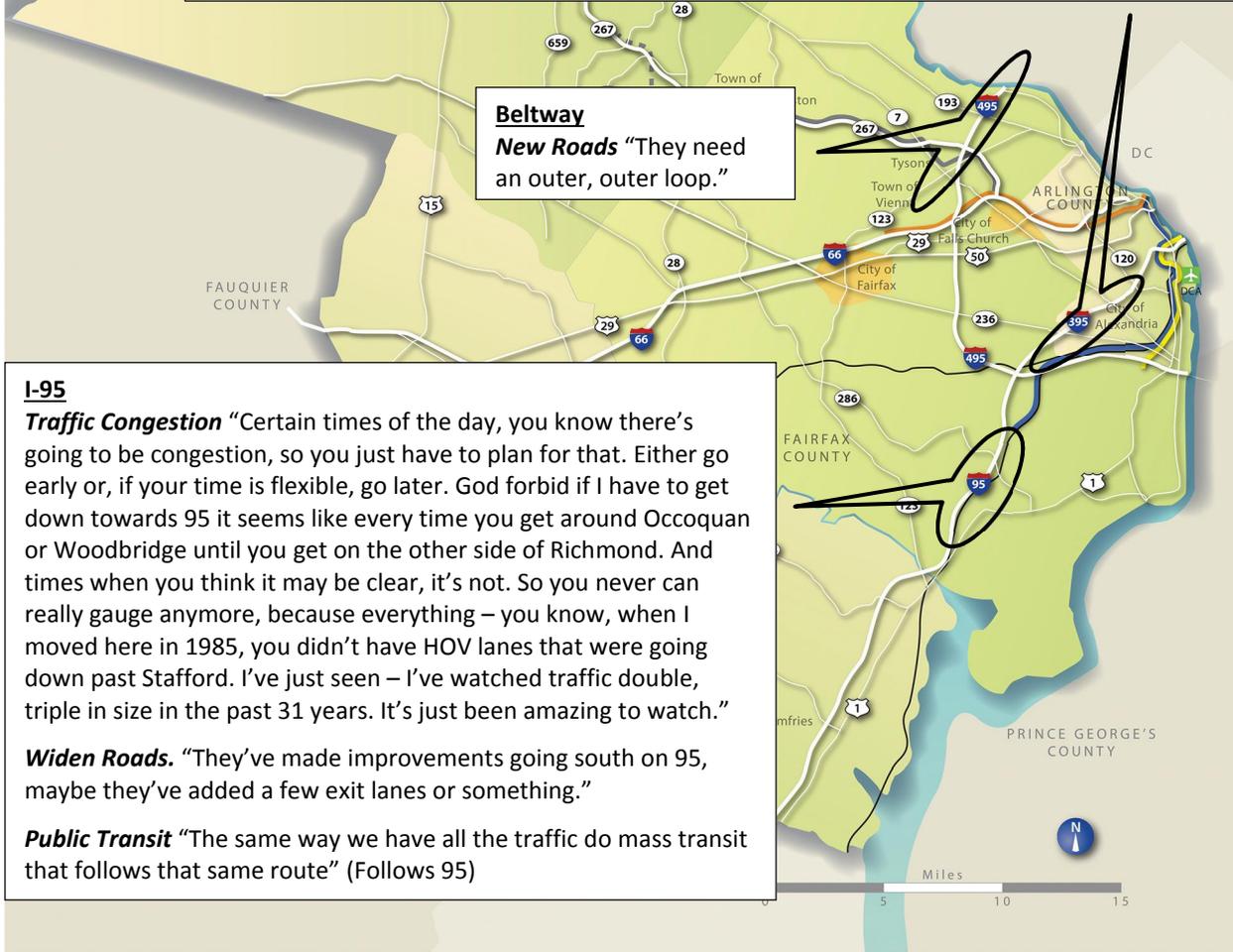
New Roads "They need an outer, outer loop."

I-95

Traffic Congestion "Certain times of the day, you know there's going to be congestion, so you just have to plan for that. Either go early or, if your time is flexible, go later. God forbid if I have to get down towards 95 it seems like every time you get around Occoquan or Woodbridge until you get on the other side of Richmond. And times when you think it may be clear, it's not. So you never can really gauge anymore, because everything – you know, when I moved here in 1985, you didn't have HOV lanes that were going down past Stafford. I've just seen – I've watched traffic double, triple in size in the past 31 years. It's just been amazing to watch."

Widen Roads. "They've made improvements going south on 95, maybe they've added a few exit lanes or something."

Public Transit "The same way we have all the traffic do mass transit that follows that same route" (Follows 95)



I-66

Traffic Congestion “66 was supposed to come right into Rock Creek Parkway, without having to dead like it does coming right up the Roosevelt Bridge. So all of the planning that was supposed to have happened, never happened, and now we have so many people and so many cars it’s just backing it up.”

HOV/Express Lanes “What I’ve heard about the new things they are going to do with 66, and the work on it in creating those express lanes, HOV, it made me consider moving further out. Because the way I’ve seen the express lanes 95 south, they just fly – I want to fly too. I will change how I commute in order to do that. Even though its further, at least I know it’s cheaper and I can do it moving.”

Widen Roads “There’s nowhere for it to go! Let’s say you want to increase 66 from inside the beltway, ha! The amount of money that’s going to have to go towards eminent domain, is stupid. 95 you could probably get away with, they did it down towards Fredericksburg, going inside, 66, that’s not working.”

Traffic Congestion “On 66, the 2nd Falls Church exit, there’s always congestion there, I don’t know why – actually I do know why, there’s 3 lanes and then there’s 2 lanes and people are trying to cut back onto 66.”

Traffic Congestion “Traffic going 66 West on a Saturday or Sunday is crazy. It hasn’t always been that way, but that’s the way it is now.”

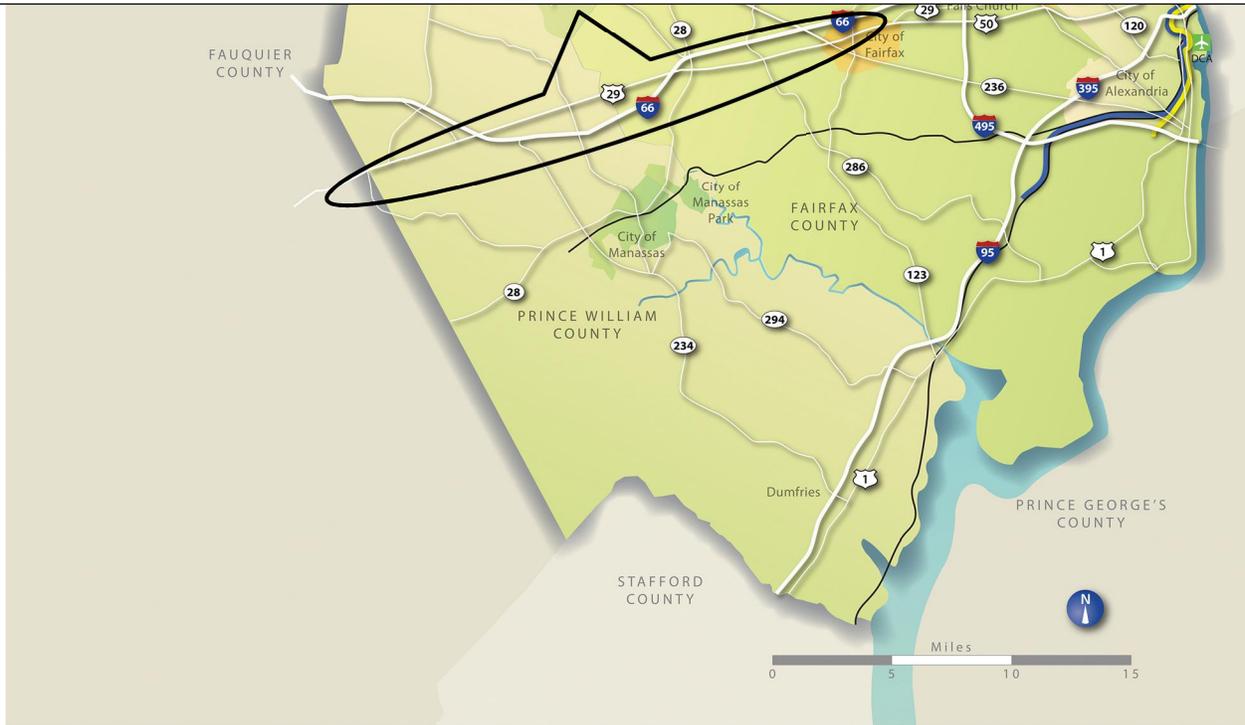
Traffic Congestion “Economically, I think it hurts a lot of, especially small businesses. There’s lots of evenings we go out and we kind of, its 4:00, or 4:30 and we’re not going to do, we’re not going to get trapped on 66.”

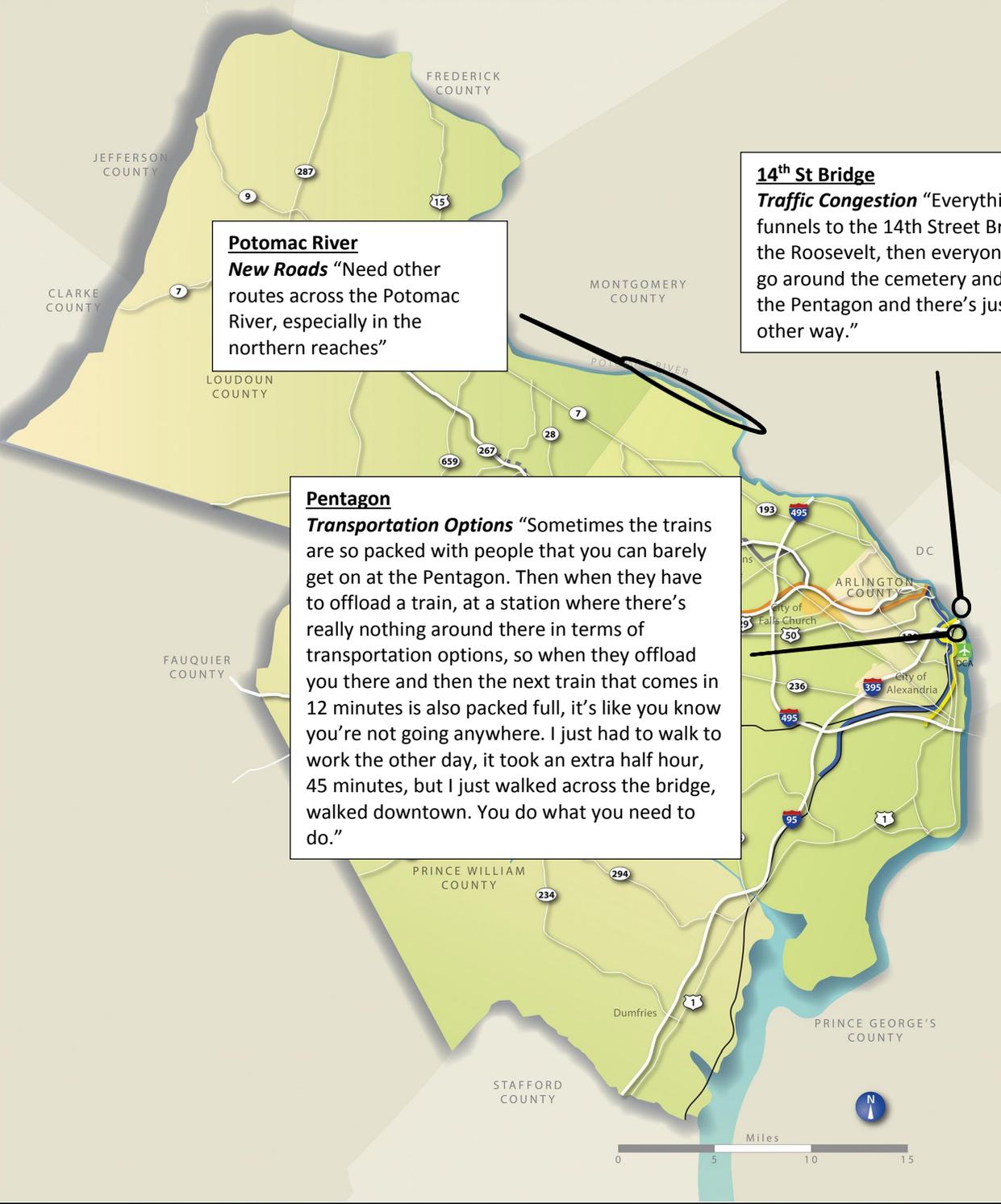
Traffic Congestion “We didn’t sell a house and move to Gainesville cause we were both working in the Fair Oaks area and we couldn’t get on 66 to go that far out. We just stayed.”

Express Lanes “Add an express lane for 66.”

Traffic Congestion “You need to factor in 66, do we want to live off of 66?”

HOV/Metrorail “They’re talking about expanding 66 through these HOV lanes. If they just did Metro out further instead, that’d be much better.”





Focus Group Discussion Guide

I. INTRODUCTION (10 minutes)

- a. Purpose of meeting: We are going to talk about some of the issues facing the Northern Virginia area, specifically with respect to transportation. We are going to talk about your experiences and get your opinions about transportation in the region. Let me assure you once again that this is not a sales meeting of any kind. I don't have anything to sell you. This is a form of research conducted with area residents and we're interested in your opinions.
- b. About this focus group session
 1. Form of market research, not selling anything
 2. Discussion will last about 2 hours
 3. Audio/Video Recording (if applicable)
 4. One-way mirror; associates viewing, notes may come in
 5. All comments will be kept anonymous and confidential
 6. Have courage of convictions; don't let group sway you
 7. No right or wrong answers, only your opinion
 8. Don't have to raise hands; but speak one at a time
 9. Work for independent market research company
 10. Turn off cell phones
- c. Respondent introduction
 1. Name
 2. Where live?
 3. How long lived in the area?
 4. Where work?
 5. Something about self
 6. Ice breaker

5. How much of a problem is crowding on public transit?
 - i. Does it keep you from using public transit?
 - ii. What else, if anything, keeps you from using public transit or using it more?
- e. There will always be some traffic in an area this large and densely populated. With that in mind, what is an acceptable amount of congestion on roads and public transit?
 1. What would that look like?
 2. How long does it take you to get to work/school?
 - i. If there was no traffic or delays in public transit, how long would it take?
 - ii. How much longer than that is acceptable? (e.g., 1 ½ times as long? Twice as long? Three times as long?)

III. PRIORITY MEASURES (20 minutes)

- a. Next, I would like to get your input on a number of possible priorities for the region to focus on in an effort to improve our experiences. I would like you to rate each of the following as being a high, medium, or low priority in terms of improving Northern Virginia's transportation network and quality of life. You must rate at least two as a high priority, a medium priority, and a low priority. If some of these do not apply to you, please say so. **(DISTRIBUTE HANDOUT #2)**

Reduce delays during commute hours

Increase travel time reliability throughout the day

Reduce crowding on buses and rail

Increase connections between businesses and residential centers

Reduce household transportation costs

Improve roadway safety to reduce vehicle crashes

Increase access to rail stations for pedestrians, bikes, and buses

Increase the number of travel options (e.g., bus, rail, rideshare)

Reduce the number of single-occupancy vehicles during rush hour

Reduce the impact of transportation on the environment

1. **FOR EACH MEASURE PRIORITIZED BY SEVERAL PARTICIPANTS (UP TO 5 MEASURES):** How many of you rated [INSERT MEASURE] as a high priority? How many as a medium priority?
 - i. Why is this a high priority? A lower priority? ***(Note: more time will be spent on areas that are a high priority to a greater number of participants.)***
2. Looking at what you said is a high priority, do you have suggestions for what can be done?
3. What would you consider to be a real improvement? How much would it need to improve?

- b. Are there other areas in the region that need improvement which are not listed here? What are they?

IV. PRIORITY IMPROVEMENTS (25 minutes)

- a. There are a variety of ways transportation in the region can be improved. On this handout are specific ideas for improving transportation throughout the region. Please rate how helpful each of these would be to for improving your travel throughout the region. **(DISTRIBUTE HANDOUT #3.)**

Improve and expand bike lanes and the regional bike network
Build new roads or widen roads
Increase the frequency of public transit
Expand public transit to different parts of Northern Virginia (e.g. rail and bus)
Implement coordinated traffic signal timing on major roads
Implement safety improvements, such as sidewalks, crosswalks, and traffic calming measures (e.g., speed bumps, reducing roadway widths, and changing road texture)
Expand park & ride capacity
Expand connections within Northern Virginia between businesses and residential centers
Improve connections beyond Northern Virginia (e.g. DC, Maryland, and West Virginia)
Add more limited access (toll and HOV) highways

1. **FOR EACH IMPROVEMENT SUGGESTED BY SEVERAL PARTICIPANTS (UP TO 5 IMPROVEMENTS):** How many of you said **[INSERT SUGGESTED IMPROVEMENT]** would be very helpful? How many as somewhat helpful?
 - i. Where should this improvement be made? **(DO NOT BE TOO SPECIFIC.)**
 - A. Why?
 - ii. How would this be helpful?
 - iii. **FOR TOLL AND HOV HIGHWAYS:** Do you currently pay to use these lanes? When do you use them?
 2. Which of these are regional priorities, and which are more local issues?
 3. Do any of these projects help to solve multiple transportation issues?
- b. Are there any regional improvements not on this list which should be? What are they?
- c. Another option would be to increase telework options or flex hours, both in government and private businesses. If these were available to you, would you take advantage of them? What might make you consider doing so?

V. CLOSING (15 minutes)

- a. What would convince you that local government agencies were working to improve transportation in the area?
 1. What would your expectations be?
 2. What would make you believe they would be successful?
- b. Our final task for the evening is a group exercise. Let's pretend we are on an advisory board to regional leaders. Based on what we have discussed tonight, I would like you to agree as a group on 5 to 10 ideas that you believe will have the greatest impact on improving the transportation network/layout for Northern Virginia, specifically with a focus on reducing congestion. **(LEAVE HANDOUTS WITH GROUP. MODERATOR SELECTS GROUP LEADER. MODERATOR LEAVES ROOM.)**
PROBE TO DETERMINE WHETHER THEY WOULD USE SUGGESTED IMPROVEMENTS THEMSELVES OR THEY ARE TO REDUCE TRAFFIC TO IMPROVE THEIR SOV DRIVING EXPERIENCE.
- c. If an app were available that offered you a reward to change your driving route to one that was less congested, would you use it? What sort of reward would appeal to you?
- d. Closing comments

HANDOUT #2

Circle one answer for each. You must rate at least two as a high priority, medium priority, and low priority.

	High Priority	Medium Priority	Low Priority	Not Applicable
Reduce delays during commute hours	High	Medium	Low	NA
Increase travel time reliability throughout the day	High	Medium	Low	NA
Reduce crowding on buses and rail	High	Medium	Low	NA
Increase connections between businesses and residential centers	High	Medium	Low	NA
Reduce household transportation costs	High	Medium	Low	NA
Improve roadway safety to reduce vehicle crashes	High	Medium	Low	NA
Increase access to rail stations for pedestrians, bikes, and buses	High	Medium	Low	NA
Increase the number of travel options (e.g., bus, rail, rideshare)	High	Medium	Low	NA
Reduce the number of single-occupancy vehicles during rush hour	High	Medium	Low	NA
Reduce the impact of transportation on the environment	High	Medium	Low	NA

HANDOUT #3

Circle one answer for each.

	Very Helpful	Somewhat Helpful	Not Very Helpful	Not at All Helpful
Improve and expand bike lanes and the regional bike network	4	3	2	1
Build new roads or widen roads	4	3	2	1
Increase the frequency of public transit	4	3	2	1
Expand public transit to different parts of Northern Virginia (e.g. rail and bus)	4	3	2	1
Implement coordinated traffic signal timing on major roads	4	3	2	1
Implement safety improvements, such as sidewalks, crosswalks, and traffic calming measures (e.g., speed bumps, reducing roadway widths, and changing road texture)	4	3	2	1
Expand park & ride capacity	4	3	2	1
Expand connections within Northern Virginia between businesses and residential centers	4	3	2	1
Improve connections beyond Northern Virginia (e.g. DC, Maryland, and West Virginia)	4	3	2	1
Add more limited access (toll and HOV) highways	4	3	2	1



Job #16-110
October 2016

NVTA Travel
-Focus Group Recruitment Screener-

Respondent's Name: _____

Address: _____

City: _____ State: _____ Zip: _____

E-mail: _____ Telephone #: (____) _____

ASK FOR MALE/FEMALE HEAD OF HOUSEHOLD.

Hello, my name is _____ from _____. We're conducting a short survey among residents of Northern Virginia and we'd like to include your opinions. This is not a sales call. This call may be monitored for quality control purposes.

S1. In which of the following areas is your current, primary residence? Would you say... **(READ LIST. SEE "FOCUS GROUP BREAKDOWN" FOR PARTICIPANT MIX.)**

- 01 Arlington County → **CONTINUE TO S2**
- 02 Fairfax County → **CONTINUE TO S2**
- 03 Loudoun County → **CONTINUE TO S2**
- 04 Prince William County → **CONTINUE TO S2**
- 05 City of Alexandria → **CONTINUE TO S2**
- 06 Fairfax City → **CONTINUE TO S2**
- 07 City of Falls Church → **CONTINUE TO S2**
- 08 Manassas → **CONTINUE TO S2**
- 09 Manassas Park → **CONTINUE TO S2**
- 95 Or somewhere else → **THANK & TERMINATE**
- 99 **DO NOT READ:** Refused → **THANK & TERMINATE**

S2. First, please stop me when I reach the category that includes your age. **(READ LIST. GET A MIX.)**

- 01 Under 18 → **THANK & TERMINATE**
- 02 18 - 24
- 03 25 - 34
- 04 35 - 44
- 05 45 - 54
- 06 55 - 64
- 07 65 or older → **MAX = 2 PER GROUP**
- 98 **DO NOT READ:** Refused → **THANK & TERMINATE**

S3. Do you or does anyone in your household work for any of the following types of organizations or companies?

	Yes	No	Refused
a. A market research or advertising company	01	02	98
b. A public transportation agency	01	02	98
c. A bank or financial institution	01	02	98

IF YES OR REFUSED (01, 98) TO EITHER IN S3a or S3b, THANK & TERMINATE.

S4. What is the zip code of your current, primary residence?

99 **DO NOT READ:** Don't know/Refused → **THANK & TERMINATE**

SEE "FOCUS GROUP BREAKDOWN" TO ASSIGN TO INSIDE/OUTSIDE BELTWAY GROUPS.

S5. Are you currently...? **(READ LIST. ACCEPT ONE RESPONSE ONLY.)**

- 01 Employed full-time,
- 02 Employed part-time,
- 03 A full-time student,
- 04 A part-time student,
- 05 Retired,
- 06 A homemaker, or
- 07 Not employed
- 99 **DO NOT READ:** Refused

THOSE WHO ARE EMPLOYED [S5(01-02)], ASK:

S6. What is your job or position and what type of company do you work for?

_____ / _____
Job/Position / **Company**

99 **DO NOT READ:** Don't know/Refused

THOSE WHO ARE EMPLOYED OR IN SCHOOL [S5(01-04)], ASK:

S7. Do you commute to work or school?

- 01 Yes
- 02 No
- 99 **DO NOT READ:** Don't know/Refused

THOSE WHO ARE EMPLOYED OR IN SCHOOL AND COMMUTE [S5(01-04) AND S7(01)], ASK:

S8. How many days per week do you commute? **(READ LIST.)**

- 01 Less than once a week
- 02 1-3 days per week
- 03 4 days per week
- 04 5 days per week
- 05 More than 5 days per week
- 99 **DO NOT READ:** Don't know/Refused

S9. In which of the following areas do you primarily work or go to school? **(READ LIST. ACCEPT ONE RESPONSE ONLY.)**

- 01 Arlington County
- 02 Fairfax County
- 03 Loudoun County
- 04 Prince William County
- 05 City of Alexandria
- 06 Fairfax City
- 07 City of Falls Church
- 08 Manassas
- 09 Manassas Park
- 10 Washington, DC
- 95 Or somewhere else (specify: _____)
- 99 **DO NOT READ:** Don't know/Refused

S10. How do you typically travel to work or school? **(READ LIST. ACCEPT MULTIPLE RESPONSES.)**

- 01 Drive
- 02 Metrorail
- 03 Bus (specify provider: _____)
- 04 VRE
- 05 Walk
- 06 Bicycle
- 07 Taxi/Rideshare (Lyft, Uber etc.)
- 95 Other (specify: _____)

ASK EVERYONE:

S11. Do you currently own or lease a car, truck, van or motorcycle?

- 01 Yes → **SKIP TO S13**
- 02 No → **CONTINUE TO S12**
- 99 **DO NOT READ:** Don't know/Refused → **CONTINUE TO S12**

THOSE WHO DO NOT OWN OR LEASE A CAR, TRUCK, VAN OR MOTORCYCLE [S11(02-99)], ASK:

S12. Do you **regularly** have access to a car, truck, van or motorcycle?

- 01 Yes
- 02 No
- 99 **DO NOT READ:** Don't know/Refused

ASK EVERYONE:

S13. Are you of Spanish, Hispanic or Latino origin?

- 01 Yes
- 02 No
- 98 **DO NOT READ:** Refused
- 99 **DO NOT READ:** Don't know/Not sure

S14. What is your ethnic origin? Would you say... **(READ LIST. ACCEPT ONE RESPONSE ONLY. GET A MIX)**

- 01 African American or Black
- 02 American Indian or Alaska Native
- 03 Asian/Pacific Islander
- 05 White
- 95 Mixed or some other ethnic origin **(Specify_____)**
- 98 **DO NOT READ:** Refused
- 99 **DO NOT READ:** Don't know/Not sure

S15. Please stop me when I reach the category which includes your total annual household income. **(READ LIST. GET A MIX.)**

- 01 Less than \$25,000
- 02 \$25,000 to less than \$50,000
- 03 \$50,000 to less than \$75,000
- 04 \$75,000 to less than \$100,000
- 05 \$100,000 to less than \$150,000
- 06 \$150,000 or more
- 98 **DO NOT READ:** Refused

S16. **RECORD, DO NOT ASK (GET A MIX.):** Gender

- 01 Male
- 02 Female

S18. When was the last time you participated in a market research group discussion or focus group? **(READ LIST.)**

- 01 Within the past 6 months, → **THANK & TERMINATE**
- 02 More than 6 months ago, or → **CONTINUE**
- 03 Never → **CONTINUE**
- 99 **DO NOT READ:** Don't know/Refused → **THANK & TERMINATE**

READ:

We are conducting a focus group discussion among residents of Northern Virginia. The purpose of the study is to better understand the opinions of residents regarding travel in the area. During these focus groups, you will be discussing your thoughts on travel and transportation in Northern Virginia with other residents like yourself. Please be assured that this will not be a sales meeting. It is a part of a research study. We think that you will find the discussion very interesting and we'd very much like to include your opinions.

The discussion is scheduled to take place on **[READ QUALIFYING DATES/TIMES BELOW]**, at 1800 Diagonal Road, Suite 300, in Alexandria, near the King Street Metro station. You will be provided **[READ INCENTIVE]** for attending as a token of our appreciation for your time and opinions. This discussion will last about two hours and refreshments will be served. In addition, anyone who arrives at least 15 minutes prior to the group will be entered into a raffle for \$50.

S19. Will you be able to attend? **(SEE RESPONSES TO S1/S3 AND "FOCUS GROUP BREAKDOWN" TO ASSIGN TO APPROPRIATE GROUP.)**

	Group (DO NOT READ)	Incentive	Date	Time
01	Inside Beltway	\$100	November 9, 2016	6:00 pm
02	Outside Beltway	\$125	November 9, 2016	8:00 pm
03	Outside Beltway	\$125	November 10, 2016	6:00 pm
04	Inside Beltway	\$100	November 10, 2016	8:00 pm

READ:

So that I may send you a confirmation letter or e-mail with the location and directions, may I please have your name and complete mailing address including zip code and your e-mail address?

Also, I'd like to confirm your telephone number. **(RECORD ON FRONT OF SCREENER.)**

Since we are only inviting a limited number of study participants, if for some reason you cannot attend, please call our office at **[PHONE NUMBER]** so that we can schedule another participant. Thank you for your time and we look forward to speaking with you at the discussion on **[REPEAT DATE AND TIME]**.

FOCUS GROUP BREAKDOWN

County Residents per Group Type		
	<u>Inside Beltway</u>	<u>Outside Beltway</u>
Arlington, VA	10 to 12	
Loudoun, VA		4 to 5
Prince William, VA		5 to 6
Alexandria, VA	7 to 8	
Fairfax City, VA		1 to 3
Fairfax, VA	4 to 6	10 to 12
Falls Church, VA	1 to 3	
Manassas, VA		1 to 3
Manassas Park, VA		1 to 3
TOTAL	24	24

Zip Codes Inside Beltway	
<u>Zip Code</u>	<u>City</u>
22101	Mc Lean
22207	Arlington
22201	Arlington
22209	Arlington
22211	Ft Myer
22202	Arlington
22305	Alexandria
22214	Arlington
22204	Arlington
22314	Alexandria
22301	Alexandria
22302	Alexandria
22304	Alexandria
22312	Alexandria
22151	Springfield
22003	Annandale
22044	Falls Church
22041	Falls Church
22311	Alexandria
22206	Arlington
22203	Arlington
22205	Arlington
22046	Falls Church
22213	Arlington
22043	Falls Church
22042	Falls Church

activity density would not generate enough ridership to justify the high cost of constructing VRE extensions. Improving commuter bus and ridesharing services would be a more economical way to reduce SOVs on major highways in the County.

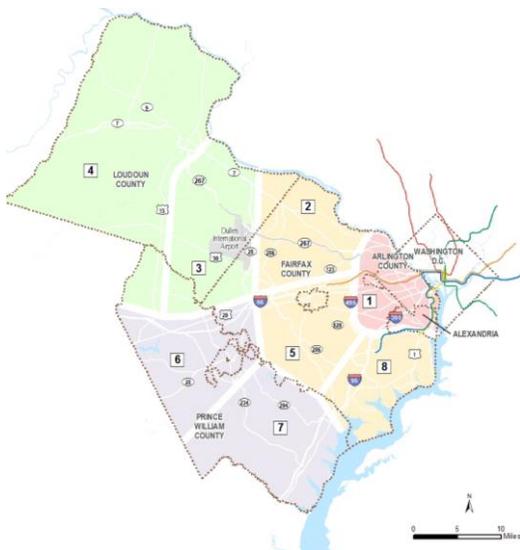
- Participants agreed that multimodal objectives related to **increasing travel options** and **reducing SOVs** cannot be achieved without significantly increasing **marketing of alternative transportation options**. This marketing should be directed at peak period commuters, younger generations (to help shift attitudes about transportation), and personnel who live and work on military bases (who may not be aware of transportation options available on base).



NVTA TRANSACTION FALL 2016 OUTREACH SUMMARY TRANSACTION OBJECTIVES WORKSHOP TUESDAY, OCTOBER 25, 2016

The NVTA TransAction workshop covered a discussion and weighing of relevant multimodal objectives for the TransAction Plan. Participants were asked to review an open-ended set of potential TransAction objectives and collectively assign weights to each objective based on a geography of focus. Participants represented advocacy, governmental, and business stakeholders throughout Northern Virginia. Four discussion group geographies (encompassing 8 TransAction subregions) covered jurisdictions and towns in Northern Virginia. Each group was provided with sub-area boards (**Attachment A**), which included maps, characteristics and sample concerns. Groups were encouraged to think regionally and long term.

Activity Overview



- Group 1 (red):** Subregion 1
- Group 2 (yellow):** Subregions 2, 5, 8
- Group 3 (green):** : Subregions 3, 4
- Group 4 (purple):** Subregions 6, 7

Participating Organizations: Bike Loudoun, Committee for Dulles, Springfield Chamber, Southeast Fairfax Development Corporation, Northern Virginia Regional Commission BRAC, NOVA Chamber, Virginia Sierra Club, Crystal City BID, Prince William County Department of Economic Development, Fairfax Alliance for Better Biking, City of Fairfax Economic Development Office, AARP, Northern Virginia Transportation Alliance

NVTA TransAction Workshop
Tuesday, October 25, 8am-10am
 Northern Virginia Transportation Authority
 3040 Williams Drive, Suite #200, Fairfax, VA 22031

You have been divided into groups representing geographic areas in Northern Virginia to discuss transportation-related characteristics and concerns, and help NVTA select appropriate multimodal objectives (i.e. measures) for the TransAction Plan. These objectives will be used to evaluate the effectiveness of a range of possible multimodal regional transportation improvements throughout Northern Virginia.

First review the multimodal objectives and identify those that your group considers are relevant to your sub-area.

Next allocate a percentage amount out of 100% for each selected objective:
 Higher % = MORE IMPORTANT Lower % = LESS IMPORTANT
Note that you may allocate 0% if the objective is not relevant. You may also add new objectives.

Last prepare for your group's "report back" explaining why you selected certain objectives, and not others, and what the percent breakdown is.

Multimodal Objectives	% (out of 100%)
A. Reduce delays during commute hours	_____
B. Increase travel time reliability throughout the day	_____
C. Reduce crowding on bus and rail	_____
D. Increase connections between business/ residential centers	_____
E. Reduce transportation costs	_____
F. Improve roadway safety to reduce vehicle crashes	_____
G. Increase access to rail stations for pedestrians, bikes and buses	_____
H. Increase the number of travel options (e.g. bus, rail, rideshare)	_____
I. Reduce the number of single-occupancy vehicles during commute hours	_____
J. Reduce impacts of transportation on the environment	_____
_____	_____
_____	_____
_____	_____

Workshop Instructions

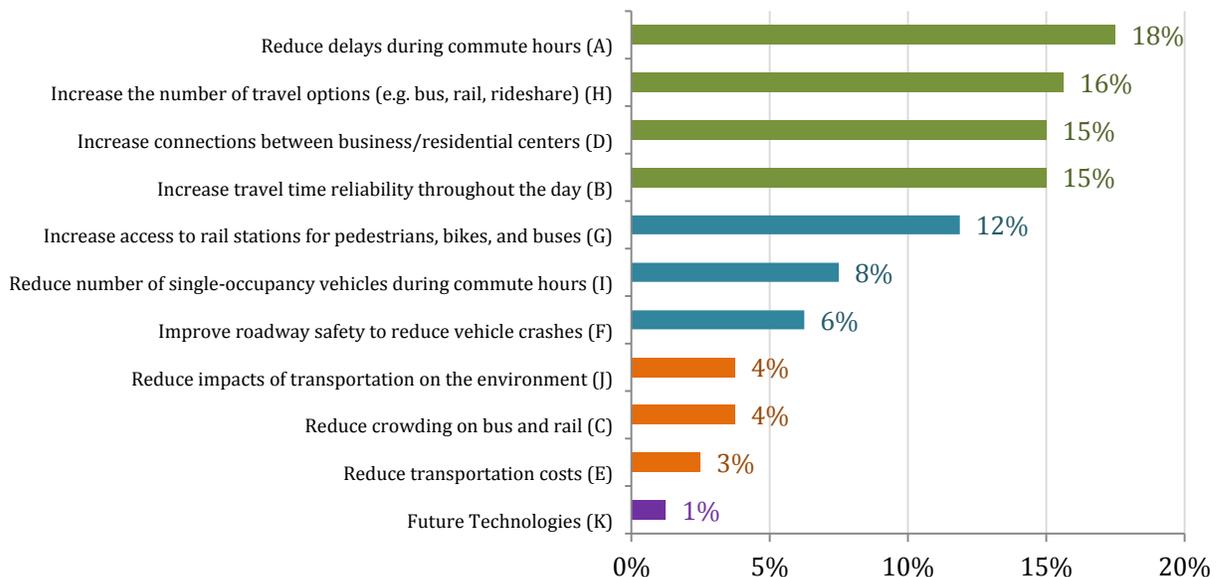
Activity Results

Groups discussed the relevance and merit of each objective and prepared a justification for their selection to report back. The most important objectives were typically assigned a percentage of 15% or higher. Some groups opted to assign 0% for objectives that were less of a priority for their assigned geography. (Note that activity results below are based on the opinions of workshop participants and are not necessarily representative of the views of jurisdiction/agency representatives.)

Activity Percentage Allocation by Group and Objective

Measures	Group 1	Group 2	Group 3	Group 4	Average
A. Reduce delays during commute hours	0%	15%	35%	20%	18%
B. Increase travel time reliability throughout the day	0%	15%	30%	15%	15%
C. Reduce crowding on bus and rail	5%	0%	5%	5%	4%
D. Increase connections between business/residential centers	20%	15%	15%	10%	15%
E. Reduce transportation costs	0%	0%	0%	10%	3%
F. Improve roadway safety to reduce vehicle crashes	10%	10%	0%	5%	6%
G. Increase access to rail stations for pedestrians, bikes, and buses	20%	15%	7.5%	5%	12%
H. Increase the number of travel options (e.g. bus, rail, rideshare)	20%	20%	7.5%	15%	16%
I. Reduce number of single-occupancy vehicles during commute hours	10%	5%	0%	15%	8%
J. Reduce impacts of transportation on the environment	10%	5%	0%	0%	4%
K. Future Technologies (proposed objective)	5%	0%	0%	0%	1%

Average Group Allocation of Percentage Points



General Conclusions

Participants noted that many objectives are interrelated and that solving for high priority objectives will address lower priority objectives.

High Priority Objectives

- Groups 1 and 2 prioritized objectives that correspond with urbanized areas (e.g. Arlington, Alexandria, Tysons, Reston, Merrifield, etc.) like **increasing the number of travel options** and **increasing connections between residential/business centers**.
- Groups 3 and 4 prioritized objectives that correspond with growing communities/employment centers requiring longer trips (e.g. Chantilly, Arcola, Sterling, Gainesville, Innovation, etc.) like **increasing travel time reliability** and **decreasing delays during commute hours**.

Mid-Range Priority Objectives

- Weights assigned to **increasing access to rail stations** correlated with the extent of existing and proposed rail service in each subregion. Groups 1 and 2 (with extensive rail networks) considered this objective highly important, while Groups 3 and 4 considered it less important.
- Groups reasoned that increased travel options, connections between residential/business centers, and rail station access would accomplish **reducing the number of SOV vehicles** by moving people more efficiently around the region.
- Justifications for the importance of **improving roadway safety** varied between groups. Group 1 identified roadway safety as a critical consideration for ped/bike and auto conflicts. Other groups attributed the importance of this objective to commute delays.

Low Priority Objectives

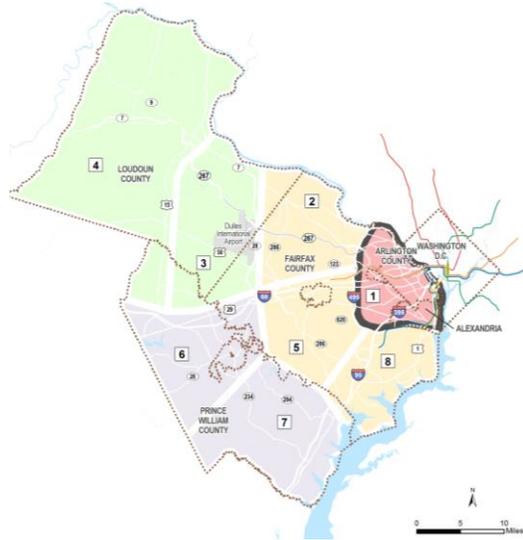
- **Reducing the impacts of transportation on the environment** was considered an important overarching policy obligation rather than a measure.
- While **reducing transit crowding** is projected to be a major regional concern by 2040, participants felt that the public doesn't perceive it as a problem because there is a higher tolerance for transit crowding compared to vehicular delays.
- **Reducing transportation costs** was evaluated from consumer and government spending perspectives. Groups concluded that transportation pricing can serve as a policy tool to facilitate outcomes (i.e. congestion pricing, senior/student transit discounts, parking subsidies, etc.).

New Objectives: The importance of **technology** was discussed in each group and proposed as a potential objective by Group 1. Although the objective lacked specific metrics, its intent was to measure implementation of new technologies across the region. **Improved marketing of transportation options** was suggested by Group 4.

Group Discussions

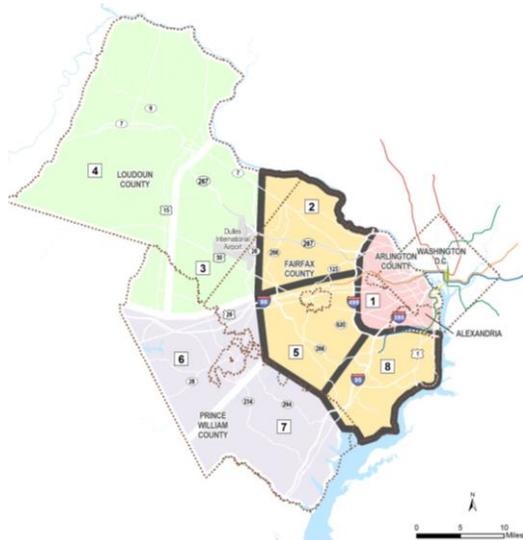
Group 1 Discussion: Primary concerns inside the Beltway were Metro system operations, lack of regional bicycle network connectivity, excessive focus on SOV travel, poor or nonexistent sidewalks, aging and deteriorating infrastructure, the need for coordinated land use planning, and the impact of transportation on the environment.

- An emphasis should be placed on objectives that enhance mobility, and efficiently move people from one mode to the next.
- The group argued that congestion reduction must be solved by providing multi-modal options within neighborhoods and between neighborhoods (activity centers). The highest weights were assigned to **increasing travel options, rail station access, and connections between business/residential centers.**
- **Roadway safety** is a concern particularly tied to safe access to rail stations and activity center viability (particularly when considering our aging population throughout Northern Virginia).
- **Future technology** was identified as a relevant objective for a long range plan. The group mentioned that newer technologies, such as car-sharing and ride-sharing services and self-driving vehicles will continue to enhance the transportation sector.
- Defining and expanding the regional bicycle network should be a priority inside the Beltway (beyond Arlington County).
- The group also discussed the need for more multi-modal river crossings, with an emphasis on replacing/upgrading aging infrastructure (Long Bridge).



Group 2 Discussion: The central part of Northern Virginia is characterized as a crossroads and transition zone between the dense inner Beltway and D.C. core, and the less dense counties of Prince William and Loudoun. The group aimed for a balanced and regional approach to weighing objectives. The group recognized the severe congestion and limited capacity of existing thoroughfares and the inherent opportunity presented by alternative travel patterns, route options, and mode shares.

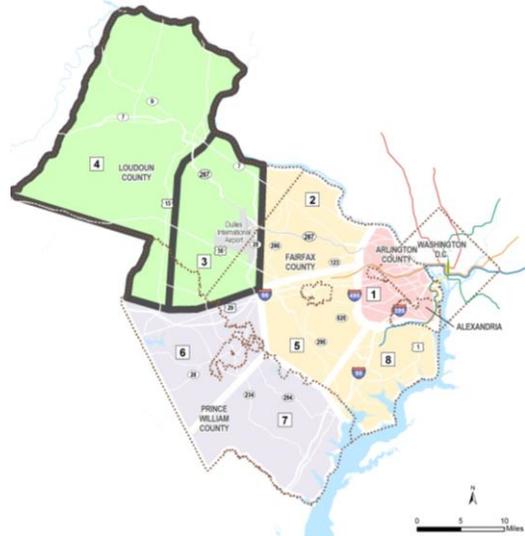
- **Increased travel options, access to rail stations, and connections between business/residential centers** are important for better distribution of mode share, traffic patterns, and traffic flows. Providing alternative commuting routes and modes relieves pressure on existing congested areas. It is especially helpful to provide viable mode and route alternatives for local, non-commute trips. Increased travel options should encompass a wide range of modes.
- **Reduced delays during commute hours and increased travel time reliability throughout the day** were perceived as strongly interrelated objectives tied to the overall predictability and performance of the network, regardless of mode.



- **Reduced crowding on bus and rail** was viewed as a low priority because transit crowding is necessary to have a critical mass (and demand) for transit. The group also agreed that this objective was not particularly concerning to areas outside the Beltway, indicating that this objective is not regionally significant enough.
- **Roadway safety** is a concern particularly tied to safe access to rail stations and increased travel options.
- The group also felt that core capacity and infrastructure needs should be adequately addressed.

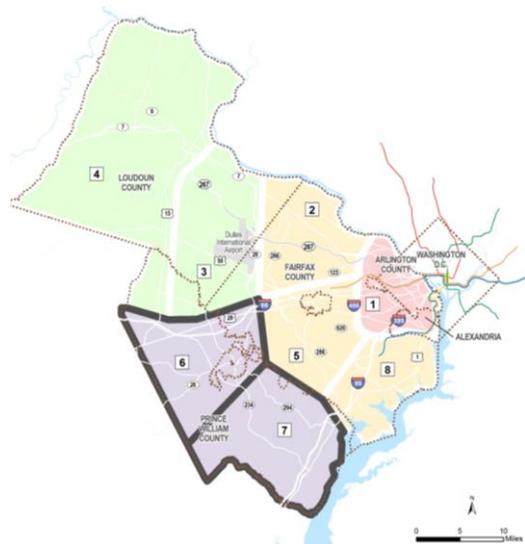
Group 3 Discussion: Group discussion in the western portion of Northern Virginia focused on population growth, aging population, congestion, limited daytime transit, missing pedestrian/bicycle connections, and the anticipated Metrorail Silver Line extension.

- **Reduced delays during commute hours** and **increased travel time reliability** were perceived as highly interrelated and extremely important. The group agreed that addressing these issues would inherently alleviate problems of **environmental impacts** and **roadway safety**.
- **Increasing connections between residential/business centers** via midday transit trips was seen as key to **reducing SOV commute trips**. Participants need their cars at work because they cannot efficiently travel between business centers using transit for midday meetings.
- The group thought **rail station access** and **travel options** should be coordinated. They described missing pedestrian, bicycle, and transit connections within Loudoun County and emphasized the importance of transit for Loudoun's aging population. Participants thought addressing these transit issues would **reduce SOV commute trips**.
- The group saw **reducing transportation costs** as an individual problem related to personal finances and perceptions. They did not think solving this problem was within the NVTA's purview.



Group 4 Discussion: Transportation in the southern portion of Northern Virginia is increasingly characterized by long commutes, severe congestion, and a reliance on SOV travel. Transit options are reliable and serve the current need, but service could be improved to attract new riders.

- **Reducing delays during peak commuting hours** and **decreasing SOV trips** are two of the most critical regional transportation objectives. Achieving these objectives will serve other multimodal objectives, such as **reducing the impacts on the environment** and **improving roadway safety**.
- **Improving connections** to neighboring counties and activity centers through projects such as the Bi-County Parkway is critical to ensuring continued economic growth in region.
- Participants did not indicate that **transit crowding** was a significant issue for the outer extents of the region. Furthermore, participants believed low

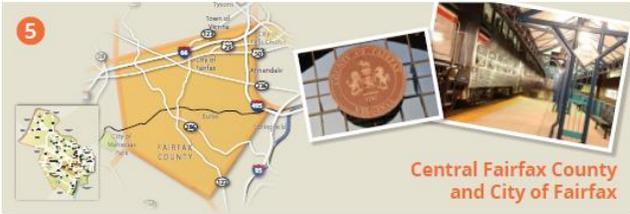


activity density would not generate enough ridership to justify the high cost of constructing VRE extensions. Improving commuter bus and ridesharing services would be a more economical way to reduce SOVs on major highways in the County.

- Participants agreed that multimodal objectives related to **increasing travel options** and **reducing SOVs** cannot be achieved without significantly increasing **marketing of alternative transportation options**. This marketing should be directed at peak period commuters, younger generations (to help shift attitudes about transportation), and personnel who live and work on military bases (who may not be aware of transportation options available on base).

Attachment A: Example TransAction Subregion Board

Sub-Area 5: Central Fairfax County and City of Fairfax



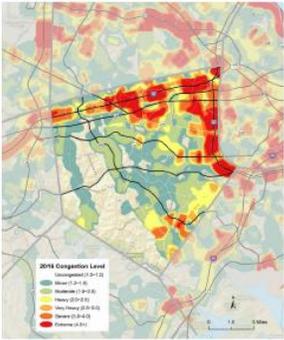
Characteristics

- Commute trips concentrated along I-66 corridor
- Numerous major east-west and north-south roads
- Intersection and road congestion on regional routes
- Transit-oriented development adjacent to Metrorail Orange Line stations

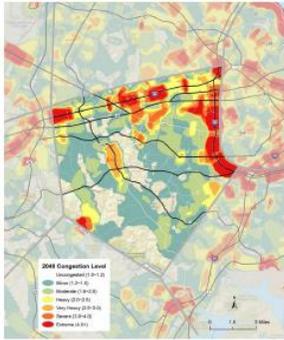
Sample Concerns

- Increased road and transit capacity along I-66 corridor
- Growing congestion severity and safety issues along major roads
- Improved transit coverage, pedestrian and bicycle infrastructure
- VRE crowding

Congestion Severity Measure



2016 Congestion Severity



2040 Congestion Severity

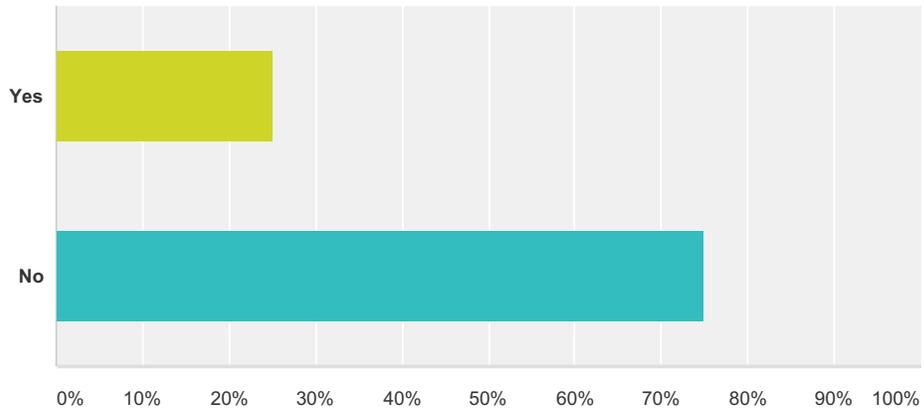
Note: Congestion Severity is the ratio of congested travel time to free-flow travel time during the peak commute period. Figures represent interim P.M. peak period Congestion Severity results from the 2042 NoVa TRANSIMS model, based on MWCOG 2016 CLRP assumptions and Round 9.0 Cooperative Land Use forecasts.

(This page intentionally left blank)

FALL 2016 PERCEPTIONS OF TRANSPORTATION SURVEY

Q1 Would you like to provide input on this area?

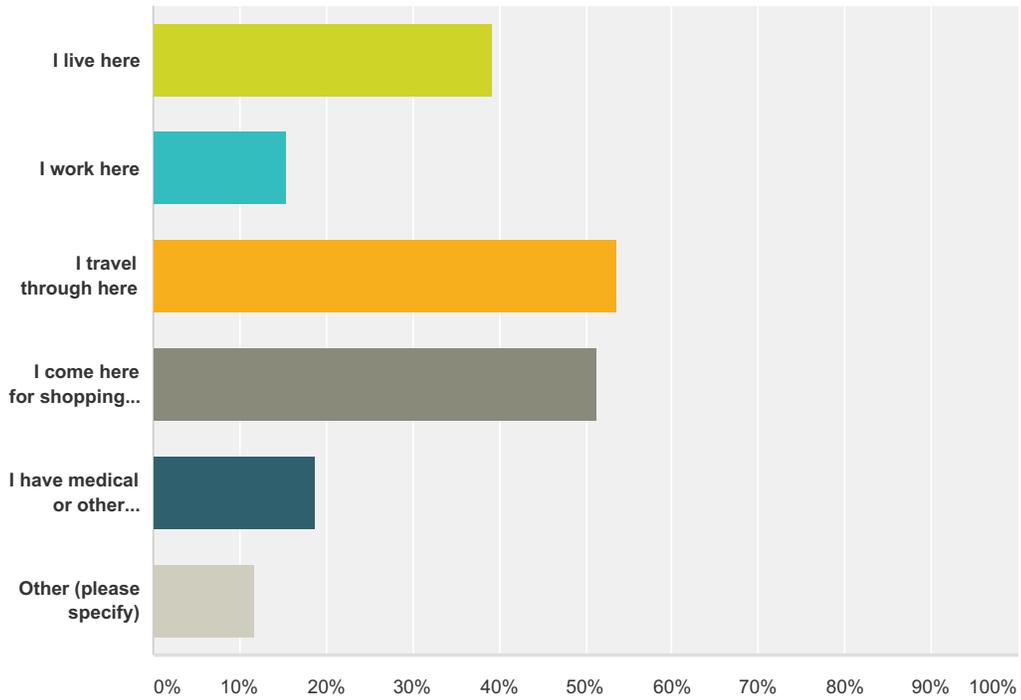
Answered: 2,719 Skipped: 52



Answer Choices	Responses
Yes	25.05% 681
No	74.95% 2,038
Total	2,719

Q2 How do you spend time in this area? (Check all that apply.)

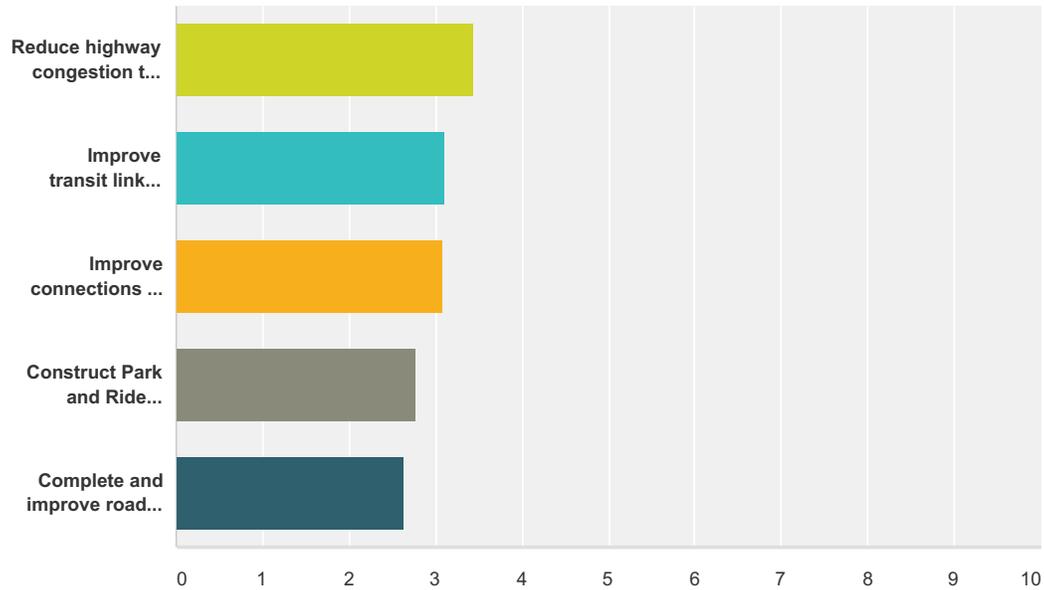
Answered: 549 Skipped: 2,222



Answer Choices	Responses	Count
I live here	39.34%	216
I work here	15.48%	85
I travel through here	53.73%	295
I come here for shopping, dining, or entertainment	51.37%	282
I have medical or other appointments here	18.76%	103
Other (please specify)	11.66%	64
Total Respondents: 549		

Q3 For this area, please put the following transportation improvements in order from most (#1) to least (#5) important to you.

Answered: 522 Skipped: 2,249



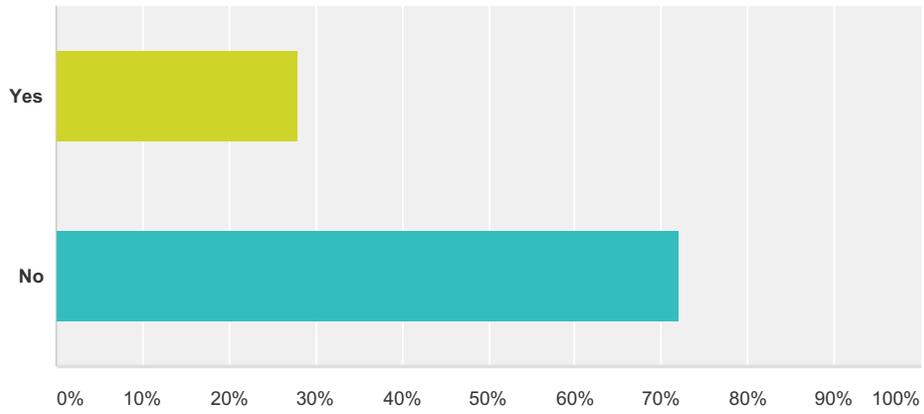
	1	2	3	4	5	Total	Score
Reduce highway congestion to / through Leesburg.	33.55% 156	19.35% 90	17.42% 81	16.56% 77	13.12% 61	465	3.44
Improve transit links to Metrorail Silver Line and destinations in adjacent counties.	24.70% 123	18.47% 92	17.67% 88	21.29% 106	17.87% 89	498	3.11
Improve connections to West Virginia and Maryland.	20.97% 99	21.19% 100	21.40% 101	17.37% 82	19.07% 90	472	3.08
Construct Park and Ride facilities and improve direct commuter bus service to DC / NoVa region.	12.69% 58	23.19% 106	18.82% 86	19.04% 87	26.26% 120	457	2.77
Complete and improve road network to serve future development west of Route 15.	10.54% 49	16.99% 79	24.30% 113	21.51% 100	26.67% 124	465	2.63

Q4 Are there any other improvements that you would suggest for this area?

Answered: 227 Skipped: 2,544

Q5 Would you like to provide input on this area?

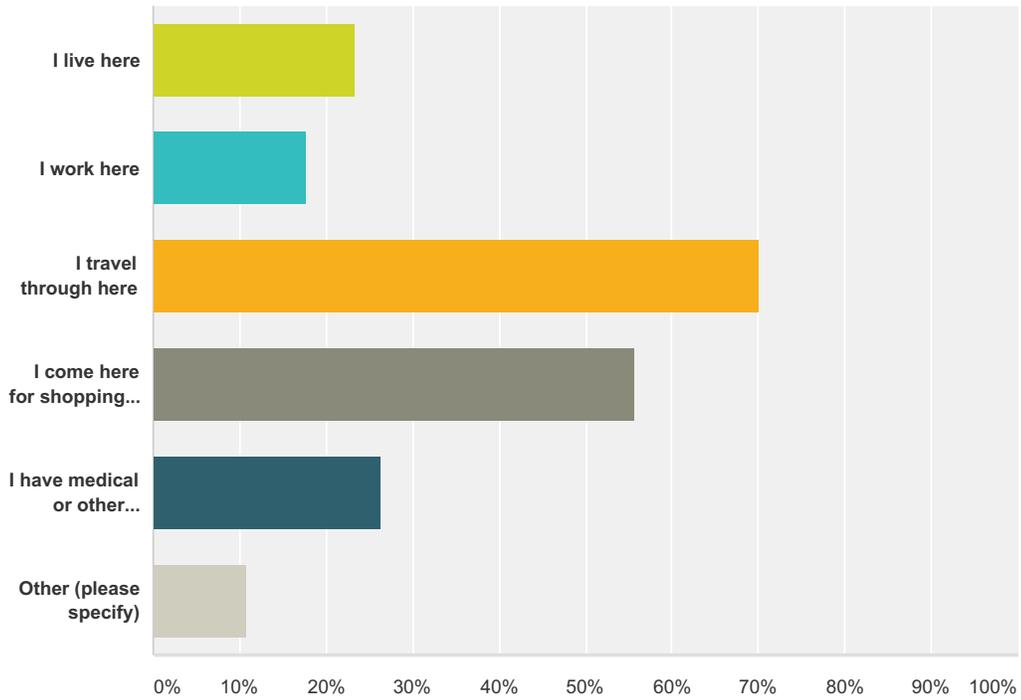
Answered: 2,551 Skipped: 220



Answer Choices	Responses	
Yes	28.07%	716
No	71.93%	1,835
Total		2,551

Q6 How do you spend time in this area? (Check all that apply.)

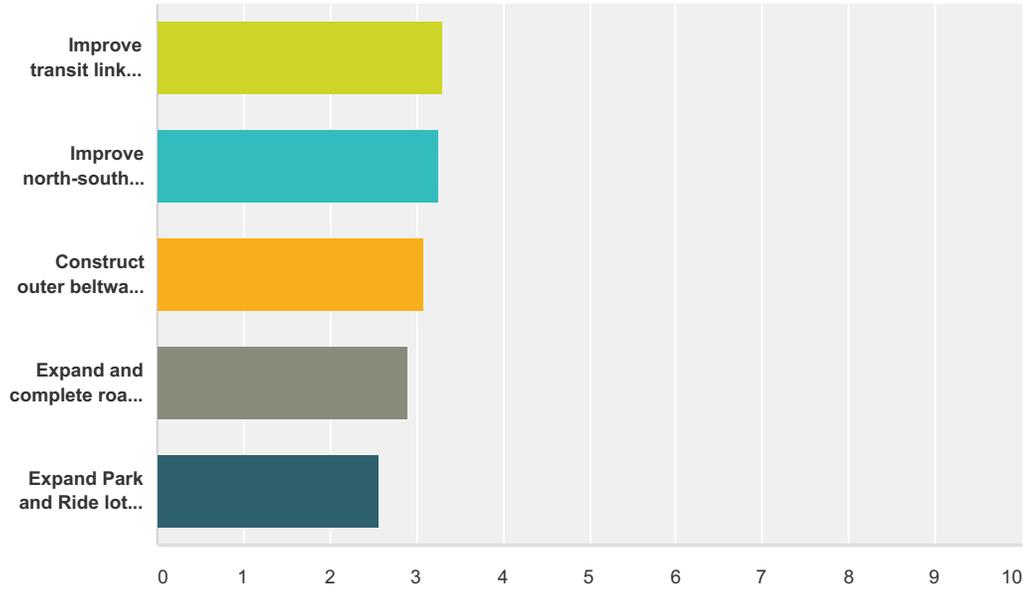
Answered: 665 Skipped: 2,106



Answer Choices	Responses	
I live here	23.31%	155
I work here	17.74%	118
I travel through here	70.08%	466
I come here for shopping, dining, or entertainment	55.79%	371
I have medical or other appointments here	26.32%	175
Other (please specify)	10.83%	72
Total Respondents: 665		

Q7 For this area, please put the following transportation improvements in order from most (#1) to least (#5) important to you.

Answered: 649 Skipped: 2,122



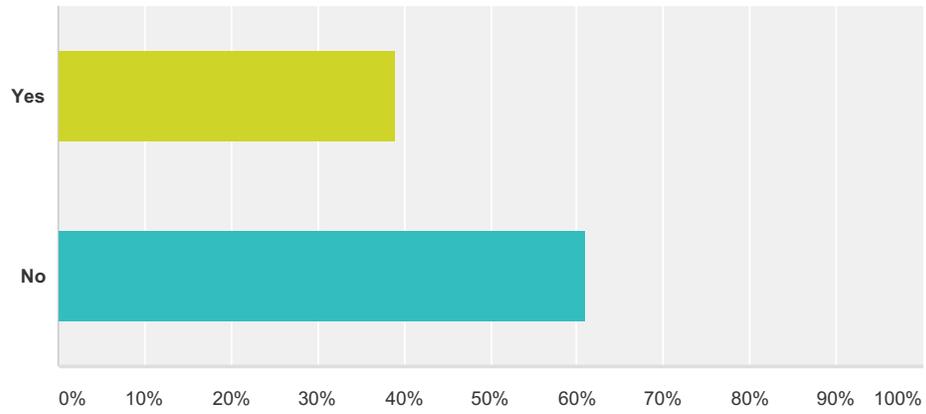
	1	2	3	4	5	Total	Score
Improve transit links to Metrorail Silver Line and destinations in adjacent counties.	30.88% 185	16.19% 97	16.86% 101	22.87% 137	13.19% 79	599	3.29
Improve north-south road connections and capacity (e.g. Route 28, Old Ox Rd, Loudoun County Pkwy, Northstar Blvd, and Belmont Ridge Rd).	21.19% 128	26.32% 159	22.35% 135	17.22% 104	12.91% 78	604	3.26
Construct outer beltway to improve north-south connections in the region, with an additional river crossing into Maryland.	31.08% 179	12.15% 70	18.58% 107	11.63% 67	26.56% 153	576	3.10
Expand and complete road network to serve future development and growing business / residential centers.	13.02% 75	20.14% 116	27.95% 161	22.92% 132	15.97% 92	576	2.91
Expand Park and Ride lot capacity and improve direct commuter bus service to DC / NoVa region.	7.64% 45	25.13% 148	13.58% 80	22.41% 132	31.24% 184	589	2.56

Q8 Are there any other improvements that you would suggest for this area?

Answered: 201 Skipped: 2,570

Q9 Would you like to provide input on this area?

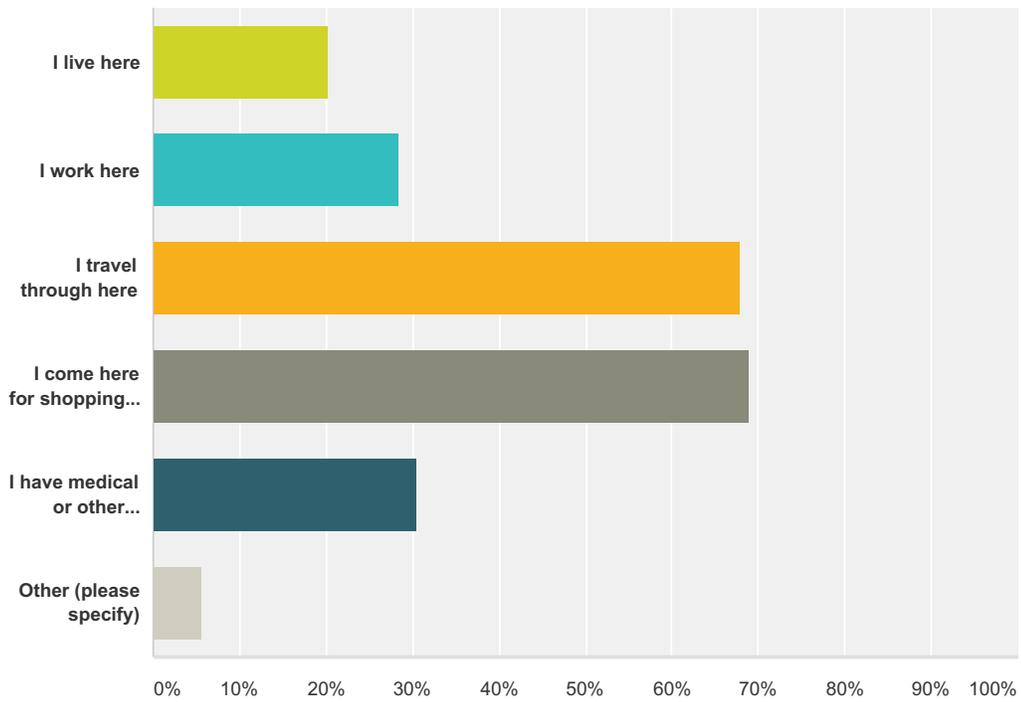
Answered: 2,480 Skipped: 291



Answer Choices	Responses
Yes	38.99% 967
No	61.01% 1,513
Total	2,480

Q10 How do you spend time in this area? (Check all that apply.)

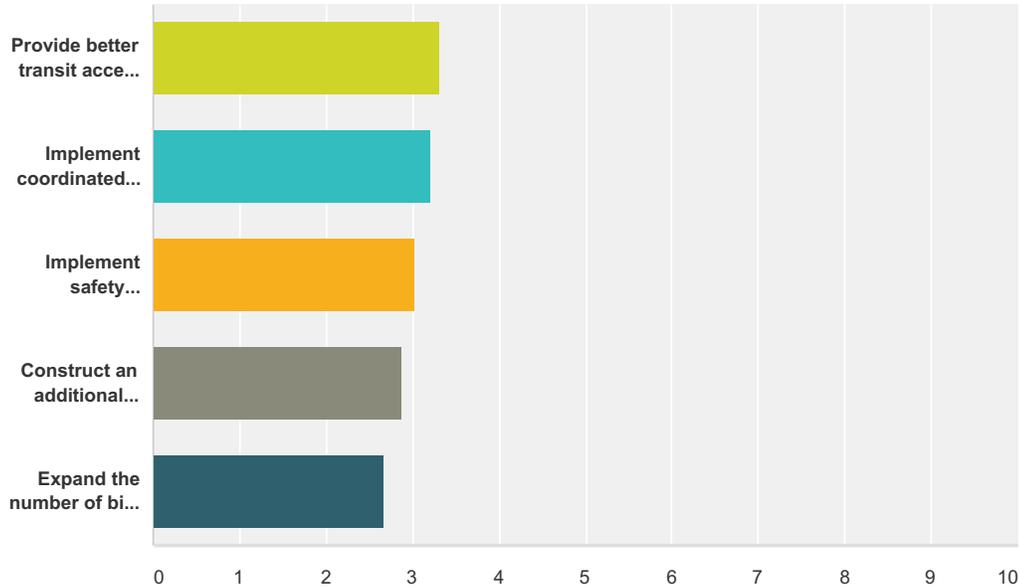
Answered: 910 Skipped: 1,861



Answer Choices	Responses	
I live here	20.22%	184
I work here	28.46%	259
I travel through here	67.80%	617
I come here for shopping, dining, or entertainment	68.90%	627
I have medical or other appointments here	30.55%	278
Other (please specify)	5.60%	51
Total Respondents: 910		

Q11 For this area, please put the following transportation improvements in order from most (#1) to least (#5) important to you.

Answered: 890 Skipped: 1,881



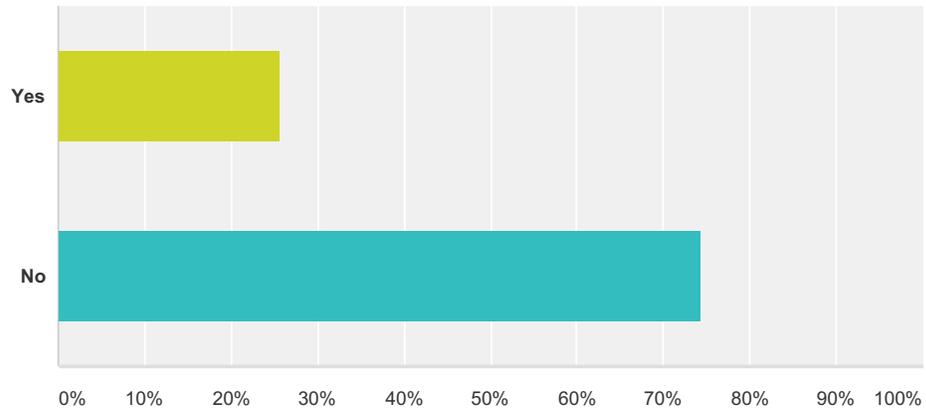
	1	2	3	4	5	Total	Score
Provide better transit access and more frequent service between major business / residential centers and destinations in the NoVa region (e.g. Tysons, Reston-Herndon, Dulles).	23.05% 186	22.68% 183	28.87% 233	14.37% 116	11.03% 89	807	3.32
Implement coordinated signal timing on major roads.	22.71% 193	25.18% 214	15.53% 132	23.29% 198	13.29% 113	850	3.21
Implement safety improvements such as sidewalks, crosswalks, and traffic calming measures.	13.56% 109	24.13% 194	26.00% 209	24.38% 196	11.94% 96	804	3.03
Construct an additional river crossing into Maryland.	28.75% 230	12.13% 97	12.13% 97	13.63% 109	33.38% 267	800	2.89
Expand the number of bike paths and pedestrian facilities to improve the region's bike / pedestrian network.	15.38% 123	16.00% 128	18.25% 146	21.50% 172	28.88% 231	800	2.67

Q12 Are there any other improvements that you would suggest for this area?

Answered: 239 Skipped: 2,532

Q13 Would you like to provide input on this area?

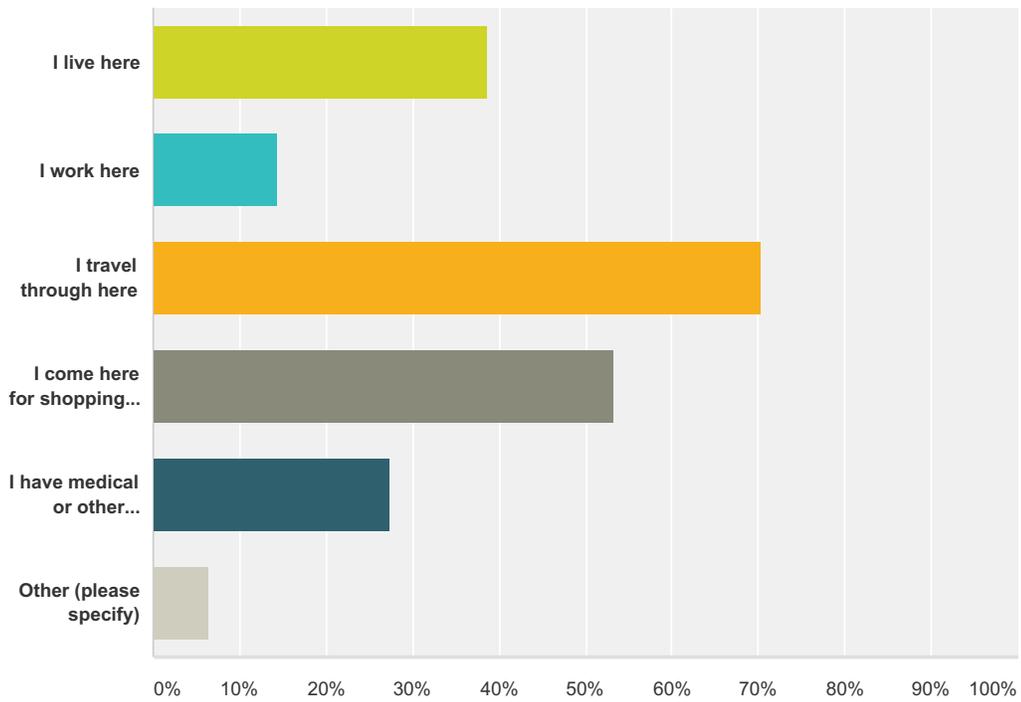
Answered: 2,398 Skipped: 373



Answer Choices	Responses	
Yes	25.65%	615
No	74.35%	1,783
Total		2,398

Q14 How do you spend time in this area? (Check all that apply.)

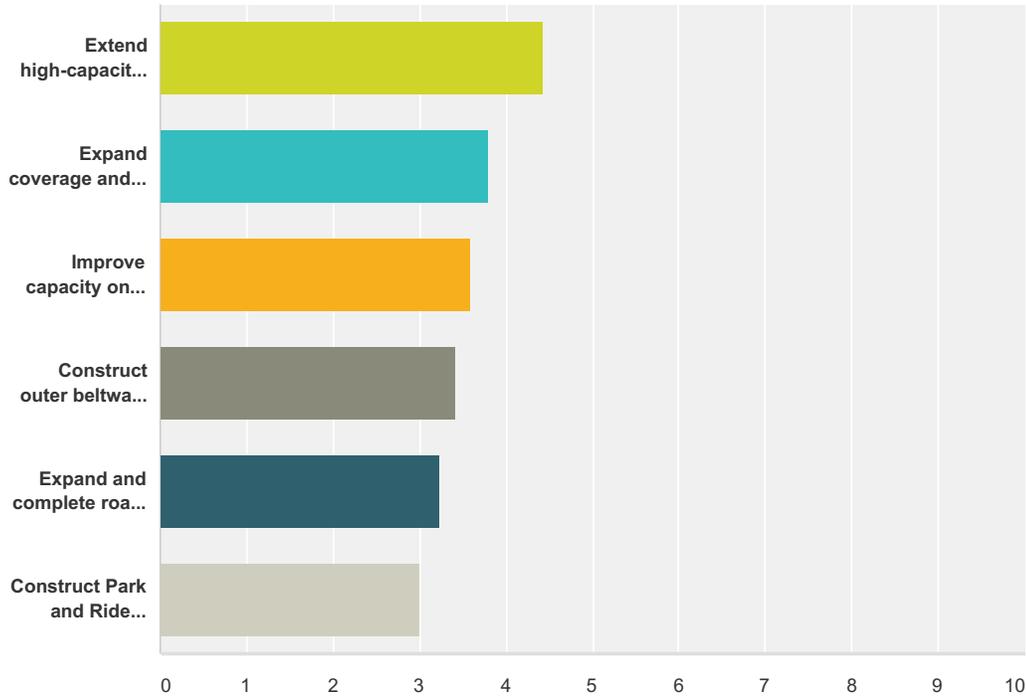
Answered: 587 Skipped: 2,184



Answer Choices	Responses
I live here	38.67% 227
I work here	14.48% 85
I travel through here	70.36% 413
I come here for shopping, dining, or entertainment	53.15% 312
I have medical or other appointments here	27.43% 161
Other (please specify)	6.47% 38
Total Respondents: 587	

Q15 For this area, please put the following transportation improvements in order from most (#1) to least (#5) important to you.

Answered: 582 Skipped: 2,189



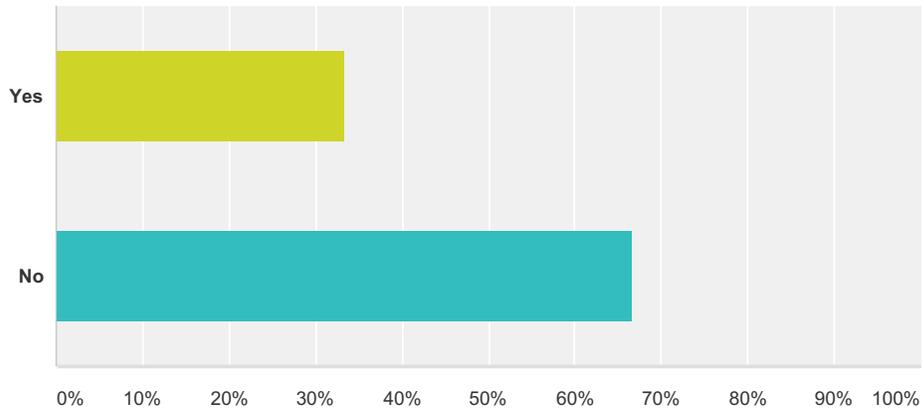
	1	2	3	4	5	6	Total	Score
Extend high-capacity transit (e.g. Metrorail, VRE, rapid / express bus) along I-66 corridor.	36.84% 196	19.36% 103	15.79% 84	11.84% 63	10.71% 57	5.45% 29	532	4.43
Expand coverage and frequency of transit service to DC / NoVa region.	15.96% 83	25.77% 134	15.58% 81	14.62% 76	20.00% 104	8.08% 42	520	3.79
Improve capacity on major roads, including conversion to limited-access highways.	16.01% 81	18.38% 93	16.01% 81	20.75% 105	16.60% 84	12.25% 62	506	3.60
Construct outer beltway to improve north-south connections in the region and alleviate congestion on Route 28 in the Manassas area.	23.15% 119	12.84% 66	10.89% 56	15.56% 80	12.45% 64	25.10% 129	514	3.43
Expand and complete road network to serve future development and growing business / residential centers.	7.36% 37	15.71% 79	21.27% 107	19.09% 96	21.87% 110	14.71% 74	503	3.23
Construct Park and Ride facilities and improve direct commuter bus service to DC / NoVa region.	7.53% 40	11.86% 63	22.22% 118	16.20% 86	15.63% 83	26.55% 141	531	3.00

Q16 Are there any other improvements that you would suggest for this area?

Answered: 192 Skipped: 2,579

Q17 Would you like to provide input on this area?

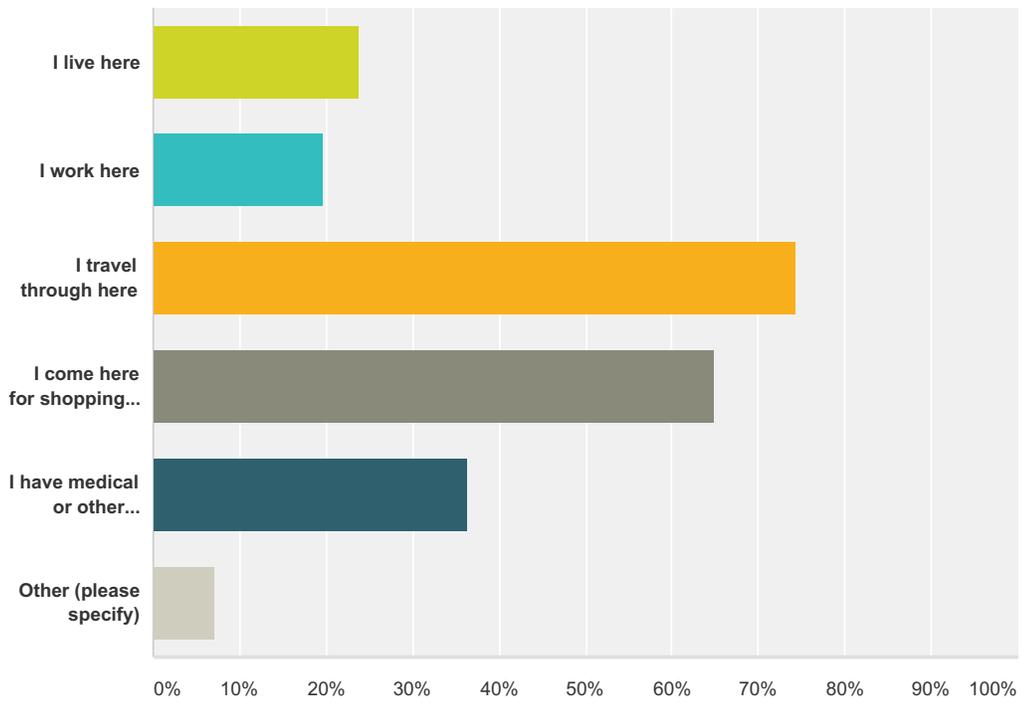
Answered: 2,356 Skipped: 415



Answer Choices	Responses	
Yes	33.36%	786
No	66.64%	1,570
Total		2,356

Q18 How do you spend time in this area? (Check all that apply.)

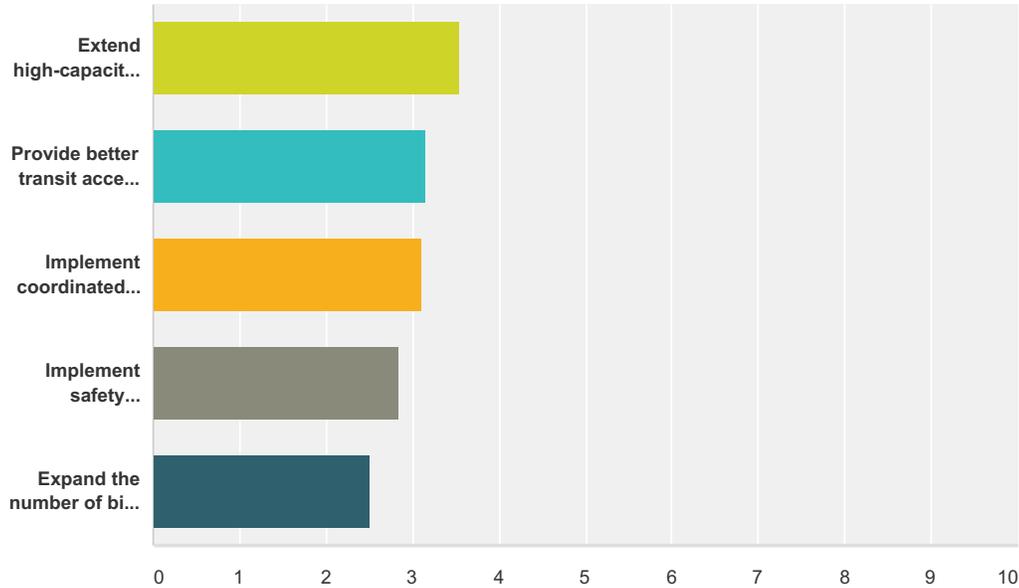
Answered: 771 Skipped: 2,000



Answer Choices	Responses	
I live here	23.74%	183
I work here	19.58%	151
I travel through here	74.32%	573
I come here for shopping, dining, or entertainment	64.85%	500
I have medical or other appointments here	36.32%	280
Other (please specify)	7.13%	55
Total Respondents: 771		

Q19 For this area, please put the following transportation improvements in order from most (#1) to least (#5) important to you.

Answered: 749 Skipped: 2,022



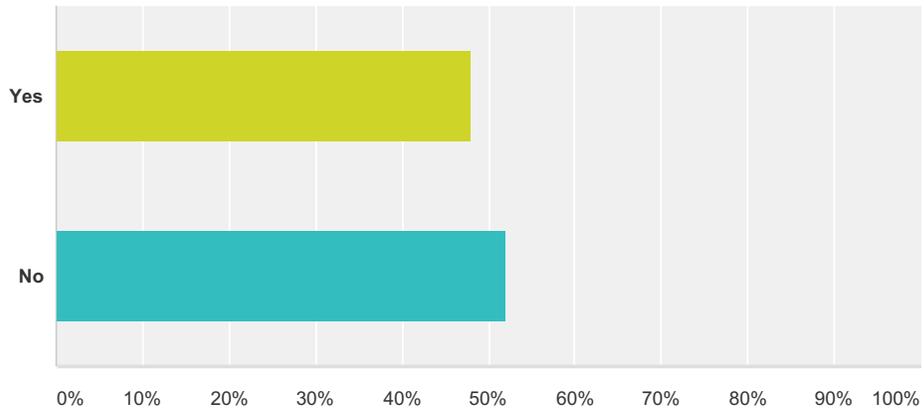
	1	2	3	4	5	Total	Score
Extend high-capacity transit (e.g. Metrorail, rapid/express bus) along I-66 corridor.	35.91% 246	21.61% 148	16.79% 115	12.85% 88	12.85% 88	685	3.55
Provide better transit access and more frequent service between major business / residential centers and destinations in the NoVa region (e.g. Tysons, Reston-Herndon, Dulles).	14.48% 98	26.59% 180	28.51% 193	20.24% 137	10.19% 69	677	3.15
Implement coordinated signal timing on major roads.	29.12% 205	17.05% 120	16.76% 118	10.23% 72	26.85% 189	704	3.11
Implement safety improvements such as sidewalks, crosswalks, and traffic calming measures.	11.19% 75	21.79% 146	20.30% 136	32.54% 218	14.18% 95	670	2.83
Expand the number of bike paths and pedestrian facilities to improve the region's bike / pedestrian network.	13.47% 90	13.62% 91	16.62% 111	22.16% 148	34.13% 228	668	2.50

Q20 Are there any other improvements that you would suggest for this area?

Answered: 182 Skipped: 2,589

Q21 Would you like to provide input on this area?

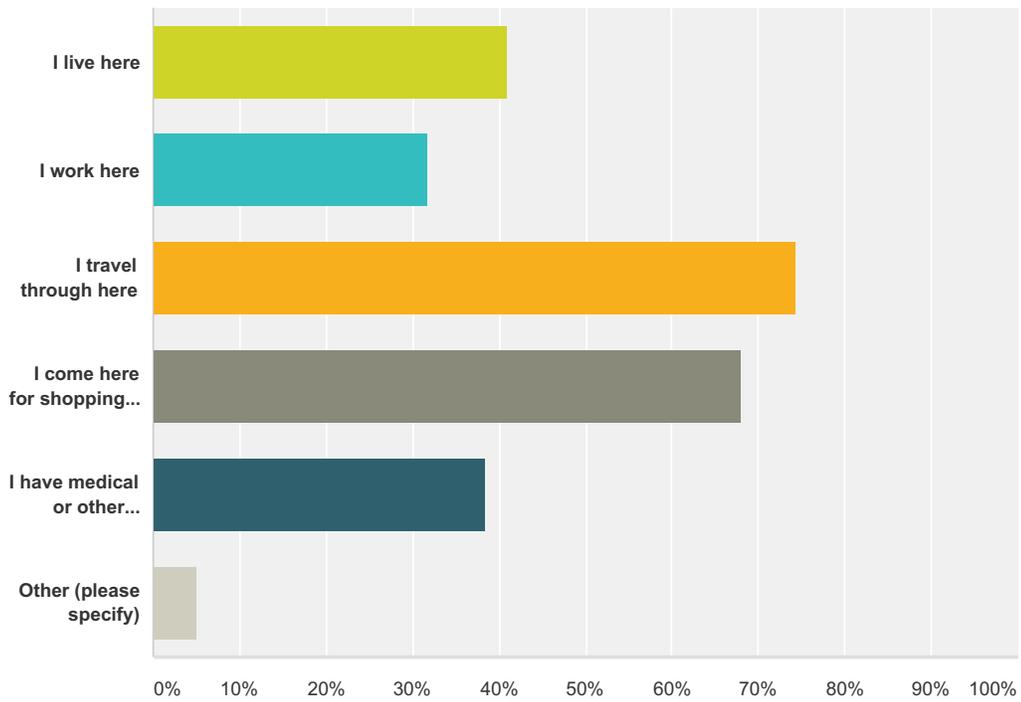
Answered: 2,332 Skipped: 439



Answer Choices	Responses	
Yes	48.11%	1,122
No	51.89%	1,210
Total		2,332

Q22 How do you spend time in this area? (Check all that apply.)

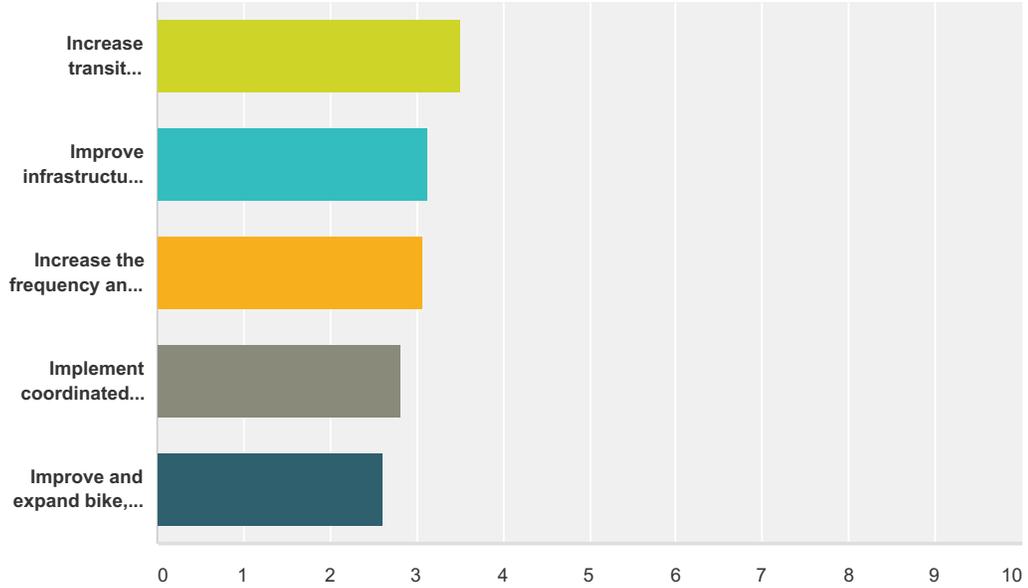
Answered: 1,097 Skipped: 1,674



Answer Choices	Responses	
I live here	41.02%	450
I work here	31.72%	348
I travel through here	74.38%	816
I come here for shopping, dining, or entertainment	68.00%	746
I have medical or other appointments here	38.47%	422
Other (please specify)	5.10%	56
Total Respondents: 1,097		

Q23 For this area, please put the following transportation improvements in order from most (#1) to least (#5) important to you.

Answered: 1,069 Skipped: 1,702



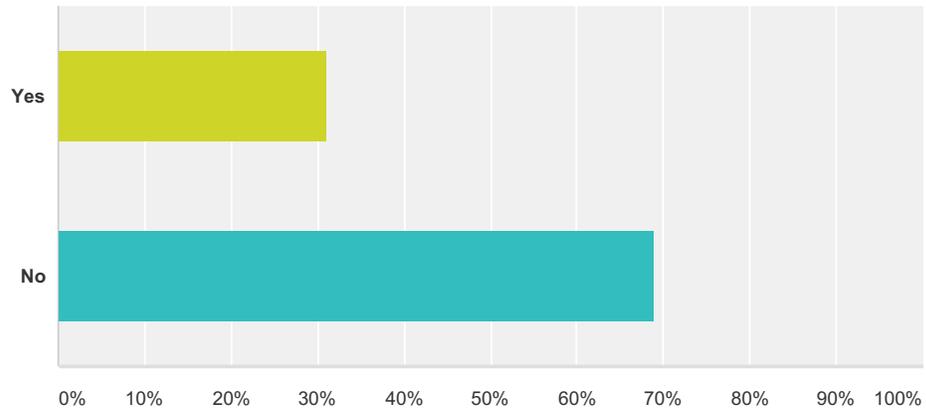
	1	2	3	4	5	Total	Score
Increase transit capacity and reduce road congestion across the Potomac River into Maryland and DC.	34.42% 337	22.47% 220	15.63% 153	14.30% 140	13.18% 129	979	3.51
Improve infrastructure at existing transit stations for improved capacity and multi-modal transfers.	13.83% 135	24.59% 240	29.71% 290	24.08% 235	7.79% 76	976	3.13
Increase the frequency and coverage of transit services to major business / residential centers (e.g., Bailey's Crossroads, Downtown Alexandria).	15.12% 148	24.21% 237	25.33% 248	23.29% 228	12.05% 118	979	3.07
Implement coordinated signal timing on major roads.	20.16% 205	17.11% 174	16.52% 168	16.42% 167	29.79% 303	1,017	2.81
Improve and expand bike, bike-share and pedestrian infrastructure.	19.76% 195	12.26% 121	13.68% 135	18.74% 185	35.56% 351	987	2.62

Q24 Are there any other improvements that you would suggest for this area?

Answered: 326 Skipped: 2,445

Q25 Would you like to provide input on this area?

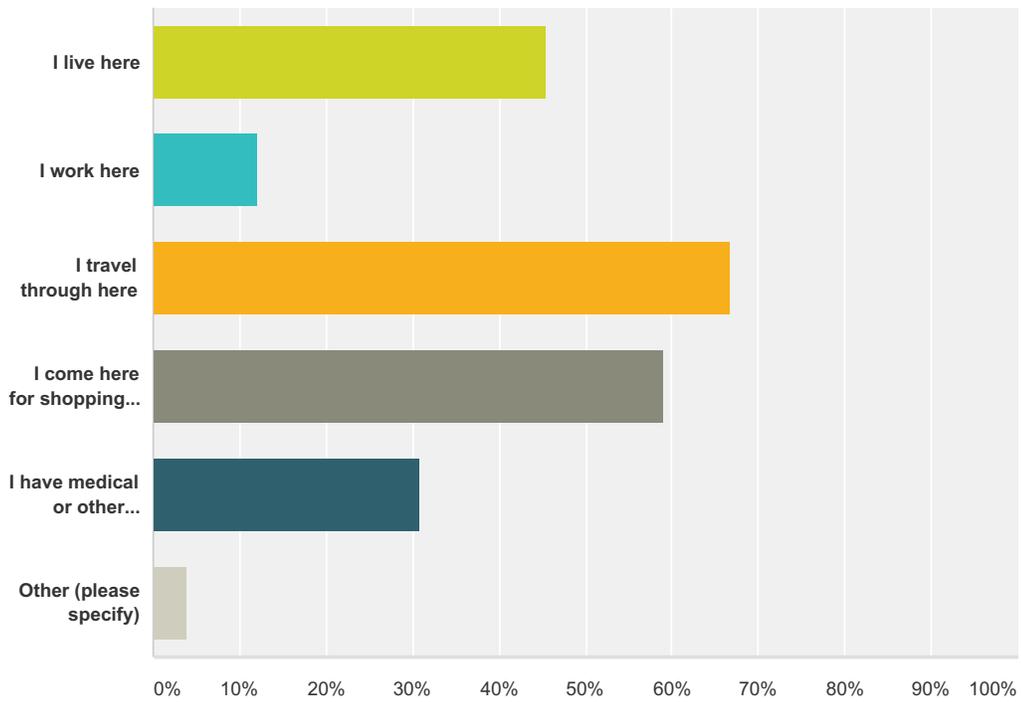
Answered: 2,285 Skipped: 486



Answer Choices	Responses	
Yes	31.12%	711
No	68.88%	1,574
Total		2,285

Q26 How do you spend time in this area? (Check all that apply.)

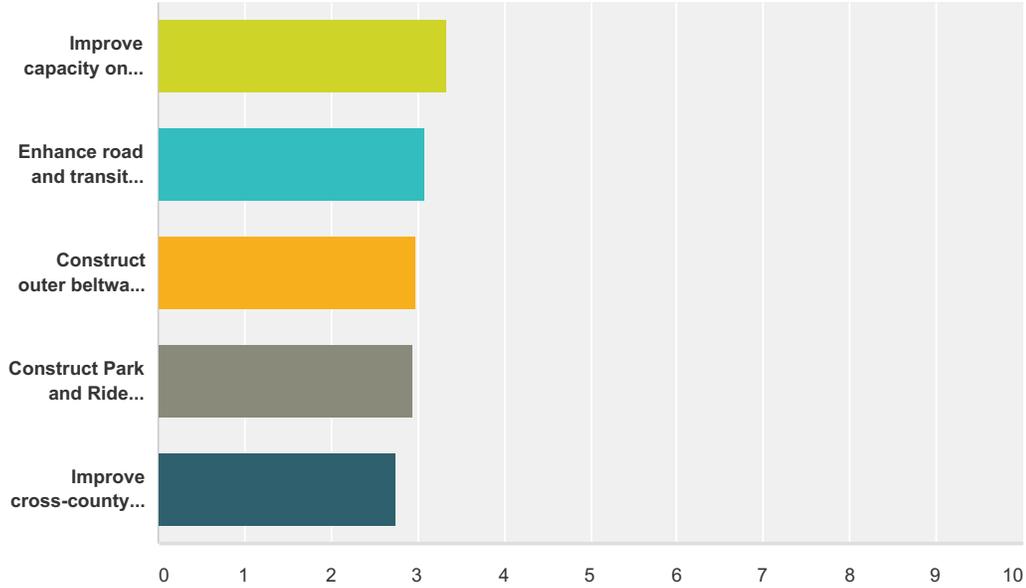
Answered: 678 Skipped: 2,093



Answer Choices	Responses	
I live here	45.43%	308
I work here	12.09%	82
I travel through here	66.81%	453
I come here for shopping, dining, or entertainment	59.14%	401
I have medical or other appointments here	30.83%	209
Other (please specify)	3.98%	27
Total Respondents: 678		

Q27 For this area, please put the following transportation improvements in order from most (#1) to least (#5) important to you.

Answered: 676 Skipped: 2,095



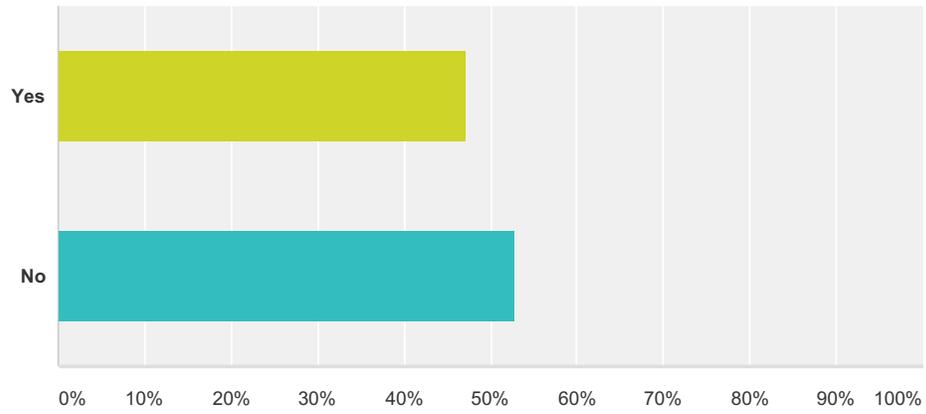
	1	2	3	4	5	Total	Score
Improve capacity on major roads, including conversion to limited-access highways (e.g. Route 1).	29.67% 189	22.14% 141	16.95% 108	16.17% 103	15.07% 96	637	3.35
Enhance road and transit connections to VRE stations and I-95 Park and Ride lots.	16.92% 102	23.71% 143	24.05% 145	22.55% 136	12.77% 77	603	3.09
Construct outer beltway to improve north-south connections in the region, with an additional river crossing into Maryland.	24.01% 146	18.59% 113	14.80% 90	17.43% 106	25.16% 153	608	2.99
Construct Park and Ride facilities and improve direct commuter bus service to DC / NoVa region.	19.60% 118	16.78% 101	23.59% 142	17.94% 108	22.09% 133	602	2.94
Improve cross-county transit connections between Manassas, Innovation and Woodbridge / Dumfries.	13.79% 83	19.27% 116	20.76% 125	21.59% 130	24.58% 148	602	2.76

Q28 Are there any other improvements that you would suggest for this area?

Answered: 237 Skipped: 2,534

Q29 Would you like to provide input on this area?

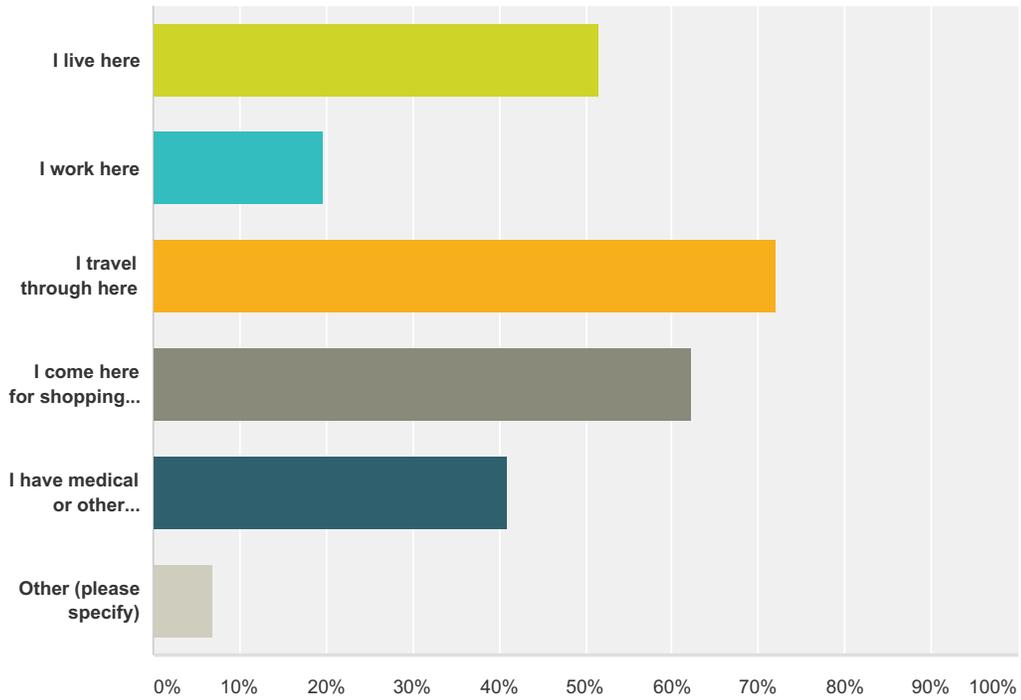
Answered: 2,272 Skipped: 499



Answer Choices	Responses
Yes	47.10% 1,070
No	52.90% 1,202
Total	2,272

Q30 How do you spend time in this area? (Check all that apply.)

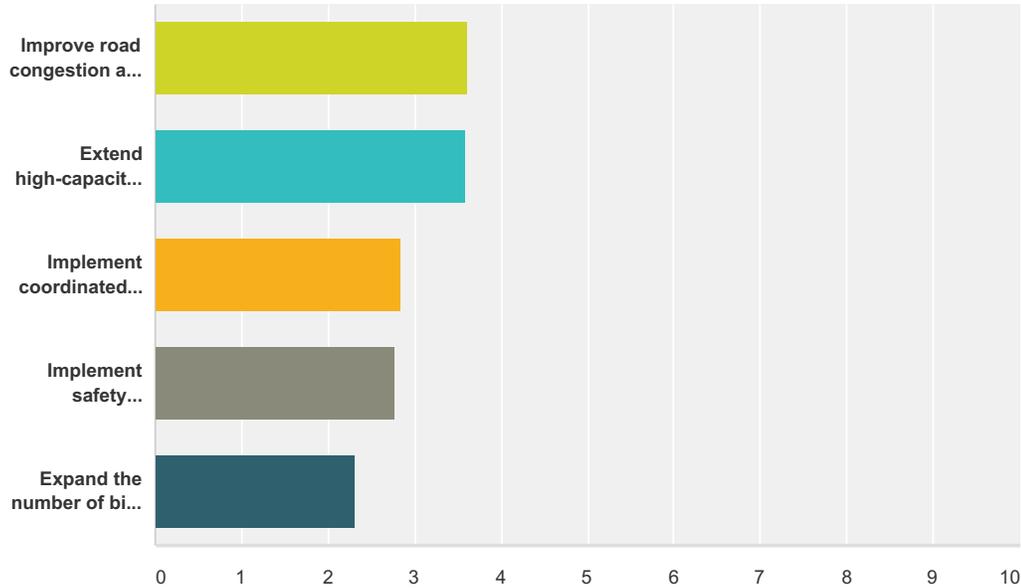
Answered: 1,048 Skipped: 1,723



Answer Choices	Responses
I live here	51.62% 541
I work here	19.66% 206
I travel through here	72.04% 755
I come here for shopping, dining, or entertainment	62.21% 652
I have medical or other appointments here	40.94% 429
Other (please specify)	6.97% 73
Total Respondents: 1,048	

Q31 For this area, please put the following transportation improvements in order from most (#1) to least (#5) important to you.

Answered: 1,039 Skipped: 1,732



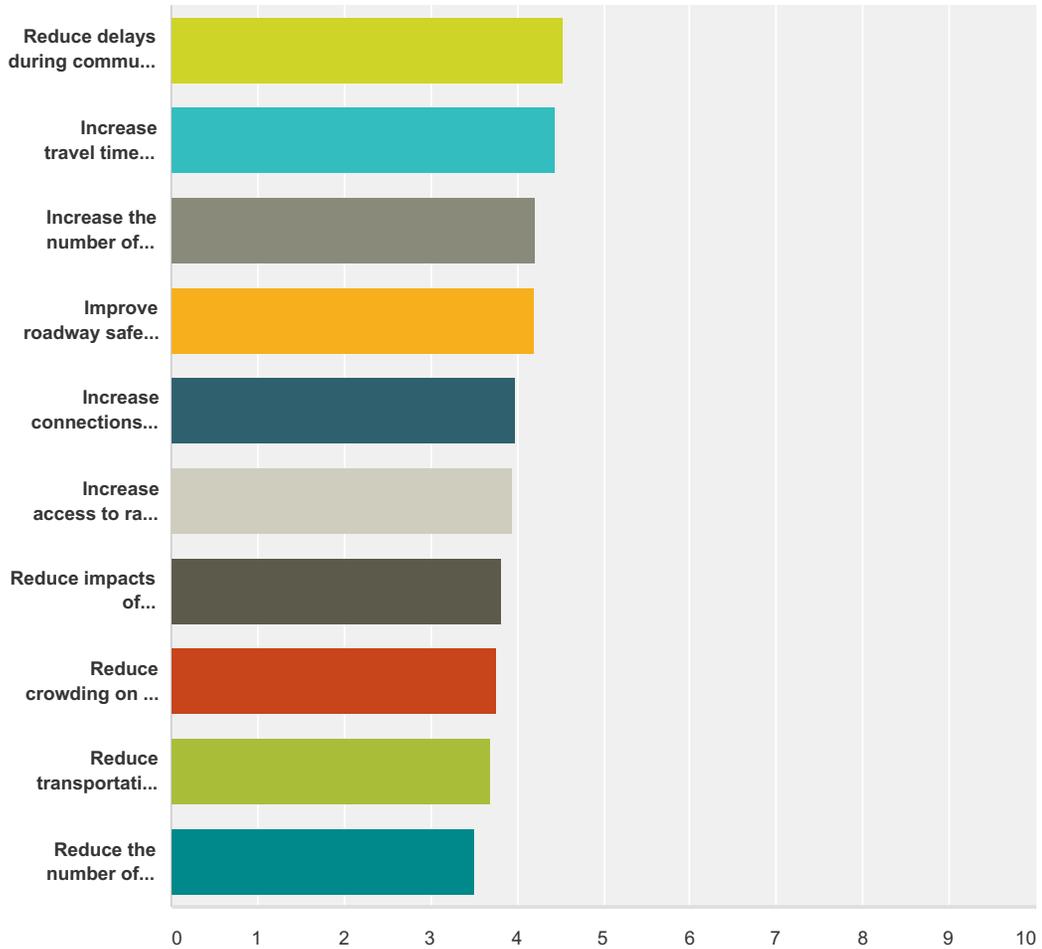
	1	2	3	4	5	Total	Score
Improve road congestion and access along Route 1, including connections to Ft. Belvoir and Alexandria.	34.82% 328	27.49% 259	12.95% 122	14.44% 136	10.30% 97	942	3.62
Extend high-capacity transit (e.g. Metrorail, express/rapid bus) to serve business / residential centers along I-95/Route 1 corridor.	36.53% 350	19.00% 182	21.19% 203	13.05% 125	10.23% 98	958	3.59
Implement coordinated signal timing on major roads.	14.18% 140	21.78% 215	22.09% 218	18.14% 179	23.81% 235	987	2.84
Implement safety improvements such as sidewalks, crosswalks, and traffic calming measures.	7.69% 72	18.70% 175	29.27% 274	31.20% 292	13.14% 123	936	2.77
Expand the number of bike paths and pedestrian facilities to improve the region's bike / pedestrian network.	10.29% 99	13.20% 127	15.07% 145	20.89% 201	40.54% 390	962	2.32

Q32 Are there any other improvements that you would suggest for this area?

Answered: 330 Skipped: 2,441

Q33 As we look to make transportation improvements in Northern Virginia, it's important for us to understand what is important and meaningful to you. Please rate the importance of the following actions that improve NoVa's transportation network and quality of life.

Answered: 2,200 Skipped: 571



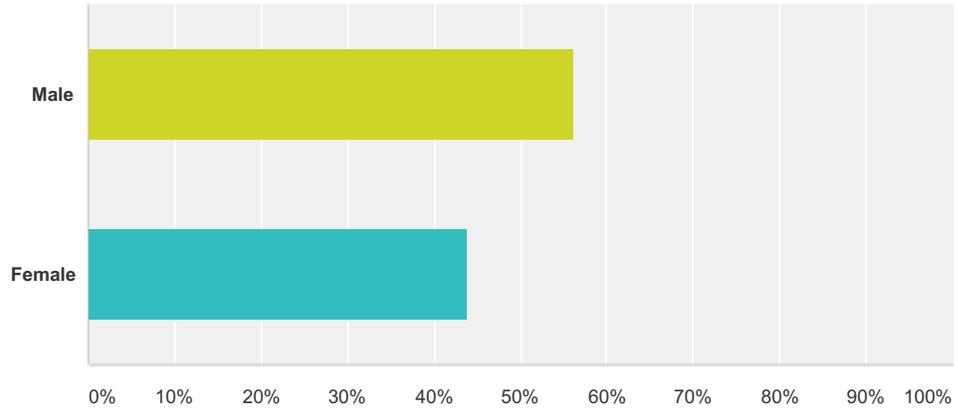
	Not at all important	Not very important	Somewhat important	Very important	No Opinion	Total	Weighted Average
Reduce delays during commute hours	1.10% 24	3.30% 72	17.40% 380	75.23% 1,643	2.98% 65	2,184	4.53
Increase travel time reliability throughout the day	0.69% 15	4.53% 99	26.67% 583	65.51% 1,432	2.61% 57	2,186	4.44
Increase the number of travel options (e.g. bus, rail, rideshare)	2.56% 56	8.64% 189	27.53% 602	58.30% 1,275	2.97% 65	2,187	4.21
Improve roadway safety to reduce vehicle crashes	1.60% 35	8.33% 182	31.17% 681	55.24% 1,207	3.66% 80	2,185	4.19

NVTA TransAction Fall Survey

Increase connections between business / residential centers	2.34% 51	11.24% 245	38.23% 833	44.01% 959	4.18% 91	2,179	3.98
Increase access to rail stations for pedestrians, bikes and buses	4.44% 97	12.27% 268	32.27% 705	47.14% 1,030	3.89% 85	2,185	3.94
Reduce impacts of transportation on the environment	6.87% 150	12.96% 283	34.36% 750	42.56% 929	3.25% 71	2,183	3.83
Reduce crowding on bus and rail	4.76% 104	14.43% 315	38.43% 839	37.52% 819	4.86% 106	2,183	3.75
Reduce transportation costs	4.00% 87	18.47% 402	39.52% 860	34.24% 745	3.77% 82	2,176	3.70
Reduce the number of single-occupancy vehicles during commute hours	10.28% 225	18.78% 411	31.03% 679	35.69% 781	4.20% 92	2,188	3.50

Q34 Are you male or female?

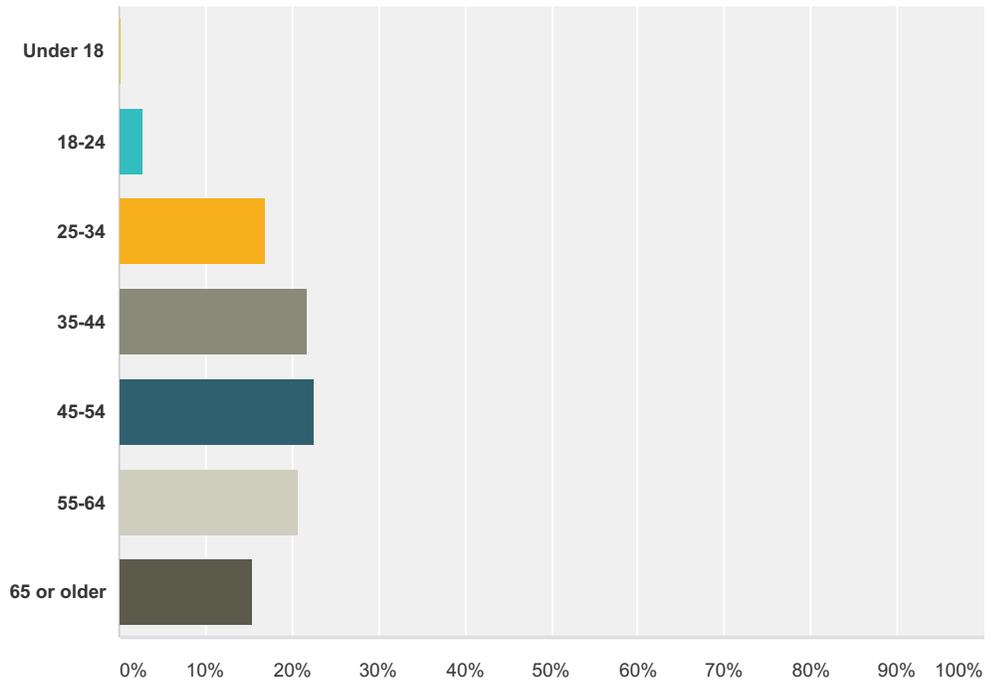
Answered: 2,174 Skipped: 597



Answer Choices	Responses
Male	56.21% 1,222
Female	43.79% 952
Total	2,174

Q35 What is your age?

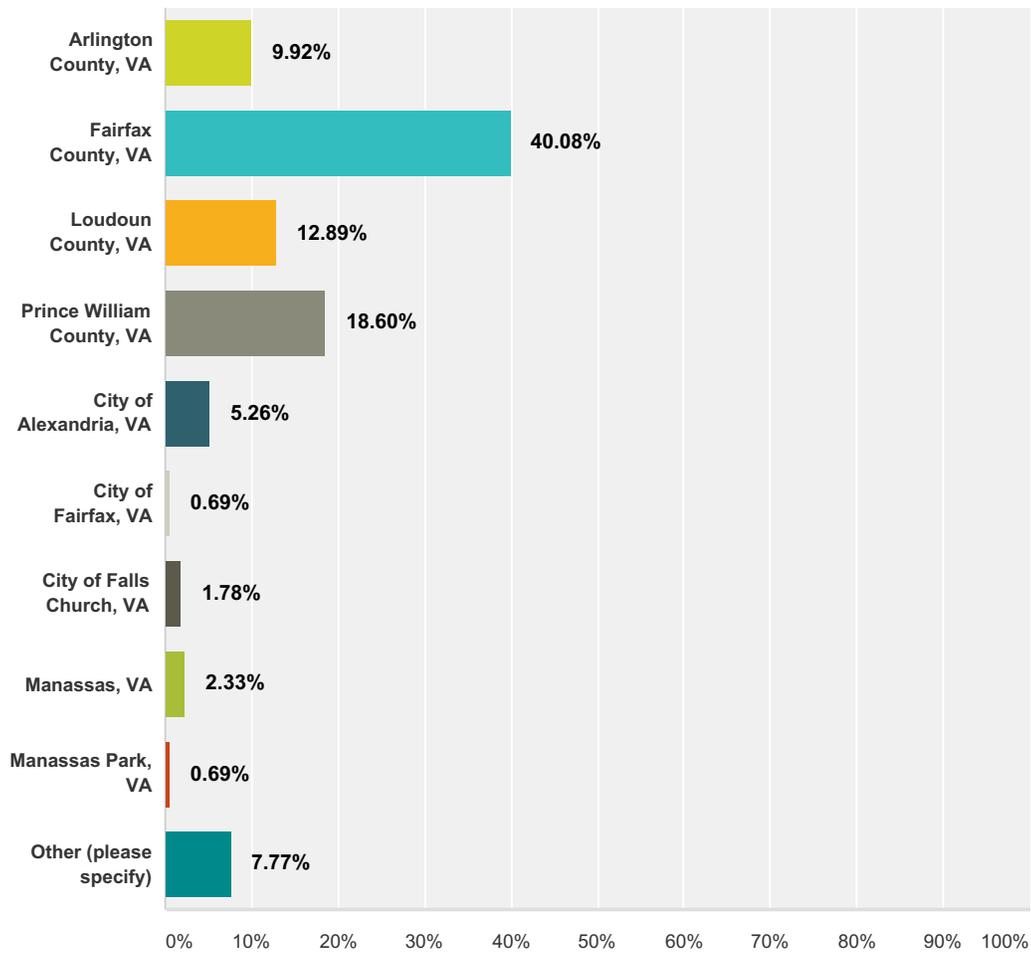
Answered: 2,178 Skipped: 593



Answer Choices	Responses
Under 18	0.23% 5
18-24	2.62% 57
25-34	16.85% 367
35-44	21.63% 471
45-54	22.54% 491
55-64	20.66% 450
65 or older	15.47% 337
Total	2,178

Q36 In which county or city do you currently live?

Answered: 2,188 Skipped: 583



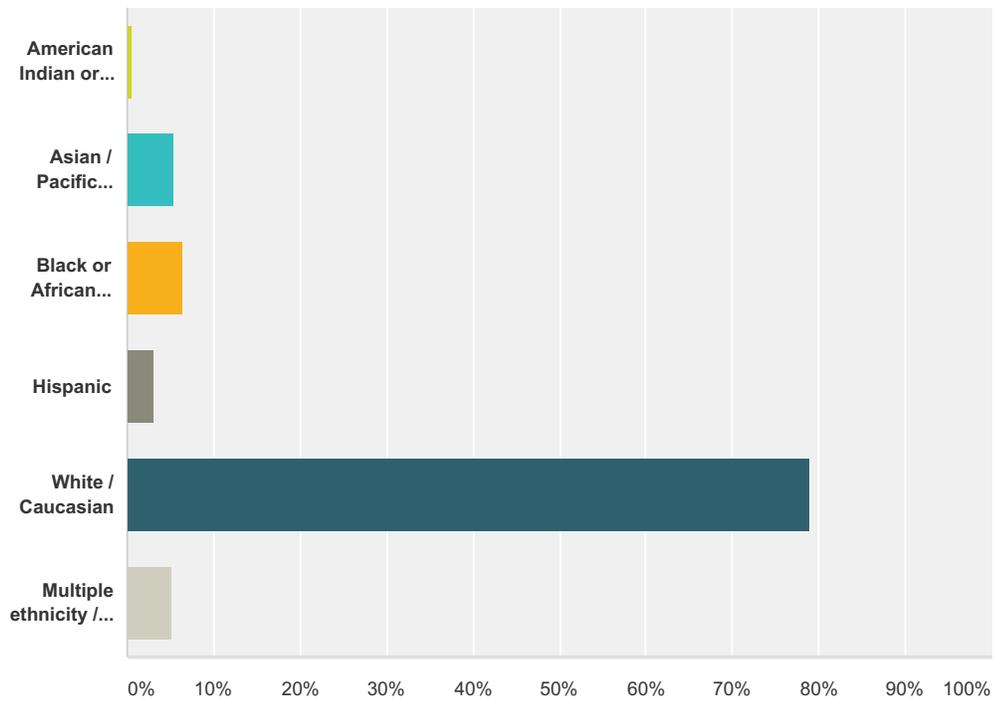
Answer Choices	Responses	Count
Arlington County, VA	9.92%	217
Fairfax County, VA	40.08%	877
Loudoun County, VA	12.89%	282
Prince William County, VA	18.60%	407
City of Alexandria, VA	5.26%	115
City of Fairfax, VA	0.69%	15
City of Falls Church, VA	1.78%	39
Manassas, VA	2.33%	51
Manassas Park, VA	0.69%	15
Other (please specify)	7.77%	170

NVTA TransAction Fall Survey

Total	2,188
-------	-------

Q37 Which race/ethnicity best describes you? (Please choose only one.)

Answered: 2,105 Skipped: 666



Answer Choices	Responses
American Indian or Alaskan Native	0.67% 14
Asian / Pacific Islander	5.46% 115
Black or African American	6.51% 137
Hispanic	3.23% 68
White / Caucasian	79.00% 1,663
Multiple ethnicity / Other (please specify)	5.13% 108
Total	2,105

Q38 Yes, please add me to your email notification list (be sure email is in correct format -- username@provider.extension).

Answered: 730 Skipped: 2,041

Answer Choices	Responses	
Name	98.36%	718
Company	0.00%	0
Address	0.00%	0
Address 2	0.00%	0
City/Town	0.00%	0
State/Province	0.00%	0
ZIP/Postal Code	0.00%	0
Country	0.00%	0
Email Address	99.18%	724
Phone Number	0.00%	0

Q39 Use this space for comments or other feedback.

Answered: 268 Skipped: 2,503