TransAction Update

Recommended Goals, Objectives, and Performance Measures

November 1, 2021

presented to

Planning and Programming 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

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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
Mobility: 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	
Accessibility: 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	
Resiliency: 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.

TransAction Online Survey: Interim Findings

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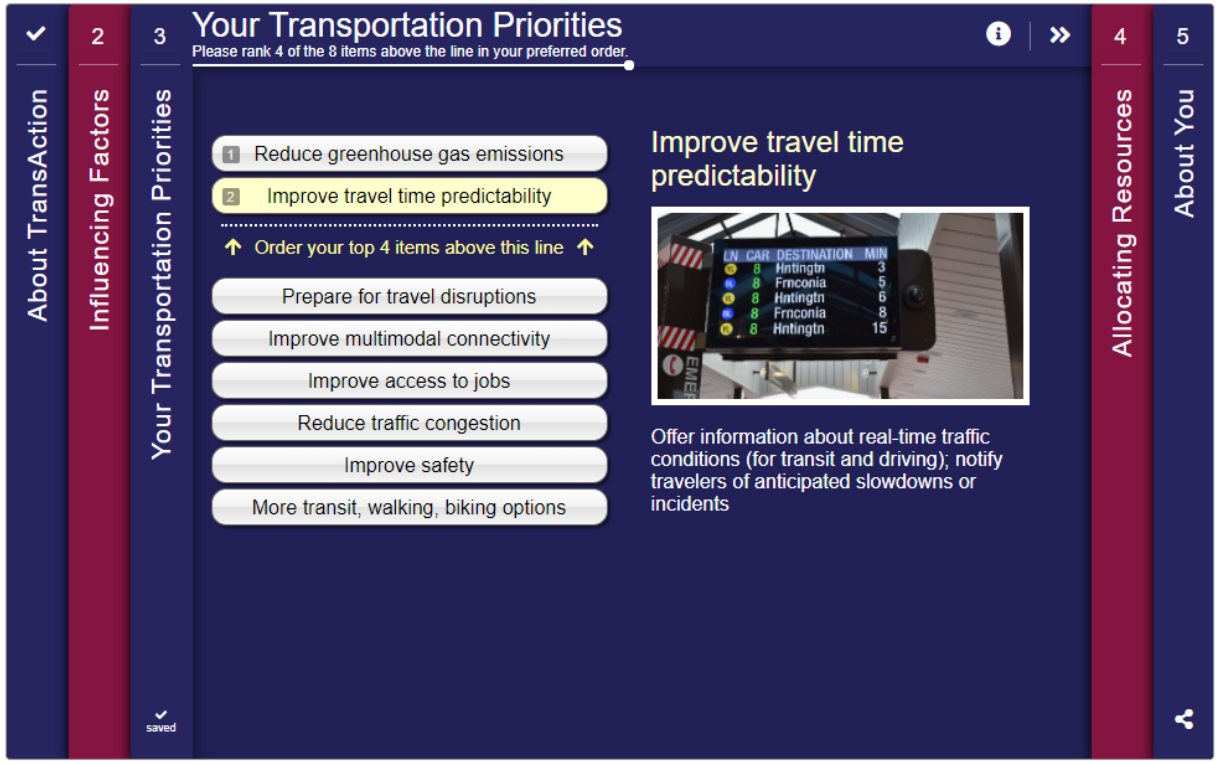
2021 TransAction Survey

- 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 6th - September 19th
- 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:

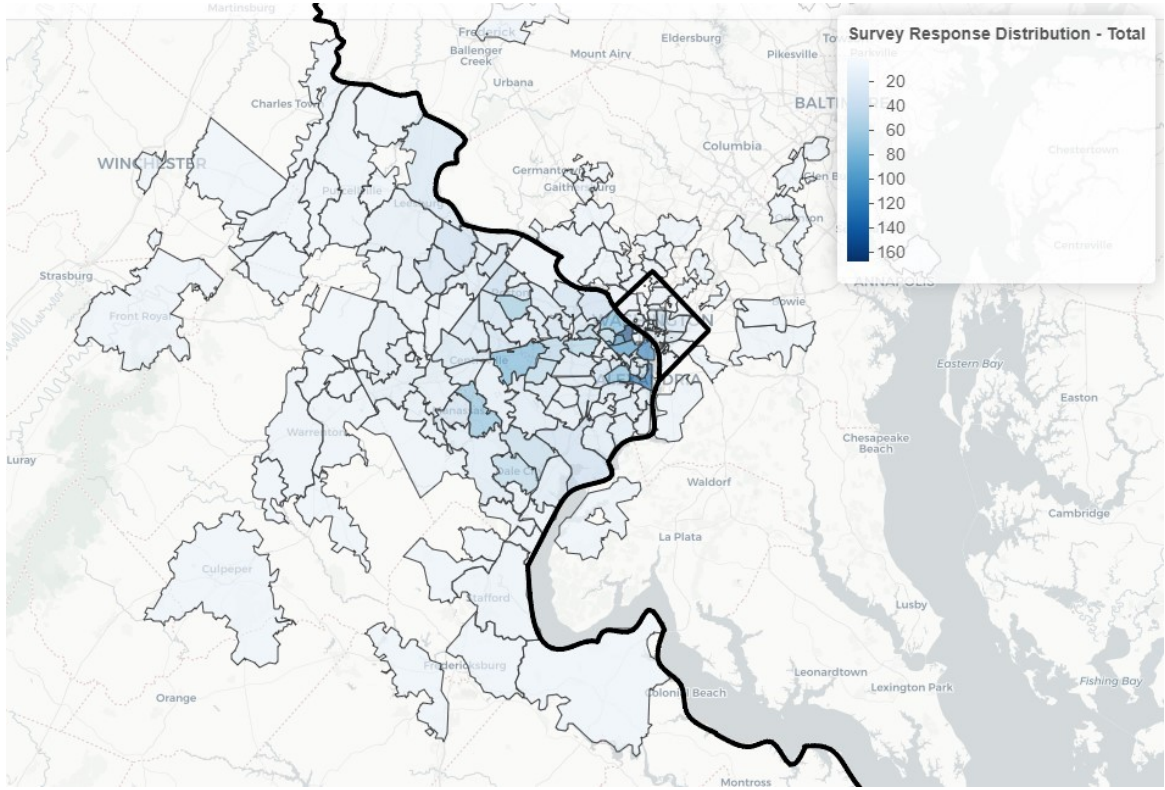
Source	Number of Responses
Website	691
Stakeholder outreach	405
Pop-up events	351
General (not traceable)	252
Paid social media	206
Newsletter	166
LinkedIn	92
Twitter	89
Facebook	65
Geofenced ads	1
Instagram	0

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

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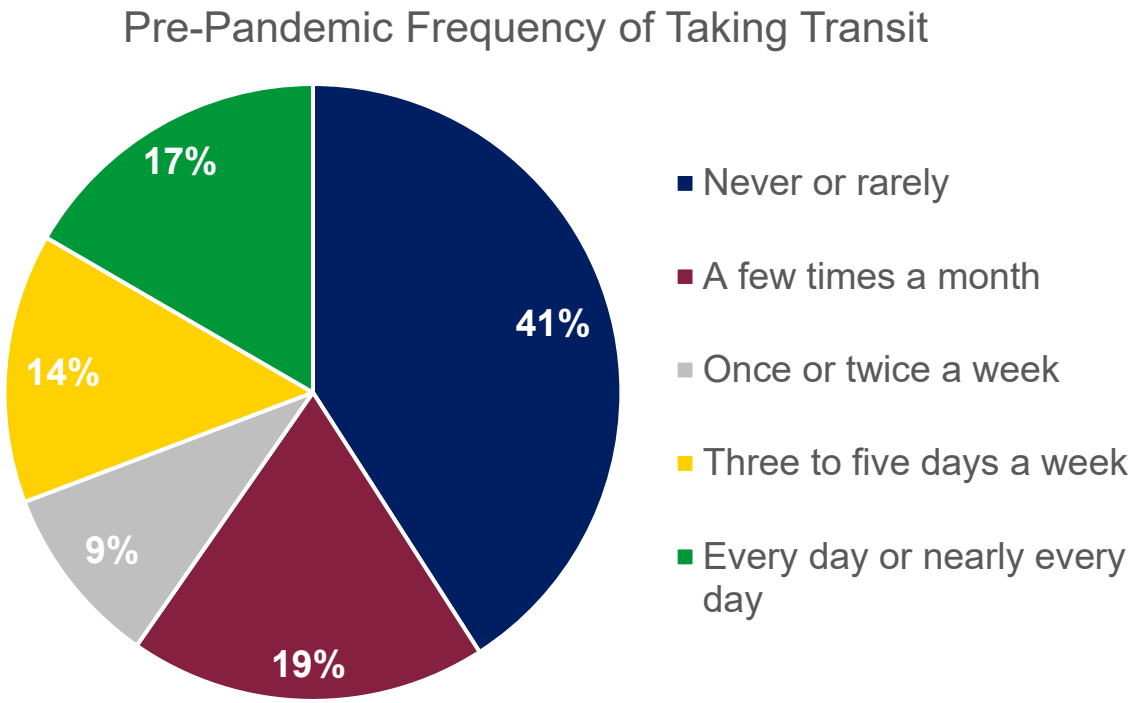
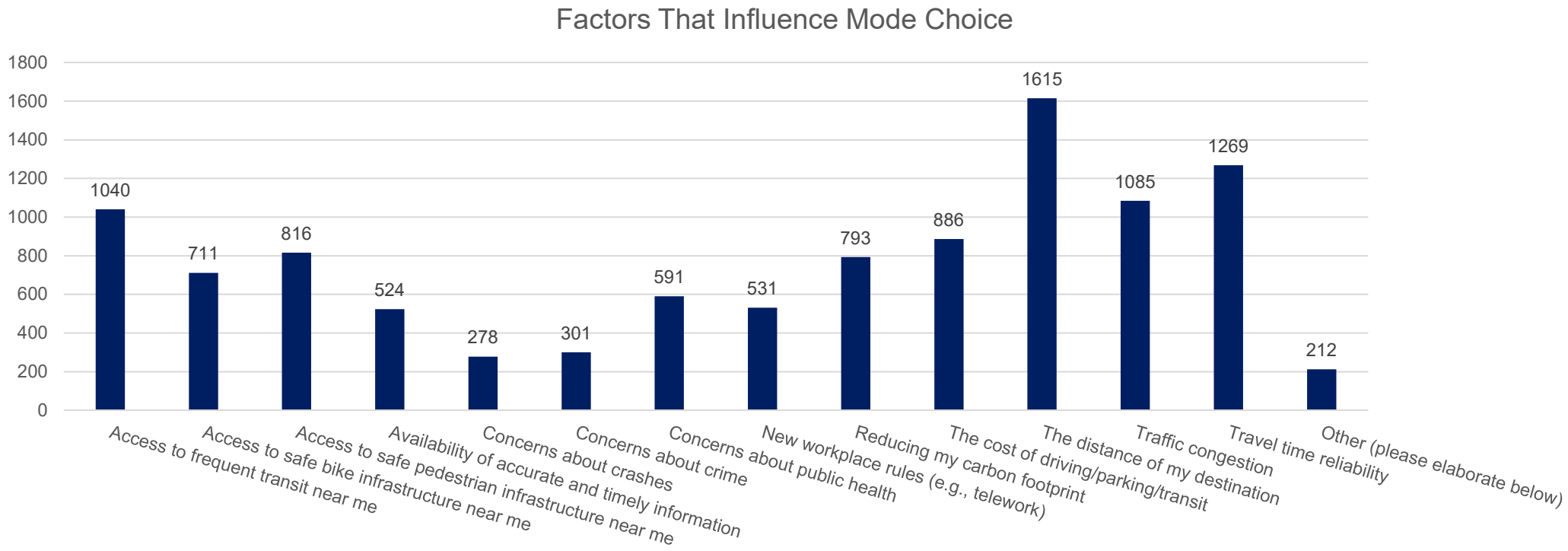
Survey Results – Travel Characteristics

- 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

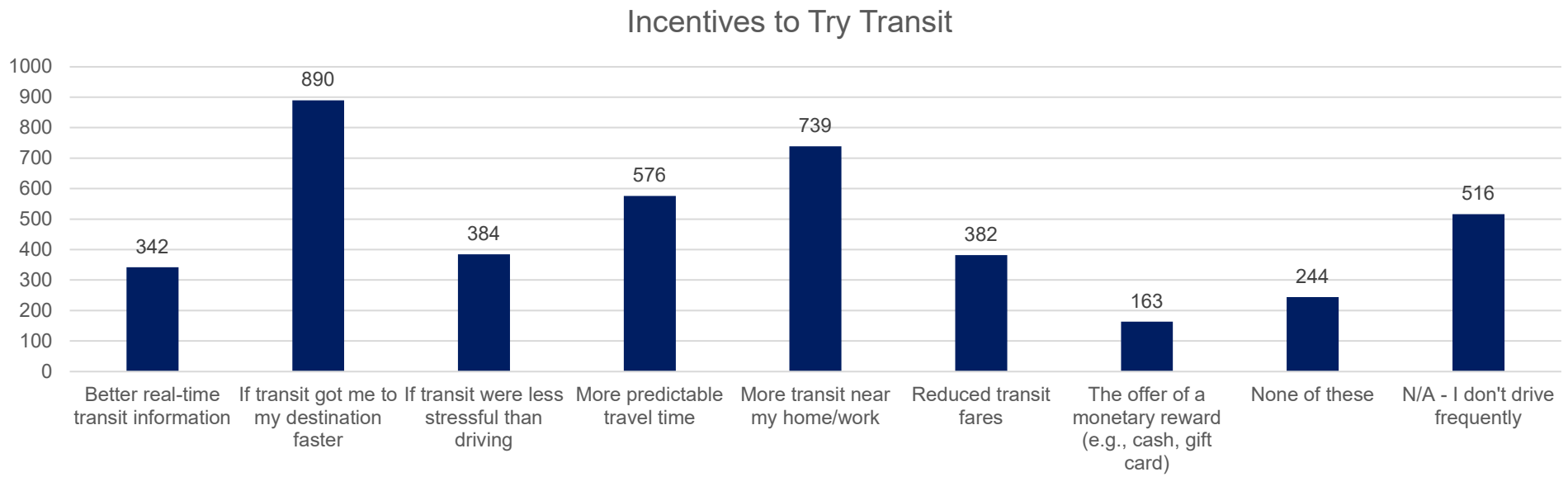


Survey Results – Influencing Factors



- Factors that 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

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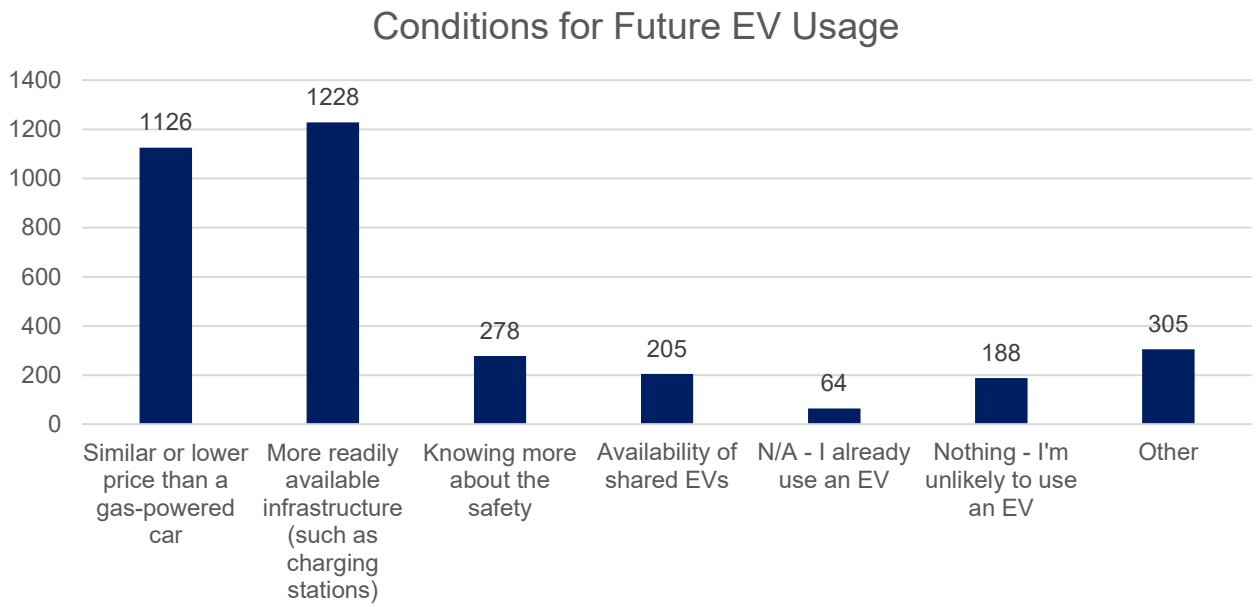
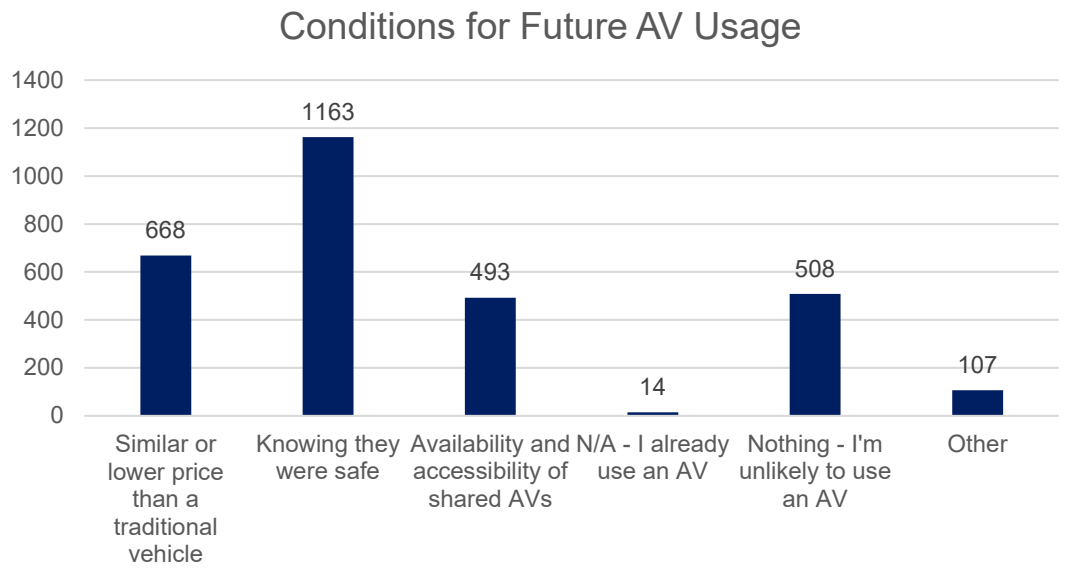
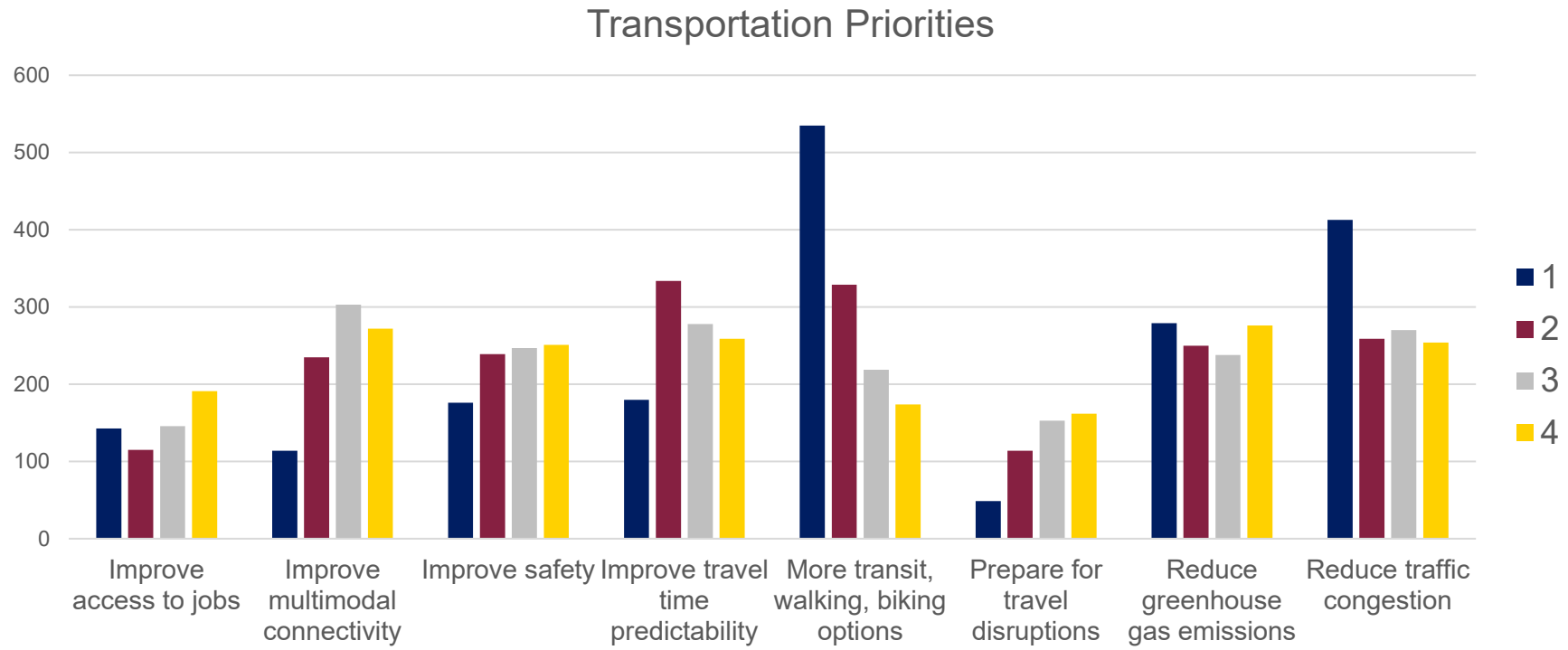
Survey Results – Emerging Technologies





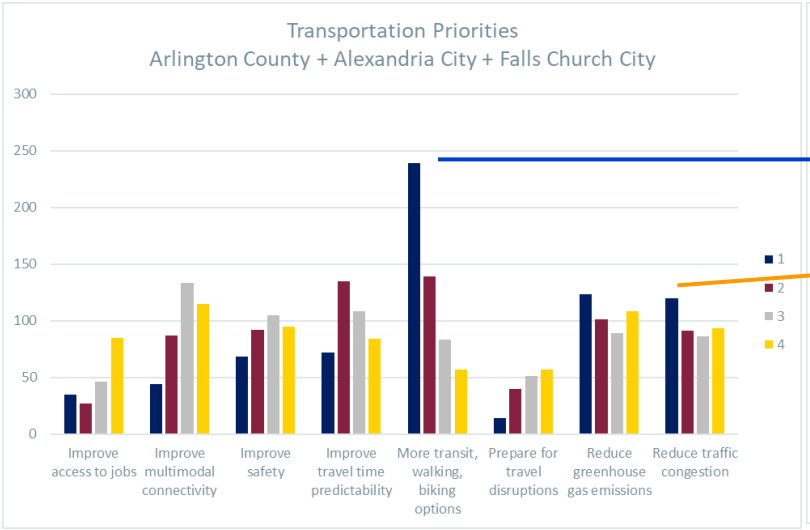
- More likely to consider using an EV once there is more readily available infrastructure (64%) and once the price is similar or lower than the price of a gasoline-powered car (58%)
- More likely to use an AV once they had confidence that AVs were safe (61%)

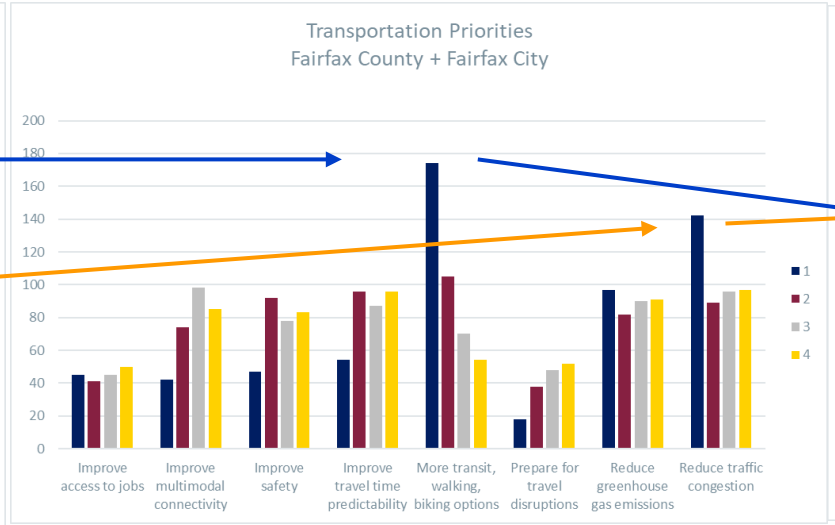
Survey Results – Transportation Priorities

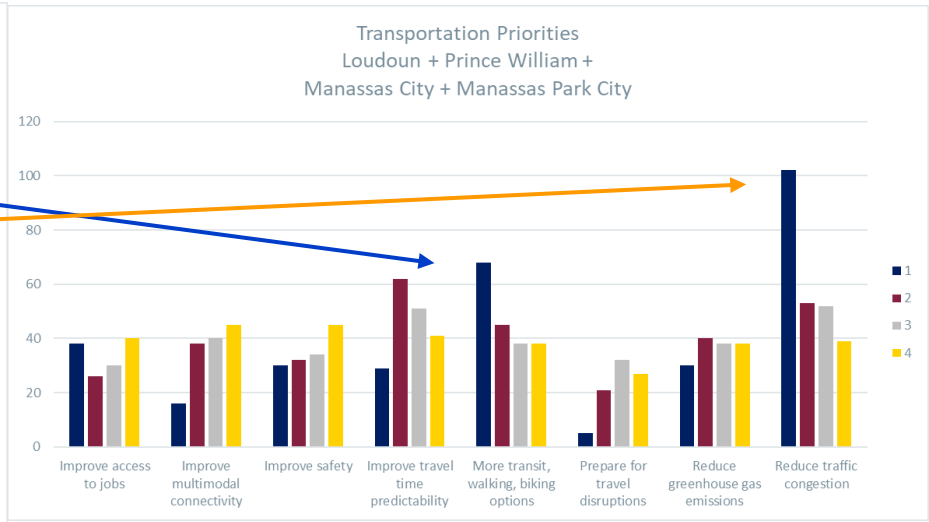


- Priority most frequently ranked 1st, was “more transit, walking, biking options”
- 2nd and 3rd most commonly selected priorities were “reduce traffic congestion” and “improve travel time predictability”

Survey Results – Transportation Priorities by Geographic Area

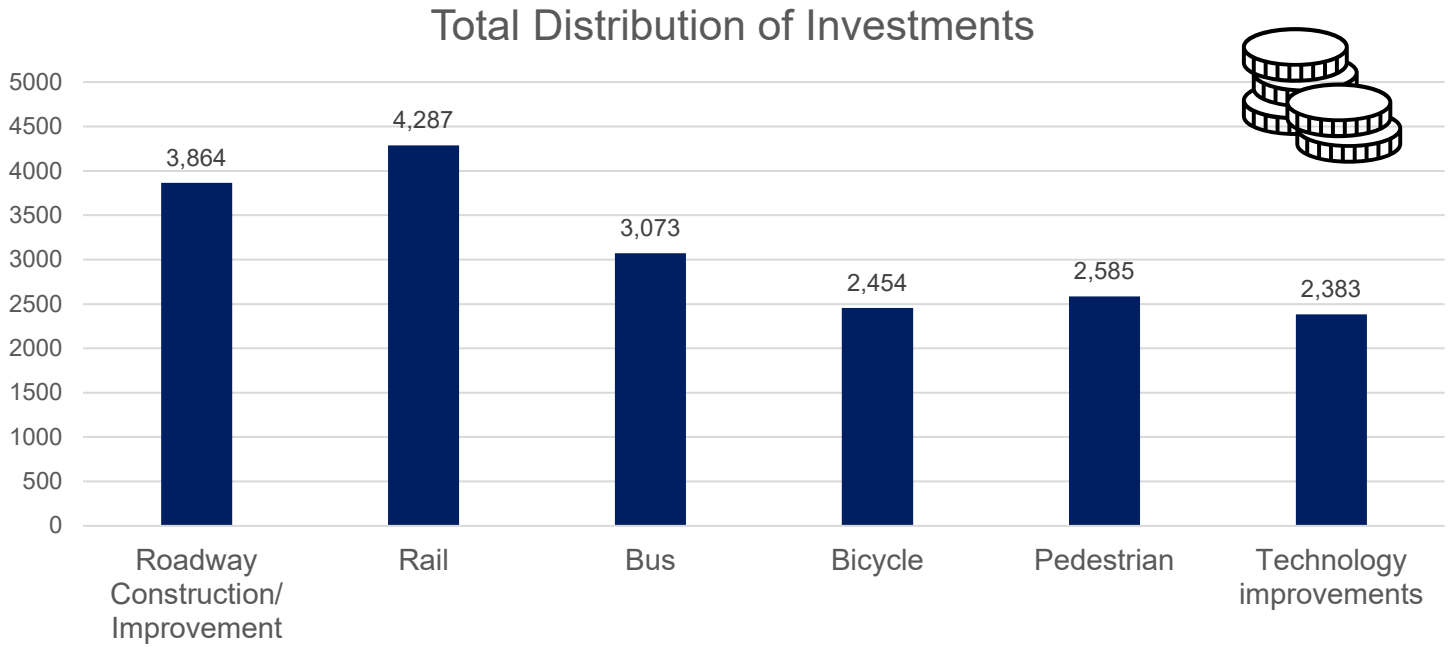






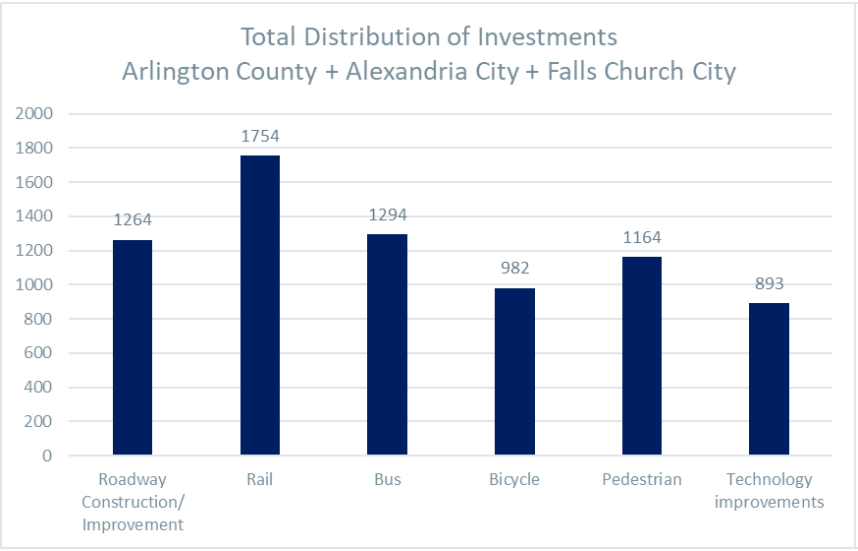
- Survey respondents from inner jurisdictions selected "more transit, walking, biking options" as the top priority
- Survey respondents from outer jurisdictions selected "reduce traffic congestion" as top priority
- Other objectives showed less variability between different geographic areas – "improve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

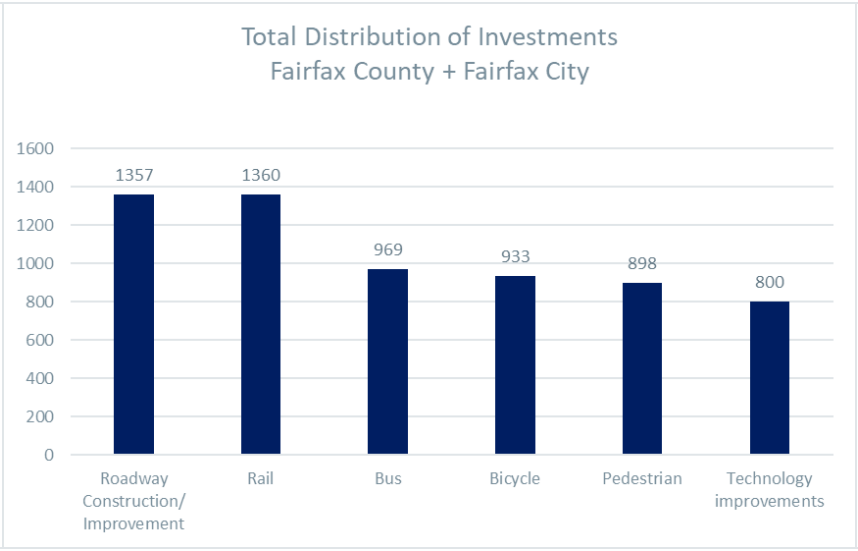
Survey Results – Allocating Resources

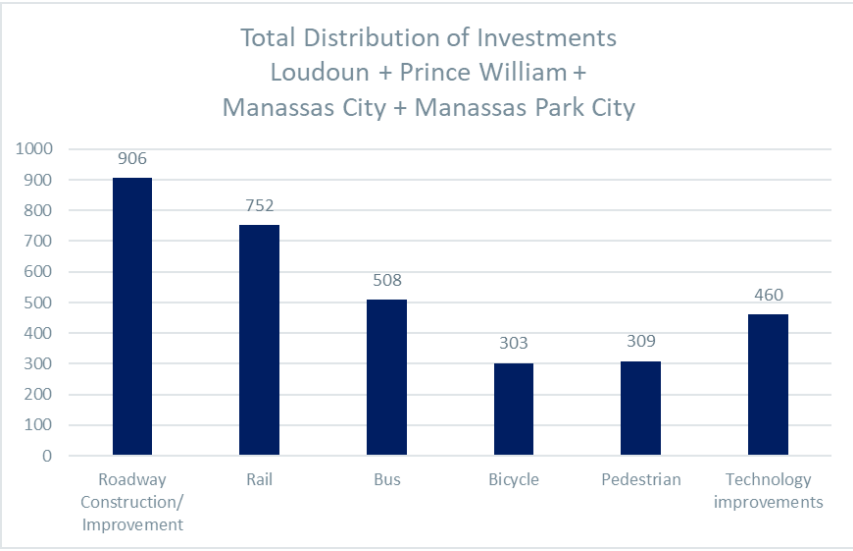


- Respondents were given 10 hypothetical coins, each representing $1 million, and asked to distribute them between six different project types
- Rail projects received the most investments (total “coins”), followed by roadway construction/improvement and bus

Survey Results – Transportation Priorities by Geographic Area







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

- Inner jurisdictions allocated resources to rail (1st) and bus (2nd), before roadway improvements (3rd)
- 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 (2nd) and bus (3rd)

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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

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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%