



# Virginia Transit Equity and Modernization Study (HJ 542)

TSDAC  
March 11, 2022

# How Did We Get Here?

## HJ 542 (2021)

- Requires DRPT to explore a variety of topics that will create recommendations to advance transit equity and modernization efforts
- Emphasis on engagement opportunities for underrepresented communities

Transit  
Accessibility

Adequacy of  
Infrastructure

Emerging  
Technologies

Transit  
Electrification

Transit Safety

System  
Engagement &  
Governance

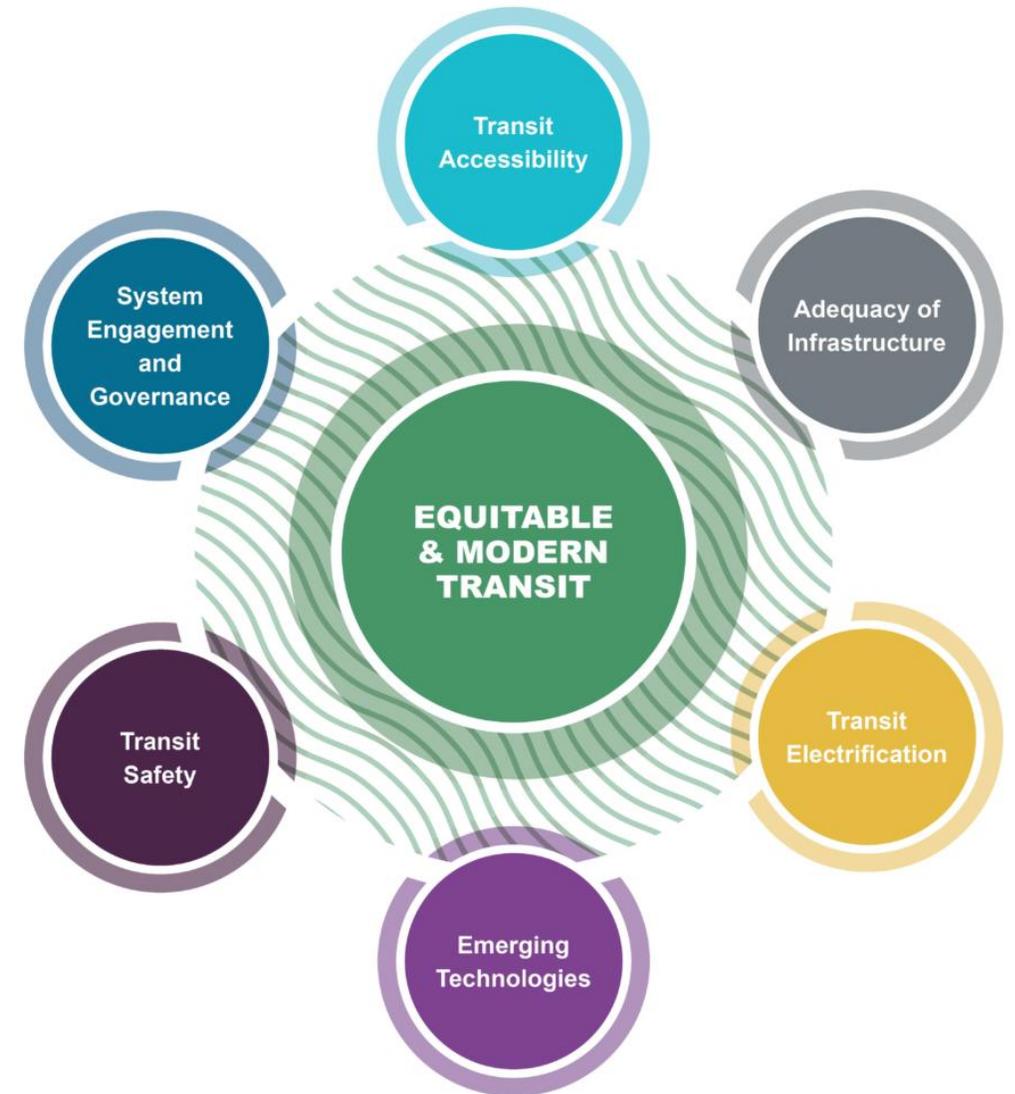
# Study Goals

## What will this study accomplish?

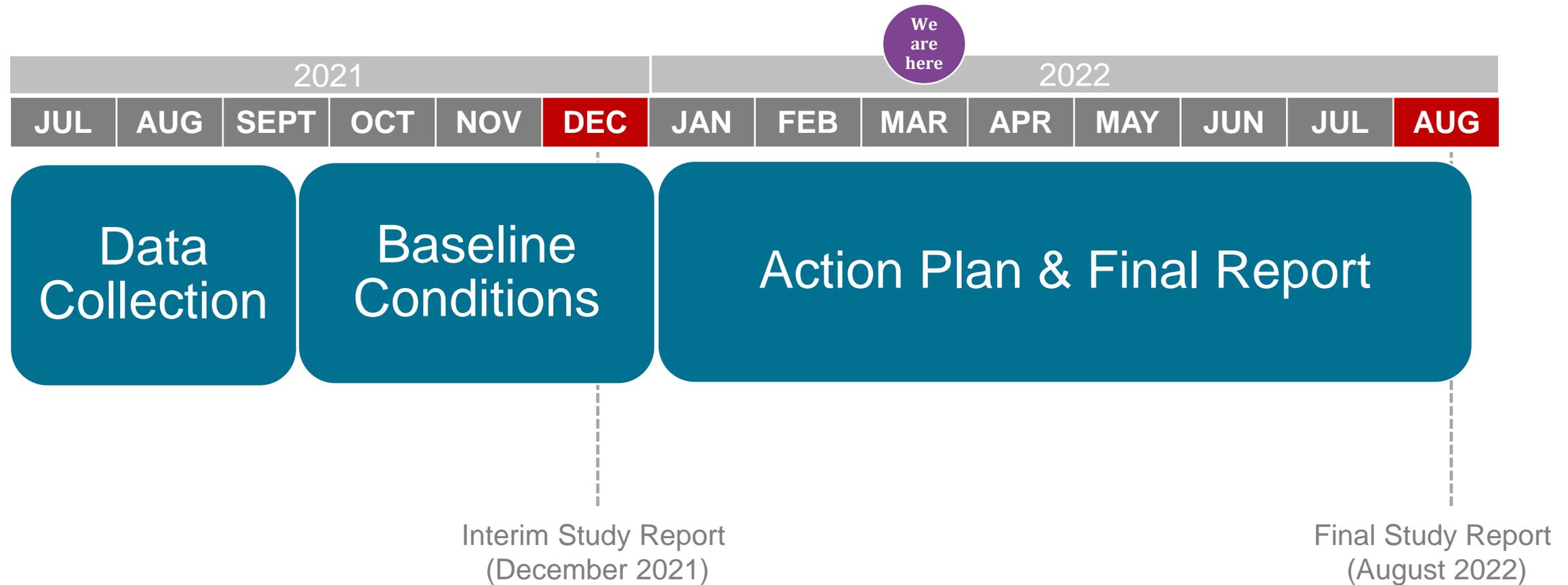
- ✓ Identify transit agency, rider, and stakeholder needs
- ✓ Develop an action plan to address those needs
- ✓ Define underrepresented and underserved communities

# Study Features

- Opportunities/Gap Assessment of transit service and accessibility
- Needs and barriers to improve transit infrastructure
- Opportunities to reduce carbon footprint through bus electrification
- Strategies to inform priorities of implementing emerging technologies
- Opportunities to enhance passenger and transit employee safety
- Framework for identifying and engaging disadvantaged populations and underserved communities



# Study Process & Timeline



# Key Study Activities

## Completed

- ✓ Data Collection
- ✓ Plans, Policies, and Data Review
- ✓ Study Website
- ✓ Transit Agency Survey
- ✓ Rider Focus Groups
- ✓ Baseline Conditions Assessment
- ✓ Interim Study Report

## Ongoing

- Transit Equity & Modernization Committee (TEMC)
- Technical Working Groups (TWGs)
  1. Infrastructure & Accessibility
  2. Technology & Electrification
  3. Safety
  4. System, Engagement & Governance
- Stakeholder Meetings
- Agency Briefings

## Upcoming

- Study Action Plan
- Virtual Transit Forum
- Final Study Report

# Study Website Resources

[www.vatransitequity.com](http://www.vatransitequity.com)

[www.vatransitmodernization.com](http://www.vatransitmodernization.com)

*Baseline  
Conditions Tech  
Memo*

*Interim Study  
Report &  
Executive  
Summary*

*Interactive Story  
Map*

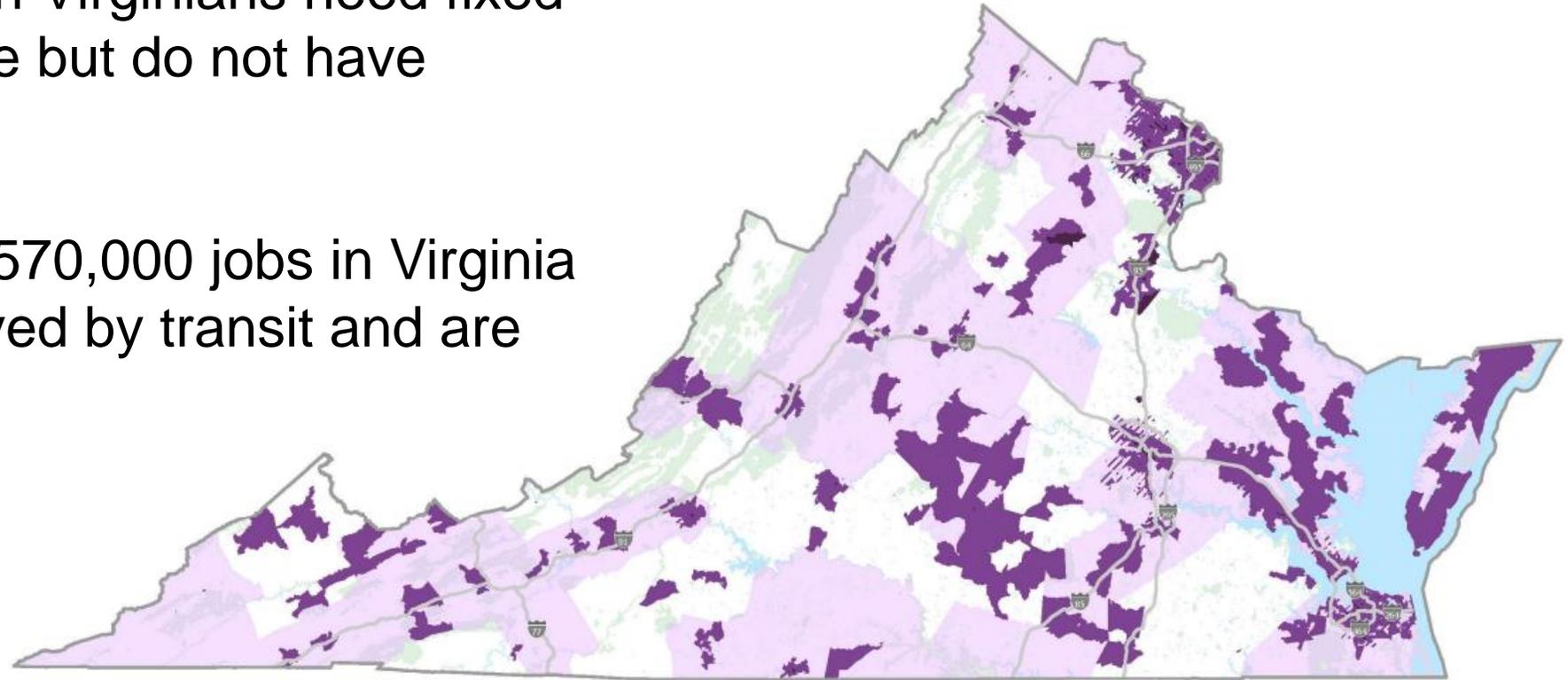
*Share Your Transit  
Story*

# Initial Findings



# Accessibility

- Approx. 1.06 million Virginians need fixed route transit service but do not have access to it
- There are roughly 570,000 jobs in Virginia that should be served by transit and are not



*Transit Service Coverage in Virginia (2021)*

# Infrastructure

## Statewide Bus Stop Assessment

DRPT staff assessed 672 of the 15,051 bus stops in Virginia and identified the following trends:

- 89% of bus stops did not have a shelter
- 81% of bus stops did not have a bench
- 50% of bus stops did not have lighting
- 33% of bus stops did not have ADA ramps
- 21% of bus stops were not adjacent to sidewalks

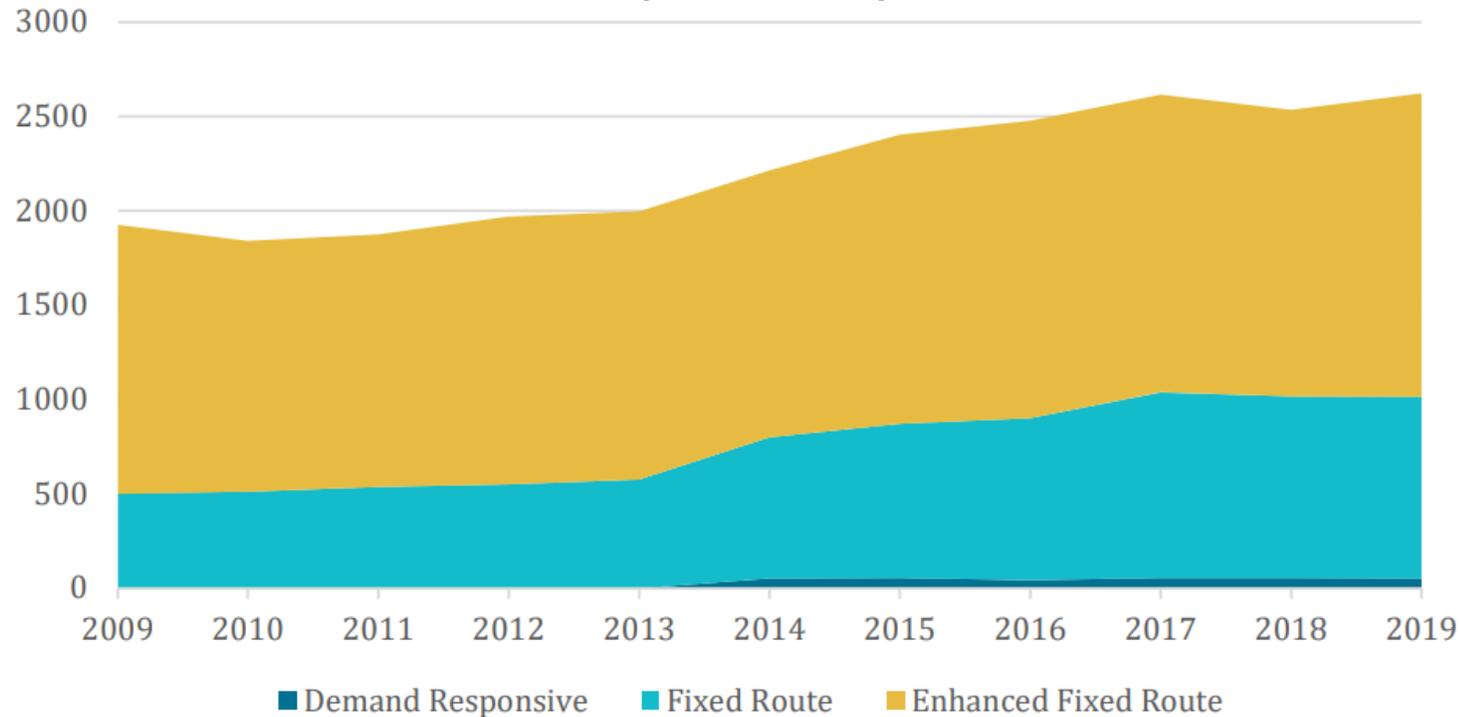


# Infrastructure

- The likelihood of a bus stop having a shelter, bench and/or lighting increases in more urban environments
- Urban bus stops are more likely to be adjacent to sidewalks
- 91% of bus stops appeared to be in a state of good repair (SGR)
- Rural bus stops are more likely to be inaccessible and more likely to have SGR needs
- Estimated cost to install shelters, benches, and lighting at all bus stops in Virginia is over **\$250M**

# Infrastructure

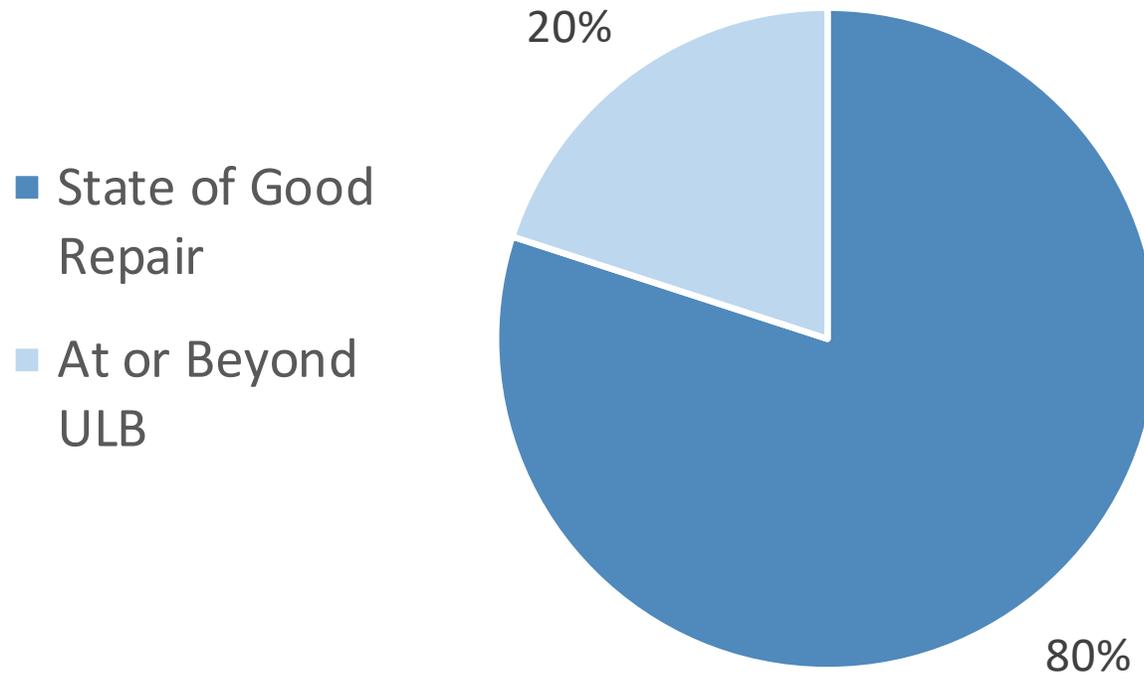
Statewide Transit Vehicle Growth by Geographic Transect (2009-2019)



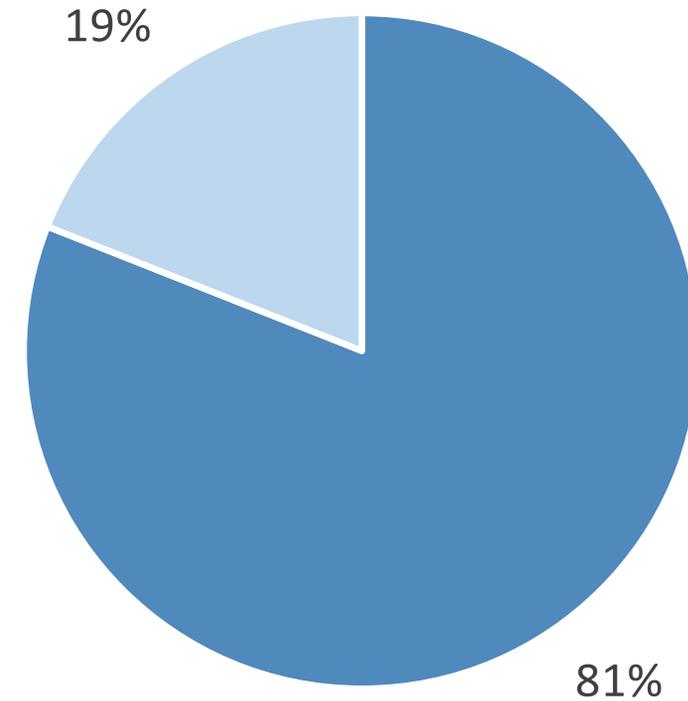
- Since 2009, Virginia has added ~700 transit vehicles to the statewide fleet
- Most of the growth has occurred in areas with only fixed route transit (no fixed guideway transit)

# Infrastructure

**FY19 Nationwide Transit Vehicles at or Beyond ULB**

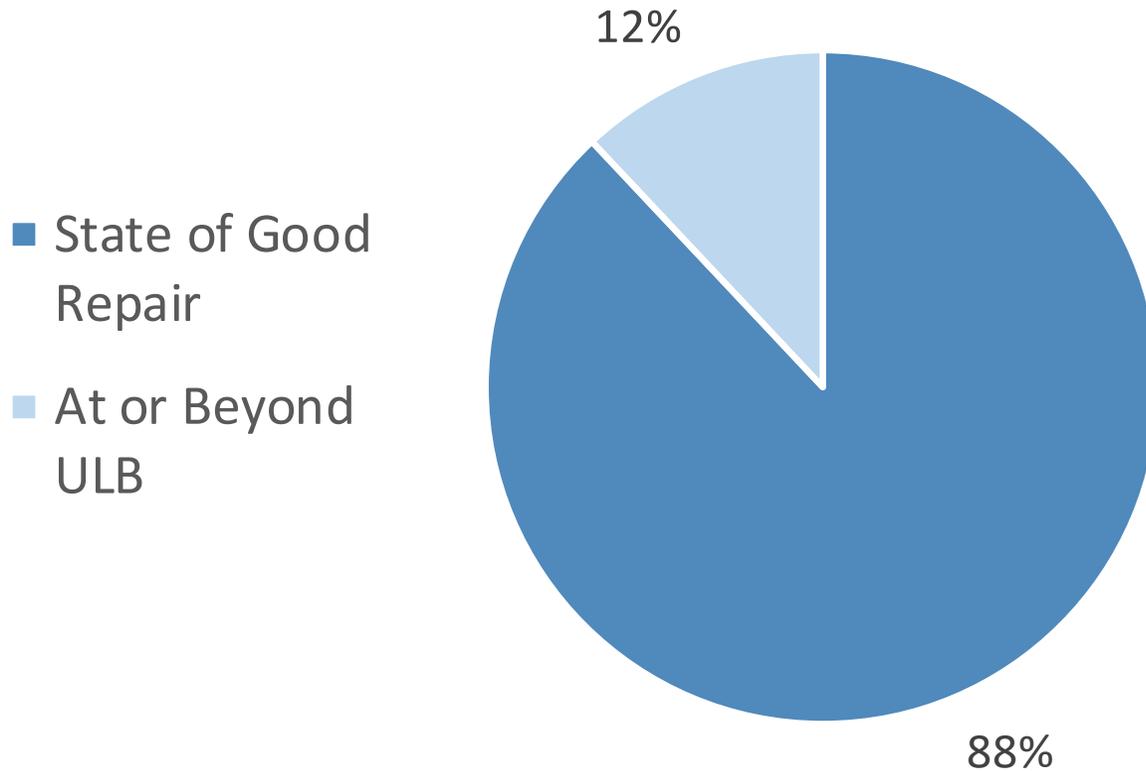


**FY19 Virginia Transit Vehicles at or Beyond ULB**

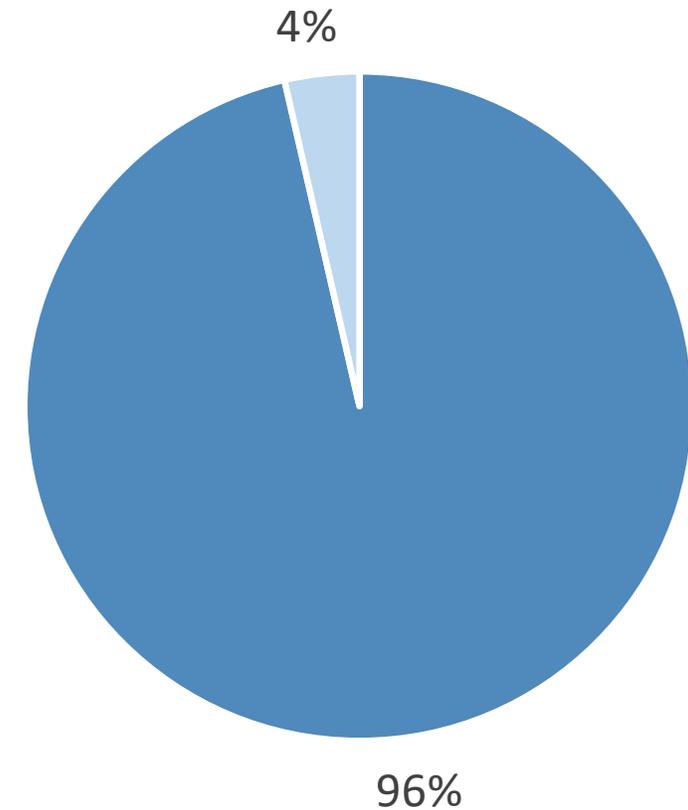


# Infrastructure

**FY19 Nationwide Transit  
Facilities at or Beyond ULB**



**FY19 Virginia Transit Facilities  
at or Beyond ULB**



# Electrification



Transit fleet conversion to electric propulsion technologies can have a number of benefits including:

- Zero tailpipe emissions
- Less noise and vibration
- Cheaper to operate and maintain

# Electrification

- The current statewide transit fleet includes +2,500 revenue vehicles
  - Roughly 1% of the statewide fleet is electric
- Preliminary cost estimates for statewide transit electrification include:
  - **\$800M** incremental cost to convert transit vehicles to electric (\$1.6B total cost)
  - **\$300M** to design, upgrade and install charging infrastructure



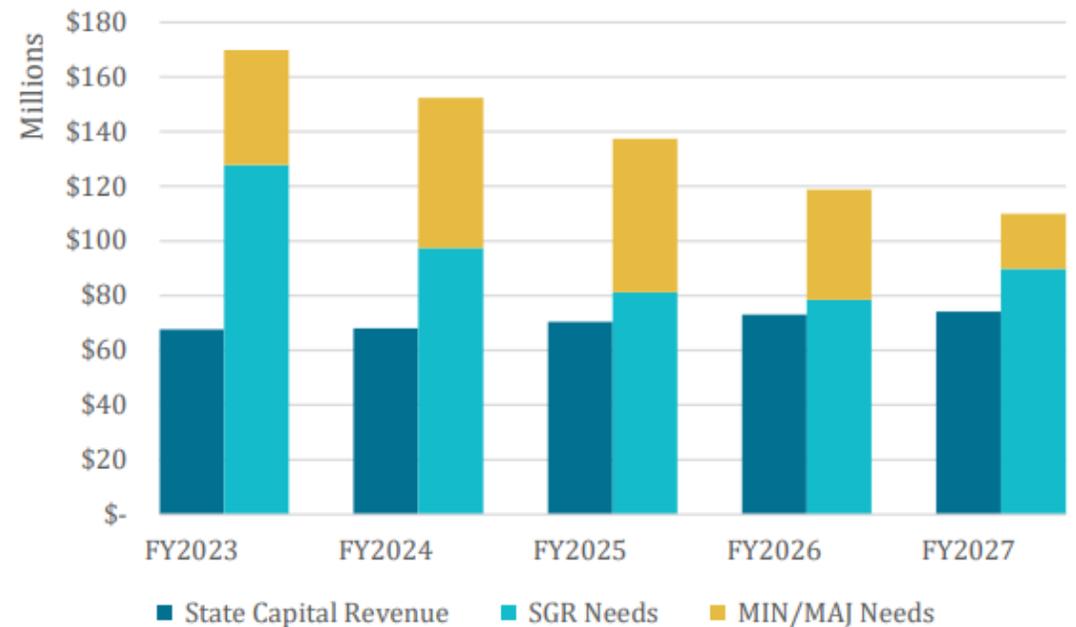
# Emerging Technology

- 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.
- However, there is much room for improvement. DRPT's transit agency survey found that of the 39 transit agencies in Virginia:
  - *Only 8% use contactless fare payment*
  - *Only 34% use real-time vehicle tracking*
  - *Only 5% have implemented mobility-on-demand services*
- Additional resources are needed to make advancements in these areas

# Capital Funding

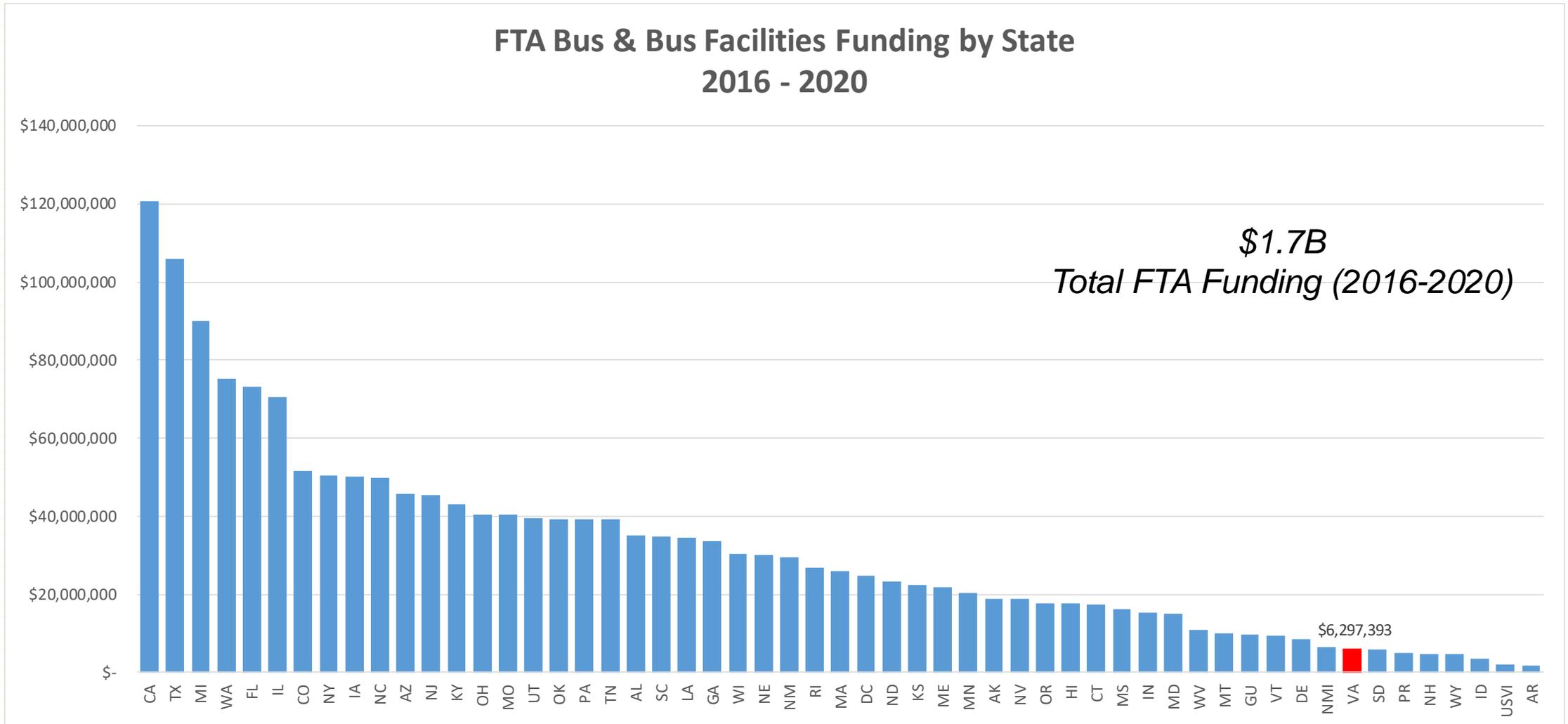
- The Commonwealth Transportation Board (CTB) helped reduce the transit capital backlog in FY22
- Capital backlog continues to exist across all project types
- Prioritization of capital projects remains critical

Capital Needs Assessment vs State Capital Revenue (FY23-FY27)\*



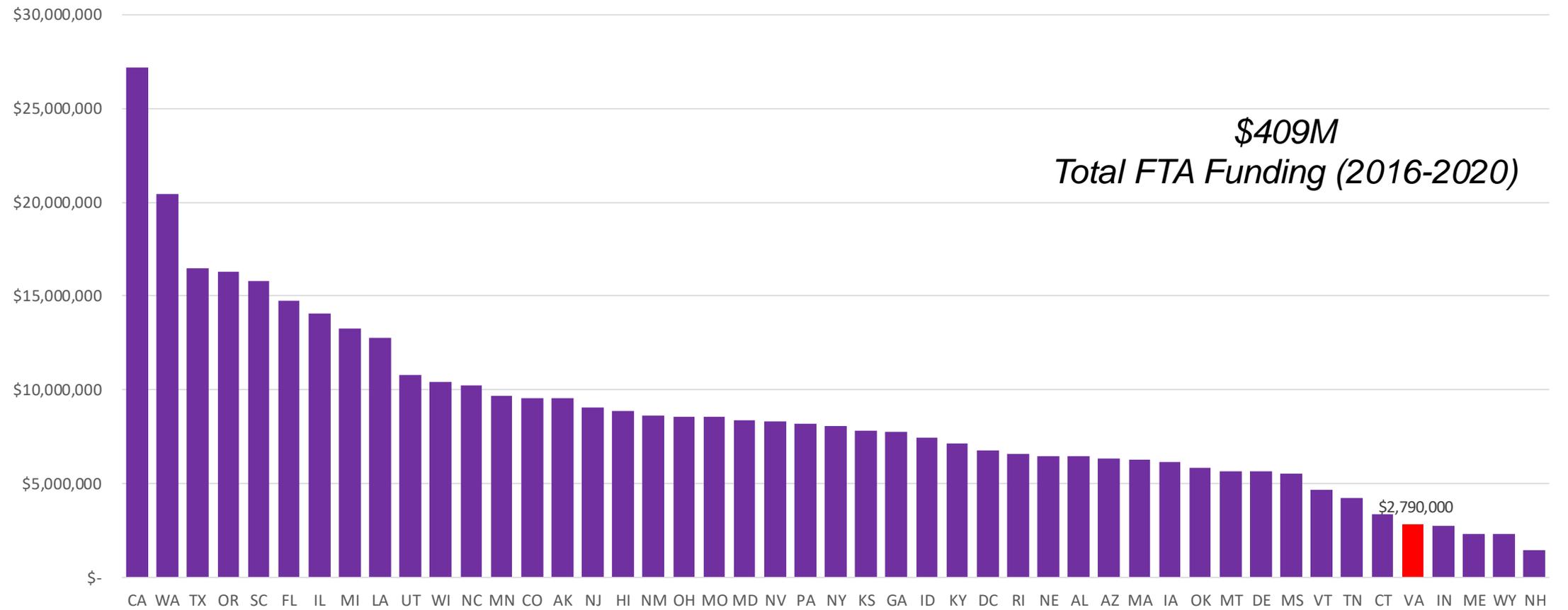
\*Based on original FY23-FY27 SYIP

# FTA Discretionary Funding Opportunities



# FTA Discretionary Funding Opportunities

FTA Low Emissions/No-Emissions (Low-No) Funding by State  
2016 - 2020



# Questions?

[www.vatransitequity.com](http://www.vatransitequity.com)

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Questions?

Grant Sparks | [Grant.Sparks@drpt.virginia.gov](mailto:Grant.Sparks@drpt.virginia.gov)