



# Northern Virginia Transportation Authority

*The Authority for Transportation in Northern Virginia*

## PLANNING COORDINATION ADVISORY COMMITTEE

Wednesday, October 27, 2021, 6:30pm

NVTA Office

3040 Williams Drive, Suite 200

Fairfax, Virginia 22031

The meeting will be livestreamed on [NVTA's YouTube Channel](#)

### AGENDA

- I. Call to Order/Welcome Vice-Chair Miles

### Action

- II. Summary Notes of September 22, 2021, Meeting

*Recommended action: Approve meeting notes*

- III. Approval of Goals, Objectives, and Performance Measures for TransAction Update

Mr. Jasper, Principal Transportation Planning and Programming

*Recommended action: Recommend NVTA approval of the TransAction Goals, Objectives, and Performance Measures*

### Discussion/Information

- IV. TransAction Online Survey: Interim Findings

Mr. Harrington, Cambridge Systematics, Inc.

- V. TransAction: Preliminary Discussion on Weightings for Performance Measures

Mr. Jasper, Principal Transportation Planning and Programming

- VI. NVTA Update

Ms. Backmon, CEO

### Adjournment

- VII. Adjourn

Next Meeting: **December 1 (rescheduled date for November)**



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Wednesday, September 22, 2021, 6:30 pm  
Northern Virginia Transportation Authority

### SUMMARY NOTES

#### I. Call to Order/Welcome

Chair Colbert

- Chair Colbert welcomed Committee members and called the meeting to order at 6:40 p.m.
- Attendees:
  - **PCAC Members:** In-person – Chair and Mayor Colbert (Town of Vienna); Board Member Libbey Garvey (Arlington County); Supervisor Walter Alcorn (Fairfax County); Council Member Phil Duncan (City of Falls Church); Vice-Mayor Preston Banks (City of Manassas Park); Council Member Signe Friedrichs (Town of Herndon); Council Member Stanley Milan (Town of Purcellville).
  - Remote - Vice-Mayor Sebesky (City of Manassas); Vice-Mayor Marty Martinez (Town of Leesburg).
  - **NVTA Staff:** Monica Backmon (Chief Executive Officer); Keith Jasper (Principal, Transportation Planning and Programming); Harun Rashid (Transportation Planner).
  - **Consultant:** Dalia Leven (Cambridge Systematics).

### Action

#### II. Summary Notes of July 28, 2021 Meeting

- The July 28, 2021, meeting summary was approved, with abstentions from members who did not attend the July 28 meeting.

## Discussion/Information

### **III. Updates on TransAction public engagement events**

Mr. Jasper

- NVTA staff presented on two tasks in phase 1 of its long-range transportation plan (TransAction) update process – public engagement, and a set of goals/objectives/measures. Mr. Jasper discussed the role of NVTA’s long range plan to guide project investment decision-making; public participation plays a significant role in all aspect of this plan. This task consists of following key strategies – Online Survey; Pop-up Events; Virtual Focus Groups; Live Chat Sessions; Stakeholder Group. The objective is to solicit citizen’s opinions and experiences with Northern Virginia’s transportation system, for example – travel choices before and during the pandemic, issues in getting around in the region, interpretations of TransAction core values, preferred types of transportation improvements, attitudes toward emerging travel options. Project consultant Ms. Leven shared key findings from various focus group discussions, for example, for travel choices and issues:
  - 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
  - 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
- Following questions/comments were discussed during this part of the presentation:

*On equity core value discussion, did participants identify any particular mode? Yes, Metrorail was mentioned more than any other modes when discussing about transit options.*

*Would responses be different had the participants were more informed? The objective was to create an environment conducive to open and spontaneous dialogue. Can there be any bias in the selection of focus groups? Staff explained the process to eliminate any biases.*

### **IV. TransAction: Goals, Objectives, and Measures**

Mr. Jasper

- In long range planning, the policy framework of goals-objective-performance measures dictates the analyses for evaluating proposed projects. Mr. Jasper explained the role of this framework, specifically the need to strike an effective balance in identifying a set of performance measures. Current TransAction plan has a total of 15 measures, with no clear emphasis in the associated weighting scheme. Ms. Leven outlined the approval process and timeline of this policy set, and presented a revision with inputs from this, and other NVTA statutory/standing committees. Goal statements and objectives/measures were revised for legibility and clear definitions (e.g., resiliency definition with FHWA guideline). Next month, committee members will send their recommendation of goals/objectives/performance measures for Authority’s adoption in November.

- During this segment of the presentation, following questions/comments were discussed:

*Under Mobility goal, should we consider non-motorized and micro-mobility modes?* In the analytical process, non-motorized mobility is harder to quantify. We propose to analyze this under Accessibility goal. Proposed measures include - access to high-capacity transit, improve walk/bike environments; improve access to information on travel options.

*Within this Mobility goal, it appears measures 1 and 3 are both accounting for vehicular congestion/delay?* Yes, this is to emphasize the need to reduce congested travels in the system.

*In measuring congestion and delay, are we also considering future conditions?* Yes, we will utilize a travel demand model tool to analyze future build/no-build transportation network.

*In analyzing non-motorized transportation facilities (e.g., bike/ped trails), how do we account for users' safety and aesthetic enhancements (e.g., landscaping elements)?* The second measure under Accessibility - Improve walk/bike environment, including disabled access, will capture some of these qualitatively.

*Projects that improve access to jobs and other destinations for population in dense developments (e.g., in Herndon) will receive higher scores? How about creating non-motorized connections for the same?* Yes, second objective under Accessibility states – “Reduce dependence on driving alone by improving conditions for people accessing transit and using other modes”. Proposed measures under this objective will analyze these impacts qualitatively.

*Comment - Accessibility conditions can also be improved with land use zoning regulations.* Yes, although NVTa is not in a position to guide land use policies of local jurisdictions, a number of NVTa committee members, who also sit in their corresponding jurisdictions' policy-making bodies, are well aware of these transportation/land use connections.

*Comment – During Fairfax County's planning of Transit-oriented Development (TOD), it was identified that bike-ped facilities need to be safe and attractive. We need to be able to quantify these factors and their impacts on transportation system.* We may need to manage our expectations in this regard, as this long-range plan will not evaluate each project individually. That will be a subsequent task in the funding program that follows.

*How do we analyze stormwater and roadway flooding issues?* Not included in the standard analyses, we propose to address these issues in one of the scenarios.

*In TransAction, the analytical framework is based on MWCOG/TPB model and data?* Yes, that is the starting point. We are enhancing the toolset with emerging modes and dis-aggregate traffic flow analyses, known as Dynamic Traffic Assignments. It allows for better granularity in congestion analyses, for example travel conditions will be analyzed in 15-minute bins, instead of the entire peak periods.

**V. NVTa Update**

- Ms. Backmon reminded committee members of the October 1 deadline for project funding applications, in the current Call for Regional Transportation Projects for the FY2022-2027 Six Year Program. Currently staff is working to update revenue forecasts, to determine funds available for allocation in this program cycle.
- To mitigate schedule conflicts of committee meetings and Authority session in November, staff discussed the need to reschedule November 17 meeting. After a brief discussion, members agree to reschedule November meeting to be held on December 1.

**VI. Adjourn**

Chair Colbert mentioned the next meeting to be held on October 27. Meeting was adjourned at 8:35 pm.

# TransAction Update

*Recommended Goals, Objectives, and Performance Measures*

October 27, 2021

*presented to*

*Planning Coordination Advisory Committee*



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



# Agenda

- III. Goals, Objectives, and Performance Measures for TransAction Update
- IV. TransAction Online Survey: Interim Findings
- V. TransAction: Preliminary Discussion on Weightings for Performance Measures

# Goals, Objectives & Measures



NVTA's  
**TransAction**  
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# Development & Approval Process

## Schedule for Approval of Goals, Objectives, Performance Measures & Weights




- » June: Identification of relevant questions to include in public engagement efforts
- » July: Initial discussions with NVTA committees (PPC, TAC, PCAC)
- » Summer: Public Engagement
- » September: Discuss preliminary results of public engagement with NVTA committees; additional discussion with NVTA committees on goals, objectives, and measures
- » October: NVTA committees recommend goals, objectives, and performance measures to NVTA for action in November
- » November: NVTA committees recommend weights to NVTA for action in December

# 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.*



# Objectives & Performance Measures

## » Objectives:

- Measurable and targeted actions that result in incremental but tangible advancement towards the goals

## » Performance Measures:

- Will be used to evaluate the impacts of policies, programs, projects, and scenarios affecting the transportation system and measure progress towards goals and objectives
- Each performance measure can be weighted differently (to be determined later in the Fall) to reflect the region's priorities

## » Performance Measures should:

- Incorporate all modes and project types
- Reflect Core Values
- Be restricted in number to ensure a strong focus on the region's priorities
- Be readily capable of robust and consistent measurement
- Be relatively easy to communicate to, and understood by, the public



# Changes Based on Committee Feedback

- » Add a method of analyzing non-motorized projects or aspects of projects for the mobility goal
  - Action: Measures under Objective A: Reduce congestion and delay accounts for reductions related to increases in biking, walking, and transit use
- » Move emissions reduction objective from Mobility to Resiliency goal
  - Action: Emissions moved to Resiliency (see Objective F)
- » Add bicycle accessibility to Objective C: Improve Access to Jobs
  - Action: Performance Measures updated to include bike access to jobs
- » Make the emissions performance measure more explicitly related to emissions. Replace the emissions performance measure with VMT.
  - Action: Performance measure updated to reflect transportation related emission. This is based on VMT at different levels of congestion .
- » Include Pedestrian and Bike modes in the safety measure
  - No Action: safety improvements for all modes are included in the measure.
- » Include a measure of network redundancy under the Resiliency Goal
  - Action: Updated performance measure for Objective G to represent redundancy




















# Other Feedback from Committees

- » Include a method for supporting investment in RACs.
  - No change: Improvements in RACs will be considered in Objective D, but all improvements are considered to account for differences in how RACs are defined across the region
- » Add access to other types of destinations to Accessibility Goal
  - No change: Jobs serve as a proxy for a wide range of destination types
- » Change emissions objective to account for all emissions, not just transportation emissions.
  - No change: TransAction is a transportation plan and analysis can only measure transportation emissions.
- » Consider including wait time in calculation of transit delay.
  - No change: Wait time is an expected part of transit travel. Also, increases in transit ridership will increase total wait time, resulting in more transit delay.



# Proposed Goals, Objectives & 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	 

# TransAction Online Survey: Interim Findings

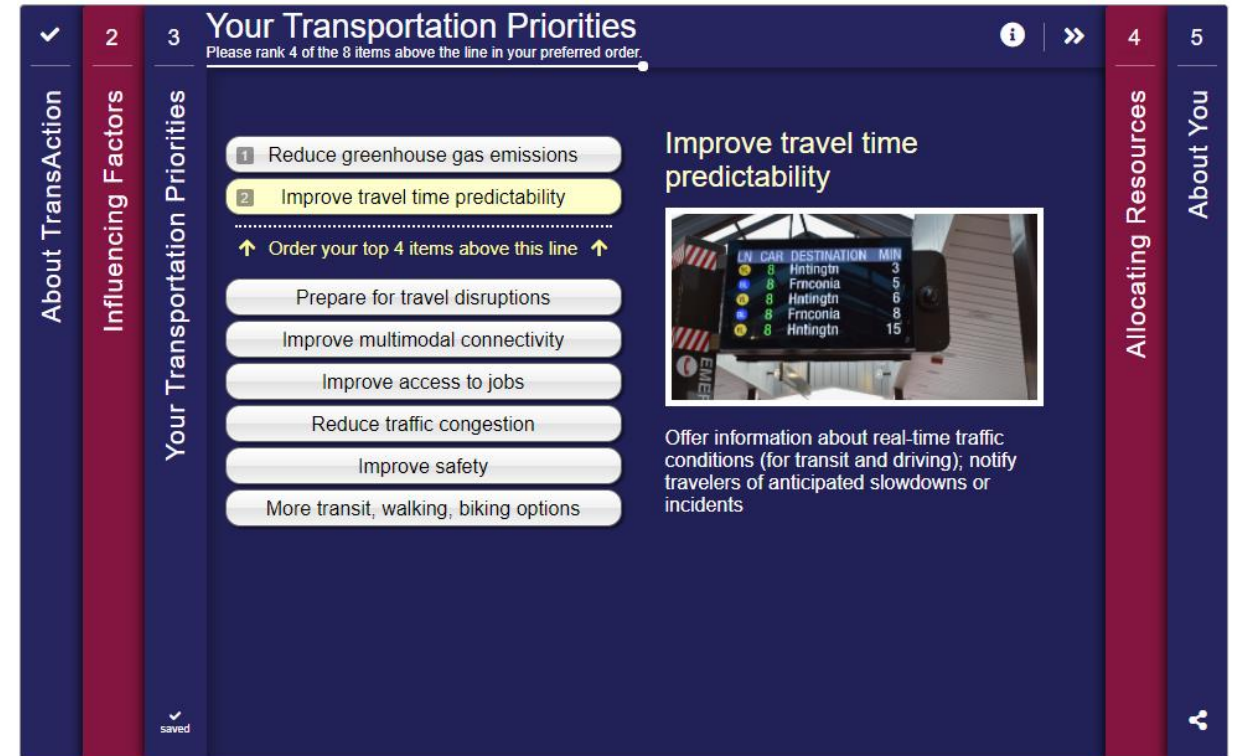


NVTA's  
**TransAction**  
*Transportation Action Plan  
for Northern Virginia*

# 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.*



# Encouraging Survey Participation

- » Range of engagement activities used to “get the word out” about the survey
- » Traceable links show where participants heard about 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

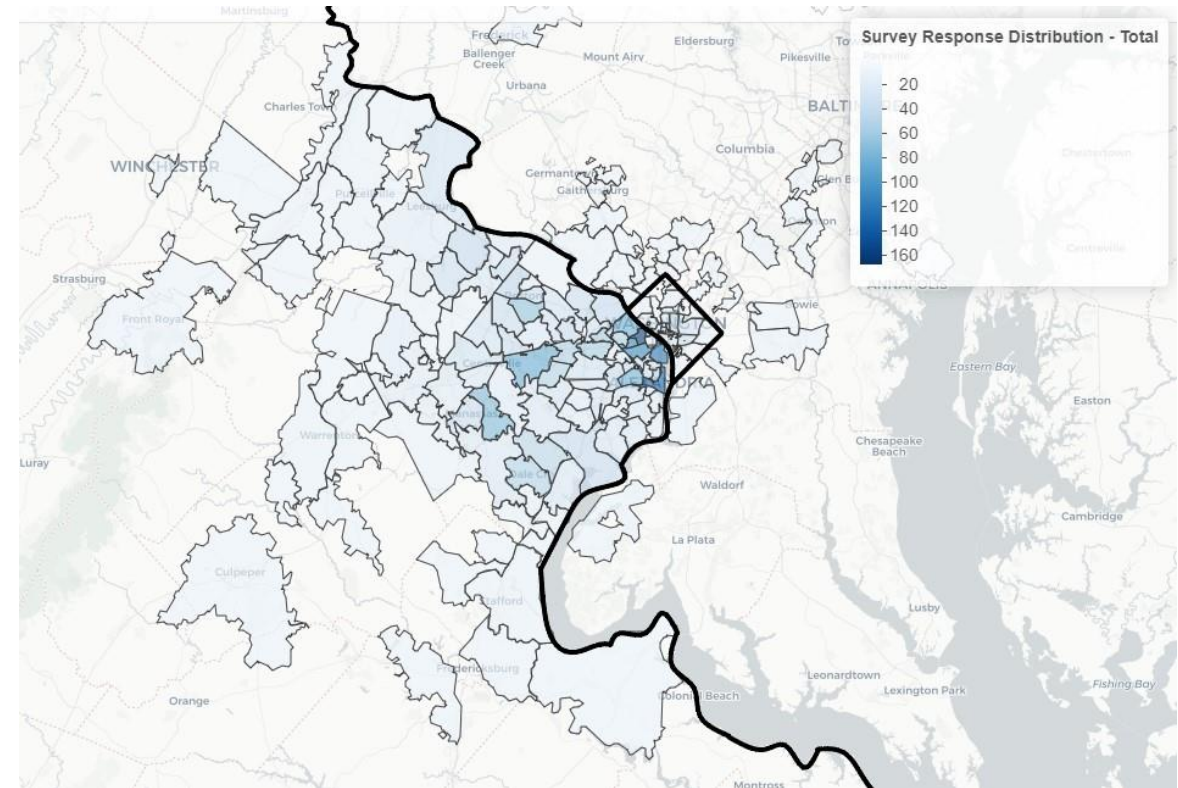


# About the Survey Respondents

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

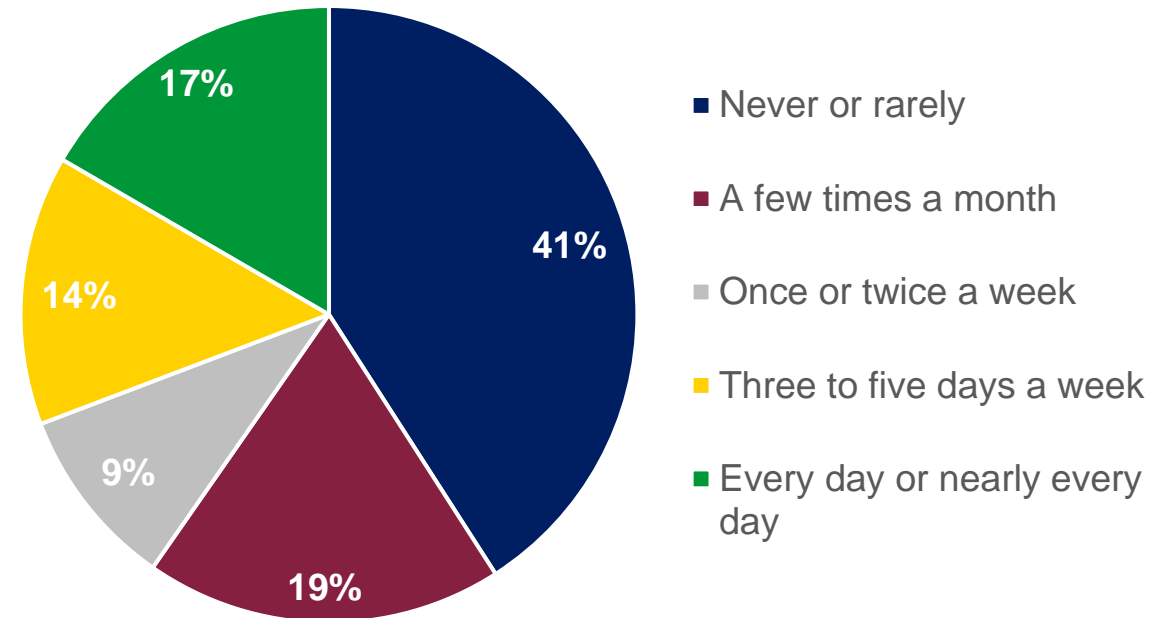


Map of Home Zip Codes of Survey Respondents

# Survey Results – Travel Characteristics

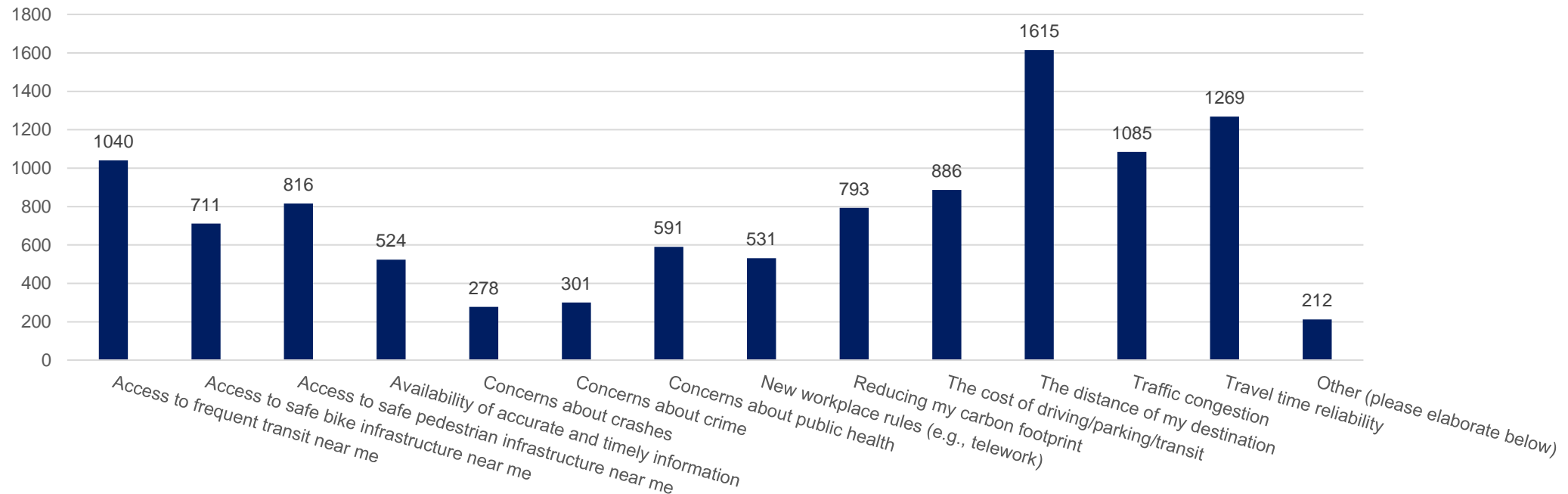
- » Pre-pandemic trips to work/school/other:
  - 31% used transit at least 3 days a week
  - 14% biked at least 3 days a week
  - 28% walked at least 3 days a week
- » About a third of respondents anticipate changing their post-pandemic travel habits compared to pre-pandemic
  - 28% will reduce driving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

Pre-Pandemic Frequency of Taking Transit



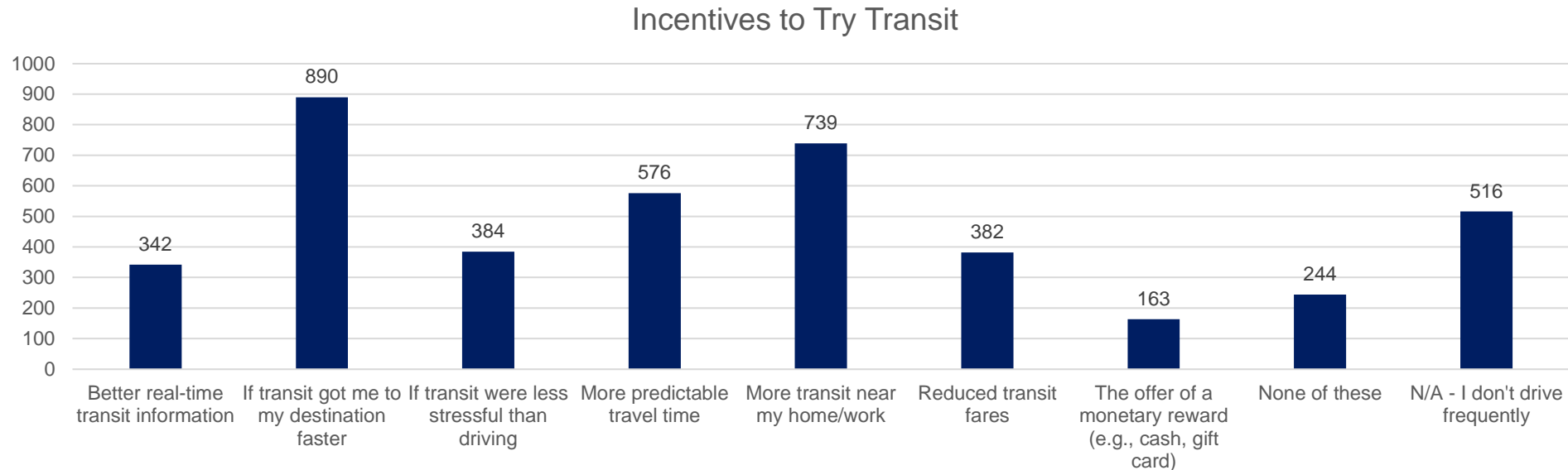
# Survey Results – Influencing Factors

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

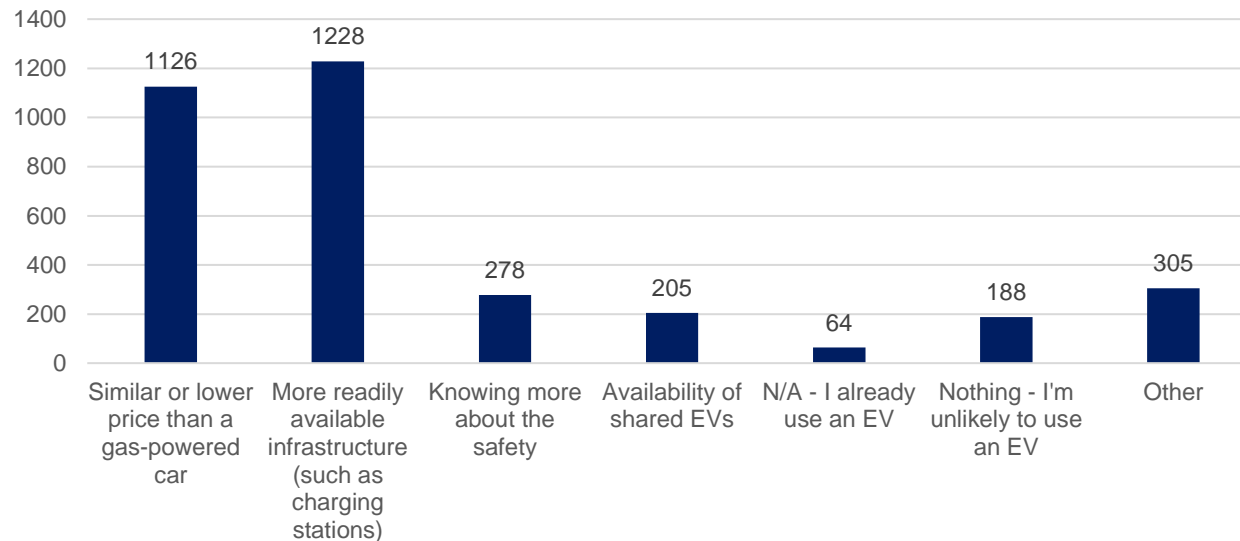


- Would be more likely to try transit if:
  - Got them to their destination faster (44%)
  - More transit near their home and/or work (36%)
  - More predictable travel time (28%)
- Only 12% of respondents reported they were not interested in trying transit

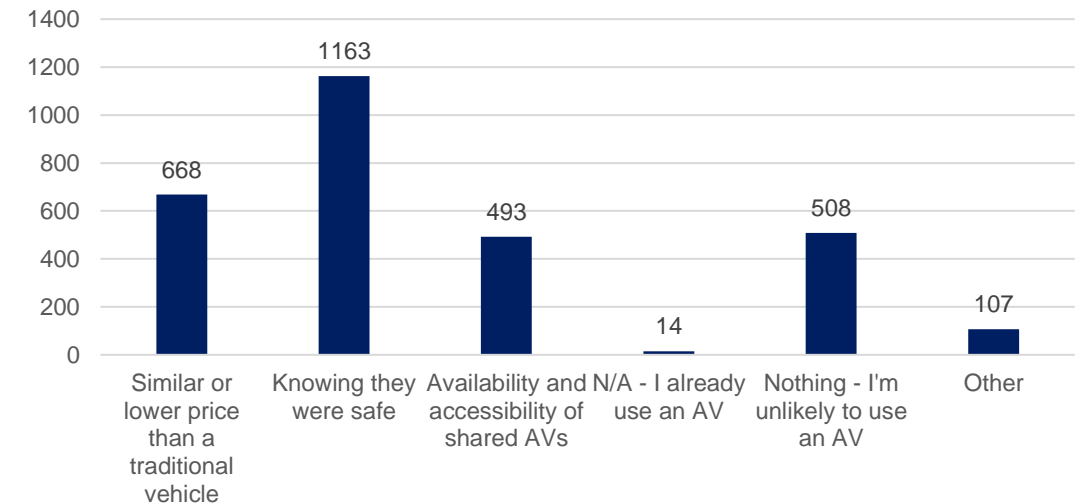


# Survey Results – Emerging Technologies

Conditions for Future EV Usage

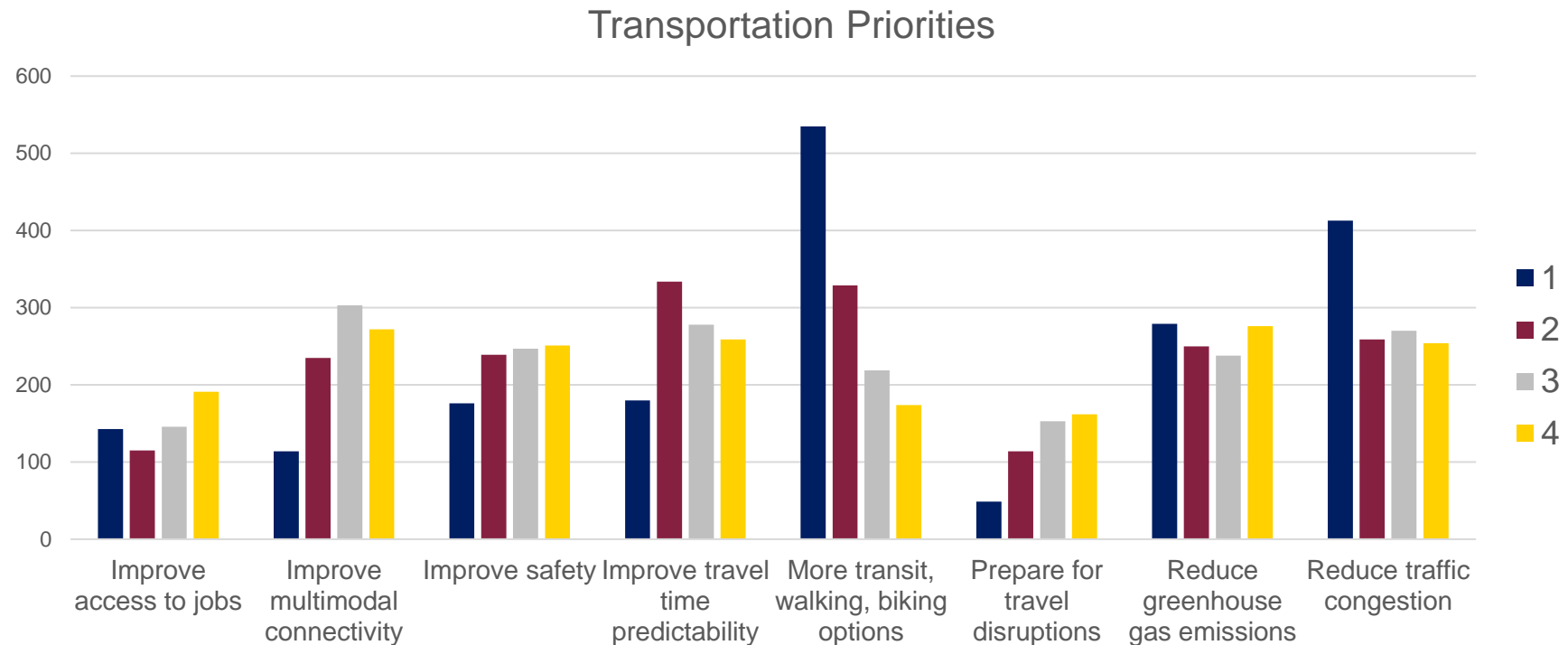


Conditions for Future AV Usage



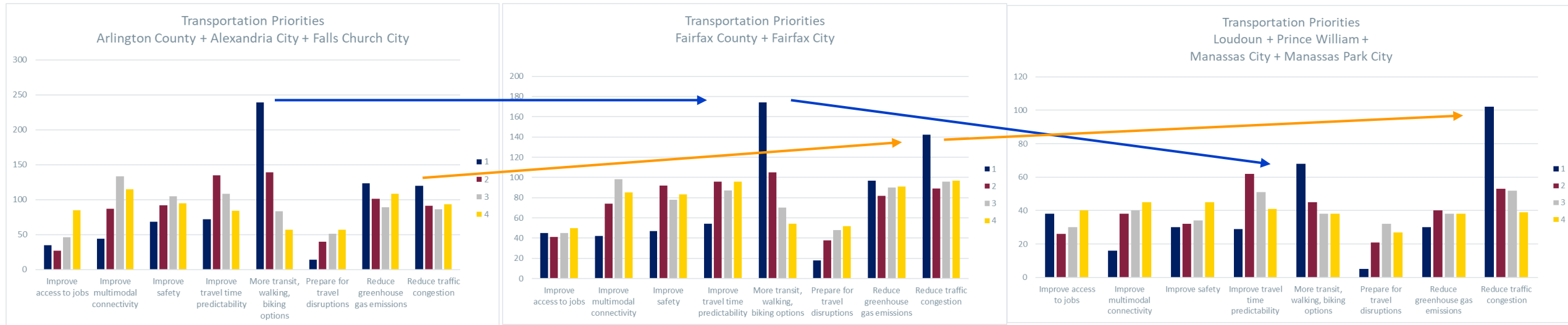
- More likely to consider using an EV once there is more readily available infrastructure (64%) and once the price is similar or lower than the price of a gasoline-powered car (58%)
- More likely to use an AV once they had confidence that AVs were safe (61%)

# 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”

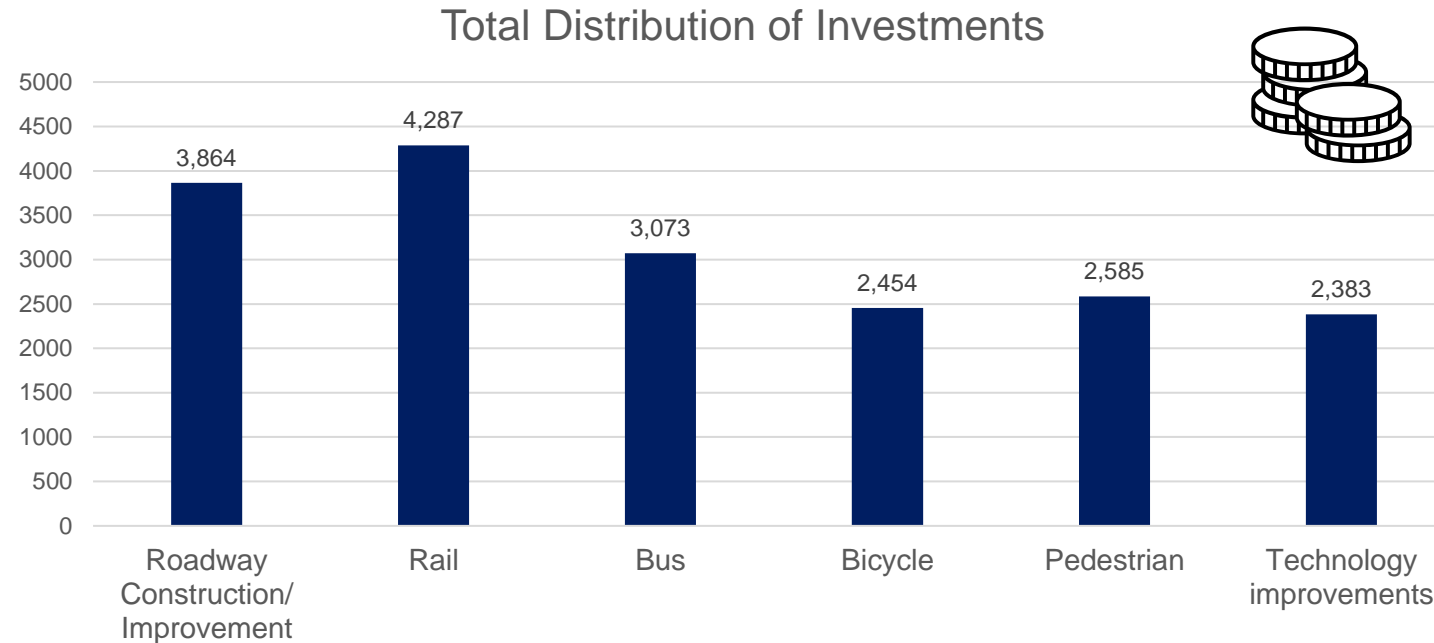
# Survey Results – Transportation Priorities by Geographic Area



- 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

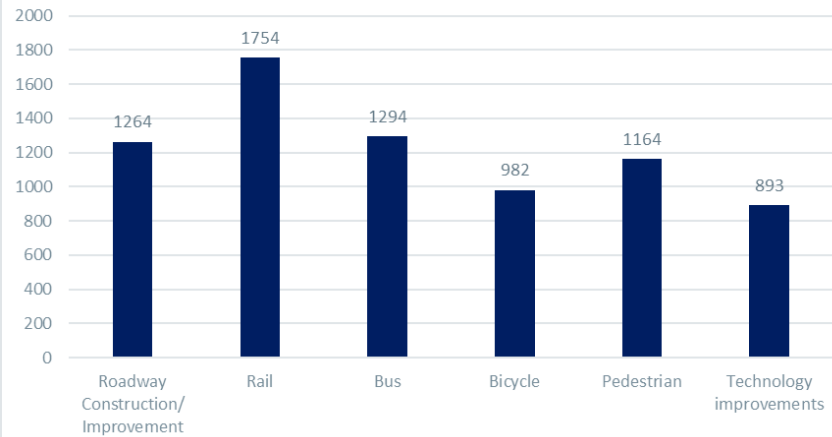


- Respondents were given 10 hypothetical coins, each representing \$1 million, and asked to distribute them between six different project types
- Rail projects received the most investments (total “coins”), followed by roadway construction/improvement and bus

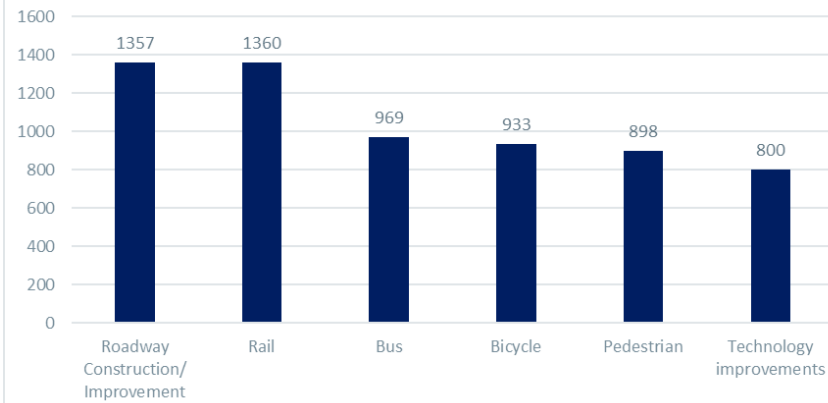
# Survey Results – Transportation Priorities by Geographic Area



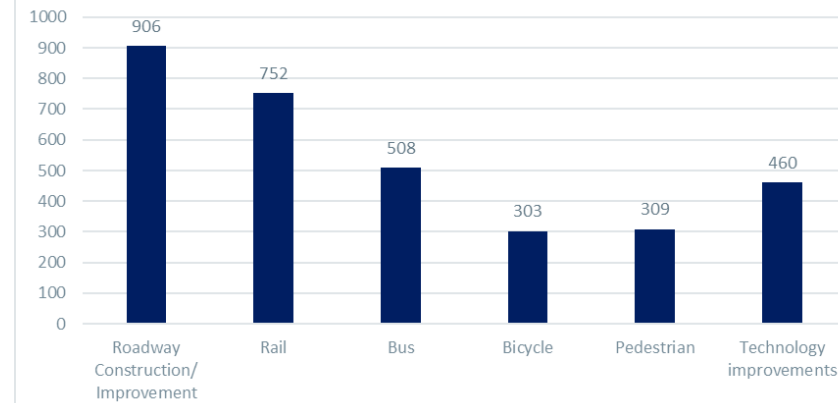
Total Distribution of Investments  
Arlington County + Alexandria City + Falls Church City



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

# TransAction: Preliminary Discussion on Weightings for Performance Measures



# Process for Weighting Performance Measures



- » Each committee will be asked to recommend weights for each approved measure, these will be averaged, and then rounded to the nearest 5%
- » Weights for individual measures will effectively be summed for each core value, additionally reflecting the priority associated with each
- » Measure weights to be recommended to NVTA in November
- » NVTA may accept or modify these recommendations prior to approval in December

# Comparison of Recommended Objectives and Survey Responses



Recommended Objective	Corresponding Priority in Online Survey	% of Weighted Score – Region	% of Weighted Score – Core jurisdictions	% of Weighted Score – Inner jurisdictions	% of Weighted Score – Outer jurisdictions
A. Reduce congestion and delay	Reduce traffic congestion	17%	14%	18%	22%
B. Improve travel time reliability	Improve travel time predictability	14%	14%	13%	14%
C. Improve access to jobs	Improve access to jobs	7%	6%	7%	10%
D. Reduce dependence on driving alone by improving conditions for people accessing transit and using other modes	Improve multimodal connectivity	11%	11%	11%	10%
	More transit, walking, biking options	20%	23%	20%	17%
E. Improve safety and security of the multimodal transportation system	Improve safety	12%	12%	11%	10%
F. Reduce transportation related emissions	Reduce greenhouse gas emissions	14%	15%	15%	11%
G. Maintain operations of the regional transportation system during extreme conditions	Prepare for travel disruptions	5%	5%	5%	6%