NORTHERN VIRGINIA TRANSPORTATION AUTHORITY

Technical Advisory Committee Meeting

Wednesday, May 21, 2025
7:00 p.m. EST
2600 Park Tower Drive, Suite 601
Vienna, VA 22180
This meeting will be held in person and livestreamed via YouTube.

AGENDA

1. **Call to Order** — Chair Boice

Action Items

2. **Summary Notes of March19, 2025, Meeting** — Chair Boice
   Recommended Action: Approve Meeting Notes

Discussion/Information Items

3. **Preliminary Public Participation Update on the Draft BRT Action Plan** — Keith Jasper, Principal, TPP
4. **Next Steps and Preliminary Recommendations on the Draft BRT Action Plan** — Keith Jasper, Principal, TPP
5. **NVTA Update** — Ms. Backmon, CEO
6. **Adjournment** — Chair Boice

Next Meeting:

Wednesday, June 18, 2025
7:00 p.m. EST
2600 Park Tower Drive, Suite 601
Vienna, VA 22180

NORTHERN VIRGINIA TRANSPORTATION AUTHORITY

TECHNICAL ADVISORY COMMITTEE

Wednesday, March 19, 2025
7:00 p.m. EDT
2600 Park Tower Drive, Suite 601
Vienna, VA 22180
This meeting was held in person and livestreamed via YouTube.

MEETING SUMMARY

1. **Call to Order/Welcome**
   - ✓ The meeting was conducted in-person. Chair Boice called the meeting to order at 7:02 p.m.
   - ✓ **Attendees**:
     - **TAC Members:** Randy Boice; Karen Campblin; Michelle Cavucci; Armand Ciccarelli; Amy Morris; Frank Spielberg; Dr. Shanjiang Zhu.
     - **NVTA Staff:** Keith Jasper, Principal, Transportation Planning and Programming; Amanda Sink, Project Delivery / Grants Manager; Sree Nampoothiri, Senior Manager, Transportation Planning and Programming; Alyssa Beyer, Regional Transportation Planner; Matt Bewley, Regional Transportation Planner; Starla Couso, Regional Transportation Planner.
     - **Others:** Dalia Leven, National Planning Lead for Transit and Shared Mobility at Cambridge Systematics, Inc.

2. **PDP-BRT Update**
   - ✓ The committee next moved to the PDP-BRT update while waiting for a quorum to approve the meeting summary.
   - ✓ Mr. Jasper introduced Ms. Leven from Cambridge Systematics, to review the Preliminary Deployment Plan for a Bus Rapid Transit System in Northern Virginia (PDP-BRT) updates.
   - ✓ It was noted that the information packet for this update was provided to the members at the meeting and is available on NVTA's TAC webpage.
   - ✓ Status Update
     - The PDP-BRT is finalizing phase 2 (analysis) and starting phase 3 (public engagement). The last several months included work on route level and system level evaluations, operations/finance/governance

analysis, and a "what if" scenario analysis. Phase 3 work includes the preparation of materials for public engagement, an online feedback form, pop-up events, and an NVTA work session and approval.
    - The full PDP-BRT is expected to be approved by NVTA in July 2025.
- ✓ Evaluation
    - Evaluation included both an individual route and system-wide evaluation of performance for the year 2045 (unless otherwise noted).
    - The eight (8) categories of performance measures included ridership, transportation impacts, land use, readiness, costs, revenues, cost effectiveness, and feasibility.
        - Ridership included both rides and boardings.
        - Transportation impacts included congestion reductions, emission reductions, and safety improvements.
    - Ms. Leven clarified that the evaluation considered the impacts of incremental improvements over the existing Metroway service, and that the numbers provided in this report regard additional riders, not total riders.
    - Ms. Leven showed the map of BRT systems that were tested in the evaluation, which included 28 routes serving 282 stations, and explained the impact on job accessibility, planning-level cost estimates, and proposed levels of service.
        - Mr. Ciccarelli confirmed that the estimated construction cost does include the purchase of vehicles, and the operation costs include the hiring of additional staff.
        - Chair Boice pointed out the costs exclude the construction of new maintenance facilities. Ms. Leven explained that estimating those costs would require a lot of assumptions about existing space in local facilities. The number provided assumes the entire fleet would need new housing facilities, which is unlikely.
        - Chair Boice asked about the lifecycle of the new buses. Ms. Leven shared that the assumption is that all of the buses would be zero-emission, but did not remember the lifecycle estimates. She said she would check the assumptions and follow up.
        - Chair Boice asked if Metroway is distinct from Metrorail, and Ms. Leven responded that Metroway is a BRT line managed by Washington Metropolitan Area Transit Authority (WMATA).

- The results of the system evaluation included an estimate of more than 143,000 boardings each weekday, totaling over 47 million riders annually.
  - Mr. Spielberg asked if this number represented new transit trips beyond current ridership. Ms. Leven pointed out that nearly 27,000 trips are expected to shift from driving to transit each day, helping to reduce delays, emissions, and crashes.
  - Ms. Leven emphasized the benefits of the proposed BRT system's potential to improve accessibility in Equity Emphasis Areas, especially regarding job access.
  - The estimated fare recovery ratio across the region is 15%, ranging broadly, which is fairly good compared to other bus systems in the National Capital Region.
  - Mr. Ciccarelli asked about the difference between boardings and trips. Ms. Leven replied that a trip may include many boardings / transfers between transit modes and lines within the same mode.
  - Mr. Spielberg questioned the estimated number of buses in relation to the additional trips. Ms. Leven explained that this does not include current local buses that carry some of the ridership. However, there is also significant variation in performance in ridership, which affects cost efficiency. New research indicates that there is a recommended limit to how many miles electric buses should be driven each day to preserve their full lifespan. To address this, especially on long routes with frequent service, you need to provide more vehicles that are driven less per day.
  - Mr. Spielberg clarified that the assumptions are based on current technological conditions, and Ms. Leven confirmed that they are.
- Ms. Leven briefly covered other considerations, such as operational impacts on the local bus system, customer and maintenance/storage facility needs, and technology. Other policy considerations include funding and governance, particularly the management of the BRT system.
- Ms. Cavucci asked about the interest of the jurisdictions involved. Ms. Leven answered that the BRT Planning Working Group includes jurisdictional staff. There is interest in jurisdictions managing the routes within their boundaries. However, a more coordinated regional approach may be beneficial. Mr. Jasper added that the Authority has also been briefed on this work.

- ✓ Scenario Tests
    - Mr. Jasper introduced the role of uncertainty in planning, and the response of using a scenario analysis to scientifically address uncertainty in long-range transportation planning. Three specific alternative futures were considered. Mr. Jasper emphasized that these alternatives are not predictions or preferred futures, but that they consider a different form of future travel demand based on certain criteria. Ms. Leven then reviewed the alternative scenarios.
    - Post-pandemic "New Normal"
        - This scenario considered a long-term continuation of travel trends observed during the pandemic. This scenario resulted in less travel within the region, leading to reduced BRT ridership as well as less congestion, and lower Vehicle Miles Traveled (VMT) emissions for BRT to mitigate.
    - BRT-Oriented Land Use
        - This scenario considered the concentration of growth and development among BRT corridors, aligning future growth within a jurisdiction to the year 2045 with BRT stations.
        - Notably, this alignment does not remove growth from areas near Metrorail and Virginia Railway Express (VRE) stations and does not include moving growth across jurisdictional boundaries.
        - This scenario resulted in moving an estimated 15% growth between the years 2030-2045, leading to an increase in jobs and residents within half of mile of BRT and subsequent moderate ridership increase in the BRT system.
    - Transportation Incentives and Pricing
        - This scenario considered the implementation of transportation pricing and incentive mechanisms to manage travel demand and encourage the use of non-Single Occupancy Vehicle (SOV) modes. The mechanisms included VMT pricing on all roads (including discounts for lower-income houses), an increase in regional parking costs, fare free transit ridership, and incentives to shift travel time out of peak periods.
        - This scenario resulted in a much larger number of trips shifted from driving to transit and increased daily BRT boardings, leading to a higher reduction in delays and emissions.
- ✓ Engagement Activities and Timeline

- The goals for phase 3's stakeholder and community engagement include improving education and raising awareness of BRT in the region and receiving feedback on the draft plan.
- Focus groups have already been conducted to get feedback on what information the public needs and to improve the clarity of the materials.

✓ Mr. Spielberg asked about the assumptions regarding the level of BRT service in the analysis and the involvement with local staff in determining constructability. Ms. Leven stated that there are 5 BRT types included in the scenario, based on existing plans, on-the-ground conditions, and conversations with the jurisdictions. The more intensive BRT types would have higher costs. The question of constructability regarding whether recommended dedicated lanes would be repurposed from general traffic or be new construction was left to the jurisdictions. Some assumptions have been made where necessary, which the jurisdictions have agreed with. However, this analysis did not include engineering and right of way review.

✓ Ms. Cavucci thanked Ms. Leven for doing the work necessary to create this visionary plan.

✓ Mr. Jasper added that a large motivation to do this was NVTA's role as both a planning and a funding body to create a comprehensive and cohesive regional plan that could provide incremental improvements to a connected BRT system.

3. Summary Notes of January 15, 2025, Meeting

✓ A motion to approve the summary notes of the January 15, 2025, meeting was made by Dr. Zhu and seconded by Mr. Ciccarelli. The motion passed unanimously.

4. NVTA Five-Year Strategic Plan Update

✓ Ms. Sink began by giving a background on the 2017 Strategic Plan, which had outlined a vision statement and four strategic goals of regional prosperity, mobility, innovation, and funding. From 2018-2020, staff provided progress reports, and in September 2024, staff presented the Closeout Report of the 2017 Strategic Plan to the Authority.

✓ The 2025 Five-Year Strategic Plan will set the framework for NVTA through 2030, with the overarching strategy to maintain and enhance performance of NVTA's primary responsibilities while addressing other urgent and unmet regional transportation needs.

- ✓ The updated Strategic Plan will identify NVTA's Vision, Mission, and Core Values, set goals to accomplish within 5 years, strategies to do so, and metrics to measure progress.
    - Staff are recommending formally adopting within the Strategic Plan the Vision statement and Core Values which were outlined in the 2020 long-range transportation plan, TransAction.
    - The draft mission statement is "Our mission is to plan, fund, and advance multimodal transportation solutions that reduce congestion in Northern Virginia."
- ✓ The draft goals are:
    - Lead the region's transportation initiatives
    - Maximize public benefit through project selection and delivery
    - Enhance regional planning through technical assistance and data-driven information
    - Safeguard and diversify NVTA revenue sources
- ✓ The update timeline includes anticipated adoption of the draft Vision and goals in May 2025, with final adoption of the full 5-Year Strategic Plan in Fall 2025.

5. Project Status Update

- ✓ Ms. Sink presented next on the project update status report that is provided to the Authority every month.
- ✓ Ms. Sink presented graphs that illustrate Standard Project Agreement (SPA) status by categories, SPA status by funding programs, and funding program status by allocated and reimbursed revenues.
- ✓ The report also highlights upcoming meetings and events for projects receiving NVTA funding, and an abridged list of projects with substantive status updates within the past month.
- ✓ This month, the report also includes upcoming appropriations requested for the next fiscal year.
- ✓ Lastly, the report identifies projects which are flagged due to not receiving an update within the last three months, and also those who have not responded within the last monthly update cycle.
- ✓ Mr. Ciccarelli asked if it was common for project sponsors to not submit the required monthly update. Ms. Sink responded that due to the focus on project delivery from the Authority, the frequency of missed project updates is decreasing. Regarding the projects listed in this month's project status

update, Ms. Sink indicated that she is communicating with the project sponsors to identify where the project stands and what led to the monthly updates being left incomplete. Mr. Jasper highlighted the importance of project delivery to NVTA as part of the organization's role as a funding body. Mr. Nampoothiri indicated that there is often a reason why the projects have fallen behind schedule, and we want to understand what those reasons are.

- ✓ Mr. Nampoothiri also reminded the TAC members of the public facing dashboard, NoVA Gateway. Mr. Jasper explained that all projects are reflected in the Gateway once they are processed in our tracking system.
- ✓ Ms. Sink highlighted that NVTA recently passed the threshold of reimbursing $1 billion dollars of Regional Revenues for transportation projects, which is also reflected on the Gateway.

6. NVTA Update

- ✓ Mr. Jasper invited TAC members to the upcoming Northern Virginia Transportation Roundtable, highlighting that it is the 10th Roundtable event. The event will be held at Virginia Tech's Innovation Campus in Alexandria, close to the Potomac Yard Metro station, and will be free of charge (although registration is necessary) to celebrate the milestone.
- ✓ The Authority did not meet in March, and the April meeting will include the action items to approve the three budgets, the Call for Regional Transportation Projects for the next Six Year Program update, and the staff recommendations for the 2031 Congestion Mitigation and Air Quality Improvement Program / Regional Surface Transportation Program allocations.

7. Adjourn

- ✓ The meeting was adjourned at 8:02 p.m.
- ✓ The next meeting is scheduled for April 16, 2025, at 7:00 p.m. in-person at the NVTA Offices.

NORTHERN VIRGINIA TRANSPORTATION AUTHORITY

NVTA'S BRT

Bus Rapid Transit Action Plan

Technical Advisory Committee Meeting

May 21, 2025

BRT Action Plan Update

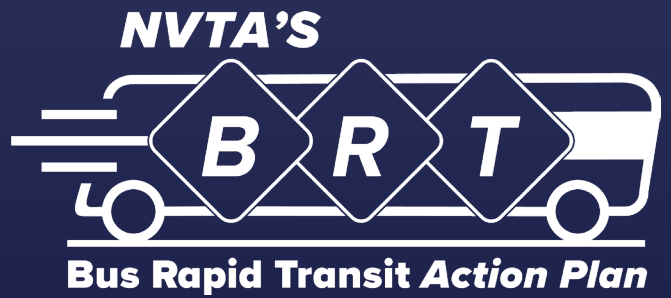
A. BRT Action Plan Status Update

B. Phase 3 Preliminary Survey Results

C. Lesons Learned, Next Steps

D. Discussion Questions

A. BRT Action Plan Status Update



BRT Action Plan Schedule Overview

Phase 1: Data Gathering
Nov 2023-Jun 2024

Phase 2: Analysis
Jul 2024-Feb 2025

Phase 3: Public Engagement
Mar 2025-Jul 2025

Phase 4: Reporting
Aug 2025-Oct 2025

We Are Here

Included:
- Peer Review & Best Practices
- Defining the BRT System
- Public Engagement

Included:
- Route Level Evaluation
- System Level Evaluation
- Operations/Financial/ Governance Analysis
- "What if" Scenario Analysis

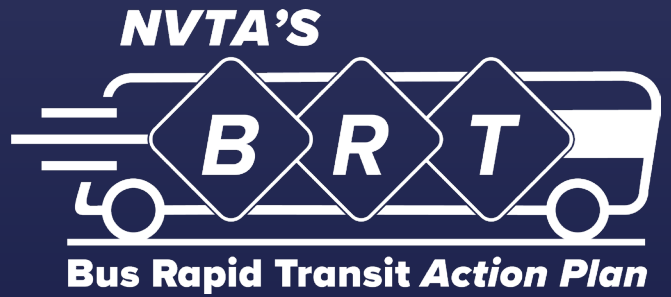
Including:
- Preparing Public Materials
- Pop-up & Open House events
- Online Survey
- NVTA work session & approval

Including:
- Finalize documentation and supporting materials

Key Dates in Approval Process

- May 21: TAC reviews preliminary survey results
- May 28: PCAC reviews preliminary survey results
- June 12: NVTA reviews preliminary survey results
- June 18: TAC endorses Action Plan
- June 25: PCAC endorses Action Plan
- July 2: PPC endorses Action Plan
- July 10: NVTA approves Action Plan

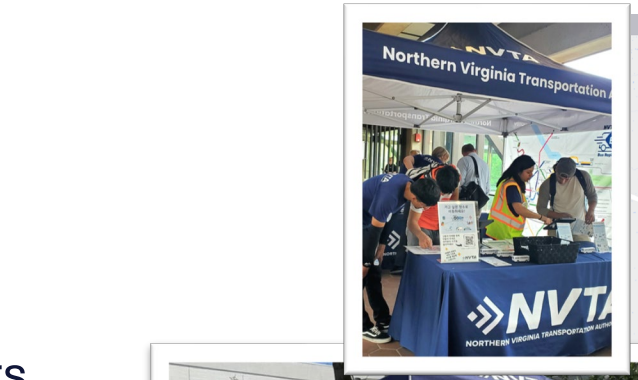
B. Phase 3 Preliminary Survey Results

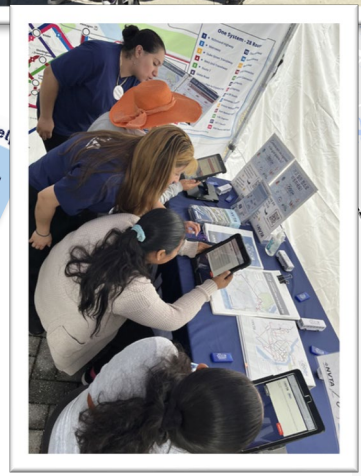


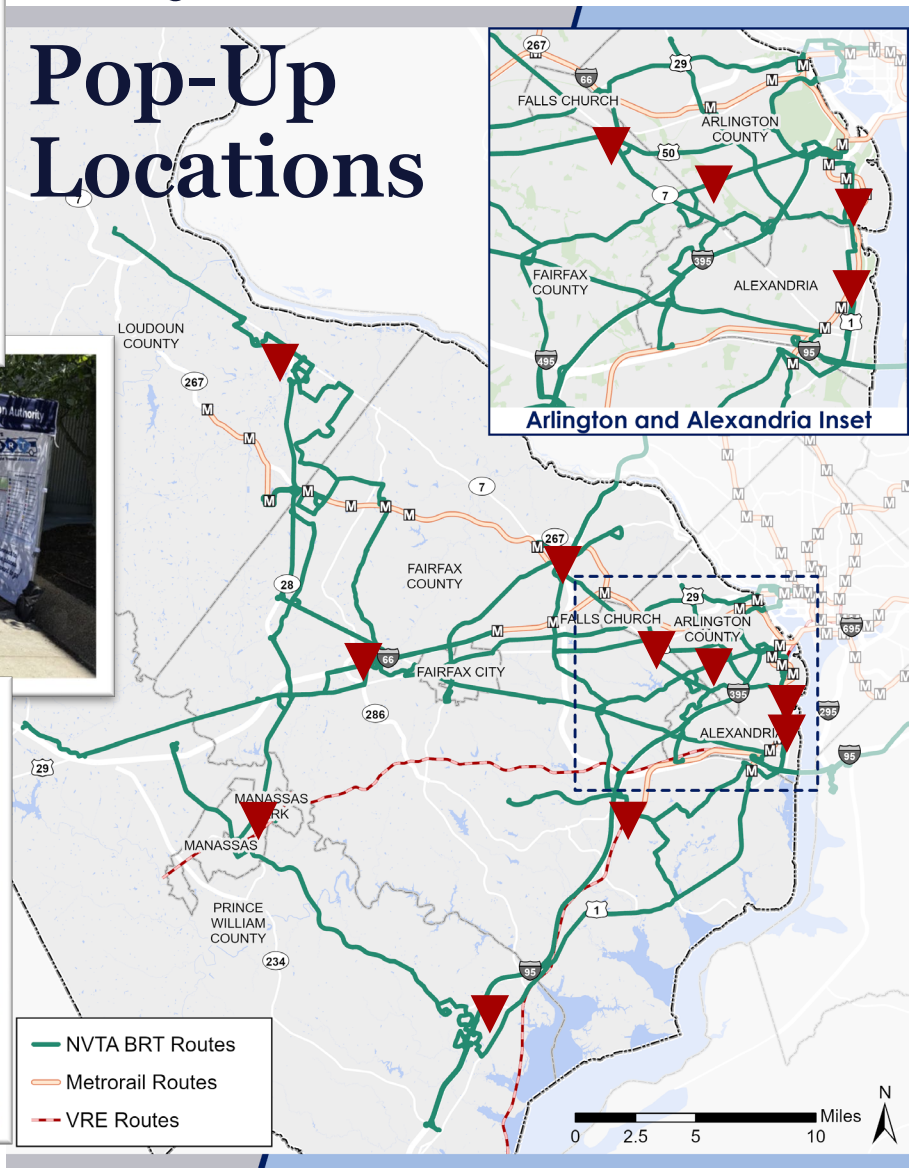
Spring Engagement Summary

- 10 Pop-ups balanced across NoVA with close proximity to more than one proposed BRT route
  - 6 events targeted drivers (farmers markets, retail centers, food distribution center)
  - 4 events targeted transit-users (Metro stations and commuter lot)

- 4,614 in-person interactions at pop-ups
  - 27% of interactions in Spanish or languages other than English
  - Over 4,600 pieces of print material distributed







Survey Overview

- 587 total responses, with 531 from Northern Virginia residents.

Jurisdiction	Completed Surveys	% Responses in the Region	% Population (2025)
Arlington County	118	22%	9%
Fairfax County	136	26%	44%
Loudoun County	39	7%	17%
Prince William County	44	8%	19%
City of Alexandria	117	22%	7%
City of Falls Church	29	6%	<1%
Manassas	19	4%	2%
Fairfax City	24	5%	1%
Manassas Park	5	1%	<1%
Somewhere else	42		

14 respondents preferred not to answer which jurisdiction they reside in.

- Respondents weighed in on:
  - The proposed BRT system and how it addresses their transit needs
  - Likelihood of using BRT
  - Preferred features for a BRT system in NoVA
  - How people would use the proposed BRT system

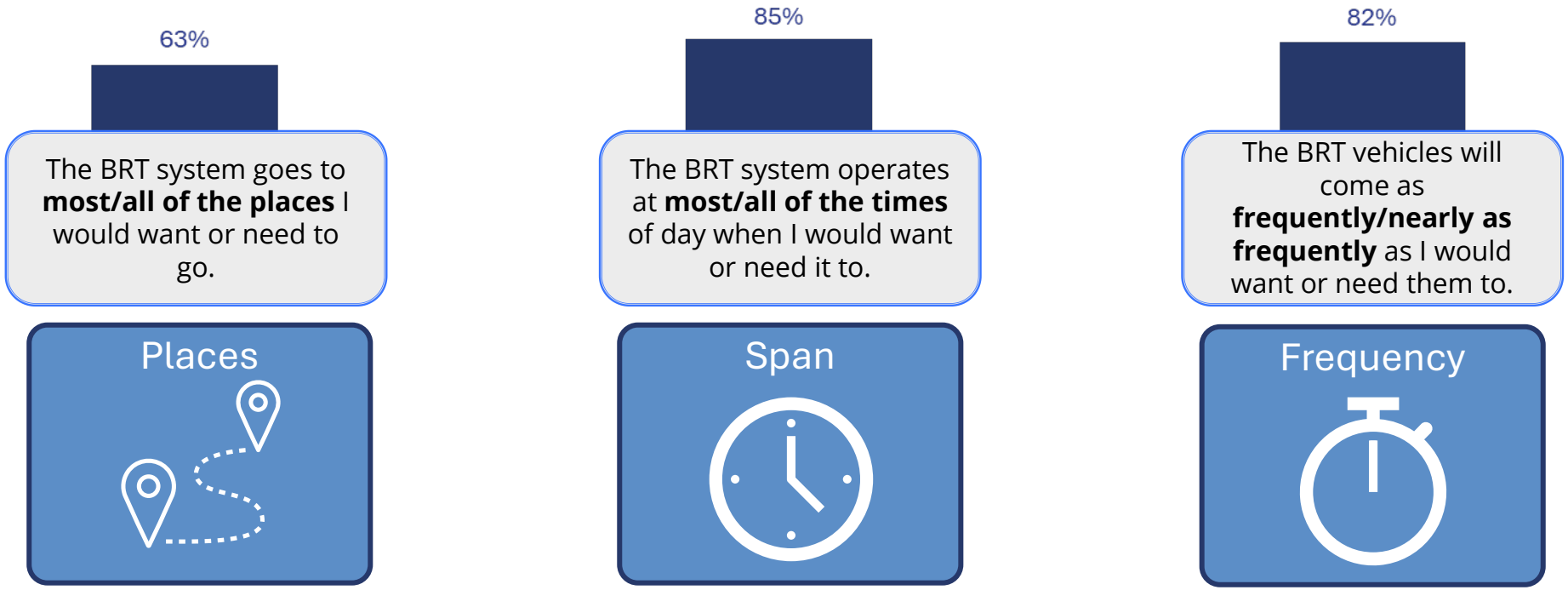
- Respondents were categorized as public transportation riders or non-riders based on their primary mode of transportation

Type	Completed Surveys (Unweighted)
Riders	249
Non-Riders	329

9 respondents gave responses of “Other” and are therefore not included in the Rider vs Non-Rider split.

Overall BRT System Ratings

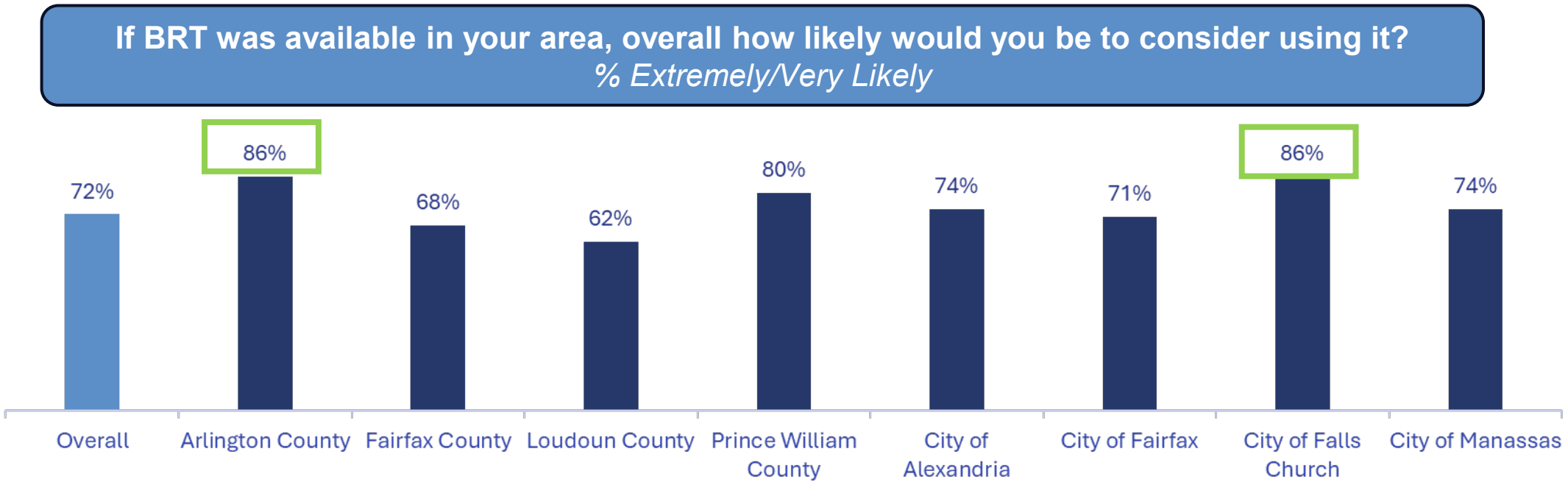
How well would you say this proposed BRT system meets your needs?



Additionally:

- Those **age 18-34** are more likely to say it goes to **all or most places** they would want to go than those who are **age 35 or older** (78%, compared to 56%).

Likelihood of using BRT



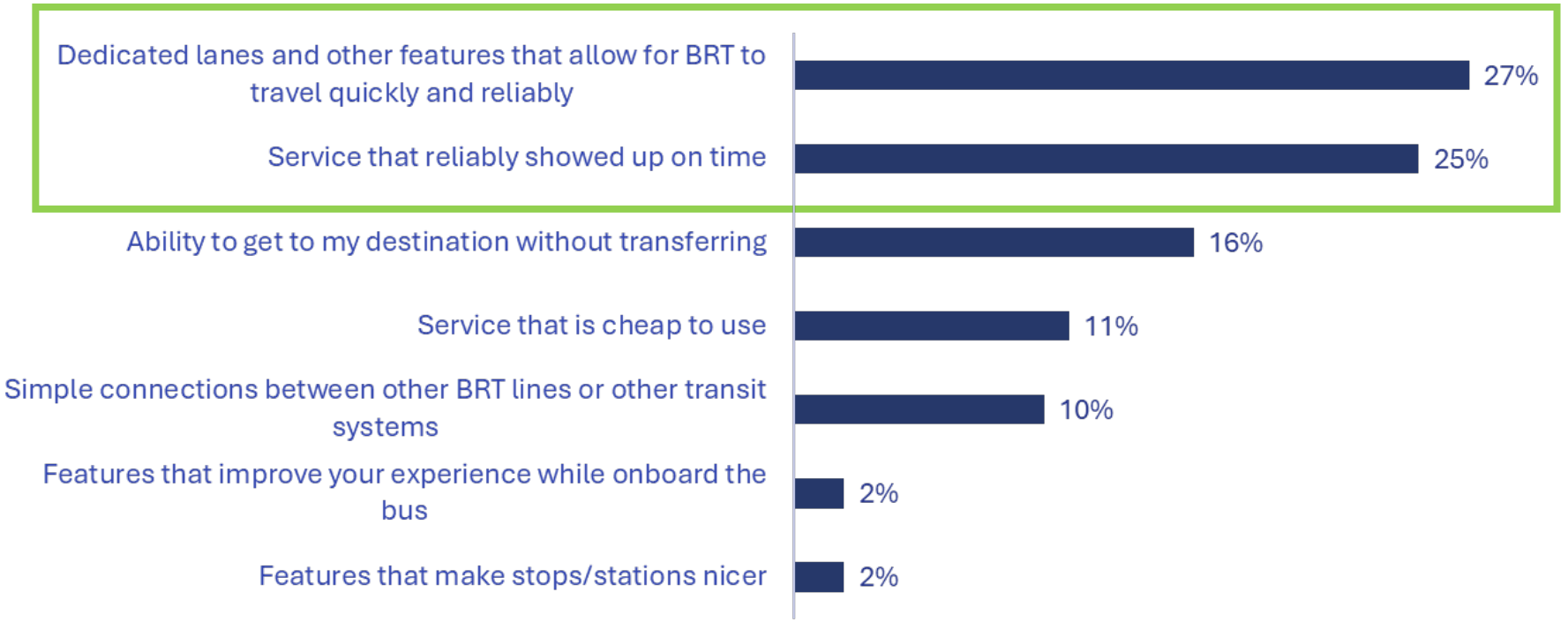
Additionally:

- **Public transportation riders** rated themselves **very/extremely likely** to consider using BRT at a higher rate than non-riders (82% compared to 66% of non-riders).
- Those **age 18-34** are **extremely/very likely** to consider using BRT at a higher rate than those age 35 or older (84%, compared to 66%)

Note that City of Manassas Park is not displayed due to small n-size.
Locations of pop-ups, engagement events, or generally where respondents were intercepted can make respondents predisposed to having an interest in BRT.

BRT System Priorities

What is the most important characteristic of a BRT system for you to consider using it?



Additionally:

- White/Caucasian residents were more likely to choose **dedicated lanes and other features** than People of Color.

NVTA

Proposed BRT Lines

Which three BRT lines are you most likely to use?

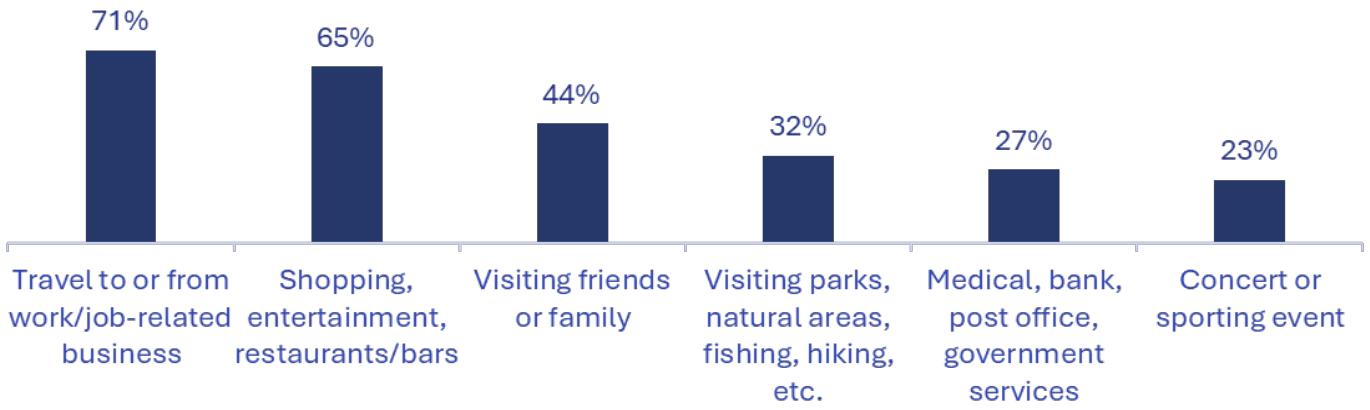
Most Frequently Chosen Lines	%
#26 - I-95 Express	15%
#21 - I-66 Express	15%
#16 - Fairfax Boulevard	15%
#10 - Langston Boulevard	13%
#19 - Loudoun Connector	12%
#20 - VA-28 North	12%
# 22 - VA-28 South	12%
#13 - Gallows Road	12%
#5 - Route 7	11%
#1 - Richmond Highway	11%
#12 - Little River Turnpike	11%

Top mentions shown, for full list of lines refer to crosstabulations.

Likelihood to use lines varies naturally by jurisdiction.

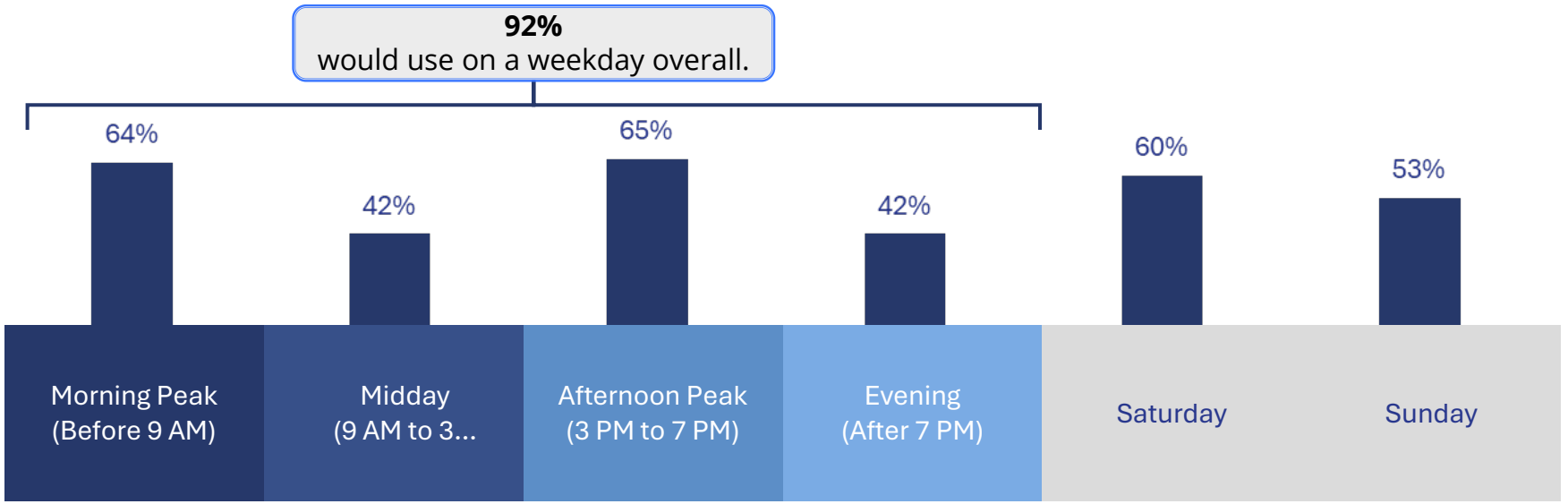
- For example, those in **Prince William County residents** are **more likely** to have selected **I-95 Express** than residents of other jurisdictions.

For what purposes would you use [line]?



Proposed BRT Lines

What days and times of day are you likely to use this BRT Route?



On average, would use BRT route chosen **3 days per week.**
(Actual average = 3.1)

Additionally:

- Residents age 18 to 54 are more **likely to use their chosen route** during **afternoon peak times** (68%, compared to 48% among those 55 or older).
- **Riders,** on average, **would use BRT more frequently than current non-riders** (4.1 days per week compared to 2.5 among non-riders).

NVTA

C. Lessons Learned, Next Steps

NVTA'S BRT
Bus Rapid Transit *Action Plan*

Lessons Learned, Next Steps

- What we've learned from:
  - Preliminary Survey Results
  - Technical Analysis
  - Staff Coordination
  - Overall
- Next Steps
  - Continue to integrate BRT into NVTA's and jurisdictions' planning processes
  - Additional research, e.g., performance evaluation, operations, and governance
  - Peer exchange
  - Expand outreach/education, including business community
  - Collaboratively develop holistic BRT implementation interoperability/design guidelines/standards
  - Explore/support non-NVTA funding opportunities
  - Specify FTA-compliant regional STOPS model

D. Discussion Questions

NVTA'S BRT

Bus Rapid Transit *Action Plan*

Discussion Questions

1. What is the biggest opportunity and biggest challenge facing deployment of regional BRT?

2. What steps should be taken to address these challenges, including by NVTA?

3. What additional analysis or more detailed information would you like NVTA to explore?