



# APPENDIX A: Phase 1 Public Engagement Summary Report

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NVTA's  
**TransAction**  
*Transportation Action Plan  
for Northern Virginia*

# PHASE 1 PUBLIC ENGAGEMENT

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## *Summary Report*

*Prepared for*

Northern Virginia Transportation Authority



**December 2021**

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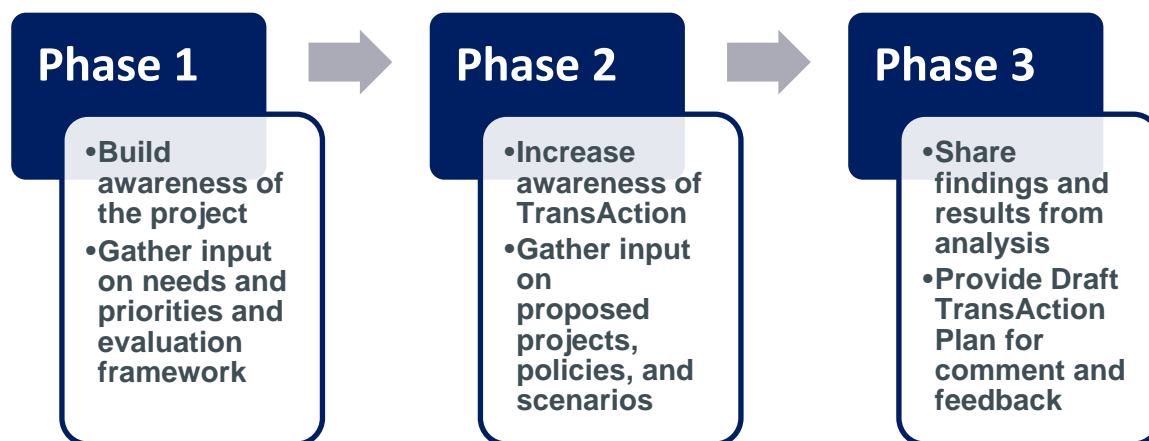
# 1.0 INTRODUCTION

The Northern Virginia Transportation Authority's (NVTA) TransAction plan establishes a 20-year vision for planning, programming, and funding transportation projects that will enable a safe, equitable, and sustainable future for the region. TransAction is updated every five years with input from public officials, jurisdictional and agency staff, regional stakeholders, and the public. During biennial updates of the Six Year Program, projects identified in TransAction are selected for NVTA funds through an evaluation process that results in a consolidated candidate project list for public input. As a long-range plan, TransAction consider existing and future transportation needs, including how travel trends and advances in technology may affect the transportation network in the region in coming years. The three main goals of TransAction are to enhance mobility, increase accessibility, and improve resiliency. Meaningful public participation is key to helping the NVTA develop a plan that achieves these goals and reflects values and priorities of the people who live and work in Northern Virginia.

The TransAction Update has been organized into three phases of the study, with corresponding engagement objectives shown in Figure 1.1:

- Phase 1 – Identification of needs and priorities
- Phase 2 – Analysis of scenarios and strategies
- Phase 3 – Reporting, review, and finalization

**Figure 1.1 TransAction Engagement Objectives by Phase**



As the TransAction project team worked to identify regional transportation needs and priorities during Phase 1 of the TransAction Update, input was solicited from a diverse range of perspectives to understand the transportation experiences and needs of people traveling throughout the region.



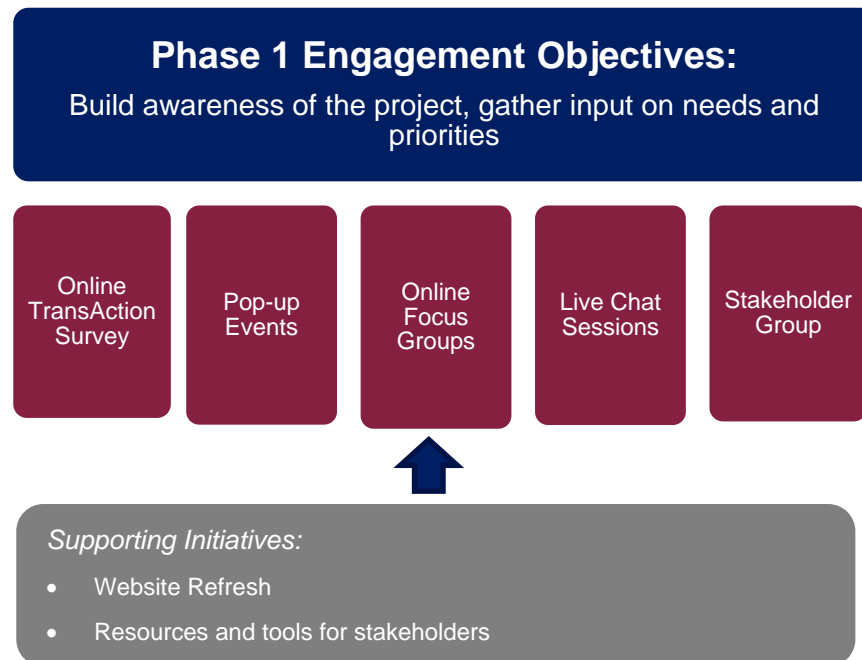
Between July and October 2021, the NVTa conducted a full public outreach program with the objectives of building awareness of the project and gathering input on regional needs and priorities. This program included several engagement strategies, including focus groups and a public survey, which are summarized in Figure 1.2.

Due to the continuation of the COVID-19 pandemic, there were both in-person activities, such as pop-up events at Metro stations and other highly trafficked areas, as well as virtual activities, such as live chats, a website comment form, and targeted social/digital media outreach, that allowed the public to participate in whichever format was most convenient for them. With this public outreach program, NVTa was able to collect valuable feedback from a significant number of Northern Virginians, including those in traditionally underserved communities and with low-English proficiency. A stakeholder group meeting was held in October to provide an overview of the TransAction Update process, share findings from the public outreach, and to answer stakeholder questions about TransAction.

The first phase of public engagement for NVTa's TransAction Update provided NVTa staff with multiple opportunities to interact directly with the public and was highly successful in driving participation in the public survey. With the survey and focus groups serving as the primary channels for collecting public input during Phase 1, the public engagement team was focused on raising both awareness of and participation in the public survey – particularly in areas of Northern Virginia that have significant concentrations of low-income, minority populations, or both. In all, more than 2,300 people participated in the survey. The survey and its supporting social and digital media outreach were offered in English, Spanish, and Korean, and language interpreters assisted Amharic and Vietnamese speakers complete the survey live at in-person pop-up events. Between the survey and the focus groups and the supporting efforts described in this report, the outreach efforts during Phase 1 of the TransAction Update succeeded in helping the NVTa achieve equitable, accessible, and inclusive public engagement and the input received during this phase will be used to inform the NVTa's technical work throughout other phases of the TransAction Update.

There were several key takeaways from the public outreach process:

**Figure 1.2 Overview of Public Engagement Methods**



- The pandemic has changed how many people travel and will continue to affect how they travel in the future. About one-quarter of respondents to the TransAction survey indicated that new workplace rules, such as telework, will influence their mode choices once the pandemic is over.
- There is considerable interest in travel modes other than driving, reflected in both survey and focus group responses. The top transportation priority of respondents on the survey was “more transit, walking, and biking options” however, the overwhelming majority of focus group participants use their personal car for commuting and discretionary purposes in the region. This is largely attributed to the perception that single occupancy vehicle (SOV) use is more reliable and flexible than other transportation options, even if they live close to a Metro station.
- Geography plays a large role in participants responses:
  - » Inner jurisdiction residents selected “more transit, walking, biking options” as the top priority.
  - » Outer jurisdiction residents selected “reduce traffic congestion” as top priority.
  - » Other objectives showed less variability between different geographic areas – “improve travel time reliability” was supported by all geographic areas.
- The majority of survey and focus group respondents were open to owning an electric vehicle (EV) in the future, and saw cost and infrastructure as the current barriers to EV usage.
- Less than half of respondents indicated that they would consider owning or using an autonomous vehicle (AV), with safety as the primary concern. On the survey, participants rated “Get roads ready for automated vehicles” as a low priority but also pointed out that it should be a priority for the future (10 to 20 years into the future at least).



The feedback collected during Phase 1 and outlined in this document will be used to inform the rest of the TransAction Update phases. Summaries of the findings from the virtual focus groups and the TransAction online survey are provided in the next two sections, and detailed reports are provided in Appendices A and B. The remainder of the report documents the other public engagement activities including updates to the project website, pop-up events, and use of social media.

## 2.0 FOCUS GROUPS

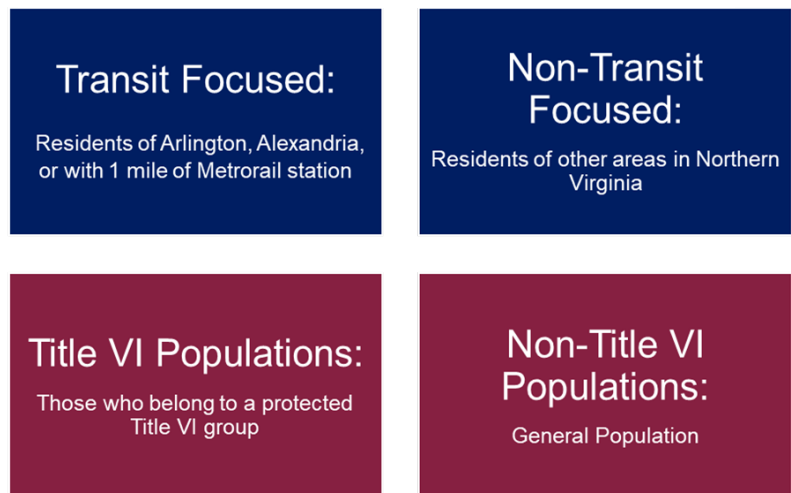
Focus groups allowed the project team to explore how participants feel and why, providing rich qualitative context to current and future transportation needs in Northern Virginia. This section provides a summary of the format and key findings from the online discussion groups. A more detailed summary of the focus group results is included in Appendix A.

A total of eight online discussion groups were held between July 20 – 29, 2021. 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. A total of 95 participants were placed into four groups: those who belong to a Title VI protected group, those who do not belong to a Title VI protected group, a transit focused group, and a non-transit focused group, as illustrated in Figure 2.1. Each of the eight sessions was attended by between 11 and 13 participants.

Participants were asked questions focused around several topics:

- Current travel choices
- Issues getting around in NoVA
- Core Values
- Prioritization of objectives
- Types of transportation improvements
- Emerging travel options

**Figure 2.1 Four Focus Group Descriptions**



### 2.1 Key Findings

#### Travel Choices and Issues

The discussions concerning travel choices and issues were focused on pre-pandemic travel patterns and expected travel post-pandemic. Participants overwhelmingly opt to use their personal car to travel both to and from work (when commuting) and to travel for discretionary purposes in the region. Metrorail is used by a few to get to work, or they used to use it to get to work prior to the pandemic. In general however, participants expressed that they use Metrorail occasionally to travel into DC for discretionary trips, particularly on weekends, though that has become less doable as Metro hours have been reduced. There was very limited use, or even more than vague awareness, of other public transit options available in Northern Virginia.

Single occupancy vehicles (SOV) are chosen specifically for their reliability and flexibility. Reliability is king, and most do not see other transportation options to be reliable, even if they live close to a station. That being said, they are sympathetic to using public transportation because of the sheer magnitude of congestion in the region.

Those with transit access, specifically those in the Title VI Transit Access groups, pointed out that it is generally more difficult to live close to a Metro station, as the housing prices are unaffordable due to their adjacency to transit. Those without transit access explained that they would be more willing to use public transportation if they understood it better, emphasizing the the need for communications that can bring those who are not familiar with bus and train systems into the fold. Those who are currently telecommuting generally expect that they will continue telecommuting in the future at a minimum of a hybrid schedule.

## Core Values

Figure 2.2 summarizes the participants' responses to the discussion around the three core values of the TransAction Update: equity, sustainability, and safety. The single most important takeaway from the Core Values definitions is that, while participants generally agree with each of these core values and their definitions, they feel the core values are useless without real, tangible actions taken towards each of them. For these Core Values to be meaningful, NVTA must "Prove it."

**Figure 2.2 Participant Responses to Core Values Summary**

 <p><b>Equity</b></p>	<p><b>What does Equity mean?</b></p> <p>Overall, participants identified "Equity" as relating to fairness. That is, a transportation system that serves everyone fairly.</p>	<p><b>How is the region doing on Equity?</b></p> <p>Northern Virginia has some work to do to address equity: it feels to many that decisions are made to prioritize wealthier areas in the region</p>	<p><b>How should NVTA consider/ incorporate Equity?</b></p> <p>More fairly distribute projects and improvements geographically and to help lower-income residents</p>
	<p><b>What does Sustainability mean?</b></p> <p>Sustainability, for nearly all respondents, first brought to mind thoughts of maintenance and infrastructure that is built to last</p>	<p><b>How is the region doing on Sustainability?</b></p> <p>Considerations such as responsibility to the environment are nearly always trumped by the importance of their commute</p>	<p><b>How should NVTA consider/ incorporate Sustainability?</b></p> <p>NVTA needs to work to make sustainable choices and modes work for people</p>
	<p><b>What does Safety mean?</b></p> <p>Two components were highlighted: safety from crime and safety from accidents</p>	<p><b>How is the region doing on Safety?</b></p> <p>Metro was often mentioned by participants concerned with safety.</p>	<p><b>How should NVTA consider/ incorporate Safety?</b></p> <p>NVTA should encourage safe driving practices and work to provide things like safer bike lanes, proper maintenance of roads and bridges, and more crosswalks and sidewalks to promote pedestrian safety</p>

Overall, participants identified “Equity” as relating to fairness. That is, a transportation system that serves everyone fairly, whether that was on highways, via HOV lanes, or by bus or train. They feel that Northern Virginia has some work to do to address equity, as it currently feels to many that decisions are made to prioritize wealthier areas in the region.

Sustainability, for nearly all respondents, first brought to mind thoughts of maintenance and infrastructure that is built to last. Importantly, the environment and climate change did not appear to be top-of-mind. Most participants identified sustainability as it related to having sustainable infrastructure, that is, infrastructure that requires less maintenance and withstands the test of time. This leads to a key point about transportation choice: considerations such as responsibility to the environment are nearly always trumped by the importance of their commute. To be able to change modes or make a sustainable choice, NVTA needs to work to make that sustainable choice work for people.

Across groups, safety was broken into two components: safety from crime and safety from accidents. Women were more likely to point out that safety to them involves security while riding public transit, bringing to mind more security guards and better lighting at Metro stations. Safety from accidents was also important to many, regardless of gender, as they feel that NVTA should encourage safe driving practices and also work to provide things like safer bike lanes, proper maintenance of roads and bridges, and more crosswalks and sidewalks to promote pedestrian safety. However, the first before thinking about safety as it relates to vehicle accidents, they first brought up safety from public transit accidents. Specifically they mentioned recent WMATA accidents as being top-of-mind.

## Priorities

### *Objectives*

Highest priorities across groups were to reduce congestion and delay. Those who live in areas without Metro access were more likely to see expansion of transportation choices as a high priority. For NVTA, this means that efforts to expand transportation choices should primarily be focused outside of the immediate areas surrounding Metro Stations, as there is an appetite for expanded transit choices in other areas as well.

### *Improvements*

“Build new roads or widen roads” was chosen by the vast majority of participants as a high priority for the region. However, there was also a vocal minority of participants who pointed out that over the years, building new roads or widening roads has not seemed to help the traffic situation in Northern Virginia.

### *Emerging technology*

“Get roads ready for automated vehicles” was viewed as a low short-term priority, but it should be a priority for the future. Most participants are open to owning an electric car, but identified potential drawbacks, including the car’s range and availability of charging stations (i.e., range anxiety), the lack of infrastructure in their homes, and concerns about using clean or dirty energy to charge their cars. To this last point communication efforts should be made to show residents of Northern Virginia where exactly their energy comes from.

The insights gained from the focus groups helped inform the development of the TransAction survey, detailed in the next section.



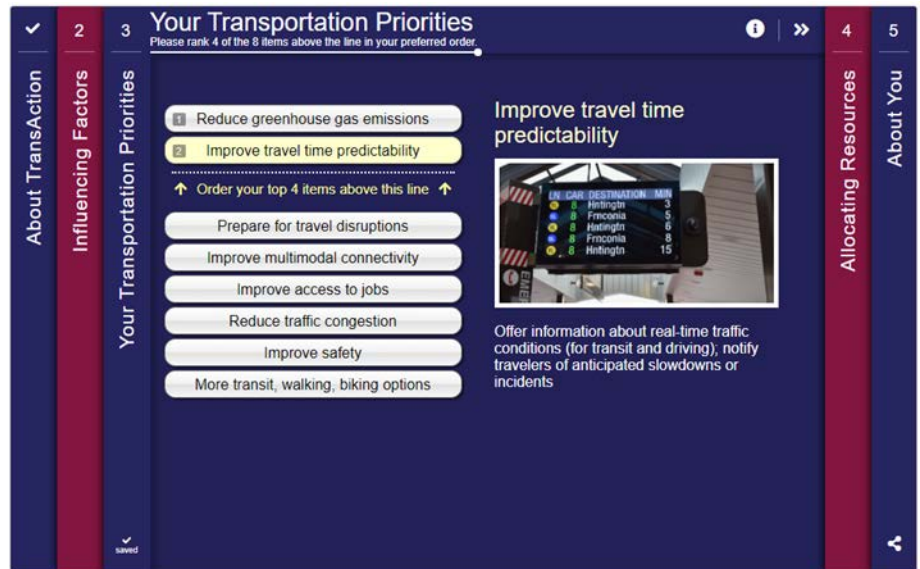
## 3.0 TRANSACTION SURVEY

The TransAction public survey was developed to enable the project team to better understand the highest priority transportation issues and priorities of residents and workers in the NVTA region, as well as their travel choices, factors influencing those choices, and priorities for investments in different modes. The survey results are being used to inform the

TransAction project team's technical work—most specifically by informing the needs assessment and weighting of performance measures.

The survey opened on August 6, 2021 and closed on September 19, 2021. The survey was built in the MetroQuest platform and made available in English, Korean, and Spanish. The survey was highly graphical and interactive in nature, with questions being primarily asked through a series of “gamified” exercises. Figure 3.1 shows an image of one of the activities in the survey.

**Figure 3.1 Screenshot of TransAction Survey**



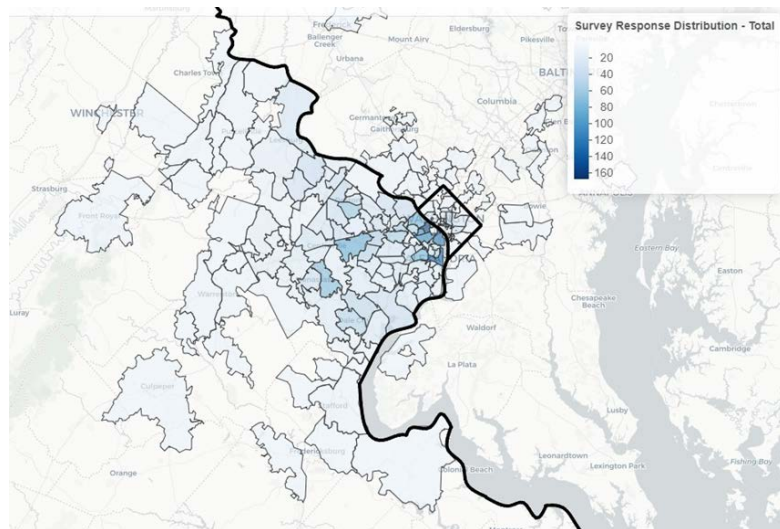
NVTA staff and the project team used a variety of methods to inform people about the survey and encourage them to take it. These included: updates to the website, stakeholder outreach, pop-up events, a newsletter article, paid social media ads, and earned social media activity and promotion. Social media activity occurred on: Facebook, Twitter, LinkedIn, and Instagram.

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## 3.1 Survey Respondents

There were 2,318 survey respondents: 2,164 respondents to the English survey, 89 respondents to the Korean survey, and 65 respondents to the Spanish survey.

**Figure 3.2 Map of Home Zip Codes of Survey Respondents**



At pop-up events, the project team assisted 123 Spanish speakers in verbally completing the survey and their responses in the English version on their behalf. Figure 3.2 is a map showing the distribution of home zip codes of survey respondents. The project team received responses from most of the zip codes within NVTa's jurisdiction, as well as some from Washington, DC and Maryland. A higher proportion of the respondents live in areas closer to DC, including 127 respondents who live in National Landing, Arlington; 167 respondents

from Lyon Village, Clarendon, and Lyon Park, Arlington; 138 respondents who live in Old Town, Alexandria.

In terms of income, 12 percent of respondents were from households with less than 50,000 in annual income. three-quarters of the survey respondents live in households with an income of over \$75,000.

Of the 1,796 respondents to the question about race, the majority identified as White (69 percent). The remaining racial groups each accounted for less than 10 percent of respondents. In order, Asian respondents accounted for eight percent, Black or African American respondents accounted for seven percent, and Hispanic or Latinx respondents accounted for six percent. White respondents are overrepresented in the survey results, as 31 percent of respondents identified as non-white or Hispanic/Latinx compared to the region's actual proportion of 49 percent.

The respondents' ages were evenly spread across most age increments, with about 20 percent of respondents in 35-44 years old, 45-54 years old, and 55-64 years old, and 65 years or older categories. About 14 percent of respondents were between 25-34 years old, while less than five percent of respondents were age 24 and below.

## 3.2 Survey Results

In the first section of the survey, respondents were asked to provide information about how often they used various modes of travel before the pandemic and the decisions they anticipate making related to the usage of these modes after the pandemic is over. Figure 3.3 shows the reported pre-pandemic frequency of taking transit by survey respondents. The key findings included:

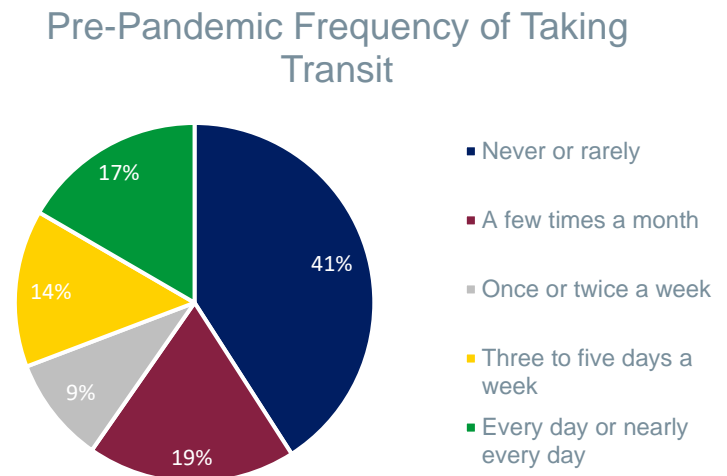
Pre-pandemic trips to work/school/other:

- 31 percent used transit at least 3 days a week
- 14 percent biked at least 3 days a week
- 28 percent walked at least 3 days a week

About a third of respondents anticipate changing their post-pandemic travel habits compared to pre-pandemic:

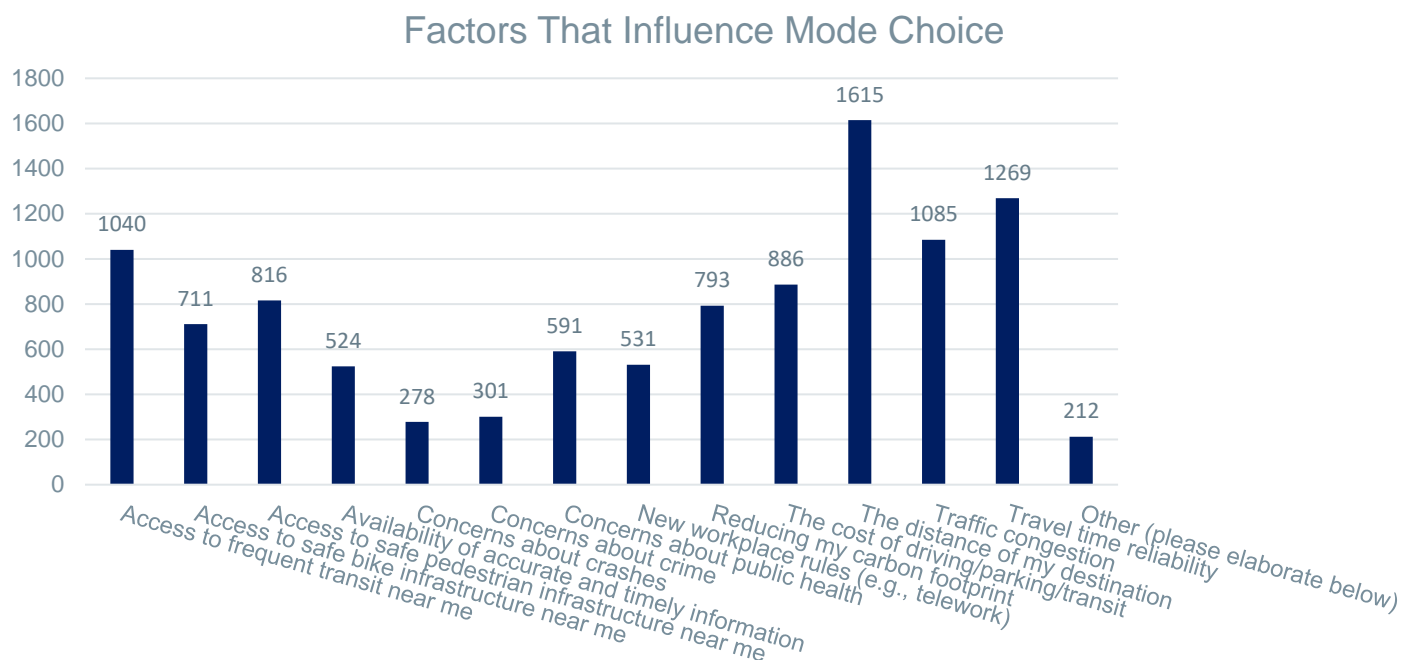
- 28 percent will reduce driving
- 21 percent will reduce transit use
- 8 percent will reduce biking
- 6 percent will reduce walking

**Figure 3.3 Pre-Pandemic Frequency of Taking Transit**

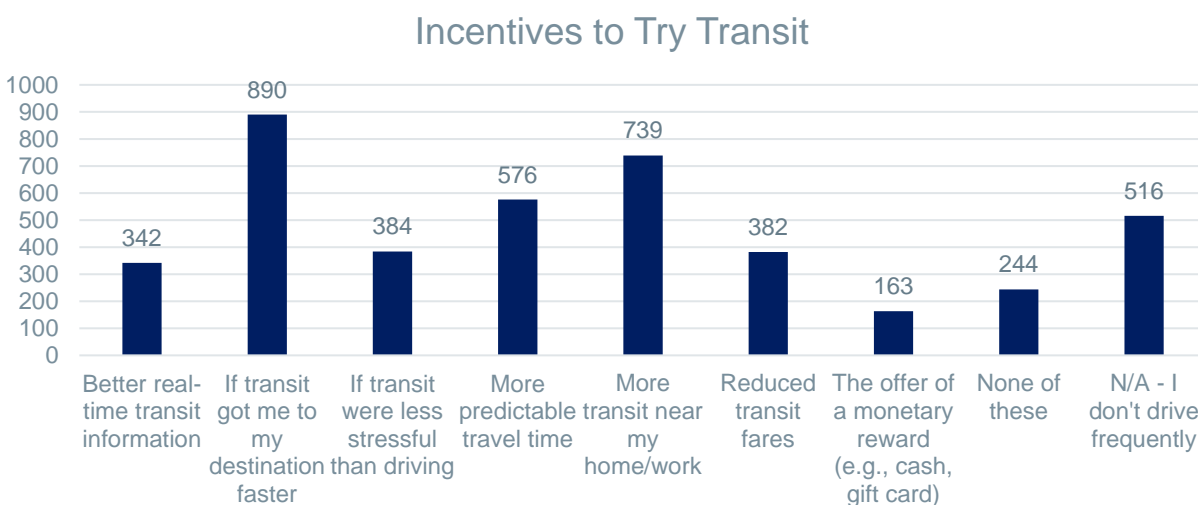


Respondents were asked what factors they anticipate will influence their choice of transportation mode(s) after the pandemic ends. As shown in Figure 3.4, the most common factor selected was “the distance of my destination” (76 percent), followed by travel time reliability (60 percent), traffic congestion (51 percent), and access to frequent transit (49 percent). Factors least likely to affect mode choice were concerns about crashes (13 percent) and concerns about crime (14 percent).



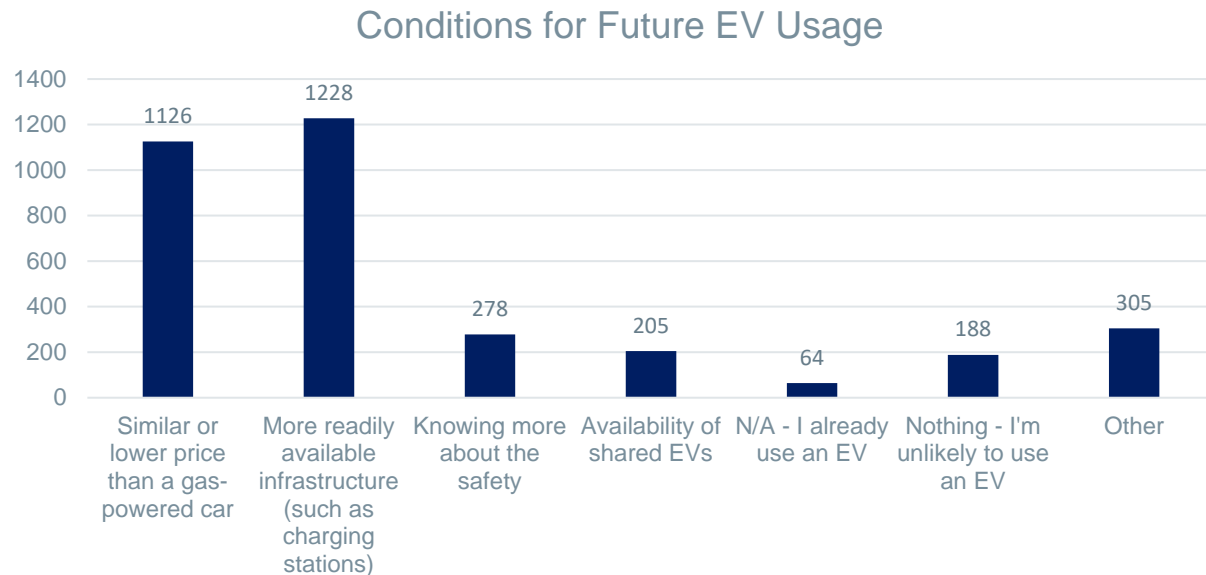
**Figure 3.4 Factors That Influence Mode of Transportation Choice**

Respondents were asked whether they drive regularly and, if so, to select which of seven incentives would motivate them to try transit; respondents could select multiple responses. As shown in Figure 3.5, of the 2,033 people who responded to this question, 44 percent said they would be more likely to try transit if it got them to their destination faster, 36 percent would be more likely to try transit if there were more transit near their home and/or work, and 28 percent would be more likely to try transit if there were a more predictable travel time.

**Figure 3.5 Incentives to Try Transit**

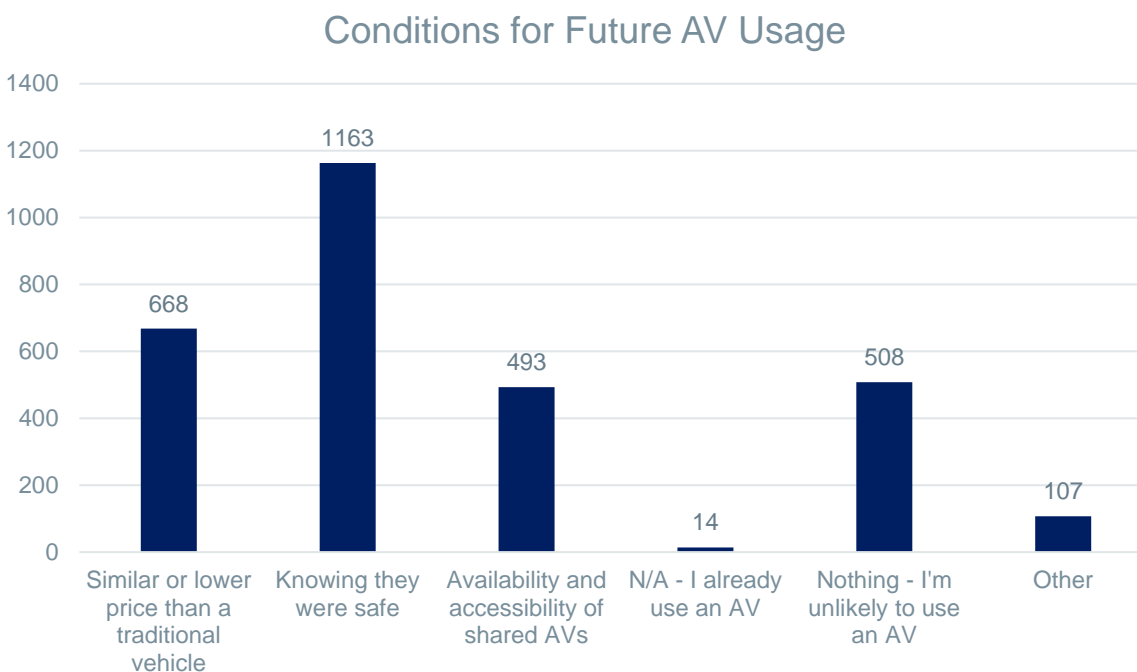
Respondents were asked what would make them more likely to consider using an EV in the future. As shown in Figure 3.6, most respondents said they would be more likely to consider using an EV once there is more readily available infrastructure (64 percent) and once the price is similar or lower than the price of a gasoline-powered car (58 percent).

**Figure 3.6 Conditions for Future EV Usage**



Respondents were asked what would make them likely to use an AV in the future. As shown in Figure 3.7, most respondents said they would be more likely to use an AV once they had confidence that AVs were safe (61 percent). There are many more respondents who said they are unlikely to use an AV in future (508 respondents) compared to those who said they are unlikely to use an EV in the future (188 respondents).

**Figure 3.7 Conditions for Future AV Usage**

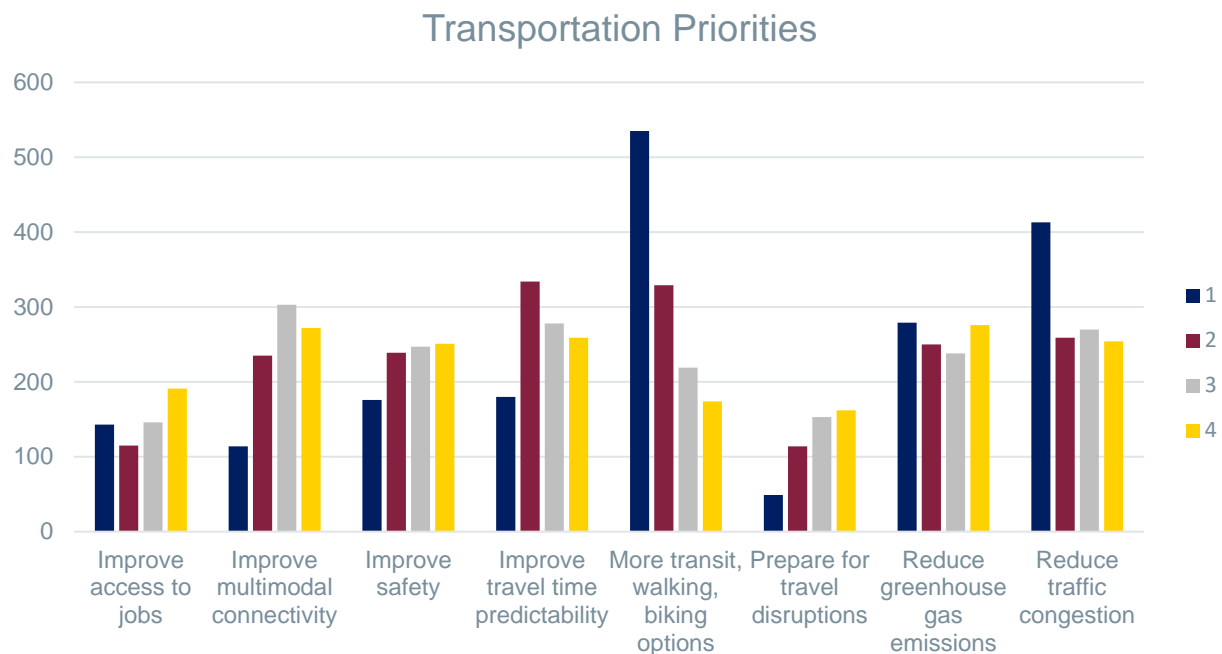


Respondents were shown a list of transportation priorities, each accompanied by a description and photo and asked to rank their top four priorities. The eight options were:

- More transit, walking, biking options
- Improve multimodal connectivity
- Improve access to jobs
- Improve travel time predictability
- Improve safety
- Prepare for travel disruptions
- Reduce traffic congestion
- Reduce greenhouse gas emissions

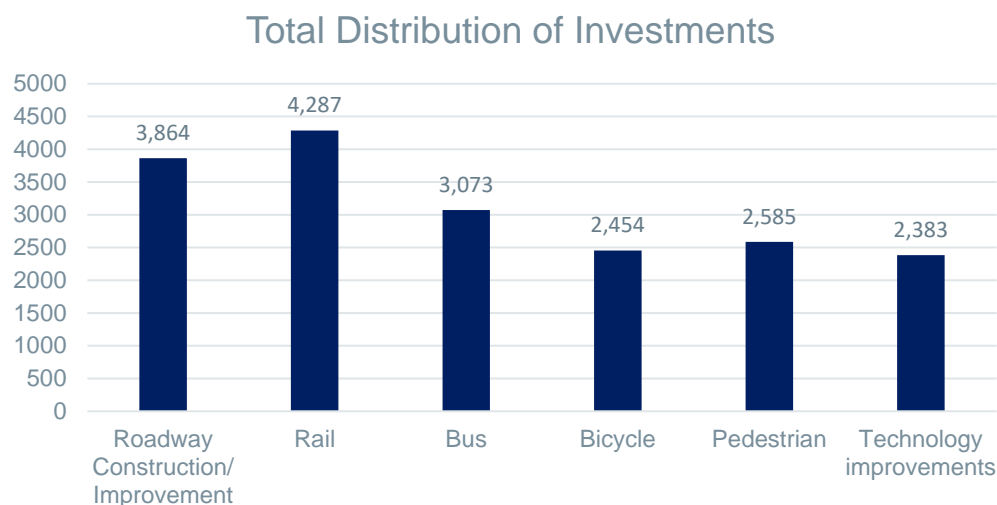
These options align with the objectives for TransAction. As shown in Figure 3.8, the most commonly selected priority, and the priority most frequently ranked number one, was “more transit, walking, biking options.” The second and third most commonly selected priorities were “reduce traffic congestion” and “improve travel time predictability,” respectively. When broken down by respondents’ geographic location, survey respondents from inner jurisdictions selected “more transit, walking, biking options” as the top priority, while survey respondents from outer jurisdictions selected “reduce traffic congestion” as top priority. Other objectives showed less variability between different geographic areas – “improve travel time reliability” was typically the second ranked priority.

**Figure 3.8 Frequency of Ranking of Transportation Priorities**



The fourth tab of the survey included an investment activity. Respondents were given 10 hypothetical coins, each representing \$1 million, and asked to distribute them between six different project types: roadway construction/improvement, rail, bus, bicycle, pedestrian, and technology projects. As shown in Figure 3.9, rail projects received the most investments (total “coins”), followed by roadway construction/improvement and bus. Technology improvement projects received the lowest average level of investment.

Home location of respondents did influence selection of type of investments needed. Inner jurisdictions allocated resources to rail and bus, before roadway improvements. Fairfax County/City allocated resources about evenly between roadway and rail, then bus. Outer jurisdictions allocated the most resources to roadway construction/improvement, followed by rail and bus.

**Figure 3.9 Total Distribution of Investments**

### 3.3 Key Findings

The TransAction survey provided significant insight into the public's priorities related to investments in different transportation project types, the transportation outcomes they want to see, and their expected post-pandemic travel mode choices, as described in this section. It is important to note, however, that the respondents are not statistically representative of the demographics of Northern Virginia, with the sample more likely to be White and higher income compared to the population.

When asked about their four highest priorities for transportation in Northern Virginia out of eight options, "More transit, walking, and biking options" was the most commonly selected, and it was also most frequently ranked as people's number one option. Reducing traffic congestion and improving travel time predictability were, respectively, the second and third most commonly selected priorities (among each respondent's top four, regardless of ranking).

In the Allocating Resources investment activity, rail was the project type that received the most investment, with roadway construction and improvement receiving the second highest amount, and bus being third. Not surprisingly, people who do not drive frequently placed a higher importance on non-roadway investments than regular drivers. Still, of the 1,275 respondents who invested any of their "coins" in roadway construction/improvement projects, only 11 percent invested more than five coins.

Most respondents said they were interested in trying EVs: 76 percent of respondents already own or would consider owning or using an EV. This could be tied to how respondents view climate change. "Reduce greenhouse gas emissions" was the fourth most commonly selected transit priority (out of eight options), and 37 percent of respondents reported that reducing their carbon footprint is a factor that influences their mode choice. Significantly many fewer respondents are willing to try AVs. Only 43 percent said they would consider owning or using an AV (in addition to one percent who already do), while 36 percent would not consider using an AV and 20 percent were unsure. While cost and infrastructure were the biggest considerations for future EV usage, safety was the primary consideration for future AV usage.



## 4.0 WEBSITE UPDATES

The TransAction website (nvtatransaction.org) serves as a platform to enhance awareness of NVTA and increase the public's understanding of the TransAction planning and funding process. The website also provides progress updates, contextual background documents, and other pertinent information to stakeholder and public audiences.

In addition to providing new website designs and concepts and refreshing the layouts and graphics of the existing website, the project team worked to maximize engagement opportunities on the website for a diverse range of Northern Virginia residents in order to gather meaningful feedback used to guide the development of TransAction. The project team also streamlined and revised copy on several website pages, performed real-time updates, and provided ongoing support throughout the project lifecycle. Some of these updates included the following:

### TransAction Homepage

The project team revised and repositioned copy on the TransAction homepage to increase the public's understanding of TransAction as the long-term multimodal transportation plan for Northern Virginia, and also understand the important role the TransAction process plays in the economic growth and quality of life in Northern Virginia.

Throughout the duration of the TransAction project, the team updated and repositioned upcoming events, Live Chat sessions, and other announcements on the home page to promote equitable public outreach and achieve maximum public engagement.

**Figure 4.1 TransAction Website Home Page**

#### Get Involved

Your voice matters! The NVTA team is meeting Northern Virginians in person and virtually to find out what transportation issues are most important to the public. Learn how to provide your input.

#### Receive Updates

Stay informed about TransAction and other NVTA updates by signing up to receive our newsletters. We promise we won't spam you!

#### Review Current TransAction

Learn more about the adopted TransAction plan (2017) and view project lists.

#### What's New?

Check out the latest TransAction and NVTA news.

## Participate

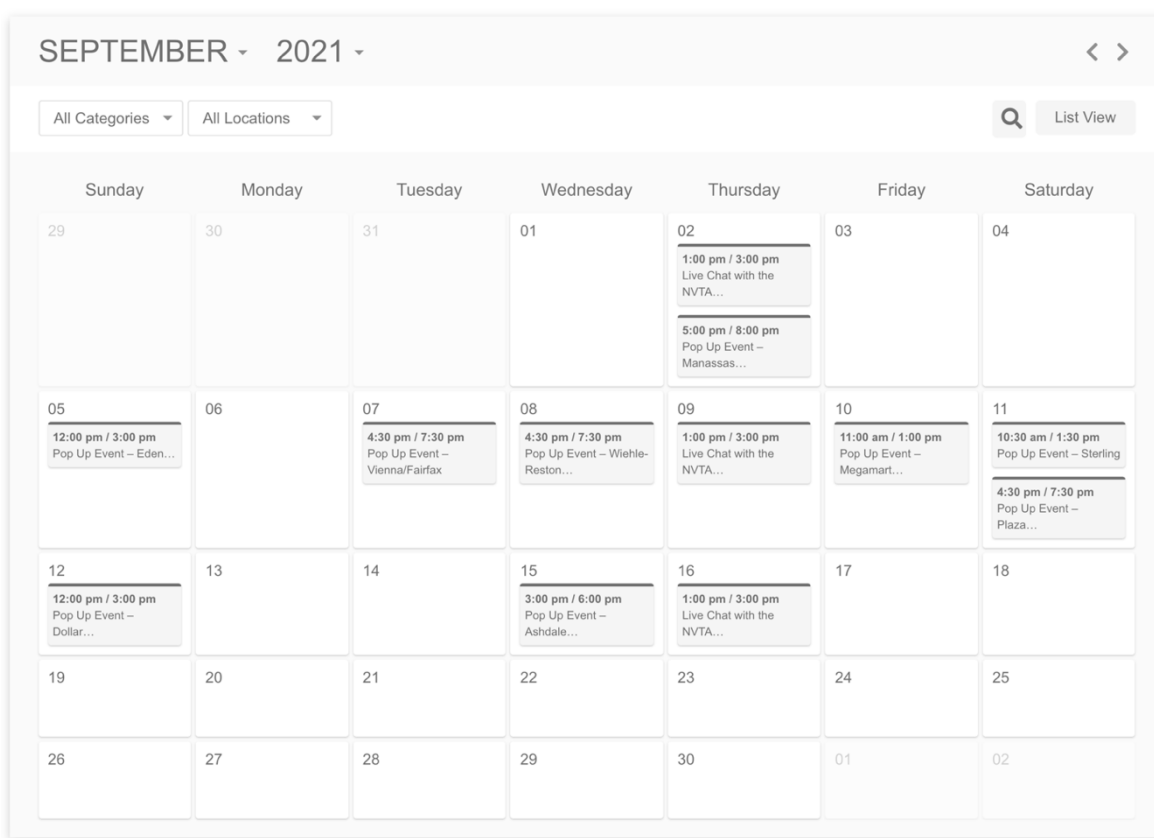
Since developing TransAction depends on public input to prioritize transportation projects to improve travel throughout the region, copy on the Participate page was revised to convey key messaging about the many public engagement opportunities available at every stage of the TransAction process, including in-person events listings, live chat events, and open house announcements. The page was redesigned to feature links more prominently allowing users to leave comments, connect on social media, sign up to receive email updates, and directly email the NOVA Authority.

## Contact

The Contact page was redesigned for clarity by moving the interactive form from the bottom to the top of the page and removing design elements not relevant to the page's purpose of gathering meaningful public feedback. Copy was edited to maintain this focus.

## Calendar

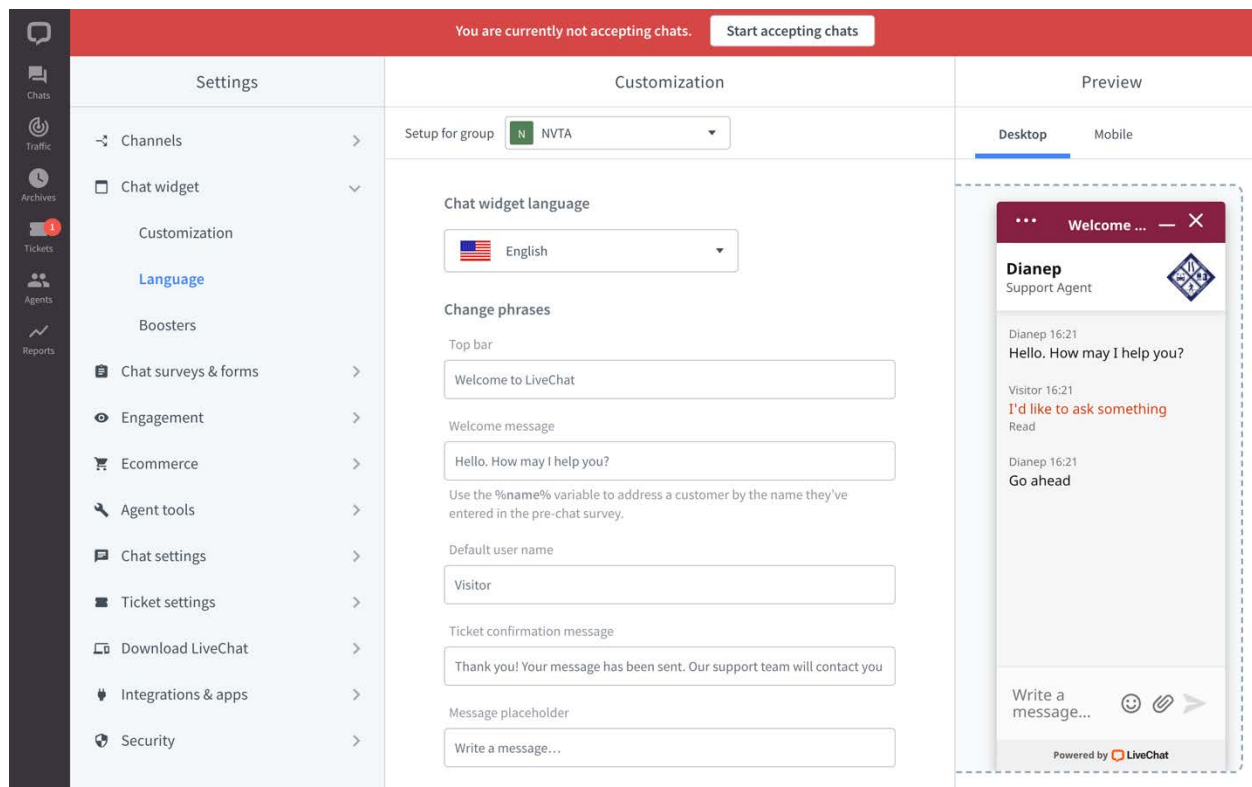
The Project team replaced the nonfunctioning calendar feature on the existing website with new customized calendar software featuring updates listing pop-up and Live Chat events. Visitors were able to click on an event in the calendar and view additional information, including links to Google location maps, information about translators, and instructions on how to participate and use the Live Chat feature. A screenshot of the calendar appears below.



## Live Chat

The Project team set up and branded NVTA's Live Chat feature, a dynamic public engagement tool used to answer questions and solicit feedback from the public. This resource was customized with appropriate messaging built into the chat windows, and configured to allow tickets to be created even during periods when Live Chat was not being staffed by NVTA administrators. The team created a user guide to facilitate NVTA's use of the various features within Live Chat, and also provided a Zoom tutorial available through Web Ex during NVTA's initial Live Chat sessions with the public.

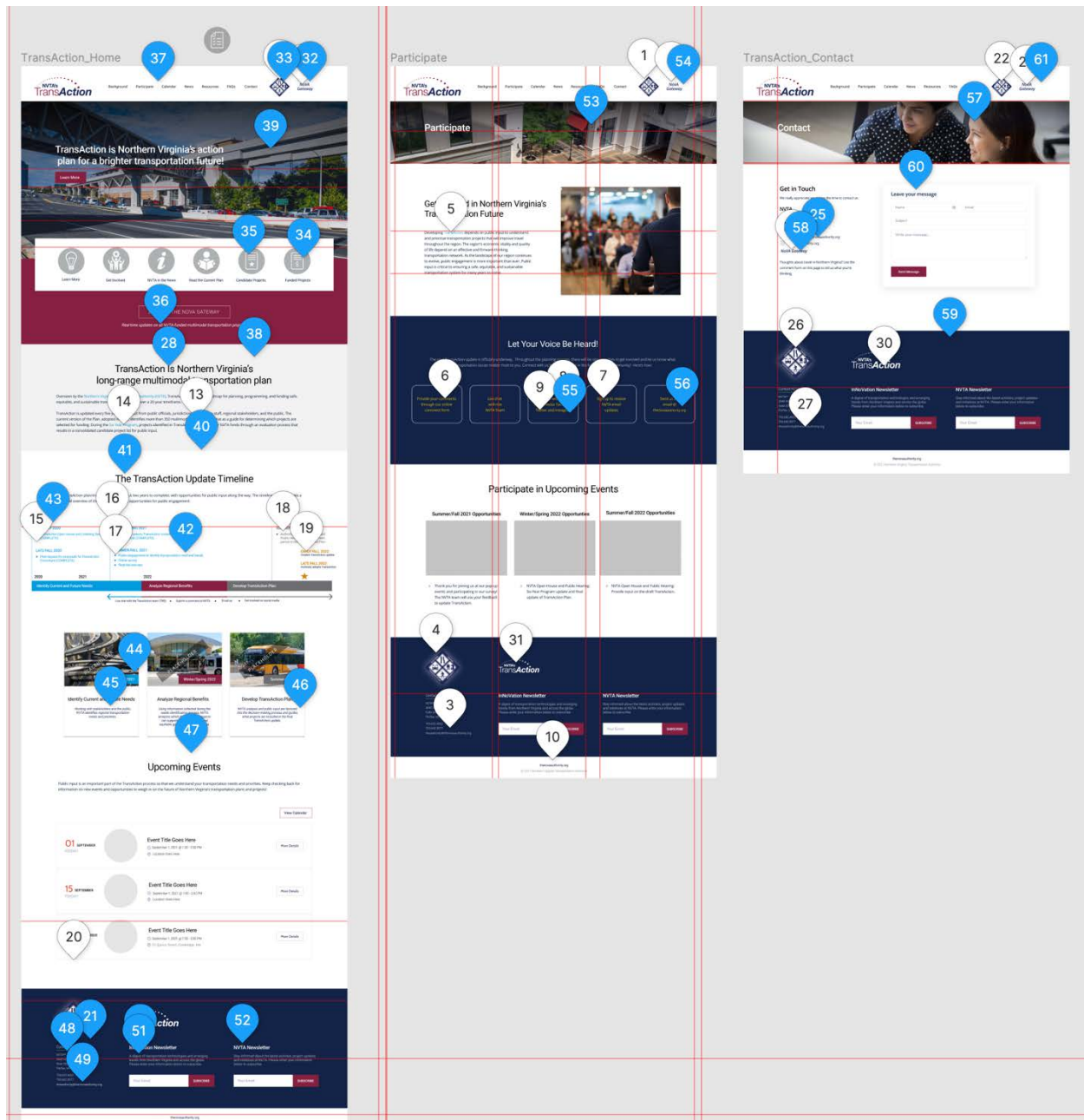
Transcripts of Live Chat sessions can be found in **Appendix D**, and a screenshot of the admin dashboard for Live Chat appears below.





## Collaborative Tools

An important part of public outreach is consistent branding. Throughout the efforts to cobrand the TransAction and NVTa websites, collaborative tools were used that allowed for review and updates of the website throughout the process. A screenshot of one of the collaborative tools appears below:



## 5.0 POP UP SUMMARY

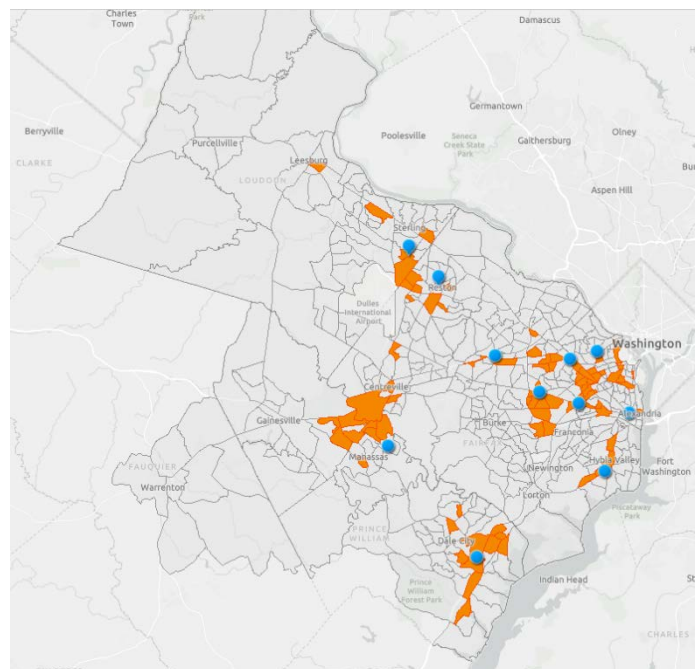
Pop-up events played a crucial role in allowing NVTA to promote the TransAction survey directly to communities throughout Northern Virginia. A total of twelve pop-up events were held. At each event, a team of knowledgeable staff was on hand to provide an opportunity to complete the survey on the spot, distribute flyers containing a link to complete the survey at home, and answer any questions.

**Table 5.1 Pop-Up Events**

Date	Event	Location	Total Interactions
8/25	King St Metro Station	Alexandria	155
8/26	Ballston-MU Metro Station	Arlington	191
8/29	Eden Center	Falls Church	190
9/02	Manassas Park VRE Station	Manassas Park	42
9/05	Eden Center 2	Falls Church	135
9/07	Vienna Metro Station	Fairfax	148
9/08	Wiehle-Reston East Metro Station	Reston	122
9/10	MegaMart Alexandria	Alexandria	68
9/11	Sterling Park Shopping Mall	Sterling	88
9/11	Plaza At Landmark Shopping Center	Alexandria	82
9/12	Annandale Shopping Plaza	Annandale	97
9/15	Ashdale Shopping Center	Dale City	57
	Total		1375

Pop-up events were scheduled to connect with commuters at transit hubs on weekday rush hours, and local residents at shopping centers at daytime and weekend hours.

To connect with individuals likely to be impacted by major transportation projects, all twelve pop-up events were held within or directly adjacent to Equity Emphasis Areas, as identified by the Metropolitan Washington Council of Governments. These areas were developed using Census data to identify communities with significant concentrations of low-income and/or minority populations. Multilingual staff were available across the events to assist completion on the survey in Spanish, Amharic, Korean and Vietnamese.



## Event Materials

The following materials were present at each event

- Two 8' tables with tablecloths
- Two flyer and brochure holders
- Branded Tent (optional – used when covering unavailable at location)
- Four easels
- Four printed information displays boards (24"x36")
- Post it notes, markers, stickers for activities on information display boards
- Hand sanitizing station for staff and public
- Three tablets and chargers
- Branded NVTa banner
- Email sign-up form
- Giveaway Items
  - Postcards Handout (English, Spanish, Korean)
  - Hand Sanitizer (Small Bottles)
  - Hand Sanitizer (Spray Pens)
  - Sunglasses
  - Children's Activity (Consisting of printed maze and box of crayons)
  - Tech Set (Consisting of headphones and charger cable)

## Staffing

Each event was staffed by 4-6 people, including staff from Sharp & Co, NeoNiche, and NVTa. All staff wore branded TransAction shirts to identify themselves, and were provided personal protective equipment (masks, gloves). Staff informed the public about the survey, distributed handouts encouraging completion of survey at home, and provided an opportunity to complete the survey at the events using tablets. Multilingual staff wore buttons to communicate fluency in non-English languages, and assisted completion of the survey to members of the public in their native language. Additional giveaways were distributed to the public to thank them for participation.

## Pop-up Tee Shirt Design

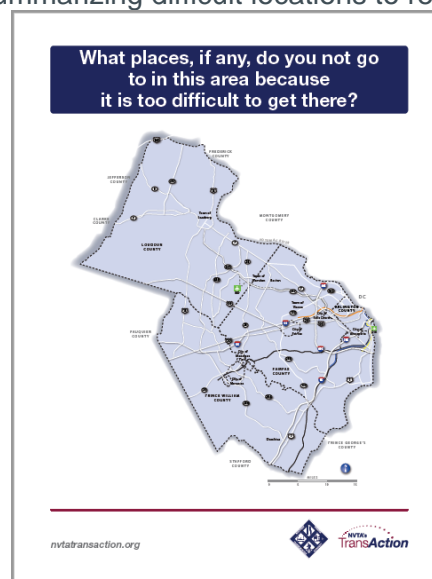


The following display boards were created for the pop-up events, providing the public with large visuals and opportunities for interactions.

Information Board 2  
Provides large, scannable QR codes leading  
to survey links



Activity Board 2  
Request for public to place sticker dots  
summarizing difficult locations to reach



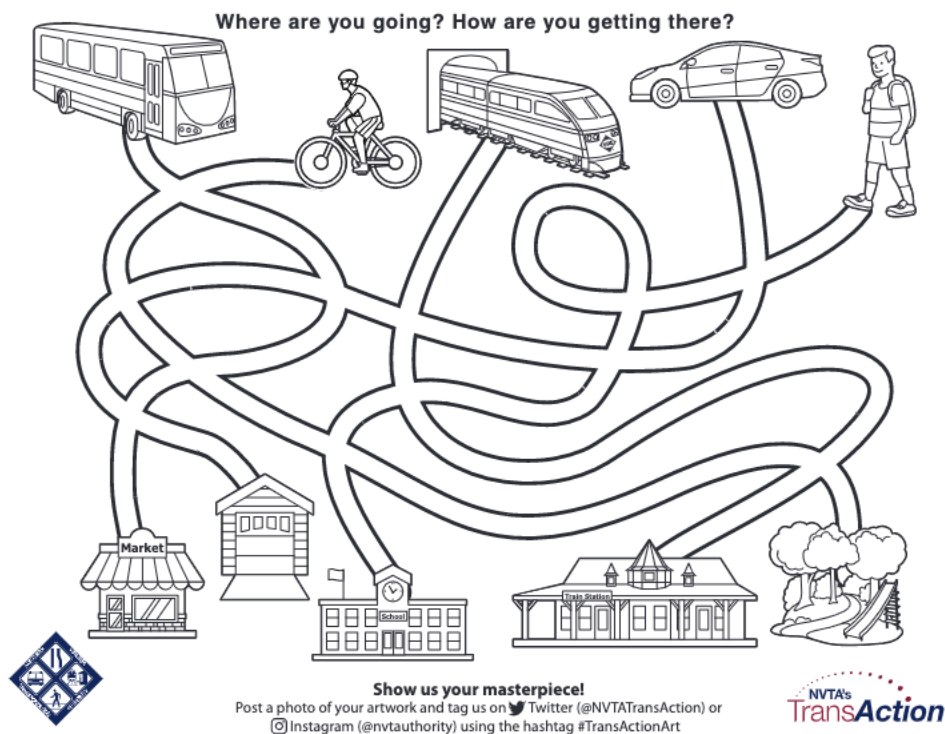
## Giveaways

Giveaways were available at all events and provided an incentive for members of the public to complete the survey at the pop-up event, participate in an interactive activity board, and/or add their contact information to the email sign-in sheet. The following items were distributed at the events.

English Postcard Hangout	Spanish Postcard Hangout	Korean Postcard Hangout	Hand Sanitizer Bottles	Sunglasses	Children's Activity	Hand Sanitizer Pens	Tech Set
1754	171	19	90	199	61	126	288

### Giveaway Examples – Children's Activity

An activity handout was developed to provide entertainment to young children while their guardians completed the survey.





## Giveaway Examples – Postcard Handouts

To encourage participation in the survey, printed “postcard” handouts were created containing a scannable QR code to access the survey at home. The handouts were available with unique links to the survey in English, Spanish, and Korean.

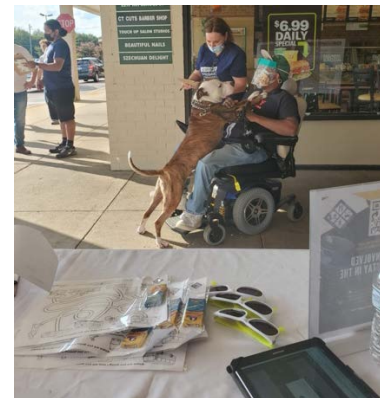




## Pop-up Event Photos

Pop Up Event photos were collected by event staff, including Sharp & Co, NeoNiche, and NVTA. The event photos are collected and available to download at link:

[https://sharpandco.aws-virginia.thirdlight.com/link/2021\\_nvta\\_pop\\_up\\_events](https://sharpandco.aws-virginia.thirdlight.com/link/2021_nvta_pop_up_events)



## 6.0 STAKEHOLDER ENGAGEMENT

Stakeholder engagement is an important component of the overall engagement strategy for TransAction. Stakeholders provide unique perspectives on the needs, opportunities, and priorities for transportation in Northern Virginia. Throughout Phase 1 of TransAction, NVTA notified key stakeholders about the upcoming engagement program.

### 6.1 Ambassador Toolkit

Many of the regional partners and stakeholders helped NVTA spread the word about public engagement opportunities to their respective constituencies throughout all phases of TransAction's development. An ambassador toolkit was developed to share content that could be utilized by stakeholders to help spread the word. As shown in Figure 6.1, the toolkit provided links to the TransAction survey, draft language to include in stakeholder newsletters or email correspondence, and content for social media platforms.

**Figure 6.1 Ambassador Toolkit**

**Here's how you can help spread the word about the TransAction Update:**

We very much appreciate your support and want to make your communications efforts as streamlined and seamless as possible. Here's how you can help spread the word:

- Include a blurb in your **newsletter and/or email correspondence**.
  - We have drafted templated language you can copy and paste into upcoming newsletter and email correspondence. Please feel free to utilize the language for your website as well, if you see fit.
- Use **social media** to share TransAction-related news with your audience. You can do this in one of two ways:
  - Use our sample social media posts to create your own post(s). We have created templated messaging and graphics for use on Facebook, Twitter, Instagram and LinkedIn.
  - Reshare one of NVTA's survey-related posts from its Facebook, Twitter Instagram or LinkedIn accounts. NVTA social media profiles are as follows:
    - [Facebook](#)
    - Twitter: [NVTATransAction](#) and [NVTAuthority](#)
    - [Instagram](#)
    - [LinkedIn](#)
- Use the talking points below to **speak with your community** about the TransAction Update.

Key talking points provided with the ambassador toolkit included:

- It's that time again! The Northern Virginia Transportation Authority (NVTA) is updating its long-range transportation plan for Northern Virginia and wants to hear from you.



- The NVTA is a regional body that is focused on delivering multimodal transportation solutions and value for Northern Virginia's transportation dollars.
- TransAction is a coordinated effort to identify multimodal transportation solutions that will reduce traffic congestion for those traveling through the region and improve quality of life for NoVA residents.
- Between now and September 17<sup>th</sup>, take a brief survey to let NVTA know what issues you experience as you travel throughout NoVA and how you think they should prioritize transportation improvements across the region, as part of its long-range transportation plan update.
- Your feedback is important and will be used to help NVTA understand current transportation needs and how to prioritize investments that will improve travel throughout the region.
- Visit the TransAction website ([www.nvtatransaction.org](http://www.nvtatransaction.org)) for more information on how you can get involved in the TransAction Update.

## 6.2 Stakeholder Meeting

A stakeholder meeting was held on October 26, 2021 to provide an overview of the TransAction Update process, share findings from the public outreach, and to answer stakeholder questions about TransAction. The stakeholder presentation materials are included in Appendix D. Participants in the stakeholder meeting included:

- Active Prince William
- Arlington Chamber of Commerce
- Audubon Naturalist Society
- Bike Arlington
- Coalition for Smarter Growth
- Columbia Pike Revitalization Organization (CPRO)
- Fairfax Alliance for Better Bicycling
- Greater Washington Board of Trade
- National Landing Business Improvement District
- Northern Virginia Transportation Alliance
- Prince William Chamber of Commerce
- Prince William Conservation Alliance
- Sustainable Mobility for Arlington County
- Transportation Association of Greater Springfield (TAGS)
- Virginia Sierra Club
- Washington Area Bicyclist Association



## 7.0 MEDIA SUMMARY

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Social and digital media were a key focus for positioning NVTA TransAction digitally, while also optimally promoting the TransAction survey to Northern Virginia residents. A key goal of the social and digital media campaign was reaching underserved populations within Equity Emphasis Areas. To address this demographic objective, all posts and campaigns ran in multiple languages, including English, Spanish, and Korean, while audiences were targeted specifically to reach a variety of communities where there could be an economic or language barrier.

### **Paid Social Media**

The paid social media campaign focused on promoting the survey through geotargeted paid social media campaigns within Northern Virginia. Facebook, Instagram, and Twitter were the platforms utilized. All motion graphics and ad copy were translated into Spanish and Korean to ensure delivery to residents with a language barrier. The ads connected audiences with the TransAction survey translated in the corresponding language. A total of \$4,500 was spent across three campaigns, generating 275,117 impressions and 2,554 clicks to the survey links. Age and gender were distributed across campaigns with higher engagement with women ages 35-55. Running these campaigns in Spanish and Korean was the most critical piece to ensure engagement with communities that English was not a first language. It was clear from the ad sets that engagement with those communities was strong due to a variety of comments in the respective languages. Click-through rate (CTR) hovered around 1 percent, industry standard is 0.8% CTR. Cost per result was under \$2.00 on average, meaning it cost about \$2 every time a user clicked through to the survey, industry standard for a traffic campaign is \$5.00, painting the picture a very solid campaign with above average results.

### **Organic Social Media**

All social media posts on NVTA/TransAction-owned channels played a role in organically promoting NVTA and the TransAction survey. Platforms, including Facebook, Instagram, Twitter, and LinkedIn, were all used to share updates and information, including both existing NVTA channels and new channels created for TransAction. Across all platforms, 195 posts and 145,814 impressions were made, generating 351 clicks to the survey. The organic posts resulted in growth of 290 additional followers across all channels. The organic impact was complemented by the paid social media campaigns, which shared complimentary creative content. Instagram posts for the newly created account @nvtauthority were done in timeline and story format. The account also utilized a TransAction specific highlight feature, allowing users to reference Transaction specific posts anytime in the future. Hashtags, geotags, and compelling copy were used to increase followers and retain engagement. A variety of relevant accounts were also followed and tagged which helped grow the platform by 60 percent, increasing followers from 23 to 57. To improve audience accessibility, Instagram posts ran with alt text to reach individuals with vision compromised deficiencies.

## Digital Media

A digital media campaign was run using geofencing technology to create a virtual pop-up effect due to constraints of in-person events during the pandemic. Each segment of the geofencing campaign took place in a different Equity Emphasis Area that focused on different languages within those communities. Ads ran in English, Spanish, and Korean and all linked to the survey in corresponding languages. Budget was set at \$4,000, generating 308,417 impressions. Click-through rate overall was at 0.06 percent which, while lower than paid social media campaign. In general, geofenced ads typically have a lower CTR due to the nature of the campaign optimization. That said, this CTR remains above market rate for in-app advertising of 0.02% CTR. Overall, 198 clicks to the survey were made.

The campaign had particular popularity with non-English domains, including popular Korean language website **allkpop.com** and Spanish language website **primeraahora.com**. The most popular English language domains included **wtop.com** and **apnews.com**. This campaign successfully reached populations within Equity Emphasis areas as the highest engagement levels were in Dale City and Fairfax (ZIP codes 22193 and 22031). Inclusion of this type of digital media helped reach residents that may have been difficult to reach on typical social channels and should continue to be incorporated as a way to reach Equity Emphasis Areas.

## 7.1 Paid Social Media Summary

### Twitter

Total Promoted Posts: 1

### Facebook/Instagram

Total Paid Media Posts: 6

### Ad Placements

Facebook

14 placements each

- Facebook Mobile News Feed
- Facebook Desktop News Feed
- Facebook Instant Articles
- Facebook In Stream Video (Mobile)
- Facebook In Stream Banner (Mobile)
- Facebook Video Feeds (Watch-Mobile)
- Facebook Video Feeds (Mobile)
- Facebook Video Feeds (Watch-Home)
- Facebook Mobile Marketplace Feed
- Facebook Desktop Marketplace Feed
- Facebook Desktop Marketplace Details Page
- Facebook Stories
- Facebook Marketplace Search Results (Mobile)
- Facebook Messenger Stories



Instagram	4 placements <ul style="list-style-type: none"> <li>Instagram Feed</li> <li>Instagram Stories</li> <li>Instagram Explore Feed</li> <li>Instagram Explore Video</li> </ul>
Audience Network	6 placements <ul style="list-style-type: none"> <li>Audience Network Interstitial</li> <li>Audience Network Native</li> <li>Audience Network Medium – Rectangle</li> <li>Audience Network Rewarded Video</li> <li>General Search Results (Mobile)</li> <li>General Search Results (Desktop)</li> </ul>

**Table 7.1      Twitter: Promoted Tweets**

	Tweet
	"Do you bike, walk, ride or drive?"
Impressions <i>Number of times tweet was displayed</i>	20,671
Engagements <i>Total times people interacted with tweet</i>	42
Link Clicks	44
Budget Allocated	\$500
Runtime	9/1/21 – 9/6/21

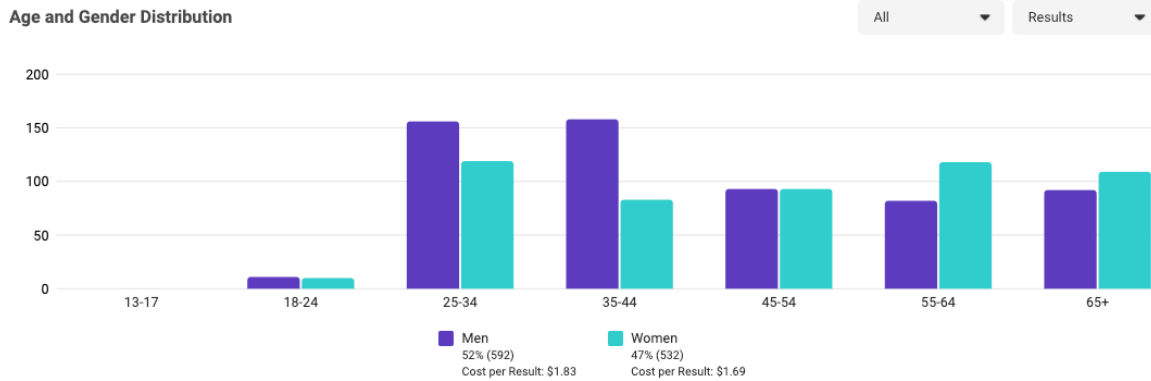


**Table 7.2 Facebook/Instagram: English Ad Set**

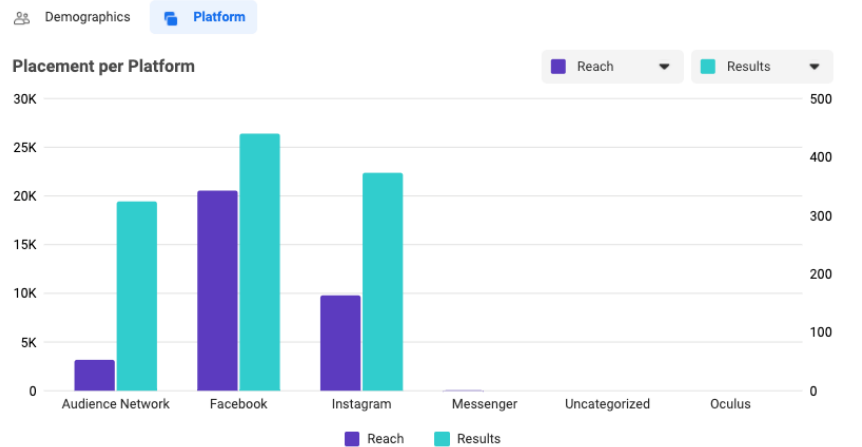
	English Ad #1	English Ad #2	Total
	"Provide Input"	"Live Work Play"	
Ad Set Budget			\$2,000.00
Results (Link Clicks)	655	482	1,137
Reach	22057	19057	30,530
Impressions	78050	53572	131,622
Cost per Results	\$1.85	\$1.64	\$1.76
Amount Spent (USD)	\$1,211.30	\$788.70	\$2,000.00
Amount Spent (% of Budget)	60.57%	39.44%	100%
Frequency	3.54	2.81	4.31
Unique Link Clicks	581	433	979
3-Second Video Plays	12757	12784	25,541
Video Average Play Time	0:03	0:03	0:03

Cumulative Demographics:

Distribution of Results (Link Clicks) by Gender

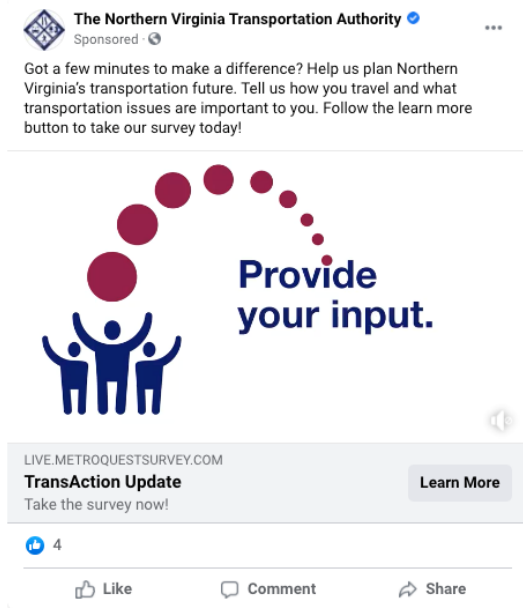


Distribution of Reach and Results (Link Clicks) by Platform

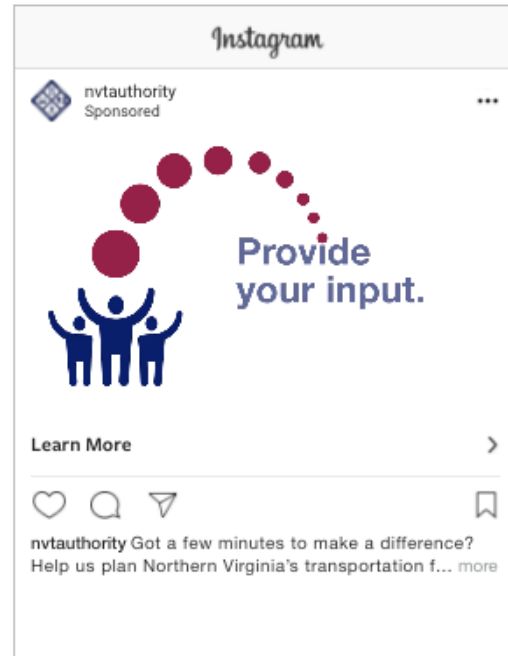


Facebook/Instagram: English Ad Set

Ad 1

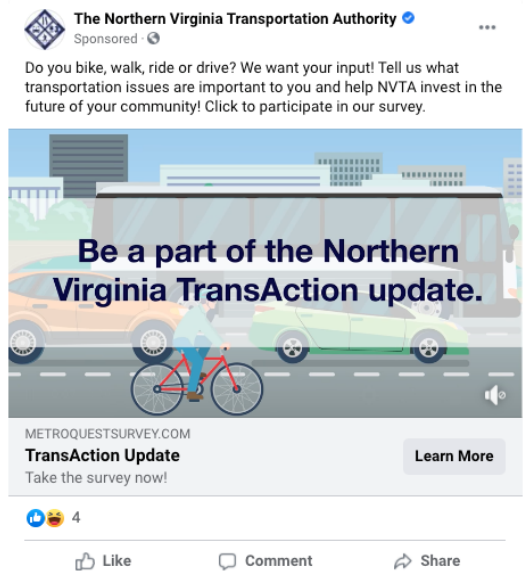


Facebook Feed



Instagram Feed

Ad 2



Facebook Feed



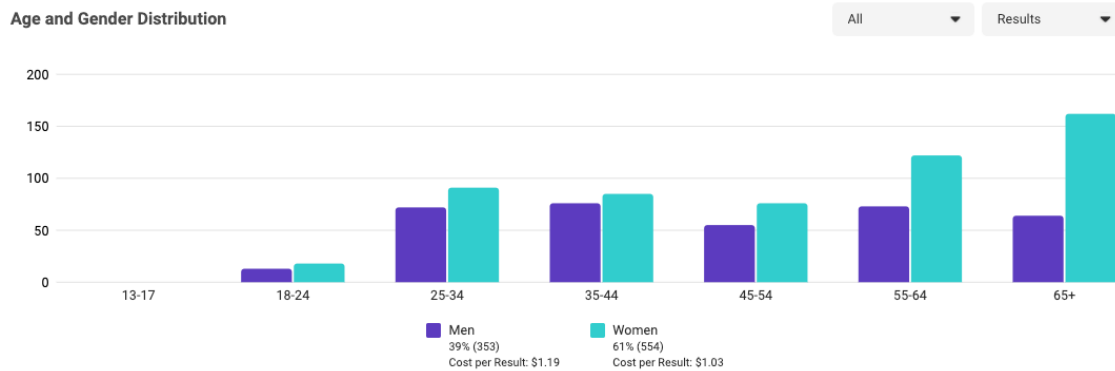
Instagram Feed

**Table 7.3 Facebook/Instagram: Spanish Ad Set**

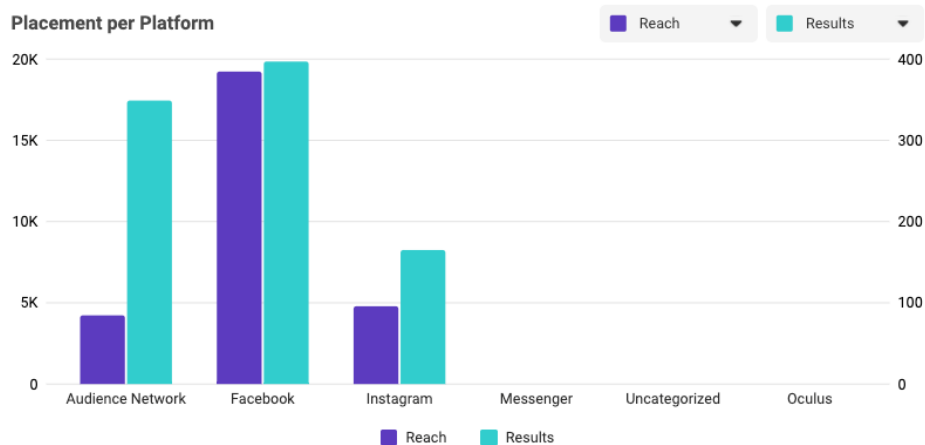
	Spanish Ad #1	Spanish Ad #2	Total
	"Provide Input"	"Live Work Play"	
Ad Set Budget			\$1,000.00
Results (Link Clicks)	608	303	911
Reach	15093	16991	27,390
Impressions	30264	40077	70,341
Cost per Results	\$1.01	\$1.27	\$1.10
Amount Spent (USD)	\$615.26	\$384.74	\$1,000.00
Amount Spent (% of Budget)	61.53%	38.47%	100%
Frequency	2.01	2.36	2.57
Unique Link Clicks	516	276	783
3-Second Video Plays	13695	8666	22,361
Video Average Play Time	0:07	0:03	0:05

Cumulative Demographics:

Distribution of Results (Link Clicks) by Gender



Distribution of Reach and Results (Link Clicks) by Platform



\* You may see low delivery of ads to the Facebook Stories placement until it's available to everyone who uses Facebook Stories. A more accurate metric is cost per result.



## Facebook/Instagram: Spanish Ad Set

### Ad 1

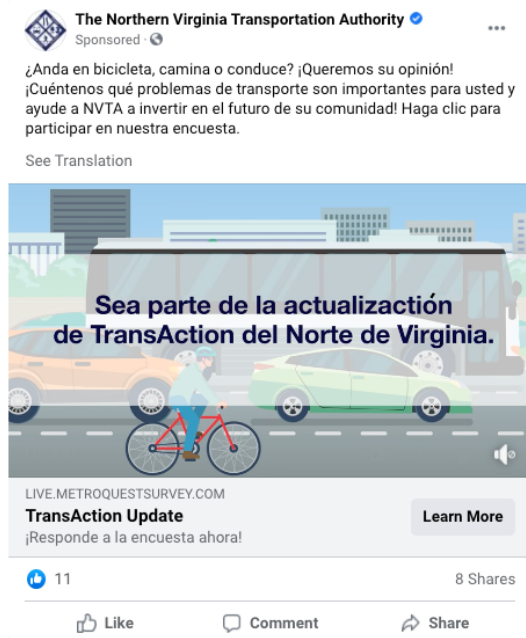


Facebook Feed

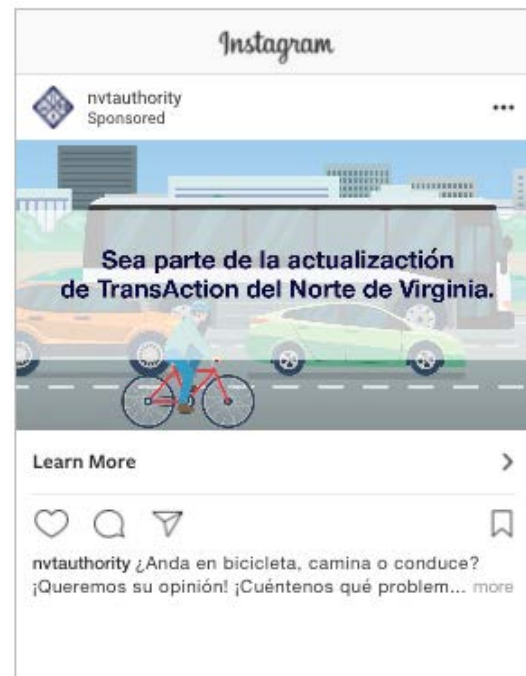


Instagram Feed

### Ad 2



Facebook Feed



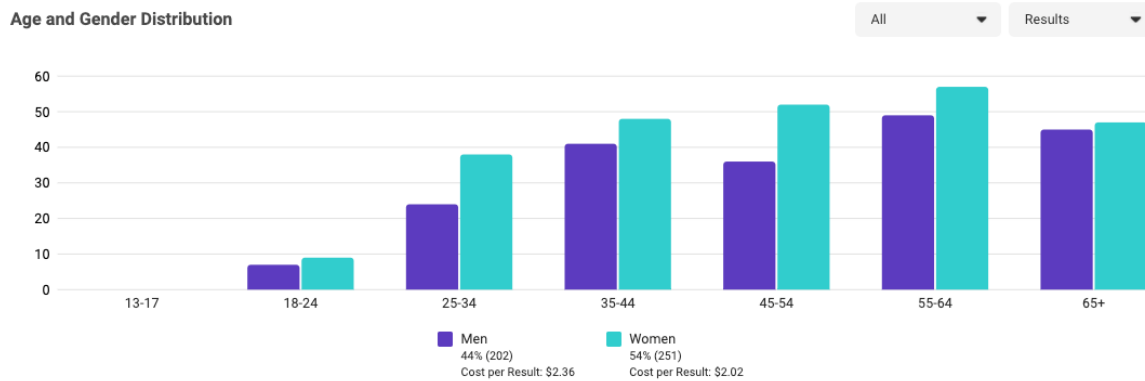
Instagram Feed

**Table 7.4 Facebook/Instagram: Korean Ad Set**

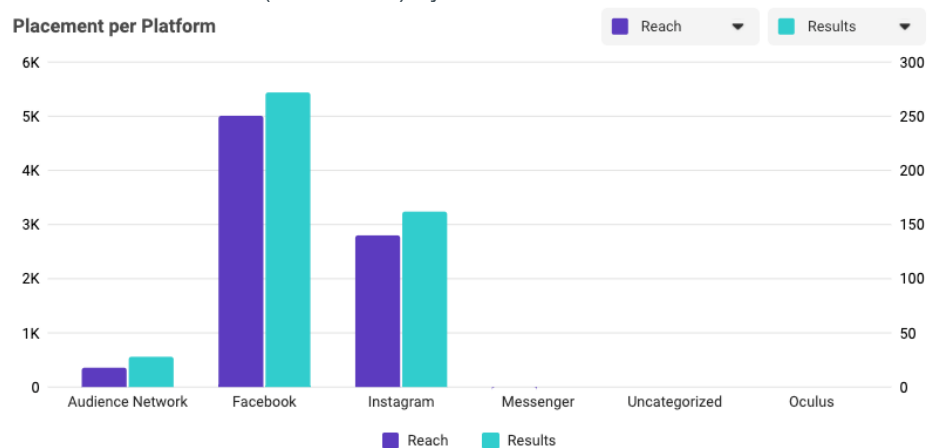
	Korean Ad #1	Korean Ad #2	Total
	"Provide Input"	"Live Work Play"	
Ad Set Budget			\$1,000.00
Results (Link Clicks)	302	160	462
Reach	6167	4476	6,994
Impressions	33692	18791	52,483
Cost per Results	\$2.16	\$2.18	\$2.16
Amount Spent (USD)	\$651.56	\$348.44	\$1,000.00
Amount Spent (% of Budget)	65.16%	34.84%	100%
Frequency	5.46	4.20	7.50
Unique Link Clicks	266	130	377
3-Second Video Plays	7073	4456	11,529
Video Average Play Time	0:03	0:03	0:03

Cumulative Demographics:

Distribution of Results (Link Clicks) by Gender



Distribution of Reach and Results (Link Clicks) by Platform



\* You may see low delivery of ads to the Facebook Stories placement until it's available to everyone who uses Facebook Stories. A more accurate metric is cost per result.

## Facebook/Instagram: Korean Ad Set

### Ad 1

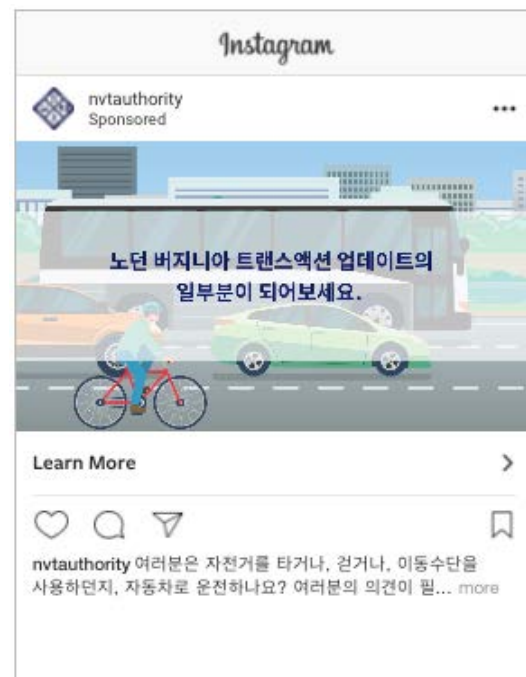


Facebook Feed



Instagram Feed

### Ad 2



## 7.2 Organic Social Media Summary

**Figure 7.1 Organic Social Media Summary**

Channel	Twitter	Twitter	Facebook	Instagram	LinkedIn
Account	@NVTATransaction	@NVTAAuthority	TheNVTA	nvtauthority	Northern Virginia Transportation Authority
Total Posts <i>Posts from Report Dates</i>	16	112	46	10	11
Impressions <i>Number of times organic media posts were displayed on feeds</i>	7,895	130,214	-	357	1,426
Reach <i>Number of unique viewers of posts</i>	-	-	5,922	286	-
Clicks <i>Number of clicks on links in organic posts</i>	60	163	128	-	-
Follower Growth <i>Cumulative growth of page audience</i>	+8	+71	+167	+34	+10
Follower Count <i>Final follower count</i>	229	1,404	1,206	57	315

Accounts: NVTA Facebook, NVTA Instagram, NVTA Twitter, TA Twitter, NVTA LinkedIn

## 8.0 APPENDIX A: FOCUS GROUPS

NVTA commissioned the project research team, led by WBA Research, to recruit, conduct, and analyze eight online discussion groups, examining current and future transportation needs in Northern Virginia. This qualitative research provide specific insight into perceptions, needs, and priorities for residents of the region. The focus group results also helped shape the design and content of the online TransAction survey. From July 20<sup>th</sup> 2021 through July 29<sup>th</sup> of 2021, The research team conducted discussion groups and in-depth interviews among residents of Northern Virginia. What follows are the results of this research.

### 8.1 Methodology

A total of eight online discussion groups were held on Wednesday July 21<sup>st</sup>, Thursday July 22<sup>nd</sup>, Wednesday July 28<sup>th</sup>, and Thursday, July 29<sup>th</sup>. 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.

Responses to the screening questions were used to place participants into one of four segments (see below). They were invited to the group discussion that fit their segment (with two group discussions available for each segment) as well as being invited to join the HatchTank Bulletin Board asynchronous activities the day prior to their group discussion.

From this point, The Research Team chose 120 participants total (15 participants per group). Participants were chosen to provide a mix of demographics, transit access, and location of residence (see Demographic Profile). Riders were defined further as either part of a Title VI population or part of the general population. As previously mentioned, this resulted in participants being divided into four segments:

- Transit Access: Those residing in Arlington County, City of Alexandria, or within one mile of a Metro station in Fairfax County
- Non-Transit Access: Those who **do not** reside in Arlington County, City of Alexandria, or within one mile of a Metro station in Fairfax County
- Title VI Population: Those who belong to a Title VI protected group
- General Population: Whose who do not belong to a Title VI protected group. Note that after the initial Title VI discussion groups were recruited, any further Title VI participants participated as part of the general population groups, to ensure a mix of demographics in the general population groups.

**Figure 8.1     Segmentation of Groups**

	Transit Access	Non-Transit Access
Title VI	12	11
General Population	36	36
<b>Total</b>	<b>48</b>	<b>47</b>

The day prior to their scheduled group session/interview, discussion activities were made available to participants, having them use the HatchTank online platform to complete “assignments.” The following day, The Research Team hosted online discussion groups, moderated by Strategic Research Associates (SRA). There were eight discussion groups in total over two weeks.

**Figure 8.2. Schedule of Groups**

Group	Participants	Assigned Discussion Group Time
General Population Non-Transit Access	11	July 21 <sup>st</sup> at 5:30 PM
Title VI Non-Transit Access	11	July 21 <sup>st</sup> at 7:30 PM
Title VI Transit Access	12	July 22 <sup>nd</sup> at 5:30 PM
General Population Transit Access	12	July 22 <sup>nd</sup> at 7:30 PM
General Population Transit Access	11	July 28 <sup>th</sup> at 5:30 PM
General Population Non-Transit Access	13	July 28 <sup>th</sup> at 7:30 PM
General Population Non-Transit Access	12	July 29 <sup>th</sup> at 5:30 PM
General Population Transit Access	13	July 29 <sup>th</sup> at 7:30 PM
<b>Total</b>	<b>95</b>	

## 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.

*Please note that the number of respondents answering a certain way has been cited in various instances only for the purpose of adding perspective to a statement, NOT for the purpose of quantitative analysis.*



## 8.2 Key Findings

### 8.2.1 Current Status of Commute

Participants overwhelmingly opt to use their personal car to travel both to and from work (when commuting) and to travel for discretionary purposes in the region. Metrorail is used by a few to get to work, or they used to use it to get to work prior to the pandemic. In general however, participants expressed that they use Metrorail occasionally to travel into DC for discretionary trips, particularly on weekends, though that has become less doable as Metro hours have been reduced. There was very limited use, or even more than vague awareness, of other public transit options available in Northern Virginia.

Single occupancy vehicles (SOV) are chosen specifically for their reliability and flexibility. **Reliability is king**, and most do not see other transportation options to be reliable, even if they live close to a station. That being said, they are sympathetic to using public transportation because of the sheer magnitude of congestion in the region. Other transportation options are seen as having yet to match the reliability of their vehicles, and until then they will opt to use their own cars. People do not feel that they control their journey when riding transit.

Those with transit access, specifically those in the Title VI Transit Access groups, pointed out that it is generally **more difficult to live close to a Metro station**, as the housing prices are unaffordable due to their adjacency to transit. Moreover, the stations are not always accessible.

Those without transit access explained that **they would be more willing to use public transportation if they understood it better**, emphasizing the need for communications that can bring those who are not familiar with bus and train systems into the fold. Similarly, they would prefer more available parking at or near Metro Stations to allow them to drive to transit.

Those who are currently telecommuting generally expect that they will continue telecommuting in the future at a minimum of a hybrid schedule. Some pointed out that they would be more inclined to use other modes of transportation if they were only commuting two or three days a week.

### 8.2.2 Location-Specific Transportation Issues

Those with transit access were more likely to point to the Arlington area while both transit access groups and non-transit access groups pointed to the bottleneck of I-95 in Woodbridge and the length of Route 66 in the area as being specific problem areas.



### 8.2.3 Core Values

#### Equity

Overall, participants identified “Equity” as relating to fairness. That is, a **transportation system that serves everyone fairly**, whether that was on highways, via HOV lanes, or by bus or train. They feel that Northern Virginia has some work to do to address equity, as it currently feels to many that decisions are made to prioritize wealthier areas in the region. Note that this observation was made in both General Population and Title VI groups.



Similarly, access to multiple different transportation options is another key tenet of equity. They felt that **not everyone has the same options available to them**, and they specifically called out accessibility for those with mobility issues as being important.

On how to improve equity in the region, many pointed out that equity can be improved not just by expanding transit access to new areas, but also by making the current transit accessible areas more affordable.

Furthermore, **equity of information plays an important role** by providing the resources for all different types of people to access different modes of transportation. This includes providing translations and services to people who speak a host of different languages, as there are currently often not enough translations available compared to the diversity of the region.

#### Sustainability

**Sustainability, for nearly all respondents, first brought to mind thoughts of maintenance and infrastructure that is built to last.** Importantly, the environment and climate change did not appear to be top-of-mind. Most participants identified sustainability as it related to having sustainable infrastructure, that is, infrastructure that requires less maintenance and withstands the test of time.



Those who did mention the environment see sustainability as inevitably linked with building and maintaining infrastructure, as in, preparing the roads for electric vehicles so that people can make the sustainable choice.

This leads to a key point about transportation choice: **considerations such as responsibility to the environment are nearly always trumped by the importance of their commute.** To be able to change modes or make a sustainable choice, NVTa needs to work to make that sustainable choice work for people. Currently, they don't see classically sustainable choices (such as electric vehicles or using transit) as easy or reliable, meaning that sustainability still comes second to just getting themselves where they need to go.

### Safety

Across groups, safety was broken into two components: **safety from crime and safety from accidents**. Women were more likely to point out that safety to them involves security while riding public transit, bringing to mind more security guards and better lighting at Metro stations.

Safety from accidents was also important to many, regardless of gender, as they feel that NVTA should **encourage safe driving practices and also work to provide things like safer bike lanes, proper maintenance of roads and bridges, and more crosswalks and sidewalks to promote pedestrian safety**. However, before thinking about safety as it relates to vehicle accidents, they first brought up safety from public transit accidents. Specifically they mentioned recent WMATA accidents as being top-of-mind.



### Feedback on NVTA Core Value Definitions

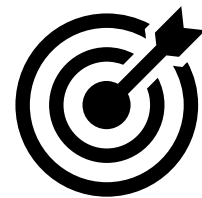
The single most important takeaway from the Core Values definitions is that, while participants generally agree with each of these core values and their definitions, they feel the core values are useless without real, tangible actions taken towards each of them. **For these Core Values to be meaningful, NVTA must “Prove it.”**

They want to see more “meat on the bones” of the definitions and similarly want to see them in action. It will be important for NVTA to be **explicit about how future plans and improvements address each core value specifically**, tying them to actual improvements being made. Similarly, laying out separate overarching, long term plans for each core value and communicating these directly to the public is vital for the public to feel that NVTA truly is pursuing these values.

Importantly, some participants felt that **Northern Virginia is currently falling short of some of these core values**. Specifically for Equity, some point out that it feels that higher income areas receive greater returns from the transportation system, and unfortunately that is not equitable. So, again, they feel that if NVTA wants to truly be equitable, they must “prove it” by working to fix some of these already inequitable situations.

## *8.2.4 Objectives for the Region*

Participants from areas with transit access were less likely to see expanding transit as a high priority objective while those who live in areas without transit access were more likely to see expansion of transportation choices as a high priority. **For NVTA, this means that efforts to expand transportation choices should primarily be focused outside of the immediate areas surrounding Metro Stations, as there is an appetite for expanded transit choices in other areas as well.**



Overall, the highest priorities across groups were to reduce congestion and delay. Many participants pointed out that working on the other objectives they were presented with would all lead into reducing congestion and delay, and that this should be the ultimate end goal of all efforts to improve transportation in the region.

## *8.2.5 Improvements for the Region*

“Build new roads or widen roads” was chosen by the vast majority of participants as a high priority for the region. However, there was also a vocal minority of participants who pointed out that over the years, building new roads or widening roads has not seemed to help the traffic situation in Northern Virginia.

When thinking about long-term improvements **many initially rated “Get roads ready for automated vehicles” as a low priority, they also pointed out that it should be a priority for the future (10 to 20 years into the future at least).** In the same vein, many pointed out that having infrastructure for electric vehicles will be important moving forward as well for the long term benefit of Northern Virginia.

Some General Population, Non-Transit Access participants specifically brought up questions about automated vehicles and their equitability. Some key questions included:

- Will these vehicles be expensive?
- Who will have them?
- Will they actually be equitable?

A few identified that, while they may not improve equity they may improve safety, creating a tradeoff between two of the Core Values.

### *8.2.6 Emerging Transportation Options*

Only a handful of participants currently own electric vehicles; however, most are open to the idea of owning one in the future. In many people's eyes, the major drawbacks to owning an electric vehicle include the car's range and availability of charging stations (i.e., range anxiety), the lack of infrastructure in their homes, and concerns about using clean or dirty energy to charge their cars. To this last point **communication efforts should be made to show residents of Northern Virginia where exactly their energy comes from.**

However, people also see the benefits, namely that electric vehicles are practically free to drive (not factoring in maintenance), and that they come with climate and environmental benefits.

Most people have used rideshare services, such as Uber or Lyft, in the past. Many are using delivery services such as UberEats, DoorDash, or InstaCart, and expect to continue doing so even after the pandemic ends.

## 8.3 Detailed Findings

### *8.3.1 Current Status of Commute*

To frame much of the discussion of transportation in Northern Virginia, participants identified the current status of their commute, that is:

- Are they currently commuting to work every day or are they teleworking?
- Are they working a hybrid schedule, where they commute on some days and telework on others?
- What modes do they currently primarily use to commute to work?
- How is this different from how they commuted before the COVID-19 pandemic? How will there commute be different as they move on to their “new normal?”



## Commute Spectrum

**Table 7.1 Title VI Commuting Status**

Title VI	Transit Access	Non-Transit Access
Commute	4 (33%)	8 (73%)
Hybrid	0 (0%)	1 (9%)
Telecommute	6 (50%)	1 (9%)
Retired/Student/Other	2 (17%)	1 (9%)
<b>Total</b>	<b>12</b>	<b>11</b>

**Table 7.2 General Population Commuting Status**

General Population	Transit Access	Non-Transit Access
Commute	11 (32%)	12 (34%)
Hybrid	0 (0%)	5 (14%)
Telecommute	18 (53%)	13 (37%)
Retired/Student/Other	5 (15%)	5 (14%)
<b>Total</b>	<b>34</b>	<b>35</b>

*Note that totals may not add up to the total in each group, as some participants did not answer or logged in late.*

Among those with transit access, about half are currently telecommuting and about one-third are currently commuting to work, with the balance not working (i.e., unemployed, retired, etc.). Notably, among those without transit access, current commutation differs between Title VI and General Population groups. The majority of those in Title VI groups are currently commuting, while this only makes up about one-third of the General Population, Non-Transit Access group.

## Single Occupancy Vehicles and their Drawbacks

Participants overwhelmingly opt to use their personal car to travel both to and from work (when commuting) and to travel for discretionary purposes in the region. In each group, only a handful participants indicated they use a mode other than their personal vehicle to travel within the region.

This is also the case for those who live in areas with higher transit access, though not to as extreme of a degree as for those in areas farther from public transportation. Notably, many use Metrorail to travel into the District for either work (for those who work in the District) or for leisure (to attend sporting events or other activities). However, Metro is rarely used for traveling within the Northern Virginia region. This leads to limited discussion of transit modes beyond Metrorail, as they are rarely used, even by people who are regular users of public transportation – i.e., many “regular users of public transportation” in Northern Virginia are simply Metrorail users and not users of all of the available public transit options.

*“I use my car everywhere except when I go into DC. Then I use, of course, the Metro system. But as far as getting around Virginia, I use my car.”*

-General Population, Non-Transit Access

Those who primarily use their car to commute cited a few key reasons for their decision to do so, while also pointing out the very salient drawbacks of being relegated to traveling by single-occupancy vehicle (SOV) constantly.

First, they cite the flexibility their car offers, not only are they able to leave for work exactly when they need to (they do not have to make it to a certain train or bus), but they are also able to run errands, get lunch, or pick their children up in an emergency while they are at work. **Flexibility and control are the key perceived advantage to using a car.** Many further explained that if they take a bus or train to work, they feel they are at the mercy of the transit system to get them home, feeling that they are not in control.

*“Main mode of transportation is by my own personal vehicle and then I will do Metro every once in a while, and that’s if I want to go into DC and I just do not want to fight that traffic.”*

-General Population, Non-Transit Access

For others, they feel it is just too inefficient for them to use transit to commute. A participant who lives in an area with transit access noted that while technically they could take transit to their work, which is located right near a Metro station, driving is only a 5 to 10 minute endeavor making it a no-brainer decision to drive.

For many, the flexibility and control that they have when using their personal vehicles are great benefits, but the benefits end there. Further, they are sympathetic to using public transportation or other alternate modes to get to work as they dislike the congestion and resulting extended commute times that permeate throughout the region. Across groups, participants pointed out that the congestion and delay has a negative impact on their mental health, putting people into “sour moods” and “stressing them out.” Specifically, one person cited how they used to take Metro to work in the past, they found that their mood was better and they felt less stressed, particularly by the time they came home from work every day.

*“And believe me, when I came home after driving at 5:00 o’clock in the middle of rush hour, they always told me that I was a completely different person when I was driving, compared to the guy who started using train/Metro... If you have the means of transportation to use Metro, believe me takes [off] a little bit of the stress.”*

-Title VI, Non-Transit Access

## Metro/Transit and their Drawbacks

Metro is seen as a good option for transit for a handful of participants. As one would expect, **this is more true for those who live in transit accessible areas than those who do not.** First, for those who work in DC, parking can be too expensive to allow driving into the District. Or in that same vein, some work at locations where parking is not offered at all. For them, Metro is the most logical choice, with only a very small handful indicating that they would occasionally use a TNC like Uber or Lyft to travel to work. Further, one participant pointed out that their employer provides them with a check to use the Metro. To them, this is free money, so why not use it instead of paying for gas and/or parking?

For those who live outside of a transit-accessable area, the convenience of Metro is an issue. Getting to a Metro station requires them still to drive and park, which encompasses many of the same headaches of driving in the region, plus the added issue of finding and paying for parking once at the station. For some, at that point they would rather drive the whole way to their destination. Similarly, for those who may be



able to take a bus to a Metro or VRE station, they still have some reservations about transferring and the way that it complicates their trips.

Furthermore, they point out that they don't like the frequency of the trains, often with a half hour wait between trains and the trains often not coming on time or at all. **Again they do not feel in control of their journey, and would rather use a car.**

Finally, there is some continued hesitancy among participants to utilize Metro or other public transit as the pandemic lingers. A few felt that the rules for mask wearing onboard public transit are not clear or enforced, with even bus drivers not wearing a mask properly. It will take some restoring of their confidence before they treat public transit as a viable option for travel in the region.

All of this being said, there are a number of key points that participants made that specifically speak to what they see as barriers to using other modes and how NVTA could incentivize them to leave their cars at home.

For those in the Non-Transit Access segment:

- A lack of understanding about the transit system, transferring, and getting to their end destination using transit only can be a major barrier for many, among both those that live near a Metro station and those that live in non-transit accessible areas. **Communications that explain the transit system in a way that is understandable for those who have limited to no experience with how a bus system or the Metro system works would go a long way.** Note that having this information available in multiple languages is vital as participants pointed out that Northern Virginia is diverse and would be disserved by having this information only in English.

*"I didn't grow up on public transportation, I lived in the suburbs... If I knew, maybe more about bus stops and public transportation that could get me to where I wanted to go traditionally, then I might be more inclined to do it."*

-General Population, Non-Transit Access

- Parking at Metro stations is an issue. **More available and affordable parking adjacent to or at Metro stations would be helpful for those who need to drive first to the Metro to be able to use it.**
- Work schedules will also play a big part going forward in commuters openness to using Metro. Participants agreed that, if they are only commuting to work once or twice a week, they may be more likely to consider transit as a means of getting to work. This shows that moving people out of their personal vehicles may be helped along by the decisions that employers make about teleworking and hybrid schedules in coming months. They may see their changing work schedules as an incentive to experiment with their commute and try new modes. Conversely, increased telework/hybrid work schedules might suppress transit ridership.

For those in the Transit Access segment:

- Title VI segment participants pointed out that it can be too expensive to live near a Metro station. Housing costs are higher for transit-oriented housing, and to them it feels like a pay-to-play scenario. More affordable housing near transit would go a long way to incentivize people to utilize it.
- Similarly, the Title VI segment also pointed out that, for those who require accessible facilities, public transportation is not always accessible at each stop or station. While stations may have an



elevator, often the facilities are not maintained properly, causing the stations to be unusable for those who require accessible accommodations. Bus stops may not be easily accessible by those in a wheelchair. **Proper maintenance of accessible facilities will allow disabled individuals to feel they can confidently take public transit instead of driving.**

- Among the general population, there is some annoyance with the reduction of Metro hours, making it a less ideal mode of traveling into the District on weekends. Similarly, some lamented the elimination of some bus routes (i.e., WMATA and other systems), meaning their previous trips and destinations are no longer serviceable by Metro.

## Other Modes

Interestingly, biking came up somewhat frequently as a mode of travel in the region. Though the general consensus was that, with the current state of the roads, bike lanes, and drivers in the area, it is not a safe alternative to driving for a commute. Many pointed out that they would love to bike more, but they simply do not feel comfortable on the roads with the drivers. Plus some do not want to commute via bicycle because of how they dress for work, needing to bring things to/from work, etc. Some do, however, enjoy biking recreationally.

*"I bike for recreation. I generally like to bike on trails and paths that are away from traffic, seeing the drivers here... I also have a dash cam and I've seen people [drivers] use those [bike] lanes if they want... I just don't trust the drivers"*

-Title VI, Transit Access

In an overarching sense, participants feel that Northern Virginia is permeated by a car culture and that there are some people who just need to use a car (e.g. because they need to make multiple stops to drop kids off, or their job requires them to drive from work site to work site).

*"When I go to the farm I have my car packed with everything I need to go there for the day...I don't think no matter how developed the public transportation system gets, they're not going to be able to accommodate 6 foot ladders on the Metro."*

-Title VI, Transit Access

Only a few had used slugging in the past or were currently using slugging up until the start of the pandemic. Those who did use slugging, however, noted they may not be likely to do so when returning to work, as Coronavirus concerns now make slugging a less ideal choice. This was echoed by others who may not have used slugging before but do not see it as being a part of the future commuting landscape in the region.

## Post-COVID Commuting

In general, those who are currently telecommuting expect that they will continue to telecommute in some form for the foreseeable future, pointing to either explicit instructions from their employers that they will be doing so, or pointing to what they see as the general tide turning towards telecommuting or hybrid schedules at the majority of companies in the area. Of course, many also pointed out that they simply prefer telecommuting, as it keeps them off the roads and allows them to have more time with their family or friends.





*"I've gotten really comfortable working from home, so I would hope to pitch that I can work from home for a while longer. I mean I miss seeing some coworkers faces, but we're interacting face to face [virtually]."*

-General Population, Non-Transit Access

Notably, with the federal government being such a major employer in the region, some participants feelings about telework hinge on what the federal government will have in place moving forward. This goes for those who do not work for the federal government as well, since they recognize that many of the cars on the road each day are also driven by those who work for the federal government.

*"Now there's going to be more flexibility, 2-3 days at least for federal government employees to work from home because we've been working from home now for 16 months."*

-Title VI, Non-Transit Access

A few participants work essential jobs or other positions where telecommuting is not possible. For these participants, they will continue to commute to work each day regardless, though they did comment that they have observed traffic congestion beginning to reach pre-COVID levels. Some indicated they may choose to change how they commute, as driving was fine for them during COVID, with reduced congestion. With congestion ramping up again, they may consider a mode other than driving to get to work.

### 8.3.2 Location-Specific Transportation Issues

During their pre-discussion group activities participants were asked to identify on a map of Northern Virginia the particular areas in the region that they find most difficult to get to (regardless of mode). Overall, **those without transit access identified more areas in the region that they find difficult to get to**. There were some key areas that both groups find difficult to get to, **those most prominently being the Arlington area and the I-95 corridor, specifically in the Woodbridge area**.

*"I also live in Woodbridge and I work in Falls Church City, so I actually make the commute North on 95. That terrible commute in the morning, and unfortunately I find myself leaning heavily on the express lanes, so which kind of lightens my pockets, unfortunately a lot."*

-Title VI, Non-Transit Access

*I have a sister that lives in Woodbridge, so I understand that 95 bottleneck. It's really frustrating. I think any time of day that I'm going to visit her, it's tough."*

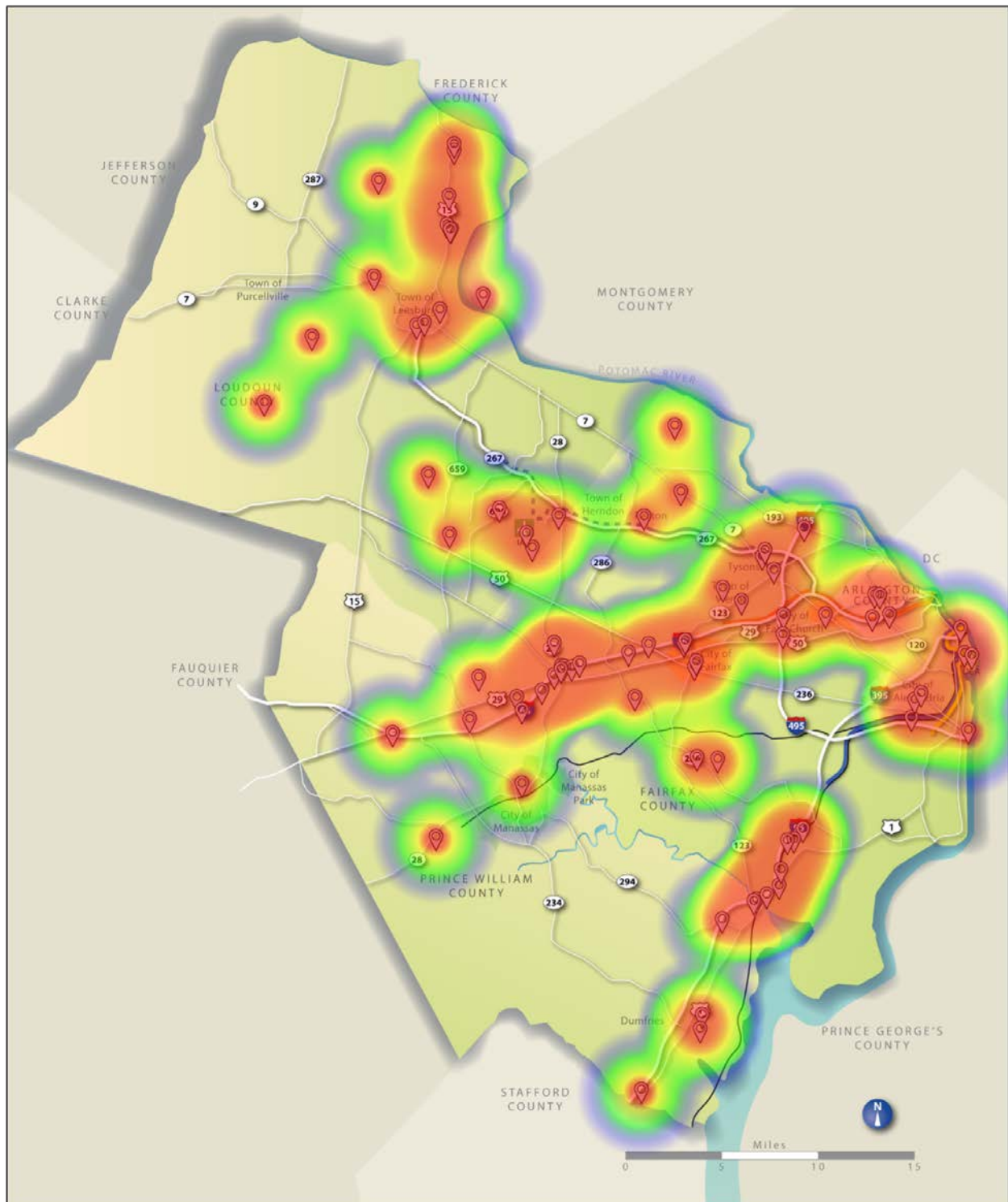
-Title VI, Non-Transit Access

**Those without transit access specifically pointed to areas such as the Route 66 corridor**, extending from Gainesville to Arlington, and areas surrounding Dulles International Airport, as well as Leesburg and North along Route 15.

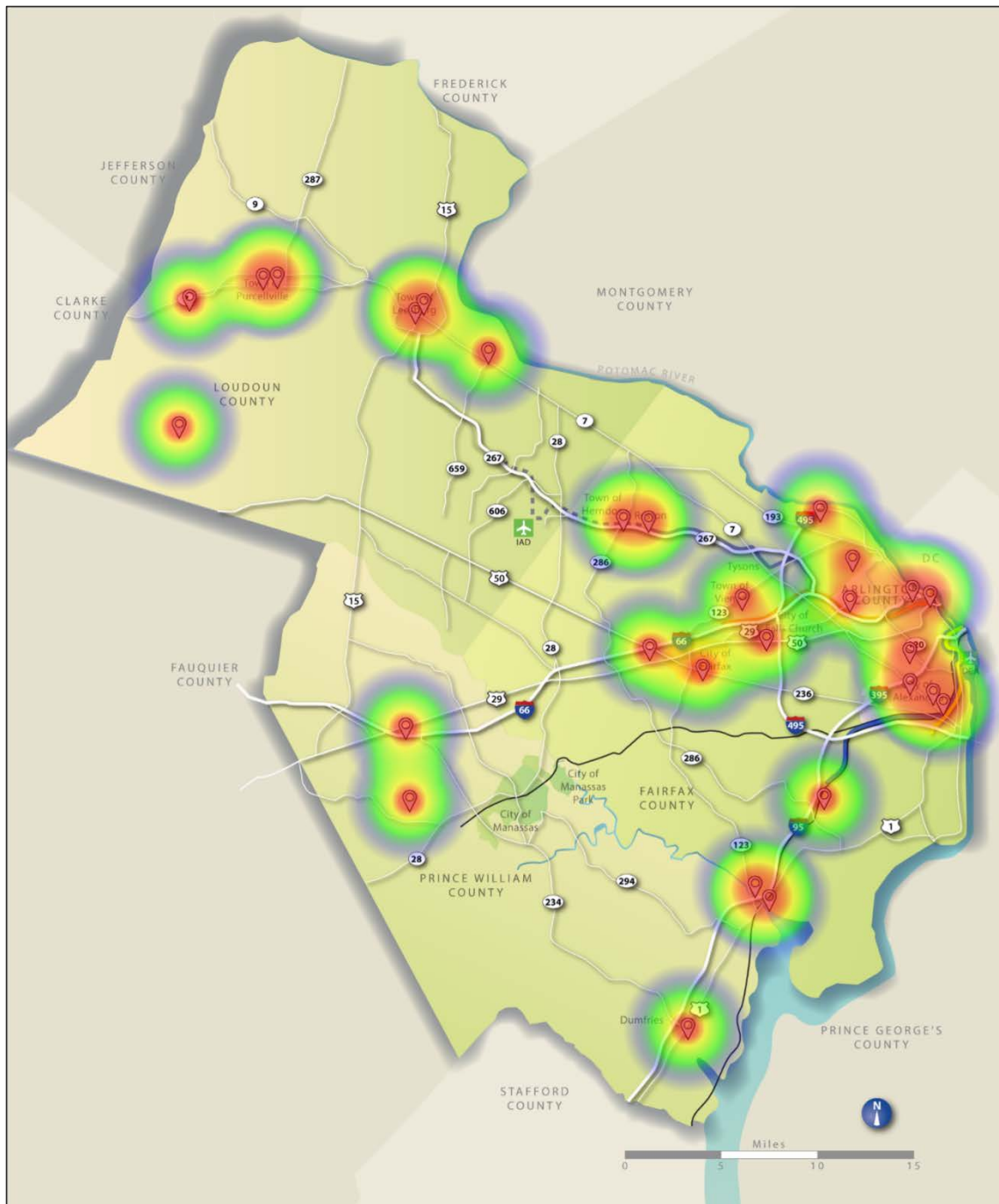


*"If you drive 66 its just a disaster.  
The travel lanes change daily."*  
-General Population, Non-Transit  
Access

**Figure 8.3 Non-Transit Access Location Specific Transportation Issues**



**Figure 8.4 Transit Access Location Specific Transportation Issues**



### 8.3.3 Core Values

NVTA has defined three core values that will serve as the guiding principles to inform all aspects of the TransAction plan development moving forward. A key goal of this research was to present these three core values and understand the public's perception of each as well as how best to communicate these guiding core values to the public. These three core values are:

- Equity;
- Sustainability; and
- Safety.

## Equity

### Initial Reads

Participants were asked to define "equity" in their own terms before being given NVTA's working definition. Their initial, blinded discussion of "equity" yielded definitions centered around "fairness" and opportunities for all people in Northern Virginia regardless of income. While most were described it in a similar vein to the NVTA's definition, there were some who pointed out that they are not sure what equity means specifically in a transportation context. During the discussion groups themselves, when the group began ideating on what equity meant vis-à-vis transportation, it became much more clear to those who did not initially feel they understood what "equity" meant. Equity in transportation is not something they think of, but it is something that can resonate with them.

*"This one is a little unclear to me. At first glance, it seems to imply ensuring equal opportunities for future transportation system and infrastructure in all geographic areas."*

– Title VI, Transit Access

The most clear common theme among participants across all segments in their initial understanding of Equity was "fairness." **They pointed out that a transportation system should serve everyone fairly, whether that was on highways, via HOV lanes, or by bus or train.** Many feel that the way transportation decisions are currently made is not equitable and prioritizes those who already have access, rather than those who need it most. There is a disconnect between the core value's importance and what they see prioritized in their region.

*"I think it means taking into account how to enhance an area to benefit the general population and to ensure that distribution of these changes is done fairly."*

– General Population, Non-Transit Access

*I think this means getting poorer neighborhoods more access. I drive through these areas on my way to school (I'm a teacher) and they have buses, but that's it. Many of them don't have cars so I see them walking down the street carrying laundry bags to the laundromat, or bags of groceries home from the store. I think the areas where people can't afford a car are where we need public transportation the most, and it seems to be where we have it the least.*

– General Population, Transit Access

*Equity means fair. So create fair transportation options for everyone. Make public transportation affordable AND reliable. A low-income wage earner shouldn't have to spend loads of time getting from one place to another simply because he or she can't afford a car.*

– General Population, Transit Access

However, two areas that equity can touch upon may not be resonating with participants:

- While equity for lower income and rural residents was often cited as being important, equity for minority residents was rarely mentioned. It's not that this was considered unimportant, it is that, for many, it was not considered at all.
- Many spoke of transportation needing to be "fair for everyone." However, not as many spoke to the needs of transit dependent, low income, and/or other at-risk populations and public transit's ability to meet those needs. What discussion there was mostly focused on the perception many participants have that area transit seems to be developed more to meet the needs of wealthier populations. There could be an issue where, while everyone agrees transportation should be fair to everyone, there's limited agreement on what "fair to everyone" actually means.

### **Group Ideation**

In the discussion groups, participants had another opportunity to discuss what equity means to them in the context of transportation in Northern Virginia. In their groups, they discussed how equity, to them, involves "*improving across the board*" and "*helping one mode by helping another.*" This speaks specifically to the understanding that each mode in the region is intertwined and similarly, the understanding that helping other people get around in the region can also make their own personal commutes more efficient.

Furthermore, **participants pointed out that access to multiple different transit options is a key tenet of equity.** One member of the Title VI, Non-Transit group summarized the groups well:

*"I don't think about equity in terms of economic impact, I think about it in terms of access... The investment in infrastructure around our area goes to where rich people are. If you look at the roads that are created, it's the same thing as food deserts where you see no good restaurants or grocery stores in the ghettos because they have no economic benefit... **All your local communities and lobbyists, the economic impact is that infrastructure and road construction it's all targeted to where money is... I want people to start building roads to where people are, that could help us commute. They're only going to keep building roads to where money is and that's the messed up part.**"*

-Title VI, Non-Transit Access





For many, access translates to equity because, as they currently see it, not everyone has multiple options for transit. There needs to be equal access in all areas and for all, or as many people as possible. This notion elicited some passionate responses, particularly within the Title VI groups.

*"We need to think about equity not in terms of economic impact, but in terms of access. Improvements need to be made everywhere. Roads need to be everywhere, not just where money is."*

-Title VI, Non-Transit Access

*"No matter what your economic means, you have an excellent chance of being able to commute to a job that you enjoy or that pays well."*

– General Population, Non-Transit Access

And in the same vein of that access, participants cited equity also including special considerations towards *accessibility*, particularly as it relates to those with mobility issues.

*I find that people with mobility issues tend not to have the equal needs that more able bodied people have to the public transportation. E.g. my mother is wheelchair-bound so if she wants to go a distance [she] has to call MetroAccess. Would be better if she could take a bus or train like I would. That extends into the structure of things though, like making sure the elevator is working everywhere, etc."*

– General Population, Transit Access

Finally, participants expounded on what types of improvements they would like to see that would promote equity, as well as what they currently see as not being equitable. For what types of improvements they could see to make Northern Virginia more equitable, they cited the cost of living in areas where transit is readily available. Being close to Metrorail specifically is unaffordable to many, forcing them to live in areas where cars are their only option for travel. Prioritization of affordable housing around Metrorail stations is seen as an improvement that promotes equity in Northern Virginia. They also pointed out that when people are pushed out to more outlying areas because they are more affordable, it simply contributes to the sprawl and traffic congestion of Northern Virginia.

*"I right now live really close to the Metro Station. I was able to get extremely cheap rent for my apartment because one, the Metro station was not open two, I moved in December during the pandemic... Right now the going price for the apartment complexes in my area are out of my price range, so the only reason why I'm here is because the Metro wasn't open and because of COVID."*

-General Population, Transit Access

**Another direct improvement that participants felt would promote equity lies in equitable and useable access to information**, that is, transit systems and NVTA should cater more towards people who may not have access to information, people who have not been exposed to the transportation system, or people who may not understand how it works. This would give everyone the tools they need to utilize the transportation system overall. They pointed specifically to offering materials in other languages, as they don't currently feel that information is offered in enough languages to fully address the diversity of Northern Virginia. Similarly, materials should be available across mediums for those without smartphones, or those with lower technical literacy.

*I would prefer to live near a Metro station, but it's expensive to live near a Metro station.*

– Title VI, Transit Access

*"It depends on what language you speak, because there aren't nearly enough translations available for the kind of diversity that exists in this area."*

-General Population, Non-Transit Access

Participants were quick to point out what they *do not* think equity is. To them, equity is not embodied by express lanes and other toll lanes. Having these toll lanes creates a pay-to-play scenario for commuters, allowing those with more money to have access that others do not have.

*"66 and 395 were built with tax dollars from Virginia's tax payers, and now they've gave them to this private company in order to charge \$20 during rush hour... You're creating an inequity. Only the people who have the [wealth] are the only ones using this means of transportation."*

- Title VI, Non-Transit Access

*"The toll roads are insane, pay \$22? No, make it \$6 so people can afford it and actually use it. **Its not equitable.**"*

– General Population, Non-Transit Access

## Sustainability

### Initial Reads

Participants' initial, blinded understanding of "Sustainability" in a transportation context actually differed substantially from the particular definition of sustainability that NVTa has adopted. **Most participants identified sustainability as it related to having sustainable infrastructure, that is, infrastructure that requires less maintenance and withstands the test of time.** Environmental concerns came up very infrequently to start.

*"Sustainability means not just doing something that will benefit travelers or commuters now, but also in 5, 10, 20+ years. Once more I believe less cars on the road will help address this issue, by reducing the need to build more roads."*

– General Population, Non-Transit Access

### Group Ideation

When discussing as a group, similar themes arose, with the emphasis centering around planning and maintenance, particularly among those in the Non-Transit Access groups. They pointed out that well built and maintained roads are sustainable because they alleviate much of the congestion caused by construction in the long-term.

While environmental concerns were not top-of-mind for the majority of participants, they did come up more often for the Transit Access groups. For those that mentioned the environment, it often tied directly into maintenance, building infrastructure that meets both current and future needs, while also taking into account environmental standards and using renewable energy sources.

*The first thing I thought of was sustainability in terms of cars that last longer and roads that don't need work on them... I think of it as less painting on the road, less paving over. You know what I mean? Just less construction.*

– Title VI, Non-Transit Access



*"Going to say meeting environmental standards... You drive down the road and you see some of the buses are spewing black smoke and its not really a sustainable model for climate control moving forward."*

-General Population, Transit Access

In the same vein of building infrastructure that is more environmental conscientious, a few also pointed out that, using the example of electric vehicles, having ample charging stations or tax breaks for those that purchase electric vehicles are ways that could encourage people to choose more sustainable modes. **However, this is still ultimately informed by infrastructure, as in, have the roads ready for electric vehicles, so that people can make the sustainable choice.**

When thinking about sustainability, people want to think about the environmental impact of their travel decisions. However, for many, this is trumped by the importance of their daily commute. It's more immediately important that they have reliable transportation to and from their place of work than it is to have something sustainable – that is, while they may *want* a cleaner, better environment they *have* to get to work on time each day. When push comes to shove, they feel they are faced with a decision to choose something sustainable and have sustainability drive their day-to-day decision making or choose something efficient that allows them to reliably travel throughout the region. Many do not see how they can have both.

## Safety

When first presented with the concept of safety, for participants there were two main tenets of safety for transportation on the region.

### Safety from crime

**Safety as it relates to security was a big, if unexpected, theme of the groups' interpretations of safety.** Important aspects of this related to increasing security at or around public transit stations and having ample lighting in parking garages. Notably, safety from crime was a common theme that was often initially mentioned by the women in the groups, with men tending to agree after it was mentioned.

### Safety from accidents

*"For me this is pretty straightforward. I am a female and mother. I...need to know that no matter what time of day there are security and cameras around to keep my family safe while in the hands of public transportation"*

– General Population, Non-Transit Access

*"There's people out there with ulterior motives, and as a female, I usually choose to drive my own car because I could park in front of the place I need to get to, instead of traveling on a Metro or on public transit that doesn't seem as safe all the time."*

-General Population, Transit Access

The other main tenet of safety and one that is in alignment with NVTA's definition is that of safety from accidents. Overall, people want their transportation network to get them from point A to point B in one piece, and to do the same for their friends, family, and neighbors.

*“Being able to travel from point A to point B without the fear of being involved in an accident.”*

– Title VI, Transit Access

Notably, at top-of-mind for safety was more frequently safety onboard public transportation, with stories of fires and crashes on Metrorail coming up first. Participants did not immediately think of safety when driving as a key part of the core value. Though, after more ideating around safety, they did come to the conclusion that it includes safety for pedestrians and safety from vehicle accidents as well.

Participants readily came up with solutions to increase the safety of the transportation network. Many of these suggestions were infrastructure related:

- More/Safer bike lanes;
- Proper maintenance of roads and bridges;
- Regular transit inspections on buses and trains; and
- Inclusion of crosswalks and sidewalks on roads to promote pedestrian safety.

*“Prioritizing the well-being of motorists, cyclists, pedestrians, and those utilizing the public transportation system...Designated bus lines. Separate bike and car lanes. Roundabouts to control flow of traffic. Breakdown lanes and rumble strips on highways. Increased pedestrian crosswalks with the large, yellow blinking lights overhead. More Metro transit police stationed at “hotspot” Metro stations.”*

– General Population, Transit Access

Often, their suggestions were related to education and communication about safety rules on the road, requesting that there is education and outreach related to motorist safety when driving near crosswalks or communications about safety while sharing the road with bicyclists.

*“I don’t know how many times I drive and someone didn’t use blinkers... And every day there’s an accident, and they’re serious. My sister-in-law was in a 4 car crash right on Roosevelt Bridge... She was seriously hurt... I just think we need to have some real awareness of what safety means.”*

– General Population, Transit Access


## NVTA Definitions and Feedback on Direction of Core Values

Next, participants were presented with the following slide (Figure 8.5), explaining how NVTA defines these core values.



Figure 8.5 Core Values Stimulus

## Core Values



» Equity

- Ensure fairness in mobility and accessibility to meet the needs of the region/sub-regions/communities
- Facilitate social and economic opportunities by providing equitable levels of access to affordable and reliable transportation option to serve the needs of all, and in particular underserved populations (e.g., low-income, minority, elderly, children, people with Limited English Proficiency (LEP), people with disabilities)


» Sustainability

- Focus on meeting the needs of the present without compromising the ability of future generations to meet their needs
- Consider three pillars of sustainability : economic, environmental, and social

» Safety

- Minimize transportation system fatalities and severe injuries, while increasing safe, healthy, equitable mobility for all

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The single most important takeaway from this section is that, while participants generally agree with each of these core values and their definitions, they feel the core values are useless without real, tangible actions taken towards each of them. **For these core values to be meaningful, NVTA must “Prove it.”**

Across groups, participants asked for more “meat on the bones” of the definitions, specifically the definitions of sustainability and safety, and asked, that when developing a plan or making improvements in the region, NVTA actually refers to these core values and checks to make sure they are being followed. This is fueled by a certain level of cynicism from residents in the area, feeling that these core values can easily be taken as lip service with no real action to back them up. **It will be important for NVTA to be explicit about how future plans and improvements follow each core value specifically. Similarly, laying out separate overarching, long term plans for each core value individually and communicating these directly to the public is vital for the public to feel that NVTA truly is pursuing these values.**

*That’s exactly what I mean by this is like these type of values like as mission statements and stuff. They really don’t mean anything, it’s all lip service until we see that stuff in action.”*

-General Population, Transit Access

Importantly, some participants felt that Northern Virginia is already falling short of some of these core values. Specifically for equity, some point out that it feels that higher income areas receive greater benefits from the transportation system, and unfortunately that is not equitable. So, again, they feel that if

NVTA wants to truly be equitable, they must “prove it” by working to fix some of these already inequitable situations.

*A lot of focus of transportation actions are in higher income status areas...Its not equitably serviced in the right areas. But it's a good goal.*

– General Public, Non-Transit Access

“I think wording on these is fine, its pretty clear and correct. Communities in NoVa fall short on equity. Motorized vehicles are prioritized.”

– General Population, Non-Transit Access

Overall, these definitions are seen as very high-level. It seems great for planning, but for the layperson, they want to know how it effects them. Bringing the definitions down to the ground-level can go a long way to help bring regular Virginians on board.

*“Duh, I want it to be safe, but I need it to be reliable”*

– General Population, Transit Access

### 8.3.4 Objectives for the Region

During both their pre-discussion group activities and during the discussions themselves, participants reviewed a list of possible objectives for improving the transportation network in the region. They were then asked to indicate if they felt each objective was a high priority, medium priority, or low priority for the region. Then, the following day in their discussion group, they further discussed and expanded upon their choices for high priority and low priority objectives.

The following possible objectives were presented to participants:

1. Reduce congestion and delay
2. Improve travel time reliability
3. Reduce transportation related emissions
4. Improve access to jobs
5. Improve connections to important centers in the region
6. Expand transportation choices to reduce the need for driving alone
7. Improve the operation of the regional transportation system during emergency conditions
8. Improve the safety of the transportation system
9. Offer connected mobility options available in one place





Participants in each segment gave the following ratings during their discussion board activities:

**Figure 8.6 General Population, Non-Transit Access Objectives (Discussion Board)**

General Population, Non-Transit Access	High priority	Medium priority	Low priority
Reduce congestion and delay	38	1	0
Improve travel time reliability	29	10	0
Reduce transportation related emissions	12	19	8
Improve access to jobs	16	18	5
Improve connections to important centers in the region	17	18	4
Expand transportation choices to reduce the need for driving	16	14	9
Improve the operation of the regional transportation system during emergency conditions	14	16	9
Improve the safety of the transportation system	16	20	3
Offer connected mobility options available in one place	5	21	13

**Figure 8.7 General Population, Transit Access Objectives (Discussion Board)**

General Population, Transit Access	High priority	Medium priority	Low priority
Reduce congestion and delay	37	1	1
Improve travel time reliability	30	8	1
Reduce transportation related emissions	13	21	5
Improve access to jobs	16	15	8
Improve connections to important centers in the region	14	21	4
Expand transportation choices to reduce the need for driving	10	11	18
Improve the operation of the regional transportation system during emergency conditions	12	14	13
Improve the safety of the transportation system	19	15	5
Offer connected mobility options available in one place	5	26	8

An important differentiating factor for participants in the General Population groups, when thinking about what objectives they see as high priorities for the region, is transit access. Those in the Transit Access segment were more likely to see “Expand transportation choices to reduce the need for driving” as a lower priority. This could be driven by the already numerous options that those in areas close to transit already have. This effect can also be seen in the opposite direction, as those in the Non-Transit Access segments are more likely to see this objective as a higher priority. **For NVTa, this means that efforts to expand transportation choices should primarily be focused outside of the immediate areas surrounding Metro stations, as there is an appetite for expanded transit choices in other areas as well.**

*“We don’t need more hubs. The sprawl of NoVa is too much for more hubs to address.”*

-General Population, Non-Transit Access

This is further reinforced by feedback from many group members that they do not feel that more transportation hubs would be helpful, as Northern Virginia already has transportation hubs, but the sprawl makes it difficult to get to them. Transportation options should be more spread out to bring people into the already existing transportation network.



**Figure 8.8 Title VI Population, Non-Transit Access Objectives (Discussion Board)**

Title VI, Non-Transit Access	High priority	Medium priority	Low priority
Reduce congestion and delay	11	1	0
Improve travel time reliability	9	3	0
Reduce transportation related emissions	6	3	3
Improve access to jobs	8	1	3
Improve connections to important centers in the region	5	4	3
Expand transportation choices to reduce the need for driving	5	3	4
Improve the operation of the regional transportation system during emergency conditions	7	3	2
Improve the safety of the transportation system	7	3	2
Offer connected mobility options available in one place	5	6	1

**Figure 8.9 Title VI Population, Transit Access Objectives (Discussion Board)**

Title VI, Transit Access	High priority	Medium priority	Low priority
Reduce congestion and delay	12	0	0
Improve travel time reliability	8	3	1
Reduce transportation related emissions	3	5	4
Improve access to jobs	5	4	3
Improve connections to important centers in the region	4	8	0
Expand transportation choices to reduce the need for driving	5	3	4
Improve the operation of the regional transportation system during emergency conditions	3	5	4
Improve the safety of the transportation system	3	7	2
Offer connected mobility options available in one place	0	8	4

Among those in the Title VI groups, transit access was not a significant differentiating factor in their judgement of what objectives should be high priority and what should be low priority.

As the participants discussed these objectives in their groups, they each chose a top priority and discussed their reasoning for said top priority. **Far and away the greatest priority was to reduce congestion and delay.** Notably, this is not to say they feel the other objectives do not matter. In fact, many point out that each of the other objectives seems to directly feed back into reducing congestion and delay, meaning that many of these work in tandem.

This is important to participants, as they see the congestion and delay as a time waster, that improving it can give them their time back. They would then have more time to spend with their families and do things that they actually enjoy. Some lamented that they “Spend more time on the road than we do at home.”

*I feel like my time has been wasted and abused when I’m stuck in traffic and then I can’t leave... So that to me, the congestion and delay are disrespectful things towards my time.”*

– General Population, Non-Transit Access



An interesting perspective that came up across a few different groups was that many feel **the burden is partially on private employers to do their part in reducing congestion and delays** in the region.

While they understand that the government can work to fix the problem, they feel that private employers should continue to offer telework and other hybrid options to allow people to work from home and not drive into the office. This can go a long way to reduce strain on Northern Virginia's transportation system. A few even suggested some sort of incentive structure for private businesses to encourage employees to telework.

*"In the sense that we have to be realistic, like one of our panelists here is a 911 [operator]. You have to be there to control that equipment and answer those phones... The other people who can stay home should be staying home as much as possible and employers should be flexible in that matter and should be incentivized."*  
– Title VI, Non-Transit Access

Participants also pointed out a few low priority objectives that were fairly consistent across groups. **First, they identified "Improve the operation of the regional transportation system during emergency conditions" as a low priority.** The most common reasons for this were that people felt in emergency conditions they would simply stay home and not travel or that Northern Virginia does not typically encounter extreme conditions. Notably, very rarely did anyone think of emergency conditions beyond weather related events and similarly did not imagine situations where people may still be required to travel.

In the situations where a mass evacuation may be necessary, participants felt that emergency management would be futile anyway, that the area is too large and full of people for any emergency conditions to be handled well, regardless.

*I volunteer extensively with the American Red Cross Disaster Cycle Services, and honestly there's no way we can make a safe evacuation plan from anywhere for circumstances that we're not sure of... I don't think that's something that can be put on a transportation board."*  
– General Population, Non-Transit Access

Finally, a common low priority for many was "Offer connected mobility options in one place." *Low priority ratings of this objective should be taken with a grain of salt and are most likely due to a lack of understanding of the terminology.* Numerous participants pointed out that they rated this a low priority because they did not understand what it meant. **This further drives home that, for NVTA, communication about initiatives and improvements to the transportation network should be understandable by a layperson.** It can be easy to use industry terms, however they can be incomprehensible to the non-expert. A lack of understanding in this way can lead to low prioritization of something that can otherwise be seen as positive.

### 8.3.5 Improvements for the Region

#### Immediate Improvements

Participants were presented with a list of 14 possible improvements to the region's transportation network. They were then asked to rate each, noting which they see as most helpful for the region and those they see as least helpful. Then they expanded on their choices, discussing which they think are especially focused on the long-term health of Northern Virginia and which are more immediate concerns.

The following possible improvements were presented to participants:

1. Improve and expand bike lanes and the regional bike network
2. Build new roads or widen roads
3. Increase the frequency of public transit
4. Expand public transit to different parts of Northern Virginia (e.g. rail and bus)
5. Implement coordinated traffic signal timing on major roads
6. Implement safety improvements, such as sidewalks, crosswalks, and traffic calming measures (e.g., speed bumps, reducing roadway widths, and changing road texture)
7. Expand park & ride capacity
8. Expand connections within Northern Virginia between businesses and where people live
9. Improve connections beyond Northern Virginia (e.g. DC, Maryland, and West Virginia)
10. Add more limited access (toll and HOV) highways
11. Make it easier for buses to move quickly and reliably
12. Get roads ready for Automated Vehicles
13. Build an infrastructure for electric vehicles (e.g. charging stations, technologies that alert driver to nearby charging stations)
14. Expand slugging options for commuters





Participants in each segment gave the following ratings:

**Figure 8.10 General Population, Non-Transit Access Improvements (Discussion Board)**

General Population, Non-Transit Access	Very helpful	Somewhat helpful	Not very helpful	Not at all helpful
Improve and expand bike lanes and the regional bike network	7	10	10	7
Build new roads or widen existing roads	25	9	4	0
Increase the frequency of existing rail or bus service	16	17	4	1
Expand rail or bus service to different parts of Northern Virginia	27	10	0	1
Implement coordinated traffic signal timing on major roads	22	15	1	
Implement safety improvements, such as sidewalks, crosswalks, and traffic calming measures (e.g., speed bumps, reducing roadway widths, and changing road texture)	6	15	14	3
Expand park & ride capacity	12	14	11	1
Expand connections within Northern Virginia between businesses and residential centers	21	16	1	0
Improve connections beyond Northern Virginia (e.g. DC, Maryland, the rest of Virginia, and West Virginia)	22	9	7	0
Add more limited access (toll and HOV) highways	7	11	18	2
Make it easier for buses to move quickly and reliably	16	17	3	2
Get roads ready for Automated Vehicles	6	18	9	5
Build an infrastructure for electric vehicles (e.g. charging stations, technologies that alert driver to nearby charging stations)	9	11	14	4
Expand slugging options for commuters	7	17	10	4

**Figure 8.11 General Population, Transit Access Improvements (Discussion Board)**

General Population, Transit Access	Very helpful	Somewhat helpful	Not very helpful	Not at all helpful
Improve and expand bike lanes and the regional bike network	7	8	12	11
Build new roads or widen existing roads	18	21	8	0
Increase the frequency of existing rail or bus service	23	10	5	0
Expand rail or bus service to different parts of Northern Virginia	27	10	1	0
Implement coordinated traffic signal timing on major roads	23	13	2	0
Implement safety improvements, such as sidewalks, crosswalks, and traffic calming measures (e.g., speed bumps, reducing roadway widths, and changing road texture)	9	18	8	3
Expand park & ride capacity	11	18	7	2
Expand connections within Northern Virginia between businesses and residential centers	21	13	2	2
Improve connections beyond Northern Virginia (e.g. DC, Maryland, the rest of Virginia, and West Virginia)	20	13	3	2
Add more limited access (toll and HOV) highways	7	12	14	5
Make it easier for buses to move quickly and reliably	19	15	2	2
Get roads ready for Automated Vehicles	4	12	18	4
Build an infrastructure for electric vehicles (e.g. charging stations, technologies that alert driver to nearby charging stations)	9	14	12	3
Expand slugging options for commuters	8	14	11	5



**Figure 8.12 Title VI, Non-Transit Access Improvements (Discussion Board)**

Title VI, Non-Transit Access	Very helpful	Somewhat helpful	Not very helpful	Not at all helpful
Improve and expand bike lanes and the regional bike network	3	2	5	2
Build new roads or widen existing roads	10	1	1	0
Increase the frequency of existing rail or bus service	6	2	2	2
Expand rail or bus service to different parts of Northern Virginia	8	2	2	0
Implement coordinated traffic signal timing on major roads	11	0	1	0
Implement safety improvements, such as sidewalks, crosswalks, and traffic calming measures (e.g., speed bumps, reducing roadway widths, and changing road texture)	2	2	5	3
Expand park & ride capacity	4	7	1	0
Expand connections within Northern Virginia between businesses and residential centers	6	4	2	0
Improve connections beyond Northern Virginia (e.g. DC, Maryland, the rest of Virginia, and West Virginia)	4	6	2	0
Add more limited access (toll and HOV) highways	6	3	2	1
Make it easier for buses to move quickly and reliably	5	3	3	1
Get roads ready for Automated Vehicles	3	5	3	1
Build an infrastructure for electric vehicles (e.g. charging stations, technologies that alert driver to nearby charging stations)	5	5	2	0
Expand slugging options for commuters	4	6	2	0

**Figure 8.13 Title VI, Transit Access Improvements (Discussion Board)**

Title VI, Transit Access	Very helpful	Somewhat helpful	Not very helpful	Not at all helpful
Improve and expand bike lanes and the regional bike network	2	5	3	2
Build new roads or widen existing roads	8	1	3	0
Increase the frequency of existing rail or bus service	7	3	1	1
Expand rail or bus service to different parts of Northern Virginia	8	3	0	1
Implement coordinated traffic signal timing on major roads	7	3	2	0
Implement safety improvements, such as sidewalks, crosswalks, and traffic calming measures (e.g., speed bumps, reducing roadway widths, and changing road texture)	7	3	2	0
Expand park & ride capacity	9	1	1	1
Expand connections within Northern Virginia between businesses and residential centers	8	1	2	1
Improve connections beyond Northern Virginia (e.g. DC, Maryland, the rest of Virginia, and West Virginia)	8	1	1	2
Add more limited access (toll and HOV) highways	2	5	4	1
Make it easier for buses to move quickly and reliably	6	5	0	1
Get roads ready for Automated Vehicles	4	2	3	3
Build an infrastructure for electric vehicles (e.g. charging stations, technologies that alert driver to nearby charging stations)	4	2	3	3
Expand slugging options for commuters	2	6	3	1

When rating the helpfulness of each possible improvement in their initial discussion board activities, participants across groups found a handful of the proposed improvements to be very helpful, primarily:

- Build new roads or widen roads;
- Expand rail or bus service to different parts of Northern Virginia; and
- Implement coordinated traffic signal timing on major roads.

**However, when asked to identify their highest priority improvements in their discussion groups, participants gave a bit more nuanced feedback**, and found themselves in an interesting debate about the efficacy of some of the proposed improvements, particularly in the long-term.

**The most selected high priority improvement was to “build new roads or widen roads,”** as they considered this to be the most immediate way to improve congestion in the region. With mostly SOV users, the state of the roads and their capacity is top-of-mind. However, others pointed out that building or widening roads can take years, and that by the time they are ready for use traffic has increased to the point that it wipes out the intended benefit. A few even cited induced demand – increasing road capacity will only lead to more people driving.

Adding to this was the feedback given when participants began selecting their low priority improvements, pointing out things that they do not believe will help the current transportation situation in Northern



Virginia. Some pointed out that the response to congestion in the past in Northern Virginia has been to just widen roads, but it does not feel like it is working, or it is moving too slow to be helpful. Furthermore, building new roads or widening roads can be retroactive and not proactive.

*“Expansion of roads like 66 hasn’t helped with congestion. Even though there are expanded roads, it just encourages people to use their cars.”*

– General Population, Transit Access

*“‘If you build it they will come’ if you widen a road, people will fill it as soon as you finish construction. Widening 66 is the best thing for commuters from 2005.”*

– General Population, Non-Transit Access

**Another common low priority cited by participants was the expansion of slugging options for commuters.** This was pointed out particularly as it relates to the pandemic, with some not seeing slugging with strangers to be a viable option in a post-Coronavirus world. **Similarly, many others felt that the expansion of limited access lanes should be a low priority as well.** With so much discussion of equity, many did not find it to be equitable to expand express lanes, with the vast majority seeing it as exclusionary (and costly).

## Future Long-Term Improvements

Where this discussion really gets interesting is when discussing which of these improvements need to be prioritized for the long-term trajectory of transportation in Northern Virginia. **While many initially rated “Get roads ready for automated vehicles” as a low priority, they did also point out that it should be a priority for the future (5 to 10 years into the future at least). In the same vein, many pointed out that having infrastructure for electric vehicles will be important moving forward as well.** Note that this would alleviate many people’s concerns about purchasing an electric vehicle, namely that the lack of charging stations outside of denser areas and that the vehicles’ ranges may be an issue (See **Emerging Transportation Options**). One participant even suggested reaching out to automakers specifically to plan for a future with automated vehicles.

*“What is the road structure going to even look like in the world with AVs? And we should be planning for that now. Should be reaching out to GMs, Toyotas, etc. to find out what should the roads look like.”*

– General Population, Transit Access

A portion of those in the General Population and Non-Transit Access groups delved deeply into this, asking questions about the equitability of electric vehicles and automated vehicles. This is important to note, because while many are onboard and excited for a future with automated vehicles, they are also mindful of possible drawbacks. Some key points that

they brought up include that, while automated vehicles are coming, it is unclear who will have them, and they may be quite expensive. As a result, they may help make the roads safer by removing the human factor of driving, but they will not address equitability.

Interestingly, the most fruitful conversations about electric vehicles and automated vehicles came from those in the General Population groups, with Title VI groups being more focused on immediate improvements in the region.

### 8.3.6 Emerging Transportation Options

#### Electric Vehicle Ownership

Only a handful of individuals across all groups currently own electric or hybrid vehicles. However, the majority of participants indicated that they would at least consider buying one in the future (assuming an electric vehicle and gas vehicle are similar in cost).

However, there are some drawbacks to electric vehicle ownership in their eyes. There were a few recurring themes:

- A lack of infrastructure in rural areas;
- Range anxiety (i.e. can I get to where I am going if there are no charging stations immediately available? How will it compare to a tank of gas?);
- A lack of infrastructure within their homes, for those who live in apartment buildings without charging stations; and
- The energy source/Where does the energy come from?

This last point is specifically in reference that if the electricity used to charge and electric vehicles comes from somewhere without clean energy, then the benefit to the environment is rendered moot. **To combat this notion, communication efforts should be made to show residents of Northern Virginia where exactly their energy comes from, assuming it is in fact clean energy.**

*"I would like to wait before getting a Tesla because I'd like to see how the infrastructure is, like the charging stations."*

– General Population, Non-Transit Access

However, there are also benefits as well:

- These vehicles "are practically free to drive" once purchased (note that maintenance/upkeep was not mentioned).
- Climate or environmental benefits.

#### Rideshare Services

Nearly all participants had used a ridesharing service like Uber or Lyft in the past, though older participants tended to be the few who had not used one. Most participants were comfortable doing so, and even brought to mind some other forms of vehicle sharing that they are starting to see emerge, such as apps where personal vehicles are made available to rent for a day.

#### Delivery Services

Delivery services such as Instacart, DoorDash, and UberEats have seen greater utilization over the course of the pandemic, and many participants said they will likely continue to use these as they get into their "New Normal." Only a few indicated they don't use these services, as they prefer to go to businesses directly and don't like that the apps will take a cut from the businesses revenue when they purchase food or items through them.





When asked about how they would feel about drones or other automated vehicles making deliveries for them, they generally are interested, pointing out that this is already occurring on some nearby college campuses. A few have reservations as they don't like to see jobs that are currently done by human beings replaced with automation. However, some also concede that much of this automation is inevitable, comparing it to the prevalence of self-checkout in grocery stores.

*GMU has been a test case for these, I don't know what they're called: little robots, and they're used by the restaurants all around the Fairfax City, and they are all over... I'm very surprised by how popular they are, but everyone is using them and you see them all over the roads... So I see that as a future, especially in an area like the City of Fairfax because it's very compact."*

– General Population, Non-Transit Access

## 8.4 Demographic Profiles and Screener

Transit Access					
	Title VI	GenPop		Title VI	GenPop
<b><u>Gender</u></b>			<b><u>Primary Residence</u></b>		
Male	6	16	Arlington County	2	13
Female	6	19	Fairfax County	8	14
Other	0	1	Loudoun County	0	0
			Prince William's County	0	0
<b><u>Age</u></b>			City of Alexandria	2	9
18-24	2	4	Fairfax City	0	0
25-34	2	8	City of Falls Church	0	0
35-44	3	9	Manassas	0	0
45-54	3	7	Manassas Park	0	0
55-64	2	5			
65 or older	0	3	<b><u>Area of Work</u></b>		
			Washington D.C.	3	10
<b><u>Income</u></b>			Arlington County	2	4
Less than \$20K	1	0	Fairfax County	4	8
\$20K to less than \$40K	1	3	Loudoun County	0	0
\$40K to less than \$75K	4	8	Prince William's County	0	0
\$75K to less than \$100K	0	7	City of Alexandria	0	3
\$100K to less than \$150K	3	7	Fairfax City	0	0
More than \$150K	3	11	City of Falls Church	1	2
			Manassas	0	0
<b><u>Race/Ethnicity</u></b>			Manassas Park	0	0
African American/Black	4	5	Other	0	4
Asian-American/Pacific Islander	5	3			
White (Caucasian)	0	25	<b><u>Anticipated Days Commuting Per Week (Fall 2021)</u></b>		
American Indian	0	0	0 days	0	6
Hispanic or Latino	3	3	1-3 days	7	10
Mixed/Other	3	2	4 days	0	5
			5 days	3	7
<b><u>Language</u></b>			More than 5 days	0	2
Spanish	3	0			
Hindi	0	1	<b><u>Anticipated Traveling</u></b>		
Urdu	0	0	Drive	6	25
Arabic	0	1	Metrorail	7	16
Korean	1	0	Bus	1	5
Portuguese	0	0	VRE	1	0
			Walk	0	1
<b><u>Employment</u></b>			Bicycle	0	2
Employed full-time	9	27	Taxi/Rideshare	2	5
Employed part-time	1	3	Other	0	1
Retired	1	2			
Not employed	1	2	<b><u>Access to a Vehicle</u></b>		
Full-time student	0	1	Yes	11	35
Homemaker	0	1	No	1	1



Non-Transit Access					
	Title VI	GenPop		Title VI	GenPop
<b><u>Gender</u></b>			<b><u>Primary Residence</u></b>		
Male	4	15	Arlington County	0	0
Female	7	21	Fairfax County	5	16
Other	0	0	Loudoun County	1	8
			Prince William's County	5	7
<b><u>Age</u></b>			City of Alexandria	0	0
18-24	0	1	Fairfax City	0	2
25-34	0	10	City of Falls Church	0	0
35-44	4	9	Manassas	0	2
45-54	2	3	Manassas Park	0	1
55-64	4	8			
65 or older	1	5	<b><u>Area of Work</u></b>		
			Washington D.C.	3	6
<b><u>Income</u></b>			Arlington County	1	2
Less than \$20K	0	0	Fairfax County	2	14
\$20K to less than \$40K	0	2	Loudoun County	2	4
\$40K to less than \$75K	0	7	Prince William's County	1	0
\$75K to less than \$100K	2	9	City of Alexandria	0	2
\$100K to less than \$150K	2	8	Fairfax City	1	0
More than \$150K	7	10	City of Falls Church	0	0
			Manassas	0	0
<b><u>Race/Ethnicity</u></b>			Manassas Park	0	1
African American/Black	5	5	Other	0	2
Asian-American/Pacific Islander	3	2			
White (Caucasian)	1	27	<b><u>Anticipated Days Commuting Per Week (Fall 2021)</u></b>		
American Indian	1	1	0 days	0	4
Hispanic or Latino	2	3	1-3 days	3	9
Mixed/Other	1	1	4 days	1	2
			5 days	6	12
<b><u>Language</u></b>			More than 5 days	0	3
Spanish	1	2			
Hindi	0	1	<b><u>Anticipated Traveling</u></b>		
Urdu	0	1	Drive	10	28
Arabic	0	0	Metrorail	2	6
Korean	0	0	Bus	0	3
Portuguese	1	0	VRE	0	3
			Walk	0	3
<b><u>Employment</u></b>			Bicycle	0	1
Employed full-time	9	28	Taxi/Rideshare	1	2
Employed part-time	1	2	Other	0	3
Retired	1	4			
Not employed	0	0	<b><u>Access to a Vehicle</u></b>		
Full-time student	0	2	Yes	11	36
Homemaker	0	0	No	0	0



Job #21-237

June 2021

**NVTA TransAction  
-Focus Group Recruitment Screener-**

**LEAVE MESSAGE:**

Hello, my name is \_\_\_\_\_ from \_\_\_\_\_. We're conducting a short survey on behalf of Northern Virginia Transportation Authority and we'd like to include your opinions. We will call back another time or, you can call us to set up an appointment that is convenient for you at XXX-XXX-XXXX and reference job number **[INSERT PHONE NUMBER]**. Thank you!

**ASK FOR NAME ON SAMPLE. IF NO NAME AVAILABLE, ASK FOR MALE/FEMALE HEAD OF HOUSEHOLD.**

Hello, my name is \_\_\_\_\_ from \_\_\_\_\_. We're conducting a short survey regarding transportation in Northern Virginia and we'd like to include your opinions. This is not a sales call. **This call may be monitored or recorded 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 |
| 98 | <b>DO NOT READ:</b> Refused è THANK & TERMINATE |                     |

**THOSE WHO'S PRIMARY RESIDENCE IS IN FAIRFAX COUNTY [S1(02)], ASK:**

S1A. Do you live within one mile of a WMATA Metrorail station?

- |    |                                |                     |
|----|--------------------------------|---------------------|
| 01 | Yes                            |                     |
| 02 | No                             |                     |
| 98 | <b>DO NOT READ:</b> Refused    | è THANK & TERMINATE |
| 99 | <b>DO NOT READ:</b> Don't know |                     |



**ASK EVERYONE:**

S1B. What is the zip code of your current, primary residence?

— — — — —

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

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

01 Under 18 è **THANK & TERMINATE**

02 18 - 24

03 25 - 34

04 35 - 44

05 45 - 54

06 55 - 64

07 65 or older

98 **DO NOT READ:** Refused è **THANK & TERMINATE**

S16. Do you speak a language other than English at home?

01 Yes

02 No

98 **DO NOT READ:** Refused

**THOSE WHO SPEAK ANOTHER LANGUAGE AT HOME [S16(01)], ASK:**

S17. Which language? (DO NOT READ LIST. ACCEPT ALL THAT APPLY.)

01 Amharic

02 Arabic

03 Korean

04 Spanish

05 Vietnamese

95 Other (specify\_\_\_\_\_)

98 **DO NOT READ:** Refused

S18. How well do you speak English?

- |    |                             |   |                   |
|----|-----------------------------|---|-------------------|
| 01 | Very well                   | è | CONTINUE          |
| 02 | Well                        | è | CONTINUE          |
| 03 | Less than very well         | è | THANK & TERMINATE |
| 04 | Not at all                  | è | THANK & TERMINATE |
| 98 | <b>DO NOT READ:</b> Refused | è | <b>CONTINUE</b>   |

### ASK EVERYONE:

S3. Have you or has anyone in your household ever worked 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 transportation agency or another transportation planning, engineering, operating, construction, safety, or related organization	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.**

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. In the Fall of 2021, will you commute to work or school?

01 Yes

02 No

98 **DO NOT READ:** Refused

99 **DO NOT READ:** Don't know/Not sure

**THOSE WHO WILL NOT COMMUTE IN THE FALL [S7(02)], ASK:**

S7a. Do you anticipate telecommuting, working from home, or attending online or virtual classes in the Fall of 2021?

01 Yes

02 No

98 **DO NOT READ:** Refused

99 **DO NOT READ:** Don't know/Not sure

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

S8. How many days per week do you anticipate commuting in the Fall of 2021? Your best guess is fine. **(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

98 **DO NOT READ:** Refused

99 **DO NOT READ:** Don't know/Not sure

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 anticipate traveling to work or school in Fall of 2021? **(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: \_\_\_\_\_)
- 98 **DO NOT READ:** Refused
- 99 **DO NOT READ:** Don't know/Not sure

**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

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

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

- 01 Less than \$20,000
- 02 \$20,000 to less than \$40,000
- 03 \$40,000 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
- 99 **DO NOT READ:** Don't know/Not sure

**ASK EVERYONE:**

S19. What gender do you identify as? (READ LIST IF NECESSARY. GET A MIX.)

- 01 Male
- 02 Female
- 03 Another gender
- 98 **DO NOT READ:** Refused

S20. If you have a disability, please indicate what kind. **(READ ENTIRE LIST. ACCEPT ALL THAT APPLY. RANDOMIZE 01-05.)**

- 01 A condition that substantially limits one or more basic physical activities such as walking, climbing stairs, reaching, lifting, or carrying
- 02 Blindness or have serious difficulty seeing when wearing glasses
- 03 Deafness or have a serious hearing difficulty
- 04 Limited ability to care for yourself
- 05 Physical, mental, or emotional condition that limits learning, remembering, or concentrating
- 97 Or none of these
- 98 **DO NOT READ:** Refused

S21. When was the last time you participated in a market research group discussion or focus group?  
(READ LIST.)

- |    |                                 |   |                              |
|----|---------------------------------|---|------------------------------|
| 01 | Within the past 6 months,       | → | <b>THANK &amp; TERMINATE</b> |
| 02 | More than 6 months ago, or      | è | CONTINUE                     |
| 03 | Never                           | è | CONTINUE                     |
| 99 | DO NOT READ: Don't know/Refused | è | THANK & TERMINATE            |

**READ:** Thank you for your responses! You meet the criteria for our online discussion group.

GROUP ASSIGNMENT				
	July 21 <sup>st</sup>	July 22 <sup>nd</sup>	July 28 <sup>th</sup>	July 29 <sup>th</sup>
5:30 pm	<b>General Pop and Non-Transit Access</b> [S1(03,04,06,08,09) OR (S1(02) AND S1A(02,99))]	<b>Title VI and Transit Access</b> [S13(01) OR S14(01-03,95) OR S15(01,02) OR S16(01) OR S20(01-05)] AND [S1(01,05,07) OR (S1(02) AND S1A(01))]	<b>General Pop and Transit Access</b> [S1(01,05,07) OR (S1(02) AND S1A(01))]	<b>General Pop and Non-Transit Access</b> [S1(03,04,06,08,09) OR (S1(02) AND S1A(02,99))]
7:30 pm	<b>Title VI and Non-Transit Access</b> [S13(01) OR S14(01-03,95) OR S15(01,02) OR S16(01) OR S20(01-05)] AND [S1(03,04,06,08,09) OR (S1(02) AND S1A(02,99))]	<b>General Pop and Transit Access</b> [S1(01,05,07) OR (S1(02) AND S1A(01))]	<b>General Pop and Non-Transit Access</b> [S1(03,04,06,08,09) OR (S1(02) AND S1A(02,99))]	<b>General Pop and Transit Access</b> [S1(01,05,07) OR (S1(02) AND S1A(01))]

**Here's the invitation:** Please join our small online research community to participate in a discussion group about a possible new online dashboard.

**Here's how it works:** Once we see how many people qualify, we will randomly select participants and call you directly to confirm your participation. Please be prepared for a call from \_\_\_\_\_ where we will confirm your participation. You should receive a call in the next couple of days.



**Here's more:** If selected, you will be sent an email with instructions on **[INSERT DATE TWO DAYS BEFORE GROUP]**. You will be asked to complete a few activities at your convenience **[INSERT DATE ONE DAY BEFORE GROUP]** (these should only take about 20 minutes of your time) and will participate in a two hour group discussion on **[INSERT DATE AND TIME OF GROUP]**. After you have participated, you will earn a check for \$100.

*Please note: you will need access to a computer, smartphone, or tablet with internet and a webcam for this discussion group. You will be able to complete the activities at your convenience the day before the online discussion.*

S22. Can we count on you to participate on **[INSERT DATE AND TIME]** if selected?

- |    |  |   |                            |
|----|--|---|----------------------------|
| 01 | Yes                                    |   |                            |
| 05 | No                                     | → | <b>THANK AND TERMINATE</b> |
| 99 | <b>DO NOT READ:</b> Don't know/Refused | → | <b>THANK AND TERMINATE</b> |

**THOSE WHO ARE ABLE TO PARTICIPATE IN THE ONLINE DISCUSSION [S18(01)], ASK:**

S23. Do you own or have access to a computer or smartphone with a webcam? **(READ LIST IF NECESSARY. ACCEPT ONE RESPONSE ONLY.)**

- |    |  |
|----|--|
| 01 | Yes; a computer with a webcam          |
| 02 | Yes; smartphone with a webcam          |
| 03 | Yes; both                              |
| 04 | No                                     |
| 99 | <b>DO NOT READ:</b> Don't know/Refused |

**READ TO EVERYONE:**

So that we may call you to confirm your participation, please tell us your full name and the best telephone number at which to reach you.

Name: \_\_\_\_\_

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

Telephone number: \_\_\_\_\_

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

Also, so that we may send you an e-mail with instructions, please tell us your email address.

Email address: \_\_\_\_\_

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

Since we are only inviting a limited number of study participants, if for some reason you cannot participate, please call our office at XXX-XXX-XXXX so that we can schedule another participant. Thank you for your time and we look forward to speaking with you on [ASSIGNED DATE AND TIME].

GROUP DETAILS
---------------

Title VI Groups:

- Mix of Race/Ethnicity, Age, Language Spoken at Home, Vehicle Ownership, Area of Residence

General Population Groups:

- Mix of Race/Ethnicity, Age, Language Spoken at Home, Vehicle Ownership, Area of Residence
- CANNOT be all white or all middle class or higher. To accomplish this, Title VI groups must be recruited and filled first. Then, any further qualified respondents can be directed towards the general population groups to obtain a mix.





## 8.5 Focus Group Discussion Guide

### I. INTRODUCTION (15 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. Recording
  4. Colleagues viewing
  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. Please try to speak one at a time; as online meetings don't handle people talking over each other well. Raising hands to stop someone from ranting works well if you have something you'd like to interject with.
  9. Work for independent market research company, not NVTA
  10. Turn off/silent cell phones
- c. Respondent introduction
  1. Name
  2. Where live? (Note: don't need your full address – City, State and/or zip code work)
  3. How long lived in the area?
  4. Where work?
  5. Do you currently commute or telecommute to work? If you telecommute, how many days a week?
  6. Something about self

### II. GETTING AROUND IN NORTHERN VIRGINIA (30 minutes)

- a. Now, I would like to turn to the topic of tonight's discussions. We will be expanding on a few of the topics we were chatting about yesterday, as well as talking about some new ones.
- b. **IMPORTANT TO REITERATE:** Our conversation is going to revolve about transportation in Northern Virginia, I'd like us to focus our comments and feedback on those Virginian operations, and not those run by DC or Maryland entities.  
  
First, I'd like to discuss transportation in Northern Virginia. We would like to focus on transportation in the region that will impact communities across NoVA in the future, particularly thinking about what everyone's "new normal" might look like after the pandemic.
- c. What modes of transportation do you typically use to get around currently?

1. Do you use any other modes of transportation?  
Car Walk  
Rail (Metro/VRE) Taxi/Rideshare  
Bus (types/Fairfax Connector) **Bicycle**  
Or, something else?
  - i. **PROBE IF CAR:** Do you primarily (e.g., when commuting, going to health care appointments, etc.) drive alone or with others? Why don't you drive with other people? What might encourage you to drive with others more often?  
  
What might persuade you to consider other modes of transportation?
  - ii. Which of these modes do you consider your primary mode of transportation?
  - iii. Why is ... your primary mode?
  - iv. Where are you typically going when you use these modes?
    - A. Do you use different modes when traveling to work or school vs. when traveling for other purposes?
2. Why don't you use other modes?
3. What would make you consider changing modes?
4. Thinking about your transportation habits in the pre-pandemic era, and then thinking forward to how you will be traveling in the POST-pandemic era; how will you be traveling? Is it more often by car, less often, the same? Are you working from home more with flex schedules? **PROBE IF A POST COVID MODE SWITCHER** – Why are you switching? Tell me your story.

**REDIRECT IF TOO MUCH TIME SPENT ON METRO AT ANY POINT:**

Many of you have mentioned Metro several times. What other modes of public transportation are there in Northern Virginia?

Have any of you used these? Why/Why not?



### III. OBJECTIVES (10 minutes)

- a. Yesterday, you ranked the following objectives on their level of priority. As a quick refresher, here are those objectives. **(SHOW LIST TO GROUP.)**

1. Reduce congestion and delay
2. Improve travel time reliability
3. Reduce transportation related emissions
4. Improve access to jobs
5. Improve connections to important centers in the region
6. Expand transportation choices to reduce the need for driving alone
7. Improve the operation of the regional transportation system during emergency conditions
8. Improve the safety of the transportation system
9. Offer connected mobility options available in one place

- b. **STRAW POLL/TRACK:** Which of these do you find to be the highest priorities for the future of transportation in Northern Virginia
- c. **STRAW POLL/TRACK:** Which of these do you find to be the lowest priority for the region?
- d. Are there other objectives for transportation in the region that NVTA should be working towards which are not listed here? What are they?

#### IV. PRIORITY IMPROVEMENTS (10 minutes)

- a. There are a variety of ways transportation in the region can be improved, and yesterday, we posed a few possible ways. As a quick refresher again, here are those possible improvements: **(SHOW LIST TO GROUP.)**

**IF NECESSARY:** Automated vehicles are vehicles that are capable of driving themselves without human intervention. Note, there is no single level of vehicle automation and some automated elements are already in use, for example lane assist/proximity warnings.

1. Improve and expand bike lanes and the regional bike network
2. Build new roads or widen roads
3. Increase the frequency of public transit
4. Expand public transit to different parts of Northern Virginia (e.g. rail and bus)
5. Implement coordinated traffic signal timing on major roads
6. Implement safety improvements, such as sidewalks, crosswalks, and traffic calming measures (e.g., speed bumps, reducing roadway widths, and changing road texture)
7. Expand park & ride capacity
8. Expand connections within Northern Virginia between businesses and where people live
9. Improve connections beyond Northern Virginia (e.g. DC, Maryland, and West Virginia)
10. Add more limited access (toll and HOV) highways
11. Make it easier for buses to move quickly and reliably
12. Get roads ready for Automated Vehicles
13. Build an infrastructure for electric vehicles (e.g. charging stations, technologies that alert driver to nearby charging stations)
14. Expand slugging options for commuters

- b. **STRAW POLL/TRACK:** Which of these possible improvements do you think would be most helpful for the region over the next 5 to 10 years? How about beyond 10 years?
1. **IF NECESSARY, PROBE:** why are your priorities different for 5 years vs. 10 years into the future?
  2. **IF “BUILD NEW ROADS OR WIDEN ROADS” MENTIONED BY MULTIPLE PARTICIPANTS, PROBE:** Do you think that building more roads or widening roads is a long term solution to NoVa’s transportation challenges? What barriers or limitations might there be?
- c. **STRAW POLL/TRACK:** Which of these do you find to be the least helpful for the region?



1. **(FOR WHAT THEY FIND LEAST HELPFUL)** Do you feel that you are simply indifferent to this type of improvement or do you think it actively works against any of the goals we have discussed so far?

d. Are there any regional improvements not on this list which should be? What are they?

## V. CORE VALUES (35 minutes)

- a. Yesterday, we asked you to give us your thoughts on what a few important terms mean. They were referred to as “Core Values” and those terms were:

1. Equity;
2. Sustainability; and
3. Safety.

- b. **WHITEBOARD ACTIVITY:** Let's start with “Equity.” How would you define “Equity” as it relates to transportation in Northern Virginia?

1. **PROBE:** What are some important aspects of “Equity,” to you?
2. When thinking about transportation plans for the Northern Virginia region, what types of improvements would best promote “Equity”?

- c. **WHITEBOARD ACTIVITY:** Next, let's talk about “Sustainability.” How would you define “Sustainability” as it relates to transportation in Northern Virginia?

1. **PROBE:** What are some important aspects of “Sustainability,” to you?
2. When thinking about transportation plans for the Northern Virginia region, what types of improvements would best promote “Sustainability”?

- d. **WHITEBOARD ACTIVITY:** Lastly, let's talk about “Safety.” How would you define “Safety” as it relates to transportation in Northern Virginia?

1. **PROBE:** What are some important aspects of “Safety,” to you?
2. When thinking about transportation plans for the Northern Virginia region, what types of improvements would best promote “Safety”?

- e. **READ:** We have talked a lot now about how you define and think about Equity, Sustainability, and Safety, which are a part of the NVTA's vision for the future of transportation in Northern Virginia. These core values are the guiding principles for achieving the vision to invest in a mobile, accessible, and resilient multimodal transportation system, which embraces connectivity and encompasses a variety of transportation modes, such as transit, roadways, bike/pedestrian facilities, transportation technologies, and more. These principles will help guide the overarching approach of the plan development including community engagement and identify improvement needs, priorities, performance measures, policies, and potential projects to help alleviate congestion in the region. Here is how NVTA is defining these three Core Values. **(SHOW SLIDE OF NVTA CORE VALUE DEFINITIONS.)**

1. Do you think these accurately define equity, sustainability, and safety as they relate to transportation? Why/Why not?
2. Is the language clear and understandable when you read these definitions? If not clear, how could it be clearer?

3. Have any of your thoughts and opinions about these Core Values changed after reading these definitions? How?
4. Are these the right values for Northern Virginia to use when thinking about transportation planning? Why/Why not?

## VI. EMERGING TRANSPORTATION OPTIONS (15 minutes)

- a. There are a number of new transportation options available to residents, and more to come. Some of these include:
  1. Electric vehicles;
  2. Shared bikes, scooters, etc.;
  3. Shared ride options, such as Uber, Lyft, and others; and
  4. Automated (or driverless) vehicles.
- b. Do any of you own an electric vehicle? If so, why did you choose to get one?
  1. How many of you would consider buying an electric vehicle in the next 5 to 10 years? Why/Why not?
  2. What is your motivation to consider an EV?
- c. **PROBE, IF CLIMATE CHANGE NOT BROUGHT UP AT ANY POINT IN GROUP:** Up to now no one has mentioned climate change. Is climate change important to you? Does it affect your transportation choices?
- d. Have any of you used a shared ride service before?
  1. **THOSE WHO HAVE NOT, ASK:** Why have you never used a shared ride service before?
- e. Have any of you used shared bikes or scooters?
  1. **THOSE WHO HAVE NOT, ASK:** Why have you never used shared bikes or scooters before?
- f. If there were an automated vehicle service where you could order a vehicle online and it would take you from where you are to any destination in the area, how likely would you be to use it? Why do you say that?
- g. If they were proven to be safe, would you be interested in buying a car that was capable of driving itself for at least part of the trip? What if it fully drove itself and didn't even have a steering wheel?
- h. Do you order food for delivery using one of the apps? What about groceries and other items?
  1. What apps do you use?
  2. Do you use them often?
  3. Do you think you will continue to use them often post-pandemic?
  4. What about delivery of other items (e.g. groceries)?
- i. Are there any other emerging transportation options that we did not discuss here today that NoVa should consider in order to improve transportation in the region?



**VII. CLOSING (5 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. Closing comments





## 9.0 APPENDIX B: TRANSACTION SURVEY

The TransAction public survey was developed to enable the project team to better understand the highest priority transportation issues and priorities of residents and workers in the NVTA region, as well as their travel choices, factors influencing those choices, and priorities for investments in different modes. The survey results have been used to inform the TransAction project team's technical work—specifically by informing the needs assessment and the weighting of criteria to be used in project prioritization.

The survey opened on August 6, 2021 and closed on September 19, 2021. The survey was built in the MetroQuest platform and made available in English, Korean, and Spanish. The survey was highly graphical and interactive in nature, with questions being primarily asked through a series of “gamified” exercises. Links to demonstration versions of the survey are provided in Table 9.1, and Figure 9.1 shows an image of one of the activities in the survey.

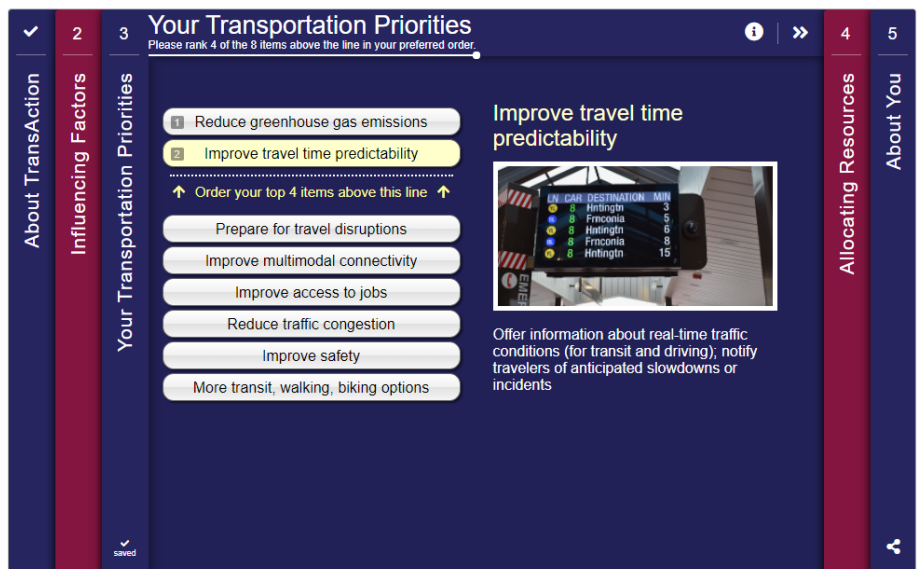
**Table 9.1 Links to Demonstration Versions of the Surveys**

Language	Link to Demo
English	<a href="http://demo.metroquestsurvey.com/dx5s5r">http://demo.metroquestsurvey.com/dx5s5r</a>
Korean	<a href="http://demo.metroquestsurvey.com/bw2d2s">http://demo.metroquestsurvey.com/bw2d2s</a>
Spanish	<a href="http://demo.metroquestsurvey.com/x6e5m">http://demo.metroquestsurvey.com/x6e5m</a>

**Figure 9.1 TransAction Survey Interface**

NVTA staff and the project team used a variety of methods to inform people about the survey and encourage them to take it. These included: updates to the website, stakeholder outreach, pop-up events, a newsletter article, paid social media ads, and earned social media activity and promotion. Social media activity occurred on: Facebook, Twitter, LinkedIn, and Instagram. Pop-up events were held at:

- King Street Metro Station
- Ballston Metro Station
- Eden Center
- VRE Manassas Park



- Vienna Metro Station
- Wiehle Ave-Reston Metro Station
- MegaMart - Alexandria
- Sterling Park Shopping Mall – Sterling
- Plaza at Landmark
- Dollar Tree (at Little River Shopping Center) – Annandale
- Ashdale Shopping Center – Woodbridge

The project team used customized, traceable web links to the survey to gather information about where participants heard about the survey. Table 8.2 shows the number of times each traceable link was used to take the survey.

Source	Number of Responses
Website	691
Stakeholder outreach	405
Pop-up events	351
General (not traceable)	252
Paid social media	206
Newsletter	166
LinkedIn	92
Twitter	89
Facebook	65
Geofenced ads	1
Instagram	0

**Table 9.2 Sources of Survey Responses**

## 9.1 About the Respondents

There were 2,318 survey respondents: 2,164 respondents to the English survey, 89 respondents to the Korean survey, and 65 respondents to the Spanish survey. At pop-up events, the project team assisted 123 Spanish speakers in verbally completing the survey and their responses in the English version on their behalf. The following sections summarize the survey sample by geographic location, income, race, age, gender, and disability status. All of the results in this section include only those respondents who answered the optional demographic questions.

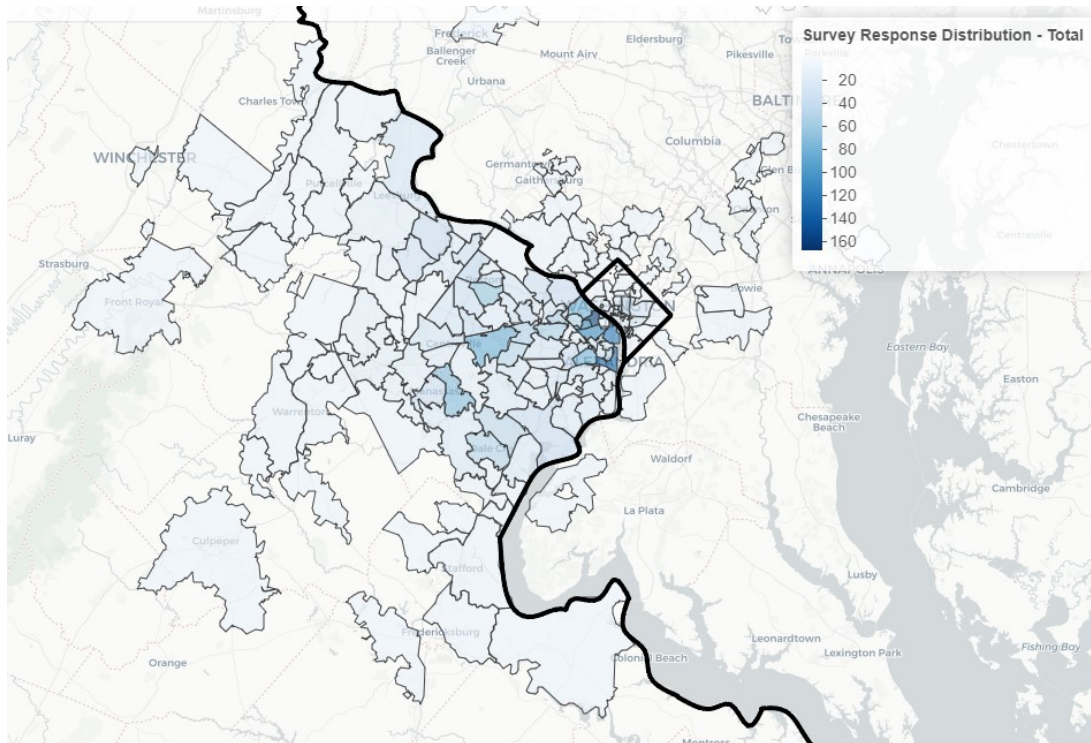
### 9.1.1 Geographic Location

Figure 9.2 is a map showing the distribution of home zip codes of survey respondents. The project team received responses from most of the zip codes within NVTa's jurisdiction, as well as some from Washington, DC and Maryland. A higher proportion of the respondents live in areas closer to DC,



including 127 respondents who live in National Landing, Arlington; 167 respondents from Lyon Village, Clarendon, and Lyon Park, Arlington; 138 respondents who live in Old Town, Alexandria.

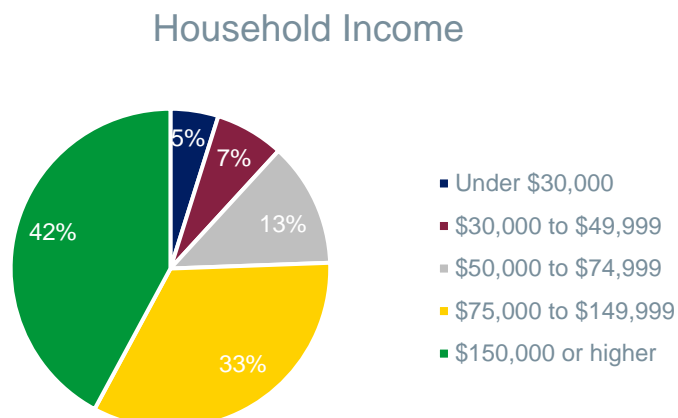
**Figure 9.2 Map of Home Zip Codes of Survey Respondents**



### 9.1.2 Income

As shown in Figure 9.3, three-quarters of the survey respondents live in households with an income of over \$75,000. Of the 1,650 respondents who responded to the question about income, 33 percent live in a household that earns between \$75,000 and \$149,999, and 42 percent live in a household that earns \$150,000 or higher. The income results differ across the three survey languages. Respondents to the English survey, on average, have higher household incomes, with 43 percent earning \$150,000 or more and 34 percent earning between \$75,000 and \$149,000. The Korean survey had 22 percent of respondents whose household earns \$150,000 or more; 38 percent earning between \$75,000 and \$149,000; and 20 percent earning between \$50,000 and \$72,999. Respondents to the Spanish survey had lower household incomes with a majority (61 percent) earning less than \$49,000; and only four percent reported being from a household earning \$150,000 or more. While the English survey had five percent of respondents from households earning less than \$30,000, the Spanish survey had 23 percent of such respondents.

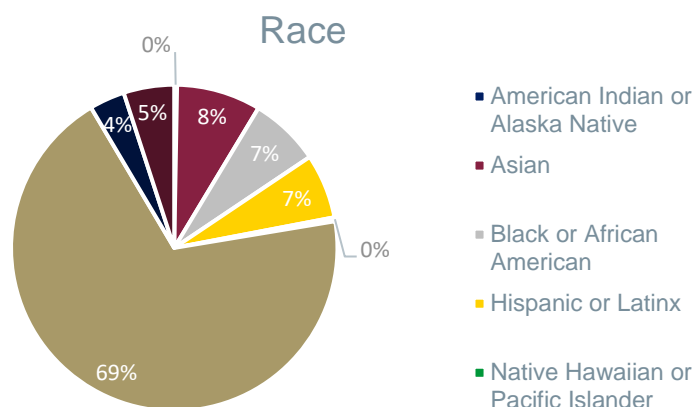
**Figure 9.3 Breakdown of Survey Respondents by Household Income**



### 9.1.3 Race

Figure 9.4 displays the racial breakdown of the survey respondents. Of the 1,796 respondents to the question about race, the majority identified as White (69 percent). The remaining racial groups accounted for less than 10 percent of respondents. In order, Asian respondents accounted for eight percent, Black or African American respondents accounted for seven percent, and Hispanic or Latinx respondents accounted for six percent. A smaller share (five percent) identified as two or more races. Four percent of the respondents identified as Other. American Indian/Alaska Native respondents and Native Hawaiian/Pacific Islander respondents made up under one percent the respondents.

**Figure 9.4 Breakdown of Survey Respondents by Race**

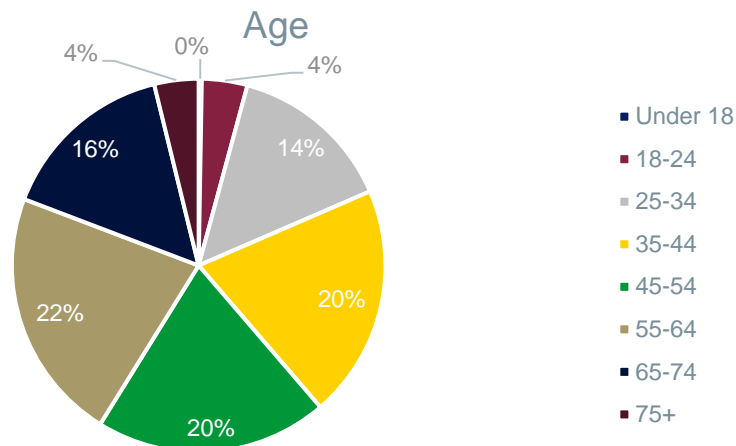


### 9.1.4 Age

Figure 9.5 displays the age distribution of the survey respondents. Of the 1,827 respondents to the age question, adults between the age 35 and 64 years old accounted for the largest share at 62 percent. Stratifying the age distribution by ten-year periods, the respondents were about 20 percent of each middle-

aged share: 35-44 years old (20 percent), 45-54 years old (20 percent), and 55-64 years old (22 percent). People 65 years and older accounted for 19 percent. Young adults ages 18-24 were four percent of the respondents, and people under the age of 18 accounted for less than one percent of the respondents.

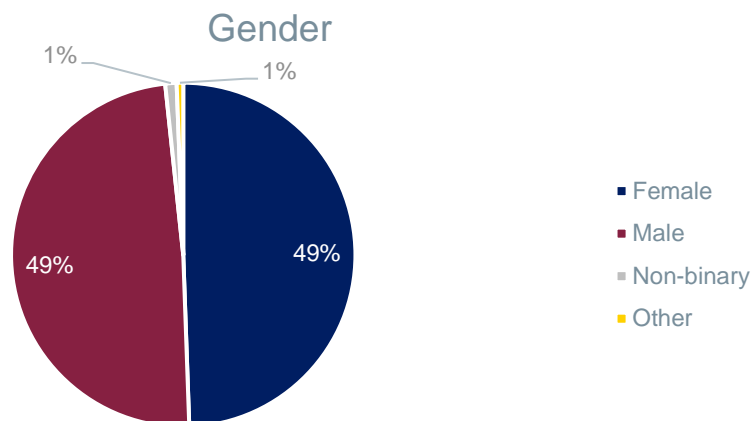
**Figure 9.5 Breakdown of Survey Respondents by Age**



### 9.1.5 Gender

Figure 9.6 displays the distribution of the survey respondents by gender. Of the 1,788 respondents to the gender question, nearly half were female (49 percent) or male (49 percent). Persons who identified as non-Binary accounted for one percent of the share. Less than one percent selected Other.

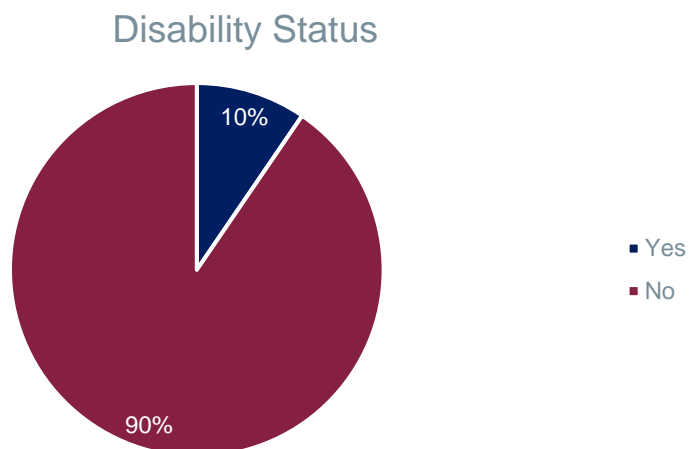
**Figure 9.6 Breakdown of Survey Respondents by Gender Identity**



### 9.1.6 Disability Status

Figure 9.7 displays the distribution of the survey respondents by disability status. Of the 1,771 respondents, a minority share (10 percent) identified as living with a disability.

**Figure 9.7 Breakdown of Survey Respondents by Disability Status**



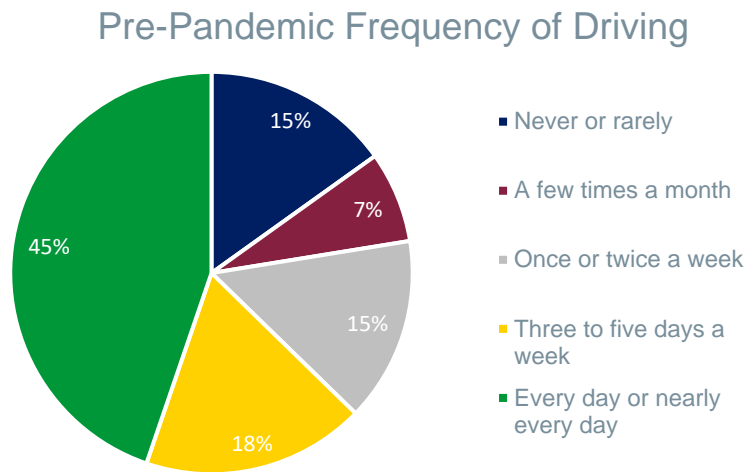
## 9.2 How Respondents Travel

In the first section of the survey, respondents were asked to provide information about how often they used various modes of travel before the pandemic and the decisions they anticipate making related to the usage of these modes after the pandemic is over.



## 9.2.1 Driving

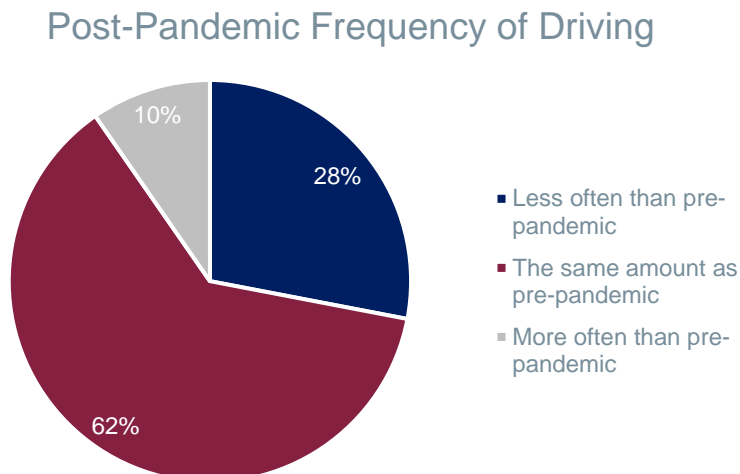
**Figure 9.8 Pre-Pandemic Frequency of Driving**



When asked how often they drove a personal vehicle pre-pandemic, as shown in Figure 9.8, 78 percent of respondents said they drove at least once a week: 45 percent drove every day or nearly every day, 18 percent drove three to five days a week, and 15 percent drove once or twice a week.

Figure 9.9 shows how often respondents anticipate driving after the pandemic is over. A majority of respondents, 62 percent, anticipate driving the same amount as pre-pandemic, while 28 percent anticipate driving less often than pre-pandemic, and 10 percent anticipate driving more often than pre-pandemic.

**Figure 9.9 Post-Pandemic Frequency of Driving**



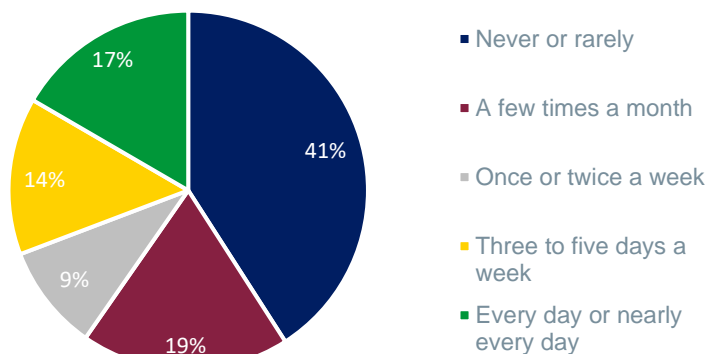
Respondents who drove more frequently pre-pandemic were more likely than any other group to anticipate driving less often after the pandemic is over. Of respondents who reported driving every day or nearly every day, 35 percent anticipate driving less often post-pandemic versus 20 percent of respondents who reported driving a few times a month pre-pandemic.

### 9.2.2 Taking Transit

When asked how frequently they took transit pre-pandemic, as shown in Figure 9.10, 60 percent of respondents took transit fewer than once per week: 41 percent never or rarely took transit and 19 percent took transit a few times per month. Thirty-one (31) percent reported using transit at least three days per week, with a little over half of those riding every day or nearly every day.

**Figure 9.10 Pre-Pandemic Frequency of Taking Transit**

#### Pre-Pandemic Frequency of Taking Transit

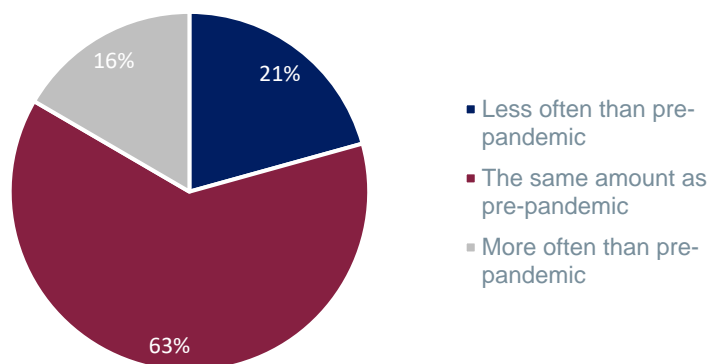


Similar to post-pandemic frequency of driving, a majority of respondents, 63 percent, anticipate taking transit the same amount after the pandemic is over. As shown in Figure 9.11, 21 percent anticipate taking transit less often than pre-pandemic, and 16 percent anticipate taking transit more often than pre-pandemic.

Respondents who reported taking transit three to five days per week pre-pandemic were more likely than any other group to anticipate taking transit less often when the pandemic is over. Of respondents who took transit three to five days per week pre-pandemic, 37 percent anticipate taking transit less frequently after the pandemic is over. Those who reported taking transit a few times a month or once or twice a week were the most likely to anticipate taking transit more frequently post-pandemic: 26 percent and 28 percent, respectively.

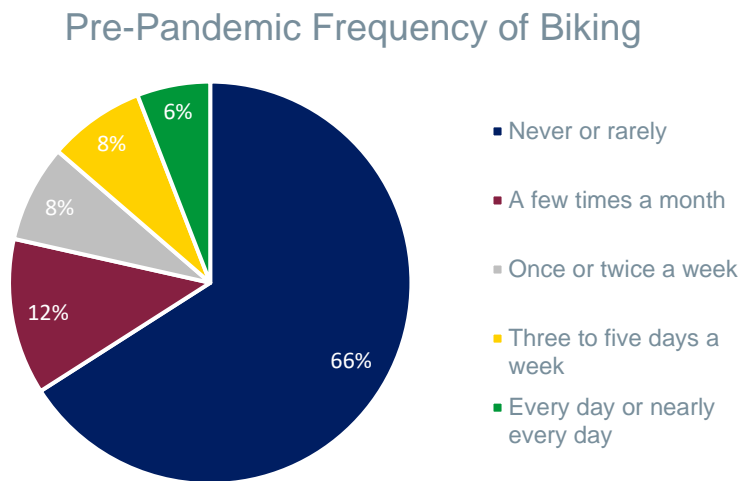
**Figure 9.11 Post-Pandemic Frequency of Taking Transit**

#### Post-Pandemic Frequency of Taking Transit



### 9.2.3 Biking

**Figure 9.12 Pre-Pandemic Frequency of Biking**

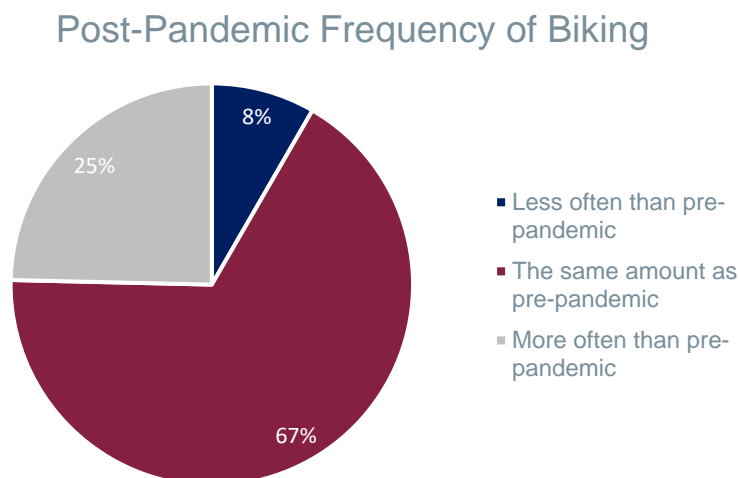


Pre-pandemic, 66 percent of respondents reported never or rarely biking, as shown in Figure 9.12. Six percent of respondents biked every day or nearly every day, eight percent biked three to five days a week, eight percent biked once or twice a week, and 12 percent biked a few times per month.

Figure 9.13 shows how frequently respondents expect to bike after the pandemic is over. Eight percent anticipate biking less often than pre-pandemic, 67

percent anticipate biking the same amount as pre-pandemic, and 25 percent anticipate biking more often than pre-pandemic.

**Figure 9.13 Post-Pandemic Frequency of Biking**



Of the four modes of transportation surveyed—driving a personal vehicle, taking transit, biking, and walking—biking had the most respondents anticipating higher usage when the pandemic is over.

Respondents who biked a few times a month or once or twice a week before the pandemic were more likely than other groups, with 42 percent and 47 percent respectively, to report biking more often post-pandemic. Of bikers who biked every day or nearly

every day pre-pandemic, only three percent anticipate biking less frequently post-pandemic.

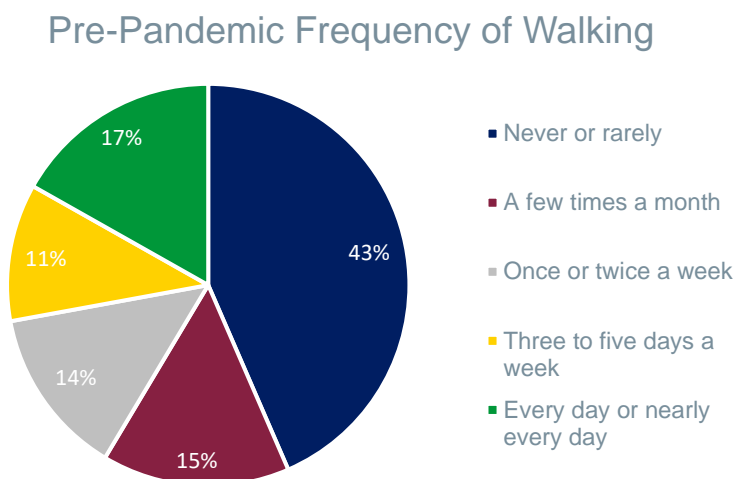
## 9.2.4 Walking

Figure 9.14 shows how often respondents reported walking to work, school, shopping, or other appointments pre-pandemic. Before the pandemic, 17 percent of respondents walked every day or nearly every day, 11 percent walked three to five days a week, 14 percent walked once or twice a week, 15 percent walked a few times a month, and 43 percent walked never or rarely.

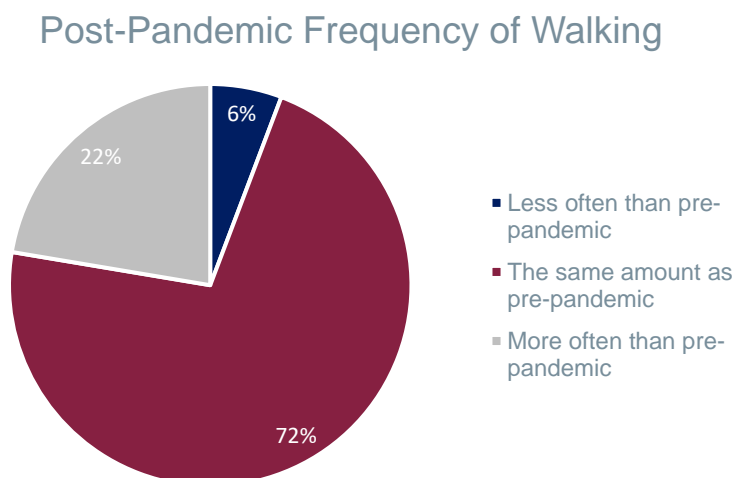
Post-pandemic, 72 percent of respondents anticipate walking the same amount as pre-pandemic, as shown in Figure 9.15. Six percent of respondents anticipate walking less often than pre-pandemic, and 22 percent anticipate walking more often than pre-pandemic.

Of the four modes of transportation surveyed—driving a personal vehicle, taking transit, biking, and walking—walking had the fewest respondents anticipating lower frequency after the pandemic is over. One-third of respondents who reported walking between a few times a month and five days per week pre-pandemic anticipate walking more frequently after the pandemic is over.

**Figure 9.14 Pre-Pandemic Frequency of Walking**



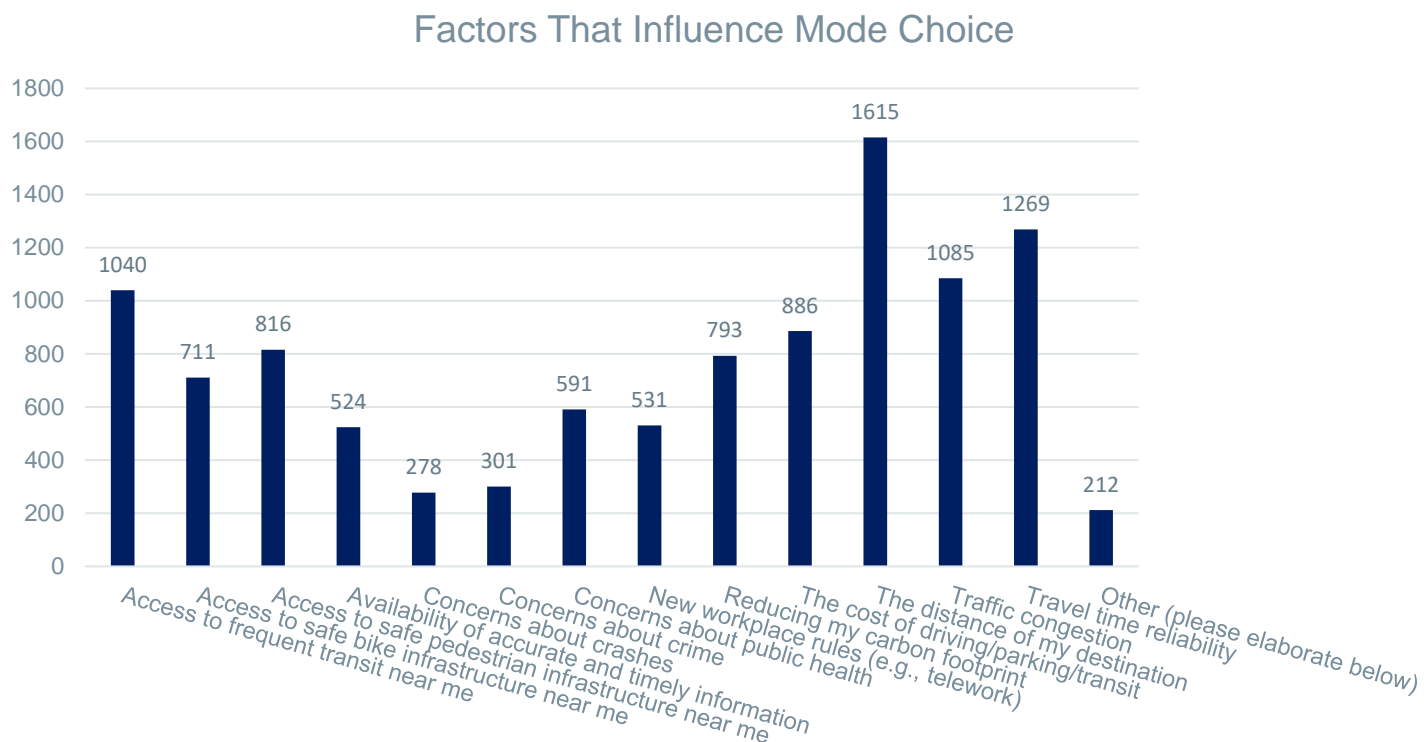
**Figure 9.15 Post-Pandemic Frequency of Walking**



## 9.3 Influencing Factors

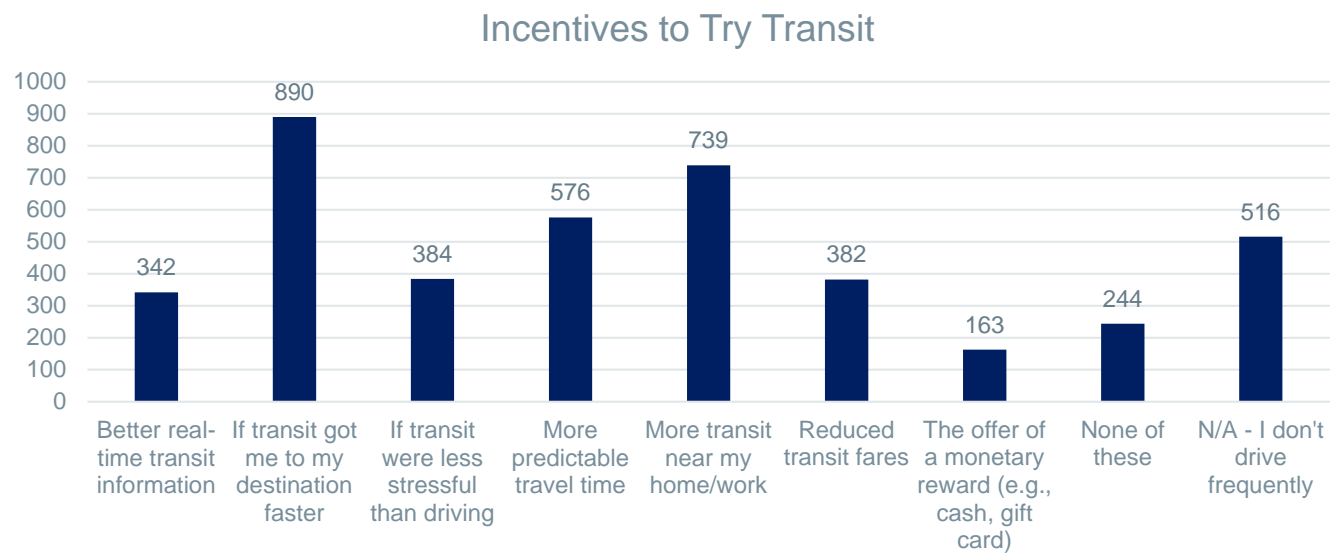
Respondents were asked what factors they anticipate will influence their choice of transportation mode(s) after the pandemic ends. As shown in Figure 9.16, the most common factor selected was “the distance of my destination.” Of the 2,117 people who responded to this question, 1,615, or 76 percent, cited distance as a factor that will influence their mode choices. Other commonly selected factors included travel time reliability (60 percent of respondents), traffic congestion (51 percent), and access to frequent transit (49 percent). The factors that will least influence mode choice include concerns about crashes (13 percent) and concerns about crime (14 percent). One-fourth of respondents reported that new workplace rules, such as telework, will influence their mode choices post-pandemic. Responses to “Other” included lack of transit service, weather conditions, children’s transportation needs, availability of parking, personal exercise goals, health limitations, and access to carpooling.

**Figure 9.16 Factors That Influence Mode of Transportation Choice**



Respondents were asked whether they drive regularly and, if so, to select which of seven incentives would motivate them to try transit; respondents could select multiple responses. As shown in Figure 9.17, of the 2,033 people who responded to this question, 44 percent said they would be more likely to try transit if it got them to their destination faster, 36 percent would be more likely to try transit if there were more transit near their home and/or work, and 28 percent would be more likely to try transit if there were a more predictable travel time. Additionally, 19 percent of respondents said they would be more likely to try transit if it were less stressful than driving; 19 percent selected reduced transit fares as an incentive; 17 percent said better real-time transit information would incentivize them; and only eight percent said the offer of a monetary reward would incentivize them. Twelve percent of respondents said none of the options would incentivize them to try transit.

**Figure 9.17 Incentives to Try Transit**



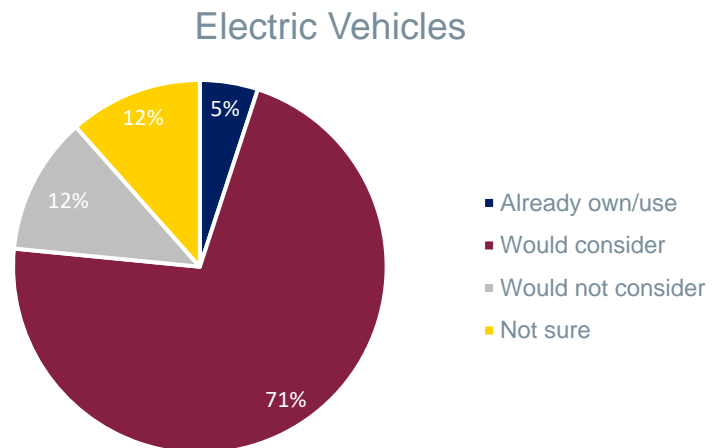
## 9.4 Interest in Emerging Technologies

### 9.4.1 Electric Vehicles

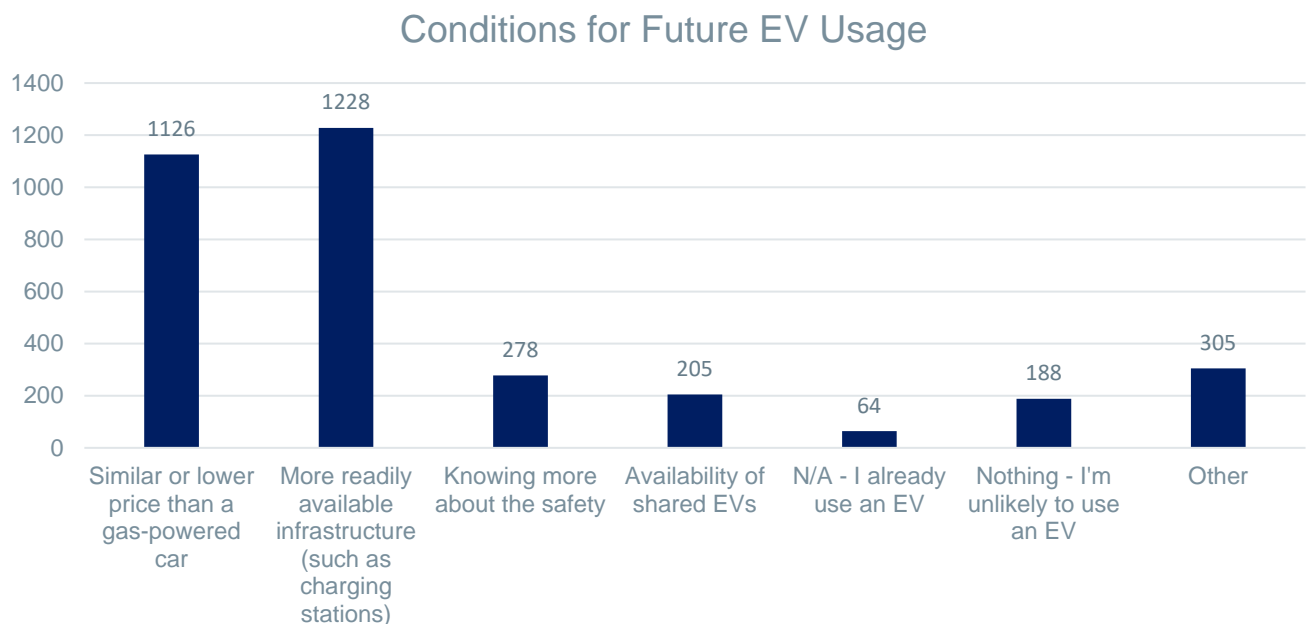
Survey respondents were asked about their interest in owning or using an electric vehicle (EV) in the future. As shown in Figure 9.18, five percent of respondents already own or use an EV, 71 percent said they would consider it, 12 percent said they would not consider it, and 12 percent said they were not sure.

Respondents were asked what would make them more likely to consider using an EV in the future. As shown in Figure 9.19, most respondents said they would be more likely to consider using an EV once there is more readily available infrastructure (64 percent) and once the price is similar or lower than the price of a gasoline-powered car (58 percent). Responses to "Other" included "similar range of miles to a full gas tank," "cost of setting up infrastructure at my house," "environmental impacts of batteries versus fuel," "tax incentives," presence of charging stations at multifamily buildings, and time it takes to reach a full charge. Some respondents reported that they are happy with their current car but plan to purchase an EV once they need a new car.

**Figure 9.18 Interest in EVs**



**Figure 9.19 Conditions for Future EV Usage**



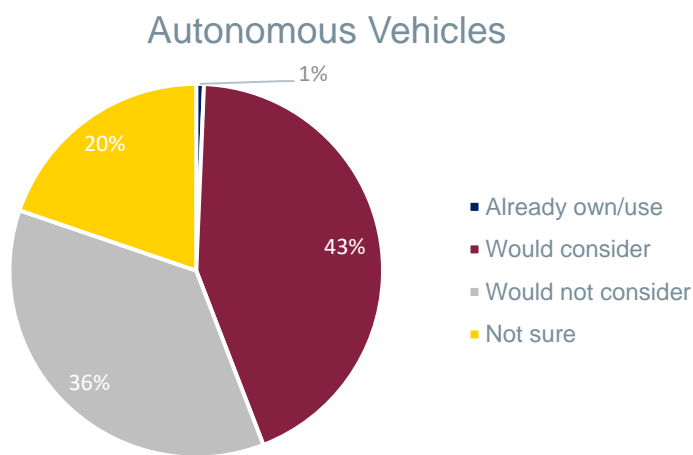


### 9.4.2 Autonomous Vehicles

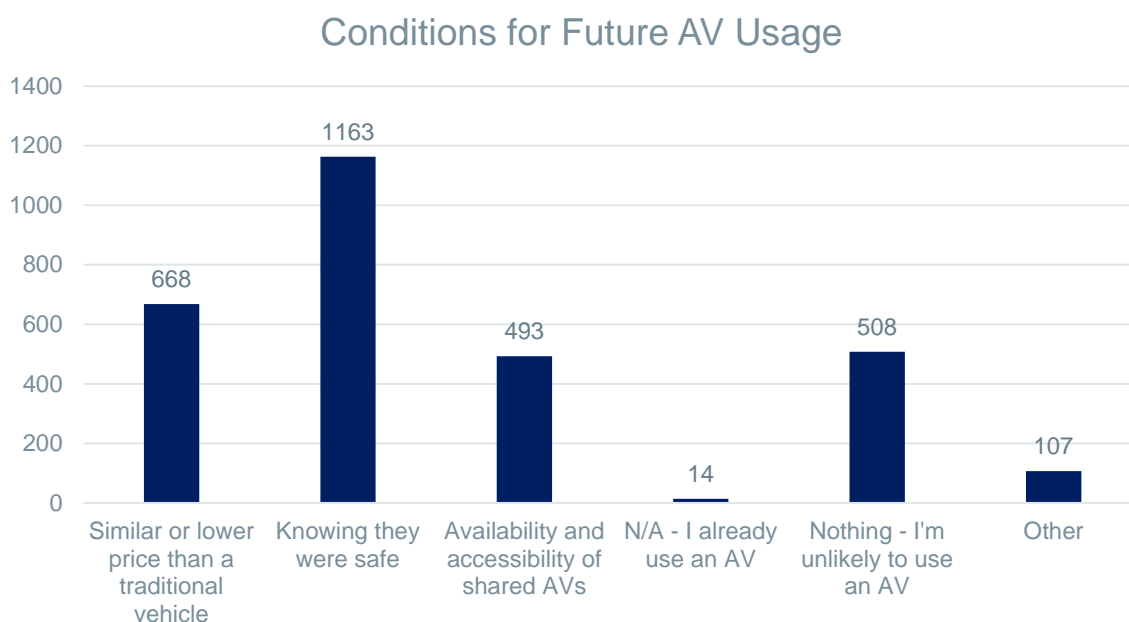
Respondents were asked how interested they would be in owning an autonomous vehicle (AV) in the future. As shown in Figure 9.20, one percent of respondents already own or use an AV, 43 percent would consider owning or using an AV, 36 percent would not consider it, and 20 percent are not sure.

Respondents were asked what would make them likely to use an AV in the future. As shown in Figure 9.21, most respondents said they would be more likely to use an AV once they had confidence that AVs were safe (61 percent). There are many more respondents who said they are unlikely to use an AV in future (508 respondents) compared to those who said they are unlikely to use an EV in the future (188 respondents). Responses to “Other” included “accuracy of reaching travel destination,” “more technology and safety standards,” the safety of those outside the AV (e.g., pedestrians and cyclists), and that respondents who would not purchase an AV because they enjoy driving.

**Figure 9.20 Interest in AVs**



**Figure 9.21 Conditions for Future AV Usage**



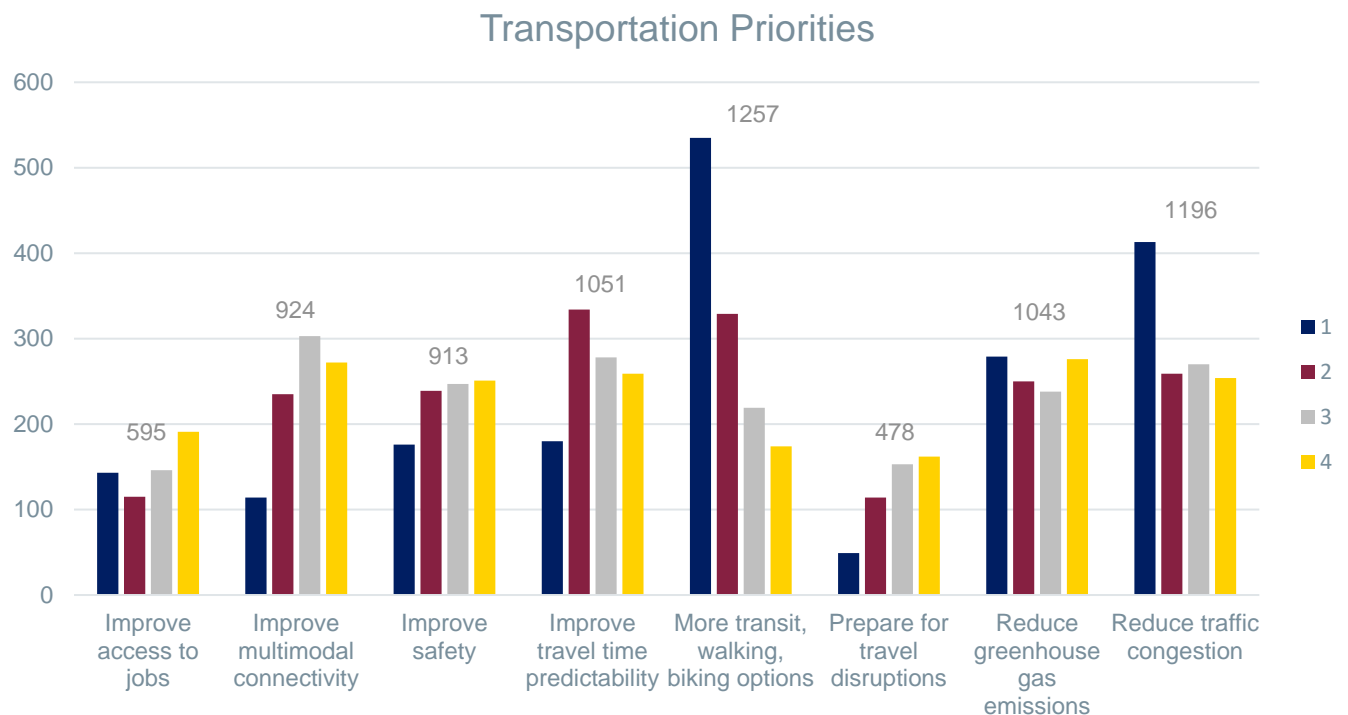
## 9.5 Transportation Priorities

Respondents were shown a list of transportation priorities, each accompanied by a description and photo (as in the example in (Figure 9.1), and asked to rank their top four priorities. The eight options were:

- More transit, walking, biking options
- Improve multimodal connectivity
- Improve access to jobs
- Improve travel time predictability
- Improve safety
- Prepare for travel disruptions
- Reduce traffic congestion
- Reduce greenhouse gas emissions

These options align with the objectives for TransAction. As shown in Figure 9.22, the most commonly selected priority, and the priority most frequently ranked number one, was “more transit, walking, biking options.” The second and third most commonly selected priorities were “reduce traffic congestion” and “improve travel time predictability,” respectively. In order of most commonly selected, the remaining priorities were “reduce greenhouse gas emissions,” “improve multimodal connectivity,” “improve safety,” “improve access to jobs,” and “prepare for travel disruptions.”

**Figure 9.22 Frequency of Ranking of Transportation Priorities**



## 9.6 Allocating Resources

The fourth tab of the survey included an investment activity. Respondents were given 10 hypothetical coins, each representing \$1 million, and asked to distribute them between six different project types: roadway construction/improvement, rail, bus, bicycle, pedestrian, and technology projects. As shown in Figure 9.23, rail projects received the most investments (total “coins”), followed by roadway construction/improvement and bus. Technology improvement projects received the lowest average level of investment.

**Figure 9.23 Total Distribution of Investments**

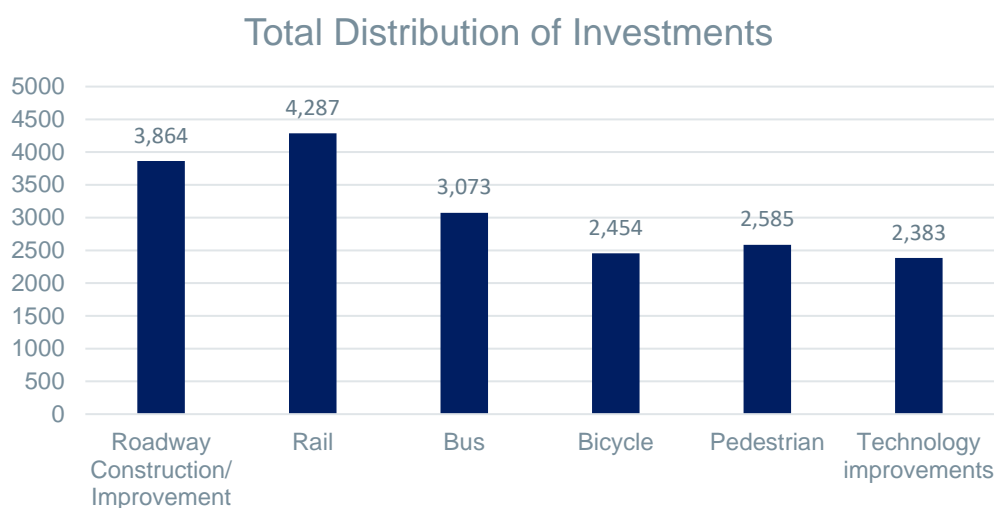
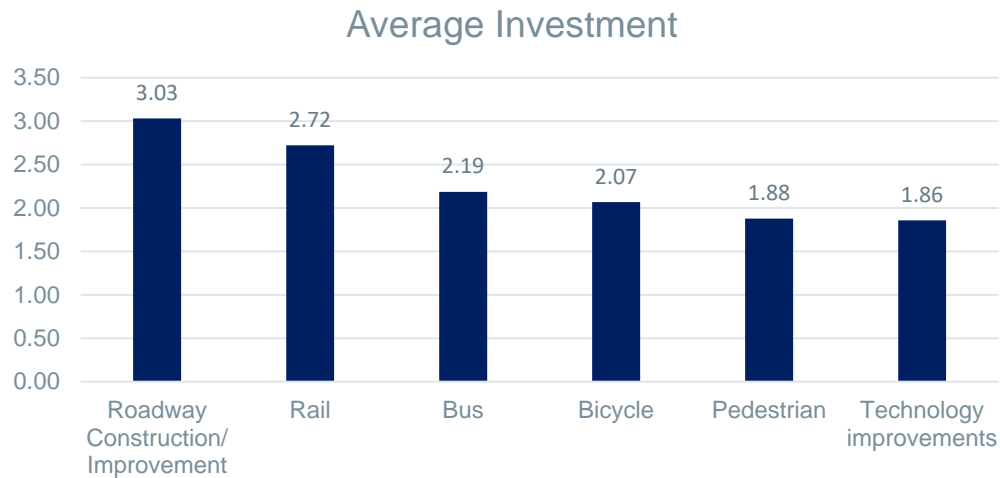


Figure 9.24 shows the average investment for each project type *among those respondents who provided at least one coin for that project type*. Roadway construction/improvement had the highest average investment, with 3.03 coins. While rail projects received the most investment overall, roadway construction/improvement projects received more coins from respondents who chose to invest any coins in that project category. The lowest average investment was technology improvements with 1.86 coins, followed closely by pedestrian projects with 1.88 coins.

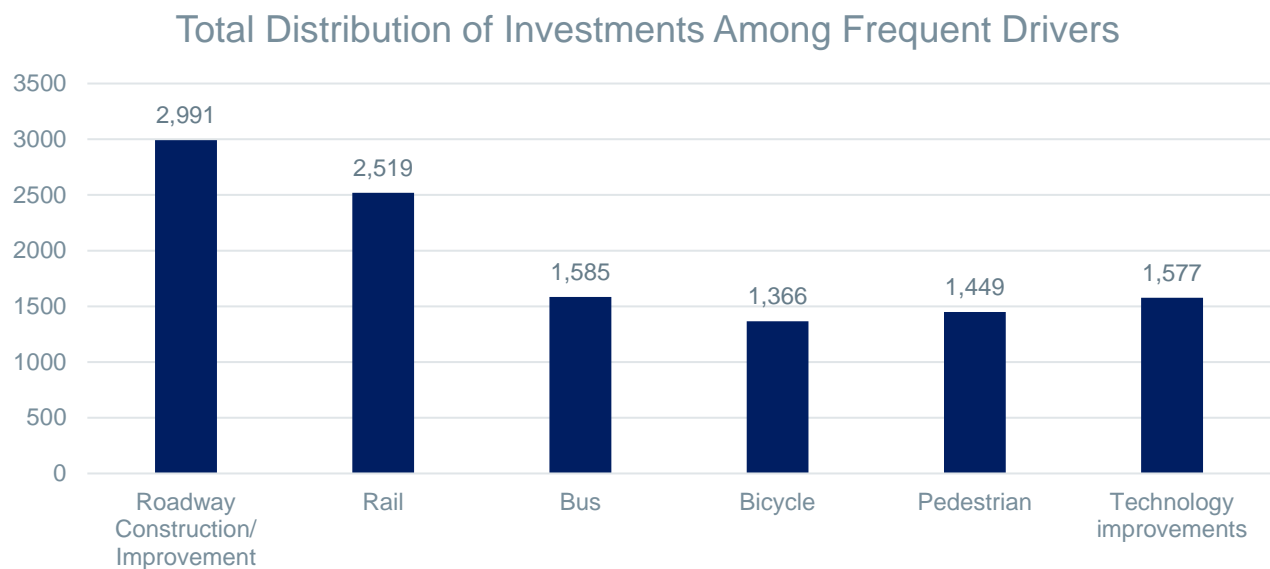


**Figure 9.24 Average Investment**

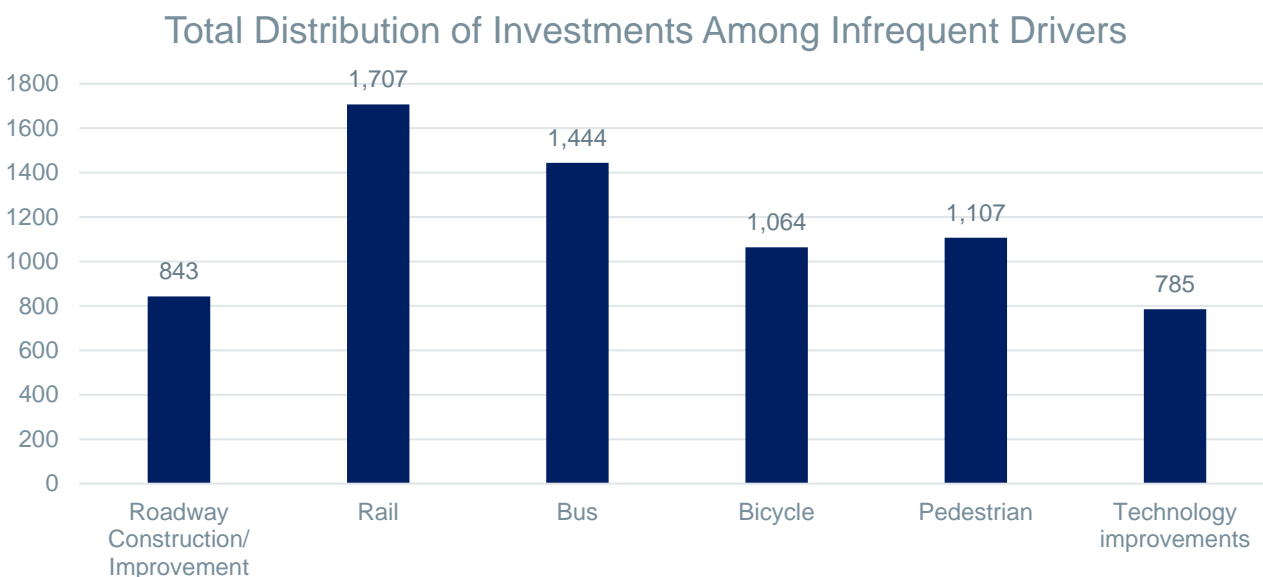


Average investments for different project types differed between frequent drivers—defined as respondents who, prior to the pandemic, drove three or more times per week—and non-drivers or infrequent drivers—respondents who, prior to the pandemic, drove two times per week or fewer. As shown in Figure 9.25, roadway construction/improvement projects received the most investment among frequent drivers, closely followed by rail projects, indicating, interestingly, that drivers have nearly as much interest in rail investments as roadway investments. Frequent drivers awarded relatively similar lower amounts to the remaining four project types.

**Figure 9.25 Average Investment Among Frequent Drivers**



Bicycle projects received the fewest investments among drivers. Among non-drivers and infrequent drivers, as shown in Figure 9.26, rail received the most investments, followed by bus, pedestrian, and bicycle projects. While roadway construction/improvement projects received the most investments among frequent drivers, these projects received the second-fewest investments among non-drivers or infrequent drivers.

**Figure 9.26 Average Investment Among Non-Drivers or Infrequent Drivers**

## 9.7 Key Takeaways

The TransAction survey provided significant insight into the public's priorities related to investments in different transportation project types, the transportation outcomes they want to see, and their expected post-pandemic travel mode choices, as described in this section. It is important to note, however, that the respondents are not statistically representative of the demographics of Northern Virginia, with the sample more likely to be White and higher income compared to the population.

### *9.7.1 Pandemic-Related Changes in How People Travel*

When asked about plans for post-pandemic travel across four different modes—driving, taking transit, walking, and biking—responses to “same amount as pre-pandemic” ranged between 62 percent and 72 percent. This means that for each of the four modes surveyed, about a third of respondents anticipate significantly changing their post-pandemic travel habits compared to pre-pandemic. Twenty-eight (28) percent and 21 percent of respondents said they would reduce their driving and transit usage compared to pre-pandemic, respectively, whereas those figures were much lower for biking and walking – only 8 percent and 6 percent, respectively. About a quarter of respondents (26 percent) indicated that new workplace rules (such as telework) will influence their mode choices once the pandemic is over.

### *9.7.2 Interest in Modes Other than Driving*

When asked about their four highest priorities for transportation in Northern Virginia out of eight options, “More transit, walking, and biking options” was the most commonly selected, and it was also most frequently ranked as people's number one option. Reducing traffic congestion and improving travel time predictability were, respectively, the second and third most commonly selected priorities (among each respondent's top four, regardless of ranking).



In the Allocating Resources investment activity, rail was the project type that received the most investment, with roadway construction and improvement receiving the second highest amount, and bus being third. Not surprisingly, people who do not drive frequently placed a higher importance on non-roadway investments than regular drivers. Still, of the 1,275 respondents who invested any of their “coins” in roadway construction/improvement projects, only 11 percent invested more than five coins.

When asked what would incentivize them to try transit, only 12 percent of respondents reported they were not interested in trying transit. In addition to 25 percent of respondents who selected “N/A” because they don’t drive frequently, 44 percent said they would try transit if it got them to their destination faster, and 36 percent would try transit if there were more transit near their home and/or work. Interestingly, while only eight percent said a monetary reward would incentivize them to try transit, 19 percent said reduced transit fares would be an effective incentive. While it is likely that travel time and availability of transit are important factors for everyone, respondents’ disproportionately high household incomes may partly explain the relatively low importance they placed on monetary incentives.

### *9.7.3 Interest in Electric Vehicles*

Most respondents said they were interested in trying EVs: 76 percent of respondents already own or would consider owning or using an EV. This could be tied to how respondents view climate change. “Reduce greenhouse gas emissions” was the fourth most commonly selected transit priority (out of eight options), and 37 percent of respondents reported that reducing their carbon footprint is a factor that influences their mode choice. Significantly many fewer respondents are willing to try AVs. Only 43 percent said they would consider owning or using an AV (in addition to one percent who already do), while 36 percent would not consider using an AV and 20 percent were unsure. While cost and infrastructure were the biggest considerations for future EV usage, safety was the primary consideration for future AV usage.

## 10.0 APPENDIX C: STAKEHOLDER MEETING PRESENTATION

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# TransAction Update

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October 26, 2021

*presented to*

*NVTA Stakeholder Group*

*Keith Jasper*

*Principal, Transportation Planning and Programming*

*Northern Virginia Transportation Authority*



*NVTA's*  
**TransAction**  
*Transportation Action Plan  
for Northern Virginia*

# Agenda



- » Welcome; Role of Stakeholder Group; Participants
- » NVTA Overview
  - Primary Responsibilities
- » TransAction Process
  - TransAction – The Basics
  - Northern Virginia 2020-2045
- » TransAction Phase 1 Public Engagement Findings
  - Online Survey – Preliminary Findings
  - Focus Groups
- » Six Year Program Status
- » Next Meeting





# Role of Stakeholder Group

- » Purpose: create a new line of communication with organizations that represent citizens and businesses, amplify NVTA's messaging, provide feedback to NVTA, awareness raising
- » Not a statutory, advisory or voting body
- » Augments, but does not replace, citizen access to NVTA (Note: NVTA is not currently in a formal public comment mode)
- » Currently comprises approximately 50 organizations
  - Organizations mostly representing citizens
    - Civic groups
    - Advocacy groups
  - Organizations mostly representing businesses
    - Chambers of Commerce
    - Business Associations
- » Initially drawn from NVTA Mail Chimp databases, but expected to grow over time
- » Meet 3-4 times per year to share information and feedback on NVTA's primary responsibilities (Planning and Programming)
- » Inaugural meeting October 26, 2021



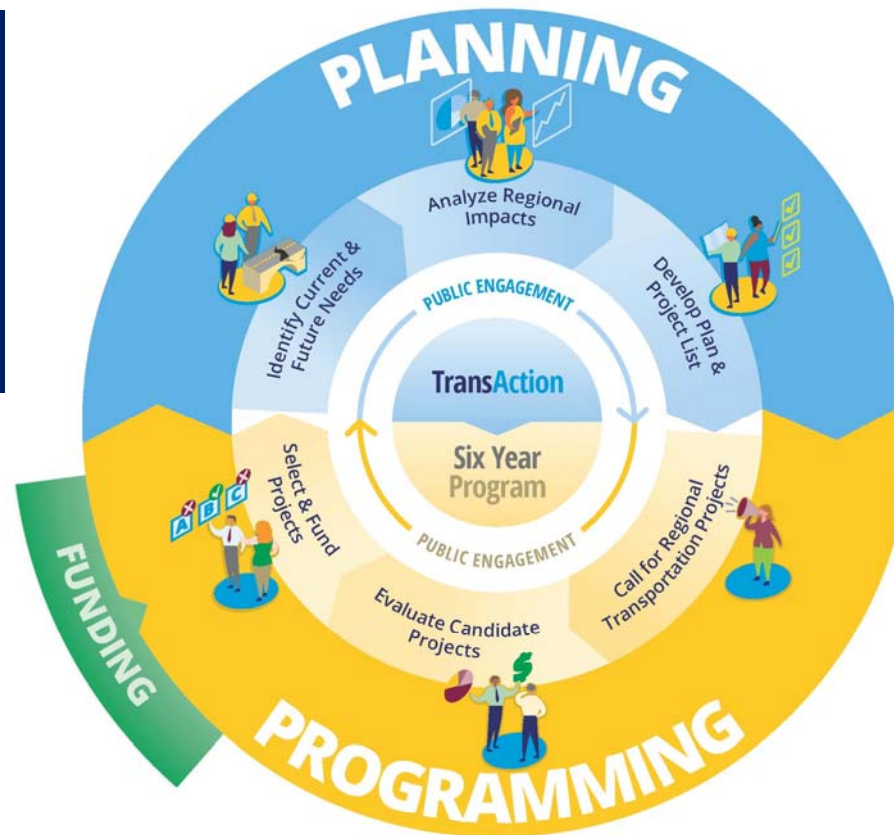
# NVTA's Primary Responsibilities

## TransAction

Long-Range  
Transportation Plan for  
NoVA

Updated every five years

Current plan adopted in  
October 2017



## Six Year Program (SYP)

Allocates NVTA's  
Regional Revenues to  
regional transportation  
projects

Updated every two years

Most recent SYP  
adopted in July 2020

# TransAction and NVTAs Six Year Program: Similarities and Differences



## Similarities

- » Share the same modeling platform/approach
- » TransAction and the SYP use the MWCOC region's cooperative planning forecasts but NVTA has no role in their development
- » TransAction uses weighted performance measures to generate TransAction Ratings, which are used (with other quantitative) and qualitative components as part of NVTA's SYP process
- » Projects must be included in the current TransAction Project List to be eligible for funding with NVTA's Regional Revenues in NVTA's SYP

## Differences

- » TA is fiscally and geographical unconstrained, while the SYP is funded (using NVTA's Regional Revenues)
- » Each project submitted for SYP funding consideration requires a Governing Body resolution, while the TransAction Project List is approved in its entirety by NVTA as part of the TransAction adoption process
- » NVTA has no direct influence over the choice of projects that are submitted for SYP funding consideration
- » Model horizon year for both TransAction and the SYP is typically several decades into the future, but the funding horizon year for the SYP is generally six years or less

# Linkage between TransAction and NVRTA's Funding Programs



TransAction Version (Horizon Year)	Adopted	NVRTA Funding Programs	Adopted	Funding Amount (after adjustments)
TransAction 2030 (2030)	November 2006	None	N/A	N/A
TransAction 2040 (2040)	November 2012	FY2014 FY2015-2016 FY2017	July 2013 April 2015 July 2016	\$ 178,784,455 \$ 326,983,482 \$ 166,043,951
TransAction (2040)	October 2017	FY2018-2023 FY2020-2025 FY2022-2027	June 2018 July 2020 July 2022 (expected)	\$1,285,273,281 \$ 539,110,783 TBD
TransAction (2045)	November 2022 (expected)	FY2024-2029 FY2026-2031	July 2024 (expected) July 2026 (expected)	TBD TBD

Note: 'Funding Amount' indicates Regional (70%) Revenues directly allocated by NVRTA to regional transportation projects, and does not include Local (30%) Revenues distributed by NVRTA to NVRTA's Member Jurisdictions for allocation to local or regional projects of their choosing

# Land Use



- » Land Use policy and decision-making rests with NVTa's member jurisdictions



# Stakeholder Feedback on NVTA Overview



# TransAction Vision Statement



“Northern Virginia will plan for, and invest in, a safe, equitable, sustainable, and integrated multimodal transportation system that enhances quality of life, strengthens the economy, and builds resilience.”



## Core Values:

Overarching principles for TransAction that are part of the Vision statement and should be incorporated into the process and resulting plan.

Vision statement approved by NVTA in December 2020.



# Core Values

## » Equity



- Ensure fairness in mobility and accessibility to meet the needs of the region/sub-regions/communities
- Facilitate social and economic opportunities by providing equitable levels of access to affordable and reliable transportation option to serve the needs of all, and in particular underserved populations (e.g., low-income, minority, elderly, children, people with Limited English Proficiency (LEP), people with disabilities)

## » Sustainability



- Focus on meeting the needs of the present without compromising the ability of future generations to meet their needs
- Consider three pillars of sustainability : economic, environmental, and social

## » Safety



- Minimize transportation system fatalities and severe injuries, while increasing safe, healthy, equitable mobility for all



Source: BetterBikeShare.org






# Goals and Core Values

## » Goals: What we want to Achieve

- Enhance Mobility
- Increase Accessibility
- Improve Resiliency

## » Core Values: How we want to achieve them

- Equitably 
- Sustainably 
- Safely 

*Core Values are associated with multiple goals, objectives, and performance measures.*

# Recommended Goals, Objectives and Performance Measures



Goal	Objective	Performance Measure	Alignment with Core Values
<b>Mobility:</b> Enhance quality of life of Northern Virginians by improving performance of the multimodal transportation system	A. Reduce congestion and delay*	A1. Total Person-Hours of Delay in autos	
		A2. Total Person-Hours of Delay on Transit	
	B. Improve travel time reliability*	B1. Duration of Severe Congestion	
		B2. Transit person-miles in dedicated/priority ROW	
<b>Accessibility:</b> Strengthen the region's economy by increasing access to jobs, employees, markets, and destinations for all communities	C. Improve access to jobs*	C1. Access to jobs by car, transit, and bike	
		C2. Access to jobs by car, transit, and bike for EEA populations	
	D. Reduce dependence on driving alone by improving conditions for people accessing transit and using other modes	D1. Quality of access to transit and the walk/bike network	
<b>Resiliency:</b> Improve the transportation system's ability to anticipate, prepare for, and adapt to changing conditions and withstand, respond to, and recover rapidly from disruptions.	E. Improve safety and security of the multimodal transportation system	E1. Potential for safety and security improvements	
	F. Reduce transportation related emissions	F1. Vehicle Emissions	
	G. Maintain operations of the regional transportation system during extreme conditions*	G1. Transportation System Redundancy	

\* Measure included in HB 599 rating process.



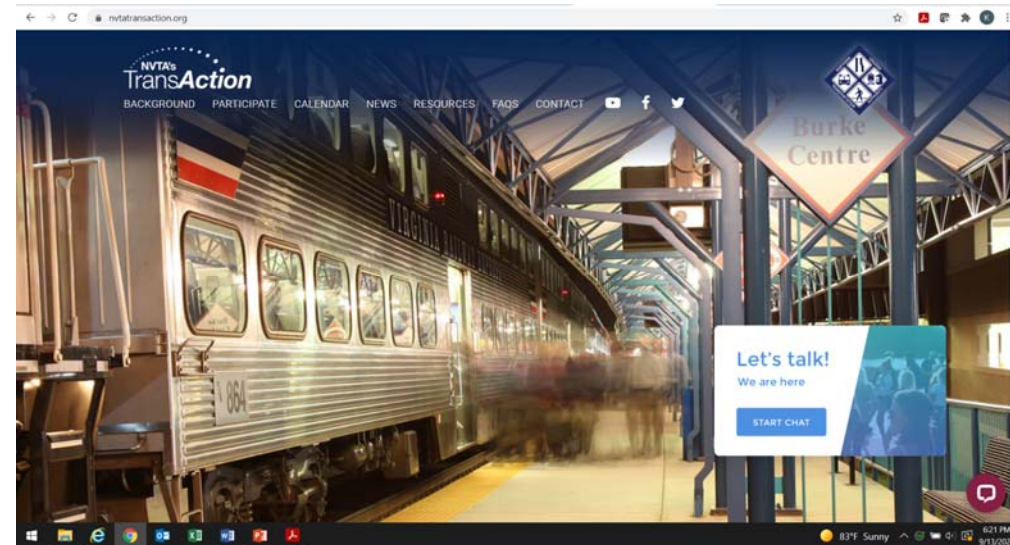
# Development & Approval Process

- » November: NVTA approves TransAction goals, objectives, and performance measures
- » December: NVTA approves weights for performance measures
- » Winter/Spring 2022: Analysis
- » Summer/Fall 2022: Public Comment/Hearing
- » November 2022: NVTA adopts TransAction



# Northern Virginia 2020-2045

- » Forecast NoVA growth (per MWCOG/TPB):
  - Population 23.1% (COG region 21.7%)
  - Employment 33.1% (COG region 27.2%)
- » Distribution of population (employment) growth
  - Loudoun/Prince William/Manassas/Manassas Park – 35% (40%)
  - Fairfax/City of Fairfax – 45% (39%)
  - Arlington/Alexandria/Falls Church – 20% (21%)
- » New Transportation Infrastructure:
  - Projects currently under construction, e.g. Silver Line Phase 2, Potomac Yard Metrorail Station, I-66 Outside the Beltway
  - Fully-funded projects not yet underway, e.g. Northern Extension to the Capital Beltway Express Lanes







# Implications for TransAction

## » All TBD:

- Trip lengths and mode choice
- Reverse commutes, including cross-Potomac
- Suburb-to-suburb trip-making
- Could be supportive of transit where it already exists or is planned
- May also present challenges for reversing/reducing dependence on driving alone



# Dealing with Uncertainty

- » The TransAction process will include sensitivity analysis to better understand uncertainty:
  - Plausible futures, but not necessarily preferred or predicted
  - Assumptions-based using proxy metrics than can be modeled
  - May identify potential investment obsolescence
- » This sensitivity analysis will develop four specific alternative futures (scenarios):
  - Pandemic-created 'New Normal'
  - Climate Change
  - Transportation Technology
  - Transportation Policy/Mechanisms

# Stakeholder Feedback on TransAction Process





# Phase 1 Engagement Activities

## Phase 1

**Goals: Build awareness of the project, gather input on needs and objectives**

**Key Engagement Strategies:**

- Online Survey
- Pop-up events
- Virtual Focus Groups
- Live Chat Sessions
- Stakeholder Group

**Supporting Initiatives:**

- Website refresh
- Resources and tools for stakeholders
- Social Media Messaging





# 2021 TransAction Survey

- » Purpose: to seek feedback on travel behaviors, transportation needs and priorities
- » Format: MetroQuest platform utilizing interactive “gamified” exercises
- » Available languages: English, Korean, and Spanish
- » Dates: August 6<sup>th</sup> - September 19<sup>th</sup>
- » Responses:
  - English: 2,164
  - Korean: 89
  - Spanish: 65\*
  - TOTAL: 2,318

\* At pop-up events, 123 Spanish speakers received assistance completing the survey in English

*The survey did not apply a random sample recruitment method. Therefore, the sample does not statistically represent the population of the NVTa region.*

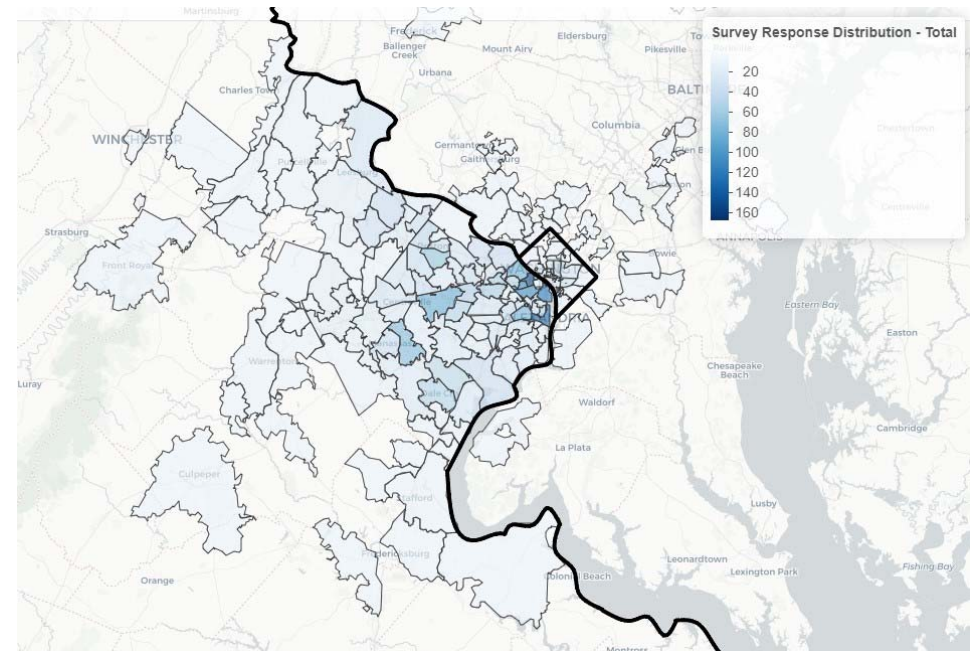


# About the Survey Respondents

Counties	Total Responses	NVTA Region Responses
Arlington County + Alexandria City + Falls Church City	41.0%	43.3%
Fairfax County + Fairfax City	35.4%	37.5%
Loudoun + Prince William + Manassas City + Manassas Park City	18.2%	19.2%

## Demographics:

- » 12% from households with less than 50k in annual income
- » 31% identified as non-white or Hispanic/Latinx
- » 19% were people 65 years or older

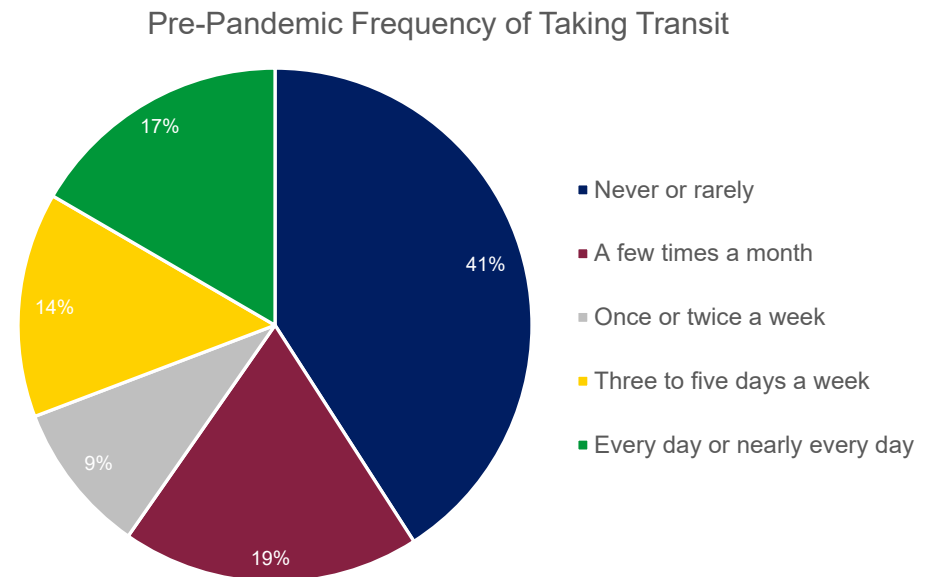


Map of Home Zip Codes of Survey Respondents



# Survey Results – Travel Characteristics

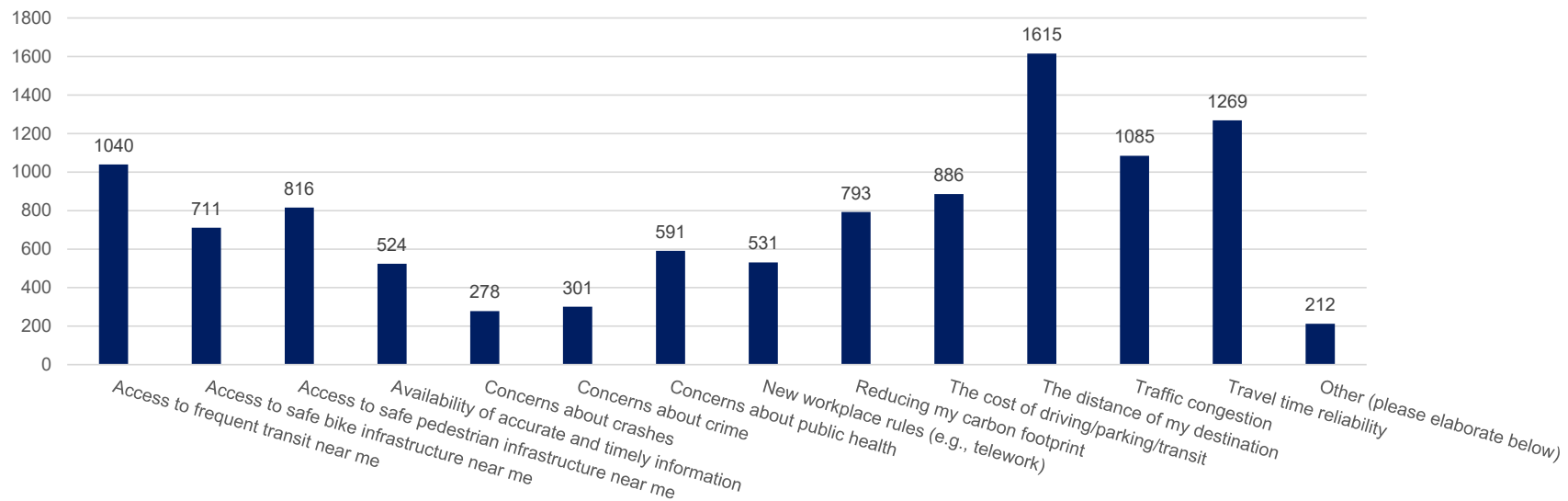
- » Pre-pandemic trips to work/school/other:
  - 31% used transit at least 3 days a week
  - 14% biked at least 3 days a week
  - 28% walked at least 3 days a week
- » About a third of respondents anticipate changing their post-pandemic travel habits compared to pre-pandemic
  - 28% will reduce driving
  - 21% will reduce transit use
  - 8% will reduce biking
  - 6% will reduce walking





# Survey Results – Influencing Factors

Factors That Influence Mode Choice

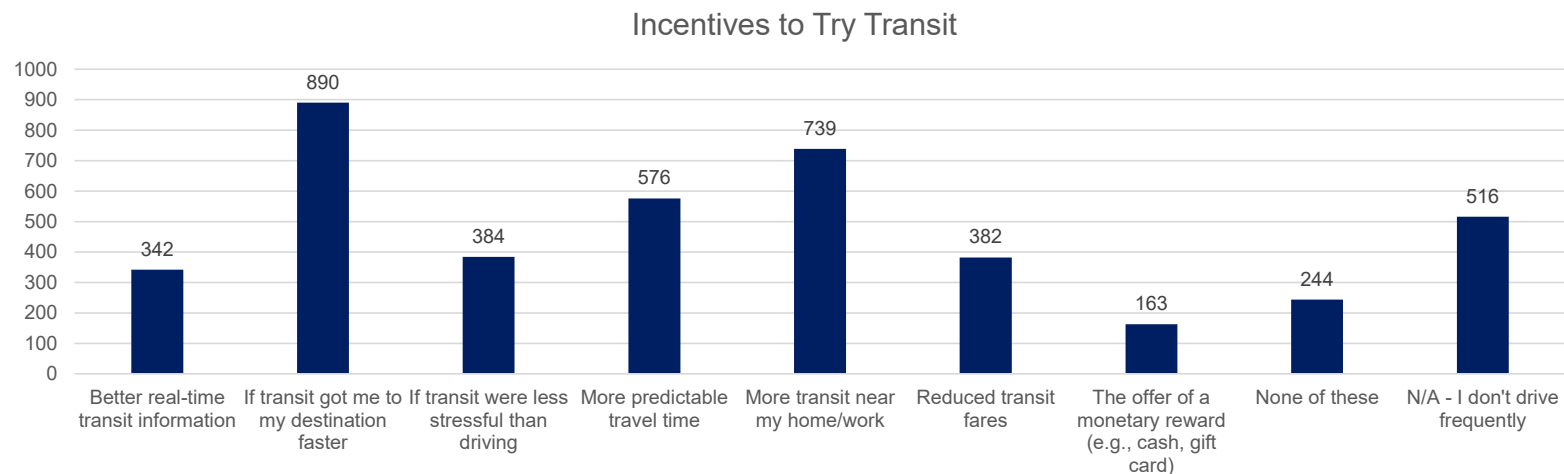


- Factors that will most affect mode choice: trip distance (76%), travel time reliability (60%), traffic congestion (51%), and access to frequent transit (49%)
- Factor least likely to affect mode choice: concerns about crashes (13%) and concerns about crime (14%).





# Survey Results – Incentives to Use Transit

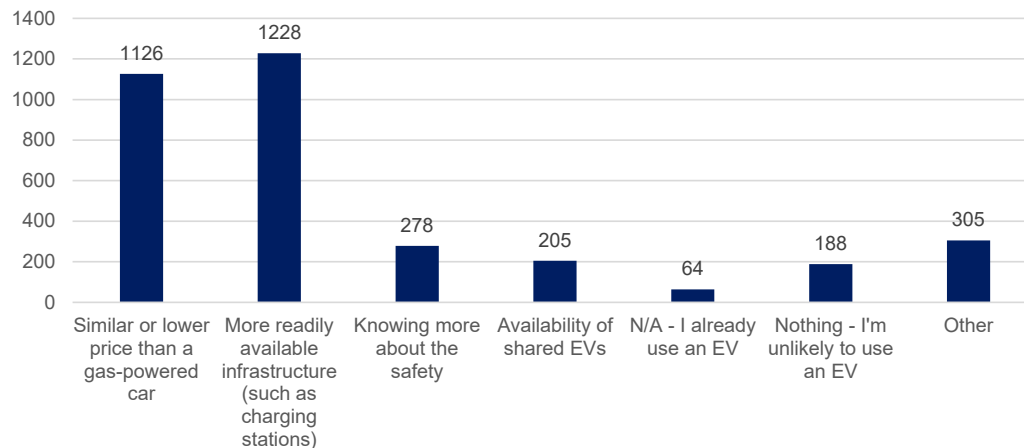


- Would be more likely to try transit if:
  - Got them to their destination faster (44%)
  - More transit near their home and/or work (36%)
  - More predictable travel time (28%)
- Only 12% of respondents reported they were not interested in trying transit

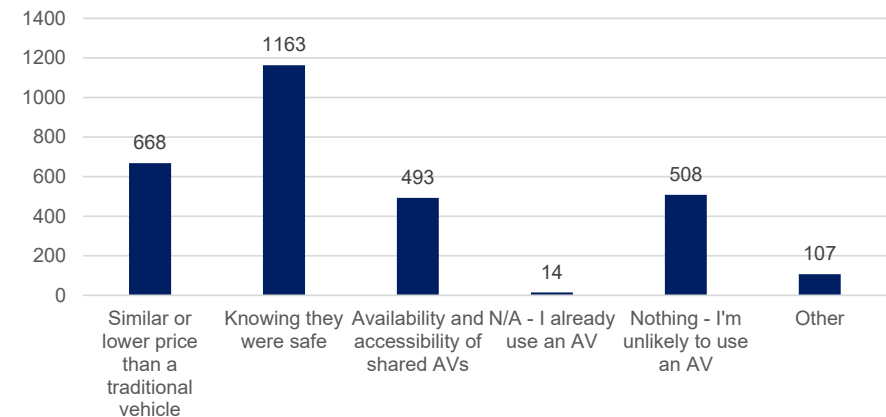


# Survey Results – Emerging Technologies

Conditions for Future EV Usage



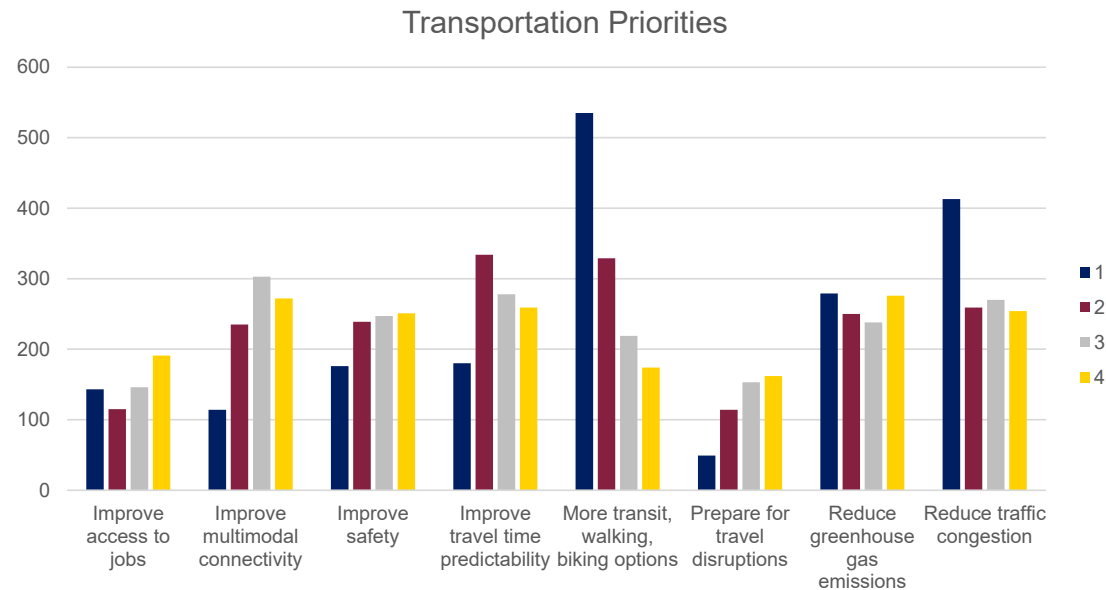
Conditions for Future AV Usage



- More likely to consider using an EV once there is more readily available infrastructure (64%) and once the price is similar or lower than the price of a gasoline-powered car (58%)
- More likely to use an AV once they had confidence that AVs were safe (61%)

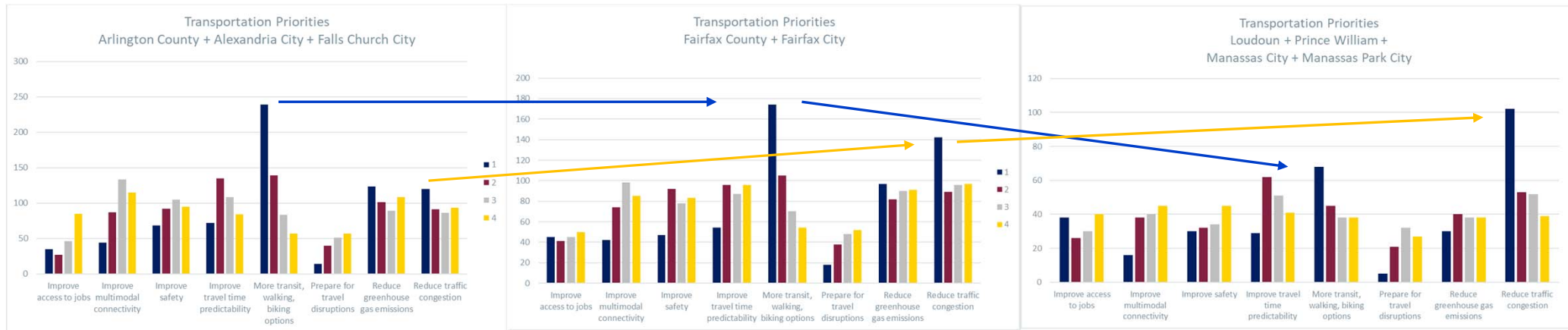


# Survey Results – Transportation Priorities



- Priority most frequently ranked 1<sup>st</sup>, was “more transit, walking, biking options”
- 2<sup>nd</sup> and 3<sup>rd</sup> most commonly selected priorities were “reduce traffic congestion” and “improve travel time predictability”

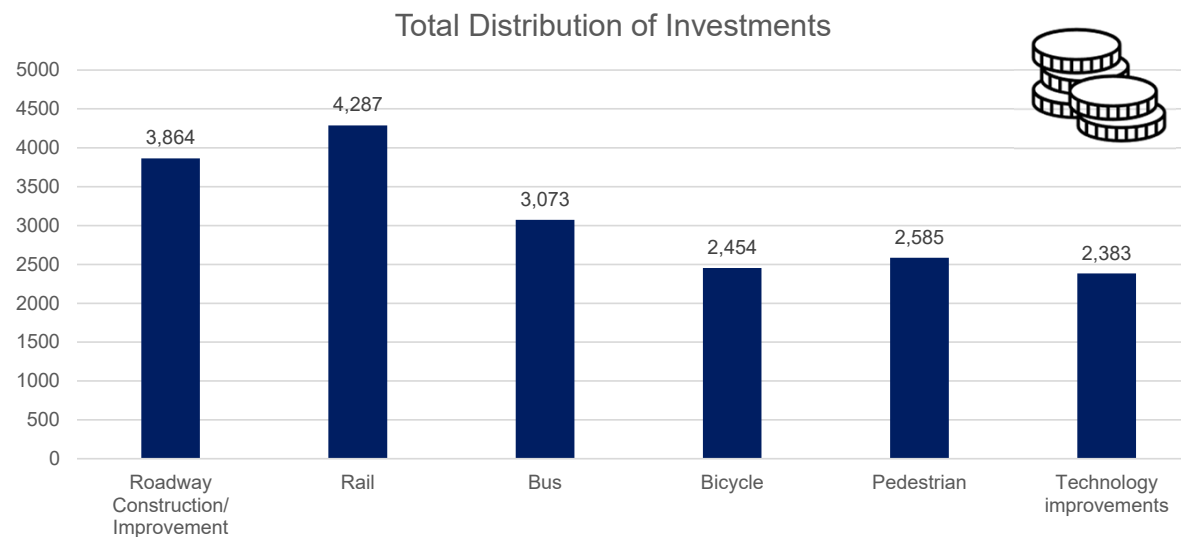
# Survey Results – Transportation Priorities by Geographic Area



- Survey respondents from inner jurisdictions selected “more transit, walking, biking options” as the top priority
- Survey respondents from outer jurisdictions selected “reduce traffic congestion” as top priority
- Other objectives showed less variability between different geographic areas – “improve travel time reliability” was typically the 2<sup>nd</sup> ranked priority



# Survey Results – Allocating Resources

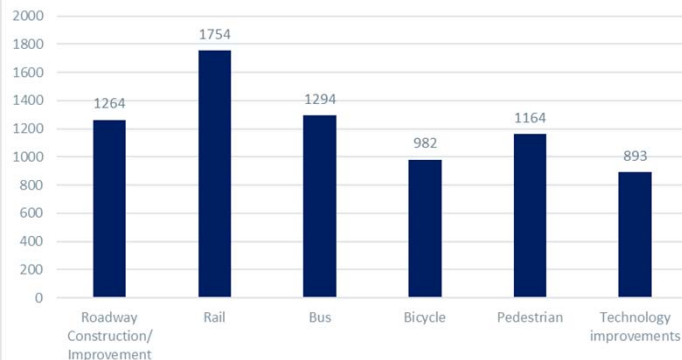


- Respondents were given 10 hypothetical coins, each representing \$1 million, and asked to distribute them between six different project types
- Rail projects received the most investments (total “coins”), followed by roadway construction/improvement and bus

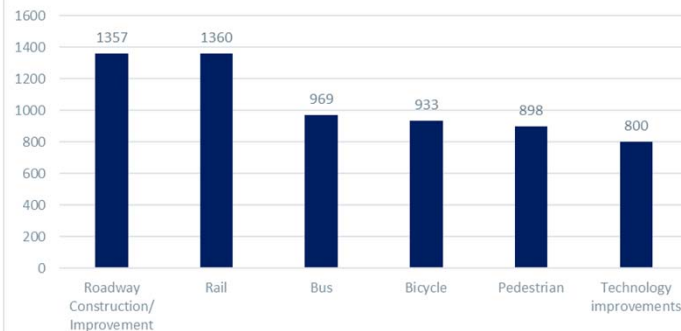
# Survey Results – Transportation Priorities by Geographic Area



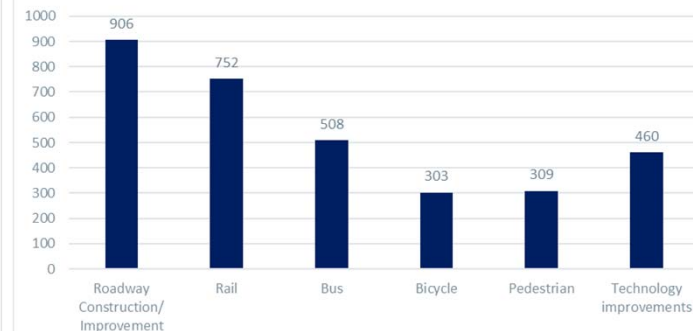
Total Distribution of Investments  
Arlington County + Alexandria City + Falls Church City



Total Distribution of Investments  
Fairfax County + Fairfax City



Total Distribution of Investments  
Loudoun + Prince William +  
Manassas City + Manassas Park City



» Home location of respondents did influence selection of type of investments needed:

- Inner jurisdictions allocated resources to rail (1<sup>st</sup>) and bus (2<sup>nd</sup>), before roadway improvements (3<sup>rd</sup>)
- Fairfax County/City allocated resources about evenly between roadway and rail, then bus
- Outer jurisdictions allocated the most resources to roadway construction/improvement, followed by rail (2<sup>nd</sup>) and bus (3<sup>rd</sup>)



# Survey Results – Key Findings

- » The top priorities were “more transit, walking, biking options”, “reduce traffic congestion” and “improve travel time predictability”, but the order varied by geographic area
  - Focus groups more typically had cited “reduce traffic congestion” and “improve travel time predictability” as top priorities
- » When allocating hypothetical investment \$ in transportation, roadway and rail improvements were given the highest allocation by survey respondents
  - People who do not drive frequently placed a higher importance on non-roadway investments than regular drivers
  - Regular drivers did allocate the most resources to roadway improvements, but did also allocate significant resources to rail and bus improvements



# Focus Groups

- » Purpose: explore how participants feel, and why
- » Eight online discussion groups held July 20-29, 2021

- 95 total participants
- Two groups of each of four market segments

- » Discussion Topics:

- Current travel choices
- Issues getting around in NoVA
- Core Values
- Prioritization of objectives
- Types of transportation improvements
- Emerging travel options

## Transit Focused:

Residents of Arlington, Alexandria,  
or with 1 mile of Metrorail station

## Non-Transit Focused:

Residents of other areas in Northern  
Virginia

## Title VI Populations:

Those who belong to a protected  
Title VI group

## Non-Title VI Populations:

General Population



# Focus Groups – Travel Choices and Issues



- » Focus was on pre-pandemic travel patterns and expected travel post-pandemic
  - Single occupancy vehicles (SOV) are chosen specifically for their reliability and flexibility
  - Metrorail was used (pre-pandemic) to get to work or for occasional discretionary into DC
    - Limited use/awareness of other transit options
    - Those without transit access explained that they would be more willing to use public transportation if they understood it better
  - Housing prices make it more difficult to live close to a Metro station
  - Those currently telecommuting generally expect that they will continue telecommuting in the future at a minimum of a hybrid schedule



# Focus Groups – Core Values



» How focus group participants think about Equity

What does Equity mean?

Overall, participants identified “Equity” as relating to fairness. That is, a transportation system that serves everyone fairly.

How is the region doing on Equity?

Northern Virginia has some work to do to address equity: it feels to many that decisions are made to prioritize wealthier areas in the region

How should NVTA consider/ incorporate Equity?

More fairly distribute projects and improvements geographically and to help lower-income residents



# Focus Groups – Core Values



» How focus group participants think about Sustainability

What does Sustainability mean?

Sustainability, for nearly all respondents, first brought to mind thoughts of maintenance and infrastructure that is built to last

How is the region doing on Sustainability?

Considerations such as responsibility to the environment are nearly always trumped by the importance of their commute

How should NVTA consider/ incorporate Sustainability?

NVTA needs to work to make sustainable choices and modes work for people



# Focus Groups – Core Values



» How focus group participants think about Safety

What does Safety mean?

Two components were highlighted: safety from crime and safety from accidents

How is the region doing on Safety?

Metro was often mentioned by participants concerned with safety.

How should NVTA consider/ incorporate Safety?

NVTA should encourage safe driving practices and work to provide things like safer bike lanes, proper maintenance of roads and bridges, and more crosswalks and sidewalks to promote pedestrian safety



# Focus Groups – Priorities

## » Objectives

- Highest priorities across groups were to reduce congestion and delay
- Those who live in areas without Metro access were more likely to see expansion of transportation choices as a high priority

## » Improvements

- “Build new roads or widen roads” was chosen by majority of participants
  - But vocal minority of participants pointed out that over the years, building new roads or widening roads has not seemed to help the traffic situation

## » Emerging technology

- “Get roads ready for automated vehicles” was viewed as a low short-term priority, but it should be a priority for the future
- Most are open to owning an electric car, but identified potential drawbacks - car’s range and availability of charging stations (i.e., range anxiety), the lack of infrastructure in their homes, and concerns about using clean or dirty energy to charge their cars

# Stakeholder Feedback on Public Engagement





# NVTA's Six Year Program

- » FY2022-2027 Six Year Program; eligibility is based on inclusion in Project List for current TransAction (adopted in October 2017)
- » July 1, 2021 Call for Regional Transportation Projects posted; applicants decide which projects to submit for funding consideration, not NVTA
- » Applications closed October 1, 2021; initial reviews underway
- » December 3, 2021 Deadline for Governing Body resolutions
- » Winter 2021/2022 Evaluation of candidate projects
- » Spring 2022 Public Hearing and public comment period
- » NVTA adoption anticipated in July 2022



## NVTA's Six Year Program - continued

- » NVTA's Six Year Program allocates Regional (70%) Revenues to high-performing regional transportation projects
- » NVTA selects projects from the candidate project pool in each update cycle (every two years), but does not determine which projects are submitted for consideration
- » Applicants may request funding for one or more project phases, for multiple projects
- » NVTA may approve funding for some or all of the total amount requested for each project





## NVTA's Six Year Program - continued

- » Projects approved for inclusion in the Six Year Program are typically implemented by, or in coordination with, the applicant
- » Project implementation is subject to applicable federal, state, local processes
- » Applicants are required to enter into a Standard Project Agreement (SPA) with NVTA, typically within three months of appropriation of Regional Revenues by NVTA
- » Regional Revenues are not a grant; NVTA reimburses applicants for eligible expenses as projects advance
- » When each SPA is closed, unused appropriations are returned to the Regional Revenue Fund for allocation in the next Six Year Program update

# Stakeholder Feedback on NVTA's Six Year Program





# Next Meeting of Stakeholder Group

- » Late January 2022 or February 2022?
- » Potential Topics
  - TransAction status
  - FY2022-2027 status
  - Other?
- » Future Engagement Opportunities
  - Late 2021 Transportation Perceptions Tracking Survey
  - December 2021 Annual Joint Public Hearing (NVTA, NVTC, VRE, VDOT, DRPT)
  - January 2022 NVTA Organizational Meeting
  - Spring 2022 FY2022-2027 Six Year Program Public Hearing and public comments
  - Fall 2022 TransAction Public Hearing and public comments

# Thank You!



[TheNoVaAuthority.org](http://TheNoVaAuthority.org) and  
[NVTATransAction.org](http://NVTATransAction.org)



Northern Virginia  
Transportation Authority



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# Reference Slide





# Current TransAction (October 2017)

## » Vision Statement:

“In the 21st century, Northern Virginia will develop and sustain a multimodal transportation system that enhances quality of life and supports economic growth.

Investments in the system will provide effective transportation benefits, promote areas of concentrated growth, manage both demand and capacity, and employ the best technology, joining rail, roadway, bus, air, water, pedestrian, and bicycle facilities into an interconnected network that is fiscally sustainable.”

Goal	Objective	Performance Measure	Weight
Goal 1: Enhance quality of life and economic strength of Northern Virginia through transportation	Reduce congestion and crowding experienced by travelers in the region	Total person hours of delay*	10%
		Transit crowding*	5%
		Person hours of congested travel in automobiles*	5%
		Person hours of congested travel in transit vehicles*	5%
	Improve travel time reliability	Congestion severity: maximum travel time ratio	5%
		Congestion duration*	10%
	Increase access to jobs, employees, markets, and destinations	Percent of jobs/population within 1/2 mile of high frequency and/or high performance transit	5%
		Access to jobs within 45 minutes by auto or within 60 minutes by transit*	5%
Goal 2: Enable optimal use of the transportation network and leverage the existing network	Improve connections among and within areas of concentrated growth	Average travel time per motorized trip between Regional Activity Centers	5%
		Walkable/bikeable environment within a Regional Activity Center	5%
	Improve the safety of transportation network	Safety of the transportation system	5%
	Increase integration between modes and systems	First and last mile connections	10%
	Provide more route and mode options to expand travel choices and improve resiliency of the system	Share of travel by non-SOV modes	10%
Goal 3: Reduce negative impacts of transportation on communities and the environment	Sustain and improve operation of the regional system	Person hours of travel caused by 10% increase in PM peak hour demand*	5%
		Vehicle miles traveled (VMT) by speed	10%

\* Measure included in HB 599 rating process.