

AUGUST 2022

# HJ 542 Final Report

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**Virginia Transit Equity and  
Modernization Study**

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# Acknowledgements

The Virginia Transit Equity and Modernization Study would not be possible without the participation of the statewide transit community, including leadership and staff from local transit agencies; representatives from metropolitan planning organizations (MPOs) and jurisdictions; other Virginia state agencies; advocacy groups; national industry partners; and individual transit riders and members of the public. Over the past 12 months, their contributions helped craft the vision, goals, and actions that will shape the future of Virginia’s transit system. Collaboration and partnerships were critical in conducting the study and will be a recurring theme of its advancement and implementation.

## Virginia’s Local Transit Agencies

The Virginia Department of Rail and Public Transportation (DRPT) sends special thanks to the leadership and staff of local transit agencies, as well as MPOs and planning councils, for informing the study through their service on the Transit Equity and Modernization Committee, attendance at Technical Working Group meetings, responses to surveys, and helping to engage riders.

- |   |  |   |                                     |  |
|---|--|---|-------------------------------------|--|
| Alexandria Transit Company (DASH)             | Altavista Community Transit                      | Arlington Transit                                       | Bay Transit                         | Blacksburg Transit                             |
| Blackstone Area Bus System                    | Bristol Virginia Transit                         | Central Shenandoah Planning District Commission (BRITE) | Charlottesville Area Transit        | Danville Transit                               |
| District Three Public Transit (Mountain Lynx) | Fairfax City University Energy Saver             | Fairfax Connector                                       | Farmville Area Bus                  | Four County Transit                            |
| Fredericksburg Regional Transit               | Graham Transit                                   | Greater Lynchburg Transit Company                       | Greater Richmond Transit Company    | Greensville-Emporia Transit                    |
| Hampton Roads Transit                         | Harrisonburg Department of Public Transportation | Jaunt   | Lake Country Area Agency on Aging   | Loudoun County Transit                         |
| Mountain Empire Older Citizens                | OmniRide   | Petersburg Area Transit                                 | Pony Express (Town of Chincoteague) | Pulaski Area Transit                           |
| RADAR   | Radford Transit                                  | STAR Transit  | Suffolk Transit                     | Greater Roanoke Transit Company (Valley Metro) |
| Virginia Railway Express                      | Virginia Regional Transit                        | Williamsburg Area Transit Authority                     | WinTran                             |  |

## Industry Partners

DRPT also sends its thanks to the numerous partners from organizations across the transit industry—based in Virginia and beyond—for participating in the study's Technical Working Group meetings.

California Integrated Travel Project	Community Transportation Association of Virginia	Eno Center for Transportation	National Rural Transit Assistance Program	Rappahannock-Rapidan Regional Commission
Richmond Regional Planning District Commission (PlanRVA)	RVA Rapid Transit	Sound Transit	Southern Area Agency on Aging	Thomas Jefferson Planning District Commission
TransitCenter	Tri-Cities Area Metropolitan Planning Organization	Virginia Association of Metropolitan Planning Organizations	Virginia Chamber of Commerce	Virginia Department of Environmental Quality
Virginia Department of Transportation	Virginia Office of Intermodal Planning and Investment	Virginia Transit Association	Virginia Transportation Research Council	

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# Introduction

## Study Overview

The team developing the **Virginia Transit Equity and Modernization Study** has worked to identify opportunities to advance access to transit services, infrastructure, and technology within the Commonwealth. There has been a renewed focus in recent years on the **advancement of modern and accessible transit for all Virginians**. The study team has explored a wide variety of topics and engaging the public to create a proactive plan for modernization of transit in the Commonwealth.

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**During the 2021 General Assembly session, House Joint Resolution 542 passed with support from interest groups across the Commonwealth. This legislation requires the Virginia Department of Rail and Public Transportation (DRPT) to complete a needs assessment that focuses on the modernization of transit in Virginia and engagement opportunities for underserved and underrepresented communities.**

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### Study Considerations

What can be done to increase our understanding of community transit needs, and how can we better ensure no voice or perspective is missed?

What best practices need to be embraced and what programs, policies, and procedures need to be adapted to advance modernization goals?

What is the distribution of benefits and burdens when planning for transit delivery?

What enhancements can be made to improve rider experience?

What transit investments increase access to opportunities for the greatest number of people across the Commonwealth and better connect the workforce to employment?

What modernization efforts enhance transit accessibility, infrastructure, electrification, safety, and technology?

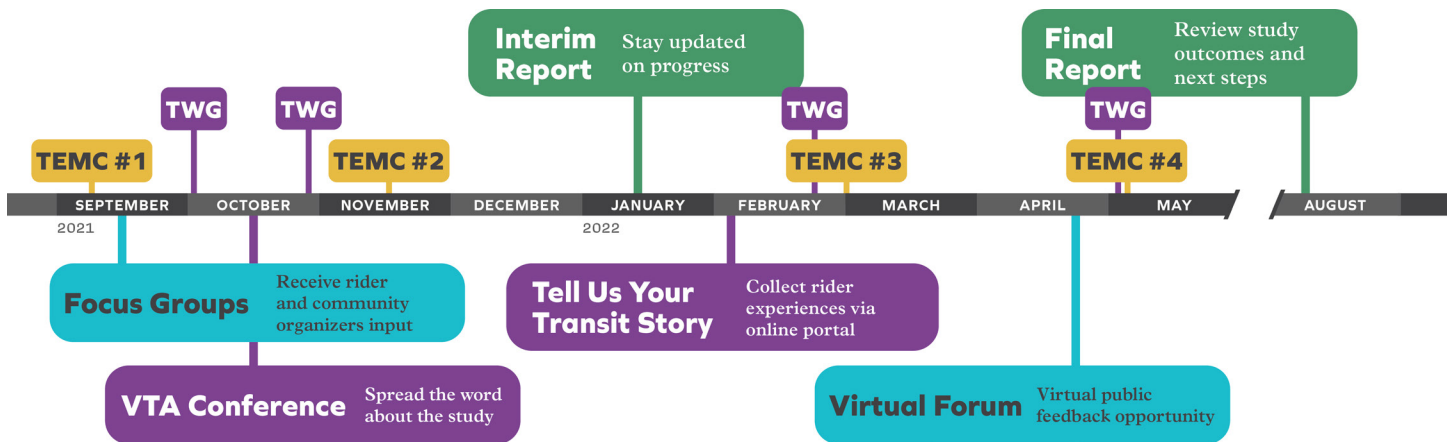
What can be done to ensure that those who are affected by planning decisions have a voice in the process?

The overarching goal of the study is to create an assessment of current conditions, identify study findings, and develop an action plan that works toward the desired outcomes. The results of the study include a needs assessment focused on the modernization of transit — including targeted recommendations and strategies for Virginia’s transit agencies and communities — emphasizing engagement with underserved communities in the Commonwealth.



## Study Process

The Virginia Transit Equity and Modernization Study began in summer 2021. Input from transit riders and stakeholders from communities across the state was solicited at key milestones throughout the study, working to complement the technical assessments and analyses and support the development of several products, including an interim report, several technical memoranda, and this final report.



DRPT led the Virginia Transit Equity and Modernization Study. DRPT’s mission is to facilitate and improve the mobility of the residents of Virginia and to promote the efficient transport of goods and people in a safe, reliable, and cost-effective manner. DRPT is the Commonwealth’s advocate for promoting transportation options to the general public, businesses, and community decision makers. As an agency entrusted with public dollars, DRPT seeks the highest possible return on investment to maximize limited funding and strive to implement best practice management tools and techniques.



# Supporting Opportunity and Balancing Tradeoffs

Virginia is under increasing pressure to make decisions about transportation, transit, and overall mobility that require challenging tradeoffs.

Transportation and transit planning decisions often have implications on who benefits from public transportation investments and how the benefits are realized. This includes the importance of providing access to opportunities for employment, socializing with friends and family, connecting with the community, and meaningfully participating in our society.

Transit services are a powerful tool that can enhance communities, connect people to jobs and opportunities, foster economic development, and promote healthier, more sustainable lifestyles. The presence of transit options also can contribute to more balanced societal outcomes by providing mobility options to those who otherwise do not have access to reliable means of transportation. This is especially true for historically marginalized communities, those who remain underserved today, and those who may have been adversely affected by transportation decisions in the past.

## Where We Invest

There is an urgency to focus limited resources on the needs of vulnerable communities to ensure that people of all ages, abilities, and backgrounds have access to high-quality, affordable transit.

## How We Travel

Projects, programs, and policies need to be prioritized to invest in an integrated transportation system that ensures all Virginians have safe and reliable options, no matter how they choose to travel.

## Transit can offer considerable opportunities for:

### Vulnerable Populations

- Access to transit is a critical social determinant of health. For people of color and low-income individuals, safe and affordable mobility options work to overcome health disparities and the inequitable distribution of resources and opportunities.
- Transit allows a greater number of Virginia residents to participate in the workforce. This is especially true for people with disabilities and populations with no or limited access to cars. The reliability of transit will impact access to jobs and opportunities.

### The Economy

- Transit helps grow and sustain Virginia's economy by connecting people to jobs, businesses and services, education, and more. Virginia businesses rely on having easy and convenient travel options for their employees and customers.
- Transit investments offer a 5-to-1 economic return — every \$1 billion invested in public transit generates \$5 billion in economic activity and supports or creates 50,000 jobs.

### The Environment

- The transportation sector is among the largest sources of greenhouse gas emissions in the United States and Virginia. Enhancing and expanding the transit system is a powerful tool to reduce emissions and lessen the environmental impact of transportation.
- Transit reduces motor fuel consumption and Virginia's carbon footprint. Every year, public transit saves the United States 4.2 billion gallons of motor fuel and reduces the nation's carbon emissions by 37 million metric tons.
- The presence and use of transit services generated \$40 million in emissions and fuel consumption savings in FY 2018 alone.

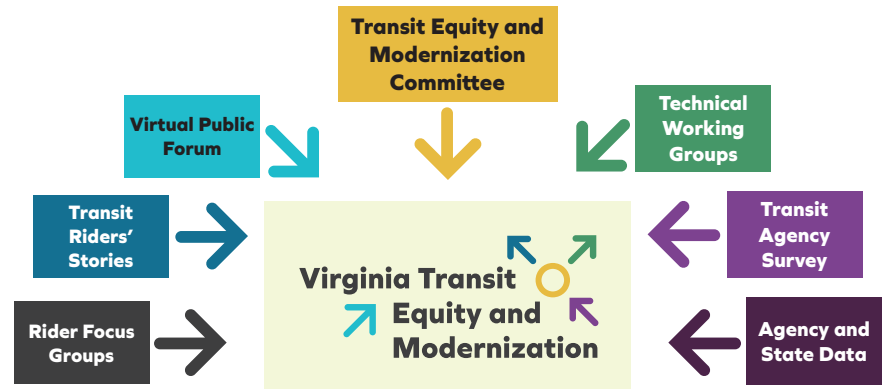
Source: *Economic Impacts of Public Transportation in the Commonwealth of Virginia (2020)*



# Key Study Elements

## Public and Stakeholder Engagement

Listening to a wide range of voices was a key component of conducting the study and developing solutions that reflect the varied needs and priorities of transit users across the Commonwealth. Authentic communication and genuine partnership were critical to hearing and understanding diverse lived experiences. The study's inclusive public participation program fostered open and honest conversations in which diverse perspectives were valued and respected.



Throughout the study process, stakeholders — including transit agency staff, community leaders, and technical experts — provided their input through their participation in a Transit Equity and Modernization Committee, technical working groups, and two transit agency surveys. This input provided important qualitative information to support and enhance the study team's data collection and technical analysis efforts. The study team also received input from riders and members of the public through rider focus groups, a transit rider story campaign, a public survey, and a virtual forum held in spring 2022. This input from the transit-riding public was foundational to the development of this study and is featured throughout this final report.

The Virginia Transit Equity and Modernization Study was conducted during 2021 and 2022 and coincided with the ongoing COVID-19 pandemic. People across the Commonwealth were able to participate virtually with an array of online tools for surveys, meetings, and public feedback on study items. With these tools, DRPT was able to gather information, solicit feedback, and gain insight into and knowledge of the unique transit needs, challenges, and desires across the state.

DRPT received valuable input through more than 3,500 interactions across the Commonwealth. DRPT met with a broad array of members of the public and stakeholders, including transit riders, local transit agencies and operators, metropolitan planning organizations (MPOs) and other regional bodies, advisory and advocacy groups, and local government leadership and staff. An intentional and consistent effort to engage the transit-riding population and local transit agency leadership and staff from all areas of the state provided a rich source of insight into Virginia’s diverse needs and perspectives.

## 3,500+ Interactions



**1 public survey**



**1 virtual public forum with 77 attendees**



**4 Transit Equity and Modernization Committee meetings**



**16 Technical Working Group meetings**



**3,300 study website visits**



**7 rider focus groups with 48 participants**



**“Share Your Transit Story” campaign with 24 responses**



**2 surveys of local transit agencies with responses from all 39**



**30 briefings to local and regional governing bodies**



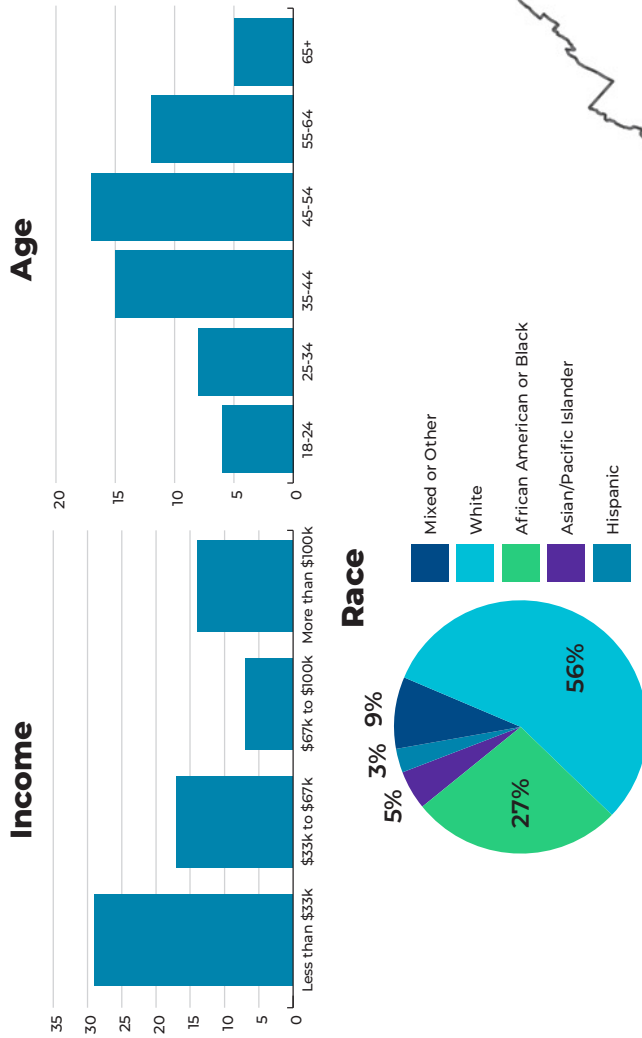
**7 e-newsletters and 15 social media posts from DRPT and partners**

The public participation program captured a variety of lived experiences from communities across the Commonwealth. Meetings, events, and other touchpoints engaged stakeholders and members of the public from different incomes, ages, socioeconomic backgrounds, and geographic areas, from Virginia’s biggest cities to its most rural towns. Several out-of-state stakeholders and transit industry partners also engaged, adding to the study’s robust diversity of thought and input.

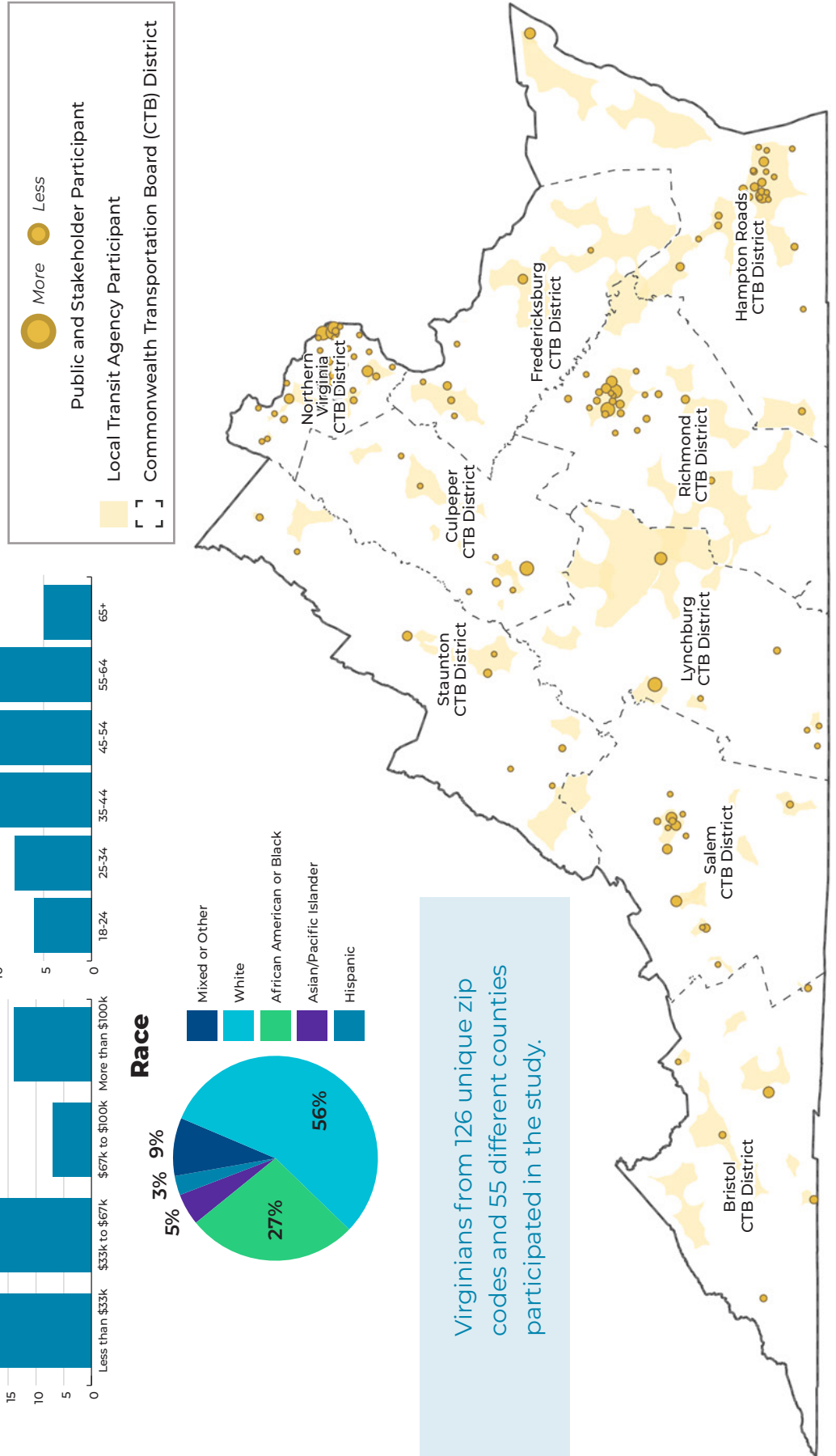
In addition to public participation, input and engagement from **all 39 Virginia transit agencies**—representing paratransit, on-demand transit, and fixed-route bus services—provided perspective on providing high-quality service for Virginians with disabilities, expanding access in rural communities, and improving connectivity among Virginia’s many towns and cities.

# Statewide Study Participation

## Rider Focus Group Participant Statistics



## Statewide Study Participation Map



## Study Website

The Transit Equity and Modernization Study website —[VAtransitmodernization.com](https://VAtransitmodernization.com)— was an essential tool in the public engagement process. The study website served as a publicly accessible electronic repository for study information, provided transparency to the study process, allowed for interested persons to sign up for email updates, and served as a tool to collect information and feedback through an online comment form.

## Rider Focus Group Meetings

Virtual focus groups with transit riders were conducted in summer 2021. The focus groups allowed the study team to engage participants from both urban and rural areas across the state, and the virtual format provided a safe setting during the ongoing COVID-19 pandemic. **Forty-eight participants** across **seven focus group meetings** offered a diverse set of perspectives including: **frequent and infrequent riders, stakeholders, advisory council members,** and **people with disabilities** across areas of Virginia served by both fixed-route and demand-response services.

## Virtual Public Forum

A virtual Transit Equity and Modernization Forum was held in spring 2022 and served as a key element of the study team’s approach to developing considerations and direction for future transit modernization efforts with an equity lens. The forum provided an opportunity to brainstorm with participants, industry partners, and outside stakeholders, allowing DRPT to convene **transit thought-leaders from around the country, Virginia transportation leadership,** and **transit users** together to provide a diverse set of perspectives.

## Transit Riders’ Story Campaign

The study team leveraged the study website to call transit riders from across the Commonwealth to share how transit has played a role in their lives and where they see Virginia’s transit network growing in the future. These stories helped the study team develop solutions that reflect the needs and priorities of transit riders in the Commonwealth.



COVID-19 safety measures should be continued post-pandemic, such as thorough cleaning of vehicles and availability of hand sanitizer at stops and stations.”

— RIDER FOCUS GROUP PARTICIPANT



We chose to buy our house in part because it was near a transit stop.. Taking the bus was especially convenient when I was pregnant.”

— TRANSIT RIDER STORY SUBMISSION

## Public Survey

A public survey was open from April 20 to May 13, 2022. Through a variety of different question types, respondents provided quantitative and open-response feedback on the Draft Action Plan Summary, which included potential study actions and takeaways for each of the study's technical areas. Respondents were most interested in the "Potential Actions" portion of the Action Plan Summary. Many respondents felt as though the plan aligned with their priorities, and others shared priorities that they wished to see included in the plan. Respondents shared priorities that could be added or emphasized in the plan including improved intercity/intercounty/interagency connections, improved attention to sidewalk quality and safety between and to get to transit stops, continuous public engagement, and strengthened partnerships.

## Technical Working Groups

Technical Working Groups—composed of local transit agency staff, stakeholders, and partner agencies from across Virginia as well as national thought-leaders from the transit industry—were used to solicit diverse perspectives, brainstorm unconstrained ideas, explore feasibility and implementation barriers, and provide input on recommendations for each of the study's technical areas. **Bringing together a group with strong technical knowledge and diverse backgrounds, ideas, and experiences enriched the study team's conversations and brought forward implementable solutions that contribute to equity and modernization.**

## Transit Agency Surveys

To capture both qualitative and quantitative information directly from local transit agencies, the study team conducted two transit agency surveys — one each in summer 2021 and spring 2022. The first survey covered the six technical areas and sought to measure interest in various topics, identify concerns and opportunities, and gauge progress on the local level toward equity and modernization goals. **The survey had a 100% response rate from local transit agencies in Virginia.** The second survey was an opportunity for transit agencies to give documented feedback on the study process and findings and prioritize the actions in the draft action plan from their transit agency perspective. **Thirteen transit agencies participated in the second survey.**

## Transit Equity and Modernization Committee

As part of the study, a Transit Equity and Modernization Committee (TEMC) consisting of transit agency executives was formed to advise the study. This group met four times at major milestones throughout the study process, offering lessons learned, current challenges, and opportunities for the best investments in transit systems statewide. Part of their local communities throughout Virginia, transit agency leaders reflected on social conditions, the state of transit, and how best to implement modernization projects.

Because the TEMC represented a diversity of thought and experience across both larger and smaller transit providers and urban and rural communities, engagement with the TEMC ensured practical and actionable planning, which included considering the following:

- What is “fair” distribution of services and what does “modernization” mean for the technical areas identified?
- What are the desired outcomes we’re seeking to advance?
- How do we overcome biases in transit planning and design?
- What resources and processes need to be implemented to ensure balanced outcomes?

The following goal statements were developed by the TEMC to guide its work and discussions:

- **Connectivity and Access:** Upgrade technology and address travel barriers to provide future improvements that optimize reliability, access, affordability, and multimodal connections
- **Safety and Operations:** Ensure the dignity of operators and employees with protections for their well-being and safety, fair and intentional hiring practices, and competitive wages
- **Performance and Funding:** Support measures that enable inclusive service growth as it relates to vulnerable populations, the environment, and the economy
- **Education and Engagement:** Develop meaningful public engagement methods and expand transit use through education and activities that inform and empower the public to influence decision-making

### Promoting the Study

In addition to the website, email blasts and social media were used to promote the study, recruit focus group participants, share study findings, gather rider stories, and advertise the virtual forum. DRPT also leveraged industry and agency partners to extend the reach of these messages via “transit agency outreach kits” that included informational rack cards and window cling stickers in both English and Spanish to post inside buses.



## Technical Assessment

While the focus on the study was to identify opportunities to enhance access in conjunction with modernization efforts, there also are several technical transit topics that have been explored, including:

### Accessibility



The link between transit supply and need, with an emphasis on underserved populations and the ability of transit to connect people to jobs and opportunities

### Electrification



A review of the current state of electric, zero-emission buses (ZEBs) operated in Virginia's transit fleet today, and a review of opportunities and barriers to transitioning to ZEBs

### Adequacy of Infrastructure



The condition of existing transit infrastructure and what is needed to bring them to an acceptable minimum standard

### Safety



The safety of all transit passengers and employees on transit vehicles, in operations facilities, and traveling to and from transit stops and stations

### Emerging Technologies



The feasibility of Virginia's transit agencies adopting emerging transit technologies, and the associated costs, benefits, and timelines for implementation

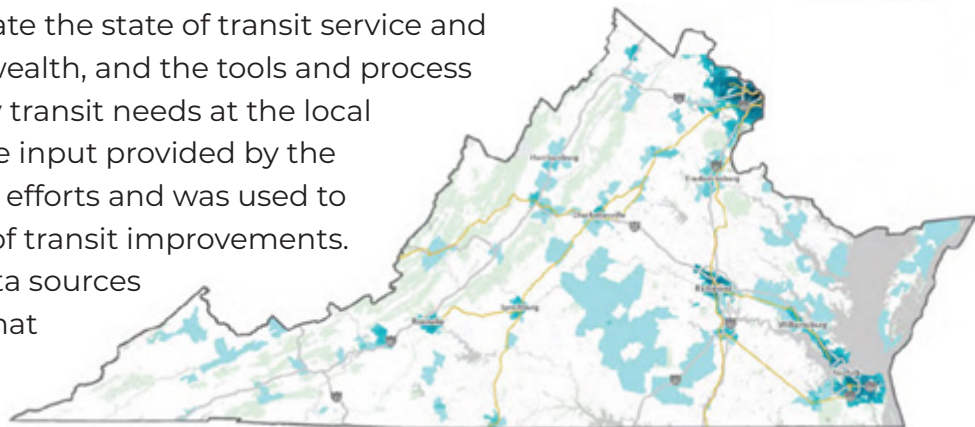
### Engagement and Governance



A review of agency practices for engaging with the public, particularly with transportation-disadvantaged communities, and their role in transit agency governance

## Interactive, Data-Driven Tools

In addition to engaging with local transit agencies, rider groups, and industry professionals, a detailed analysis of transit accessibility in Virginia was conducted. This analysis helps illustrate the state of transit service and infrastructure around the Commonwealth, and the tools and process used can be easily tailored to identify transit needs at the local level. This analysis helped validate the input provided by the public and stakeholder engagement efforts and was used to identify areas that are most in need of transit improvements. Finally, existing, publicly available data sources were leveraged to create new tools that can be updated over time as Virginia grows and transit service improves.



View the study's interactive [Transit Gaps Dashboard](#) and [Access to Opportunity Map](#) on the [Interactive Initial Findings and Opportunities summary](#).

# Virginia's People and Communities

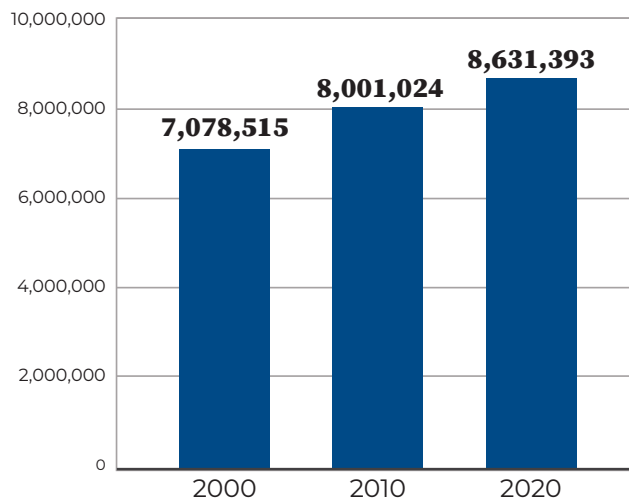
## Demographic Trends

### Population Growth

Virginia has seen a significant population increase since 2000, growing by 1,552,878 people (or 21.9 percent). This increase was most dramatic between 2000 and 2010, which saw a 13.0 percent increase as opposed to a 7.9 percent increase between 2010 and 2020.

Though Virginia has added more than half a million new residents since 2010, statewide population growth has slowed significantly. Despite this slowed growth, Virginia is becoming increasingly diverse. Virginia's Hispanic or Latino population surpassed 900,000 people in 2020, growing by more than 275,000 (or 44 percent) over the past decade. Today, nearly one-in-ten Virginians (11 percent) identify as Hispanic or Latino, compared with 8 percent a decade ago. People of color now make up 41 percent of the state's population, compared with 35 percent in 2010.

Population Growth in Virginia



**+8%**

Population Growth since 2010

**+14%**

Projected Growth from 2020 to 2040

**11%**

Hispanic or Latino Population

**41%**

People of Color<sup>1</sup>

Source: U.S. Census, American Community Survey 5-Year Estimates (2019)

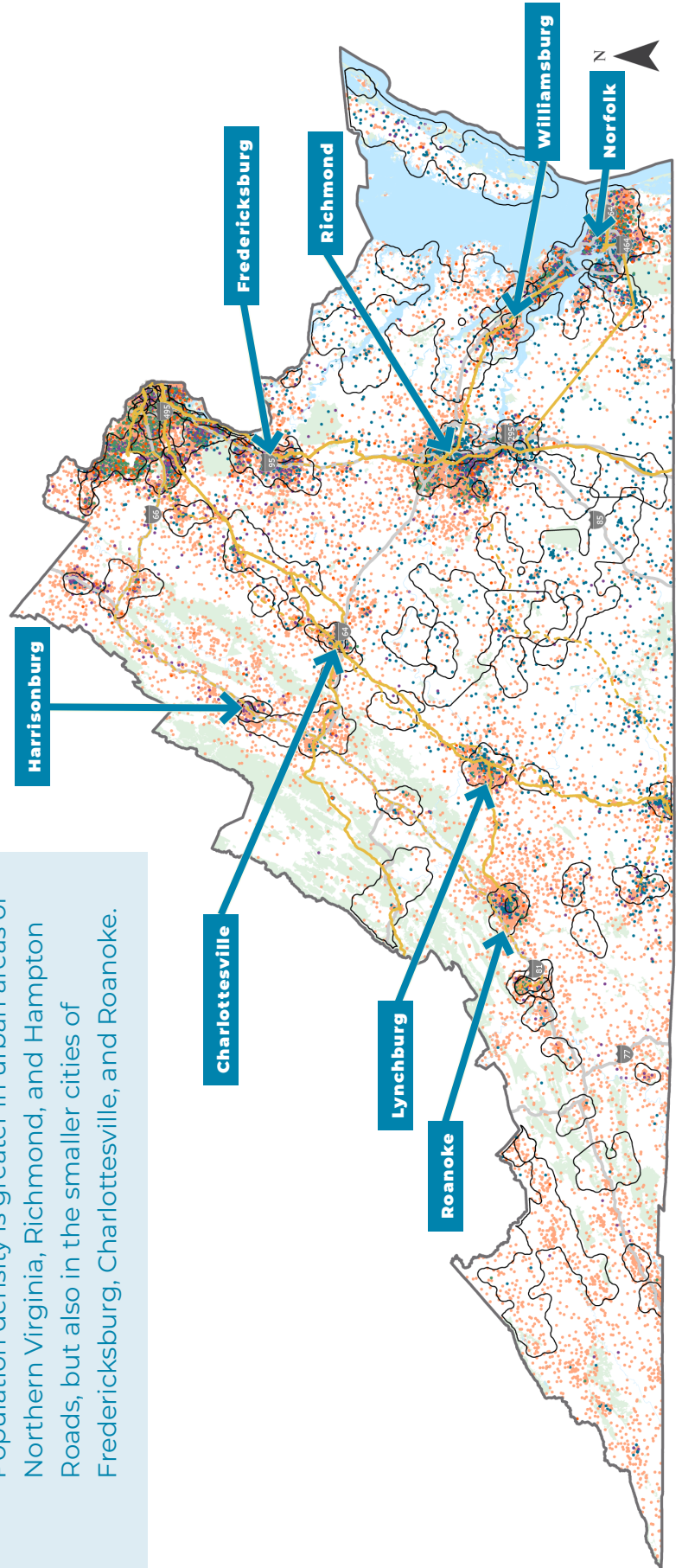
## Population Density by Race



Virginia's population grew by 7.9 percent in the last decade, fueled mainly by growth in urban and suburban areas of Northern Virginia. Large parts of southwest and southern Virginia, however, lost residents.

Source: U.S. Census, American Community Survey 5-Year Estimates (2019)

Population density is greater in urban areas of Northern Virginia, Richmond, and Hampton Roads, but also in the smaller cities of Fredericksburg, Charlottesville, and Roanoke.



## Age

Virginians are relatively young, but aging. As seen on the graph to the right, Millennials (roughly approximated by those aged 25–44) make up the largest share of the population among all generations at 26.9 percent. However, Baby Boomers (roughly approximated by those 55–74) and older adults make up the fastest-growing cohorts by far.

Given the breakdown in ages and increase in older Virginians, it will be increasingly important for all modes of travel—especially transit—to be accessible to and convenient for people of all ages and abilities.

Cohort	2010	2020	% Change
0-14	19.1%	18.3%	-4%
15-24%	14.0%	13.3%	-5%
25-34	13.6%	13.9%	2%
35-44	13.9%	13.0%	-6%
45-54	15.1%	13.5%	-11%
55-64	12.0%	12.9%	8%
65-74	6.9%	9.0%	30%
75-84	3.8%	4.4%	15%
85	1.5%	1.7%	15%

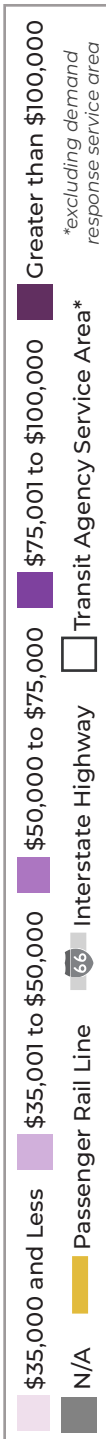
## Income

The median household income for the Commonwealth is around \$75,000. Typical household incomes in Northern Virginia are around \$130,000, whereas average household incomes in southwestern Virginia are around \$45,000.

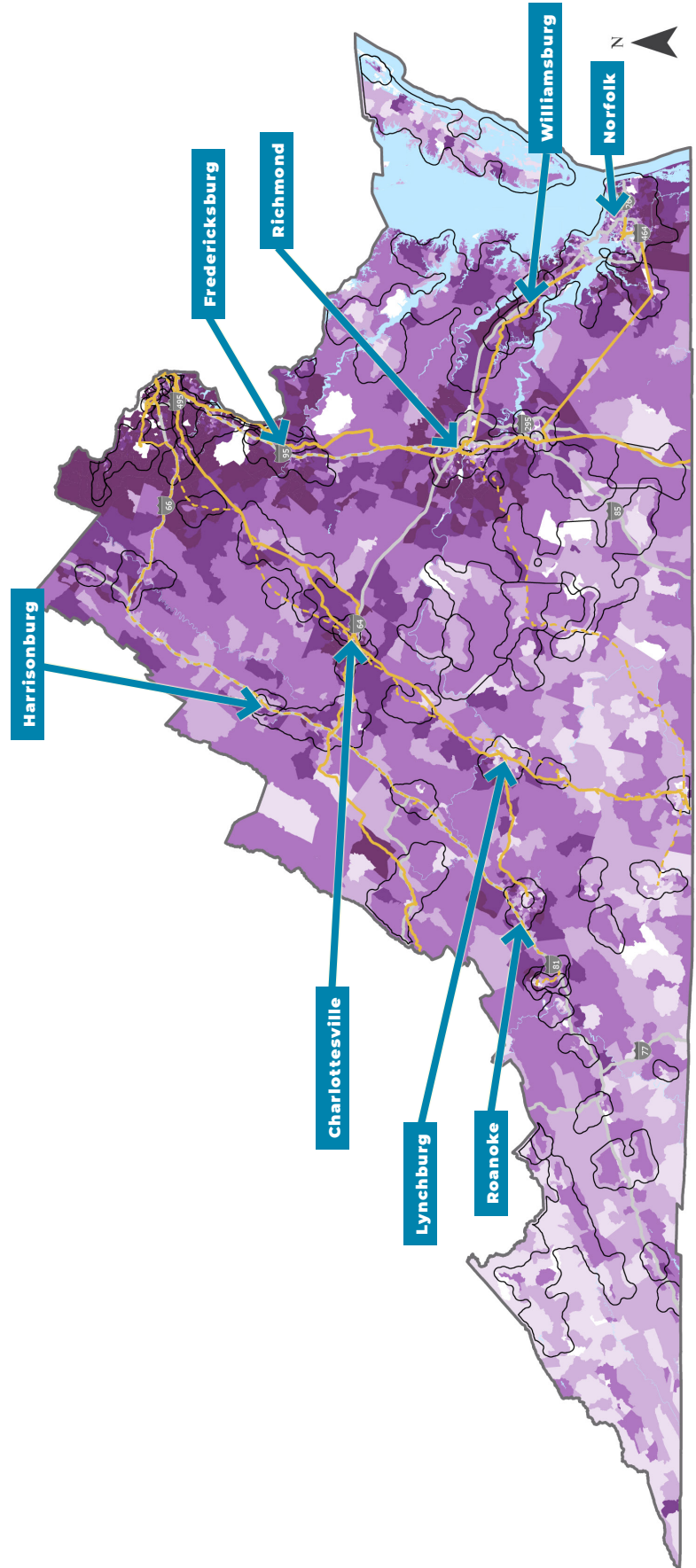
Considering the median household income of Virginia’s communities is crucial to understand the associated transportation burdens and barriers to opportunity a community—or subset of a community—faces. Access to transportation is one of the highest indicators of job accessibility and economic mobility. Incomes across the Commonwealth clearly follow patterns of higher population and employment density.

## Median Household Income

Source: U.S. Census, American Community Survey 5-Year Estimates (2019)



Virginia's highest-income areas are most heavily concentrated in Northern Virginia, the suburbs of Richmond, and the Hampton Roads area.



## Vulnerable Populations

To link equity considerations to existing demographics in transit service areas across the Commonwealth, the study team developed a vulnerable population index (VPI) using seven population groups that were determined to be vulnerable based on federal requirements and regional guidance. In recent years, analysis of equity impacts in the Commonwealth has relied on the use of Equity Emphasis Areas (EEAs) as defined in the Virginia's Transportation Plan (VTrans), which looked at similar population groups to determine whether or not census block groups in Virginia are locations where equity is a concern. Building on that defined structure, this study applies a VPI to further assess impacts to vulnerable groups, which allows for a more detailed evaluation between technical areas and their impacts, including geographic focuses at the Census Block Group and transit agency level.

The vulnerable population groups considered in the VPI include:

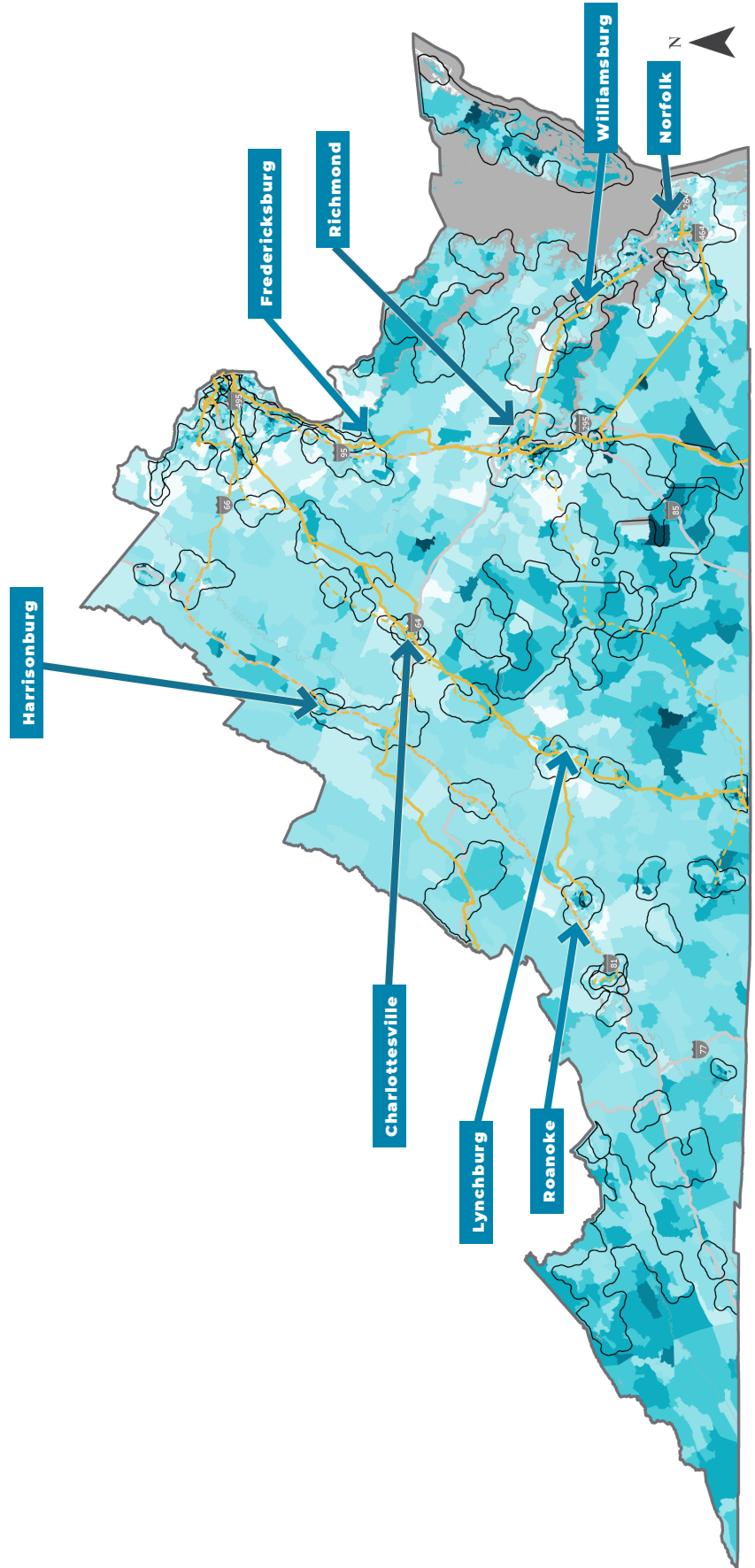
- Households at or below the poverty line
- Minority populations
- Hispanic populations
- People with disabilities
- Persons over age 65
- Zero-car households
- Limited English proficiency (LEP) populations

## Vulnerable Populations Index

Source: U.S. Census, American Community Survey 5-Year Estimates (2019)







The VPI was developed using population data from the U.S. Census for each of the seven vulnerable population types listed above. An index score of 0 represents the lowest level of vulnerability while an index score of 9 indicates the highest level of vulnerability.



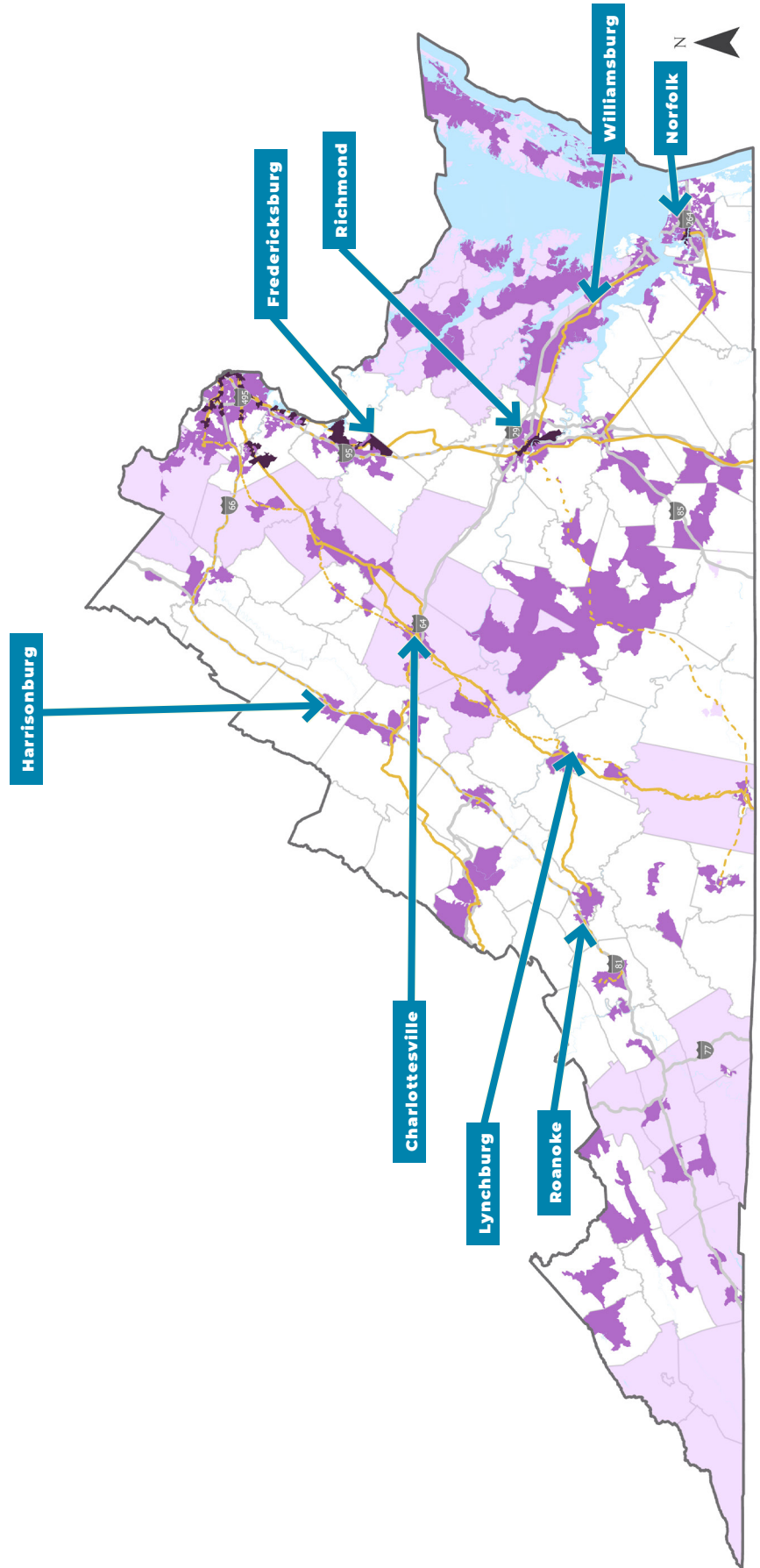
# Transit Service Coverage

Summarizing transit service coverage helps to identify and communicate the availability of transit service within Virginia. Three classifications of transit service coverage are defined primarily by the types of transit service available within a given area. This information is supplemented by other community features such as population and employment density.

	Enhanced Transit Service	Fixed-Route Service	Demand Response Service	None
Transit Service Type	 <p>Areas with bus rapid transit or rail service, often in addition to conventional fixed-route and demand-response services.</p> <ul style="list-style-type: none"> <li>• Bus rapid transit (<i>The Pulse in Richmond</i>)               <ul style="list-style-type: none"> <li>• Light rail (<i>The Tide in Norfolk</i>)</li> </ul> </li> <li>• Heavy rail (<i>Metrorail</i>)               <ul style="list-style-type: none"> <li>• Commuter rail (<i>Virginia Railway Express</i>)</li> </ul> </li> </ul>	 <p>Areas with bus services that follow a set route (i.e., Harrisonburg Transit, Greater Lynchburg Transit Company, Charlottesville Area Transit)</p>	 <p>Areas with transit services that do not follow a set route and may require advanced scheduling (i.e., Lake Country Area Agency on Aging, Mountain Empire Older Citizens)</p>	 <p>No transit service available</p>
Typical Density (People and Jobs)	Urban	Suburban	Exurban	Remote



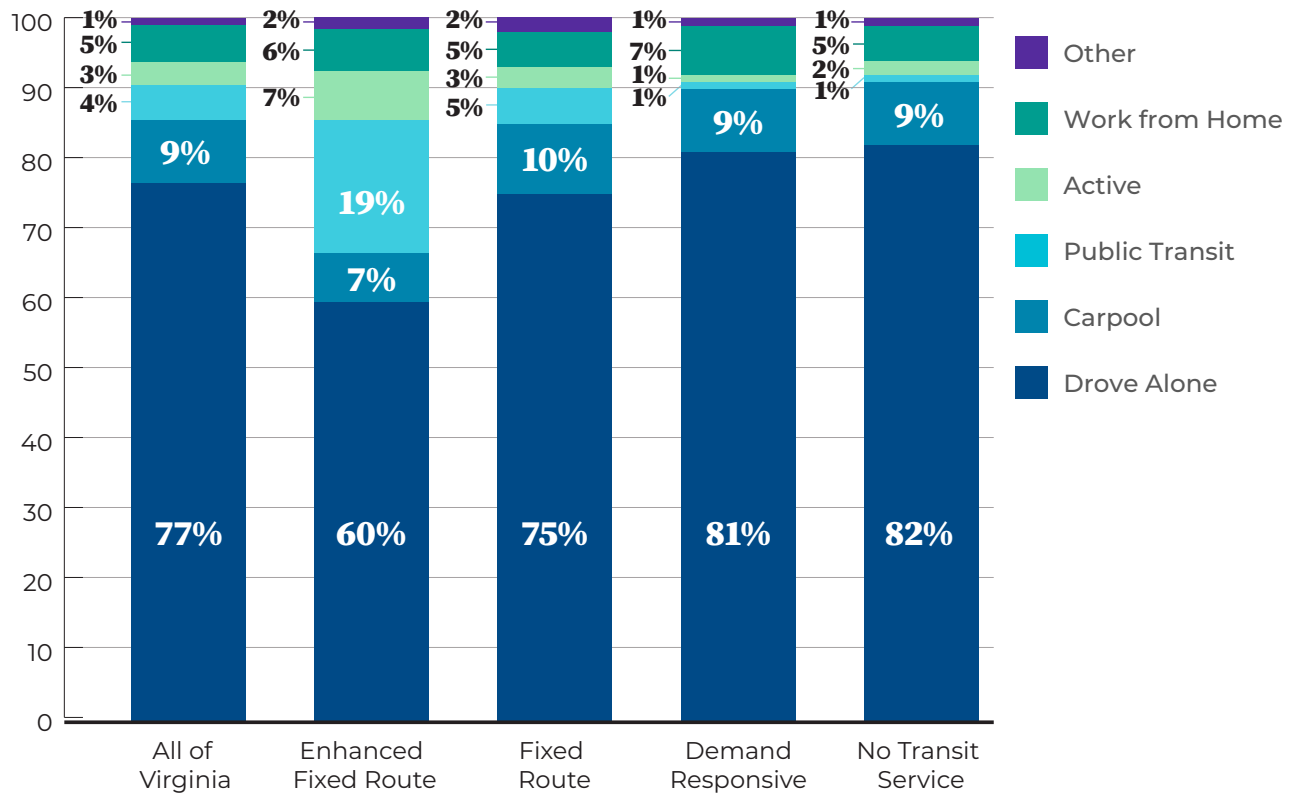
### Transit Service Coverage



## Travel Patterns

Virginia is largely a car-dependent state. 80 percent of Virginia workers drive alone to work—a number that varies across different transit service areas. Areas with enhanced transit service on average have higher rates of public transit use for work trips in addition to carpooling and other modes such as walking and biking.

Mode Split by Quality of Transit Service



Source: U.S. Census, American Community Survey 5-Year Estimates (2019)

These imbalances are a direct result of sprawling patterns of growth and development which have also created other issues that present challenges throughout Virginia, such as disconnected multimodal networks. Additionally, the transportation sector accounts for almost half of carbon emissions<sup>1</sup>, and the average household in Virginia spends a quarter of their income on transportation<sup>2</sup>. Achieving a more balanced mode split is critical to achieving complicated—and sometimes competing—mobility goals, such as managing rapid growth; improving multimodal accessibility and safety; supporting equity, affordability, and health; responding to climate change; and alleviating traffic congestion.

1. U.S. Energy Information Administration, 2018 State CO2 Emissions by Sector  
 2. Housing and Transportation Affordability Index

## Transit Ridership

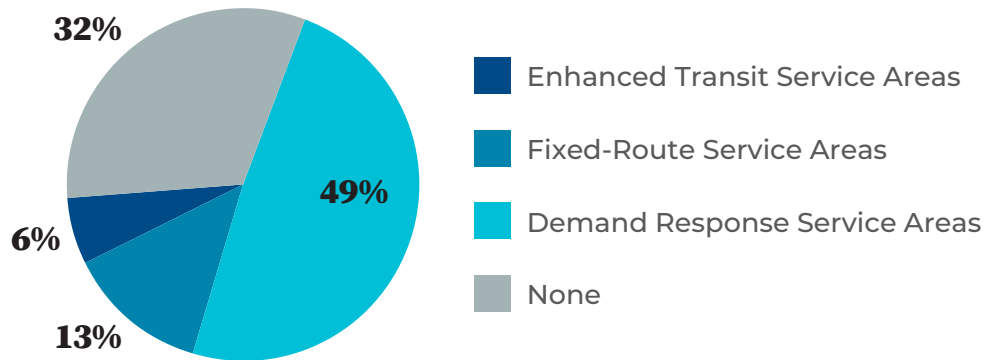
More than 171 million transit trips were taken in Virginia in 2019, with more than half of these occurring on enhanced transit service. The vast majority of remaining trips occurred on fixed-route service. Demand response service facilitated over 2 million trips in 2019, representing just over one percent of all transit trips in Virginia.

Transit Service Type	Total Annual Ridership (2019)
Enhanced Transit Service	98,100,000
Fixed Route Service	71,300,000
Demand Response Service	2,200,000
<b>TOTAL</b>	<b>171,600,000</b>

Source: National Transit Database (Fiscal Year 2019).  
Includes WMATA Virginia ridership.

The vast majority of transit trips across the commonwealth are taken in areas with enhanced fixed-route service, which are concentrated in Northern Virginia, Richmond, and Hampton Roads. This can be attributed to the availability of higher-capacity transit systems in these areas, such as Virginia Railway Express and WMATA’s Metrorail system in Northern Virginia and Washington DC, Greater Richmond Transit Company’s Pulse bus rapid transit in Richmond and Henrico County, and Hampton Roads Transit’s Tide light rail in the City of Norfolk.

### Virginia Population by Quality of Transit Service



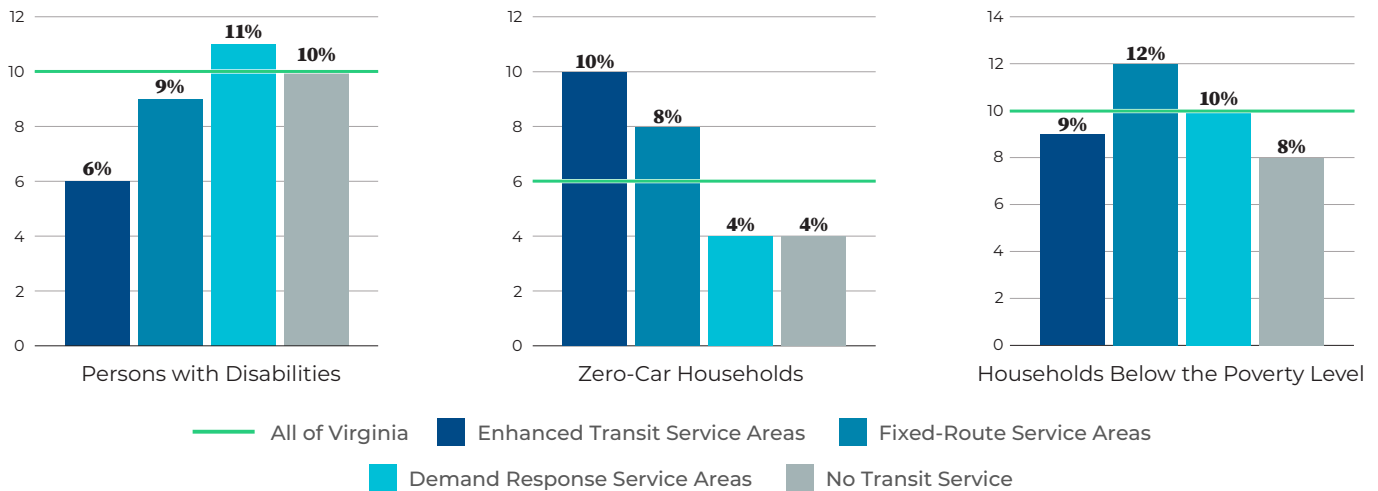
Transit ridership declined significantly during the COVID pandemic, with ridership falling sharply throughout 2020 and into 2021. During this time, local bus service was the most resilient mode of transit, connecting many essential workers to their jobs and residents to essential services. Transit ridership started to increase in mid to late 2021 with a slow recovery starting across the state.

## Vulnerable Populations

The presence of vulnerable populations can be a key indicator of a community’s need for investment in transit. For the 320,000 households living below the poverty line in Virginia, 80,000 of them do not have access to any public transit service. With transportation costs often being the second-highest household expenditure after housing, the presence of public transit can be critical to affordability and quality of life, especially for those who are cost-burdened. Individuals living within demand-response service areas are more likely to identify as having a disability. But there is still need for increased service – as at least 150,000 individuals with a disability do not have access to accessible transit service.

Availability of transit service can also influence modal decisions; data shows that a larger proportion of individuals living in enhanced transit service areas—many of which are denser and more urban—are more likely to not have a car than other transit service areas.

### Vulnerable Populations by Transit Service Type



## Study Findings

Through the early stages of this study, several study findings were identified that account for the current state of transit equity and modernization across the state. These findings present several opportunities that the team has explored further throughout the study — many of which serve as the basis for study actions found in the following section of this report.

### Many bus stops are poorly placed and not well-connected to sidewalks.



Riders face barriers when traveling to bus stops, including a lack of connectivity to sidewalks and crosswalks and poor placement of bus stops along streets. Lack of sidewalk connectivity deters transit ridership for those who have access to other travel options. For those who rely on transit and have no other options, these accessibility deficiencies lead to unpleasant and unsafe conditions, including having to cross roads with no crosswalks and overcome uneven terrain on foot or in wheelchairs.

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**There are targeted opportunities to provide better and safer access to bus stops, especially for neighborhoods and communities that rely on transit most. Private property owners, state and local agencies that operate rights-of-way, and transit agencies can work together to better coordinate the placement of bus stops, ensuring that they are accessible and comfortable for users of all ages and abilities. Targeted action is needed to improve about a quarter of the roughly 15,000 bus stops in the Commonwealth where accessibility is limited.**

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## Basic transit infrastructure is inconsistent.

The availability of basic transit infrastructure — such as shelters, seating, and lighting — is inconsistent across Virginia, with few systems providing these necessary features at most or all of their bus stops. For those who rely on transit, the absence of these necessary features leads to uncomfortable conditions, with riders having to wait for their bus in the often-harsh elements of rain, sun, or snow. Key challenges to providing sufficient infrastructure include coordination with property owners, roadway design and space constraints, and current planning policies that dictate where infrastructure is placed based on ridership levels and proximity to development.

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**Elevating the importance of basic infrastructure within existing funding programs, coupled with resources and design guidance, has the potential to address this issue. This should also be addressed in the SMART SCALE program and during the 2022 review of the MERIT Capital program, in coordination with TSDAC.**

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## Transit riders have limited opportunities to be a part of the decision-making process.

Transit agencies across Virginia recognize and value the importance of engagement with their communities; however, riders currently have a limited voice in decision-making processes. Additionally, guidance that ensures participation from and engagement with underrepresented and underserved communities is missing. Providing consistent methods for formal rider involvement and mechanisms to ensure the voices and needs of our most vulnerable communities are represented will contribute to more equitable outcomes.

Transit agencies of all sizes across the Commonwealth can consider forming rider advisory groups to help inform and advise local transit decision-making. These bodies can be composed of current riders and/or community stakeholders who have an interest in preserving and enhancing transit in their respective communities, including local institutions, major employers, city and/or county leadership or staff, and more.

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**Transit agencies can establish formal methods to include riders in decision-making processes and ensure that mechanisms are in place to engage riders from underrepresented communities, especially for representation on transit agency boards and advisory bodies. Beyond providing ample opportunities to participate and be heard, it is equally important for these voices to reach transit leadership and key decision-makers.**

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## **There is strong interest in transitioning to zero-emission fleets across Virginia transit agencies.**

Several transit agencies in the Commonwealth are actively procuring and deploying zero-emission buses such as battery electric buses or fuel cell electric buses, and many more are seeking to follow suit. While funding opportunities continue to be available at both the federal and state level to assist agencies in the deployment of zero-emission buses, related equipment, and facilities, agencies require goals and policies to guide fleet electrification, guidance on how and where to equitably implement electrification, and strategies for incorporating higher-cost buses into the funding prioritization process.

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**There is an opportunity to support the acceleration of electric transit vehicle adoption across the Commonwealth by establishing goals and policies, guidance on appropriate implementation, and other programs or education/technical guidance for transit agencies to address the challenges of pursuing electrification.**

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## **There is increasing interest in piloting zero-fare service to overcome barriers to transit access.**

Roughly half of Virginia's transit agencies have expressed an interest in implementing zero-fare transit. Eleven agencies have already fully or partially implemented zero-fare transit, according to the study's Transit Agency Survey, much of which can be attributed to practices and policies adopted during the COVID-19 pandemic.

While zero-fare transit can bring great benefits to transit agencies and the communities they serve, it is not a one-size-fits-all solution — several other policies and strategies have been shown to provide equity benefits, such as the removal of transfer fees, increased frequency and coverage, or targeted subsidized fares.

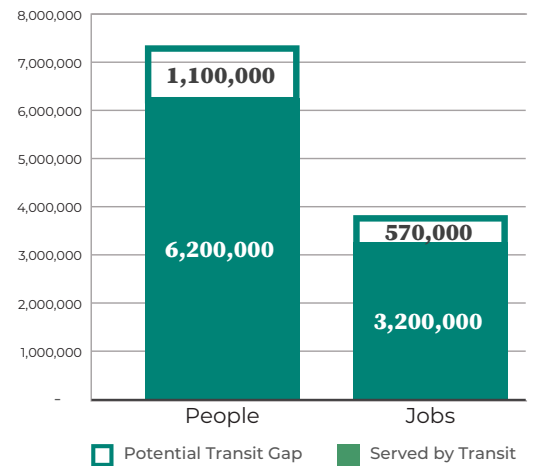
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**There is an opportunity to reduce financial barriers to transit for riders across the Commonwealth by increasing the number of agencies that are able to pilot and offer zero-fare service using the flexibility the General Assembly approved to allow more Transit Ridership Incentive Program (TRIP) funding to be used for zero-fare through 2024.**

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## The availability of transit in Virginia is high, but gaps exist.

Across the Commonwealth, there are approximately 1.1 million people that need fixed-route transit service but currently do not have it, and approximately 570,000 jobs that should be served by fixed-route transit but are currently not. Further gaps may exist in rural areas that may be served by demand-response service. State funding formulas are not set up to support closing those gaps. State transit operating assistance currently incentivizes agencies to provide service that will gain the most ridership; however, this structure is not necessarily conducive to expanding service coverage that may help provide service to new areas and new opportunities, including more remote locations of the state.



**Expanding the reach and increasing the frequency of transit services that are available will improve access to jobs and opportunities across all industries, leading to a more competitive statewide economy.**

\* Census block groups defined as rural by the US Census were not included in this estimate, as the factors that determine rural area transit needs are different from those that determine fixed-route needs.

## There are unique needs for and barriers to adopting new and emerging technology among Virginia’s transit agencies.

Virginia has made great strides in implementing emerging technology, specifically with autonomous vehicle testing, microtransit, and driver assistance technology; however, there is much room for improvement and further expansion. Among Virginia’s transit agencies, only 8% use contactless fare payment, 34% use real-time vehicle tracking, and 5% have implemented mobility-on-demand services.

The Commonwealth, and specifically DRPT, plays a critical role in the testing and deployment of emerging technologies through technical assistance, grants and funding for technology, and state contracting and cooperative purchase agreements.

**There remains a significant need and opportunity for transit agencies across Virginia to adopt more industry-standard technologies.**



## Transit is among the safest ways to travel, but there is room to improve both perceived and actual safety for transit riders, operators, and employees.

According to research by the American Public Transit Association, the chance of being involved in a crash decreases by more than 90% when taking public transit instead of driving, meaning that travel by transit is approximately 10 times safer than by automobile. Despite this, transit riders have several personal safety and crime concerns, most notably when traveling to and from or while waiting at transit stops. Further, transit employees indicate that building a safety culture through adequate training, open and frequent communication, and strong organizational commitment contributes to a positive transit safety perception.



I feel comfortable while riding a bus or train because I've been doing it for over 10 years, but as a young woman of color, I feel that I have to be more aware of my safety in public, especially on public transit. I feel least safe when I am traveling to get to the bus stop or train station."

— RIDER FOCUS GROUP PARTICIPANT

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**This presents the opportunity for transit agencies to better communicate how transit provides a safe travel option and to coordinate with local jurisdictions to increase security at and near transit stops in an effort to deter crime.**

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## More data with better precision is needed to make informed decisions.

For the Commonwealth, DRPT, and local transit agencies to have accurate, up-to-date information, robust data must be produced, maintained, and tracked across all industry focus areas. If data is consistent, accurate, and reliable, it can support resource allocation and performance management.

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**There is an opportunity to enhance and expand the collection and availability of data at the statewide and local levels so that DRPT and transit agencies can have the tools required to make informed decisions around projects, programs, and investments that can lead to better outcomes.**

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## Equity and accessibility must be more heavily considered in guidance, requirements, and funding programs for transit agencies.

While transit is operated at the local level, the Commonwealth sets policies that agencies must follow and administers funding programs in which agencies can participate. The Commonwealth has the potential to impact transit at the local level through changes in policy that apply to all transit agencies that operate in Virginia. Currently, some DRPT funding programs — such as the MERIT Capital and Operating Assistance Programs — focus primarily on cost efficiency and transit ridership. While important measures of transit success, these metrics alone can conflict with providing the most equitable service. Augmenting these funding considerations to include community outcomes has the potential to result in long-term equity benefits.

DRPT can explore the opportunity to analyze MERIT Capital Assistance scores specifically for projects that seek to replace or expand basic infrastructure at bus stops and transit stations.

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**Similar concerns were noted in the Joint Legislative Audit and Review Commission's Report on Transportation Infrastructure and Funding issued in November 2021. DRPT, in consultation with the Transit Service Delivery Advisory Committee (TSDAC), is required to periodically review both the MERIT Capital and Operating Assistance programs. This periodic review is required in 2022, for implementation with the FY24 application cycle.**

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# Actions and Strategies

## Action Plan Development Process

The process of identifying the study findings served as the foundation for the development of actions that promote transit modernization and equity across the Commonwealth. The action plan highlights work that DRPT and local transit agencies can undertake across the study's six topic areas to modernize transit and expand access to jobs and opportunities for all communities across the Commonwealth. Actions developed to align with the study findings serve as a roadmap to direct subsequent efforts — by both DRPT and local transit agencies.

These actions were developed through an intensive effort, combining technical assessments and analyses, DRPT and local transit agency staff knowledge, rider experiences and viewpoints, and national best practices and procedures. Additional opportunities to engage on the items in this action plan will be an integral part of its future implementation by DRPT and statewide partners. In addition to addressing the findings listed above, the actions also support improved processes and experiences for both transit agencies and riders. These benefits can help agencies and riders monitor and measure progress toward addressing needs.

### Potential Agency Outcomes

- More informed decision-making
- More efficient allocation of resources
- Increased coordination with partner agencies
- Shared knowledge of industry best practices
- New or improved metrics and measures to track performance
- Additional funding opportunities
- Improved requirements to ensure better transit outcomes

### Potential Rider Outcomes

- Improved experience through high quality transit infrastructure
- Improved processes focused on rider needs
- Increased use of state-of-the-art technologies
- Improved perception of and actual safety while using transit
- Expanded opportunities for rider input to ensure services provided are more closely aligned with desired rider travel patterns
- New or enhanced transit service






Actions are organized in the following tables by their anticipated timeline for implementation. Final actions are organized by their anticipated timeline for implementation—near-, mid-, and long-term.

Grouping	Anticipated Implementation
Near-Term	1-3 years
Mid-Term	4-6 years
Long-Term	6+ years






## Recommended Actions








### Near-Term (1–3 years)

*\*Many actions will require coordination with and support from additional supporting agencies and partners.*

Technical Area	Action	Study Findings Addressed	Lead Agency
 <b>Accessibility</b>	Develop resources to assist agencies with the evaluation of their fare collection policy and practices	<ul style="list-style-type: none"> <li>▶ There is increasing interest in piloting zero-fare service to overcome barriers to transit access</li> </ul>	DRPT
 <b>Accessibility</b>	Provide transit agency staff, local decision-makers, and the public with information about tradeoffs, allowing them to make decisions that provide the greatest economic and societal benefits	<ul style="list-style-type: none"> <li>▶ Equity and accessibility must be more heavily considered in guidance, requirements, and funding programs for transit agencies</li> </ul>	DRPT
	<p>I have found that my greatest resource has been other transit agencies. It would be incredibly helpful to have one-on-one support and guidance directly from government agencies like DRPT in order to ensure that we are making the right choices and doing things properly.”</p> <p>— TRANSIT AGENCY SURVEY #2</p>		
 <b>Accessibility</b>	Develop suggested best practices for coordination between land use planning and transit planning	<ul style="list-style-type: none"> <li>▶ The availability of transit in Virginia is high, but gaps exist</li> </ul>	DRPT
	Advanced planning that ensures context-sensitive development and connections between transit and housing, employment, education, shopping areas, and other key destinations.		







Technical Area	Action	Study Findings Addressed	Lead Agency
 <p><b>Adequacy of Infrastructure</b></p>	<p>Develop technical guidance or policy on bus stop design elements and development</p>	<ul style="list-style-type: none"> <li>▶ Basic transit infrastructure is inconsistent</li> </ul>	<p>DRPT</p>
	<p>This action aims to expand or supplement the State's <i>Multimodal System Design Guidelines</i>.</p>		
 <p><b>Adequacy of Infrastructure</b></p>	<p>Provide technical guidance or best practices for monitoring and reporting infrastructure performance</p>	<ul style="list-style-type: none"> <li>▶ More data with better precision is needed to make informed decisions</li> </ul>	<p>DRPT</p>
	<p>Note that consistency of data collection and reporting is important for monitoring and statewide analysis.</p>		
 <p><b>Adequacy of Infrastructure</b></p>	<p>Provide guidance or best practices for more effective stakeholder coordination when prioritizing improvements around bus stops</p>	<ul style="list-style-type: none"> <li>▶ Many bus stops are poorly placed and not well-connected to sidewalks</li> </ul>	<p>DRPT</p>
	<p>Connected sidewalks and facilities that get people of all abilities to bus stops safely is important to reduce barriers to transit use.” — TWG MEMBERS AND PUBLIC COMMENTS</p>		
 <p><b>Adequacy of Infrastructure</b></p>	<p>Update MERIT – Capital Assistance scoring criteria to provide incentive for accessibility improvements to transit infrastructure</p>	<ul style="list-style-type: none"> <li>▶ Equity and accessibility must be more heavily considered in guidance, requirements, and funding programs for transit agencies</li> </ul>	<p>DRPT</p>
	<p>DRPT is currently undertaking this action and is in the process of updating MERIT criteria to incentivize infrastructure improvements, and will continuously improve the scoring as necessary to provide effective incentives.</p>		

Technical Area	Action	Study Findings Addressed	Lead Agency
 <b>Electrification</b>	Establish statewide goals for zero-emission transit vehicles and a transition plan to convert transit agency fleets	▶ There is strong interest in transitioning to zero-emission fleets across Virginia transit agencies	DRPT
	 <p>Virginia's Ozone Advance Action Plans and federal guidelines should be considered when establishing emissions targets. DRPT also is kicking off a statewide electrification study in 2022.</p>		
 <b>Electrification</b>	Conduct recurring assessments of innovation in the zero-emission transit vehicle industry	▶ There is strong interest in transitioning to zero-emission fleets across Virginia transit agencies	DRPT
 <b>Electrification</b>	Develop implementation resources for agencies to assist with fleet transition planning	▶ There is strong interest in transitioning to zero-emission fleets across Virginia transit agencies	DRPT
 <b>Emerging Technologies</b>	Implement recurring assessments of technology use and plans across the Commonwealth	▶ There are unique needs for and barriers to adopting new and emerging technology among Virginia's transit agencies	DRPT
 <b>Emerging Technologies</b>	Conduct recurring technology planning at the agency level	▶ There are unique needs for and barriers to adopting new and emerging technology among Virginia's transit agencies	Local Transit Agencies
	 <p>Agency-specific recurring technology planning (e.g., defining technology needs, required solutions, and successful deployment) can address the changing needs of the community and enable agencies to provide consistent rider experiences.</p>		
 <b>Safety</b>	Identify and share inclusive transit safety training opportunities for agency staff	▶ Transit is among the safest ways to travel, but there is room to improve both perceived and actual safety for transit riders, operators, and employees	DRPT




Technical Area	Action	Study Findings Addressed	Lead Agency
 <p>Safety</p>	Research and compile best practices for transit agencies' involvement with local public safety	<ul style="list-style-type: none"> <li>▶ Transit is among the safest ways to travel, but there is room to improve both perceived and actual safety for transit riders, operators, and employees</li> </ul>	DRPT
 <p>Safety</p>	Develop best practices for safety-related roles to engage with community partners	<ul style="list-style-type: none"> <li>▶ Transit is among the safest ways to travel, but there is room to improve both perceived and actual safety for transit riders, operators, and employees</li> </ul>	DRPT
 <p>Safety</p>	Provide guidance on (1) crime prevention through design and (2) rider safety and etiquette	<ul style="list-style-type: none"> <li>▶ Transit is among the safest ways to travel, but there is room to improve both perceived and actual safety for transit riders, operators, and employees</li> </ul>	Local Transit Agencies
	<p>I feel safe in the area that I live, and mostly safe while riding transit, depending on the time of day."</p> <p>–FOCUS GROUP PARTICIPANT</p>		
 <p>System Engagement &amp; Governance</p>	Develop a public engagement handbook that outlines expectations and guiding techniques for more inclusive public engagement at the local level	<ul style="list-style-type: none"> <li>▶ Transit riders have limited opportunities to be a part of the decision-making process</li> </ul>	DRPT
 <p>System Engagement &amp; Governance</p>	Create rider advisory councils within local transit agencies statewide	<ul style="list-style-type: none"> <li>▶ Transit riders have limited opportunities to be a part of the decision-making process</li> </ul>	Local Transit Agencies
	<p>Folks that need to have access to services may be told they have a seat at the table, but I haven't actually seen that be the case."</p> <p>–FOCUS GROUP PARTICIPANT</p>		

## Mid-Term Actions (3–5 years)

\*Many actions will require coordination with and support from additional supporting agencies and partners.

Technical Area	Action	Study Findings Addressed	Lead Agency
 <b>Accessibility</b>	Identify areas with unmet demand for transit service and provide new or enhanced service	<ul style="list-style-type: none"> <li>▶ The availability of transit in Virginia is high, but gaps exist</li> </ul>	Local Transit Agencies
	Through the baseline conditions analysis and shown in the Interactive Initial Findings and Opportunities StoryMap, a statewide access to opportunity analysis was conducted. It was found that potential fixed-route transit service gaps (developed based on current service levels and estimated need) affect an estimated 1.06 million Virginia residents and 566,000 jobs.		
 <b>Accessibility</b>	Allocate funding to prioritize expansion or enhancements of transit service to underserved areas and populations	<ul style="list-style-type: none"> <li>▶ The availability of transit in Virginia is high, but gaps exist</li> </ul>	DRPT
	There is a need to provide smaller agencies with rural set-asides or dedicated streams of transit funding, as well as technical assistance to apply for grants.” — TECHNICAL WORKING GROUP MEMBER		
 <b>Accessibility</b>	Develop qualitative and quantitative metrics to measure reliable and efficient transit service that promotes access to opportunity and lifeline services	<ul style="list-style-type: none"> <li>▶ The availability of transit in Virginia is high, but gaps exist</li> </ul>	DRPT
	Transit is my lifeline. I don't own a car, so my feet, my bike, and the bus is all I have to get around for work, shopping, and the rest of my trips.” — SHARE YOUR TRANSIT STORY SUBMISSION		



Technical Area	Action	Study Findings Addressed	Lead Agency
 <p><b>Emerging Technologies</b></p>	<p>Establish guidance for negotiating technology contracts</p>	<ul style="list-style-type: none"> <li>▶ There are unique needs for and barriers to adopting new and emerging technology among Virginia’s transit agencies</li> </ul>	<p>DRPT</p>
 <p><b>Safety</b></p>	<p>Pursue the completion of a study of safety measures that have worked to protect transit operators</p>	<ul style="list-style-type: none"> <li>▶ Transit is among the safest ways to travel, but there is room to improve both perceived and actual safety for transit riders, operators, and employees</li> </ul>	<p>DRPT</p>
 <p><b>System Engagement &amp; Governance</b></p>	<p>Provide stronger public engagement guidance for local transit agencies within DRPT external guidance documents, such as Transit Development Plan (TDP) and Transit Strategic Plan (TSP) guidelines</p>	<ul style="list-style-type: none"> <li>▶ Transit riders have limited opportunities to be a part of the decision-making process</li> </ul>	<p>DRPT</p>






More opportunities may be available for agencies if they have guidance and strategies from other agencies who have gone through the contracting process for similar technologies.






It is important that there is policy and rules that protect transit operators and staff.”  
— TEMC MEMBER

## Long-Term Actions (6 or more years)

*\*Many actions will require coordination with and support from additional supporting agencies and partners.*

Technical Area	Action	Study Findings Addressed	Lead Agency
 <p><b>Adequacy of Infrastructure</b></p>	<p>Develop statewide unconstrained funding needs list</p> <p>Typically, transit agencies do not currently report all capital needs to DRPT and only submit high-priority needs that qualify for grants. A statewide unconstrained needs list enables agencies to better understand and communicate the true level of transit needs (and understanding of overall prioritization of these needs) and associated funding levels.</p>	<ul style="list-style-type: none"> <li>▶ More data with better precision is needed to make informed decisions.</li> </ul>	DRPT
 <p><b>Electrification</b></p>	<p>Align MERIT program funding with zero-emission goals</p>	<ul style="list-style-type: none"> <li>▶ Equity and accessibility must be more heavily considered in guidance, requirements, and funding programs for transit agencies</li> </ul>	DRPT
 <p><b>Emerging Technologies</b></p>	<p>Expand opportunities for technology funding and implementation assistance</p>	<ul style="list-style-type: none"> <li>▶ There are unique needs for and barriers to adopting new and emerging technology among Virginia's transit agencies</li> </ul>	DRPT

Technical Area	Action	Study Findings Addressed	Lead Agency
 <p><b>Emerging Technologies</b></p>	<p>Establish guidance for negotiating technology contracts</p> <p>Good data quality is critical and needed to support reliable operations and customer-facing information, and it is a challenge for smaller agencies to obtain technology to generate this data.”</p> <p>— TECHNICAL WORKING GROUP MEMBER</p>	<ul style="list-style-type: none"> <li>▶ There are unique needs for and barriers to adopting new and emerging technology among Virginia’s transit agencies</li> </ul>	<p>DRPT</p>
 <p><b>Safety</b></p>	<p>Share guidance regarding more inclusive performance measures (e.g., PTASP updates)</p>	<ul style="list-style-type: none"> <li>▶ Equity and accessibility must be more heavily considered in guidance, requirements, and funding programs for transit agencies</li> </ul>	<p>DRPT <i>(for smaller agencies)</i></p> <p>Local Transit Agencies <i>(for larger agencies)</i></p>
	<p>Public Transportation Agency Safety Plans (PTASP) are required by the Federal Transit Administration (FTA) for certain operators of public transportation systems that receive federal funds under FTA’s Urbanized Area Formula Grants.</p>		

## Advancing the Study/Next Steps

Achieving the goals, objectives, actions, and outcomes of the study will require continual investment and commitment from Commonwealth leaders as well as support from local and regional partners. For riders, the return on the state's investment in modernization means a dignified and best-in-class transit experience; the ability to access essential locations regardless of time of day; the ability to travel using modern, reliable, effective transit statewide; and access to jobs and opportunities throughout Virginia. For transit agencies, these investments should lead to service and coverage that best serves the people who need it most, with industry-leading operations and financial stability. For industry, these investments increase the size of the workforce pool, improve reliability of employees' transportation, and improve employee quality of life by making their commutes predictable and reliable.

## Overall Study Outcomes

The actions in this study were developed with assistance from transit agency staff, industry experts, and the public. They were framed by the study findings, with key outcomes in mind to modernize the Commonwealth's transit systems and do so by providing new and better opportunities to its residents. Public transit has been and continues to be a lifeline for low-income residents, and this study validates that need and the potential for public transit services to enhance the lives of many more Virginians.

Through the study team's process of establishing study findings, programmatic themes were identified that span multiple technical areas. Statewide, there is a need to:

- Improve data collection, management, and sharing standards
- Provide **technical support and guidance** to local transit agencies
- Provide guidance that includes **best practices** for fair and modern transit
- Increase **coordination and collaboration** between transit agencies, community organizations, institutions, localities, employers, and regional planning bodies
- Incorporate **modernization** into fair and just decision-making processes

The following are five categories of cross-cutting themes that represent needs and potential actions across each of the technical areas. These common themes were developed into "programmatic" actions that would address multiple needs with a coordinated approach to achieve better outcomes.

## Transit Planning and Implementation Guidebook

The *Transit Planning and Implementation Guidebook* would be a Virginia-specific resource, with specific consideration of agency size, that would be complementary to the Transit Strategic Plan (TSP) and Transit Development Plan (TDP) Guidelines and can be used to inform local decision-making. The guidebook will require coordination with the Virginia Department of Transportation (VDOT) and other Virginia entities to provide best practices and processes for both DRPT and local transit agencies across the state. The guidebook may include the following topics and sections:

DRPT will continue to provide technical assistance for grants and procurement for local transit agencies.

### Transit service planning guidelines and metrics

- Guidance for common transit planning topics such as service design standards, performance measurements, and service evaluations

### Coordinating land use and transit planning

- Guidance for early coordination of planning for higher-density land uses with local transit agencies plans for stops and hub stations

### Fare policy decision-making

- An overview of different fare policy opportunities and considerations for each

### Transit safety and security

- Strategies for coordination between transit providers and law enforcement and emergency response personnel

### Public and stakeholder engagement

- Guidance for stakeholder coordination when implementing bus improvements and acquiring additional right-of-way
- Guidance for public engagement, specifically to engage riders and potential riders who do not typically participate due to lack of time, lack of understanding of transit systems, speaking English as a second language, and not knowing about agency projects, initiatives, and investments and their ability to influence decision-making

### Bus stop design and development

- Guidelines for bus stop design and development, and best practices for coordinating with stakeholders around bus stop improvements and incorporating experience and lessons learned from local agencies and VDOT for developing improvements on state-owned right-of-way

### Zero-emission transit vehicle transition planning

- An overview of different zero-emission transit vehicle types including guidance for planning, procurement, deployment, and maintenance

## Funding Opportunities Support

This includes providing technical support and guidance to local transit agencies with regards to identifying and applying for grant programs:

- Tracking of state, regional, and federal funding opportunities in a database that is accessible to local transit agencies and includes details related to each funding opportunity, including cost sharing, eligible projects, etc.
- Coordinating opportunities for federal and regional funding programs.
- Providing localities with industry best practices and resources to inform decision-makers on innovative technology solutions.
- Assisting local agencies with preparing and applying for discretionary federal funding opportunities:
  - Identifying candidate projects that DRPT can partner with agencies on and assist with grant application development when discretionary federal funding opportunities are advertised
  - Setting funds aside, separate from the traditional MERIT program schedule, that can be used for discretionary federal funding programs on an on-demand basis as opportunities are advertised

## Data Needs and Organization

This includes developing standards and guidance for the consistent collection, management, and reporting of data. Reporting could be compiled annually by each transit agency and added to open data platforms hosted by DRPT:

- Standardized survey template that can be sent to agencies to track transit data reporting annually
- Guidelines for consistent tracking and reporting of transit data to the National Transit Database (NTD) and TransAM (a transit asset management software)
- Guidelines for the collection and classification of infrastructure, bus stop amenities, and critical transit support systems
- Facilitation of the sharing of data that supports service planning between transit agencies and other public entities
  - Data may include transit-related attributes and community-related attributes such as jobs, food deserts, people with disabilities, retail locations, and human and social services
- Standards for open data (e.g., GIS and GTFS data) that can be publicly available and can be shared with other agencies and distributed on DRPT's Open Data Portal
  - Adding performance data into DRPT's Open Data Portal

- Designation of a point of contact (POC) for each transit agency, who serves as the transit agency's liaison for coordination with DRPT, other agencies, metropolitan planning organizations (MPOs), and regional planning entities
- Tracking of progress against service guidelines and priorities
- Technical assistance to agencies instructing them on how to extract/integrate data into existing agency systems, and education on how to leverage and share the data

## Partnership Leveraging

This includes providing coordination and collaboration between transit agencies and a variety of community decision-makers regularly (e.g., roundtables) and at critical decision-making points. Developing structured roles within partnerships can solidify existing relationships and provide avenues to explore new ways to leverage partners to create mutually beneficial outcomes such as sharing knowledge, pursuing new opportunities, and resolving obstacles to implementation.

- **Community organizations and advocacy groups** – Advocacy groups can assist with elevating community needs and perspectives, planning public participation events, distributing informational materials, and supporting key capital improvement projects.
- **Large employers and local chambers of commerce** – Private sector employers can be effective partners for implementing and promoting transit service to their employees and customers. Consistent support from private sector partners also can help destigmatize public transit and market transit service as a reliable and efficient mode of transportation that supports economic development and access to jobs.
- **Research institutions and private entities** – The Commonwealth can partner with research institutions and private companies to pilot new and innovative technologies. There is a precedent for this in Virginia with autonomous shuttle pilot programs.
- **Regional planning bodies** – Coordination between transit agencies and regional planning organizations, such as MPOs, can resolve overlapping transit service between multiple providers, help to facilitate coordination for transfers between services at jurisdictional or service boundaries, consider land use with transportation decision-making, and allow for prioritization of funding for specific projects.
- **Localities** – Increased coordination with localities allows transit agencies to identify and prioritize improvements that are most needed to support efficient transit service and improve the customer experience (e.g., sidewalks, bus stop shelters, crosswalks, signage). This includes VDOT coordination for localities that do not maintain their own roadway infrastructure.

## Incorporating Accessibility and Modernization Criteria into Decision-Making Processes

This includes developing criteria in new or existing programs that promote and enhance modernization goals such as lifeline services and community connections through revised guidance, incentives, or technical assistance. These criteria can be included as additional measures when evaluating projects applying for funding.

- Including modernization criteria into scoring used to evaluate projects applying for state grant funding. This could be accomplished by adding new metrics related to modernization, or by increasing the value or weight of existing criteria that promote these goals. For example:
  - Increasing the weight of the existing MERIT points awarded for vehicles would support the state's goals of modernizing transit fleets
  - Adding criteria for assessing the impacts of expansion plans on underserved populations or improving Americans with Disabilities Act (ADA) accessibility of existing stations and bus stops would promote enhanced equity in transit
- Providing bonus points to projects that expand or enhance service in areas with state or locally identified transit gaps and that provide service to underserved populations
- Establishing statewide standards for measures that can be used to monitor and report on infrastructure performance, reliability, and ADA compliance
- Developing guidance for transit infrastructure performance and incentivizing compliance with standards using DRPT-provided tools and assistance