Virginia Breeze Expansion Alternatives Analysis

June 28, 2019

Final Report

Prepared for:
Virginia Department of Rail and Public Transportation

DRPT

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Introduction

STUDY PURPOSE

The Virginia Department of Rail and Public Transportation (DRPT) Virginia Breeze intercity bus service operates between Blacksburg and Washington, D.C. via the I-81/I-66 corridor. It grew out of a study conducted in 2013 that included follow-up policy development, RFP development, and contracting assistance in 2014-2015 that led to the implementation of Virginia Breeze service in December 2017. Figure 1-1 presents a map of the potential routes identified by the 2013 study.

The Virginia Breeze is supported by funding from the Federal Transit Administration's (FTA) Section 5311(f) program of assistance for rural intercity bus service. The FTA Section 5311(f) program is a set-aside of 15% of a state's Section 5311 funding allocation (see text box on following page). Virginia has not been utilizing its full set-aside, offering the opportunity for program growth. The FTA requires that states conduct a consultation process to assess possible unmet needs for rural intercity bus service at least once every four years, and this study fulfills that requirement. The FTA consultation process requires assessments of existing services and needs, as well as correspondence with existing providers of intercity bus services and stakeholders regarding unmet need. This analysis builds upon the initial 2013 statewide intercity bus study to identify viable options for expansion of Section 5311(f) rural intercity bus service in Virginia.

This is not a long-range planning study, but will instead focus on routes or services that could be implemented within the next five years. Intercity bus services under the Virginia Section 5311(f) program are contracts for service operation, with no capital or facility construction. The services are contracted based on fully-allocated operating costs with the contractor supplying the vehicles. The lead time for implementation is therefore more limited, and the planning horizon is much more immediate.

The analysis in this study focuses on areas that are not on the interstate highway network and have populations with a higher need for transit service. The analysis of demographic data and the intercity bus and rail network is based on current conditions, rather than population projections or planned intercity rail services.

About Section 5311(f)

FTA program guidance for the rural intercity bus program is provided in (FTA) Circular 9040.1G (49 U.S.C. 5311 – Formula Grants for Other Than Urbanized Areas), Chapter VIII, Intercity Bus. Section 5311(f) states that 15% of each state's overall Section 5311 funding allocation must be spent on rural intercity bus projects under Section 5311(f) unless the state certifies to the FTA that there are no unmet rural intercity needs, and that it has determined that there are no needs as the result of a consultation process that includes outreach to the intercity carriers and other stakeholders. Virginia has utilized this funding to support the Virginia Breeze, and has not certified that there are no unmet needs.

The Circular defines intercity bus service as "regularly scheduled bus service for the general public operating with limited stops over fixed routes connecting two or more urban areas not in close proximity, which has the capacity for transporting baggage carried by passengers, and which makes meaningful connections with scheduled intercity bus service to more distant points, if such service is available." Package express service may also be included, if incidental to passenger transportation1.

Services must be designed to provide for a meaningful connection with the national intercity bus network, including service to connecting points at times when passengers may make convenient connections. Services must be scheduled fixed-route services open to the general public.

The National Objectives as prescribed by FTA in the Circular are as follows:

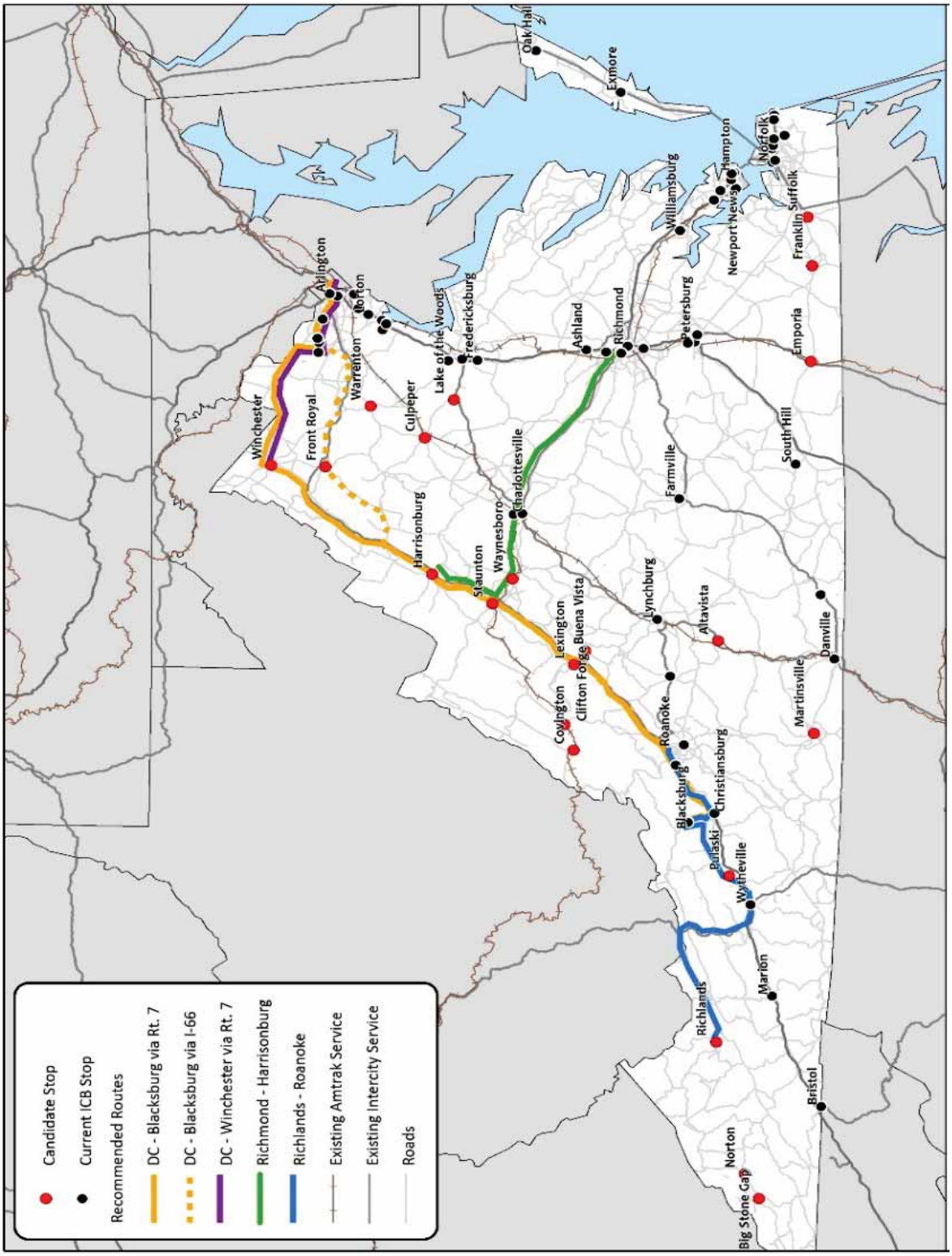
- To support meaningful connections between non-urbanized areas and the regional or national system of intercity bus service;
- To support services to meet the intercity needs of residents in non-urbanized areas; and,
- To support the infrastructure of the intercity bus network through planning, marketing assistance, and capital investment in facilities and equipment.

The definition of eligible intercity bus services under this program includes services that are:

- Open to the general public, and
- Fixed-route, fixed schedule, and
- Operated between two or more urban areas over long distances, and
- Capable of carrying baggage, and
- Providing a meaningful connection (in terms of coordinated stop locations, schedules, and information) to the national system of intercity bus transportation.

Commuter, charter and tour bus services are not eligible under this program. Intercity service is not defined by the type of vehicle used (except for the requirement to carry baggage). All vehicles used to provide services under this program must be fully ADA compliant.

Figure 1-1: Virginia Intercity Routes Proposed in the 2013 *Virginia Statewide Intercity Bus Study*



BACKGROUND

The Virginia Department of Rail and Public Transportation developed its own distinctive model for implementing its rural intercity bus program with the creation of the Virginia Breeze service. With the exception of Amtrak, DRPT had not previously contracted directly for transit services. Virginia Breeze is operated by Dillon's Bus Service, which provides the vehicles, drivers, maintenance, and ticketing systems for the service. Ticketing includes interline ticket options so that Virginia Breeze passengers can travel with one ticket that covers their Virginia Breeze ride and connecting Megabus service. DRPT manages this service, and will be responsible for any additional services developed under an expanded intercity bus program. This model forms the basis for expansion recommendations presented in this study.

DRPT revamped the image of intercity bus service in this corridor through its branding of the Virginia Breeze, which includes a website, strategic marketing, advertising, and events. Additional routes will likely be branded as Virginia Breeze, though there is potential for varying names based on regional themes.

Intercity Bus Program Funding

Virginia's FY2019 FTA funding for the intercity bus program is $2,540,386. A portion is used to fund the Virginia Breeze, while remaining funding has historically been re-appropriated to other projects. Current Virginia Breeze service is locally matched with in-kind miles provided by the parent company of Dillon's Bus Service, Coach USA, which also operates Megabus services.

Federal Funding and In-Kind Match

Under the Section 5311 program the federal share of the net operating deficit of any funded service is limited to 50%. However, for the Section 5311(f) rural intercity bus program, this match can be accounted for by counting the value of unsubsidized connecting service as an in-kind match. This in-kind match approach was originally developed as an FTA pilot project, and it is now codified in federal statute. FTA guidance is presented in Circular 9040.1G (49 U.S.C. 5311 – Formula Grants for Other Than Urbanized Areas), Chapter VIII, Intercity Bus, Section 5-IN-KIND MATCH FOR INTERCITY BUS. DRPT utilizes this method to provide the match required for funding the current Virginia Breeze service, and anticipates using it for all Section 5311(f) funded service expansion.

Under this method, an intercity bus operating project (subsidy for operation of a route) is defined to include both a subsidized segment and an unsubsidized connecting service, and careful attention to the design of the project allows the net operating deficit of the subsidized segment to be fully funded with federal dollars. The carrier operating the unsubsidized segment must provide DRPT with a letter certifying their willingness to provide the match, the schedules and routes involved, and the dollar value of the match.

The recommendations presented in this study must be sustainable and adhere to requirements of receiving additional funding, including the local match to get federal funds. Recommendations address gaps in service networks and further need for additional service.

PLANNING CONTEXT

In addition to the implementation of Virginia Breeze, there have been several significant planning efforts that bear on the development of intercity bus alternatives for the state. These include the *VTrans 2040 Multimodal Transportation Plan* and its *2025 Needs Assessment*, regional studies funded by DRPT that have identified regional and intercity needs, and a *Long-Distance Commuter Bus Study* performed for the Metropolitan Virginia Council of Governments (MWCOG).

VTrans 2040 Multimodal Transportation Plan and 2025 Needs Assessment

VTrans 2040 is Virginia's multimodal transportation plan. It is developed and adopted by the Commonwealth Transportation Board (CTB) every four years. It includes a statement of Vision and Goals for transportation investment, identifies priorities, and provides direction on implementation strategies and programs to the CTB, the Virginia Department of Transportation (VDOT), the Virginia Department of Rail and Public Transportation (DRPT), and regional Metropolitan Planning Organizations (MPOs).

The *VTrans 2040 Multimodal Transportation Plan* and the *2025 Needs Assessment* were adopted at the end of 2015, followed by the adoption of mid-term Year 2025 Recommendations for priority investments in early 2018. The analysis process included comprehensive needs assessments for the state's twelve Corridors of Statewide Significance (CoSS) and its thirteen metropolitan regions.

The CoSS is the statewide network of facilities and services comprising the multimodal network connecting major centers of activity. The CoSS link Regional Networks (RNs) and Urban Development Areas (UDAs) of the state's transportation network. Corridors were identified and selected based on the criteria below:

- Multiple modes and/or an extended freight corridor,

- Connection among regions, states and/or major activity centers,
- A high volume of travel, and
- A unique statewide function and/or fulfillment of a statewide goal

The CoSS network addresses intercity travel needs between these regional and local centers, as well as interstate traffic. The CoSS Needs Assessment included the intercity bus mode in its analysis of the twelve defined corridors. Each corridor was examined by segment.

The CoSS Needs Assessment identified intercity bus stops. Services provided by Amtrak, Greyhound, and Megabus were assessed for travel time, fare, and frequency, and were compared to an automobile trip within the same corridor. Similar analysis was performed for rail passenger and air service. The Needs Assessment identified mode choice needs for major origin-destination pairs where comparable mode options were not available. These needs were included in the *Summary of Needs* portion of the report, offering guidelines for future projects that seek to use HB2 funding from the Commonwealth Transportation Board. By utilizing remaining funding from the FTA 5311(f) allocation and in-kind match, the Virginia Breeze expansions will not solely rely on HB2 funding.

The *VTrans Multimodal Transportation Plan 2025 Needs Assessment* combined identified needs for the CoSS, RNs, and UDAs to organize needs by district and priority. Determining priority included several factors, such as auto and transit accessibility scores, mode choice, and multimodal access. Each of these addresses VTrans 2040's stated goal of creating accessible and connected places. The consolidated needs repeatedly reference the necessity of multimodal access, and occasionally intercity bus service. Specific intercity needs were identified in each district:

- Bristol District:
  - US 460 corridor has limited intercity transit connections
  - I-77 in Bland County has limited intercity transit connections
  - US 58 corridor has limited intercity transit connections from Bristol

- Culpeper District:
  - Amtrak lines and intercity service through Charlottesville has mode choice needs, including regional and intercity bus
  - I-64 and US 250 east-west intercity travel from Charlottesville has a need for mode choice
  - US 29 between Charlottesville and Culpeper has mode choice needs
  - US 17 north of Warrenton has mode choice needs

- Fredericksburg District:
  - Improved multimodal accessibility and transit capacity between Fredericksburg and Northern Virginia
  - US 17 between Hampton Roads and Fredericksburg

- Hampton Roads District:
  - I-264/US 58 has mode choice needs
  - Intercity passenger rail and transit options from Hampton Roads northward to Fredericksburg and Northern Virginia has mode choice needs
  - Intercity bus and passenger rail needs (cross-district)
  - I-95 and US 58 though Emporia have mode choice and network connectivity issues
  - The Eastern Shore has needs for increased bus service and paratransit

- Lynchburg District:
  - The US 221/460 corridor has mode choice needs to serve inter- and intra-regional travel
  - US 29 between Danville and Lynchburg has mode choice needs associated with intercity travel
  - US 29 in Pittsylvania County has mode choice needs
  - US 58 has mode choice needs to support intercity travel from Danville and Hampton Roads

- Richmond District:
  - I-95/I-64 corridors in and south of Richmond have mode choice needs
  - General mode choice and network connectivity needs for regional and local transit and passenger rail
  - I-95/US 1 corridor from Tri-Cities to I-295 has mode choice needs

- Salem District:
  - I-81, US 460 and US 1 have mode choice needs
  - US 460 and US 220 corridors in Bedford County between Roanoke, New River Valley and Lynchburg have intercity transit and intra-regional connectivity needs
  - Within the RVTPO area there are intercity and intracity transit accessibility needs

- Staunton District:
  - US 11/I-81 corridor has needs for intercity commuters between Staunton, Harrisonburg and Waynesboro
  - US 17/US 50 corridor has mode choice needs for intercity commuters to/from Winchester
  - Within the Staunton District there is a general need for intercity transit/rail for communities
  - Clifton Forge has a general need for intercity transit services.

Some of these needs are identified specifically as intercity transit (or rail) needs, and others as a need for more mode choices which could include intercity bus, but also commuter bus or

regional rural transit services – either way, they are indicative of unmet needs for intercity or regional connectivity. In Chapter 2, the existing statewide intercity bus network is defined and compared to the CoSS structure to help identify the relationship between them at the statewide level.

In some cases, regional studies have examined these needs in greater specificity. Two of these studies are discussed in the next section.

I-81/ I-64 Inter-Regional Public Transportation Feasibility Study

This feasibility study was prepared by the Central Shenandoah Planning District Commission for itself, the Thomas Jefferson Planning District Commission, the Harrisonburg Rockingham Metropolitan Planning Organization, and the Staunton Augusta Waynesboro Metropolitan Planning Organization. It was completed in 2017 and included an assessment of needs and specific demand for public transit connecting Harrisonburg, Staunton, Waynesboro and Charlottesville. The demand estimates included both commuter trips and potential intercity connections to Greyhound and Amtrak services in Charlottesville, with service designed to provide both commuter work trips and connectivity to the intercity services. Some trips could potentially be eligible for in-kind match under Section 5311(f) if the connecting carriers were willing to provide the match. The majority of trips in the proposed schedule would not make intercity connections, as they are oriented to commute times.

The report was completed before the implementation of the Virginia Breeze, which addressed some of the identified intercity needs from Staunton and Harrisonburg to/from the northeast (but not to Charlottesville and Richmond). The proposed service has not been funded, though there is still interest at the local level.

Southern Virginia Transit Feasibility Study

This feasibility study was prepared by the Southern Virginia Higher Education Center and DRPT to examine public transportation needs in and between Amelia, Brunswick, Buckingham, Charlotte, Cumberland, Greensville, Halifax, Lunenburg, Mecklenburg, Nottoway, Pittsylvania, Prince Edward counties and the City of Danville. The study found limited existing transit services in this region, with almost no intercity service (one stop on one north-south route in South Hill). This study was intended to address the resulting lack of mobility as a barrier to education and employment in the region. Human service agencies, employers, and students/staff/faculty were surveyed regarding needs. One of the service options assessed was the US 58 corridor from Danville to the City of Emporia and Pittsylvania County. The study found limited need from students and employees to travel the entire length of the corridor, resulting in its division into four segments. One of them, Danville to South Boston, was recommended for implementation, along with a Chatham-Danville/Danville Community College route. Although the study noted the loss of Greyhound

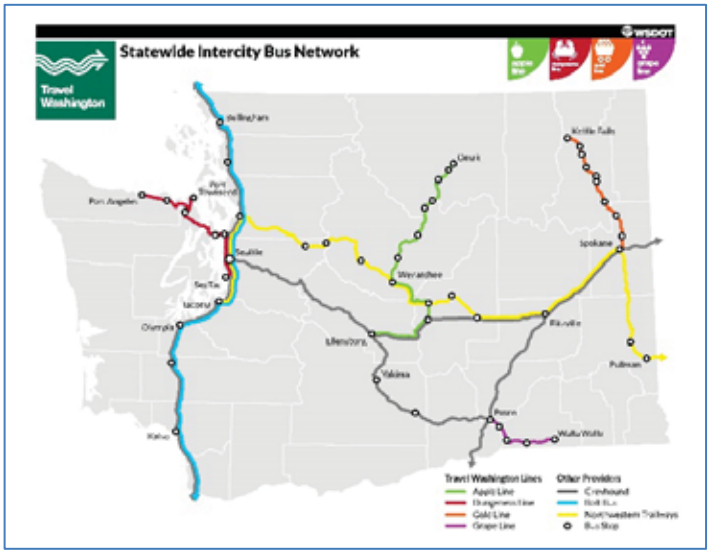
service on US 58 (particularly on the South Boston-Danville segment), the focus of the study was on regional needs and it did not prioritize trips from the region to other locations.

Long-Distance Commuter Bus Study

This commuter bus study was performed for the Metropolitan Washington Council of Governments (MWCOG) to identify potential commuter bus markets in counties outside of the Transportation Planning Board (TPB) planning area. Analysis of projected commuting patterns from these counties suggested that there are potential markets for commuter bus services from Winchester, Front Royal, Warrenton, and Fredericksburg to Northern Virginia and Washington, D.C. New commuter bus service, from Front Royal and Linden to Northern Virginia and Washington, D.C. has already been implemented. Proposed services are commuter routes, without connections to the national intercity network.

OTHER STATE MODELS FOR SECTION 5311(F) PROGRAM IMPLEMENTATION

There are a number of models in other states that could potentially inform the development of the Virginia program. Some examples that illustrate options for an expanded statewide program are detailed below.



Travel Washington: The Washington State DOT program began the model of identifying gaps in the network operated by private carriers, and having the state (as the grantee) contract for services to address them. This program was one of the first to develop statewide branding for the program under the Travel Washington name, with individual names for services in different regions (for example the Grape Line in wine country). This program also initiated

the in-kind match program under Section 5311(f), proposed as part of the 2010 intercity bus plan and accepted by the FTA initially as a pilot project, and now the in-kind match is contained in federal statutes. Virginia has adopted the state branding model, along with the idea of the state as grant recipient and the services operated by contracted carriers. The regional sub-branding may be considered by Virginia as it expands beyond the single Virginia Breeze route.

Ohio's GoBus Program: Ohio's Section 5311(f) program is similar to Virginia's in that it began with subsidies to maintain a route connecting a major university with the state's population centers. All GoBus services are operated under contract by a private firm. The network has grown to include routes connecting Athens, (home of Ohio University) with Columbus, Cleveland, and Cincinnati, while also providing service to many small towns on the way. It also links with state-supported services in neighboring Indiana and West Virginia. The brand has a high level of recognition, and the service has a high level of customer satisfaction. The state provides the Section 5311(f) grant to a private non-profit, Hocking-Athens-Perry Community Action (HAPCAP) that in turn contracts for the bus service. Greyhound provides the in-kind match for all services. HAPCAP maintains the GoBus website, administers its ticketing system (fully interlined with Greyhound and other National Bus Traffic Association (NBTA) member carriers), and oversees an active marketing program. Feasible concepts for Virginia include the possibility of contracting with multiple carriers, and having a number of routes that link universities with multiple major population centers while serving small towns along the way.

Colorado's Bustang Expansion: Colorado's original Section 5311(f) program provided grants to private carriers to operate services on corridors identified in several statewide regional and intercity bus planning efforts. One of those plans also identified a need for commuter bus services into Denver from areas outside the Regional Transit District (RTD), which led to the creation of state funded commuter bus services. These services are operated by a third-party contractor to the Colorado Department of Transportation (CDOT). CDOT has branded these services as Bustang, and they have been quite successful. Recent initiatives have included extension of

the Bustang brand name to the rural Section 5311(f) routes, which are known as Bustang Outrider. The rural Section 5311(f) routes are now operated as third-party contracts, but the state is providing vehicle capital. In some cases, the Bustang Outrider routes are operated by private non-profit rural transit providers. The combined effort is intended to create a statewide, connected network under a single brand name with information and ticketing available from a single source. https://www.ridebustang.com/ . In addition to another example of statewide branding, the Bustang model now provides an example in which rural transit operators provide some of the services under grant agreements, with the state providing the vehicle capital along with the branding, marketing and ticketing to create a statewide network.

Oregon's Travel Network: Oregon's Section 5311(f) program has included two distinct elements: a program of routes identified by the state and operated by private for-profit contractors under the brand name Oregon POINT, and additional intercity/regional routes identified by local and regional transit operators and funded under grants from the state DOT. The state has also worked to make sure that these services are connected with each other, and with state-supported Amtrak service. The combined program is identified as the Oregon Travel Network. Oregon DOT also contracts for General Transit Feed Specification (GTFS) data for all of the state's transit providers, including the intercity carriers, so that Google Transit and other sites can offer transit information showing all the available connections. Oregon is now using GTFS data from this inventory to identify gaps in service and propose route expansions. The Oregon program demonstrates that there are ways to incorporate local public transit providers and regional priorities with the state selected routes and unsubsidized service to provide a comprehensive statewide intercity network connecting rural areas, and major metropolitan areas.

Vermont: Vermont's Agency of Transportation has also followed the model of contracting for services to fill gaps in the state's intercity network, currently contracting for four routes. Vermont has not initiated a statewide brand, with two of the routes branded as Vermont Trans-Lines, one as a Greyhound route, and one as the Vermont Shires Connector (which also connects to Amtrak in Albany, New York). However, it is developing GO!Vermont as a trip-planner that will include all of the state's fixed-route and demand-response services, including those requiring a reservation. The vision is that anyone in Vermont will be able to use this resource to plan a trip including the local transit pick-up, regional schedules, and intercity connections - making the entire network available. As in the case of the other states, Vermont demonstrates the feasibility of connecting its population centers and universities with key destinations in neighboring states, while serving the small towns along the route. Like Oregon and Washington, linkages with Amtrak and commercial

airports broaden the appeal and ridership base. Go!Vermont as a single source of information for all transit modes, including intercity bus and rail, is a potential example for consideration by Virginia.

CONCLUSIONS

The recognition of statewide intercity bus and multimodal connectivity needs in the *VTrans 2040 Multimodal Transportation Plan* and the *2025 Needs Assessment* encourages this analysis of Virginia's intercity bus network, the role of Virginia Breeze, and the assessment of potential future expansion. The plans and aforementioned case studies of other statewide programs provide context for developing and expanding alternatives for Virginia's intercity bus program. Chapter 2 defines the existing network. Chapter 3 assesses access provided by this network. Chapter 4 presents the performance of the existing Virginia Breeze service. The results of outreach efforts and consultation with stakeholders are presented in Chapter 5, which concludes with a set of expansion route alternatives. Finally, these service alternatives are analyzed, compared, and prioritized in Chapter 6 to formulate recommendations for expansion of Virginia's intercity bus program.

Chapter 2:
Virginia's Intercity Network

INTRODUCTION

This chapter presents an inventory of Virginia's existing intercity bus services and identifies intercity rail passenger routes that operate through the state.

The intercity bus operators that serve Virginia's non-urbanized and urbanized cities were identified from Russell's Official National Motor Coach Guide website,[1] the American Intercity Bus Riders Association (AIBRA) national map of intercity services,[2] and carrier and third-party websites. Information collected includes timetables, cities served, and web links to the route operator.

Greyhound's internal revenue support website provides current Greyhound timetable information, and was used to identify Greyhound timetables, schedules, routes and stops in Virginia.

Virginia's intercity bus program, Virginia Breeze, also has current route, schedule and stop information that can be found on the Megabus website. Coach USA, the owner of Dillon's Bus Lines that operates the Virginia Breeze, is also the operator of unsubsidized Megabus schedules serving Virginia. Finally, Amtrak provides intercity service on a number of routes in Virginia, including connections to Amtrak Thruway services. Amtrak staff and national timetables were consulted to include these bus and rail services.

Within the last decade, another type of intercity bus service known as curbside service has developed. The name "curbside" is derived from their use of street-side pickup and drop-off points, as these independent carriers do not utilize stations or terminals. These carriers typically have their own websites and ticketing (or use third party sites). Third party sites and individual firm websites collected from web searches were used to identify such services in Virginia. It should be noted that this industry is fairly volatile, with carriers entering and exiting the business, or changing stops, schedules and fares.

Based on a review of the two databases, Greyhound's website, and the Amtrak timetables, four types of intercity bus services were identified:

1. **Traditional (Legacy) Intercity Bus** – Greyhound Lines Incorporated.

2. **Rural Intercity Bus** – Virginia Breeze (Section 5311(f)-funded rural service).

[1] Russell's Official National Motor Coach Guide, Retrieved from http://www.russellsguides.com/
[2] American Intercity Bus Riders Association, Retrieved from http://www.kfhgroup.com/aibra/

3. **Long-Distance Commuter Bus –** Martz Lines, Potomac Rappahannock Transit Commission (PRTC); Smart Way; and Greater Richmond Transit Commission (GRTC).

4. **Long Distance "Curbside" Intercity Bus** – Megabus, Lion VA Bus, Hi Bus Inc., Sprinter Bus, Tripper Bus, Number 1 Bus, EastWest Bus (Formerly HorseRun Bus), Eastern, Vamoose, La Cubana Omnibus, and New Everyday.

Figure 2-1 presents a map of these services, listed by carrier. In addition, the text includes a separate summary of Amtrak Thruway services.

Legacy Carriers - Greyhound Lines

"Legacy" carriers are those that provide intercity bus service using the traditional business model that includes":

- Fixed-route, fixed-schedule service, with intermediate stops (including both non-urbanized and urbanized locations) on many routes.

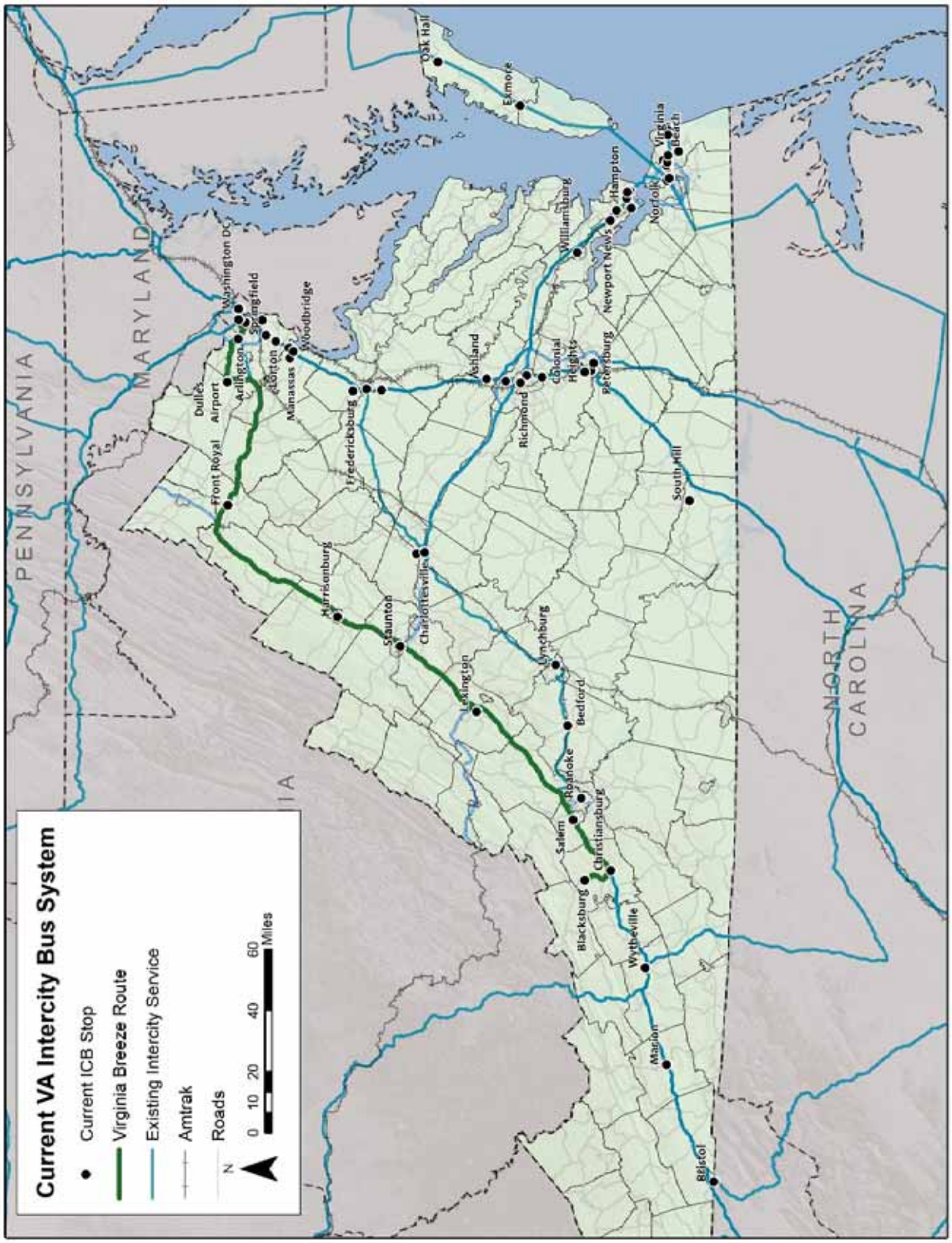
- Use of terminals (either company- affiliated agencies or terminals, or public intermodal) as pick-up and drop-off points.

- Availability of interline ticketing and coordinated connecting schedules, providing schedule information about connecting bus services and allowing passengers to purchase a single ticket/fare that can be used on other carriers.

Greyhound continues to be the major provider of intercity bus service in Virginia, and is the only national intercity bus carrier that connects non-urbanized and urbanized cities throughout the United States.

Greyhound is now owned by FirstGroup PLC of the United Kingdom and is a member of the National Bus Traffic Association (NBTA), which is the national clearinghouse for interline ticketing. Through these arrangements, member carriers can sell single tickets that provide for travel on the services of other member carriers. Greyhound service is distinguished by the fact that it has designated stops with terminals or commission agencies, many staffed by agents who sell tickets, handle bus package express, and provide information. This is contrasted with "curbside" operators which are discussed in a subsequent section.

Figure 2-1: Current Virginia Intercity Bus Network



Information about Greyhound services is available through several sources: on their website https://www.greyhound.com/, through their telephone information system, in Russell's Official National Motor Coach Guide, and at staff station ticket counters. Greyhound is currently responding to competition from long distance "curbside" intercity bus express operators by providing Greyhound Express service between major points within its network. Greyhound Express offers select intermediate stops in smaller towns, and buses are equipped with Wi-Fi, plug-in power outlets, and leather seating. In another effort to remain competitive, Greyhound offers three online fare categories, and one terminal fare. Table 2-1 displays the conditions of the four fare categories, and Table 2-2 presents the basic categories of station stops used by Greyhound.

Greyhound routes with service in Virginia are depicted in Figure 2-2. The services included are listed on the following pages by Greyhound timetable number.

Table 2-1: Greyhound Fare Categories

Economy	Economy Extra	Flexible	Terminal
1 checked bag free (2nd bag is $15)	1 checked bag free (2nd bag is $15)	2 checked bags free	1 checked bag free (2nd bag is $15)
Non- refundable	Non- refundable	Refundable	
$20 fee to change date/time before trip	$20 fee to change date/time before trip	No fee to change date/time before trip date	
Earn 1 road reward point each way	Earn 2 road reward points each way	Earn 3 road reward points each way	Earn 1 road reward point each way
	Priority boarding	Priority boarding	
	Free same day exchange	Free same day exchange	

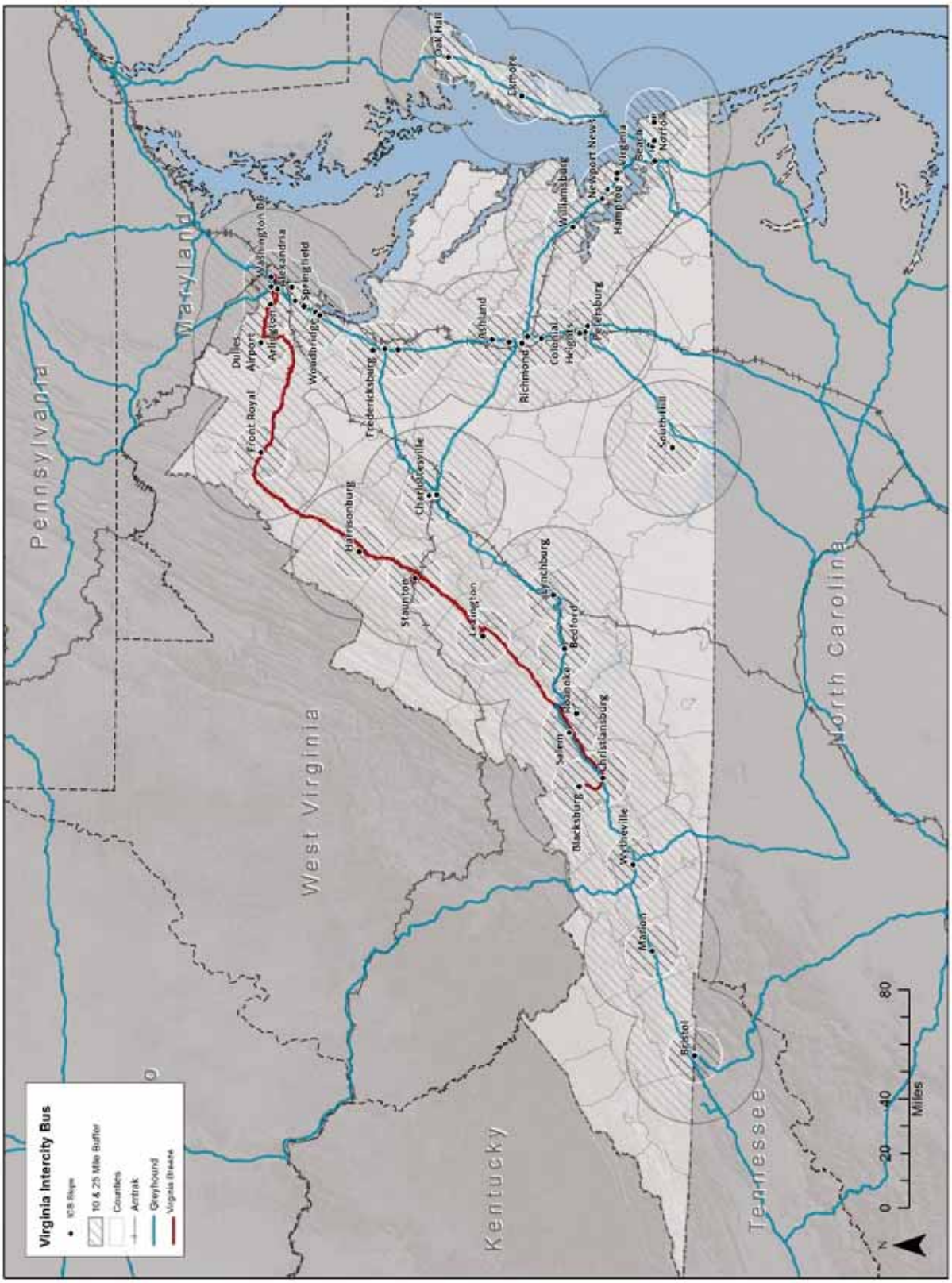
Source: Greyhound, 2017

Table 2-2: Greyhound Station Stops by Type

City	Address	Zip Code	Stop Type
Bristol, TN	827 Shelby Street	37620	Company Station--Agency
Charlottesville	310 W Main Street	22903	Company Station—Agency
Exmore	2668 Charles M Lankford Jr Memorial Hwy	23350	Shared Parking
Fredericksburg	1400 Jefferson Davis Highway	22401	Public Intermodal Station-FRED
Hampton	2 W Pembroke Avenue	23669	Public Intermodal Station-HRT
Lynchburg	825 Kemper Street	24501	Public Intermodal Station—Amtrak
Marion	141 Dabney Drive	24354	Shared Parking
Norfolk	701 Monticello Avenue	23510	Public Transport Stop
Oak Hall	6491 Lankford Highway	23416	Shared Parking
Petersburg	100 West Washington Street	23803	Public Intermodal Station--Transit
Richmond	2910 N Boulevard	23230	Company-Owned Terminal
Roanoke	26 Salem Avenue SW	24011	Public Intermodal—Campbell Court
South Hill	1011 E Atlantic Street	23970	Off Highway Gas/Fast Food
Springfield	6770 Frontier Drive	22150	Public Transport Stop-Metro Station
Virginia Beach	971 Virginia Beach Boulevard	23451	Shared Parking
Williamsburg	468 N Boundary Street	23185	Public Intermodal Station-Amtrak
Woodbridge	1040 Express Drive	22191	Public Transport Stop
Wytheville	926 Max Meadows Road	24360	Off Highway/Fast Food-McDonald's

Source: Greyhound website, 2018

Figure 2-2: Greyhound, Amtrak and Virginia Breeze Routes in Virginia (with ten- and twenty-five-mile buffers around stops)



Greyhound Table 122: Philadelphia – Baltimore – Virginia – Richmond

Serves Springfield/Franconia metro station, Woodbridge, and Fredericksburg. This route offers 12 daily round trips between Virginia, Washington, D.C and Richmond, of which only three serve the intermediate Virginia stops mentioned previously.

Greyhound Table 124: New York – Richmond

Serves Richmond. This route offers eight daily round trips between New York and Richmond. All trips are designated Greyhound Express trips, and there are no intermediate stops in Virginia.

Greyhound Table 143: Baltimore – Virginia – Charlottesville

This route offers two daily round trips between Charlottesville (both the Greyhound station and Amtrak station) and Baltimore. It also serves Springfield/Franconia metro, Woodbridge (only on the southbound PM trip) and Fredericksburg.

Greyhound Table 144: Richmond – Roanoke – Nashville

Serves Richmond, Charlottesville, Lynchburg, Roanoke, Wytheville and Marion. Also serves Bristol and Johnson City, which are on or near the VA-TN state line. Three daily round trips are offered from Richmond to Nashville (Marion is only served on two of the three trips).

Greyhound Table 400: Richmond – Fayetteville – Charleston – Savannah – Jacksonville

Serves Richmond and Petersburg. This route offers four daily roundtrips between Richmond and Jacksonville. Petersburg is only served by one round trip and an additional northbound trip.

Greyhound Table 401: Charleston – Charlotte – Columbia – Jacksonville

Serves Wytheville and Bluefield (WV), which is located on the WV-VA state line. This route offers two daily round trips between Charleston, West Virginia and Jacksonville, Florida.

Greyhound Table 422: Richmond – Williamsburg – Norfolk

Serves Virginia Beach, Norfolk, Hampton, Williamsburg and Richmond. It provides five daily roundtrips between Richmond and Norfolk. Three of the five trips only serve Richmond, Hampton and Norfolk. Williamsburg is served by two of the five trips, while Virginia Beach is only served by one.

Greyhound Table 423: Norfolk – Elizabeth City – Raleigh

Serves Norfolk. This route provides one daily round trip between Norfolk and Raleigh, NC. This route no longer serves Suffolk.

Greyhound Table 424: Richmond – Charlotte – Atlanta

Serves Richmond, Petersburg, and South Hill. This route offers six daily round trips between Richmond and Atlanta. One southbound trip also serves both Petersburg and South Hill. Petersburg and South Hill are served individually by two different northbound trips. This route no longer serves Farmville, South Boston, or Danville.

Greyhound Table 420: New York – Philadelphia – Norfolk – Virginia Beach

Serves Oak Hall, Exmore and Norfolk. This route offers three daily round trips between Norfolk and New York. Each trip serves Oak Hall and Exmore as well.

Rural Intercity Bus

Virginia Breeze

Virginia Breeze is a new intercity bus service developed by DRPT using FTA Section 5311(f) funding. It is operated under contract by Dillon's Bus Service. Dillon's is owned by Coach USA, which also operates Megabus services in the U.S. The Virginia Breeze provides one daily round trip between Blacksburg and Union Station in Washington, D.C. It also serves Christiansburg, Salem, Lexington, Staunton, Harrisonburg, Front Royal, Dulles Airport and Arlington.

Ticketing is through the Megabus website, and there is interline ticket sales capability to a limited number of Megabus services. The Washington, D.C. terminus is Union Station, where passengers can connect with many Greyhound or Amtrak schedules, though a separate ticket is required, and users must obtain their own schedule information for the connecting services (it is not available through the Megabus/Virginia Breeze website).

Curbside Services

Curbside bus services have developed over the past decade, spreading from the northeastern United States to offer service to a broader area. The general service model does not utilize terminals or agents, as passengers buy tickets online and queue to board buses at designated curbside locations. The services generally serve only larger population centers or major universities, and operate express schedules with no more than one or two stops en route to pick up or drop off additional passengers. The carriers may or may not have their own websites, perhaps selling tickets through third-party vendors. They do not participate in

interlined ticketing with other carriers, and schedules are not designed to facilitate connections (either to their own services or other carriers). Often fares are lower than traditional intercity bus or rail passenger fares, and there may be substantial discounts for reservations made well in advance.

Megabus is the major provider of curbside services in Virginia and a number of other carriers also offer services, almost all of which run express schedules to New York City. Figure 2-3 presents a map of these services.

Megabus

Since 2013, Megabus has seen significant changes to its service. In addition to being the ticketing engine for Virginia Breeze customers, Megabus has expanded to operate two daily round-trips between Charlottesville and Union Station in Washington, D.C., with a stop at Dulles Airport. Megabus provides services to the south from Richmond to Durham, Fayetteville, Charlotte, Columbia, Athens, and Atlanta, as well as northbound to Washington, D.C., Baltimore, Newark, Philadelphia and New York. There is also service from Virginia Beach/Hampton to Washington, D.C., Baltimore, and Philadelphia. Megabus has ended service along I-81, with Virginia Breeze replacing it north of Christiansburg.

University Services – Virginia Tech

Virginia Tech also operates intercity bus service in this corridor. The Campus Connect service is provided between Blacksburg and the Washington, D.C. area. These services are available to students, faculty, staff (and their guests) - but not the general public. Two daily round-trips are provided on weekdays and one on weekends. Northbound departures are at 6 a.m. and 6 p.m. weekdays and 3 p.m. on Sunday. Southbound trips are at 7 a.m. and 7 p.m. weekdays and 9 a.m. Saturday. The one-way fare is $95. There is one intermediate stop at the Salem park and ride lot. Key differences between this service and Virginia Breeze include the additional frequency, schedules that allow for more time at either destination, and a high fare ($95).

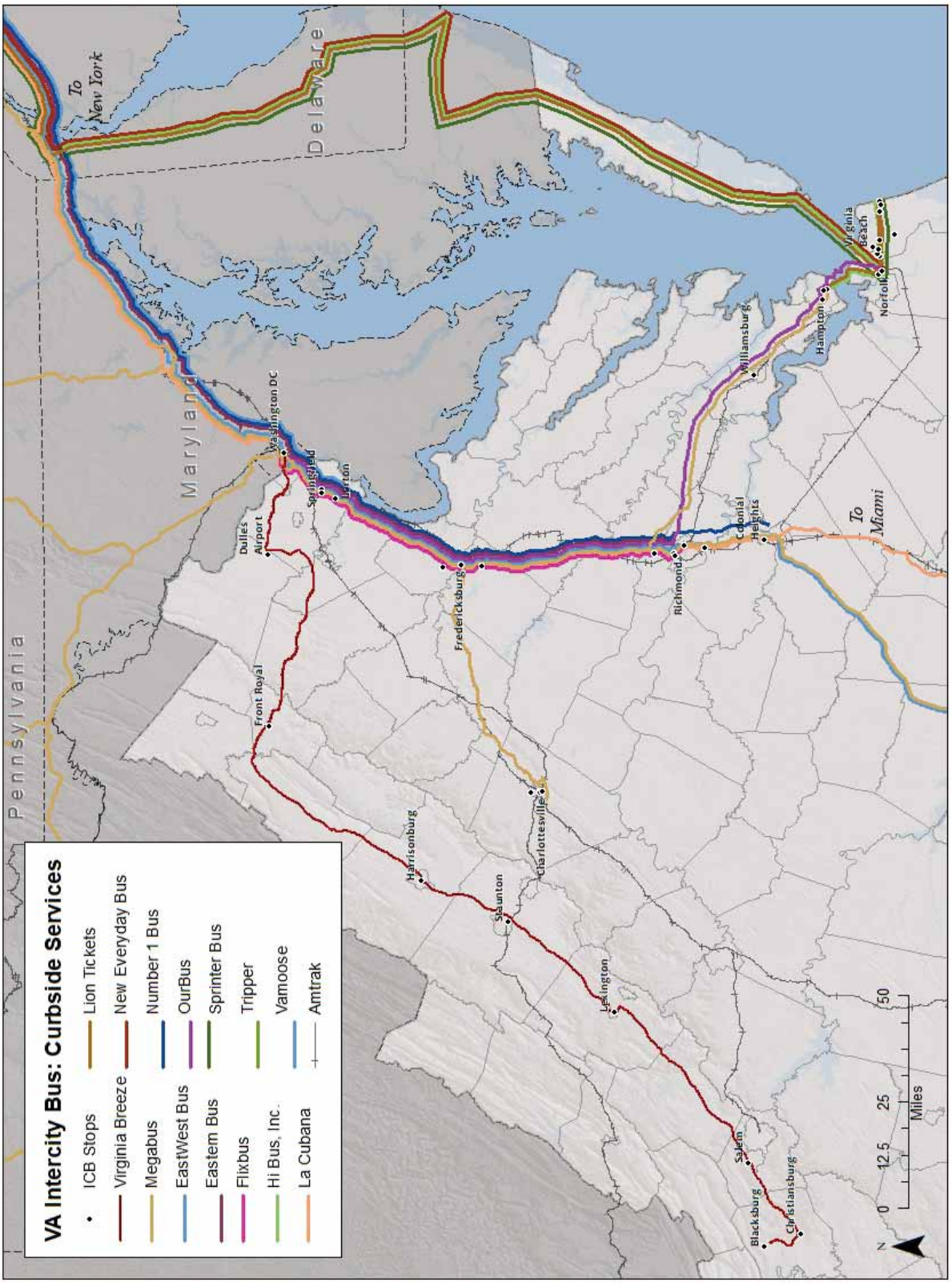
Other Curbside Service

As documented in the previous *Virginia Statewide Intercity Bus Study*, there are a number of other curbside bus operators linking Virginia population centers to New York City. These services operate as non-stop expresses, with pick-up and drop-off locations on the street (no terminals), and ticketing via the internet only. Since the previous study, several carriers have entered this segment of the market, and several have exited, but the coverage has remained approximately the same. Current curbside services to/from Virginia points include:

- FlixBus (Richmond to Washington, D.C.)
- Lion VA Bus (Hampton, Norfolk, Virginia Beach to New York)
- Hi Bus Inc. (Hampton, Norfolk to New York)
- Sprinter Bus (Virginia Beach to New York)

- Tripper Bus (Arlington to New York)
- Number 1 Bus (Colonial Heights, Richmond, Fredericksburg, Stafford to New York)
- EastWest Bus (Formerly HorseRun Bus) (Richmond to New York and Richmond to Atlanta)
- Eastern (Richmond to New York)
- Vamoose (Arlington/Lorton to New York)
- La Cubana Omnibus (Miami to New York with stops in Arlington each way)
- New Everyday (Norfolk to New York)
- OurBus (Friday-Sunday Norfolk to DC with stops in Williamsburg, Richmond, Fredericksburg, and Springfield.)

Figure 2-3: Curbside Bus Routes in Virginia



Long-Distance Regional Commuter Bus

There are a number of longer distance commuter bus services in Virginia available to riders to make trips connecting to the national intercity network. They include publicly-funded services operated by transit providers, unsubsidized services provided by private firms, and publicly-funded services operated under contract by private providers. None of these services are listed in intercity bus information systems and none offer joint fares. In some cases the connection to the national intercity bus network would require a transfer to local transit, such as the Metro in Washington, D.C. Figure 2-4 illustrates these routes.

Martz

Martz Lines, a private for-profit firm, operates commuter bus service from Fredericksburg/ Stafford to the Pentagon and downtown Washington, D.C. Key stops include the Fredericksburg area park and ride lots (Houser Drive, Old Salem Church, Falmouth); Stafford park and ride lots (Garrisonville); the Pentagon, Farragut Square Metrorail station; and McPherson Square Metrorail stations in downtown Washington, D.C. The basic service pattern consists of five daily round-trips Monday through Thursday, and three round-trips on Friday. A one-way single trip from Fredericksburg is $50, with multi-ride passes costing between $225 and $300.

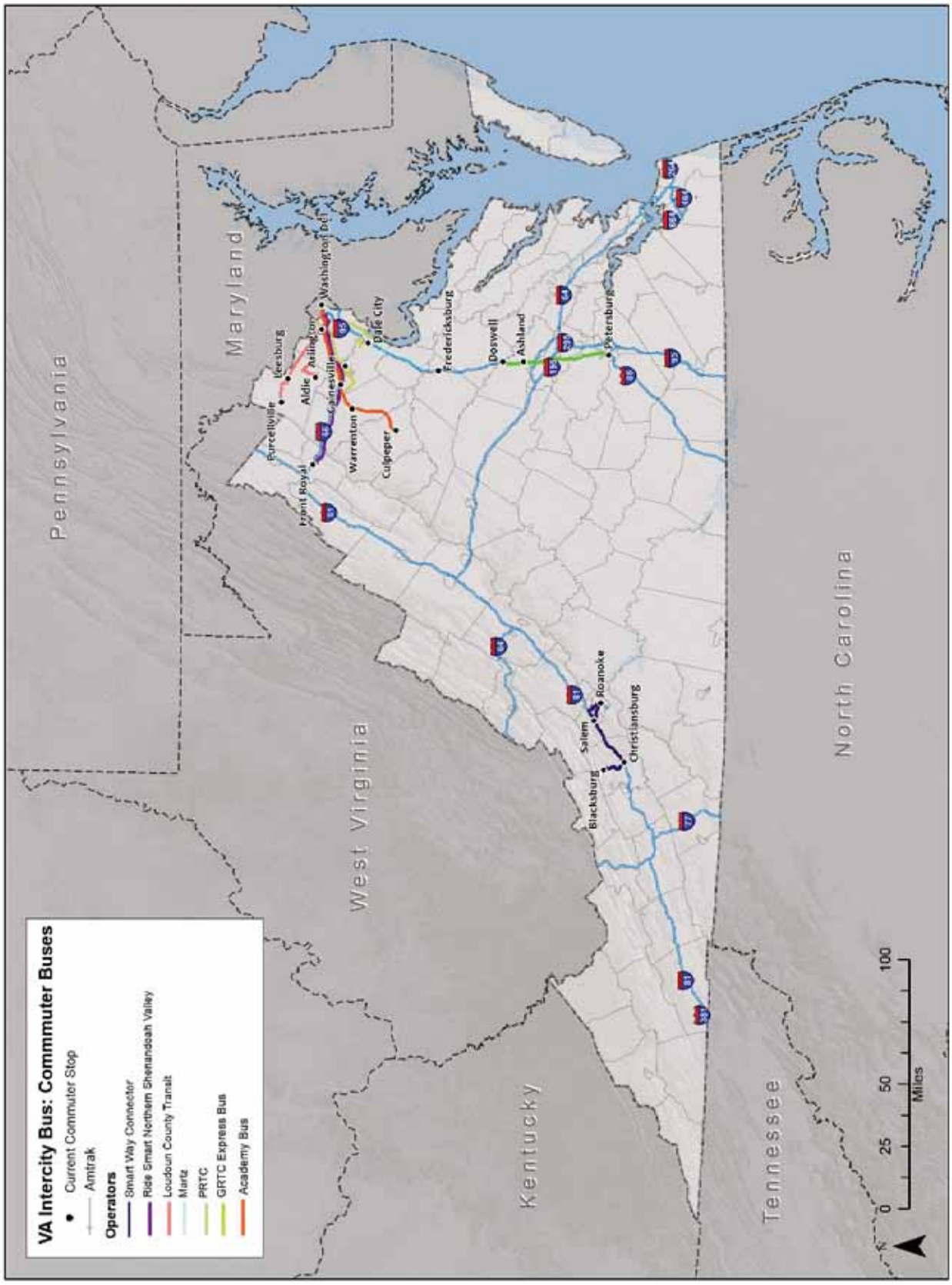
Academy

Academy Bus is also a private for-profit firm that provides commuter bus service in the US 29/I-66 corridor from the Culpeper Sports Complex to Crystal City in Arlington, with stops at the Warrenton commuter lot, downtown Washington, D.C.and the Rosslyn Metrorail station. One daily round-trip is operated, and riders purchase a 20-punch ticket for $200 or a $300 monthly pass.

Loudoun Commuter Bus

Loudoun County operates a number of transit routes, including five commuter bus routes from different destinations in the county to downtown Washington, D.C. The longest of these routes is the Purcellville/Harmony/Leesburg service to 9th and H Street, which provides seven morning trips from Purcellville into Washington, D.C., and 19 return trips from various points. Other commuter schedules operate from Ashburn, Dulles North and South, Brambleton, Dulles Town Center, East Gate and Loudoun Station. A single one-way ticket from Purcellville to downtown Washington, D.C. is $11.

Figure 2-4: Long-Distance Commuter Bus Lines in Virginia



Front Royal Ride Smart Commuter Bus

The service is a project of the Northern Shenandoah Valley Regional Commission with assistance from the Commonwealth of Virginia, and offers a single daily (weekday) round-trip from the Front Royal Crooked Run park and ride lot to L'Enfant Plaza in Washington, D.C. It includes intermediate stops at the Linden park and ride lot at State Route 647, Pentagon Metrorail Station, and Metro Center in downtown Washington, D.C. A one-way pass is $15, a daily pass is $25 and a monthly pass is $440.

Smart Way

The Smart Way bus is a regional service operated by Valley Metro of Roanoke connecting downtown Roanoke and Virginia Tech in Blacksburg. It includes intermediate stops at the Hotel Roanoke, the Roanoke Regional Airport, two park and ride lots (exits 140 and 118A on I-81), the Christiansburg K-Mart, Virginia Tech Corporate Research Center, downtown Blacksburg and Squires Student Center on the Virginia Tech campus. The downtown Roanoke stop is the Campbell Court transit hub, which is also the Greyhound station, and the Virginia Tech and Exit 118 Park and Ride lot stops are served by the Virginia Breeze. There is seven-day per week service, with fifteen daily round-trips on weekdays, twelve on Saturdays, and one on Sunday (the Amtrak connection). A single one-way trip is $4.

Greater Richmond Transit Company (GRTC)

GRTC provides local public transit in the Greater Richmond region that includes two longer-distance bus routes: Route 95X, the Richmond-Petersburg Express, and Route 102X, Richmond to King's Dominion Amusement Park. Route 95X It provides four daily round-trips (two morning trips and two late afternoon evening trips) between the Petersburg Transportation Center (also served by Greyhound) and downtown Richmond. A one-way single trip ticket is $3.50. Route 102X is seasonal, with northbound service consisting of three morning trips and five evening trips, and southbound service of two morning trips and seven afternoon/evening trips.

Amtrak Intercity Rail Passenger and Thruway Bus Service

Rail Passenger Service

Amtrak provides intercity rail passenger service that connects the state's major population centers with the northeast. Figure 2-5 presents a map of these services.

Northeast Regional Service

Trains 171/147/171 and 176/156: Roanoke Service

These services link Roanoke with the Northeast Corridor. Southbound, Train 171 originates in Boston and provides service Monday through Friday. Train 147 originates in Springfield,

Massachusetts and provides service on Saturday, while Train 145 originates in New York as it provides Sunday service. Northbound, Train 176 operates Monday through Friday to Boston, and Train 156 operates to New York City on Saturday and Sunday. Virginia points served by this train include Roanoke, Lynchburg, Charlottesville, Culpeper, Manassas, Burke Centre and Alexandria. There is connecting Amtrak Thruway service provided by the Smart Way bus between Roanoke and Blacksburg.

Trains NB 174/194/96/94/66 and 65/67/95/83: Newport News Service

These Amtrak trains operate to/from Newport News and connect to Boston. Northbound, Train 66 operates daily, Train 174 Monday through Friday, Train 94 Monday through Friday, Train 194 on Saturday, and Train 96 on Sunday. Southbound, Train 95 operates Monday through Friday, Train 65 operates Friday and Saturday, Train 67 operates Sunday through Thursday, and Train 83 operates on Friday. Train 125 operates Monday through Friday, Train 71 on Saturday, and Train 157 on Sunday. These trains serve Virginia at Newport News, Williamsburg, Richmond (Main Street Station and Staples Mill Station), Ashland, Fredericksburg and Quantico. There is connecting Amtrak Thruway bus service to Norfolk and Virginia Beach from Newport News.

Trains NB 84/88/94 and SB 93/95/157/87: Norfolk Service

Train 84 connects Norfolk with New York City, and Trains 88 and 94 operate from Norfolk to Boston. Northbound, Train 84 and Train 94 operate Monday through Friday, and Train 88 on Saturday and Sunday. Southbound, Trains 93 and 95 operate from Boston to Norfolk Monday through Friday, Train 157 from Springfield, Massachusetts to Norfolk on Sundays only, and Train 87 from New York to Norfolk on Saturdays and Sundays, Virginia points served include Norfolk, Petersburg, Richmond (Staples Mill Station), Ashland, Fredericksburg and Quantico.

Trains NB 86/164/82 and SB 195/85: Richmond Service

Northbound Train 86 operates Monday through Friday, Train 164 on Saturday and Sunday, and Train 82 on Saturday. These trains operate between Richmond and Boston. Southbound, Train 85 operates from New York to Richmond Monday through Friday and Train 195 from Boston to Richmond on Saturday and Sunday. On these trains, Virginia stops include Richmond, Ashland, Fredericksburg, Quantico, Woodbridge (on some trips) and Alexandria.

Amtrak Atlantic Coast Rail Passenger Service

Virginia rail passengers can utilize trains on these routes to travel northeast or south of Virginia. Though each train offers stops in Virginia, these routes primarily exist to traverse the state since opportunities for intra-state travel are limited. Services include the trains listed below.

Trains 89 and 90: The Palmetto

These daily trains (Train 89 southbound, Train 90 northbound) link New York City with Savannah, Georgia. Virginia stops include Alexandria, Richmond, and Petersburg.

Trains 91 and 92: The Silver Star

This train provides daily service from New York City to Tampa or Miami, Florida. Train 91 is southbound, and Train 92 is northbound. Virginia stops include Alexandria, Richmond (Staples Mill) and Petersburg.

Trains 97 and 98: The Silver Meteor

This train provides additional service between New York and Florida, serving Tampa and Miami. It provides Virginia service only at Alexandria, Fredericksburg, Richmond (Staples Mill) and Petersburg.

Trains 79 and 80: The Carolinian

Daily service on these trains (Train 79 southbound, Train 80 northbound) between Charlotte, NC and New York City offers Virginia service at Petersburg, Richmond, Fredericksburg, Quantico and Alexandria, as well as Union Station in Washington, D.C.

Trains 52 and 53: Auto Train

Daily service on these trains (Train 53 southbound, Train 52 northbound) between Lorton, Virginia and Sanford, Florida offers passengers the ability to bring a vehicle on commute. There are no other stops on the route.

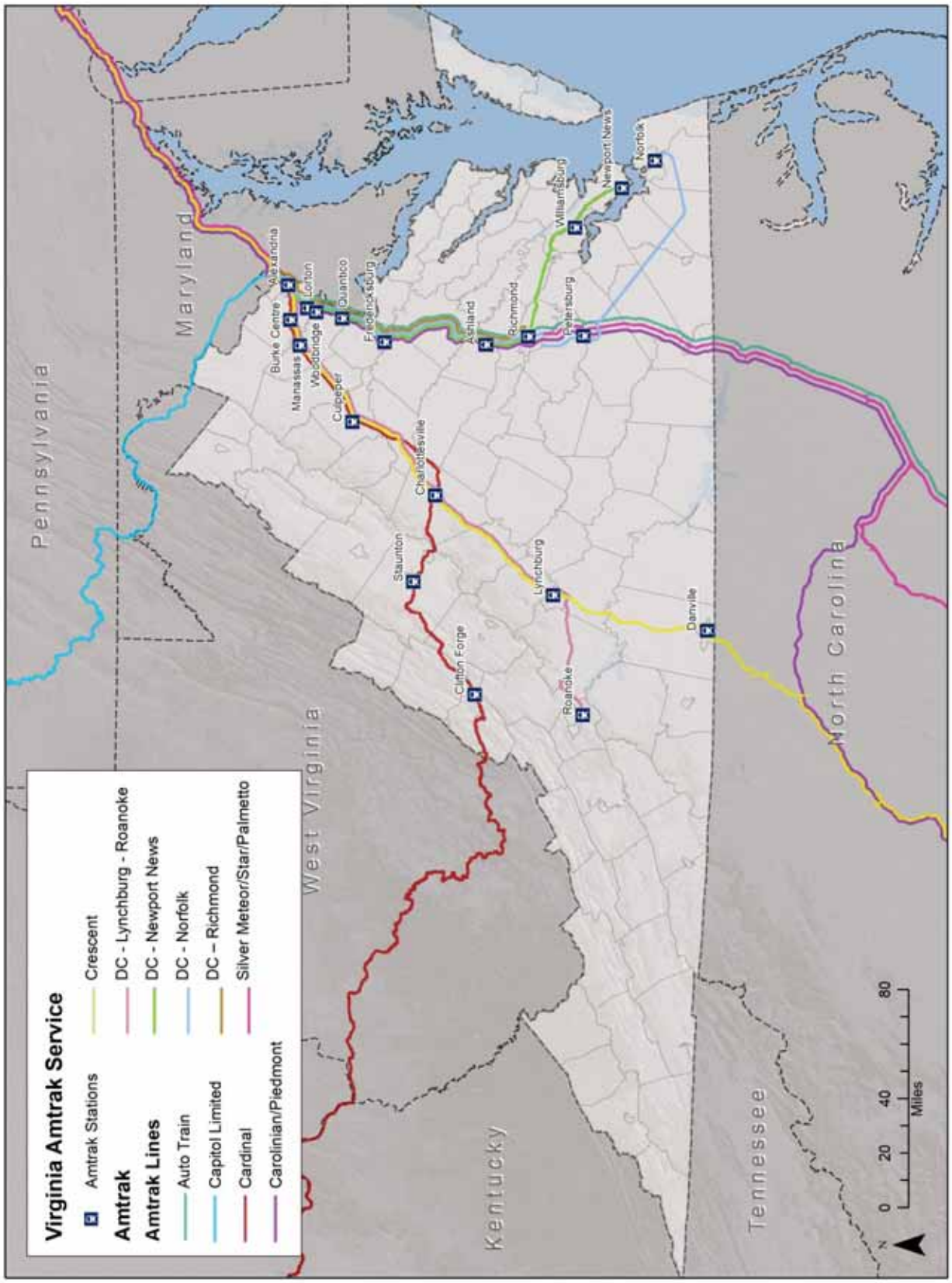
Amtrak Crescent Service

Amtrak's Crescent is a daily train from New York City to New Orleans via Atlanta. Train 19 is southbound, and Train 20 is northbound. Virginia stops include Alexandria, Manassas, Culpeper, Charlottesville, Lynchburg and Danville (the only location served by Amtrak but not by intercity bus). There is Amtrak Thruway bus service between Charlottesville and Richmond connecting to the Crescent in both directions.

Amtrak Cardinal Service

Virginia is also served by Amtrak's Cardinal, which provides service between New York City and Chicago. The service operates westbound leaving New York City on Sunday, Wednesday and Friday, and eastbound arriving in New York on Wednesday, Friday and Sunday. Virginia stops include Alexandria, Manassas, Culpeper, Charlottesville, Staunton and Clifton Forge. A connecting Amtrak Thruway bus at Charlottesville links the train with Richmond.

Figure 2-5: Amtrak Rail Service in Virginia



Amtrak Thruway Bus

To expand the coverage of the intercity rail passenger network, Amtrak contracts with bus carriers to operate connecting intercity bus services. Amtrak Thruway passengers have tickets that include an Amtrak rail segment as part of the trip. Amtrak Thruway services serve the train stations directly to offer an easy connection.

The services are categorized by two types: interline and dedicated. Interline services aid with connecting Amtrak passengers and also serves those of the operating carrier who may not be connecting to rail service on the same ticket. Interline services operate on the schedule of the operating carrier and may not wait for late trains. Dedicated Amtrak Thruway services carry only passengers holding Amtrak tickets, and they wait to make guaranteed connections with the trains. Amtrak Thruway schedules and ticketing for both types of service are included in Amtrak's national reservation and ticketing system. All of the Amtrak Thruway services require an Amtrak ticket with an associated rail travel segment.

Amtrak Thruway Bus: Charlottesville to Richmond

James River Bus Lines operates two daily round-trips between Richmond and Charlottesville. One round-trip operates in the morning, the other in the evening. A second service operates midday on Sunday-Wednesday-Friday westbound, and in the early evening Wednesday-Friday-Sunday eastbound, connecting Richmond with the three-day per week Cardinal rail service between Washington, D.C. and Chicago. All of these Amtrak Thruway services require an Amtrak ticket with an associated rail travel segment.

Amtrak Thruway Bus: Newport News to Norfolk and Virginia Beach

Amtrak Thruway buses connect with all Amtrak services terminating in Newport News, providing service to Norfolk and Virginia Beach. Service generally takes between one hour and twenty-five minutes to one hour and fifty minutes, with varying wait times in Newport News. No local traffic is permitted (i.e. no trips just between Virginia Beach and Norfolk; passengers must continue to Newport News).

Amtrak Thruway Bus: Roanoke to Blacksburg

Connecting bus service between Roanoke and Blacksburg is provided by Smart Way, the commuter bus service between Roanoke and Blacksburg. The first Smart Way trip in the morning enables Blacksburg residents to connect to the northbound train, and the last Smart Way departure of the day from Roanoke provides the return to Blacksburg after the arrival of the late evening southbound train. These schedules are open to the public and are not dedicated Amtrak Thruway services.

CONCLUSIONS

This inventory of intercity bus services presents what appears to be a comprehensive network of services that can be used to make intercity trips across the Commonwealth and elsewhere. However, much of this service is focused on the major population centers in the north-south corridor between Richmond or Norfolk/Hampton Roads and Washington, D.C. or New York City. There are limited east-west connections across the state operated by Greyhound and Amtrak; they primarily link the western side of the state with Washington, D.C. and the northeast, rather than Richmond and the Tidewater. The same pattern is true of Amtrak rail passenger services.

The Virginia Breeze route connects the I-81 corridor smaller cities and rural areas to the Washington, D.C. It is not interlined with Greyhound or Amtrak.

There are a number of other long-distance regional commuter bus services that can be used to reach the intercity bus and rail networks, but their role as intercity connectors is not clearly defined because they do not consistently connect at the same stations and interline ticketing is not available. Information about potential intercity connectivity is only available if the carriers have supplied General Transit Feed Specification (GTFS) allowing Google Transit and similar services to supply trip planning information. Greyhound, Megabus, Amtrak and Virginia Breeze provide GTFS data, though not all of Virginia's public transit systems do. Figure 2-6 identifies locations that have lost service.

The primary service losses since the last *Virginia Statewide Intercity Bus Study* include the loss of Greyhound service to Danville, South Boston and Farmville on the route connecting Atlanta and Charlotte with Richmond. The remaining trips on this schedule utilize I-85 and have a single stop in each direction at Petersburg and South Hill. Greyhound also has dropped service to Suffolk.

The other major service change is the discontinuance of Megabus service between Washington, D.C. and Atlanta, with its single Virginia stop in Christiansburg. While the Virginia Breeze service continues to link Christiansburg with Washington, D.C., the loss of Megabus service has eliminated access from Christiansburg and Blacksburg to southwest Virginia. Greyhound service to Wytheville and Bristol is available, and offers a potential connection to Roanoke through Smart Way.

The major service improvements include the Virginia Breeze service between Blacksburg and northern Virginia/Washington, D.C., and a new daily round-trip between Charlottesville and Washington, D.C. on Megabus.

Given that the combination of private unsubsidized service, Virginia Breeze service, other long-distance transit and Amtrak could potentially be thought of as a statewide network, one potential benchmark for evaluating the coverage is the degree to which it provides service on

the state's designated Corridors of Statewide Significance (CoSS)[3]. These are corridors designated by the Commonwealth Transportation Board (CTB) under state law as the basis for studies and planning of future transportation improvements.

Figure 2-7 presents a map of the CoSS with areas that do not have intercity bus service shown as dashed lines. In comparison to the CoSS, the major gaps in the intercity bus network are generally the east-west corridors, and in southwest Virginia:

- U.S. 17
- US 460
- US 58

The US 29 corridor has limited intercity bus service on particular segments while the US 220 corridor in western Virginia has no intercity service. This is not to imply that all of the CoSS should have intercity bus or rail service, as there may not be sufficient demand or need, depending on the populations served, the linkage and distance to major activity centers, and the connectivity provided. However, the dashed lines suggest some initial gaps for consideration as the commonwealth expands the Virginia Breeze network of supported services.

Chapter 3 will combine data on population, density, demographics, and key potential intercity destinations with this network to assess the coverage provided by these routes.

[3] Office of Intermodal Planning and Investment, Virginia Department of Transportation, Vtrans2040, www.vtrans.org/significant-corridors.asp#what .

Figure 2-6: Places Losing Intercity Bus Service since the 2013 Study

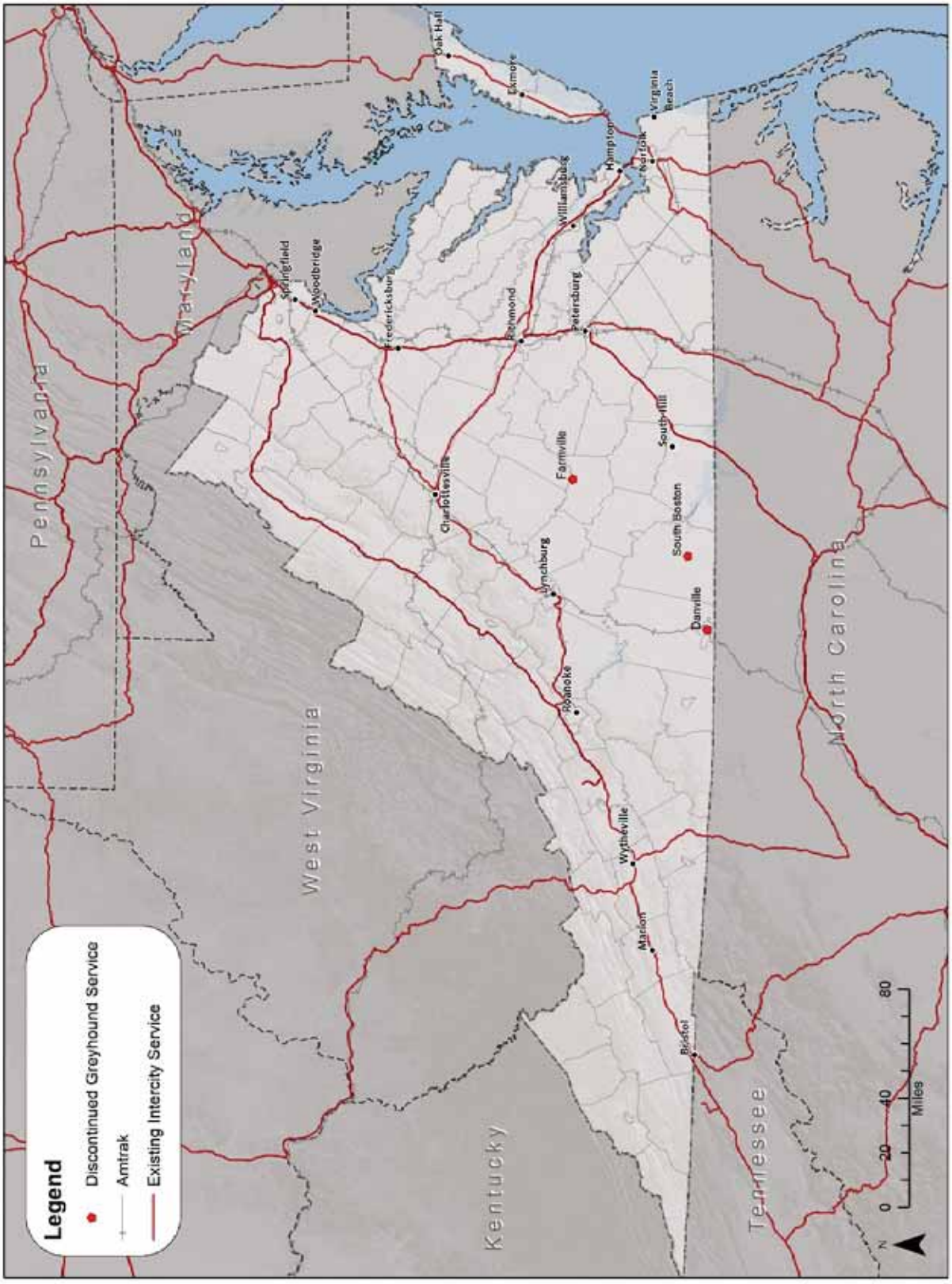
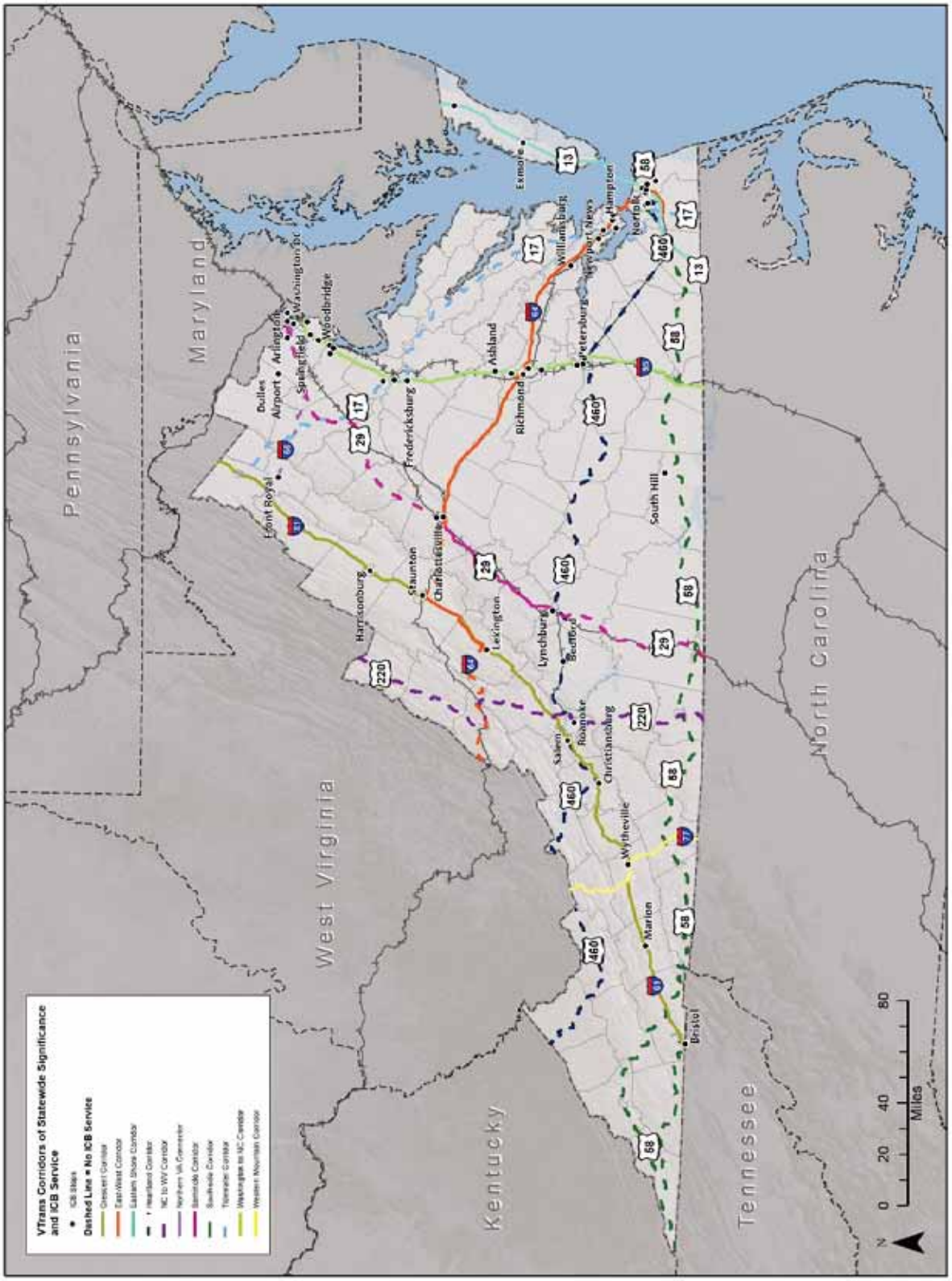


Figure 2-7: Corridors of Statewide Significance (CoSS) and the Intercity Network



Chapter 3:
Needs Assessment

INTRODUCTION

This chapter examines the extent to which Virginia's intercity bus network meets potential needs for intercity connections. It determines areas of high relative need based on the density and percentage of potentially transit-dependent populations. It also identifies places that are likely to be intercity bus destinations, including commercial airports, correctional facilities, educational institutions, medical centers, military installations, and tribal lands. By overlaying the existing bus network with potential origin areas of high need and potential destinations, the analysis reveals key intercity connections and gaps. This assessment shows that much of the current network is responsive to the needs identified within this chapter.

DEMOGRAPHIC ANALYSIS

The need for any type of public transportation is largely based upon an area's population density, relative age, and economic characteristics. Potential transit-dependent populations may require bus service to meet mobility needs due to characteristics such as age, income, or vehicle availability. Using data from the 2010 Census and the 2012-2016 American Community Survey (ACS) 5-year estimates, the following population segments were selected for analysis:

- **Young adults (persons ages 18 to 24)**: This group consists of college students, enlisted military personnel, and other young adults who may not have access to a personal vehicle. Prior research indicates that this age group encompasses the majority of intercity bus ridership.

- **Older adults (persons ages 65 and older):** As individuals age, they may lose the desire to drive or face diminishing driving skills. This cohort may also have heightened medical needs requiring unique services that may only be available in regional centers.

- **Persons living at or below the poverty line**: Individuals who may be unable to own or maintain a personal vehicle due to financial constraints are much more likely to use public transportation for regional and long-distance trips.

- **Autoless households**: Whether it is a matter of choice or a monetary decision, persons without access to a vehicle must rely on alternative transportation methods.

These population segments were chosen in response to national research regarding passenger

characteristics of typical intercity bus riders. This analysis focuses mainly on the likely ridership for intercity bus services, including persons who are also likely to need local public transit. It does not fully address potential markets of "choice" riders – those who have a vehicle available or means to travel by another method.

METHODOLOGY

For the demographic analysis, Census data was gathered at the block group level for each of four needs categories (young adults, older adults, persons living below the poverty level and autoless households). The four categories were combined into aggregate measures of need including density and percentage.

Although transportation services are typically prioritized in areas with greater population densities, the percentage of transit-dependent populations is also significant. Substantial percentages of transit dependent populations indicate a high proportion of people who may need transit, though spread out over large and primarily rural areas.

The scale used for the demographic analysis ranges from "low" to "very high," reflecting demographic characteristics in relation to the statewide average. See Table 3-1 for an explanation of the indexed values.

Table 3-1: Demographic Measurement Scale

Index Category	Value Relative to State Average (SA)
Low	Less than 1x SA
Elevated	Between 1x and 1.33x SA
Moderate	Between 1.33x and 1.67x SA
High	Between 1.67x SA and 2x SA
Very High	2x SA or more

ANALYSIS

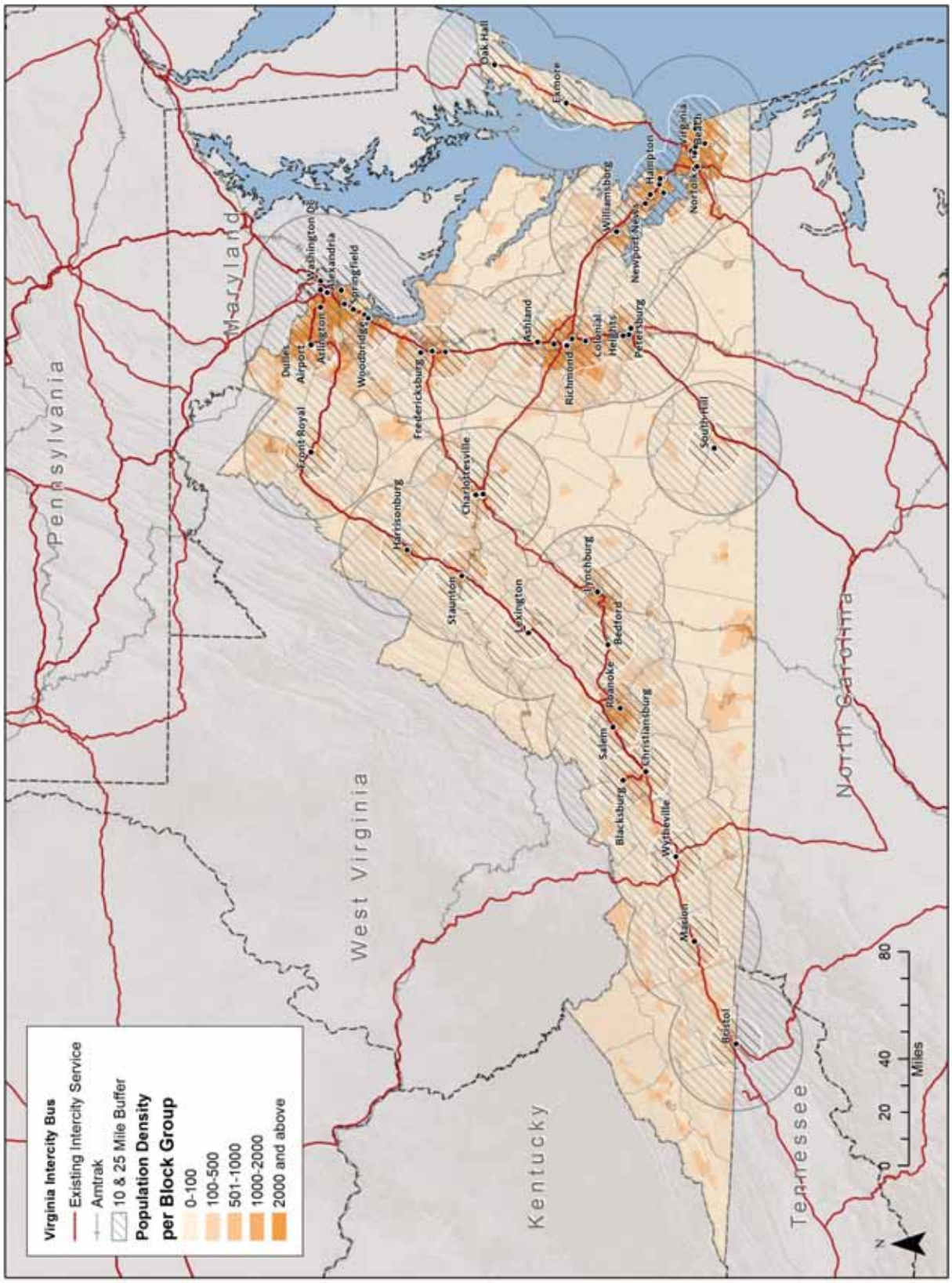
It is important to recognize that identifying areas of high relative transit need is not the same as forecasting ridership. Mapping the density and percentage of transit dependent persons can highlight potential demand. However, rural areas especially may not have the density to support unsubsidized intercity bus service. Such areas may be candidates for rural feeder services, particularly as part of local transit services.

Population Density

Approximately 8.5 million people live in the Commonwealth of Virginia, according to the most recent Census projections. If the population was evenly distributed across the entire state, the density would be about two-hundred persons per square mile. Virginia's population is quite *un*-evenly distributed, with dense urban clusters, such as northern Virginia, greater Richmond and the Tidewater region; and sparsely populated rural and wilderness areas. When calculated by Census Block Group, population densities in Virginia range from less than ten persons per square mile in Southampton, Nottoway, Augusta, Accomack, Amherst, Rockingham, Bath, Dickerson, Grayson, Highland, Sussex and Northampton counties, to over 50,000 persons per square mile in Arlington, Fairfax and Montgomery counties, as well as the City of Alexandria. The presence of large urban clusters in Virginia means that a majority of the state's residents live within the service area of an intercity bus stop. Approximately 70.8% of Virginians live within ten miles of an intercity bus stop, and 91.4% live within 25 miles of a stop or station.

As can be seen in Figure 3-1, the two higher density locations that are outside the 25-mile radius of existing stops are Danville and Martinsville. There are also smaller areas of moderate density in South Boston, Farmville, and Suffolk.

Figure 3-1: Virginia Population Density and Proximity to Intercity Bus Network



Autoless Households

The rate of autoless households compared to the state average for each block group is shown in Figure 3-2. Of the areas in Virginia with very high levels of autoless, or no-vehicle households, there are three that are more than 25 miles from the intercity transit network:

- Several block groups near the Kentucky border, including Big Stone Gap and Norton.
- Block groups in Southern Virginia within the cities of Danville and Emporia, as well as the counties of Charlotte, Greensville, Halifax, Pittsylvania and Southampton.
- Block groups in Highland and Bath County at the West Virginia border.

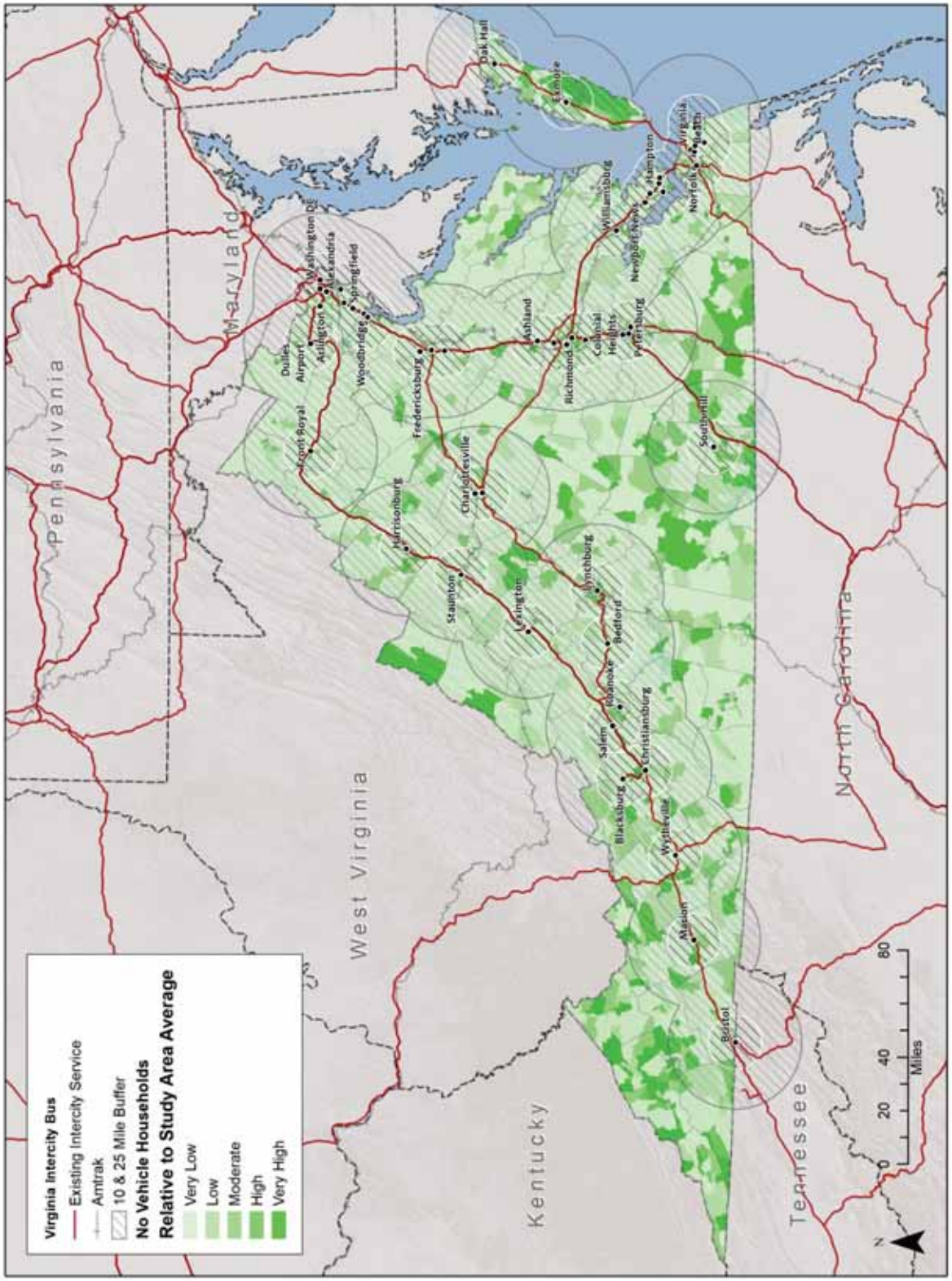
The following areas show very high levels of autoless households and are between 10 and 25 miles from the intercity transit network:

- Southern Accomack County
- Parts of Brunswick County and Mecklenburg County
- East of Lexington in Nelson County
- Northwestern Smyth County
- Several block groups in Tazewell County

Additionally, there are some block groups with elevated levels of autoless households that are more than 25 miles from the intercity transit network. These areas include block groups:

- Along the Kentucky border in southwestern Virginia
- In Richmond County near the Rappahannock River
- In central Virginia within the Counties of Buckingham and Cumberland.

Figure 3-2: Concentrations of Autoless Households in Virginia, and Proximity to Intercity Bus Network



TRANSIT DEPENDENCE INDEX BASED ON POPULATION DENSITY (TDID)

The Transit Dependent Index shows the population of a given area (relative to the larger study area) that relies on public transit for their needs (Figure 3-3). Given the low population density of much of Virginia outside of metro areas, most of the state's area is classified as "low" need. There are select pockets of high transit need that are not within the 25-mile intercity bus service area, and each is located in the Southside region. These areas include:

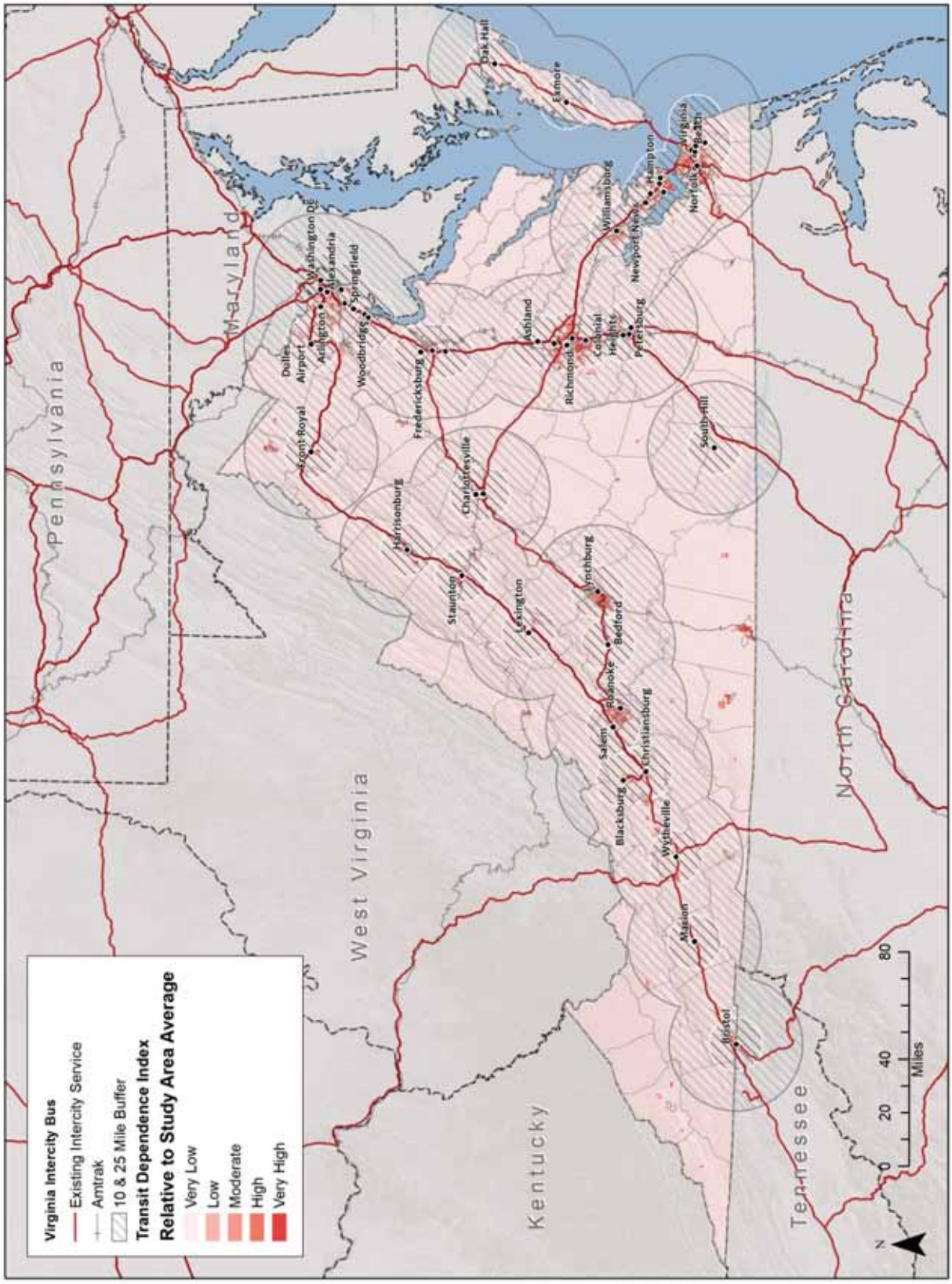
- Danville
- Martinsville
- Halifax County

It is noted that these three areas of very high transit dependence are all located in the Southside region.

The following areas show a higher level of transit need and are located within 10 to 25 miles of an intercity bus stop:

- City of Winchester
- Block groups in Chesterfield County
- City of Manassas

Figure 3-3: Transit Dependence and Proximity to Intercity Bus Network



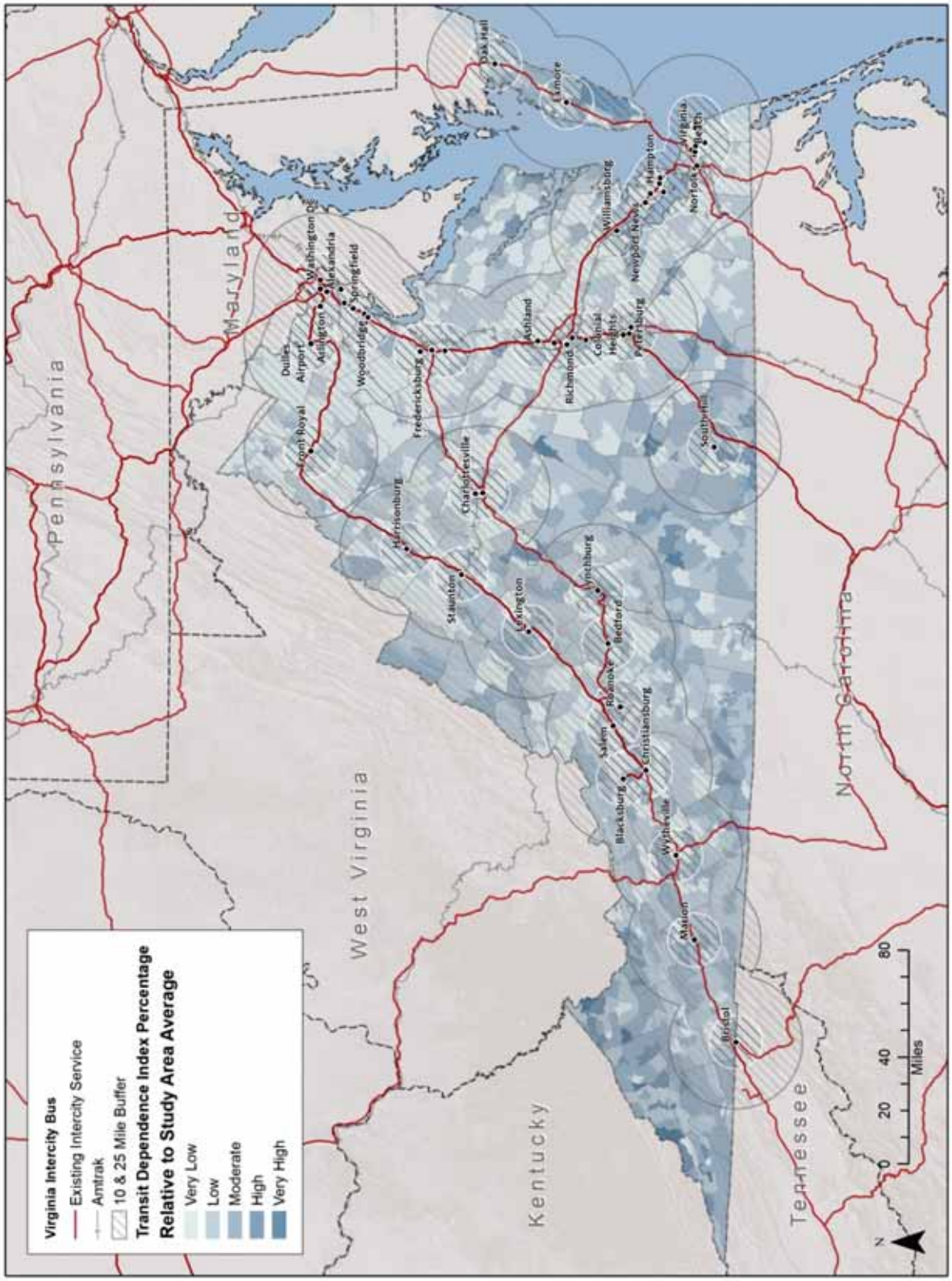
TRANSIT DEPENDENCE INDEX ON A PERCENTAGE BASIS (TDIP)

The Transit Dependence Index may be calculated proportionately to show the degree of transit need in a given area based on the percentage of the population with higher transit needs, without consideration of population density. There are four primary areas with a very high degree of transit need that are more than 25 miles from the intercity transit network (Figure 3-4). These areas include:

- Northern Cumberland County
- Northern Halifax County
- Western Wise County
- The block group containing Hurley in northeastern Buchanan County

These block groups have more than twice the average degree of transit need. In terms of absolute transit need, these block groups have less than the statewide average, due to their low population densities. While relatively few people live in these block groups, those who are there are more likely to be transit dependent.

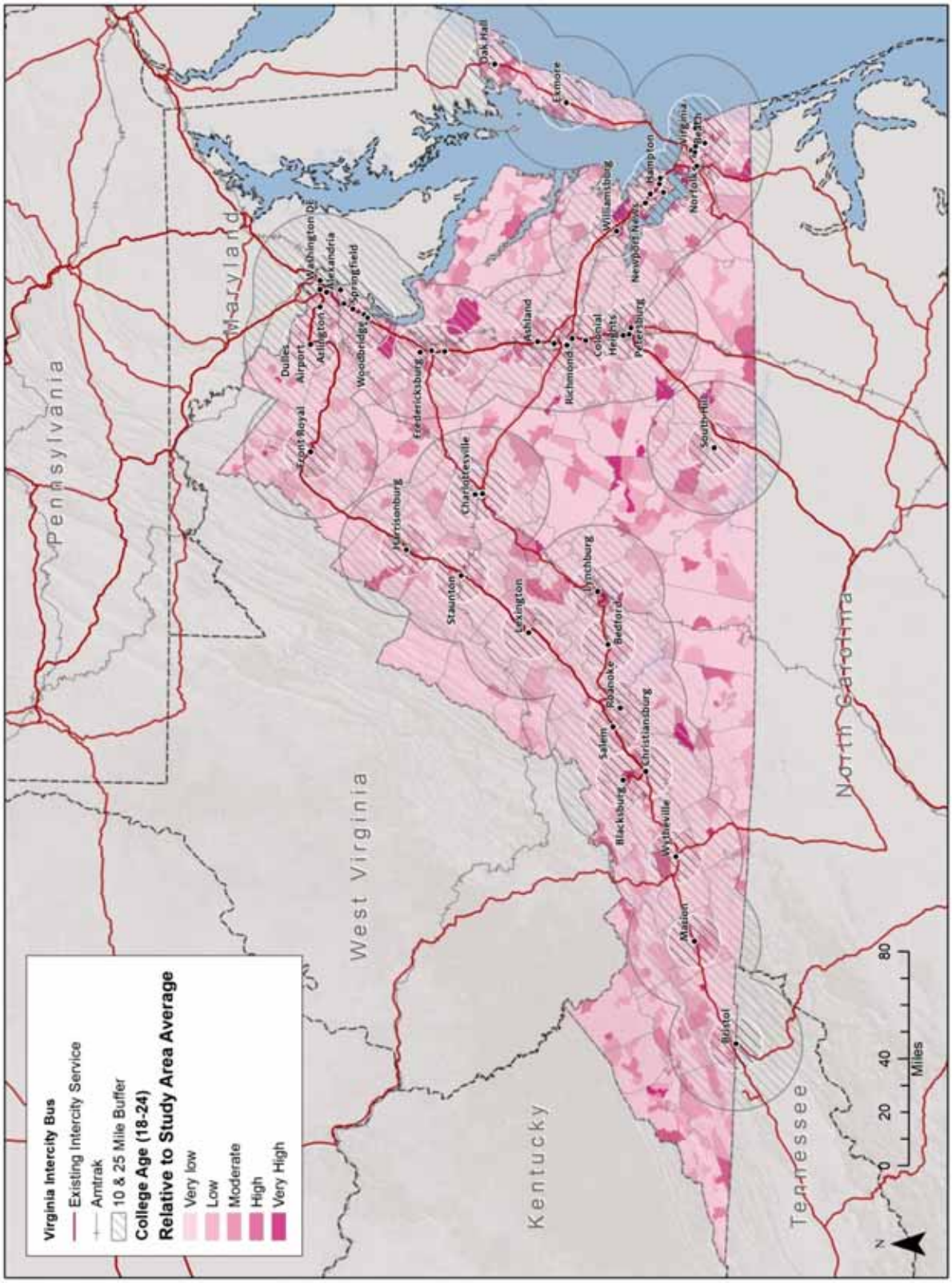
Figure 3-4: Transit Dependent Percentage of Population and Proximity to Intercity Bus Network



YOUNG ADULT POPULATION

There are three areas in Virginia that are at least 25 miles from the nearest intercity transit stop and have more the twice the statewide average young adult (ages 18 to 24) population (Figure 3-5). Many of these block groups are located on or near a college campus. One block group is located in Wise County, where the University of Virginia's College at Wise is located. There are two block groups in northern Prince Edward County with more than double the state average age of 18 to 24-. These block groups are both near Hampden-Sydney College. The other area with a very high population is a block group in western Nottoway County that contains the town of Burkeville.

Figure 3-5: Young Adult Population Clusters and Proximity to Intercity Bus Network



DESTINATIONS AND FACILITIES

The analysis of demographic data addressed the potential origin areas for intercity trips. Another consideration is whether or not the current routes serve potential destinations of intercity bus ridership. These include colleges and universities, military bases, major medical centers, correctional facilities, and commercial airports. These destinations are mapped in Figure 3-6.

Nearly all identified intercity trip generators in Virginia are located within 25 miles of an intercity transit station or stop. There are some exceptions. The following intercity trip generators are more than 25 miles from the nearest intercity transit stop.

Four-year Colleges and Universities

There are nine colleges and universities that are located outside of the 25-mile buffer (see Table 3-2). Some of the schools included in this analysis are from out-of-state, but are regionally important to parts of Virginia. There are five colleges that are between 10 and 25 miles from the intercity network (Table 3-3).

Table 3-2: Regional Colleges and Universities over 25 Miles from Intercity Network

Name	On Campus Enrollment	State	Type
Averett University	929	VA	Private Non-Profit
Bluefield College	1041	VA	Private Non-Profit
Bluefield State College	1362	WV	Public Four Year
Concord University	2451	WV	Public Four Year
Hampden-Sydney College	1046	VA	Private Non-Profit
Lincoln Memorial University	4254	TN	Public Four Year
Longwood University	5074	VA	Public Four Year
Pikeville College	2365	KY	Private Non-Profit
University of Virginia's College at Wise	2095	VA	Public Four Year

Table 3-3: Regional Colleges and Universities between 10 and 25 Miles from Intercity Network

Name	On Campus Enrollment	State	Type
East Tennessee State University	14128	TN	Public Four Year
Emory and Henry College	1228	VA	Private Non-Profit
Ferrum College	1130	VA	Private Non-Profit
Radford University	9418	VA	Private Non-Profit
Shenandoah University	3844	VA	Private Non-Profit

State Correctional Facilities

There are 18 state prisons outside of the 25-mile buffer (Table 3-4). There are an additional 17 prisons that are between 10 and 25 miles from the intercity network (Table 3-5).

Table 3-4: State Correctional Facilities over 25 Miles from Intercity Network

Name	Address	City	State	Zip
Deerfield Correctional Center	21360 Deerfield Dr	Capron	VA	23829
Dillwyn Correctional Center	1522 Prison Rd	Dillwyn	VA	23936
Green Rock Correctional Center	475 Green Rock Lane	Chatham	VA	24531
Greensville Correctional Center	901 Corrections Way	Jarratt	VA	23870
Haynesville Correctional Center	421 Barnfield Rd	Haynesville	VA	22472
Keen Mountain Correctional Center	State Route 629	Oakwood	VA	24631
Patrick Henry Correctional Unit #28	18155 A L Philpott Hwy	Ridgeway	VA	24148
Nottoway Correctional Center	2892 Schutt Rd	Burkeville	VA	23922
Pocahontas State Correctional Center	317 Old Mountain Road	Pocahontas	VA	24635
Red Onion State Prison	10800 H Jack Rose Hwy	Pound	VA	24279
River North Correctional Center	329 Dell Brook Lane	Independence	VA	24348
Wallens Ridge State Prison	272 Dogwood Dr	Big Stone Gap	VA	24219
Appalachian Detention And Diversion Center	924 Clifton Farm Road	Honaker	VA	24260
Buckingham Correctional Center	1349 Correctional Center Road	Dillwyn	VA	23936
Coffeewood Correctional Center	12352 Coffeewood Dr	Mitchells	VA	22729
Deerfield Work Center For Women	15080 Old Belfield Rd	Capron	VA	23829
Halifax Correctional Unit #23	1200 Farm Rd	Halifax	VA	24558
Wise Correctional Unit	3602 Bear Lane	Coeburn	VA	24230

Table 3-5: State Correctional Facilities between 10 and 25 Miles from Intercity Network

Name	Address	City	State	Zip
Augusta Correctional Center	1821 Estaline Valley Road	Craigsville	VA	24430
Bland Correctional Center	256 Bland Farm Rad	Bland	VA	24315
Brunswick Work Center	1147 Planters Road	Lawrenceville	VA	23868
Cold Springs Correctional Unit #10	221 Spitler Circle	Greenville	VA	24440
Cold Springs Detention and Diversion Center	192 Spitler Circle	Greenville	VA	24440
Deep Meadow Correctional Center	3500 Woods Way	State Farm	VA	23160
Fluvanna Correctional Center for Women	144 Prison Lane	Troy	VA	22974
Indian Creek Correctional Center	801 Sanderson Road	Chesapeake	VA	23328
James River Work Center	1954 State Farm Road	State Farm	VA	23160
Lawrenceville Correctional Center	1607 Planters Road	Lawrenceville	VA	23868
Lunenburg Correctional Center	690 Falls Road	Victoria	VA	23974
Powhatan Reception Center	3600 Woods Way	State Farm	VA	23160
Rustburg Correctional Unit #9	479 Camp Nine Road	Rustburg	VA	24588
St. Brides Correctional Center	701 Sanderson Road	Chesapeake	VA	23328
Sussex I State Prison	24414 Musselwhite Drive	Waverly	VA	23891
Sussex II State Prison	24427 Musselwhite Drive	Waverly	VA	23891
Virginia Correctional Center for Women	2841 River Rd	Goochland	VA	23063

Major Medical Centers

There are seven major medical centers outside of the 25-mile intercity service area (presented in Table 3-6). There are ten hospitals located between 10 and 25 miles from the intercity network (Table 3-7). Only hospitals with more than 100 beds were included in this study.

Table 3-6: Major Medical Centers over 25 Miles from Intercity Network

Facility Name	Address	City	State	Zip
Buchanan General Hospital	1535 Slate Creek Road	Grundy	VA	24614
Centra Southside Community Hospital	800 Oak Street	Farmville	VA	23901
Danville Regional Medical Center	142 South Main Street	Danville	VA	24541
Memorial Hospital of Martinsville and Henry County	320 Hospital Drive	Martinsville	VA	24112
Norton Community Hospital	100 Fifteenth Street, NW	Norton	VA	24273
Sentara Halifax Regional Hospital	2204 Wilborn Avenue	South Boston	VA	24592
Southampton Memorial Hospital	100 Fairview Drive	Franklin	VA	23851

Table 3-7: Major Medical Centers between 10 and 25 Miles from Intercity Network

Facility Name	Address	City	State	Zip
Bon Secours St. Francis Medical Center	13700 St. Francis Boulevard	Midlothian	VA	23114
Carilion Tazewell Community Hospital	141 Ben Bolt Avenue	Tazewell	VA	24651
Clinch Valley Medical Center	6801 Gov. G.C. Peery Highway	Richlands	VA	24641
Johnston Memorial Hospital	16000 Johnston Memorial Drive	Abingdon	VA	24211
LewisGale Hospital - Alleghany	1 Arh Lane	Low Moor	VA	24457
LewisGale Hospital Pulaski	2400 Lee Highway	Pulaski	VA	24301
Novant Health Prince William Medical Center	8700 Sudley Road	Manassas	VA	20110
Sentara Obici Hospital	2800 Godwin Boulevard	Suffolk	VA	23434
Twin County Regional Hospital	200 Hospital Drive	Galax	VA	24333
Valley Health Winchester Medical Center	1840 Amherst Street	Winchester	VA	22601

Commercial Airports

There are no commercial airports outside of the 25-mile buffer. There are three regional airports located between 10 and 25 miles from the intercity network:

- Manassas Regional Airport
- Hampton Roads Airport
- Shenandoah Valley Regional Airport

Tribal Lands

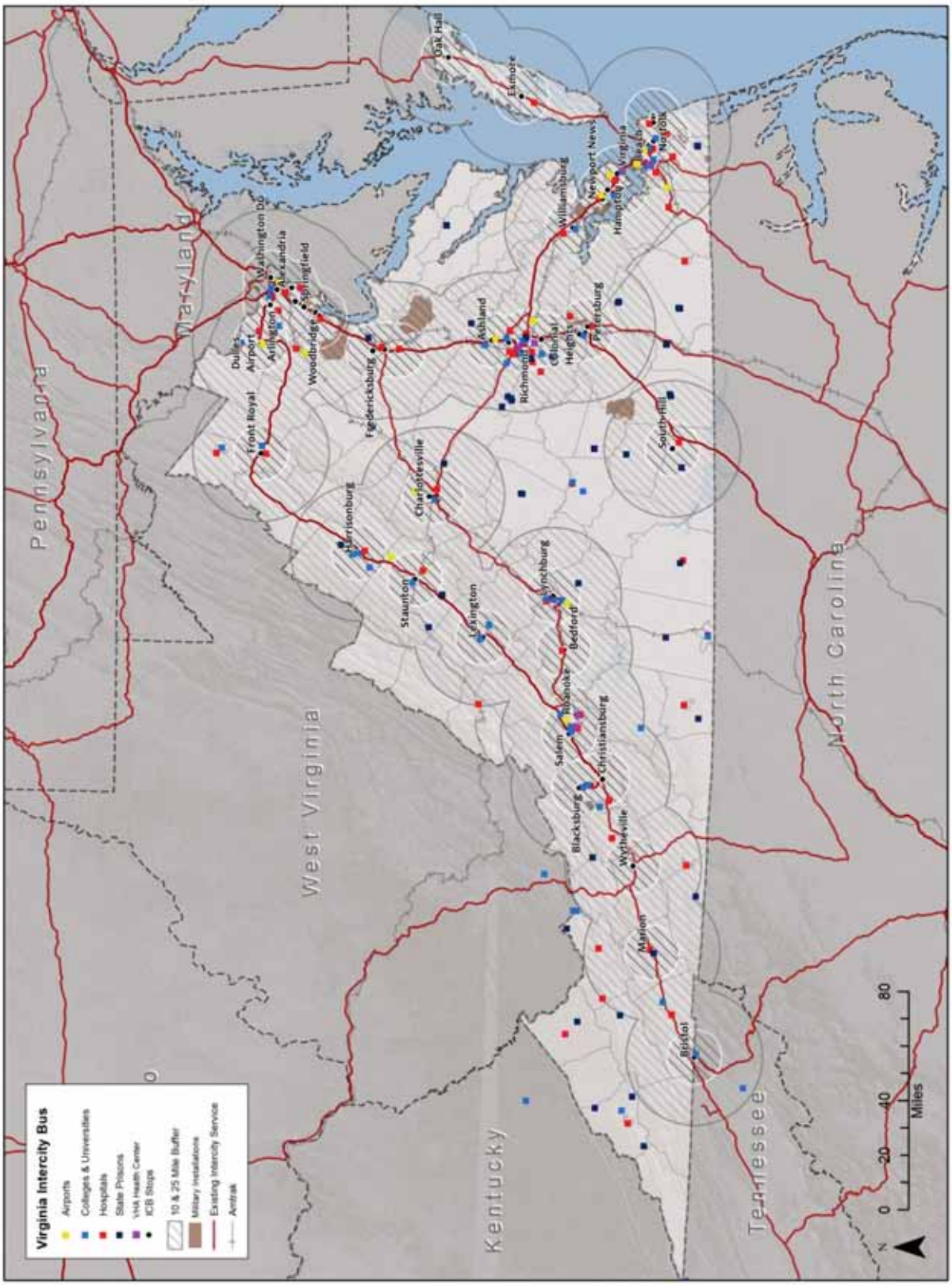
There are no federally administered Tribal Lands in Virginia.

Military Installations

There are no military installations outside of the 25-mile buffer. There are five installations between 10 and 25 miles from the intercity network:

- Fort Pickett
- Midway Research Center
- NSA Norfolk Northwest Chesapeake
- NSA South Potomac
- NSA South Potomac Pumpkins Neck

Figure 3-6: Virginia Intercity Trip Generators and Proximity to Intercity Bus Network



SUMMARY

The current intercity network (broadly defined to include some long-distance commuter transit routes) provides a high degree of coverage to Virginia's population. Approximately 70.8% of Virginia's residents live within 10 miles of an intercity bus stop or station, and 91.4% live within 25 miles. An analysis of transit dependent populations demonstrated that Virginia's Southside had the highest transit dependence when population density was included as a factor. Greyhound previously stopped in this region at Danville, but service was recently discontinued.

This suggests that there are not large areas completely lacking in service, and that considerations of expansion may need to focus on the 20% of the population living in the band between 10 and 25 miles. In many cases these areas are served by existing public transit service. If local transit were to connect to intercity stops, this population could potentially gain access to the intercity network without having to develop new intercity services. These connections may already exist to some extent, but the information that would allow a potential rider to use them as part of a connecting network may not exist.

Another consideration is that the analysis of coverage does not really address the possible need for new linkages that could cut travel times between places that are already served—ideally any proposals for new services would accomplish both improved connectivity and address gaps in coverage. This issue will be addressed in a subsequent chapter.

Chapter 4
Evaluation of Virginia Breeze Services

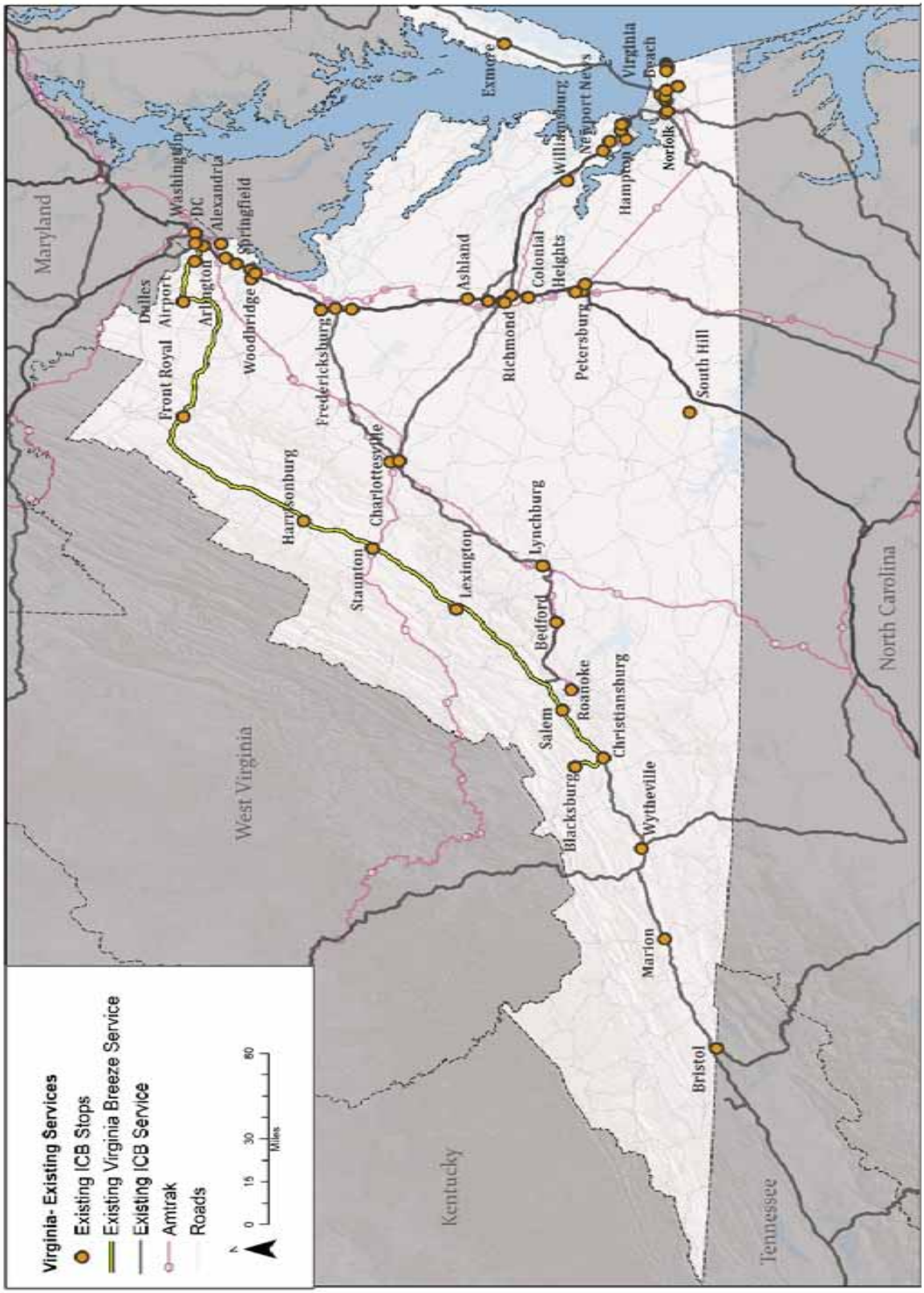
INTRODUCTION

The purpose of this chapter is to evaluate the current Virginia Breeze route for coverage, schedule, performance, ridership, user and trip characteristics, and customer satisfaction. Geographic Information Systems (GIS) software is used to combine population data and the existing network with and without Virginia Breeze service to evaluate the coverage impact of the funded route. Costs and revenue for the route are summarized and then used to calculate key performance indicators. The route is evaluated for actual and potential ridership, previously estimated by the Transit Cooperative Research Program (TCRP) Report 147 rural intercity demand model. This is discussed in terms of the performance measures proposed in the RFP for the service and their potential application to future routes.

ROUTE AND SCHEDULE

Figure 4-1 depicts the route developed for the Virginia Breeze service. It was designed to link two major universities (Virginia Tech and James Madison University) with a major urban area and international airport (Northern Virginia/Washington, D.C. and Dulles International Airport respectively). It serves the small urban and non-urbanized areas along the way. Unsubsidized private carriers have been able to maintain services between major cities, but the I-81 corridor north of Roanoke was included in that service. The Virginia Breeze was designed to provide its expansion of coverage in that region. Greyhound previously operated service in this corridor, including the stop at Dulles, but discontinued the service in 2005.

Figure 4-1: Virginia Breeze Route and Existing Intercity Service



This route was the highest priority of the 2013 *Virginia Statewide Intercity Bus Study* as it seemed most likely to be successful in terms of potential ridership. The original concept in the plan included a stop in Roanoke, but the Virginia Department of Rail and Public Transportation (DRPT) and the chosen contractor determined that the deviation from I-81 would add travel time and decrease potential ridership more than it stood to gain.

The route is long enough (six- to six-and-half hours) that it requires two buses to offer convenient schedules. The timetables are presented in Figure 4-2. Ridership on Friday evenings (northbound) and Sunday (southbound) was high enough that it began to require a second schedule, and that is now a regularly scheduled addition to the timetable. The basic daily schedules work well - the northbound morning departure arrived at Dulles by 1:30 p.m., allowing riders to catch afternoon flight departures. Connections at Union Station in Washington, D.C. allow for evening arrivals in New York City. The southbound trip stops at the airport at 10:35 a.m., allowing for those arriving on early-morning flights to catch the bus. Those connecting from other intercity buses will have left their origins the night before or very early in the morning.

With a six- to six-and-a-half-hour travel time, the distance is too great to set schedules that would allow a full day in Washington, D.C. with a same day return. Within the more marketable 7 a.m. to 11 p.m. window, a bus from Blacksburg would arrive around 1:30 p.m. and have to leave by 4:30 p.m., providing only three hours at the destination.

Figure 4-2: Current Virginia Breeze Timetables

NORTHBOUND SCHEDULE

City	Stop	Morning Departure Time	Afternoon Departure Time (FRIDAY ONLY)
Blacksburg	Virginia Tech, Squires Student Center	8:00 a.m.	2:00 p.m.
Christiansburg	Falling Branch Park & Ride	8:25 a.m.	2:25 p.m.
Lexington	Stonewall Square, Food Lion	9:45 a.m.	3:45 p.m.
Staunton	Martins parking lot	10:30 a.m.	4:30 p.m.
Harrisonburg	JMU, Godwin Transit Center	11:15 a.m.	5:15 p.m.
Front Royal	Crooked Run VDOT Park & Ride	12:25 p.m.	6:25 p.m.
Dulles Airport	Curb 2A	1:30 p.m.	7:30 p.m.
Arlington	West Falls Church	2:05 p.m.	8:05 p.m.
Washington, D.C.	Union Station - Bus Deck	2:30 p.m.	8:30 p.m.

SOUTHBOUND SCHEDULE

City	Stop	Morning Departure Time	Afternoon Departure Time SUNDAY ONLY
Washington, D.C.	Union Station - Bus Deck	9:20 a.m.	5:00 p.m.
Arlington	West Falls Church	10:00 a.m.	5:40 p.m.
Dulles Airport	Curb 2A	10:35 a.m.	6:15 p.m.
Front Royal	Crooked Run VDOT Park & Ride	11:40 a.m.	7:20 p.m.
Harrisonburg	JMU, Godwin Transit Center	12:40 p.m.	8:20 p.m.
Staunton	Martins parking lot	1:20 p.m.	9:00 p.m.
Lexington	Stonewall Square, Food Lion	2:00 p.m.	9:40 p.m.
Christiansburg	Falling Branch Park & Ride	3:15 p.m.	10:55 p.m.
Blacksburg	Virginia Tech, Squires Student Center	3:30 p.m.	11:10 p.m.

Virginia Breeze intermodal connections can be made in Blacksburg, at Dulles International Airport, the West Falls Church Metrorail station, and at Union Station in downtown Washington, D.C.

The in-kind miles used to provide the match for the Section 5311(f) operating assistance are provided by Megabus routes going to New York City and Philadelphia. Single through tickets are available on these combined routes. Connections to Amtrak, Greyhound, Peter Pan and other intercity carriers are also available at Union Station, as is Metrorail and commuter rail service provided by the Virginia Railway Express (VRE) and Maryland MARC services.

Network Coverage

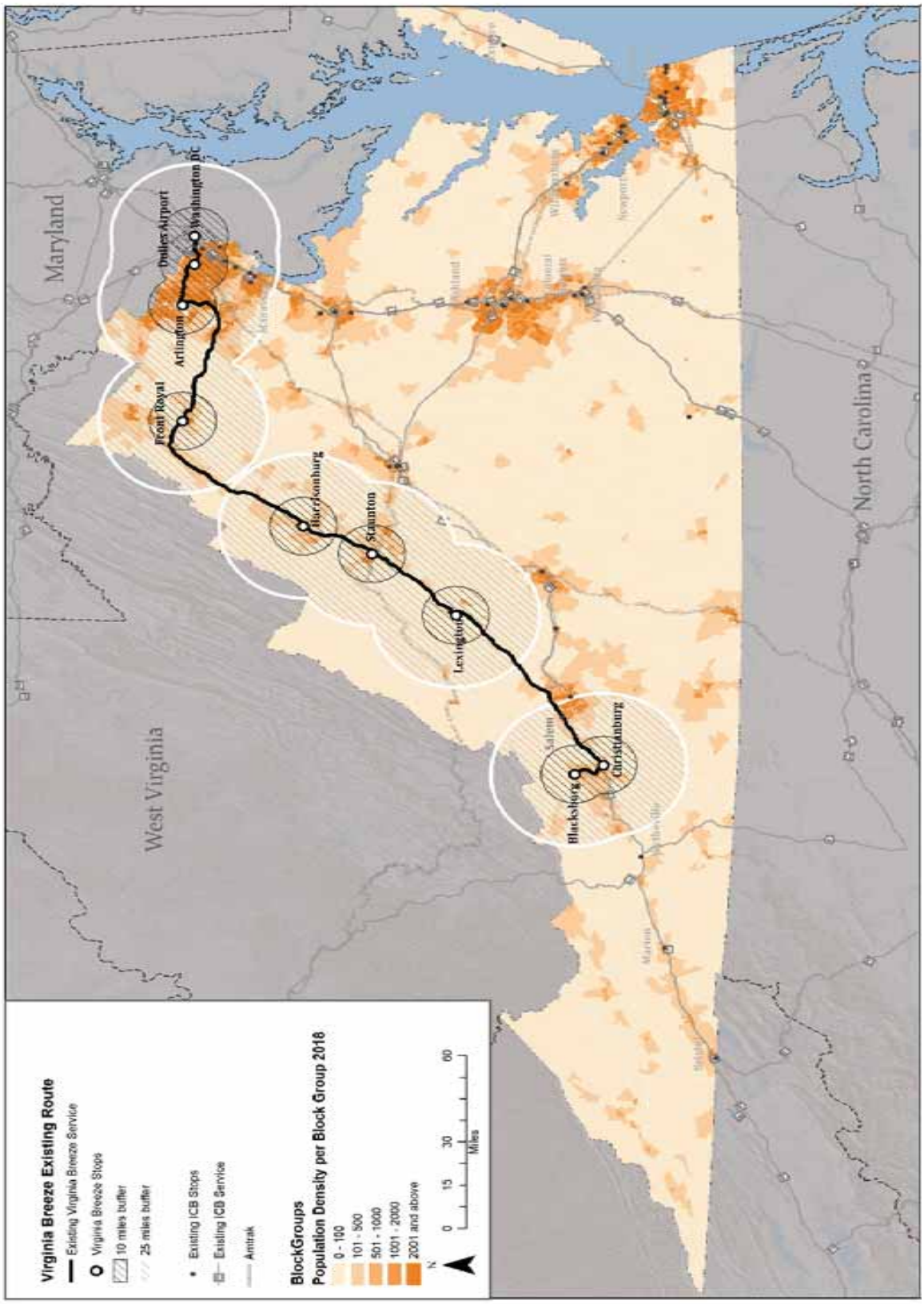
Chapter 2 documented the intercity network serving the state of Virginia, including the unsubsidized service, Virginia Breeze service, and some long-distance transit routes. The overall network can be seen as comprehensive, and using GIS[1] software and data from the

[1]The GIS methodology involved:
1. Creation of 10 and 25 mile buffers for all stops, identifying them as Virginia Breeze stops, non-Virginia Breeze stops, or both,
2. Intersection of the buffers with Census block groups,
3. Recalculation of the area of new intersected block groups,
4. Determination of the ratio of the new area to the original area, and then
5. Using that ratio to calculate the population of the intersecting block groups, assuming a uniform population distribution overall.

American Community Survey (ACS) 2012-2016 5-year estimates, analysis reveals that the population residing within ten miles of an intercity stop is 5,884,356 persons, or 70.8% of the population. The population within 25 miles is 7,595,337 or 91.41% of the population. These figures include the Virginia Breeze route.

The contribution of the Virginia Breeze route to this level of coverage has also been estimated using GIS software. The current route and its travel sheds are shown in Figure 4-3. The route adds 1,059,02 persons to the population within ten miles of an intercity stop, or 12.74% of the state's population of 8,310,301. The added population within 25 miles of the additional stops of the Virginia Breeze route is 708,032, or 8.52% of the total state population.

Figure 4-3: Virginia Breeze Stop Travel Sheds



OPERATING STATISTICS

Virginia Breeze ridership has been high, which is particularly impressive because Virginia Tech operates bus service with the same routing alignment and the same origin and destination stops. Table 4-1 presents a summary of basic operating statistics for the first full calendar year of operation (January 2018 - December 2018). Some key results are:

- Average farebox recovery of 85%, with peaks as high as 97% and 99%.
- Net subsidy per passenger trip of only $8.71, with months in which the subsidy was as low as $0.57.

The results exceed what was predicted. In the 2013 *Virginia Statewide Intercity Bus Study* the annual operating deficit was estimated to be $461,114, and the farebox recovery was predicted to be 53%. The DRPT has not expended its Section 5311(f) funding nearly as quickly as anticipated. These are potentially influenced by the discontinuance of the Megabus service between Washington, D.C. and Christiansburg, which likely added those riders to the population using Virginia Breeze.

Table 4-1: Virginia Breeze Operating Statistics - Calendar Year 2018

	Cost for bus	Farebox	Farebox Recovery	Net Cost of Service	Revenue Miles	Net Cost per Rev Mile	Net Cost per Passenger
January	$79,279.20	$ (57,935.27)	73%	$ (21,343.93)	19,968	$ (1.07)	$ (16.49)
February	$67,267.20	$ (41,646.61)	62%	$ (25,620.59)	17,472	$ (1.47)	$ (26.17)
March	$81,681.60	$ (80,627.64)	99%	$ (1,053.96)	19,968	$ (0.05)	$ (0.57)
April	$72,072.00	$ (53,181.97)	74%	$ (18,890.03)	18,720	$ (1.01)	$ (15.38)
May	$76,876.80	$ (74,047.83)	96%	$ (2,828.97)	19,656	$ (0.14)	$ (1.66)
June	$72,072.00	$ (57,522.40)	80%	$ (14,549.60)	18,720	$ (0.78)	$ (10.64)
July	$74,474.40	$ (55,264.17)	74%	$ (19,210.23)	19,344	$ (0.99)	$ (13.89)
August	$76,876.80	$ (74,936.17)	97%	$ (1,940.63)	19,656	$ (0.10)	$ (1.03)
September	$76,876.80	$ (67,322.99)	88%	$ (9,553.81)	19,344	$ (0.49)	$ (5.30)
October	$81,681.60	$ (77,693.02)	95%	$ (3,988.58)	20,280	$ (0.20)	$ (1.93)
November	$110,510.40	$ (103,572.77)	94%	$ (6,937.63)	23,712	$ (0.29)	$ (2.55)
December	$113,954.88	$ (92,506.78)	81%	$ (21,448.10)	23,712	$ (0.90)	$ (8.86)
	$983,623.68	**$ (836,257.62)**	**85%**	**$ (147,366.06)**	**240,552**	**$ (0.61)**	**$ (8.71)**

Source: DRPT data compiled by KFH.

The performance measures that can be calculated from this data include:

- **Cost per revenue-mile:** total annual operating costs divided by revenue-miles = $4.09
- **Revenue per bus-mile:** total annual revenue divided by revenue-miles = $3.48
- **Subsidy per mile:** net operating cost divided by revenue mile s =$0.61
- **Subsidy per rider:** total annual operating costs less fare revenue divided by total ridership = $8.71
- **Farebox recovery:** the percentage of fully-allocated operating costs covered by fare revenue = 85%

Reports to DRPT do not include the number of vehicle trips, therefore, average boardings per trip could not be calculated.

Performance Standards

The initial performance standards included in the RFP for the Virginia Breeze were conservative estimates. The actual route performance far exceeded these initial estimates. The standards proposed in the RFP were:

- Annual ridership of at least 1,200 persons on each route;
- Revenue per bus-mile of at least $0.50;
- A farebox recovery of at least 20 percent; and
- A maximum subsidy per passenger-trip of no more than $60.

The RFP included language recognizing that these levels might not be achieved immediately, but would be evaluated at the end of the first year with the expectation that at a minimum the service would meet 50% of these levels. DRPT reserved the right to terminate services not meeting these minimums at any point after the end of the initial year of service.

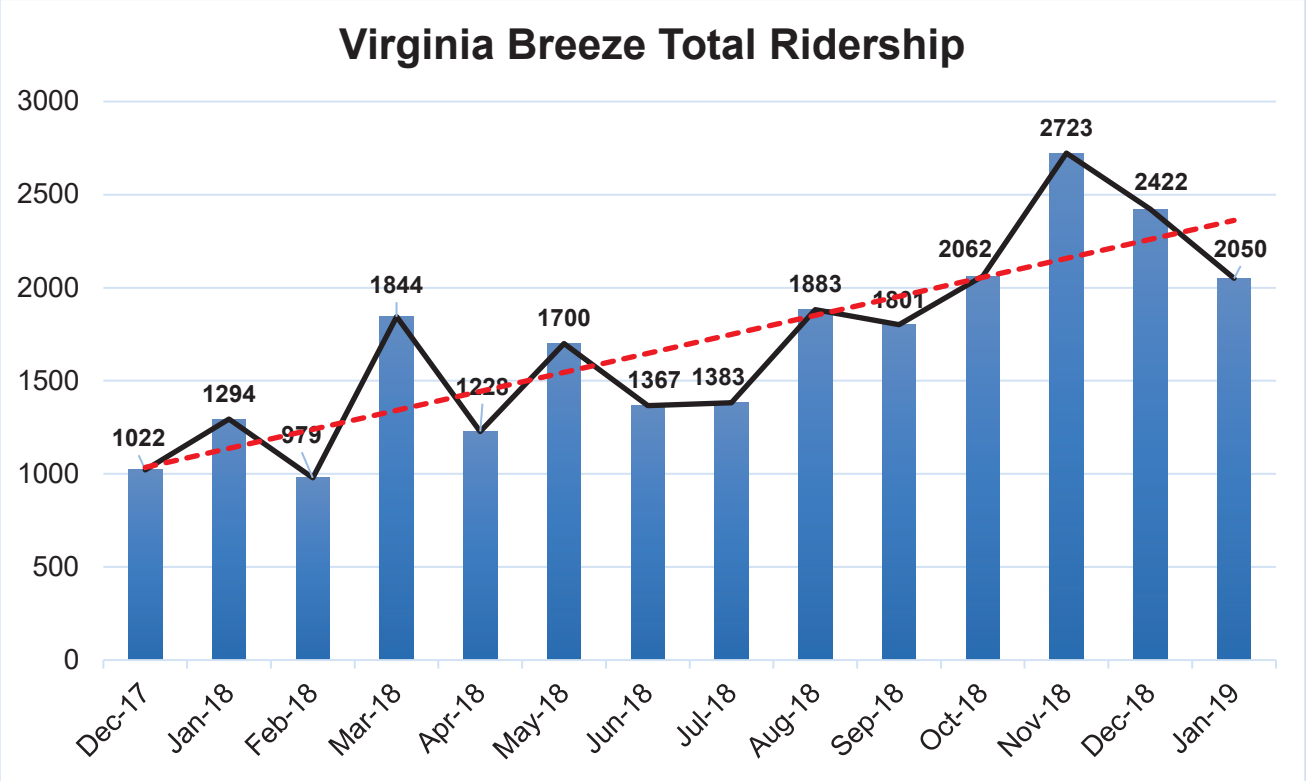
The high level of ridership and revenue on the Virginia Breeze result in very high performance relative to any public transit route. It is unlikely that future routes will achieve comparable levels if located in more rural areas with fewer universities.

Policy levels and standards could be thresholds for potentially reducing or eliminating service if the conditions change, and are useful for evaluating new service. If the operating costs, ridership, and revenue can be estimated for new service, they can be compared to the standards to see which perform at levels comparable or better than the current services. This would help in allocating limited resources to potential expansion routes.

RIDERSHIP

Figure 4-4 presents the growth of ridership over the first year of Virginia Breeze operation. The overall trend is continuing growth, even with seasonal declines in the summer months. The total ridership during the 2018 calendar year (CY) was 21,708, approximately 50% greater than the predicted 14,250 (which was based on the TCRP 147 demand model results).

Figure 4-4: Total Ridership Trend



The 2013 study noted that this was a conservative estimate. The better-than-expected results can be attributed to several factors. Few (if any) of the routes used to calibrate the demand model had unique branding or a significant marketing budget. The contractor offered to wrap and brand the buses as part of their proposal, and DRPT identified this as potential to attract ridership. DRPT also funded a separate marketing effort at level not usually seen for intercity bus services, and that has been sustained over time. Virginia Breeze has its own attractive web site and is also included in the Megabus ticketing system (though not Greyhound's or Amtrak's).

Figures 4-5 and 4-6 illustrate the pattern of ridership over the first year. Separate graphics are presented for the northbound and southbound service. The height of the bars represents boardings and alightings for each stop by month. Key observations include:

- While ridership is seasonal with monthly peaks in March and August, there is still significant ridership throughout the summer months when the universities have fewer students in attendance.
- There is ridership coming from (and returning to) intermediate stops such as Christiansburg, Harrisonburg, Staunton, Lexington and Front Royal.
- Dulles Airport is a major destination/origin.
- The Metrorail stop at West Falls Church produces significant ridership.

As previously noted, Virginia Tech operates service in this corridor, which makes the high ridership on Virginia Breeze even more impressive.

Figure 4-5: Virginia Breeze Ridership Pattern—Northbound

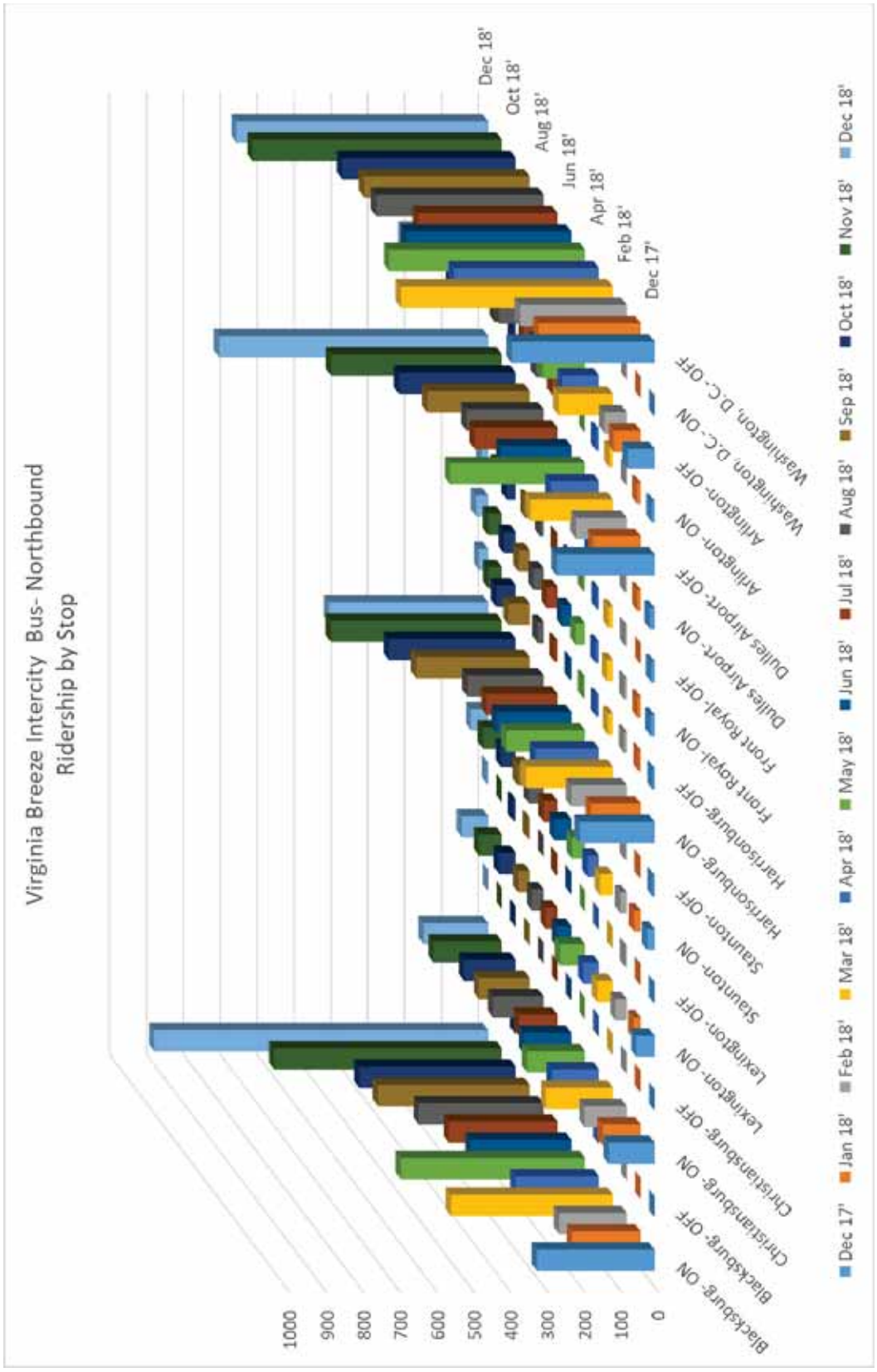
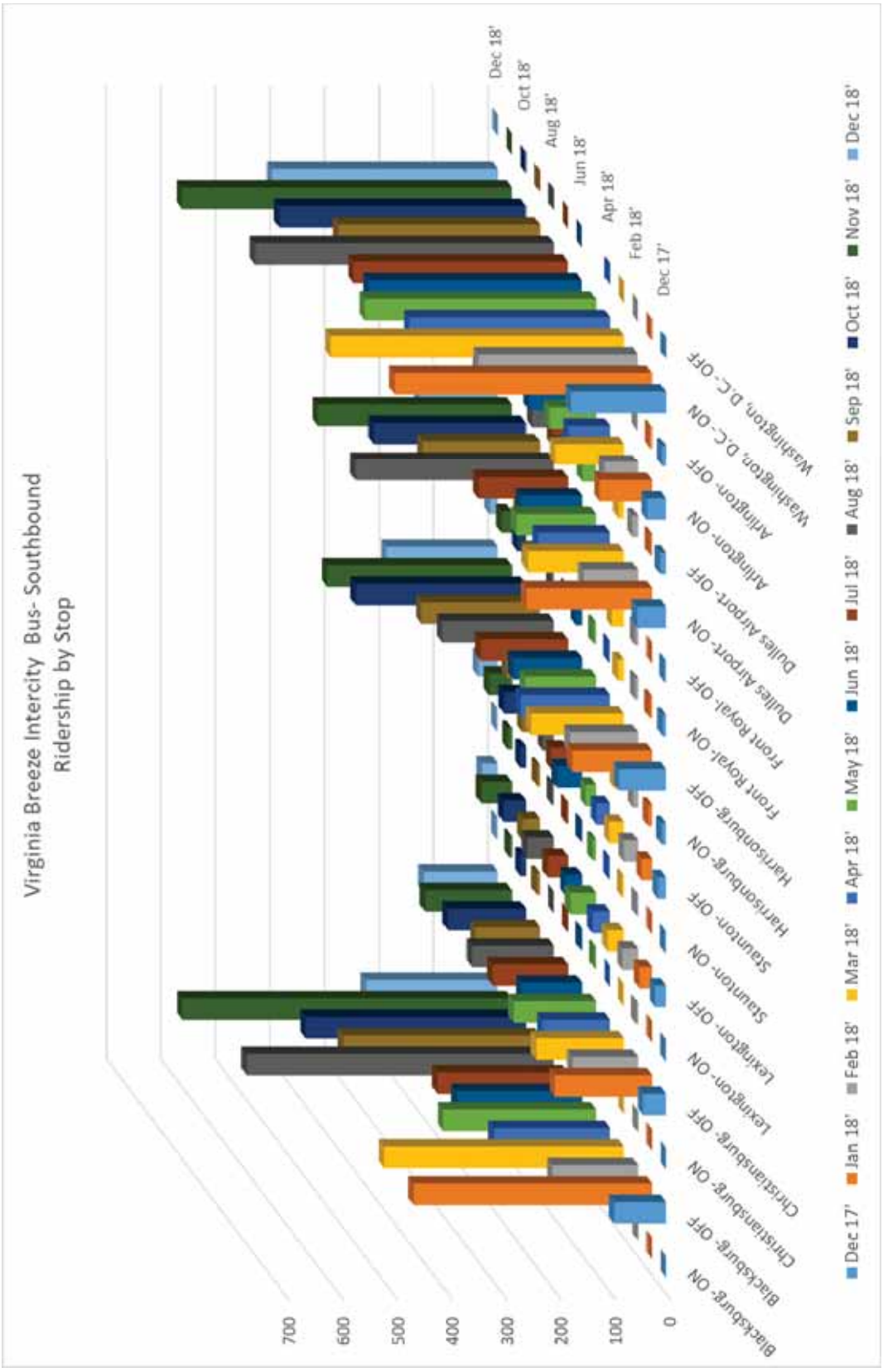


Figure 4-6: Virginia Breeze Ridership Pattern—Southbound



RIDERSHIP CHARACTERISTICS AND INSIGHTS

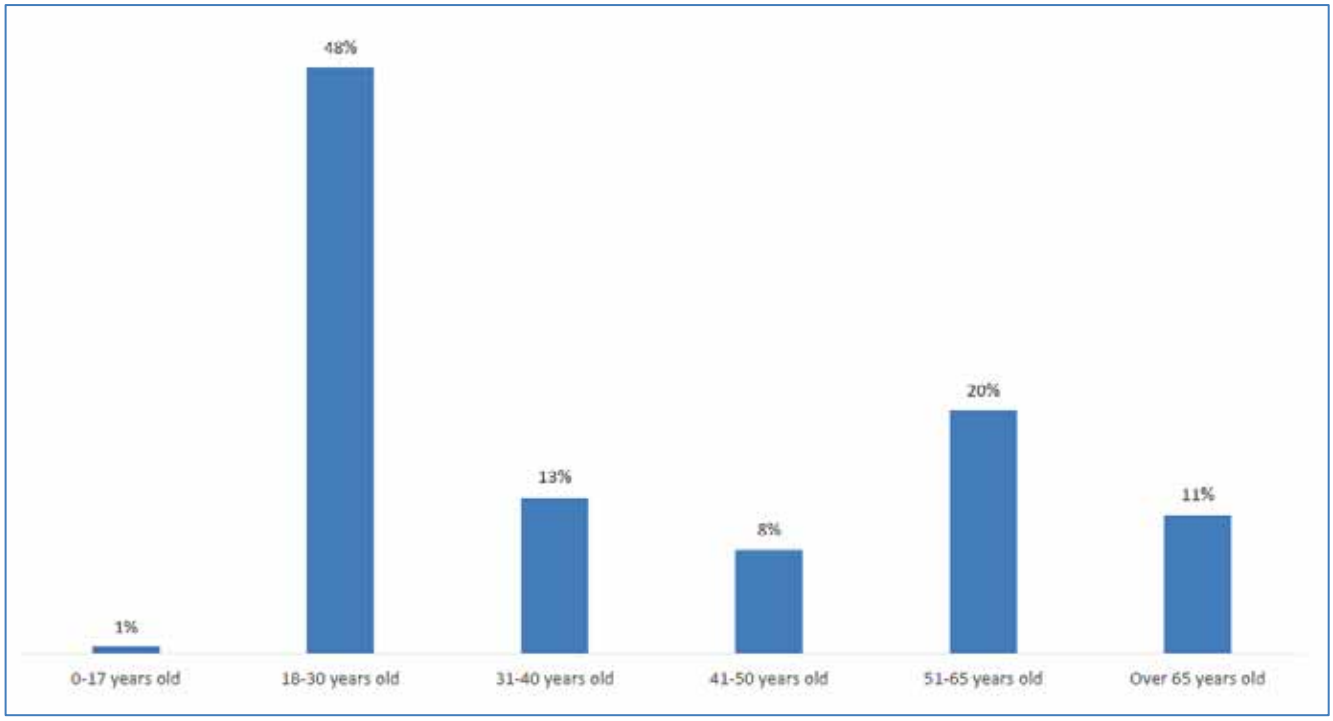
This section summarizes the findings from two independent surveys- 'Virginia Breeze Customer Satisfaction Survey' and 'On-Board Rider Survey'. The former was designed and implemented by Wells + Associates for DRPT, and the latter was conducted by DRPT to collect additional demographic information needed for establishing Title VI baseline data. The surveys provide information on the social and demographic characteristics, travel needs, and behaviors of the current users of the Virginia Breeze.

Rider Social and Demographic Characteristics

- ***While riders come from across the socio-economic spectrum, many are young adults, or members of lower-income households. Most riders are either employed or students of one of the schools served by the Virginia Breeze route.***

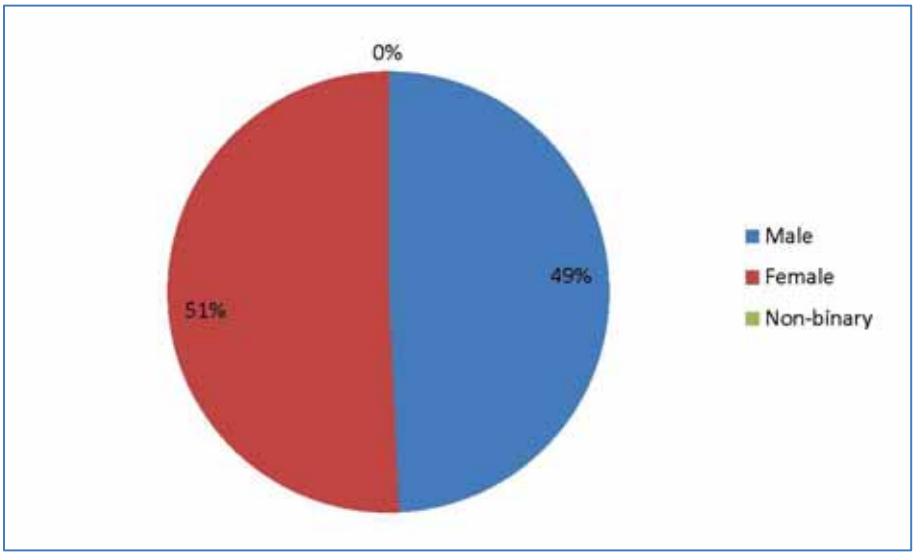
Figures 4-7 and 4-8 illustrate the age and gender demographics, respectively, of those surveyed. Nearly half of riders surveyed (48%) were 18-30 years old. Riders between 51-65 years were also significant (20%). The smallest age group represented in the survey was children 17 years or younger. The gender ratio of the Virginia Breeze riders was almost equal.

Figure 4-7: Age of Rider



Source: Virginia Breeze Customer Satisfaction Survey by Wells + Associates

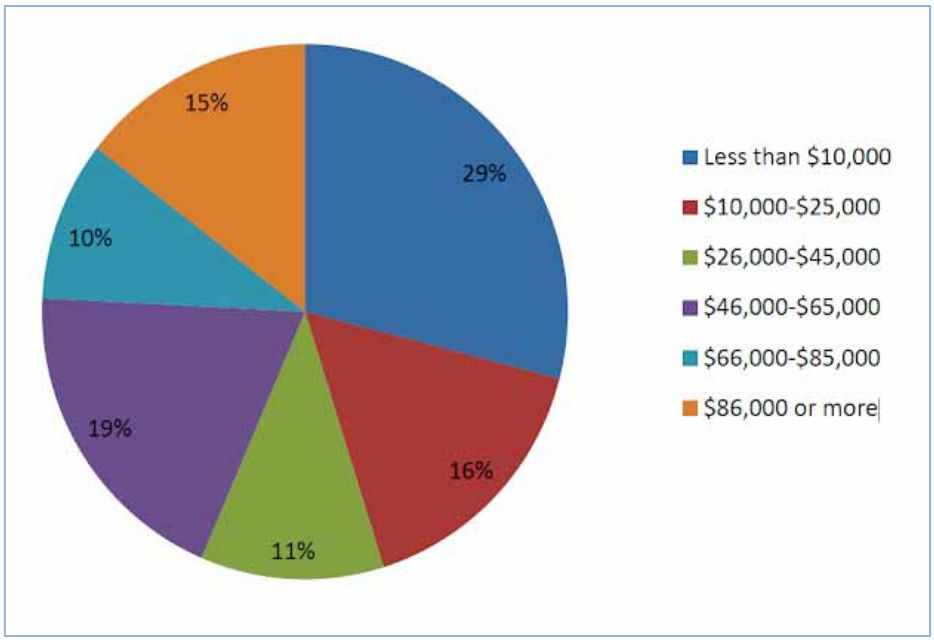
Figure 4-8: Gender of Ridership



Source: DRPT

Figure 4-9 depicts the household income range of those surveyed. Nearly 60% of riders surveyed earned a total annual household income of $45,000 or less. 45% percent of riders were from the lower income group with total annual household income of $25,000 or less. The service did attract some riders (15%) from higher-income households ($86,000 or more).

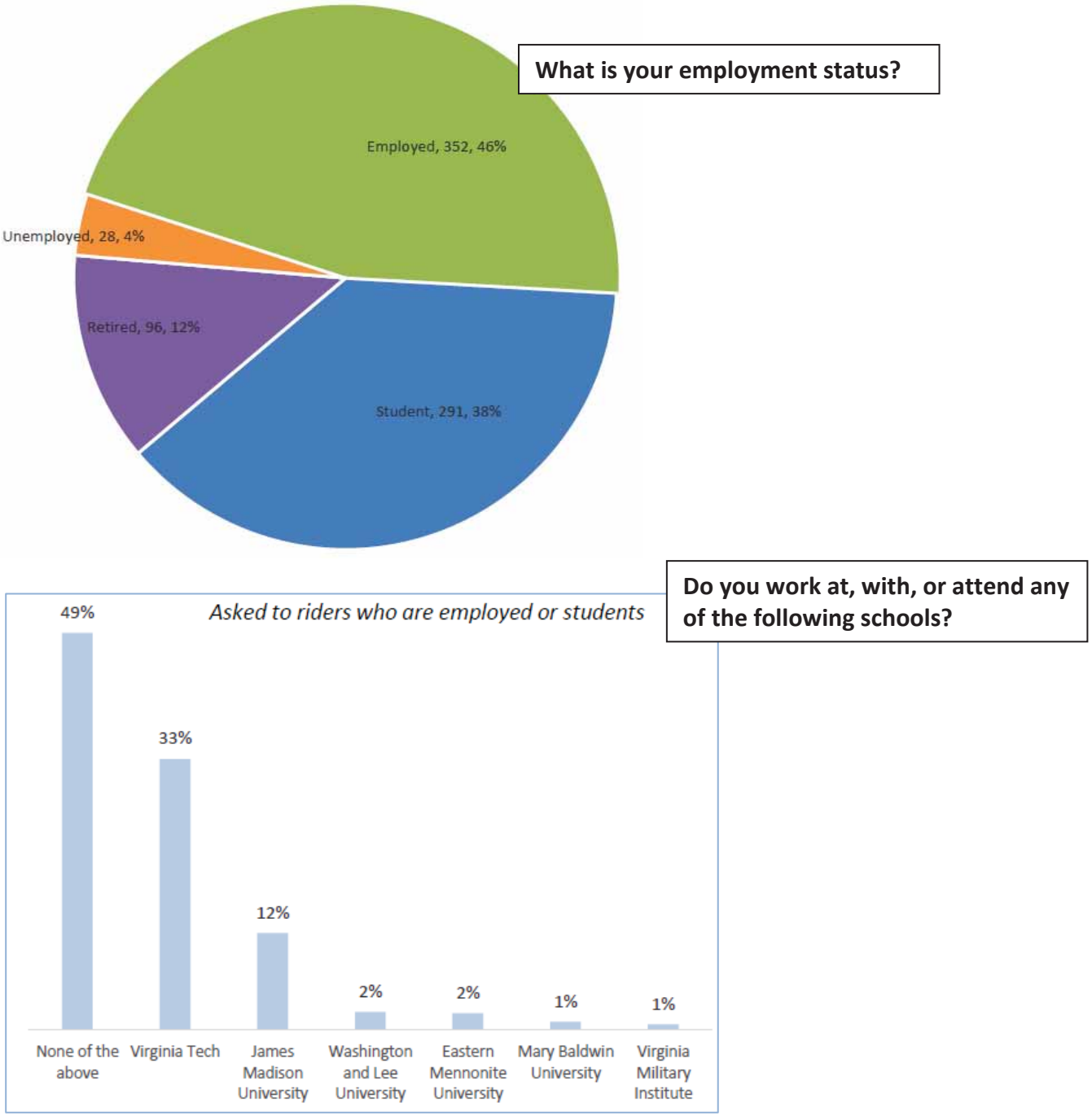
Figure 4-9: Household Income of Riders



Source: DRPT

The employment status of those polled is shown in Figure 4-10. Students composed 38% of all riders surveyed. 46% of riders were employed full time or half time, and 4% were unemployed. Over 40% of riders were related to a school, and of that group almost one-third were affiliated with Virginia Tech, whereas about 15% were related to other schools along the route.

Figure 4-10: Employment Status of Riders

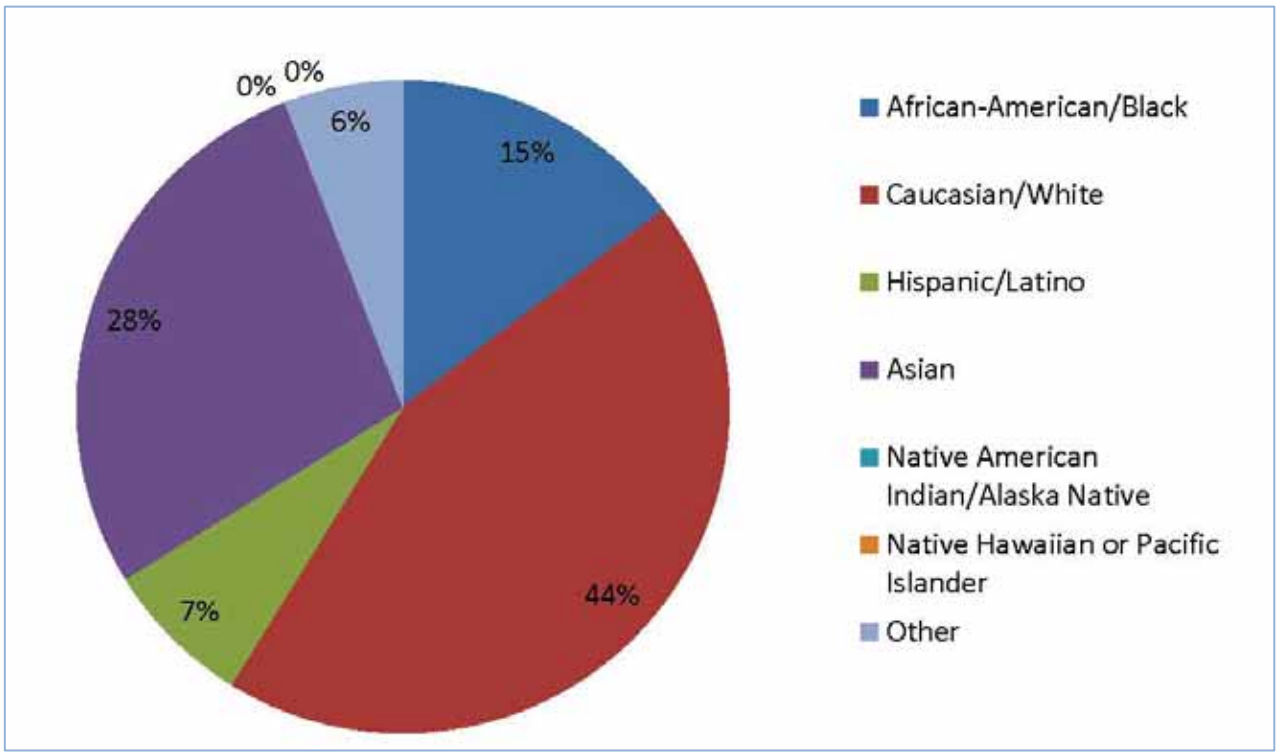


Source: Virginia Breeze Customer Satisfaction Survey by Wells + Associates

- ***Racial and ethnic minorities had a strong representation with a significant portion of Asian riders. Less than half of the riders surveyed were White/Caucasian.***

Figure 4-11 illustrates the racial and ethnic diversity of survey participants. Over 50% of riders surveyed belonged to various racial and ethnic minorities while 44% were White/Caucasian. The next largest group identified as Asian (28%), while African-American riders constituted 15% of survey respondents. None of the surveyed riders identified as Native American Indian or Pacific Islander.

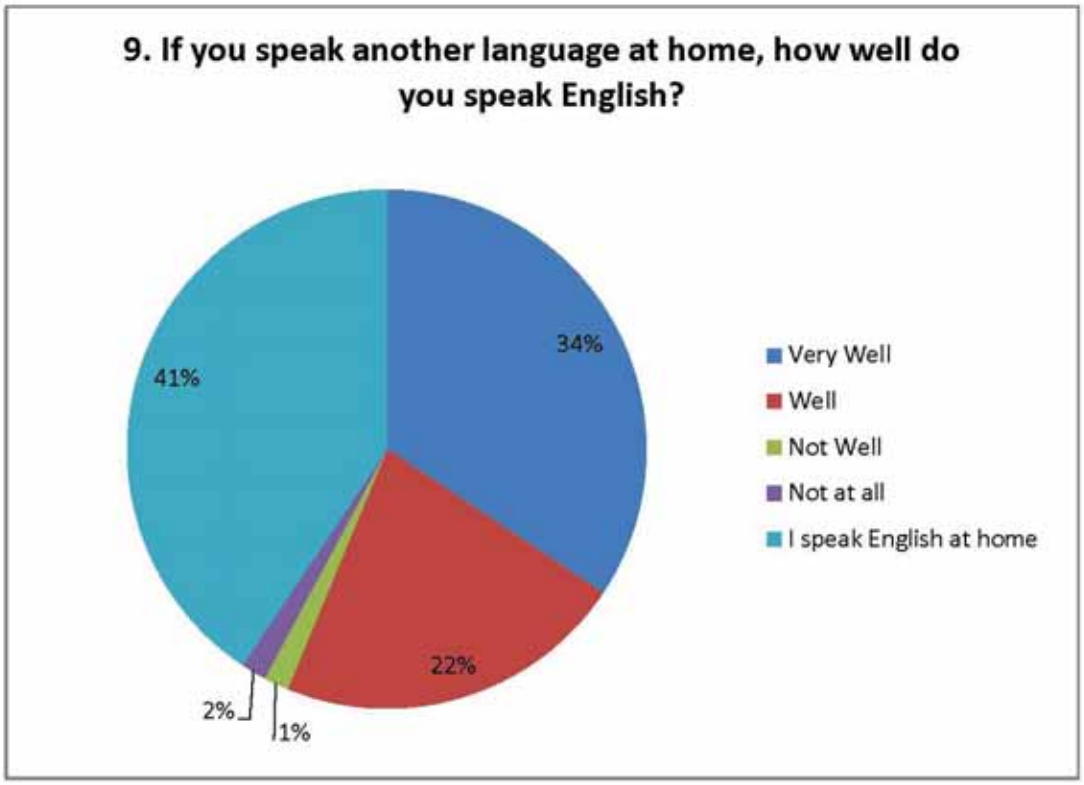
Figure 4-11: Race/Ethnic Identification by Riders

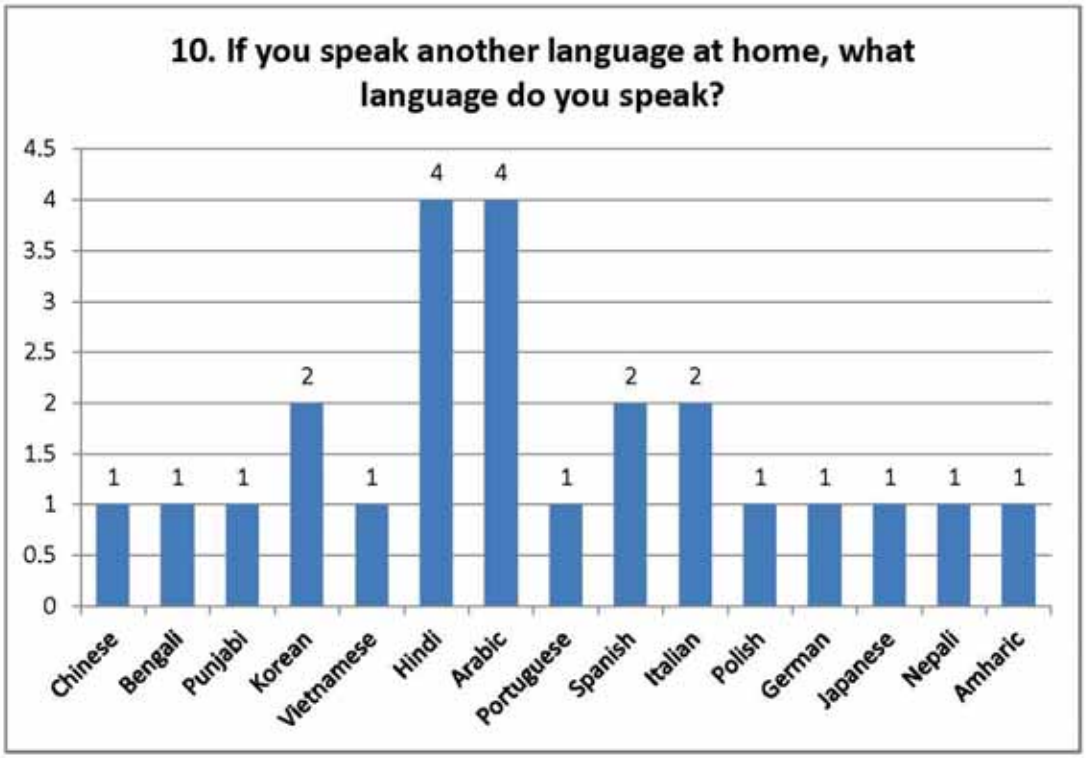


Source: DRPT

Figure 4-12 captures the surveyed riders' English fluency rates and identifies other primary languages spoken at home. Over 75% of riders were fluent in English or spoke English as a first language. Most of the riders (59%) spoke other languages at home. Among them, Hindi and Arabic were the most widely spoken languages.

Figure 4-12: English Ability of Non-English Speakers and Languages Spoken





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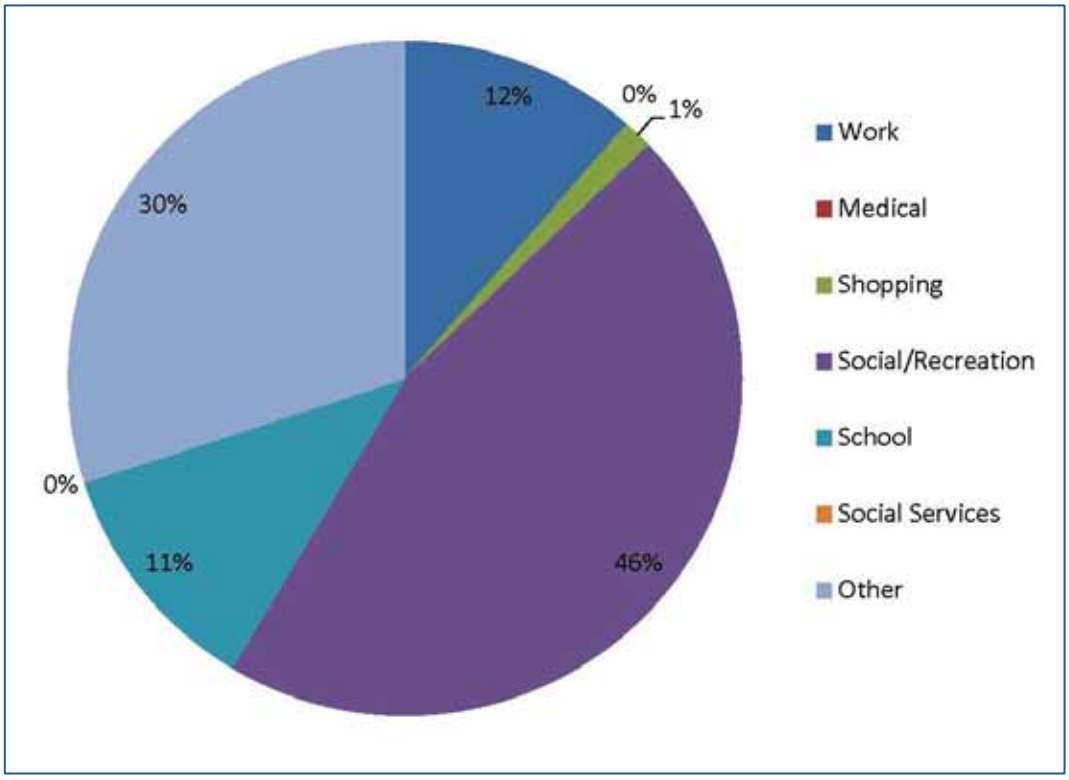
Source: DRPT

Insights from the Rider Surveys

- ***Social/Recreation is a top trip purpose, followed by Other - with Work and School almost equal as trip purposes.***

The surveyed riders' trip purposes are captured in Figure 4-13. The customer survey revealed that riders travelled Virginia Breeze for various purposes. Most riders (46%) were traveling for social or recreation purposes, 12% for work, and 11% were traveling to school.

Figure 4-13: Trip Purpose

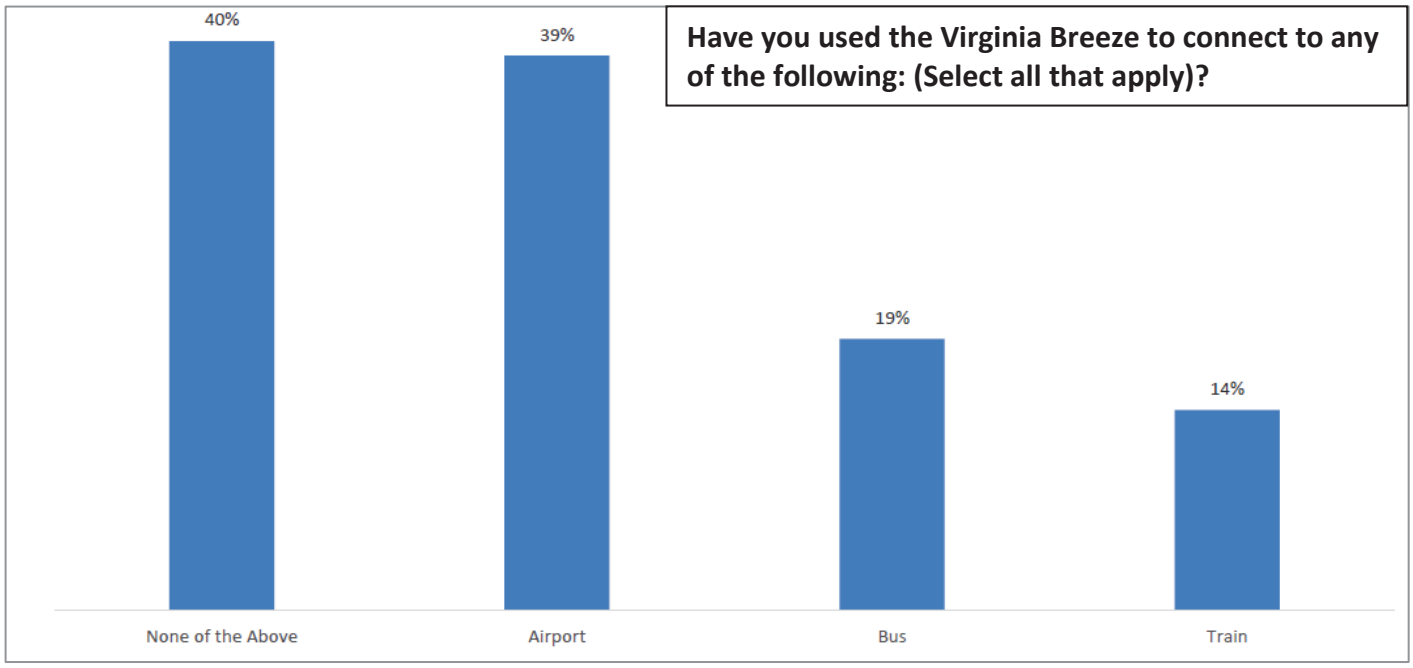


Source: Virginia Breeze Customer Satisfaction Survey by Wells + Associates

- ***Riders use Virginia Breeze service to connect to other transit modes - airport, bus, and train.***

The customer survey highlighted the fact that 60% of riders used the service to connect to an airport, bus, or train; with airport being the most popular destination (39%); and 19% were connecting to another bus, as can be seen in Figure 4-14.

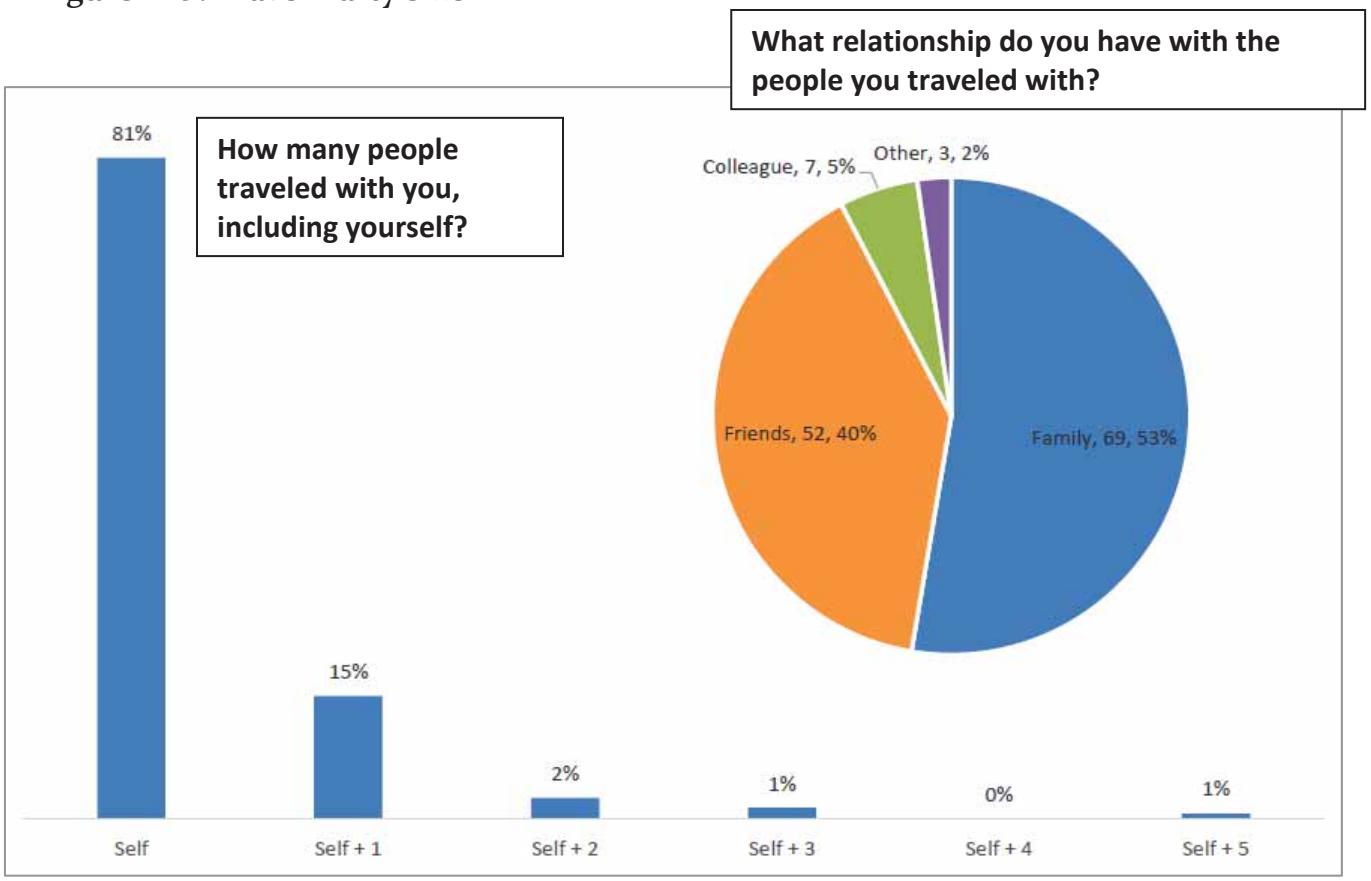
Figure 4-14: Trip Connections by Virginia Breeze Riders



➢ ***Most passengers are traveling solo.***

Figure 4-15 presents the size of travel parties on Virginia Breeze. 81% of riders surveyed were traveling on their own; and another 15% were traveling with a single companion. Larger groups (of more than three people) traveling together were less common but did occur.

Figure 4-15: Travel Party Size

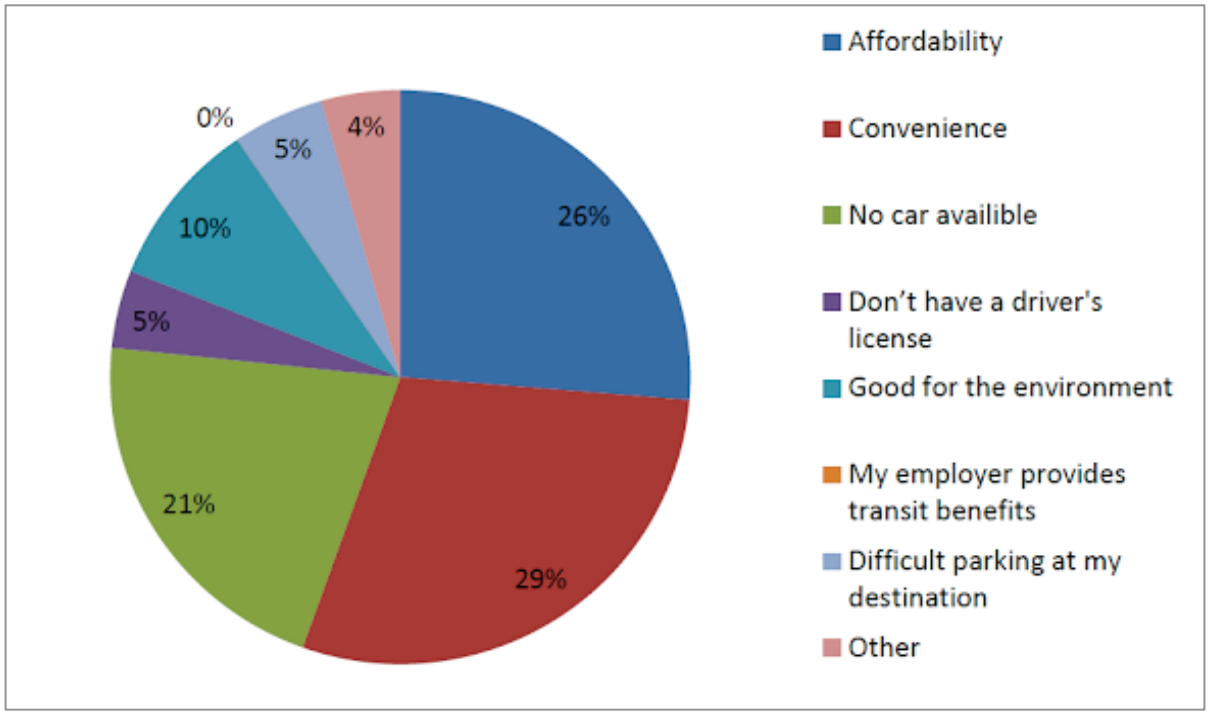


Source: Virginia Breeze Customer Satisfaction Survey by Wells + Associates

- ***A majority of Virginia Breeze riders use the service for its convenience and affordability. Many riders considered traveling by other transportation modes before choosing Virginia Breeze. However, Virginia Breeze service plays a significant role in fulfilling travel needs of many people and is essential for those who do not have a car.***

Figure 4-16 represents the range of reasons riders chose to travel on Virginia Breeze. According to the onboard surveys, riders chose Virginia Breeze service because it is convenient (29%), affordable (26%), or a car was unavailable (21%). A small percentage of riders used this service to help the environment (10%). Very few riders (5%) indicated lack of driver's license as a reason to choose the intercity service.

Figure 4-16: Reason for Choosing Virginia Breeze

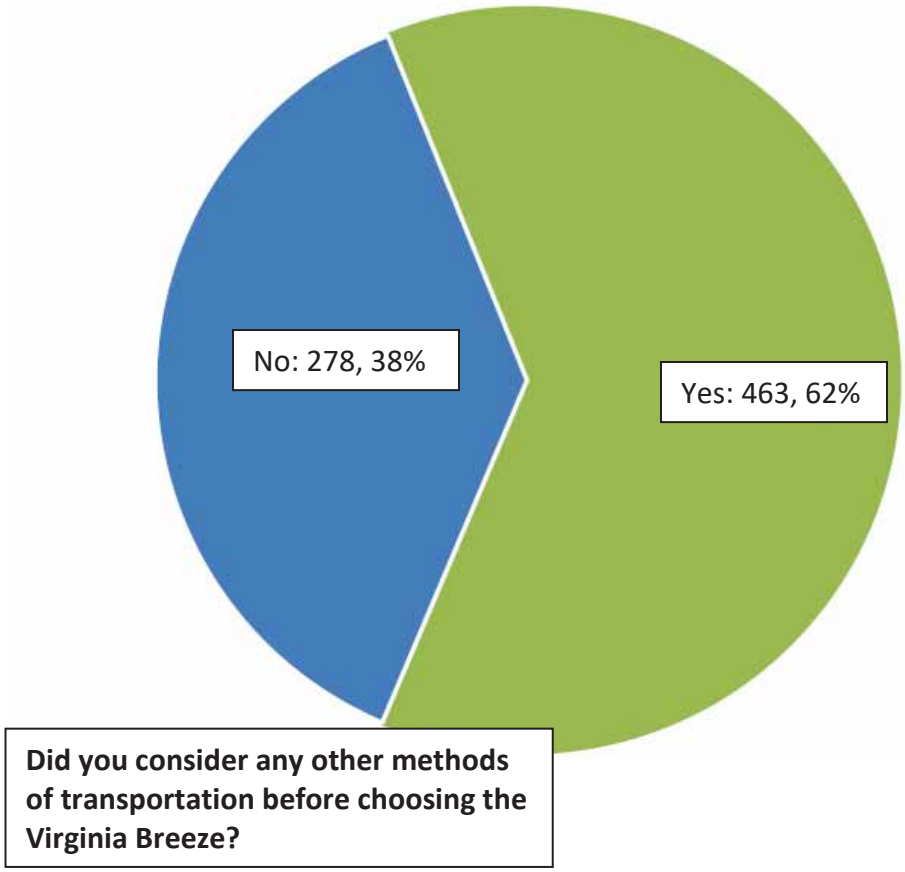


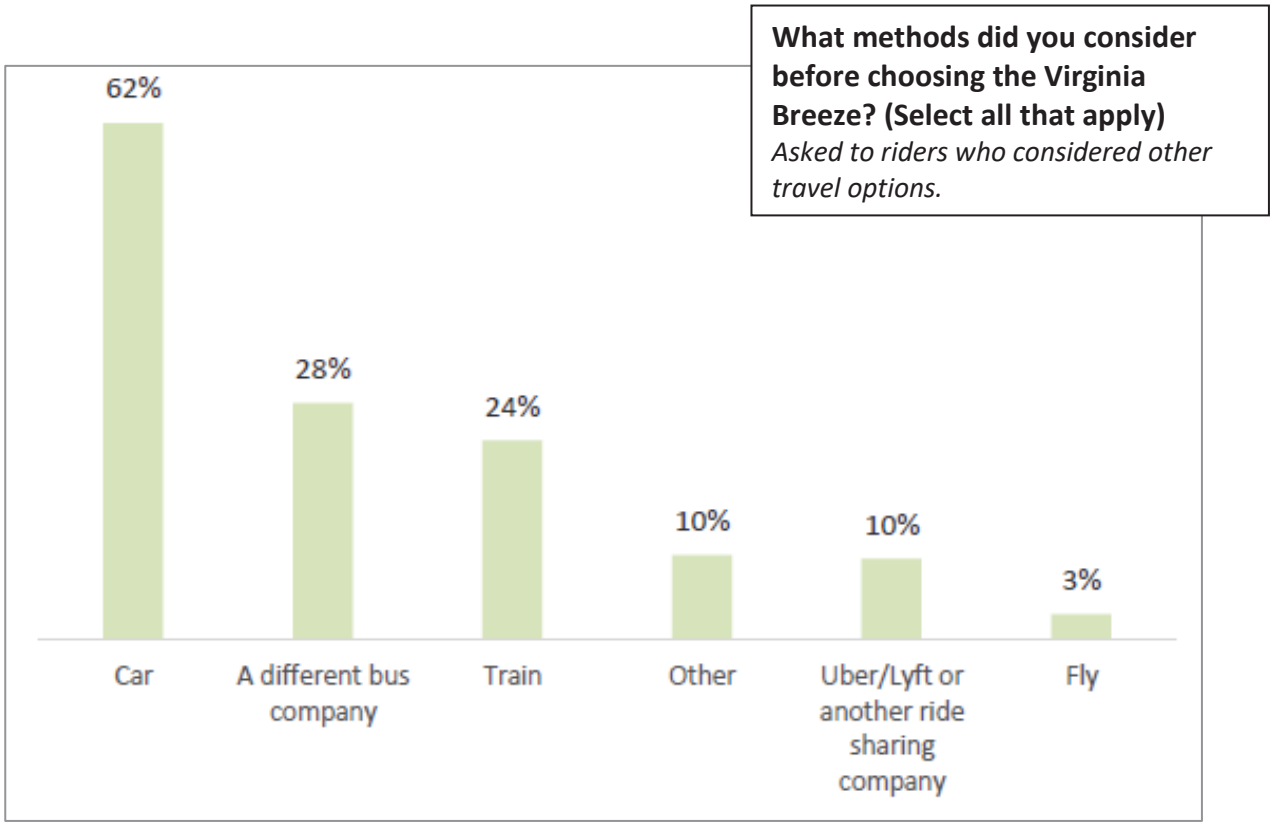
"Source: DRPT

Figures 4-17, 4-18, and 4-19 detail the alternate options to Virginia Breeze considered by riders, riders' access to a private vehicle, and whether riders would have been able to complete the trip without Virginia Breeze. 62% of riders did research on alternate travel options before choosing Virginia Breeze. A majority of them considered traveling by car (62%), and 28% considered a different bus company or train.

66% of riders did not have a car available for their trip. A majority of riders (66%) said they would not have made the trip if the Virginia Breeze bus was unavailable.

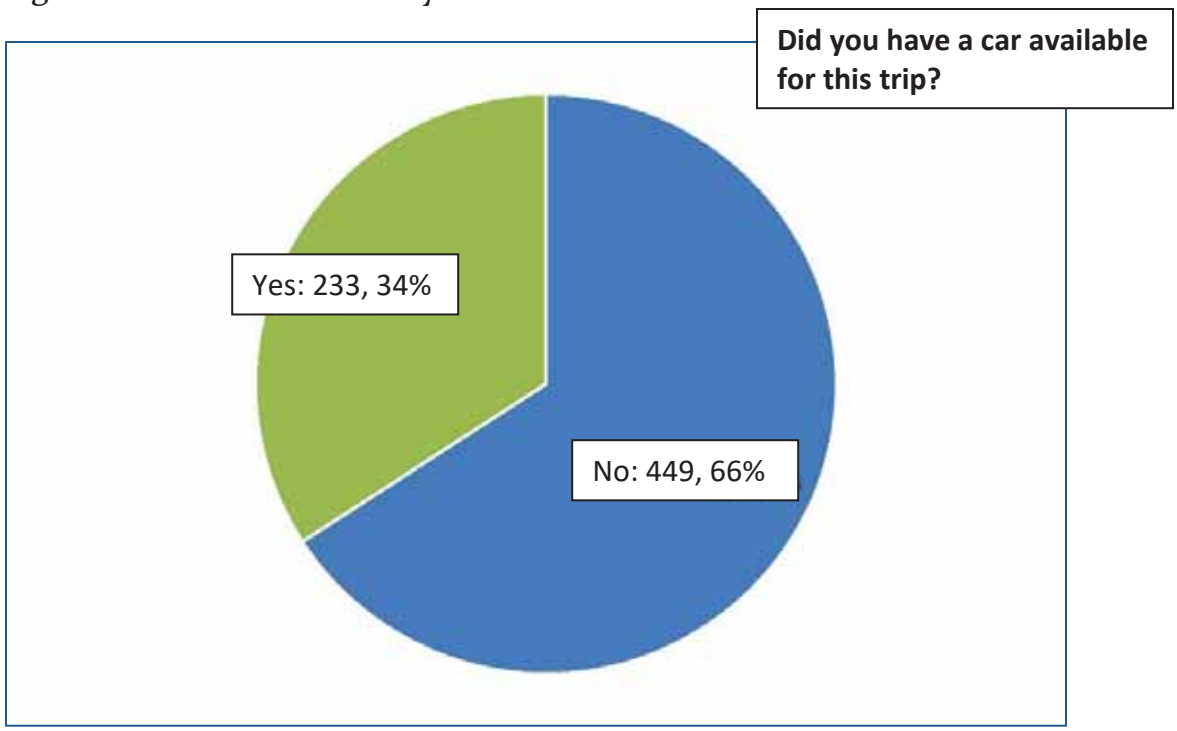
Figure 4-17: Alternative Modes Considered by Virginia Breeze Riders





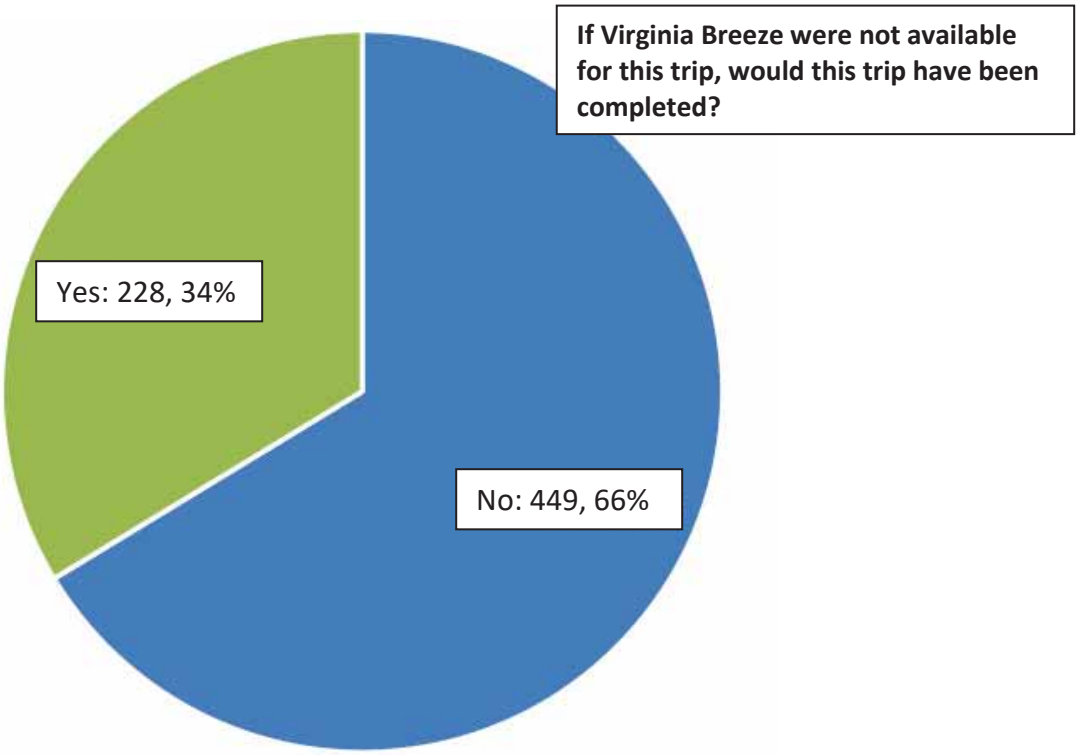
Source: Virginia Breeze Customer Satisfaction Survey by Wells + Associates

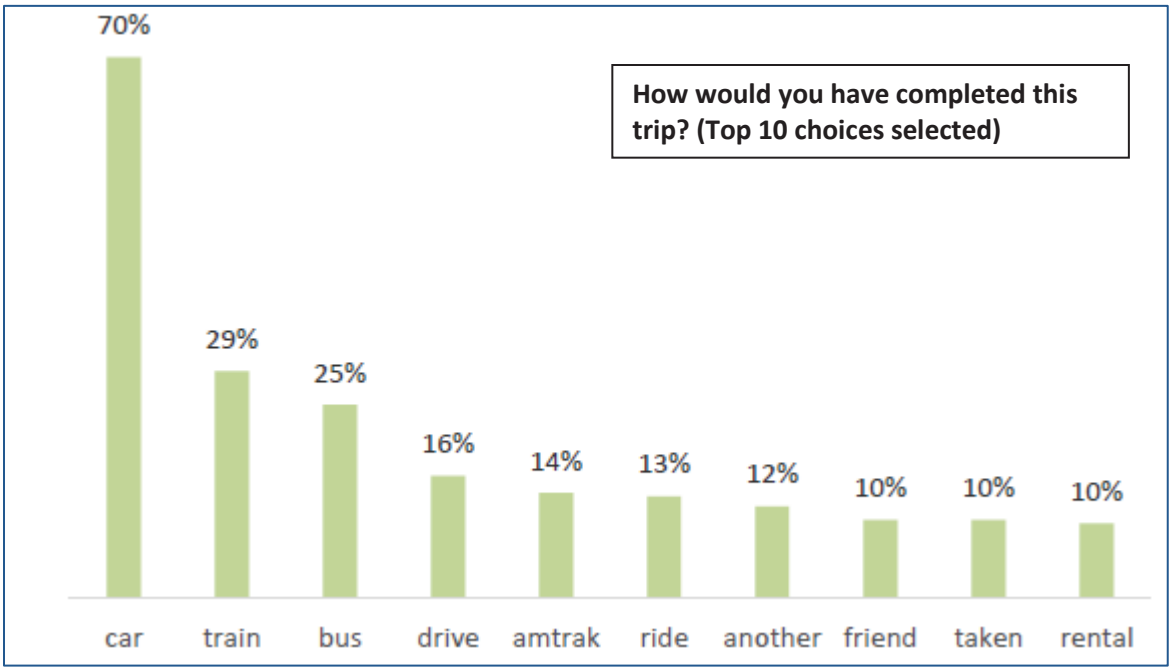
Figure 4-18: Auto Availability



Source: Virginia Breeze Customer Satisfaction Survey by Wells + Associates

Figure 4-19: Alternatives to Trip





Source: Virginia Breeze Customer Satisfaction Survey by Wells + Associates

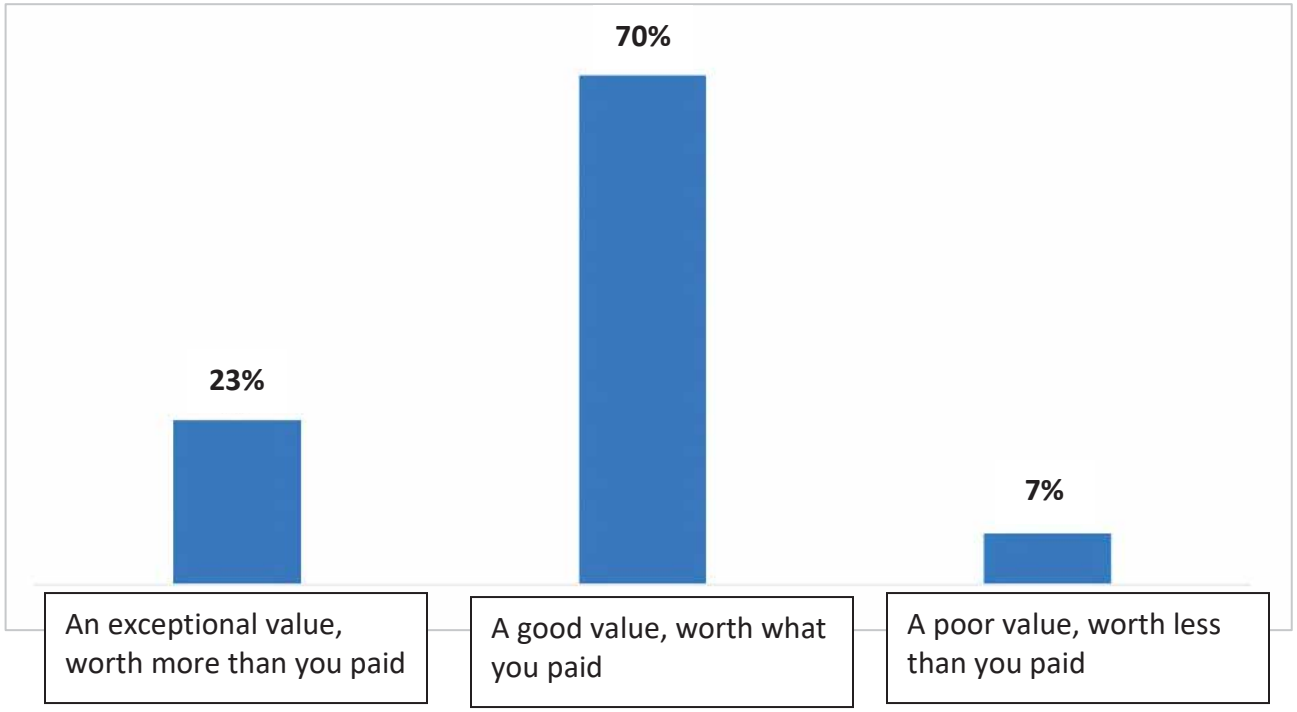
Quality of Service

Figure 4-20 considers overall value of Virginia Breeze. Most of the riders (70%) considered it to be a good value that was worth what they paid, while nearly a quarter of them (23%) found it an exceptional value, worth more than they paid.

- ***Riders considered the value of Virginia Breeze worth what they paid and are most likely to travel the service again.***

A large majority of riders (97%) had no difficulty purchasing Virginia Breeze Intercity Bus tickets.

Figure 4-20: Value of Virginia Breeze Trip



Source: Virginia Breeze Customer Satisfaction Survey by Wells + Associates

The Net Promoter Score illustrated in Figure 4-21 explores the likelihood riders would use Virginia Breeze for future trips. The rating by riders demonstrates a generally neutral to positive sentiment towards the service. There is a high probability that 60% of riders would purchase Virginia Breeze tickets again, and 53% would like to ride the service again.

Figure 4-21: Net Promoter Score

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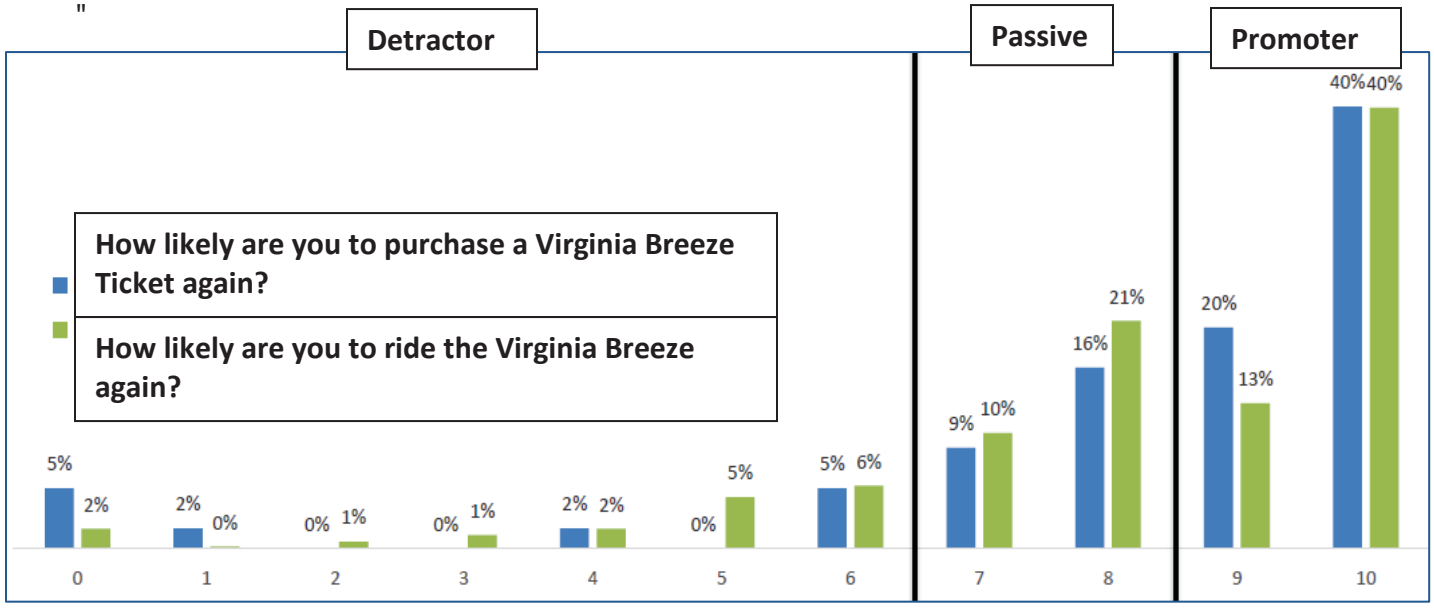


Source: Virginia Breeze Customer Satisfaction Survey by Wells + Associates

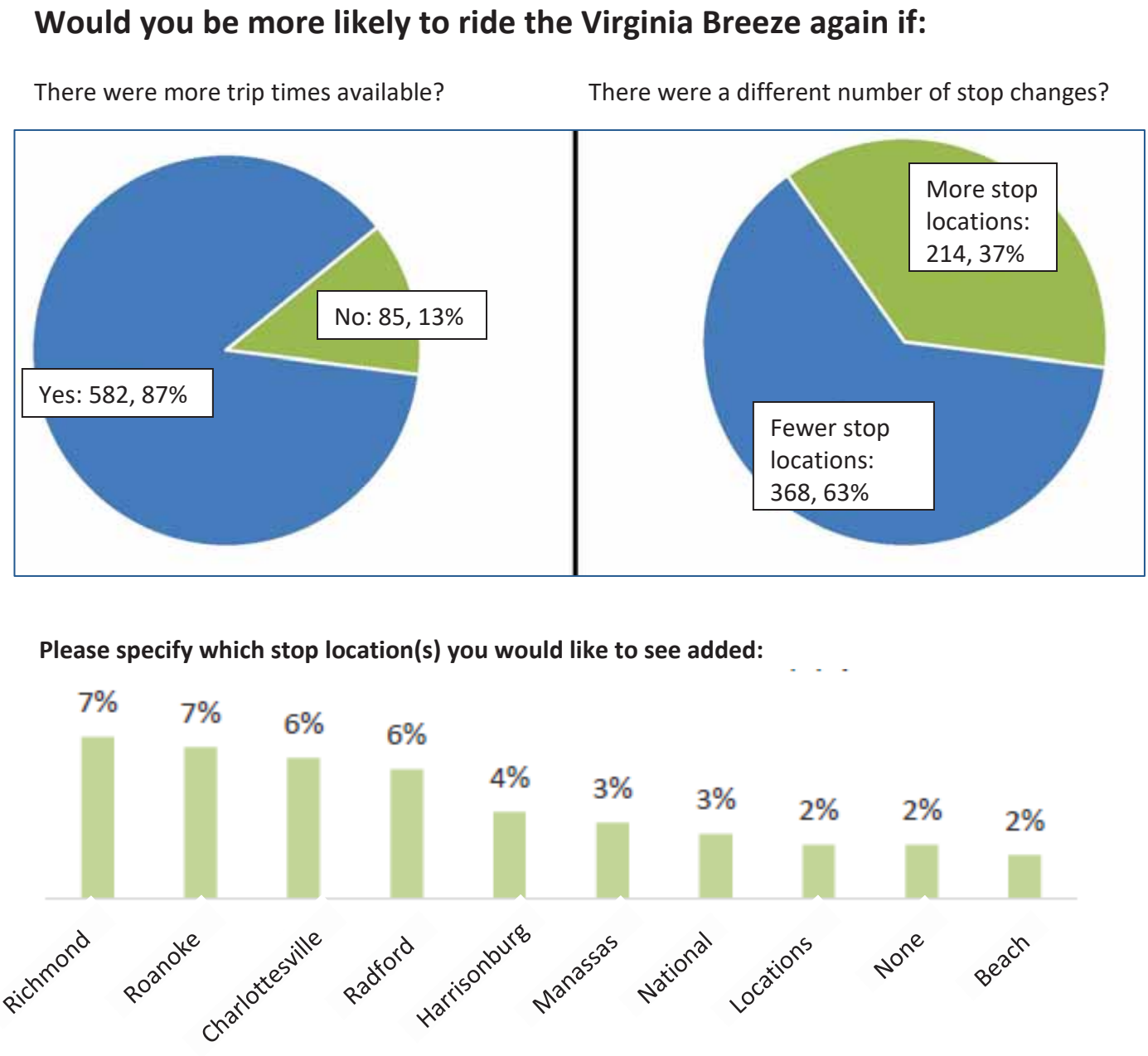
Desired Improvements

- ***Riders prefer an expansion in the service hours of Virginia Breeze.***

Figure 4-22 explores potential incentives for future trips on Virginia Breeze. A majority of Virginia Breeze riders surveyed (87%) said they would ride more often if there were more trip times available whereas only 37% would ride more often if there were more stops available. One of the riders commented that an increase in service hours would make it convenient for them to connect to more flights. Another comment was regarding the need for USB outlets in the bus.

The most preferred additional destinations were Richmond, Roanoke and Charlottesville - though most riders wanted additional schedules.

Figure 4-22: Preferred Improvements



Source: Virginia Breeze Customer Satisfaction Survey by Wells + Associates

OVERALL EVALUATION OF VIRGINIA BREEZE

Overall, the Virginia Breeze intercity bus service has been successful. Its ridership exceeded forecasts, and farebox recovery has been extraordinary. It responded to identified needs by linking student populations with a metropolitan area, an international airport, and both bus and rail services to more distant points. It also serves several smaller cities that lost intercity bus access. Its ridership includes a significant percentage of non-students, including nearly a third of ridership over the age of 50.

It is unlikely that future intercity bus services will be able to achieve the ridership or financial performance of the Virginia Breeze because there are few situations with comparable university populations that are not already served. Most of the unmet needs for intercity bus services in Virginia are in areas with older populations in smaller towns, who nevertheless need links to the national transportation network and services available in larger cities.

Virginia Breeze offers applicable lessons for future route development. One is the benefit of branding, including the bus wrap and the distinctive name. A significant and continuing marketing effort by a dedicated team offers additional potential ridership benefits.

Virginia Breeze benefited by linking universities with an airport, bus/rail services and a major metro area. Designing services that have at least one end in a major metro area increases access for those originating from rural areas, and would provide greater connectivity to the national intercity bus, rail, and air networks.

While the purpose of the intercity bus service is to serve rural areas, stop locations should be chosen to minimize deviations from the highway routes. The number of stops and total travel-time must also be balanced to align with the desire of most riders for an express trip, stopping as few times as possible.

Chapter 5
Consultation and Outreach

INTRODUCTION

A key element of intercity bus planning is the consultation process required by the FTA[1]. Section 5311(f) funding for rural intercity bus projects is provided as a minimum 15% set-aside of each state's overall Section 5311 funding allocation. However, the Governor may certify that a state's rural intercity bus needs are met (or partially met) and request that the intercity set-aside funding be used for other eligible Section 5311 projects. States seeking certification must conduct a consultation process at least once every four years with the public, stakeholders and bus operators to determine if there are unmet intercity needs.

For years, DRPT certified that there were no (or few) unmet needs. In 2013 the consultation process conducted as part of the *Virginia Statewide Intercity Bus Study* identified a number of areas in the state that lost intercity bus service. It included a number of potential routes, and recommended that DRPT initiate a rural intercity bus program. DRPT began a process that led to the implementation of the Virginia Breeze intercity service between Blacksburg and Washington, D.C. With the service now in place, it was determined that there was a need to revisit the consultation process before initiating additional Section 5311(f) services.

The consultation process for this study included a multi-faceted approach to stakeholder engagement and consultation for the plan update. Outreach methods included:

- Interviews with private providers of intercity bus services;
- Surveys of key stakeholder groups:
  - regional transportation planning agencies
  - regional and local public transit agencies
  - surveys to other stakeholders
- Surveys of riders on the existing Virginia Breeze service (previously conducted by DRPT);
- Community meetings in two locations around the state; and
- Other written comment opportunities, including distribution of a Survey Monkey link to a questionnaire designed for the general public by two PDC's.

[1] Federal Transit Administration, Circular C 9040.1G, Formula Grants for Rural Areas: Program Guidance and Application Instructions, October 24, 2014, Chapter VIII. Intercity Bus, 4. Consultation Process Requirements, p. VIII-2

This chapter details each engagement activity, presents findings from the existing service survey of riders, and explores key themes from input and feedback received from stakeholders during the consultation process.

OUTREACH ACTIVITIES

Regional Planner Surveys and Discussions

The planning team asked each regional transportation planning organization from across the state to participate in a survey for the project. The survey was designed to be easy to complete, and was administered using the Survey Monkey platform. DRPT contacted the planning agencies and provided the link to the survey. Questions were designed to capture input on region-specific intercity bus markets and needs. Regional planners were also encouraged to participate in community meetings that included facilitated discussions of system needs and potential ideas for addressing identified needs. Appendix A presents the survey questions.

Table 5-1 lists regional planning agencies surveyed and their response. Information collected via the regional planner surveys and community meetings is tabulated in Appendix A and incorporated into the Summary of Needs section below.

Table 5-1: Regional Transportation Planning Organization Participation

RTPO Contacted	Returned Survey	No Response
Accomack-Northampton Planning District Commission	✓	
Bristol Metropolitan Planning Organization		x
Central Shenandoah Planning District Commission	✓	
City of Lexington	✓	
Commonwealth Regional Council	✓	
Crater Planning District Commission		x
Cumberland Plateau Planning District Commission		x
George Washington Regional Commission -Fredericksburg Area Metropolitan Planning Organization's (FAMPO)	✓	
Hampton Roads Planning District Commission	✓	
Hampton Roads Transportation Planning Organization		x
Harrisonburg-Rockingham Metropolitan Planning Organization (HRMPO)		x
Kingsport Metropolitan Transportation Planning Organization (KMTPO)		x
Lynchburg Metropolitan Planning Organization		x
Lenowisco Planning District Commission		x
Middle Peninsula Planning District Commission		x
Mount Rogers Planning District Commission		x
New River Valley Regional Commission	✓	

RTPO Contacted	Returned Survey	No Response
Northern Neck Planning District Commission		x
Northern Shenandoah Valley Regional Commission	✓	
Northern Virginia Regional Commission		x
Rappahannock-Rapidan Regional Commission	✓	
Region 2000 Local Government Council		x
Richmond Regional Planning District Commission (Richmond MPO)	✓	
Roanoke Valley-Alleghany Regional Commission	✓	
Staunton-Augusta-Waynesboro Metropolitan Planning Organization (SAWMPO)	✓	
Southside Planning District Commission	✓	
Thomas Jefferson Planning District Commission (Charlottesville-Albemarle MPO)	✓	
Tri-Cities Area Metropolitan Planning Organization (MPO)		x
West Piedmont Planning District Commission		x
Winchester-Frederick County Metropolitan Planning Organization (WinFred MPO)		x

Public Transit Provider Surveys and Discussions

Public transit agencies providing regional and local transit services were asked to participate in a survey to help the planning team understand intercity bus markets and service needs, as well as connection issues with local and regional systems. Transit agencies were also invited to participate in facilitated discussions at community meetings held around the state. DRPT contacted the transit providers and provided a link to the survey. A copy of the survey is provided in Appendix B.

Table 5-2 lists transit agencies contacted for the project and their level of participation. Information collected from these agencies via surveys and community meetings is tabulated in Appendix B and incorporated into the Summary of Needs section below.

Table 5-2: Regional and Local Transit Agency Participation

Transit System	Returned Survey	No Response
Altavista ACTS		x
Arlington Transit		x
Bay Transit	✓	
Blacksburg Transit		x
Blackstone Area Bus System		x
Bristol VA Transit		x
BRITE (Central Shenandoah)		x
CAT (Charlottesville)		x
Chincoteague Pony Express Trolley		x
City of Fairfax CUE Bus		x
Danville Mass Transit	✓	
DASH (Alexandria)	✓	
Fairfax Connector	✓	
Farmville Area Bus		x
Four County Transit	✓	
FRED (Fredericksburg)		x
GLTC (Lynchburg)	✓	
Graham Transit (Bluefield)		x
Greene County Transit System	✓	
Greensville-Emporia Transit		x
GRTC (Richmond)		x
Hampton Roads Transit		x
Harrisonburg Transit		x
JAUNT		x
Lake Country Area Bus and Halifax Area Regional Transit		x
Loudoun County Transit		x
Mountain Empire Transit		x
Mountain Lynx Transit (District Three Cooperative)		x
NVTC		x
PAT Petersburg	✓	
PAT Pulaski		x
PRTC		x
RADAR	✓	
Radford Transit		x
STAR Transit (Eastern Shore)		x
Suffolk Transit	✓	
Valley Metro (GRTC Roanoke)		x

Transit System	Returned Survey	No Response
VRE		x
VRT West Central (Orange/Culpeper/Front Royal)	✓	
WATA Williamsburg		x
Winchester Transit		x
WMATA		x

Private Provider Consultation

DRPT also requested feedback from all members of the Virginia Motorcoach Association and additional carriers including the current Virginia Breeze contractor, Dillon's Bus Service. The survey asked about services provided, unmet needs and the intercity bus program. A copy of the survey is provided in Appendix C. Greyhound and Dillon's Bus Service returned written surveys, and Abbot Trailways, participated in the Lynchburg public meeting.

A more in-depth meeting was conducted by telephone with Greyhound due it its potential key role in providing in-kind match. In addition, a meeting was held with Amtrak staff to discuss Amtrak Thruway Bus services and the relationship of intercity bus services to current and planned Amtrak service in the state. These interviews were designed to solicit input on which aspects of the Virginia Breeze program were working well or could use improvement from an operators' perspective, and to explore operational ideas that could help to address unmet needs. Appendix D includes summaries of discussions/survey results, which are also incorporated into the Summary of Needs section.

Table 5-3: Private Intercity Carrier Participation

Intercity Bus Operator	Returned Survey	Attended Meeting	No Response
A Goff Limousine and Bus Company			x
Abbott Trailways		✓	
Academy Express, LLC			x
Ace Charter Service			x
Adventure by Dawn, LLC			x
Agape Travel and Tours			x
Albemarle Coach, LLC			x
Blue Ridge Coach Lines, Inc.			x
Blue Ridge Tours, Inc.			x
BRT Transportation			x
Calyssa Travel LLC			x

Intercity Bus Operator	Returned Survey	Attended Meeting	No Response
Cross Tours & Cross Motor Coach, Inc.			x
Dillon's Bus Lines	✓		
D.T.S. Worldwide Transportation, LLC			x
DC Trails, Inc.			x
First Priority Trailways, Inc.			x
Fun Tours, Inc.			x
Greyhound Lines, Inc.	✓		
Hound Dog Bus Company			x
Isaacs & Associates			x
James River Transportation			x
L.W. Transportation, Inc.			x
Legacy Coach			x
Magic Carpet Tours & Bus Service, Inc.			x
Magic Trails, LLC			x
National Coach Works, Inc. of Virginia (Martz Group)			x
Newton Bus Service, Inc.			x
Oleta Coach Lines, Inc.			x
Platinum Tours			x
Premier Travel, LLC			x
Pro-American Tours, LLC			x
Quick's Bus Company			x
Reston Limousine & Travel Services, Inc.			x
Richards Bus Lines, Inc.			x
Right Road Express, Inc.			x
Schrock Travel			x
Silver Lining Charters & Tours, LLC			x
Society Coach Lines, LTD.			x
Southern Express, Inc.			x
Sunshine Tours, Inc.			x
The American Bus Line, Inc.			x
Tidewater Touring, Inc.			x
Venture Tours, Inc.			x
Virginia Coach Company			x
Virginia Mountain Tours			x
W&W Luxury Limousine Service, LLC			x
Winn Bus Lines, Inc.			x

Input from Neighboring States

Section 5311(f) program staff in both North Carolina and Maryland was contacted to understand their program operation, and if they were open to potential support of routes that linked the states. In North Carolina, the Section 5311(f) program funds several routes that are operated by contract carriers. RFPs are issued, and a carrier is selected for operation. New route alignments are being developed now, and it is anticipated that the RFPs will be issued in October - November 2019. A new state program is providing additional funding for intercity/regional services, supplementing Section 5311(f) funding. Among current routes affecting Virginia is a service operated by Greyhound between Norfolk and Raleigh. North Carolina provides funding for service to the state line, and Greyhound operates the Virginia section without assistance from North Carolina. The service operates through Suffolk, Virginia, but does not stop - North Carolina has no objection if Virginia requested that Greyhound make a stop in Suffolk. North Carolina has identified unmet needs for additional service linking northeastern North Carolina with Norfolk; north central North Carolina between Danville and Greensboro or Raleigh/Durham (via Roxboro) and the U.S. 220 corridor south of Greensboro to the South Carolina line. North Carolina staff stated that they are open to joint funding of services that provide connections between the states if they address some of their identified needs.

Maryland funds Section 5311(f) service from Baltimore west to Frostburg via Frederick, Hagerstown, and Cumberland (operated by Bay Runner); and from Baltimore to Wilmington (Delaware) via U.S.40 (operated by Greyhound). Former Greyhound service between Salisbury and Ocean City is now operated by the local transit provider, Shore Transit - Greyhound service stops at the Shore Transit terminal in Salisbury, and ticketing is interlined. This service is not funded with Section 5311(f) but is part of the transit system's budget. Maryland is currently utilizing a bit more than its 15% Section 5311(f) allocation, and has not conducted any planning regarding expansion or connections for the intercity program. Needs for a connection between Hagerstown, Maryland and Winchester have come up as part of a Transit Development Plan for Washington County, Maryland, but the study is not yet finalized and it is unlikely that Maryland would utilize Section 5311(f) funding for this connection.

Survey of Mobility Managers

A written survey was distributed and collected at a statewide meeting of Mobility Managers conducted by DRPT. Table 5-4 lists the respondents, and Appendix E presents the questions and responses. The Mobility Managers are particularly aware of the needs of the elderly, persons with disabilities, and low-income individuals for regional and intercity travel options, but there were additional comments on the need for intercity connections for students and those traveling to airports. Several mentioned the need for more marketing for Virginia Breeze (where available). There was some awareness of nearby Amtrak stops and Megabus,

and less of other intercity bus services. Specific suggestions for new routes or stops are included in the Summary of Needs section below.

Table 5-4: Mobility Manager Participation

Organization	Name	Position
Fairfax County Govt.	Cynthia Alarico	Mobility Manager
Appalachian Independence Center, Inc.	David Barrett	Director
Chesterfield County Citizen Info & Resources	Dawn Missory	Mobility Manager
Healthy Generations Area Agency on Aging	Denis P Paddeu	Mobility Manager
Senior Services of Southeastern VA	Donnie Perry	Director of Transit
Rockbridge Area Transportation System	Hattie Myers	Executive Director
RADAR/UHSTS	Joseph Baker	
Bay Transit	Katherine Newman	Mobility Manager
	Kevin M Cuddeback	
SAAA	Mandy Folman	Mobility Manager
JAUNT	Mary Honeycutt	Mobility Manager
Old Dominion University	Megan Gribble	Transportation Planner and Manager of Marketing & Communications
Senior Services of South Eastern VA	Tabitha Smith	Manager

Other Community Input

The project team received additional input from other community members. Following the community meetings two PDCs requested links to an online survey that they could send to members of the public in their region. An overwhelming number of responses came from the Middle Peninsula and Northern Neck region, with a few from the Martinsville area. Respondents generally requested new routes to serve areas which do not currently have service. From the Middle Peninsula, most service requests called for routes to Fredericksburg and Washington, D.C., (particularly to the airports). Connections to Norfolk/Virginia Beach and Richmond were also mentioned, but less frequently. From south central Virginia desired connections included Danville, Roanoke, and North Carolina points. Appendix F presents the survey and its results. Insights from these participants have been incorporated into the Summary of Needs section below.

In addition, staff at Old Dominion University in Norfolk reached out to the study team to request consideration of Virginia Breeze service to Norfolk, particularly linking the Tidewater area to south central Virginia.

A citizen also provided input to the study team requesting an extension of the current Virginia Breeze service to Bristol, proposing schedules and stops.

Community Meetings

Two community meetings were conducted in March 2019, including one in Ashland and a second one in Lynchburg. DRPT used e-mail lists from the previous surveys and its broader stakeholder mailing list to solicit participation. Invitations were sent to regional planning agencies, transit agencies, human service agencies, the Virginia Motor coach Association, and the statewide email system managed by DRPT. Each meeting included a presentation addressing the definition of intercity bus service, the FTA Section 5311(f) Intercity Bus program, Virginia Breeze, and some potential route expansion options developed from the previous survey effort. A copy of the presentation is included in Appendix G.

Twenty-three attendees participated in the meetings. Insights offered by participants have been incorporated into the Summary of Needs section below. Attendees were asked to provide their own ideas for service expansion by adding routes with colored tape to maps showing the current intercity bus and rail network in the state. Stops were designated with dots, and groups added notes on post-it notes or directly on the tape of the routes. Appendix H includes the resulting maps. Figure 5-1 presents one of the groups at the Lynchburg meeting with their map of desired intercity bus expansion routes.

Figure 5-1: Some of the participants in Lynchburg with their recommendations

Virginia Breeze Passenger Surveys

DRPT conducted two on-board surveys on the current Virginia Breeze operation. One survey focused on passenger characteristics, trip characteristics, service assessment, and desired improvements or changes. The second asked additional questions about passenger characteristics to serve as a baseline for Title VI analyses. Feedback for preferred improvements are presented along the survey results below to be included with the changes desired by other groups.

As previously noted, current Virginia Breeze passengers would like additional schedules, and a majority would like fewer stops—i.e. more express service. A majority of Virginia Breeze riders surveyed (87%) said they would ride more often if there were more trip times available whereas only 37% would ride more often if there were more stops available. One of the riders commented that an increase in service hours would make it convenient for them to connect to more flights. Among the 37% who would like additional stops, the key destinations desired included Richmond, Roanoke, and Charlottesville in order of desire. Roanoke is the only one of the three in close proximity to the current Virginia Breeze route. Richmond, Roanoke and Charlottesville each have existing intercity bus service three times per day on Greyhound. The connection between the Virginia Breeze route and Greyhound service is via a Smartway bus from Blacksburg to the Campbell Court intermodal center in Roanoke, as Roanoke is not served by Virginia Breeze. Another passenger comment requested USB outlets on the buses. Summary of Needs from Consultation and Outreach

Because the primary focus of this study is on expansion alternatives analysis, and because many of the stakeholders provided input that reflected a lack of intercity bus coverage in many places, the primary request was for more services, specifically new routes. In some cases, these proposals were linked to service for particular groups or destinations. Table 5-5 summarizes much of this input by grouping the proposals in corridors or regions. Comments listed include any particular user groups that are associated with alternatives.

Potential Expansion Routes

Stakeholders are most familiar with the regions in which they live and work, so much of the input received during the study was related to specific geographic areas of the state. For the purposes of synthesizing input received, the planning team has organized themes by corridor as listed in Table 5-5.

Table 5-5: Summary of Virginia Breeze Expansion Alternatives—Input from Surveys and Workshops

Route Alternative	Source/Support	Comments	Intercity Bus National Network Connection
I-64 Corridor			
1) Harrisonburg-Staunton-Waynesboro-Charlottesville	• Survey from GLTC • Thomas Jefferson PDC		Charlottesville
2) Charlottesville-Richmond	• Lynchburg Meeting Group 1 • Amtrak Consultation • Richmond Regional PDC	• Amtrak Thruway frequency improvements under consideration • Greyhound currently operates three daily round-trips on this route	Charlottesville Richmond
3) Richmond-Tidewater	• Richmond Regional PDC		Richmond Norfolk
4) Lexington-Charlottesville	• Rockbridge Area Transportation System survey	• Gets calls for trips to airports	Charlottesville
U.S. 460-360 Corridor			
1) Roanoke-Bedford-Lynchburg-Farmville-Richmond-(Hampton Roads-Norfolk)	• Lynchburg Meeting Group 3 supported concept, added stop in Farmville, • Lynchburg Meeting Group 2 also, including Farmville stop, • Roanoke Valley Regional Commission • Central Shenandoah PDC	• Called out need in Bedford area	Roanoke Lynchburg Richmond Norfolk
2) Lynchburg-Bedford-Roanoke	• Roanoke Valley Regional Commission	• More frequency	Roanoke Lynchburg
3) Roanoke-Richmond limited stop express	• Roanoke Valley Regional Commission	• More trips, limited stops	Roanoke Richmond
4) Lynchburg-Farmville-Petersburg-Richmond	• Lynchburg Meeting Group 1	• Could also stop in Blackstone; • Lynchburg Kemper Street Amtrak/Transit as intermodal hub	Lynchburg Richmond

Route Alternative	Source/Support	Comments	Intercity Bus National Network Connection
5) Norfolk-Suffolk-Petersburg-Richmond (Route 460 corridor)	• Lynchburg Group 2		Norfolk Richmond
6) Norfolk-Suffolk-Waverly-Petersburg-Blackstone (Route 460 corridor)	• Lynchburg Group 2		Norfolk Petersburg
7) Danville-South Boston-Farmville-Crewe-Richmond	• Staff • Danville Transit comments	• Former Greyhound route • Serves Farmville college • Serves Crewe prison	Richmond
U.S. 58 Corridor			
1) Norfolk-Suffolk-Emporia-South Hill-South Boston-Danville-Martinsville;	• Lynchburg Meeting Group 3 • Old Dominion University stakeholder input	• US 58 corridor concept, add stop for prison in Greensville, • Note Danville Transit to start potential feeder/connector from South Boston and Alta Vista to Danville in FY 2019	Norfolk
2) Bristol-Galax-Hillsville-Mount Airy (NC)-Winston-Salem (NC)	• Appalachian Independence Center, Inc.	• Needs links from Washington County to Bristol, but other points mentioned could be linked by intercity route on US 58 Bristol to Hillsville, I-77 to Winston-Salem. Note existing Greyhound service from Bristol on I-81 and Wytheville to Winston-Salem on I-77. Not clear if identified need is regional rural transit or intercity connections	Bristol Winston-Salem

Route Alternative	Source/Support	Comments	Intercity Bus National Network Connection
12) Winchester-Tysons-Corner-Washington, D.C.	• Ashland Meeting	• Commuter times/service	Washington, D.C.
13) Front Royal-Washington, D.C.	• Ashland Meeting	• Funding to maintain/expand existing commuter service—could 5311(f) fund if it made ICB connections at Union Station?	Washington, D.C.
Route 29 Corridor			
1) Danville-Lynchburg-Charlottesville	• Lynchburg Meeting Group 3 supported concept, include stop in Alta Vista (south of Lynchburg), included in longer Greensboro-DC route concept. • Survey from GLTC	• Noted need for access to UVA Medical Center from Lynchburg, Central Virginia	Lynchburg Charlottesville
2) Lynchburg-Lovingston-Charlottesville	• Lynchburg Meeting Group 2, • JAUNT transit system survey		Lynchburg Charlottesville
3) Greensboro (NC)-Reidsville (NC)-Danville-Alta Vista-Lynchburg-Nelson County-Charlottesville-Culpeper-Dulles Airport-Washington, D.C.	• Lynchburg Meeting Group 3 supported concept, • Greyhound consultation	• Noted need for access from Nelson County for medical trips, did not designate a stop (would be north of Amherst-Lovingston?)	Greensboro, NC Lynchburg Charlottesville Washington, D.C.
4) Charlottesville-Culpeper-Warrenton-Gainesville-Dulles Airport-Washington, D.C.	• Greyhound Lines consultation call, • Lynchburg Meeting Group 3 • Lynchburg Meeting Group 2 (stops in Nelson County, Charlottesville, Culpeper) • Lynchburg Meeting Group 1 (express to Dulles/DC)- • Rappahannock -Rapidan PDC survey • Megabus consultation survey • Fairfax County government survey	• For medical trips to UVA Hospital—likely would need additional Fairfax stop	Charlottesville Washington, D.C.

Route Alternative	Source/Support	Comments	Intercity Bus National Network Connection
5) Danville-Lynchburg-Farmville-Richmond-(Hampton/Norfolk)	• Lynchburg Meeting Group 3		Richmond Norfolk
I-81 Corridor			
1) Bristol-Abingdon-Wytheville-Christiansburg-Roanoke	• Lynchburg Meeting Group 2 • Citizen input	• Connect with Amtrak in Roanoke • Combine extended Breeze with existing Greyhound schedules—Breeze as express	Bristol Wytheville Roanoke
2) Front Royal-Winchester-Harper's Ferry-Hagerstown (MD)	• Ashland Meeting	• Would require multi-state coordination, limited National Network connectivity (required for in-kind match), need may be commute	Hagerstown, MD
(3) Front Royal-Lord Fairfax-Community College-Winchester	• Ashland Meeting	• Local-regional connection, no potential national intercity bus connection (needed for in-kind match) unless combined with a route to Washington	None
I-95/I-85 Corridor			
1) Richmond area (Ashland) - Fredericksburg	• Ashland Meeting • Richmond Regional PDC	• Need is for commute times	Richmond Fredericksburg
2) South Hill—Petersburg-Richmond (I-85/95 corridor)	• Southside PDC • Richmond Regional PDC • Chesterfield County Citizen Information and Resources	• Desired Richmond destinations include VCU, hospitals/medical offices • Petersburg-Richmond segment supported by Richmond Regional PDC • Petersburg-Richmond local with stops in Colonial Heights and Chester favored by Chesterfield County	Richmond

Route Alternative	Source/Support	Comments	Intercity Bus National Network Connection
U.S. 220 Corridor			
1) Covington to Roanoke	• Lynchburg Meeting Group 2		Roanoke
2) Clifton Forge to Roanoke	• Lynchburg Meeting Group 1		Roanoke
3) Clifton Forge-Botetourt County-Greenfield Center-Roanoke	• Roanoke Valley Regional Commission	• Connections in Roanoke to Amtrak stations, Greyhound, Smart way	Roanoke
4) Roanoke-Rocky Mount (VA)-Martinsville-Danville-Reidsville (NC)-Greensboro (NC)	• Lynchburg Meeting Group 2		Roanoke Greensboro, NC
Peninsulas			
1) Norfolk (Old Dominion University)-Hampton-Gloucester Court House (Bay Transit Facility)-Tappahannock-King George-Fredericksburg (Amtrak/VRE station and FRED 8) Central/Greyhound)-Reagan National Airport-Washington, D.C.	• Ashland Meeting • Healthy Generations Area Agency on Aging survey • Bay Transit survey	• Potential feed from Bay Transit at Gloucester Court House, Warsaw • Could connect to Greyhound at Fredericksburg, but prefer single seat ride to airport and DC (not sure if Greyhound would see it as competition in Fredericksburg-DC market)	Norfolk
Eastern Shore			
1) Norfolk-Exmore-Oak Hall-(Salisbury (MD)—Wilmington (DE)—New York (NY))	• Accomack-Northampton Planning District Commission	• Existing Greyhound service on this route has seen recent frequency cuts	Norfolk
Other North-South Routes			
1) Richmond-Farmville-South Boston-Roxboro (NC)-Raleigh-Durham (NC)	• Lynchburg Meeting Group 2		Richmond Raleigh
2) Lexington-Lynchburg-Danville	• Lynchburg Meeting Group 1		Lynchburg

Route Alternative	Source/Support	Comments	Intercity Bus National Network Connection
Virginia Breeze Improvements			
1) Add stop in Woodstock	• Ashland Meeting		
2) Add another trip	• User survey		
3) Add Roanoke stop	• Ashland Meeting • City of Lexington	• Need for shelter, better stop in Lexington	
4) Add stop to serve Amish community (if Harrisonburg is not best location)	• Ashland Meeting	• This may be an outreach/ marketing issue to inform Amish communities of service availability	

General Program Observations

Groups and Markets with Potential Service Needs

Four market segments were identified by stakeholders in most areas of the state as populations with potentially underserved needs. These included:

- University students making intercity trips
- Seniors, veterans, and low-income persons in rural areas – for access to regional medical facilities
- Corrections facility visitors and internees
- Persons making longer distance trips by air needing airport access

Additional market observations for specific corridors are described in the comments section of Table 5-6.

Terminals, Transfers and Connections

Intermodal Transportation Services are Important

Stakeholders generally acknowledged the need for future Virginia Breeze schedules to coincide with connecting intercity bus services such as Greyhound or Megabus; but also felt that Amtrak and airline flight schedules should be considered as well when creating timetables for the Virginia Breeze routes.

Virginia has invested in a number of intermodal centers that are the main transfer points for local and regional services. Several of these have been designed to serve intercity bus as well, and it was noted that these should be used to the extent possible to facilitate connections between intercity service and local transit - on both existing and proposed services.

The Virginia Breeze ridership to/from Dulles Airport suggests that the airport connection could be an important source of ridership for expansion routes—particularly to major airports such as Dulles and Reagan National, and a number of expansion services suggested by participants included the airport connection.

Intercity Bus Demand and Funding Issues

Rural Intercity Bus Service Requires Subsidies in Many Areas

Providers consulted during the planning process confirmed that travel demand in most rural areas is not adequate to support free-market service, and intercity bus service could not be provided without a public subsidy.

Virginia Breeze Service Expansion Prospects are Dependent on In-Kind Match Provided by Unsubsidized Intercity Bus Services

Currently the in-kind match required for the Virginia Breeze route is provided by Megabus, and some of respondents were aware of the need for expansion services to make timely connections with unsubsidized intercity bus services (Megabus or Greyhound) in order to obtain the match. Most proposals were to places where connections could be made, such as major hubs like Washington, D.C. or Richmond. Providers were cautious about expansion prospects for their existing routes. To the extent that Greyhound is providing in-kind match for the program, any reductions in Greyhound service frequencies and routes could limit the available in-kind match needed to expand Virginia Breeze services. Megabus services within Virginia are limited, a fact which may also limit the availability of in-kind match. Table 5-6 lists the national intercity network connection points for the suggested expansion routes to see if any are infeasible due to lack of a connection point.

Current Virginia Breeze Riders Desire Increased Service Frequencies

Current riders on the Virginia Breeze service expressed a desire for more frequent service—at least two daily round-trips. However, intercity bus operators noted that on other routes serving rural Virginia demand fluctuations have recently resulted in frequency reductions, in some cases to less than daily service. This suggests that those routes might benefit from funding to maintain a minimum of one daily round-trip, for example on the Eastern Shore.

Pricing and Ticketing

Coordination and Integration with Regional Transit Systems

Some stakeholders expressed an interest in exploring how regional public transit providers could interline with the intercity bus network to provide more seamless service. This includes interlining ticket sales with Greyhound (or other carriers) or with future Virginia Breeze routes.

Marketing and Information Needs

Online Information Needs Improvement

A number of stakeholders felt that increased marketing and better information is needed to make the public aware of the availability of intercity bus services. A number of surveys

returned by public sector stakeholders did not include mention of existing unsubsidized intercity bus service, and even within the Virginia Breeze corridor there were comments about more marketing and a stronger social media presence needed. Currently, potential riders in Virginia have to go to individual carrier websites for information and ticketing, and they may be unaware of existing services for their origins of destinations. Few participants had specific suggestions for availability of information.

Continuing Outreach

Stakeholders appreciated the opportunity to interact with DRPT program managers during the planning study and asked for ongoing outreach to remain up-to-date on the Virginia Breeze program. Participation in regional planning organization meetings by Virginia Breeze managers and contractors is important, as is continued education about intercity bus and rail options for mobility managers on staff at regional planning organizations. The Mobility Managers should be aware of all the existing intercity services, as they address all types of questions about available transportation resources.

SELECTED ROUTE ALTERNATIVES

Following the 4/9 steering committee discussion, and based on the summary of input, the following route options were chosen to be the focus of analysis in Chapter 6:

- Route 29 Corridor: Each of the identified permutations:
  - Greensboro-Danville-Lynchburg-Charlottesville-Dulles Airport-Washington, D.C. (with intermediate stops)
  - Greensboro-Danville-Lynchburg
  - Greensboro-Danville-Lynchburg-Charlottesville
  - Danville-Lynchburg-Charlottesville
  - Danville-Lynchburg-Charlottesville -Culpeper-Warrenton-Gainesville-Dulles Airport-Washington, D.C.

- Danville – Richmond (or Greensboro-Danville- Richmond) - with and without Farmville (depending on whether Farmville is on a Lynchburg-Richmond route)

- Blacksburg-Roanoke-Bedford-Lynchburg-Farmville to Richmond

- (Norfolk) Hampton-Tappahannock-Warsaw-Fredericksburg (and extension to Reagan National Airport and Washington Union Station.

- The U.S. 58 corridor across the southern part of the state connecting Norfolk with Danville-Martinsville

Some routes that were suggested but are not the focus of more detailed analysis at this time include:

- Norfolk-Oak Hall-Exmore-Salisbury, MD—New York (the Eastern Shore): Although the frequency of service has been reduced this is an existing Greyhound route.

- Bristol-Roanoke: This route has existing Greyhound service (three daily round-trips).

- The US 220 corridors: These may be better served by local/regional transit options, and it is likely that demand is too low for 5-day or 7-day per week service (required to obtain Greyhound in-kind match). This includes both:
    - Roanoke-Martinsville to Winston-Salem or Greensboro (NC), and
    - Clifton Forge/Covington to Roanoke

- Winchester-Washington, D.C., Front Royal-Washington, D.C.: These are fundamentally commuter routes, though potentially they could offer intercity connectivity by going into Union Station - but there may be other funding sources available that are more appropriate for a predominantly commuter service.

- Harrisonburg-Staunton-Waynesboro-Charlottesville: The subject of a previous planning study, most trips on the proposed service would be commuter service not eligible for Section 5311(f) intercity funding.

Chapter 6:
Virginia Breeze Expansion Recommendations

INTRODUCTION

In this chapter the route alternatives presented at the end of the previous chapter are analyzed in terms of their potential ridership, cost-effectiveness, and contribution to intercity bus access. These potential routes are then prioritized to develop recommendations for future expansion of Virginia's Section 5311(f) services. The likely annual operating cost of route priorities is discussed in relation to Virginia's Section 5311(f) allocation.

METHODOLOGY

To develop priorities among the proposed alternatives, a multi-step methodology is applied and the results are presented in this chapter. The overall process focuses on the degree to which a proposed route provides service to previously unserved populations, its likely ridership, and its predicted performance. The routes are ranked in terms of their contributions to each of these factors, and the rankings are then scored. Finally, the scores are used in an overall prioritization that allows for the assignment of weights to the different factors. The process is described in the following sections.

Estimation of the Degree to which Each Route Serves Previously Unserved Populations

- Route definition: for each alternative route, the proposed stops are determined and listed.
- Using GIS, the population within ten and twenty-five miles of each proposed stop is determined.
- The total population served for each route is determined by adding the populations of the individual stops.
- The population of existing stops is subtracted to provide an estimate of how many additional persons would be served by that route.
- Once the incremental population served has been calculated for all the routes, the routes are ranked in terms of the number of additional persons that would be served. The route with the largest addition to the population served is ranked highest.

- The route rankings are then scored to provide a general grouping of those routes with the highest impact in terms of population served.

Estimating Ridership

- Transit Cooperative Research Program (TCRP) Report 147, Toolkit for Estimating Demand for Rural Intercity Bus Services, includes a downloadable, relatively easy-to-use model for estimating ridership on rural intercity bus routes comparable to the alternatives in consideration for Virginia.

- The model is contained on a CD or can be downloaded from the Transportation Research Board. The model was developed in 2010-2011. State transit programs were surveyed to collect data on the ridership and route characteristics of Section 5311(f) services. This data was used to calibrate two types of models: a regression model and a trip rate model. The regression model is driven by the average population of the stops, route length, whether or not it is operated by a national carrier, whether it serves an airport, and whether or not it serves a correctional facility. These were all significant explanatory variables in the development of the model, but frequency and fare were not, likely because there was little variation of either factor in the calibration set. Most routes had similar fares per mile and were one round trip per day. The trip rate model uses data from a specific subset of National Household Transportation Survey data that included trip rates for trips over 100 miles by region. Based on the state where the route will be operated, the model selects the appropriate trip rates and multiplies it by the stop population. The total is adjusted by the error term of the regression model.

- The TCRP 147 model inputs are the population of each of the proposed stops, the name of the state in which the route (or the majority of the route) will be operated, the one-way length of the route in miles, a yes or no to the question of whether it will be operated by a national intercity bus carrier (or interline partner), a yes or no to whether the route will serve an airport with commercial service, and a yes or no to whether it will serve a stop with a correctional facility. The population data is from the 2010 Census and is for the Minor Civil Division or the Urbanized Area. It is contained in the model; the user simply has to type the stop names into the blanks. The model automatically makes an adjustment for the fact that the destination of the route likely already has service by removing the largest population point from the subsequent calculations. If the route links cities that are already served, the user may also set the population of the cities on the route already receiving service to zero. After entering the stops and the route length, selecting the appropriate attributes regarding the operator, airport service, and service to a correctional facility, the toolkit estimates the demand using each model. The tool provides data on the four most similar routes from the calibration base, allowing the user to evaluate the reasonableness of the estimates. Although the two model results usually differ, they may be averaged to provide a mean demand estimate.

- For each of the identified route alternatives in this study, the TCRP 147 model was used to estimate ridership. The estimates are conservative in that the populations of towns already receiving service were not included. It was assumed that all routes would be operated by a national network carrier or interline partner. Route lengths were calculated based on mileage between stops, using terminal addresses and the shortest route between them.

- Route alternatives were then ranked from highest ridership to lowest, and subsequently scored to group similar performers together for consideration in the prioritization.

Estimation of Costs and Revenue

- The annual miles operated on each route were estimated through the assumption that it would operate seven days per week, 365 days per year, and one round-trip per day. In other words, 730 annual trips multiplied by the one-way length of the route.

- The annual operating cost was estimated by multiplying the annual miles times $4.50 per mile, which is a typical fully-allocated cost per mile for privately provided intercity bus service. The current Virginia Breeze cost is $4.09 per mile (average for CY 2018), so the higher cost provides a more conservative (high) estimate of net deficits.

- Revenue was estimated in two steps.

    - The first step involved an estimate of passenger-miles for each route. The total estimated ridership for the route is multiplied by the annual bus-miles, which provides an estimate of the number of passenger-miles that would be generated if each passenger rode from beginning to end. However, some passengers will board or alight at stops along the way, so an adjustment is made to reduce the number of passenger miles. If there are few intermediate stops it is likely that most passengers will ride end-to-end, and it is assumed that the actual passenger-miles will be only 80 percent of the theoretical maximum. If the route has many intermediate stops, or they are of significant population size, this factor may be as low as 50%. These are assumptions based on expert judgement.

    - The second step involves multiplying the average fare per passenger-mile times the estimated passenger miles. The average fare was developed by taking a sample of fares from existing services in Virginia for next-day trips and for trips two weeks out, and then averaging the fare per mile. Appendix I presents the sample of fares, which were collected in late April 2019. Generally, shorter trips have a higher fare per mile and longer trips have a lower fare, so long routes were assigned a slightly lower fare.

- With costs and revenues estimated for each route, the next step was to develop performance measures.

Performance Measures - Net Cost per Trip, Farebox Recovery, and Boardings per Trip

With the ridership, costs and revenue estimated, performance measures can be calculated.

- The cost per passenger trip is calculated by taking the total operating cost, subtracting estimated revenue to get the net operating deficit, and then dividing by the predicted ridership. This is the cost to DRPT for transporting each rider individually.

- The proposed routes are then ranked on net cost per trip, from lowest to highest, and the rankings scored to group them.

- Farebox recovery is calculated by dividing the estimated revenue by the estimated operating cost.

- The route alternatives are ranked on estimated farebox recovery, from highest to lowest, and the rankings scored.

- The boardings per trip measure is calculated by dividing estimated ridership by the number of annual trips.

The routes are then ranked on boardings per trip, from highest to lowest, and scored. In this situation, because it is assumed that all routes have the same number of annual trips, this ranking and scoring is essentially the same as ranking on ridership.

Degree to Which the Proposed Service Duplicates Existing Service

The percentage of stops on the route that do not already receive existing service was calculated, and the routes were ranked on those percentages from highest to lowest. A route proposal for an area with no existing service would receive the highest ranking. The rankings were then grouped and scored.

Prioritization

In order to facilitate the consideration of routes that may have very different characteristics, a prioritization spreadsheet tool was developed to include all of the various factors and allow changes in the weighting. For each route, the scores are multiplied by a weight and the weighted scores are summed to provide an overall score. Then the routes are ranked on the overall score. The weights used in the application in this chapter place a multiplier of three on each factor associated with more coverage or more ridership assigned, and a multiplier of one

on each of the cost-effectiveness factors. Other weights could be used. The resulting scores are used to develop priorities for potential new services.
The application of this methodology to the route alternatives is presented in the following sections which address the application of each step in the methodology in the order presented above, followed by the prioritization.

POTENTIAL ROUTE ALTERNATIVES - NEW POPULATION COVERAGE

Table 6-1 presents a list of the 16 route expansion alternatives considered, based on the needs assessment, public and stakeholder input, and the service provided by the current intercity network. Each route was defined in terms of the one-way length of the route, potential stop locations, and location of connections with the national intercity bus network. Table 6-2 presents estimates of the populations within 10- and 25-mile coverage areas of all stops, less the populations at stops already served, to present the previously unserved population that would receive service if that alternative was implemented. Figure 6-1 presents an enhanced route map that includes all of the existing and proposed routes.

Stops in North Carolina are included for analysis purposes to reflect the ridership, costs, and revenue of alternatives with those connections. These route extensions outside Virginia would require funding from North Carolina or be operated by a contracting carrier on its own account.

The result of adding this additional coverage has a larger impact on the population within 10 miles of a stop, as it brings intercity connections closer to the population. Adding additional coverage has less impact on the population within 25 miles of a stop because so much of the state is already within that proximity of an intercity stop.

Table 6-3 scores the new population coverage of each route using the following scoring rubric:

1 = Under 100,000

2 = 100,000 to 300,000

3 = Over 300,000

These scores will be used later in the chapter in the prioritization process.

Figure 6-1: Potential Route Alternatives

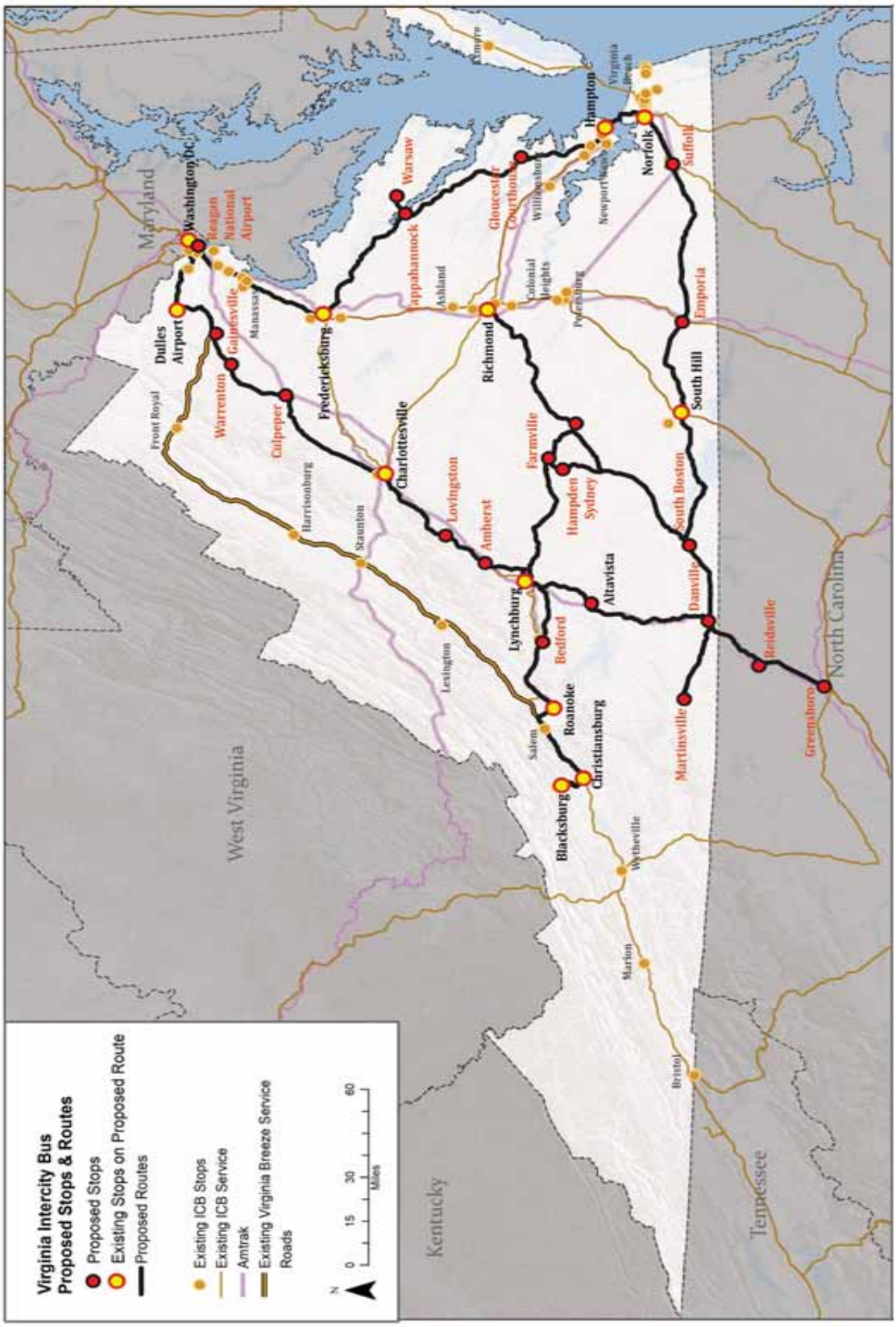


Table 6-1: Route Alternatives Descriptions

Route Name	Corridor	Route Length (Miles)	Route Description (Stops)
Greensboro (NC)-Danville-Union Station (DC)	US 29	323.62	Greensboro (NC)-Reidsville (NC)-Danville (VA)-Altavista-Lynchburg-Amherst-Lovingston-Charlottesville-Culpeper-Warrenton-Gainesville- Dulles Airport and Union Station (DC)
Greensboro (NC)-Danville-Lynchburg	US 29	118.51	Greensboro (NC)-Reidsville (NC)-Danville (VA)-Altavista-Lynchburg
Greensboro (NC)-Danville-Charlottesville	US 29	186.34	Greensboro (NC)-Reidsville (NC)-Danville (VA)-Altavista-Lynchburg-Amherst-Lovingston-Charlottesville
Danville-Lynchburg-Charlottesville	US 29	137.28	Danville (VA)-Altavista-Lynchburg-Amherst-Lovingston-Charlottesville
Charlottesville-Warrenton-Union Station (DC)	US 29	137.10	Charlottesville-Culpeper-Warrenton-Gainesville---then to Dulles Airport, and from Dulles to Union Station (DC)
Danville-Charlottesville-Union Station (DC)	US 29	274.39	Danville-Altavista-Lynchburg-Amherst-Lovingston-Charlottesville-Culpeper-Warrenton-Gainesville---then to Dulles Airport, and from Dulles to Union Station (DC)
Danville-Richmond	US 58/360	145.94	Danville-South Boston--Crewe-Richmond
Danville-Hampden Sydney-Farmville-Richmond	US 58/360	163.86	Danville-South Boston-Hampden Sydney-Farmville-Crewe-Richmond
Greensboro (NC)-South Boston-Richmond	US 29/58/360	212.95	Greensboro (NC)-Reidsville (NC)-Danville-South Boston-Hampden Sydney-Farmville-Crewe-Richmond
Martinsville-Danville-Richmond	US 58/360	184.50	Martinsville-Danville-South Boston-Hampden Sydney-Farmville-Richmond
Blacksburg-Richmond	US 460/360	219.31	Blacksburg-Christiansburg-Roanoke-Bedford-Lynchburg-Farmville-Crewe-Richmond
Norfolk-Fredericksburg	US 17	159.82	Norfolk-Hampton-Gloucester Courthouse-Tappahannock-Warsaw-Fredericksburg
Norfolk-Union Station (DC)	US 17	216.51	Norfolk-Hampton-Gloucester Courthouse-Tappahannock-Warsaw-Fredericksburg-Reagan National Airport-Washington Union Station (DC)

Route Name	Corridor	Route Length (Miles)	Route Description (Stops)
Hampton-Fredericksburg	US 17	142.97	Hampton-Gloucester Courthouse-Tappahannock-Warsaw-Fredericksburg
Hampton-Union Station (DC)	US 17	199.66	Hampton-Gloucester Courthouse-Tappahannock-Warsaw-Fredericksburg-Reagan National Airport-Washington Union Station (DC)
Martinsville-Norfolk	US 58	222.21	Martinsville-Danville-South Boston-South Hill-Emporia-Suffolk-Norfolk

Table 6-2: Route Alternatives--Additional Population Served
(ranked by 10-mile buffer Incremental Population Served)

	10-mile Buffer			25-mile Buffer		
Route Name	Total Population Served - All Stops	Population Served-Existing Stops	Incremental Virginia Population Served	Total Population Served-All Stops	Population Served-Existing Stops	Incremental Virginia Population Served
Greensboro (NC)-Danville (VA)-Union Station (DC)	1,875,652	1,455,160	420,492	3,400,711	2,894,465	506,246
Danville-Charlottesville-Union Station (DC)	1,875,652	1,455,160	420,492	3,400,711	2,894,465	506,246
Charlottesville-Warrenton-Union Station (DC)	1,621,363	1,309,899	311,464	2,945,466	2,653,790	291,676
Norfolk-Union Station (DC)	2,041,316	1,735,298	306,017	4,152,942	3,827,603	325,339
Hampton-Union Station (DC)	1,410,227	1,104,210	306,017	4,062,092	3,736,753	325,339
Martinsville-Norfolk	972,783	744,148	228,635	1,844,324	1,531,039	313,285
Martinsville-Danville-Richmond	816,943	643,068	173,875	1,451,283	1,110,480	340,803
Danville-Hampden Sydney-Richmond	770,310	643,068	127,241	1,370,563	1,110,480	260,083
Greensboro (NC)-South Boston-Richmond	770,310	643,068	127,241	1,370,563	1,110,480	260,083

	10-mile Buffer			25-mile Buffer		
Route Name	Total Population Served - All Stops	Population Served- Existing Stops	Incremental Virginia Population Served	Total Population Served- All Stops	Population Served- Existing Stops	Incremental Virginia Population Served
Greensboro (NC)-Danville-Charlottesville	378,761	269,733	109,028	721,351	506,781	214,570
Danville-Lynchburg-Charlottesville	378,761	269,733	109,028	721,351	506,781	214,570
Danville-Richmond	747,402	643,068	104,334	1,340,664	1,110,480	230,184
Greensboro (NC)-Danville-Lynchburg	233,184	145,261	87,923	408,800	240,675	168,124
Hampton-Fredericksburg	619,019	561,125	57,894	2,191,614	1,982,748	208,866
Norfolk-Fredericksburg	1,250,107	1,192,214	57,894	2,282,463	2,073,598	208,866
Blacksburg-Richmond	1,190,155	1,156,160	33,995	1,961,568	1,865,109	96,459

Table 6-3: Route Expansion Alternatives - Ranked and Scored on Incremental Population Served

Proposed Route	10-Mile Incremental Population Served	Rank
Greensboro (NC)-Danville-Union Station (DC)	420,492	3
Danville-Charlottesville-Union Station (DC)	420,492	3
Charlottesville-Warrenton-Union Station (DC)	311,464	3
Norfolk-Union Station (DC)	306,017	3
Hampton-Union Station (DC)	306,017	3
Martinsville-Norfolk	228,635	2
Martinsville-Danville-Richmond	173,875	2
Danville-Hampden Sydney-Richmond	127,241	2
Greensboro (NC)-South Boston-Richmond	127,241	2
Greensboro (NC)-Danville-Charlottesville	109,028	2
Danville-Lynchburg-Charlottesville	109,028	2
Danville-Richmond	104,334	2
Greensboro (NC)-Danville-Lynchburg	87,923	1
Hampton-Fredericksburg	57,894	1
Norfolk-Fredericksburg	57,894	1
Blacksburg-Richmond	33,995	1

ESTIMATED DEMAND ON PROPOSED ROUTES

The second step in the analysis of the proposed routes is the estimation of the potential demand. Intercity bus demand is estimated using the same TCRP Report 147 rural intercity bus demand model used in the previous statewide bus study, but updated using 2010 Census data. The model produces estimates using two techniques, a regression equation and a trip rate model. These are averaged to arrive at an estimate of the potential ridership.

A number of the proposed routes are actually extensions of new service in a particular corridor, and the demand has been estimated for each of these segments separately, adjusting for the fact that some of the points served already have intercity bus service.

For use in the prioritization, the estimated demand was scored, using this rubric (Table 6-4):

1 = Under 4,000 riders per year

2 = 4,000 to 6,000 riders per year

3 = Over 6,000 riders per year

Table 6-4: Estimated Demand for Proposed New Routes - Ranked and Scored

Proposed Route	Mean Demand	Score
Danville-Charlottesville-Union Station (DC)	10,050	3
Greensboro (NC)-Danville-Union Station (DC)	9,750	3
Blacksburg-Richmond	8,200	3
Greensboro (NC)-South Boston-Richmond	7,600	3
Martinsville-Norfolk	7,100	3
Charlottesville-Warrenton-Union Station (DC)	5,850	2
Martinsville-Danville-Richmond	5,500	2
Greensboro (NC)-Danville-Lynchburg	5,400	2
Norfolk-Union Station (DC)	5,200	2
Hampton-Union Station (DC)	5,100	2
Danville-Richmond	4,950	2
Danville-Hampden Sydney-Richmond	4,550	2
Greensboro (NC)-Danville-Charlottesville	4,450	2
Danville-Lynchburg-Charlottesville	4,400	2
Norfolk-Fredericksburg	2,600	1
Hampton-Fredericksburg	2,500	1

ESTIMATED BOARDINGS PER TRIP FOR PROPOSED ROUTES

One of the performance measures proposed for consideration is the number of boardings per vehicle trip, basically reflecting the demand for the service. In this case, the boardings per trip were calculated by dividing the mean (of the regression and trip rate models) passenger demand by the number of vehicle trips that would be provided annually. For new services, this number was assumed to be two trips daily, based on a single daily trip each way.

The routes were ranked based on boardings per trip and then scored using this rubric:

1 = Five or fewer passengers per trip

2 = Between five and ten passengers per trip

3 = Over ten passengers per trip

The scores are used in the prioritization process later in this chapter. Table 6-5 presents the ranking and the scores.

Table 6-5: Boardings per Trip for Proposed Routes - Ranked and Scored

Proposed Route	Annual Vehicle Trips	Mean Demand	Boardings per Trip	Score
Danville-Charlottesville-Union Station (DC)	730	10,050	14	3
Greensboro (NC)-Danville-Union Station (DC)	730	9,750	13	3
Blacksburg-Richmond	730	8,200	11	3
Greensboro (NC)-South Boston-Richmond	730	7,600	10	3
Martinsville-Norfolk	730	7,100	10	3
Charlottesville-Warrenton-Union Station (DC)	730	5,850	8	2
Martinsville-Danville-Richmond	730	5,500	8	2
Greensboro (NC)-Danville-Lynchburg	730	5,400	7	2
Norfolk-Union Station (DC)	730	5,200	7	2
Hampton-Union Station (DC)	730	5,100	7	2
Danville-Richmond	730	4,950	7	2
Danville-Hampden Sydney-Richmond	730	4,550	6	2
Greensboro (NC)-Danville-Charlottesville	730	4,450	6	2
Danville-Lynchburg-Charlottesville	730	4,400	6	2
Norfolk-Fredericksburg	730	2,600	4	1
Hampton-Fredericksburg	730	2,500	3	1

ESTIMATED FAREBOX RECOVERY FOR PROPOSED ROUTES

Another performance measure for the assessment of intercity routes is farebox recovery or the percentage of operating costs that are covered by fare revenue. As with the previous route characteristics analyzed, this is an estimate based on the estimated demand but also on assumptions about the fare level and average trip length. Intercity bus fares generally vary in trip length, so the average revenue per passenger is a function of both the fare level and trip length.

For this analysis, it was assumed that the average intercity bus fare for the new proposed routes would vary between $0.18 and $0.28 per passenger mile. The current Virginia Breeze fare is $0.184 per mile for Blacksburg to Washington tickets, but for shorter trips the fare is higher. For example, the fare is $0.26 per mile for Blacksburg to Harrisonburg tickets. Appendix I provides more sample fare data. Intercity bus fares currently vary considerably based on how far in advance the ticket is purchased (highest the day of the trip, lower well in advance), the length of the trip (lower per mile for long trips), and the competitive situation (fares may be lower if there is more than one carrier on a route). Fares for an immediate trip and a trip in two weeks were sampled for a number of city-pairs, and the fare per mile calculated. The overall range was between $0.16 and $0.40 per mile, with the average of the "low fares" at $0.22 and "mid-level" fares at $0.28 per mile.

A second set of assumptions made to develop revenue estimates involves the average trip length, needed to estimate total annual passenger-miles. For new proposed routes, the average passenger trip length was assumed to vary between 50% and 80% of the one-way route length, on the assumption that many passengers are travelling end-to-end. The lower rate was used for routes with a number of intermediate stops with significant population around the stop, the higher rate if there were few (or small) intermediate origin/destinations. The resulting estimate of the number of passenger-miles was multiplied by the assumed fare per passenger-mile to arrive at an estimate of revenue.

Operating costs were developed based on a fully-allocated cost per mile, assumed to be $4.50 per mile for new proposed routes. This is comparable to the rate for large carriers operating full-size over-the-road coaches. It is higher than the rate paid in the current Virginia Breeze contract (approximately $4.09 per mile), and therefore is a conservative assumption. The annual operating mileage was calculated based on the assumption that each proposed route would be operated one-round trip per day, 365 days per year. The annual mileage times the cost per mile yielded an estimate of the annual operating cost.

Using the estimated revenue and the estimated operating cost, the projected farebox recovery percentage was calculated. The routes were ranked based on the farebox recovery and then scored, again with a one to three scoring rubric:

1 = 15% and below

2 = Between 15% and 30%

3 = Over 30%

Again, it should be pointed out that the scoring reflects a relative estimate of farebox recovery, and that is based on estimates and a chain of reasonable assumptions.

Table 6-6 presents the estimated farebox recovery of the proposed routes, in rank order and their scores. Because there are so many assumptions in these calculations, the scoring reflects the lack of precision by clustering the routes into three relative groups.

Table 6-6: Farebox Recovery of Proposed Routes – Ranked and Scored

Proposed Route	Estimated Revenue	Estimated Annual Cost	Farebox Recovery	Score
Charlottesville-Warrenton-Union Station (DC)	$187,681	$450,384	42%	3
Danville-Charlottesville-Union Station (DC)	$364,001	$901,360	40%	3
Greensboro (NC)-Danville-Union Station (DC)	$416,504	$1,063,106	39%	3
Danville-Richmond	$161,816	$479,406	34%	3
Danville-Hampden Sydney-Richmond	$167,003	$538,269	31%	3
Martinsville-Danville-Richmond	$178,596	$606,083	29%	2
Norfolk-Union Station (DC)	$198,146	$711,223	28%	2
Greensboro (NC)-South Boston-Richmond	$178,027	$699,543	25%	2
Blacksburg-Richmond	$161,851	$720,436	22%	2
Hampton-Union Station (DC)	$146,630	$655,880	22%	2
Martinsville-Norfolk	$141,990	$729,946	19%	2
Greensboro (NC)-Danville-Lynchburg	$70,394	$389,298	18%	2
Greensboro (NC)-Danville-Charlottesville	$91,212	$612,117	15%	1
Danville-Lynchburg-Charlottesville	$66,446	$450,981	15%	1
Hampton-Fredericksburg	$62,909	$469,670	13%	1
Norfolk-Fredericksburg	$36,567	$525,012	7%	1

ESTIMATED SUBSIDY PER TRIP FOR PROPOSED ROUTES

A third performance measure that can be used to evaluate cost-effectiveness is the required subsidy per trip. Chapter 5 of this document proposed that DRPT not maintain or initiate services that would have a subsidy of over $100 per trip. While this figure seems high compared to local transit experience, the average trip on an intercity route is much longer, so the effective cost per trip per mile may be the same as for a local transit trip.

Calculation of this measure is possible by subtracting the estimated operating cost from estimated fare revenue to get the net operating deficit. Under the current Virginia program, all of the net operating deficit is covered by FTA Section 5311(f) operating funds, which is the funding source of the annual operating subsidy. This amount is divided by the projected demand to get a subsidy per trip. Table 6-7 presents the estimated subsidy per passenger trip for each of the proposed services, ranked from lowest to highest.
The scoring rubric for this measure is:

0 = Over $100 per passenger trip

1 = $80 to $100 per passenger trip

2 = $60 to $80 per passenger trip

3 = Under $60 per passenger trip

Table 6-7: Estimated Subsidy per Passenger Trip for Proposed Routes – Ranked and Scored

Proposed Route	Mean Demand	Estimated Revenue [2]	Estimated Annual Cost [4]	Net Operating Deficit	Subsidy per Passenger	Score
Charlottesville-Warrenton-Union Station (DC)	5,850	$187,681	$450,384	$262,704	$44.91	3
Danville-Charlottesville-Union Station (DC)	10,050	$364,001	$901,360	$537,358	$53.47	3
Greensboro (NC)-Danville-Lynchburg	5,400	$70,394	$389,298	$318,904	$59.06	3
Danville-Richmond	4,950	$161,816	$479,406	$317,590	$64.16	2
Greensboro (NC)-Danville-Union Station (DC)	9,750	$416,504	$1,063,106	$646,601	$66.32	2
Blacksburg-Richmond	8,200	$161,851	$720,436	$558,584	$68.12	2
Greensboro (NC)-South Boston-Richmond	7,600	$178,027	$699,543	$521,517	$68.62	2
Martinsville-Danville-Richmond	5,500	$178,596	$606,083	$427,487	$77.72	2

Proposed Route	Mean Demand	Estimated Revenue [2]	Estimated Annual Cost [4]	Net Operating Deficit	Subsidy per Passenger	Score
Danville-Hampden Sydney-Richmond	4,550	$167,003	$538,269	$371,266	$81.60	1
Martinsville-Norfolk	7,100	$141,990	$729,946	$587,957	$82.81	1
Danville-Lynchburg-Charlottesville	4,400	$66,446	$450,981	$384,535	$87.39	1
Norfolk-Union Station (DC)	5,200	$198,146	$711,223	$513,076	$98.67	1
Hampton-Union Station (DC)	5,100	$146,630	$655,880	$509,251	$99.85	1
Greensboro (NC)-Danville-Charlottesville	4,450	$91,212	$612,117	$520,905	$117.06	0
Hampton-Fredericksburg	2,500	$62,909	$469,670	$406,761	$162.70	0
Norfolk-Fredericksburg	2,600	$36,567	$525,012	$488,445	$187.86	0

DEGREE TO WHICH PROPOSED SERVICE DUPLICATES EXISTING SERVICE

Another factor considered in evaluating proposed routes is the degree to which there is existing service that may be addressing the need for an intercity connection. Input from DRPT, stakeholder meetings, and operators who provided several perspectives all agreed that with limited resources there is a need to focus any expansion on routes that are not currently served, particularly those with a greater potential transit dependence.

However, to some extent there is a judgement factor in evaluating the availability of existing service. For many proposed routes, the end points are linked by the current intercity network, although the routing may be circuitous and require multiple transfers, while the intermediate stops on the proposed route have no current service. Table 6-8 presents an effort to evaluate the proposed routes based on the percentage of the stops on the route that are currently without intercity bus service. The scoring rubric used in this effort is as follows:

1 = 50% or less of the stops are currently unserved

2 = 50% to 70% of the stops are currently unserved

3 = Over 70% of the stops are currently unserved

Note that the higher score is given when most of the proposed route is serving areas with no existing service, and the lower score if most of the stops already have some existing service. This measure does not take into account that a proposed route might offer more direct service - with fewer transfers or a shorter trip - to places that already have some intercity service.

Table 6-8: Degree to Which Proposed Service Duplicates Existing Service – Scored

Proposed Route	Percent of New Stops Served	Score
Danville-Hampden Sydney-Richmond	83	3
Martinsville-Danville-Richmond	83	3
Danville-Richmond	75	3
Greensboro (NC)-South Boston-Richmond	75	3
Martinsville-Norfolk	71	3
Danville-Lynchburg-Charlottesville	67	2
Danville-Charlottesville-Union Station (DC)	64	2
Greensboro (NC)-Danville-Charlottesville	63	2
Greensboro (NC)-Danville-Union Station (DC)	62	2
Greensboro (NC)-Danville-Lynchburg	60	2
Hampton-Fredericksburg	60	2
Charlottesville-Warrenton-Union Station (DC)	57	2
Hampton-Union Station (DC)	57	2
Norfolk-Union Station (DC)	50	1
Norfolk-Fredericksburg	50	1
Blacksburg-Richmond	38	1

PRIORITIZATION OF PROPOSED ROUTES

In order to consider the various attributes of the proposed routes and develop a priority for potential expansion, the factors developed above can be considered as falling into two groups: a set of performance factors that address cost-effectiveness and a set of factors that address the degree to which each route provides new access. A key question is the relative importance of these factors. In order to reflect the fact that these might not have equal importance; the process has been designed to allow the assignment of different weights to each factor.

Table 6-9 presents the criteria and a set of proposed weights to be applied as the scores are summed for each route.

Table 6-9: Evaluation Criteria and Weighting

Performance-Related Criteria

	Subsidy Per Passenger Trip	Farebox Recovery	Boardings per Trip
Scoring Rubric	0 = Over $100		
	1 = $80 to $100	1 = Under 15%	1 = Under 5 passengers per trip
	2 = $60 to $80	2 = 15% - 30%	2 = 5 to 10 passengers per trip
	3 = Under $60	3 = Over 30%	3 = Over 10 passengers per trip
Criterion Weight	1	1	1

Service Expansion Criteria

	New Population Coverage	Mean Demand	Existing Service Score
Scoring Rubric	1 = Under 100,000 persons	1 = Under 4,000 annual trips	1 = 50% or fewer of the stops are currently unserved
	2 = 100,000 to 300,000 persons	2 = 4,000 to 6,000 annual trips	2 = 50% to 70% of the stops are currently unserved
	3 = Over 300,000	3 = Over 6,000 boardings per year	3 = Over 70% of the stops are currently unserved
Criterion Weight	3	3	3

The weights that are given here reflect a DRPT focus on providing additional coverage, rather than prioritizing farebox recovery or minimizing subsidy per trip. This input favors new coverage to unserved areas to increase access and to serve more riders. The routes that serve more people, more people previously unserved, and that serve routes that are unserved all have been given a weight of three. The three cost-effectiveness criteria, each with a weight of one, will count as much as any one of the service expansion criteria. Table 6-10 presents a summary of the results when the scoring of each factor is multiplied by these weights and summed. Appendix J presents the complete prioritization table.

There are several opportunities for one or more expansion routes that fit into the state's priorities for intercity connectivity. Final schedule choices for implementation are dependent on the availability of in-kind match that carriers will need to provide. All of these routes serve one or more places that offer a potential connection with the national intercity bus network.

Table 6-10: Summary of Weighted Scoring of Proposed Routes

Proposed Route	Sum of Weighted Scores	Projected Net Operating Deficit
Danville-Charlottesville-Union Station (DC)	33	$537,358
Greensboro (NC)-Danville-Union Station (DC)	32	$646,601
Greensboro (NC)-South Boston-Richmond	31	$521,517
Martinsville-Norfolk	30	$587,957
Charlottesville-Warrenton-Union Station (DC)	29	$262,704
Danville-Richmond	28	$317,590
Martinsville-Danville-Richmond	27	$427,487
Danville-Hampden Sydney-Richmond	27	$371,266
Hampton-Union Station (DC)	26	$509,251
Norfolk-Union Station (DC)	23	$513,076
Greensboro (NC)-Danville-Lynchburg	22	$318,904
Blacksburg-Richmond	22	$558,584
Danville-Lynchburg-Charlottesville	22	$384,535
Greensboro (NC)-Danville-Charlottesville	21	$520,905
Hampton-Fredericksburg	14	$406,761
Norfolk-Fredericksburg	11	$488,445

Among the top-scoring routes, there are several that are mutually exclusive because they cover some of the same segments. There are also considerations that affect operational and funding feasibility, and these are discussed in the next section.

US 29 Corridor: Danville – Charlottesville - Union Station (DC) and Greensboro - Danville - Union Station (DC): These routes both cover the length of US 29 in Virginia, linking a number of significant population centers with Dulles Airport and Washington, D.C. The major difference is that the second option starts in Greensboro, where it can provide a connection from/to Greyhound services. Since the route is longer, the cost is higher. If the North Carolina Section 5311(f) program contributes a proportionate share of funding the route, it would address North Carolina transportation needs. If the contracting carrier operated it without Virginia funding, it would likely improve overall ridership and revenue.

Both of these routes scored better than other options only using segments of US 29, such as Danville-Lynchburg, Danville-Lynchburg-Charlottesville, or even Charlottesville-Warrenton-Dulles-Union Station. One possible method to ensure that these connections are made is to fund the Danville-Charlottesville-Dulles-Union Station route, with the extension to Greensboro dependent on either an NCDOT contribution or having a bidder provide that segment without subsidy. Table 6-11 presents a potential timetable for these services. Two options are shown for the northbound trip, with Option A starting in Danville, and Option B

starting in Greensboro. The schedule has been adjusted on Option B to facilitate a connection with Greyhound in Greensboro. Potential northbound connections to/from Washington are also shown for both Greyhound and Megabus. This table shows the schedule of the Amtrak "Crescent" rail passenger service which parallels this route. Northbound, it serves southern Virginia early in the morning and later at night than proposed bus services.

Table 6-11: Potential Greensboro (NC) -Danville-Washington (DC) Timetable

Southbound Proposed Bus					Northbound Proposed Bus		
	Read Down		Stop Name		Option A from Danville	Option B from Greensboro	
2:15		*LV*	*New York (Amtrak Crescent Rail)*	*ARR*			***1:46***
6:30		*ARR*	*Washington, D.C. (Union Station)*	*LV*			*9:53*
	9:00	*LV*	New York (Megabus)	ARR	***8:15***	***9:15***	
	1:40	*ARR*	Washington, DC (Union Station)	LV	***4:00***	***5:00***	
	7:30	*LV*	*New York (Greyhound)*	ARR	***9:00***	***10:55***	
	1:35	*ARR*	*Washington, DC (Union Station)*	*LV*	***3:30***	***5:15***	
6:30	**2:30**	LV	Washington, DC (Union Station)	ARR	**2:30**	**4:05**	*9:53*
	3:05	LV	West Falls Church	LV	**2:05**	**3:40**	
	3:30	LV	Dulles	LV	**1:30**	**3:05**	
	3:55	LV	Gainesville	LV	**1:05**	**2:15**	
	4:20	LV	Warrenton	LV	**12:40**	**1:50**	
7:55	**4:45**	LV	Culpeper	LV	**12:15**	**1:25**	*8:01*
8:52	**5:55**	LV	Charlottesville	LV	11:05	**12:30**	*7:09*
	6:40	LV	Lovingston	LV	10:15	11:40	
	7:00	LV	Amherst	LV	9:55	11:20	
10:00	**7:20**	LV	Lynchburg	LV	9:35	11:00	*5:56*
	8:36P	*LV*	*Lynchburg (Amtrak Rail)*	*ARR*	*7:38*		
	9:55P	*ARR*	*Roanoke (Amtrak Rail)*	*LV*	*6:19*		
	8:10	LV	Altavista	LV	8:45	10:10	
11:14	**9:20**	LV	Danville	LV	7:35	9:00	*4:43*
	9:40	LV	Reidsville (NC)	LV		8:40	
12:15	**10:25**	ARR	Greensboro	LV		7:55	
12:22	**11:30**	LV	*Greensboro (Greyhound)*	ARR		*7:45*	*3:44*
2:20	1:10	ARR	*Charlotte*	LV		*5:25*	*1:46*
8:13	6:40	ARR	*Atlanta*	LV		*12:35*	***8:04p***
					Read UP	Read UP	

Italic=Connecting Bus Schedule
Boldface=PM
Yellow=North Carolina stops not funded by DRPT

Danville - Richmond Options: The third scoring route is Greensboro-Danville-South Boston-Richmond. The Danville-Richmond and Danville-Hampden Sydney-Richmond route alternatives cover a similar area. The primary difference is the segment between Danville and Greensboro is not included in the Danville-Richmond and Danville-Hampden Sydney-Richmond route alternatives. Table 6-12 presents a proposed timetable that shows stops in Farmville and Hampden-Sydney. Farmville is the home of Longwood College (public, approximately 5,100 students). Hampden-Sydney College is private (approximately 1,050 undergraduate students). The Nottoway Correctional Center in Crewe is nearby, and could be accessed from a Farmville stop using local transportation services.

Potential Megabus and Greyhound connections in Richmond are also shown. It should be noted that Greyhound services in Richmond serve the Greyhound station at 2910 N. Arthur Ashe Boulevard, Megabus stops at the Plaza at Main Street Station, and Amtrak trains stop at either Main Street Station (Boston/New York/Washington trains to/from Norfolk) or Staples Mill Road Station (New York/Washington trains to Petersburg and points in the Carolinas and Florida) at 7519 Staples Mill Road. The driving distance between the Greyhound station and Main Street Station is 4.8 miles, and the distance between the Greyhound station and Staples Mill is also 4.8 miles.

Table 6-12: Potential Greensboro (NC)-Danville-Richmond Timetable

Southbound						Northbound
	Read Down		Stop Name			
3:30			Washington, DC (Union Station)			***3:30***
6:05			Richmond (Megabus)			***12:50***
	1:20	*LV*	*Washington, DC (Union Station)*	*ARR*	***5:40***	
	3:25	*LV*	*Richmond (Greyhound)*	*LV*	***3:15***	
6:35	**4:55**	LV	Richmond	LV	**1:20**	12:20
7:55	**6:45**	LV	Farmville	LV	11:30	10:30
8:25	**7:15**	LV	Hampden-Sydney	LV	11:00	10:00
9:35	**8:25**	LV	South Boston	LV	9:50	8:50
10:30	**9:20**	LV	Danville	LV	9:00	8:00
10:50	**9:40**	LV	Reidsville (NC)	LV	8:40	7:40
11:35	**10:25**	ARR	Greensboro	LV	7:55	6:55
	11:30	LV	*Greensboro (GL)*	ARR	*7:45*	
	1:10	ARR	*Charlotte*	LV	*5:25*	
	6:40	ARR	*Atlanta*	LV	*12:35*	
					Read UP	

Italic=Connecting Bus Schedule
Boldface=PM
Yellow=North Carolina stops not funded by DRPT

Again, the decision on whether to include the segment between Greensboro and Danville would likely depend on either NCDOT funding, or having a carrier provide that without subsidy. Another possibility is that if Greensboro-Danville to Washington, D.C. is funded, a Martinsville-Danville-Richmond bus could be timed to connect with it in Danville.

Decisions on this corridor also are potentially dependent on decisions about a Blacksburg-Roanoke-Farmville-Richmond route, as that option would provide coverage for the Farmville/Hampden-Sydney area, which will not likely generate enough ridership to support two routes. It is likely that the student population of that area would benefit more from the east-west linkage, with opportunities to travel to Lynchburg, Roanoke and Blacksburg.

US 58 Corridor: Martinsville – Danville - Norfolk: The demand estimate for this corridor is high as a result of the fact that there is no intercity bus service through it in any direction, and there are a number of towns of significant population that have been identified as potential stops. However, there is not a large population center at both ends (only the Norfolk area), no connectivity from other services to feed an intercity route, and limited connectivity in Norfolk. There is a high need but likely a higher risk to any potential intercity service in the corridor. Historically, intercity bus service on this route disappeared well before the 2005 Greyhound restructuring. It was operated as a connection to a north-south route from Greensboro through Danville to Lynchburg and points north, suggesting one potential model that provides some connectivity. Table 6-13 presents a potential timetable that makes connections with Greyhound and Megabus in the Norfolk area. Greyhound serves the Norfolk Bus Station at 701 Monticello Avenue in Norfolk; Megabus stops at Pacific Avenue and 19th Street in Virginia Beach. The distance between the Greyhound Station and the Megabus stop is 18.6 miles. Amtrak stops at 280 Park Avenue in Norfolk, with continuing Amtrak Thruway Bus service to Virginia Beach.

Table 6-13: Potential Timetable for Martinsville-Norfolk Service

Eastbound			Westbound	
Read Down		Stop Name		
8:00	LV	Martinsville	ARR	**10:30**
9:00	LV	Danville	LV	**9:30**
9:50	LV	South Boston	LV	**8:40**
11:10	LV	South Hill	LV	**7:20**
12:10	LV	Emporia	LV	**6:20**
1:40	LV	Suffolk	LV	**5:30**
2:10	LV	Norfolk	LV	**5:00**
2:25	*LV*	*Norfolk (Greyhound)*	*ARR*	***4:45***
4:40	*ARR*	*Richmond (Greyhound)*	*LV*	***2:25***
4:10	*LV*	*Virginia Beach (Megabus)*	*ARR*	*2:40*
7:15	*ARR*	*Richmond (Megabus)*	*LV*	***12:05***
8:25	*ARR*	*Washington, D.C. (Megabus)*	*LV*	*9:55*
0:55	*ARR*	*Philadelphia (Megabus)*	*LV*	*5:45*
				Read UP

Italic=Connecting Bus Schedule
Boldface=PM

This corridor is identified as a Corridor of Statewide Significance in the *VTrans 2040 Vision Plan and Needs Assessment*, and the May 2017 *Southern Virginia Transit Feasibility Study* addressed the need for connections across this region, primarily to address a lack of public transportation options for education and employment. The study noted that Greyhound service still exists in South Hill (one north-south schedule per day on service between Raleigh and Richmond) and that Greyhound service to Emporia was discontinued in April 2016. The near-term plan resulting from that study included two routes based in Danville – a route between that city and the Southern Virginia Higher Education Center (SVHEC) in South Boston, and a second route between Danville and Chatham. Both routes would operate multiple schedules on weekdays, being supportive of employment and training. Other future needs identified include service to Alberta, Emporia, Farmville, Keysville and South Hill.

The survey conducted for this study found that 90% of respondents saw a need for more regional transportation, but the comments supporting this focused on linkages to Boydton, South Hill, Halifax and South Boston rather than intercity connections to the Tidewater region or Richmond. It should be noted that the questions did not specifically ask about intercity connections. Stakeholder input for this study identified a need for service in this corridor to link students with Norfolk and Hampton colleges and universities.

US 17 Corridor - Norfolk/Hampton to Fredericksburg or Washington, D.C.: In the middle of the ranking, both the Hampton and Norfolk to Washington routes have very similar scores, differing primarily because of the additional costs associated with serving Norfolk. Both of these options score well above the similar options that link Norfolk or Hampton to Fredericksburg. All of these US 17 corridor routes score low as concept alternatives because there are few potential stops with limited populations, though the model may under-represent the potential additional ridership from a coordinated feeder network that could be provided by Bay Transit. It should be noted that there has been interest in an intercity bus connection in this corridor since at least 2002, when a study proposed a DRPT demonstration grant; at that time there was no in-kind match option and no potential local match for the period after the demonstration funding, so it was not implemented.

A one-seat ride from Tappahannock or Warsaw to Reagan National Airport and Union Station is likely to have more ridership than a service that terminates at Fredericksburg. Fredericksburg as a terminus (rather that a stop en route) does not have the services or connections of Washington, D.C. Table 6-14 presents a potential timetable for a service from Norfolk to Washington, with Greyhound and Megabus connections from Washington north to New York.

Table 6-14: Potential Norfolk-Tappahannock-Washington (DC) Timetable

Southbound				**Northbound**
Read Down		Stop Name		
12:00	*LV*	*New York (Greyhound)*	*ARR*	***6:45***
4:20	*ARR*	*Washington, D.C.(Union Station)*	*LV*	***2:00***
12:00	*LV*	*New York (Megabus)*	*ARR*	***5:15***
4:15	*ARR*	*Washington, D.C.(Union Station)*	*LV*	***1:00***
5:15	LV	Washington, DC (Union Station)	ARR	**12:00**
6:00	LV	Reagan National Airport	ARR	11:35
7:00	LV	Fredericksburg	LV	10:30
8:05	LV	Warsaw	LV	9:25
8:15	LV	Tappahannock	LV	9:15
9:10	LV	Gloucester Court House	LV	8:20
10:10	LV	Hampton	LV	7:20
10:45	LV	Norfolk	LV	6:45
				Read UP

Italic=Connecting Bus Schedule
Boldface=PM

There are potential Greyhound connections in Fredericksburg (Megabus does not stop in Fredericksburg) that could work for service in this corridor. Table 6-15 presents a potential timetable for a Norfolk-Fredericksburg service. Because Greyhound offers two potential schedules in each direction, two options are presented. Option A would minimize the layover

time for the bus in Fredericksburg, and Option B would maximize the time in Fredericksburg for a rider making a same-day round-trip.

Table 6-15: Potential Norfolk-Tappahannock-Fredericksburg Timetable

Southbound Read Down			Stop Name		Northbound	
Option A	Option B				Option B	Option A
11:00	***3:35***	*LV*	Baltimore, MD (Greyhound)	*ARR*	***1:00***	***4:20***
12:45	***5:05***	*LV*	*Washington, D.C.(Union Station)*	*ARR*	*11:50*	***2:40***
2:20	***7:10***	*ARR*	Fredericksburg	*LV*	*10:30*	***1:05***
2:50	**7:40**	LV	Fredericksburg	LV	10:00	**12:35**
3:55	**8:45**	LV	Warsaw	LV	8:55	11:30
4:05	**8:55**	LV	Tappahannock	LV	8:45	11:20
5:00	**9:50**	LV	Gloucester Court House	LV	7:50	10:25
6:00	**10:50**	LV	Hampton	LV	6:50	9:25
6:35	**11:25**	LV	Norfolk	LV	6:15	8:50
					Read UP	

Italic=Connecting Bus Schedule
Boldface=PM

Blacksburg-Christiansburg-Roanoke-Bedford-Lynchburg-Farmville/Hampden-Sydney/Crewe-Richmond: Although conceptually it makes sense to connect the New River Valley with Richmond directly, in the prioritization this route did not do as well because so much of it already has intercity bus service, and the demand model does not reflect network effects that might show increased ridership from a more direct route. Greyhound currently has three schedules per day that link Roanoke with Richmond, via Charlottesville, and if Greyhound could be persuaded to make a stop in Christiansburg at the I-81 park and ride, there could be one-seat ride opportunities between that area and Richmond. The only new population coverage of the proposed route comes from new stops in Bedford and the Farmville/Hampden-Sydney area, so this route did not score highly on the "New Population Coverage" criterion.

POTENTIAL BUILD - OUT PROGRAM

Based on the analysis and prioritization, a proposed Virginia Breeze build-out program could include the following four routes:

1) (Greensboro)-Danville-Alta Vista-Lynchburg-Charlottesville-Culpeper-Warrenton-Dulles Airport-Washington, D.C. (Union Station)

2) Martinsville-Danville-South Boston-Farmville/Hampden-Sydney/Crewe-Richmond

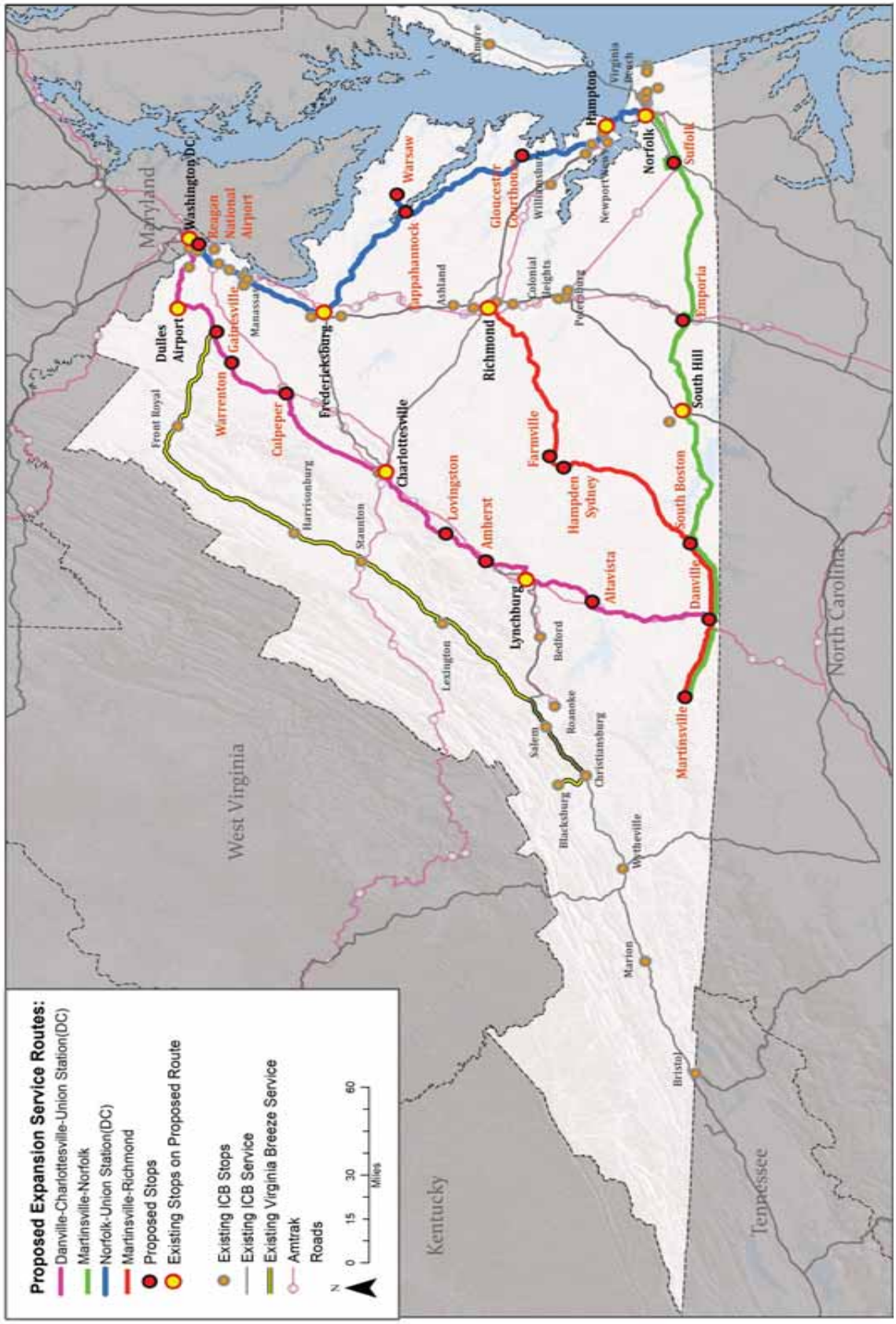
3) Martinsville-Danville-South Hill-Emporia-Suffolk-Norfolk

4) Norfolk-Hampton-Gloucester Courthouse-Tappahannock-Warsaw-Fredericksburg-Reagan National Airport-Washington, D.C. (Union Station).

In addition, the program should include funding for marketing and improvements in public and user information systems for both the existing and expansion routes.

Figure 6-2 presents a map of the routes along with the existing intercity bus and Amtrak routes.

Figure 6-2: Proposed Routes with Existing Service



Estimated Funding Requirements

Table 6-16 presents the estimated funding requirements for the existing Blacksburg- Union Station route, the four expansion routes and marketing/information technology.

Table 6-16: Potential Program of Five Expansion Routes

Proposed Route	Estimated Annual Cost	Net Operating Deficit	National Intercity Network Connection Points
Danville-Charlottesville-Union Station (DC)	$901,360	$537,358	Washington, D.C.; Charlottesville; Lynchburg
Greensboro (NC)-South Boston-Richmond	$699,543	$521,517	Greensboro, N.C; Richmond
Martinsville-Norfolk	$729,946	$587,957	Norfolk
Norfolk-Union Station (DC)	$711,223	$513,076	Norfolk, Hampton, Fredericksburg, Washington, D.C.
Total Estimated Annual Net Operating Deficit		**$2,159,908**	

Connectivity

Each of the proposed routes offers connections with the national intercity bus network, which is critical to obtaining in-kind match. Union Station in Washington, D.C. is the primary connecting point because of the frequency of service in multiple directions, which maximizes both connectivity to the user and potential sources of in-kind match miles. Richmond is also potentially a primary source of in-kind match because of the frequency (particularly of Greyhound service). The US 58 corridor has only one connection, in Norfolk, but there is connecting unsubsidized service operated by Greyhound to the Eastern Shore and multiple frequencies to Richmond.

However, Union Station is the only single connecting station that is served by Greyhound, Megabus and Amtrak, the primary connecting modes. Providing connectivity in Richmond requires stops at three separate stations, and in the Norfolk area there are at least three potential stops to provide connectivity (the Greyhound Station, Amtrak Norfolk, Megabus Virginia Beach, and Amtrak Thruway in Virginia Beach).

POTENTIAL FUNDING FOR EXPANSION

There are two key concerns for potential expansion of Virginia Breeze in terms of funding. One is that the program in Virginia is entirely funded with FTA Section 5311(f) federal dollars. Federal transit authorizing legislation requires that states spend a minimum of 15% of their

overall Section 5311 allocation on Section 5311(f) rural intercity bus assistance, unless the state certifies that there are no unmet intercity bus needs (a partial certification is allowed in a state feels that the unmet needs would not require the full 15%). If a state certifies that there are no (or limited) unmet needs, it must demonstrate to FTA that it has conducted a consultation process (defined in the FTA Circular) at least every four years to determine the needs. DRPT could spend more than 15% and might consider doing so if needed but for planning purposes, that amount is effectively the budget.

The second concern is the availability of in-kind match miles. One of the unique features of the Section 5311(f) program is that it allows states to utilize the value of unsubsidized connecting intercity bus service as the local match. The connecting intercity bus service has to be otherwise eligible for Section 5311(f), and the carrier providing the match has to provide a letter to the state allowing the valuing of their service, identifying the connecting service, the miles operated and their value. By carefully designing the subsidized service to make connections with intercity bus carriers providing unsubsidized service, it is possible to fund the subsidized segment completely with federal dollars matched by the value of the in-kind service.

In terms of funding needs, the priority is to make sure that the proposed services make connections with unsubsidized intercity carriers such as Greyhound and Megabus. The carriers providing unsubsidized service may have their own criteria for providing match miles. For example, Greyhound requires that the connecting subsidized service make the connection within a two-hour schedule window around Greyhound's own unsubsidized service. There is no provision for Amtrak to provide in-kind match.

DRPT Section 5311(f) Funding Availability and Strategy

Virginia's FY 2019 15% Section 5311(f) allocation amount is $2,540,386. The combined program costs of estimated net deficit of the four proposed routes is $2,065,878 in FY 2019, plus the net operating deficit on the current Virginia Breeze route of $150,000 would leave $324,500 annually for marketing and information/technology.

Phased Implementation

The estimated deficits for the four proposed routes are estimates developed from a chain of reasonable assumptions and the actual costs could differ, perhaps considerably. Also, ridership typically takes time to develop, particularly on new services; thus, the first year of each route is likely to have higher deficits. For that reason a sensible strategy might be to implement one or two routes initially, and evaluate the resulting financial situation before issuing another RFP.

Table 6-17 presents a projection of annual apportionments and program costs. It assumes that FTA Section 5311 funding increases 3% per year, and the operating costs of the services increase 3% per year. Two routes, the Danville-Union Station and the Martinsville-Richmond

services, are both implemented in 2020, and the other two routes are implemented in 2023. The program costs stay below the apportionment amount balance even after full implementation in 2023.

Table 6-17: Projection of Section 5311(f) Apportionment and Expenses

Year	Funding Requirement for Current Routes [2]	Cost of New Route(s) [3]	Marketing/Information/Tech Cost	Total Intercity Bus Program Cost	Apportionment [1]
2019	$150,000			$150,000.00	$2,540,386
2020	$154,500	$964,845	$325,000	$1,444,345.00	$2,616,598
2021	$159,135	$993,790	$334,750	$1,487,675.35	$2,695,096
2022	$163,909	$1,023,604	$344,793	$1,532,305.61	$2,775,948
2023	$168,826	$2,257,441	$355,136	$2,781,403.27	$2,859,227
2024	$173,891	$2,325,164	$365,790	$2,864,845.36	$2,945,004
2025	$179,108	$2,394,919	$376,764	$2,950,790.72	$3,033,354
2026	$184,481	$2,466,766	$388,067	$3,039,314.45	$3,124,354
2027	$190,016	$2,540,769	$399,709	$3,130,493.88	$3,218,085
2028	$195,716	$2,616,992	$411,700	$3,224,408.70	$3,314,628

Source: FTA Apportionments, DRPT

(1) Actual Section 5311(f) Apportionment for FY 2019, after that assumed to increase 3% per year.

(2) Annual operating costs for the existing Virginia Breeze Blacksburg route, with cost assumed to increase 3% per year.

(3) Assumed annual cost for new routes--Danville-Union Station and Martinsville-Richmond in 2020, adding Norfolk-Union Station and Martinsville-Norfolk in 2023.

Potential Use of Unspent Funds to Provide More Service

If there is a substantial program balance of unspent funds from previous years, an alternative strategy might be to increase Section 5311(f) spending to a rate greater than the annual apportionment by using unspent Section 5311(f) funds to expand the program beyond the annual 15% set-aside amount. Spending more each year than current annual funding levels provides more service though it could create a scenario at some point in the future in which the program allocation no longer covers all the current and expanded services, depending on the actual bid operating costs and fare revenue. This strategy would allow an earlier implementation of more routes, with the risk that at some point in the future unproductive services might need to be cut to bring the cost within the 15%.

The implication is that there is some scope for expansion even beyond the four proposed routes, but it is likely to be limited to a single route, if there is a substantial existing program balance of unspent Section 5311(f) funds.

In-Kind Match

The program depends on in-kind match availability, and the planned connections for the priority routes connect with the national intercity network in Washington, D.C., and Richmond where carriers have many schedules and potential connections that could meet the Greyhound criteria of connecting within a two-hour window (Megabus has not identified criteria for connecting service to obtain in-kind match). The Martinsville-Norfolk route may have issues with in-kind match--Greyhound and Megabus service out of Norfolk is more limited and it is possible that Greyhound has already provided some of its miles to North Carolina to match its Section 5311(f) service.

One related issue is that if Virginia wants to eventually have intercity routes connect with regional transit providers through coordinated schedules and interline tickets, it may be necessary to include requirements for interline ticketing in the RFP. The existing intercity bus industry mechanism to facilitate interline ticketing between intercity carriers and transit providers is a provision in the National Bus Traffic Association (NBTA)[1] membership rules that permit a transit operator to "sponsor" the transit system under its membership and facilitate payments related to interline tickets involving that transit system. The NBTA is the interline ticketing clearinghouse for much of the intercity bus industry.

INFORMATION AND MARKETING

The outreach effort revealed that even persons knowledgeable about the transit services were not fully aware of these routes and the connectivity they have with the existing intercity bus and Amtrak networks. Comments included a need for more/better information and marketing. Marketing efforts could focus on educating potential riders about the availability of service in the cities along the route, and the network service connections.

Additional detailed planning is needed to develop a plan for improved information systems, but based on input received some logical elements would include:

- A single website featuring all of the Virginia Breeze, Greyhound, Megabus, and Amtrak and other scheduled services, and their links with the other carriers - specifically as a gateway to the individual routes and the different ticketing systems. A web map with links to the schedules and ticketing sites for each carrier could help to let users know that there is a network available, not just the separate routes.

- Inclusion of Virginia Breeze and other intercity services in developing information and travel planning sites.

[1] The National Bus Traffic Association is the name of the clearinghouse used by member carriers to bill for and collect revenue from other carriers on interline tickets.

Marketing efforts could build upon the success of the intercity bus program. One option is to follow the Travel Washington and Oregon POINT program examples, and add regional route branding (Virginia Breeze Shenandoah, Virginia Breeze Piedmont, Virginia Breeze Peninsula, Virginia Breeze Southside, etc.). While traditional media such as television and print may be expensive and broad, it is likely that a marketing plan would rely much more on the targeting available through social media and the use of local events and free information channels to reach the specific markets in each corridor. The proposed routes would likely need a significant marketing effort as each of them is essentially a new route offering connectivity that has not been available to today's generation.

RECOMMENDED STRATEGY

Given the available funding for expansion and the potential additional program elements, a recommended strategy includes:

- Expand staffing capacity for the intercity bus program at DRPT.
- Initiate planning to examine the routes shown in Table 6-16 with final selection dependent on the operational and in-kind feasibility—and the fund balance and implementation strategy chosen by DRPT.
- Work with North Carolina to develop a coordinated approach to intercity/regional connections serving the border region. Funding or new services in one state should support those in adjoining states, avoiding negative effects on existing services if possible.
- Consider retaining some funding capacity to address any potential need for support to replace services that are currently unsubsidized if they are abandoned.
- Work with rural regional systems that serve stops on the proposed routes to offer scheduled connections and interline ticketing where possible.
- Expand the Virginia Breeze website to incorporate route expansions—and to depict the Virginia Breeze services as part of a network that also includes unsubsidized intercity services and Amtrak - with links to ticketing for the range of carriers.

Appendix A
Regional Planning Organization Survey Questions, Agencies Surveyed, and Their Responses

Q1: Contact Information - Omitted for privacy reasons.

Q2 Are there areas or corridors that you consider as having a need for more intercity bus service (particularly in rural areas)? This could be areas with no service, or places with existing service that could benefit from additional service (more schedules, local service, etc.).

Answered: 15 Skipped: 0

#	RESPONSES	DATE
1	Many of our students have limited ability to travel back to more rural area in Virginia or cities that are not connected by current routes. Routes from the Hampton Roads region to these more rural destinations (southern-central part of state) would be of assistance to a significant portion of students.	2/25/2019 10:34 AM
2	Petersburg to Richmond, Richmond to Fredericksburg, Richmond to Charlottesville, Richmond to Tidewater	2/21/2019 10:02 AM
3	Interstate 85 corridor from South Hill to the Richmond area.	2/19/2019 5:38 PM
4	Roanoke to Richmond	2/18/2019 10:11 AM
5	I64 from Staunton to Richmond via Waynesboro, Charlottesville, Zion Crossroads.	2/15/2019 3:41 PM
6	Fredericksburg to Richmond, Richmond to Fredericksburg to DC, to Fairfax, to Dulles area, etc, where metro doesn't go or is too inefficient to take.	2/15/2019 2:13 PM
7	The Roanoke Valley-Regional Commission is close to finishing a Rural Transit Study for our region. There is a need for transit service between Clifton Forge, Botetourt County-Greenfield Center, and Downtown Roanoke. Such service would connect the two AMTRAK stations, Greyhound, and many job centers. Additional service between Lynchburg, Bedford and Roanoke. Greater frequency, more limited stop service between Roanoke and Richmond. We'd also like a stop in our region to access the VA Breeze for folks going to destinations along the I-81 corridor.	2/15/2019 1:37 PM
8	Yes, currently the Rappahannock-Rapidan region has no stops on intercity bus services. Megabus and Greyhound both operate between Charlottesville and Washington, D.C. (and points beyond). Our understanding is that the Megabus route utilizes Route 29 to I-66, while Greyhound follows Route 20 to Route 3 through Orange County to Fredericksburg and on to Washington. In addition, the Virginia Breeze goes through northern Fauquier County on I-66, but has no stops in the County.	2/14/2019 10:31 AM
9	Shenandoah County, Virginia	2/12/2019 12:33 PM
10	I-64 corridor. Lexingtonians frequently drive to Waynesboro and Charlottesville for medical appointments and to CHO airport. Additionally the VA Breeze does not stop in Roanoke at the hospital or the ROA airport.	2/11/2019 1:46 PM
11	US Highway 220 connecting: Alleghany Highlands to Roanoke Franklin County/Rocky Mount to Roanoke	2/7/2019 3:44 PM
12	No.	2/7/2019 10:30 AM
13	1. Blacksburg through Lynchburg to Richmond and Norfolk 2. Bristol through Christiansburg to Roanoke	2/7/2019 9:41 AM
14	Yes	2/7/2019 8:45 AM
15	The Eastern Shore of Virginia is comprised of two rural counties that lack sufficient connectivity, both within the region and beyond. Providing connections to urban areas via buses passing through the Eastern Shore would benefit locals and provide an alternatives to driving to destinations.	2/6/2019 2:04 PM

Q3 Are there particular markets or groups that you see needing more service?

Answered: 15 Skipped: 0

#	RESPONSES	DATE
1	Students need more service due to limited budgets for travel and limited access to personal vehicles for transportation.	2/25/2019 10:34 AM
2	Students, Marginalized Populations, Seniors	2/21/2019 10:02 AM
3	While it could prove beneficial for all people in the region, it may be most helpful to the elderly and those identified as low-income.	2/19/2019 5:38 PM
4	Yes, especially Bedford area	2/18/2019 10:11 AM
5	University Students and the elderly	2/15/2019 3:41 PM
6	Commuters, non-drivers	2/15/2019 2:13 PM
7	In particular, weekend services or strategically timed services for Roanoke area college students that attend schools in Harrisonburg, Richmond, and the Hampton Roads area. Job seekers from rural areas to connect with job centers.	2/15/2019 1:37 PM
8	In general, low income residents would be the main beneficiaries of intercity bus service stops in this region. Presently, there is Amtrak service with stops in Culpeper, but no other low-cost non-automobile transportation options serve the region.	2/14/2019 10:31 AM
9	Commuters, students, elderly and households with no vehicle	2/12/2019 12:33 PM
10	VMI and W&L students need access to local airports at CHO and ROA. Elderly folks need service to Carilion hospital in Roanoke and Augusta Health in Waynesboro.	2/11/2019 1:46 PM
11	Elderly, disabled, low-income	2/7/2019 3:44 PM
12	No.	2/7/2019 10:30 AM
13	One area to address is how to get people from the more rural areas to a common stop, e.g. How to get people from Giles, Floyd, or Pulaski Counties to a common stop in Christiansburg.	2/7/2019 9:41 AM
14	College Students and seniors who like to travel but are no longer comfortable driving long distances.	2/7/2019 8:45 AM
15	Regionally- Elevated poverty rates on Virginia's Eastern Shore create the need for transportation alternatives for those lacking access to a vehicle.	2/6/2019 2:04 PM

Q4 Where do you think people wish to go - are there destinations needing additional service?

Answered: 15 Skipped: 0

#	RESPONSES	DATE
1	Most cities and rural areas in the southern and central part of the state (think in between HR and Lynchburg/Roanoake and south of Petersburg).	2/25/2019 10:34 AM
2	Tourist destinations, personal business, visiting family/friends	2/21/2019 10:02 AM
3	Richmond area to such destinations as medical offices, connecting with other transportation services, VCU, and other goods/services not available in the Southside area.	2/19/2019 5:38 PM
4	Connections to rail, etc.	2/18/2019 10:11 AM
5	Destinations on the I64 corridor including Staunton,Waynesboro, Charlottesville, and Richmond. Currently lack good east west transit options in the State.	2/15/2019 3:41 PM
6	Richmond, job hubs not served by Metro.	2/15/2019 2:13 PM
7	Services from further southwest and southside VA to Roanoke. Service from the Alleghany Highlands to Roanoke. Roanoke to destinations north along I-81.	2/15/2019 1:37 PM
8	The top destinations would be Northern Virginia/DC (and points beyond), Richmond, Tidewater/Virginia Beach.	2/14/2019 10:31 AM
9	Northern Virginia, DC, airports, employment and medical	2/12/2019 12:33 PM
10	see previous	2/11/2019 1:46 PM
11	Botetourt Center @ Greenfield Daleville Towne Center Urbanized area (City of Roanoke, Salem, Vinton, parts of Roanoke County) City of Roanoke Amtrak Roanoke Regional Airport	2/7/2019 3:44 PM
12	No.	2/7/2019 10:30 AM
13	Having a student heavy population, most of the students need to go to the northeast. This is being served very well by the Virginia Breeze.	2/7/2019 9:41 AM
14	New York, Washington DC, Atlantic City, Charleston, Richmond, Nashville, Raleigh, Myrtle Beach, Virginia Beach, Dulles	2/7/2019 8:45 AM
15	Connectivity to the Washington, DC metro area and other urban areas within Virginia, such as Richmond.	2/6/2019 2:04 PM

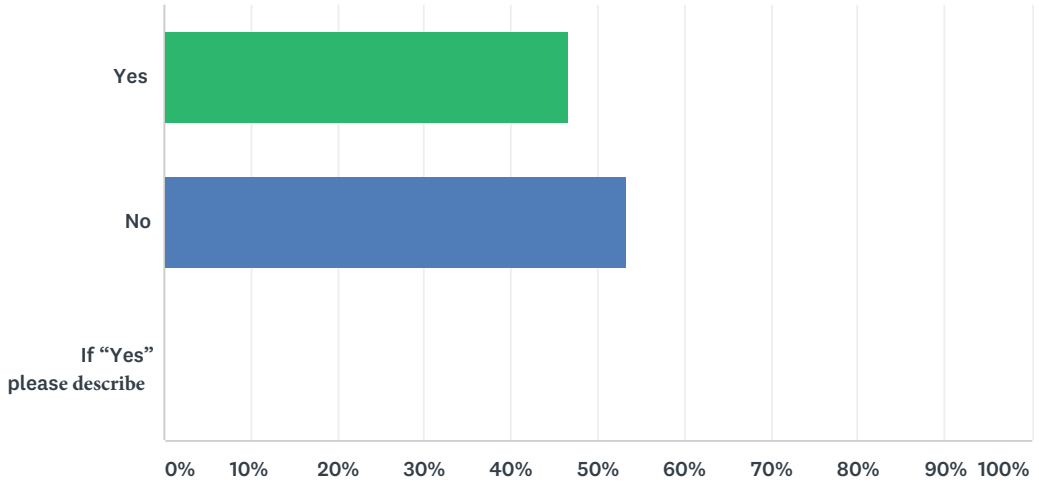
Q5 Please offer any comments regarding other aspects of intercity bus services that you see as needing improvement, such as vehicles, facilities such as stations or park and ride lots, schedule information systems, wheelchair accessibility, marketing, etc.

Answered: 13 Skipped: 2

#	RESPONSES	DATE
1	I only found out about this service via social media. I have not seen any TV ads, billboards, etc. advertising this service or advertising to specific populations who would benefit from them.	2/25/2019 10:34 AM
2	Quality of the user experience (wifi, comfortable seats, etc), more client-friendly stations, real-time scheduling, connections to local fixed-route transit or other modes.	2/21/2019 10:02 AM
3	The Virginia Breeze needs more exposure through marketing. It is an excellent service, but not widely known.	2/18/2019 10:11 AM
4	More attention to first mile/last mile issues.	2/15/2019 2:13 PM
5	N/A	2/15/2019 1:37 PM
6	Lack of stops is the main obstacle at this point; if stops were being considered, there are some options that could tie-in to local transit routes in the towns of Warrenton, Culpeper, and Orange.	2/14/2019 10:31 AM
7	Enhanced features at park and ride lots in Shenandoah and Warren Counties. The Front Royal park and ride lot which is a current stop for the VA Breeze does not have a bus shelter and in return there's no place to house information in regards to local information and transit schedules that is available in the area.	2/12/2019 12:33 PM
8	The current VA Breeze pick up location is a shopping center parking lot with no cover.	2/11/2019 1:46 PM
9	Many people are not aware of transit services available to them in the rural areas. Better marketing techniques are needed.	2/7/2019 3:44 PM
10	n.a.	2/7/2019 10:30 AM
11	Having 2 stops for the Virginia Breeze, they appear to be functioning well. My only comment is regarding the Park & Ride lot at Exit 118 (referred to as the Falling Branch P & R) has 3 bus slips. We had requested that the 3 slips be designated so people would know which one the bus will stop at. VDOT said that they wouldn't designate them which creates some confusion.	2/7/2019 9:41 AM
12	There are currently no intercity bus services available on a regular basis right now. Scheduling, marketing all of the above would be needed. Possibly utilize some of the historic train stations in the region as the location for stops or work with some of the local transit services to utilize some of their stop locations.	2/7/2019 8:45 AM
13	N/a	2/6/2019 2:04 PM

Q6 Are any long-distance services that might be described as intercity or services that connect with intercity services currently operated in your area?

Answered: 15 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	46.67%	7
No	53.33%	8
If “Yes” please describe in terms of pickup points, destinations, stops served, how passengers make reservations, eligibility restrictions, schedules, fares, etc. (attach timetables or other information if available)	0.00%	0
TOTAL		15

#	IF “YES” PLEASE DESCRIBE IN TERMS OF PICKUP POINTS, DESTINATIONS, STOPS SERVED, HOW PASSENGERS MAKE RESERVATIONS, ELIGIBILITY RESTRICTIONS, SCHEDULES, FARES, ETC. (ATTACH TIMETABLES OR OTHER INFORMATION IF AVAILABLE)	DATE
	There are no responses.	

Q7 Is the existing service scheduled or demand-response?

Answered: 8 Skipped: 7

#	RESPONSES	DATE
1	Scheduled, Greyhound Bus Service. HRT, scheduled service throughout Hampton Roads.	2/25/2019 10:41 AM
2	Scheduled - privatized service ie: MegaBus / ChinaBus	2/21/2019 10:04 AM
3	Scheduled	2/15/2019 3:39 PM
4	I don't know	2/15/2019 2:14 PM
5	Scheduled.	2/15/2019 1:41 PM
6	Commuter Bus that is scheduled from the Front Royal and Linden Park and Ride lots in Warren County.	2/12/2019 12:38 PM
7	scheduled (but limited)	2/11/2019 1:50 PM
8	scheduled	2/7/2019 10:36 AM

Q8 Please describe the existing service in terms of pickup points, destinations, stops served, how passengers make reservations, eligibility restrictions, schedules, fares, etc.

Answered: 8 Skipped: 7

#	RESPONSES	DATE
1	Greyhound-Private company providing service to some location in Virginia, mostly larger cities. Route map online is confusing and non-specific about routes and stations. HRT- Provides local service to stops throughout Hampton Roads.	2/25/2019 10:41 AM
2	Online reservation system - early reservations get discounts. Passenger pickup is in a parking lot.	2/21/2019 10:04 AM
3	Grey Hound and Megabus	2/15/2019 3:39 PM
4	I don't know	2/15/2019 2:14 PM
5	SMART WAY Commuter and Express services between Roanoke and Blacksburg. Information on smartwaybus.com.	2/15/2019 1:41 PM
6	AM Schedule: 4:45 – Front Royal (Crooked Run park & Ride: Winchester Road Front Royal, VA 22630) 5:00 – Linden park & ride lot (State Rte. 647 Front Royal, VA 22630) 6:05 – Rosslyn (N. Fort Myer Drive, SB @ Wilson Blvd.) 6:15 – Pentagon Metrorail Station (Bus Bay L7) 6:25 – Metro Center (Southbound 13th Street north of G St Intersection) 6:35 – L'Enfant Plaza (Southbound 7th Street north of C St/MD Ave Intersection) PM Schedule: 3:40 – Metro Center (Southbound 13th Street north of G St Intersection) 3:50 – L'Enfant Plaza (Southbound 7th Street north of C St/MD Ave Intersection) 4:00 – Pentagon Metrorail Station (Bus Bay L7) 4:15 – Rosslyn (N. Fort Myer Drive, SB @ Wilson Blvd.) 5:35 – Linden park & ride lot (State Rte. 647 Front Royal, VA 22630) 5:50 – Front Royal (Crooked Run park & Ride: Winchester Road Front Royal, VA 22630) Passengers make reservations via DC Motorcoach website. Fares: One Way Pass $15.00 Daily Pass $25.00 Monthly Pass $440.00 12 rides per month $260.00 Transit Subsidy Payment Amenities: Free WIFI Outlet charging stations Restrooms Bottled Water	2/12/2019 12:38 PM
7	VA Breeze stops in Lexington but only once per day per direction. No stops are scheduled in Roanoke for some reason.	2/11/2019 1:50 PM
8	Greyhound GotoBus Megabus	2/7/2019 10:36 AM

Q9 If available, please attach timetables or other information for existing services.

Answered: 0 Skipped: 15

#	FILE NAME	FILE SIZE	DATE
	There are no responses.		

Q10 How/Where is information of these services made available to users? Websites, brochures, posted schedules, etc.

Answered: 6 Skipped: 9

#	RESPONSES	DATE
1	All of the above for both companies	2/25/2019 10:41 AM
2	website	2/21/2019 10:04 AM
3	Websites	2/15/2019 2:14 PM
4	Website - smartwaybus.com Information at Campbell Court Transportation Center in Roanoke.	2/15/2019 1:41 PM
5	Local commuter program website, service provider website, brochures, rack cards, banner at the Front Royal park and ride lot, Facebook and Instagram	2/12/2019 12:38 PM
6	internet	2/7/2019 10:36 AM

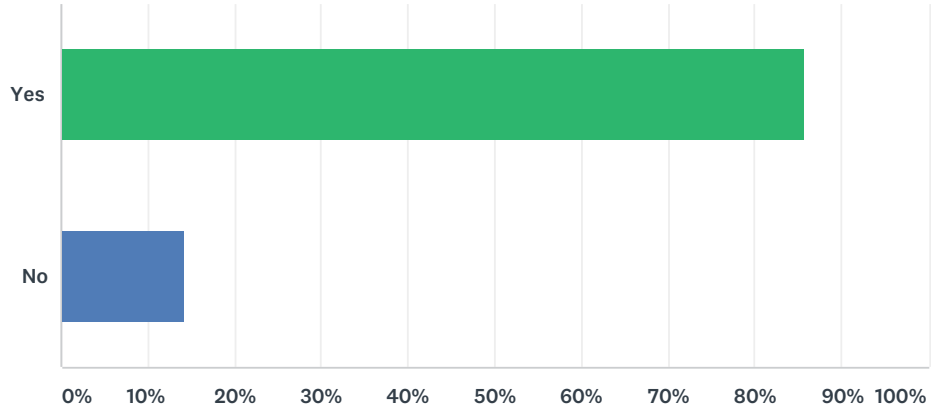
Q11 Do you see any potential need or opportunity to expand or modify these services to connect with existing intercity bus services or meet needs for intercity bus services?

Answered: 6 Skipped: 9

#	RESPONSES	DATE
1	HRT is slow and unreliable. Not very many people use it unles they have no other option for transportation. Greyhound is more selective, most people are traveling further and staying at their destination longer. Both services would benefit from expansion of DRPT Virginia Breeze services, as they would provide another option and possibly additional stops/routes to areas currently not serviced or poorly serviced.	2/25/2019 10:41 AM
2	Yes - more connections and simpler user experience is always helpful	2/21/2019 10:04 AM
3	There is always opportunity.	2/15/2019 2:14 PM
4	Expansion of the SMART WAY brand to add more routes and service frequency between Roanoke and Lynchburg adding to the AMTRAK option as well as going north to Clifton Forge and south to Franklin County.	2/15/2019 1:41 PM
5	Yes	2/12/2019 12:38 PM
6	no.	2/7/2019 10:36 AM

Q12 Do you want to receive future notifications about this study, including any additional surveys, meeting notices, or study reports?

Answered: 7 Skipped: 8



ANSWER CHOICES	RESPONSES	
Yes	85.71%	6
No	14.29%	1
TOTAL		7

Q13 How/Where is information of these services made available to users? Websites, brochures, posted schedules, etc.

Answered: 5 Skipped: 10

#	RESPONSES	DATE
1	As indicated, the only services that might qualify as intercity run through the region, but do not have stops here. The local transit routes that might provide some level of connectivity with intercity routes are all operated by Virginia Regional Transit, which does limited advertising via website and brochure distribution.	2/14/2019 10:34 AM
2	Service provider websites	2/7/2019 3:45 PM
3	Use of websites is the most common. There are brochures available for the SmartWay Commuter Service. It would be good to have schedules posted at the stops. Eventually "next bus will arrive ... would be helpful.	2/7/2019 9:44 AM
4	NA - (there are no intercity bus services serving this region)	2/7/2019 8:47 AM
5	Online	2/6/2019 2:06 PM

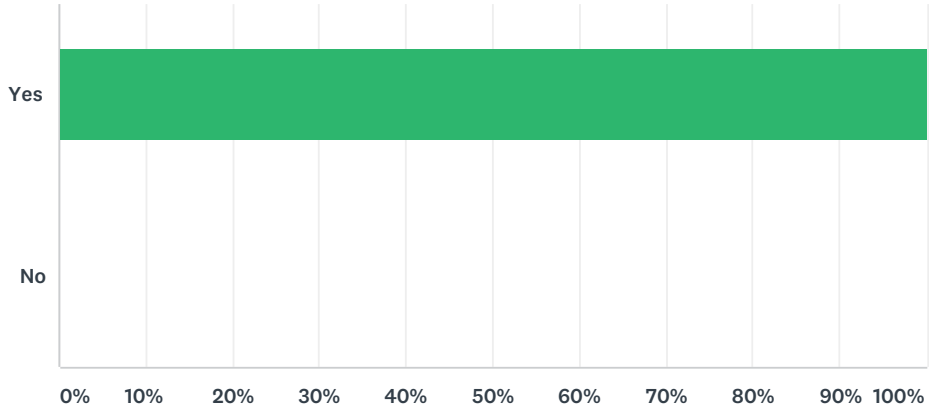
Q14 Do you see any potential need or opportunity to expand or modify these services to connect with existing intercity bus services or meet needs for intercity bus services?

Answered: 5 Skipped: 10

#	RESPONSES	DATE
1	If intercity bus service stops were considered here, it would be the hope of the Regional Commission that a joint effort at modifying existing transit routes to provide connectivity with easily accessible stops for the intercity service would be a top priority.	2/14/2019 10:34 AM
2	Yes, there are limited services within Alleghany and Franklin Counties that have the potential to expand. There are a number of jobs, places of education, medical services, and recreation (Trip Generators) along the US 220 corridor in the Roanoke Valley which could mean robust, steady ridership if proper services are implemented.	2/7/2019 3:45 PM
3	The Virginia Breeze is working well for the area now.	2/7/2019 9:44 AM
4	Intercity bus service would be well received in this region. Would be a great asset for the current residents as well as tourist who would like to spend the day in this region as well in some of our great State Parks or shopping (ex. High Bridge Trail and Greenfront)	2/7/2019 8:47 AM
5	Expand options for travel from the the Eastern Shore of Virginia to metropolitan areas-- currently, most options are Greyhound buses	2/6/2019 2:06 PM

Q15 Do you want to receive future notifications about this study, including any additional surveys, meeting notices, or study reports?

Answered: 7 Skipped: 8



ANSWER CHOICES	RESPONSES	
Yes	100.00%	7
No	0.00%	0
TOTAL		7

Appendix B
Public Transit Provider Survey Questions and Responses

Q1 Contact Information: Omitted for privacy reasons.

Q2 Are there areas or corridors that you consider as having a need for more intercity bus service (particularly in rural areas)? This could be areas with no service, or places with existing service that could benefit from additional service (more schedules, local service, etc.).

Answered: 11 Skipped:0

#	RESPONSES	DATE
1	The Route 17 corridor between Newport News and Fredericksburg.	2/21/2019 11:25 AM
2	Entire I-64 corridor. Connections between all the public colleges and universities would be excellent.	2/21/2019 6:15 AM
3	none	2/19/2019 2:02 PM
4	I-81 and I-64 corridor specifically Harrisonburg to Charlottesville	2/18/2019 11:05 AM
5	Yes, the 29 and 58 corridors from Danville to Hurt and Danville to South Boston	2/16/2019 8:46 PM
6	none	2/15/2019 3:13 PM
7	Rt 58 & Rt 460	2/15/2019 2:35 PM
8	Route 29 Corridor from Danville, through Lynchburg to Charlottesville. There was a local push a couple years ago in Lynchburg to look at a connection between Lynchburg and Charlottesville.	2/15/2019 11:55 AM
9	Corridors I believe need service: 1. Enhance frequency of the Blacksburg/Roanoke/Harrisonburg/DC corridor 2. DC/Richmond/Hampton Roads 3. Blacksburg/Roanoke/Lynchburg/Farmville/Richmond/VA Beach	2/11/2019 10:05 AM
10	Bristol to Roanoke with a stop in Abingdon	2/8/2019 9:19 AM
11	Yes areas would include Waverly, Va. Wakefield , Va.	2/7/2019 3:04 PM

Q3 Are there particular markets or groups that you see needing more service?

Answered: 11 Skipped: 0

#	RESPONSES	DATE
1	Route 17 between Newport News and Fredericksburg is very rural with few transportation options, especially since Greyhound left. People without dependable cars have limited access to urban centers and multiple modes of transportation.	2/21/2019 11:25 AM
2	Young people, transportation disadvantaged, lower income	2/21/2019 6:15 AM
3	no	2/19/2019 2:02 PM
4	JMU, UVA, BRCC Connecting hospitals to UVA	2/18/2019 11:05 AM
5	Former Greyhound customers who used service from Danville	2/16/2019 8:46 PM
6	none	2/15/2019 3:13 PM
7	None particularly	2/15/2019 2:35 PM
8	Medical transportation to medical centers in Charlottesville.	2/15/2019 11:55 AM
9	Students, Workers (Richmond/DC/Hampton Roads) and Tourists for all corridors	2/11/2019 10:05 AM
10	Those without transportation that would want to ride the train at the Roanoke station	2/8/2019 9:19 AM
11	Yes	2/7/2019 3:04 PM

Q4 Where do you think people wish to go - are there destinations needing additional service?

Answered: 11 Skipped: 0

#	RESPONSES	DATE
1	I believe the destinations would be passenger train stations, bus stations and airports to expand their travel options.	2/21/2019 11:25 AM
2	Connections to other modes of transportation, DC, Richmond, Hampton Roads, Roanoke.	2/21/2019 6:15 AM
3	no	2/19/2019 2:02 PM
4	Harrisonburg, Staunton and Charlottesville	2/18/2019 11:05 AM
5	Lynchburg, Richmond, Roanoke and DC	2/16/2019 8:46 PM
6	unknown	2/15/2019 3:13 PM
7	Rural to urban connections	2/15/2019 2:35 PM
8	Medical Centers in Charlottesville	2/15/2019 11:55 AM
9	Mostly between urban areas like DC/Roanoke/Richmond/Hampton Roads etc.	2/11/2019 10:05 AM
10	They would also use the service to access medical facilities in the Salem/Roanoke area	2/8/2019 9:19 AM
11	Most patrons are requesting service to the Waverly Wakefield and Emporia areas.	2/7/2019 3:04 PM

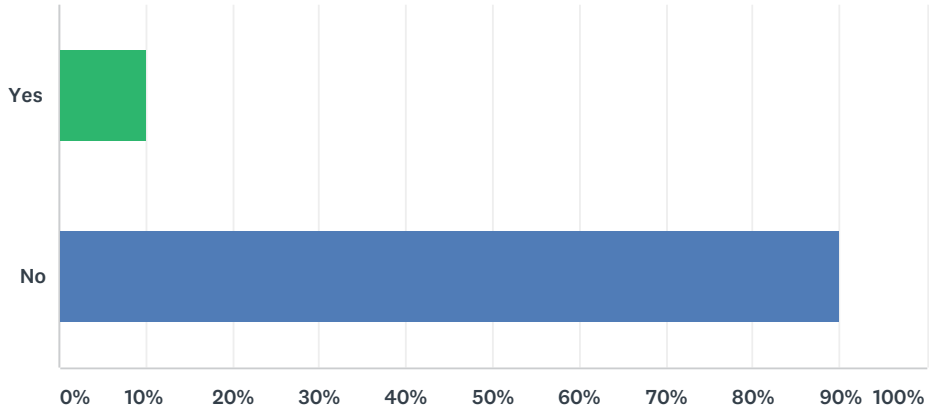
Q5 Please offer any comments regarding other aspects of intercity bus services that you see as needing improvement, such as vehicles, facilities such as stations or park and ride lots, schedule information systems, wheelchair accessibility, marketing, etc.

Answered: 10 Skipped: 1

#	RESPONSES	DATE
1	Bay Transit would offer to serve as the provider of first mile/last mile transportation in the MIddle Peninsula and Northern Neck, and provide a passenger waiting area and amenities at our transit facilities in Gloucester and Warsaw.	2/21/2019 11:25 AM
2	Bus shelters with electronic ETAs are always a good idea.	2/21/2019 6:15 AM
3	none	2/19/2019 2:02 PM
4	Danville's Transfer Center can support intercity service	2/16/2019 8:46 PM
5	no comments	2/15/2019 3:13 PM
6	This service could really benefit from additional marketing and coordination with regional/local partners. It would be nice to see a singular network with transit partners in order to build a sense of door to door service.	2/15/2019 2:35 PM
7	None at the moment.	2/15/2019 11:55 AM
8	I think the current infrastructure is good, there seems to be positive reception regarding the services provided so far. I do think double deck buses with at least 2 bathrooms would be ideal.	2/11/2019 10:05 AM
9	N/A	2/8/2019 9:19 AM
10	Emporia has a small bus system. It would be of great benefit to see PAT and Emporia negotiate service to transport patrons to and from both Cities.	2/7/2019 3:04 PM

Q6 Do you currently operate any long-distance services that might be described as intercity or services that connect with intercity services currently operated in your area?

Answered: 10 Skipped: 1



ANSWER CHOICES	RESPONSES	
Yes	10.00%	1
No	90.00%	9
TOTAL		10

Q7 Is the existing service scheduled or demand-response?

Answered: 2 Skipped: 9

#	RESPONSES	DATE
1	scheduled	2/15/2019 3:19 PM
2	Scheduled	2/7/2019 3:29 PM

Q8 Please describe the existing service in terms of pickup points, destinations, stops served, how passengers make reservations, eligibility restrictions, schedules, fares, etc.

Answered: 2 Skipped: 9

#	RESPONSES	DATE
1	Fairfax Connector operates 89 routes serving over 4,000 bus stops primarily in Fairfax County, but also with a few stops in Arlington County, VA and the District of Columbia.	2/15/2019 3:19 PM
2	The service leaves Petersburg Station and services McQiure Veteran Hospital, 7th and Franklin St. and 11th and Marshall St. in Richmond , Va.	2/7/2019 3:29 PM

Q9 If available, please attach timetables or other information for the existing service.

Answered: 1 Skipped: 10

#	FILE NAME	FILE SIZE	DATE
1	Richmond Express.docx	17.5KB	2/7/2019 3:29 PM

Q10 How/Where is information of these services made available to users? Websites, brochures, posted schedules, etc.

Answered: 2 Skipped: 9

#	RESPONSES	DATE
1	website, printed timetables, rideguides at selected locations	2/15/2019 3:19 PM
2	City website and schedules in Petersburg Station lobby.	2/7/2019 3:29 PM

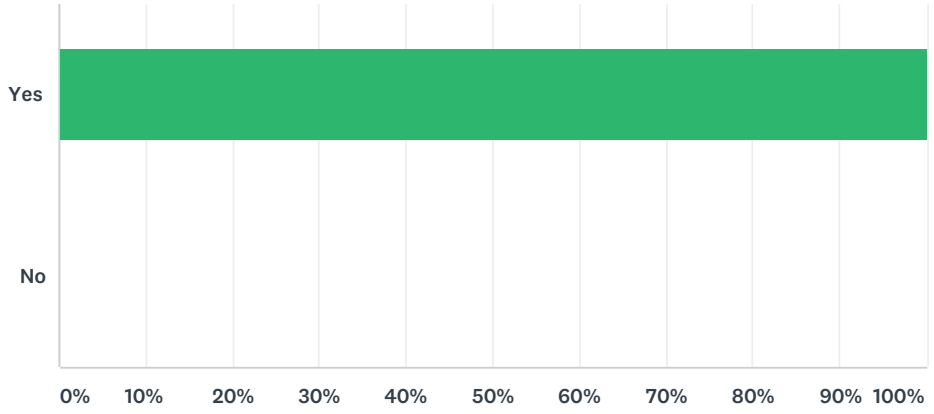
Q11 Do you see any potential need or opportunity to expand or modify these services to connect with existing intercity bus services or meet needs for intercity bus services?

Answered: 2 Skipped: 9

#	RESPONSES	DATE
1	existing Connector service provides connections to stops served by existing intercity bus services	2/15/2019 3:19 PM
2	Yes	2/7/2019 3:29 PM

Q12 Do you want to receive future notifications about this study, including any additional surveys, meeting notices, or study reports?

Answered: 2 Skipped: 9



ANSWER CHOICES	RESPONSES	
Yes	100.00%	2
No	0.00%	0
TOTAL		2

Q13 How/Where is information of these services made available to users? Websites, brochures, posted schedules, etc.

Answered: 9 Skipped: 2

#	RESPONSES	DATE
1	N/A	2/21/2019 11:25 AM
2	Websites, brochures, social media	2/21/2019 6:16 AM
3	website	2/19/2019 2:03 PM
4	Websites, brochures, social media to cover all possible ridership base.	2/18/2019 11:07 AM
5	Not presently applicable however service may be provided to Hurt and South Boston with additional stops in towns along the 29 corridor	2/16/2019 8:50 PM
6	Suffolk does not have Intercity service but our services are available through website, brochures and a ITS solution.	2/15/2019 2:37 PM
7	N/A	2/15/2019 11:56 AM
8	Websites seems to be the most common.	2/11/2019 10:06 AM
9	N/A	2/8/2019 9:22 AM

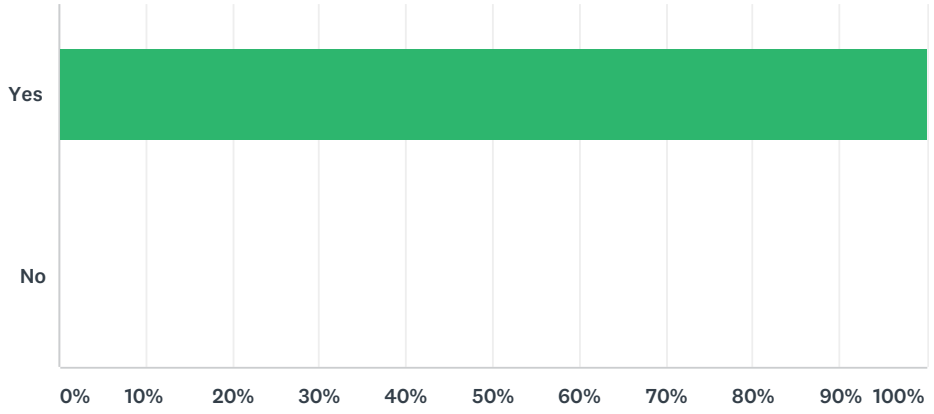
Q14 Do you see any potential need or opportunity to expand or modify these services to connect with existing intercity bus services or meet needs for intercity bus services?

Answered: 8 Skipped: 3

#	RESPONSES	DATE
1	N/A	2/21/2019 11:25 AM
2	Coordination/communication of transfers points, with appropriate signage.	2/21/2019 6:16 AM
3	none	2/19/2019 2:03 PM
4	Yes if Lynchburg Transit were to offer service to Altavista where Danville Transit could offer connections in Hurt	2/16/2019 8:50 PM
5	Unknown at this time	2/15/2019 2:37 PM
6	N/A	2/15/2019 11:56 AM
7	Yes, I envision a network of these services as being most helpful to riders.	2/11/2019 10:06 AM
8	If intercity bus services were expanded into our area there would be the opportunity to connect our riders to it.	2/8/2019 9:22 AM

Q15 Do you want to receive future notifications about this study, including any additional surveys, meeting notices, or study reports?

Answered: 9 Skipped: 2



ANSWER CHOICES	RESPONSES	
Yes	100.00%	9
No	0.00%	0
TOTAL		9

Appendix C
Private Provider Survey

Contact Information

Name of person providing information	
Organization	
Mailing Address	
City	
State	
ZIP	
Email	
Phone	

Intercity Bus Service means regularly scheduled bus service for the general public that operates with limited stops over fixed routes connecting two or more urban areas not in close proximity, that has the capacity for transporting baggage carried by passengers, and that makes meaningful connections with scheduled intercity bus service to more distant points, if such service is available.

Based on this definition, do you operate any scheduled intercity bus services in Virginia or adjacent states?

- ○ Yes
- ○ No

Please describe the existing service in terms of stops served, schedules, etc.

If available, please attach timetables or other information for existing services.

Choose File No file chosen

Do you see any potential need or opportunity to expand or modify these services to connect with existing intercity bus services or meet needs for intercity bus services? Which, if any, of these additional services might be feasible if operating subsidies were available? This could be in areas with no service, or connections between existing services. Please list and/or describe:

Do you operate any other kinds of service, such as connections to airports or train stations, Amtrak Thruway bus service, charter or tour service? Please describe:

How/Where do you make information about these services available to the public? (Websites, brochures, posted schedules, social media, etc.)

Are there areas or corridors that you consider as having a need for more intercity bus service (particularly in rural areas)? This could be areas with no service, or places with existing service that could benefit from additional service (more schedules, local service, etc.).

Are there particular markets or groups that you see needing more service? For example, college students, people making train connections, airport trips, etc.?

Where do you think people wish to go - are there destinations needing additional service? Please describe.

Please offer any comments regarding other aspects of intercity bus services that you see as needing improvement, such as vehicles, facilities such as stations or park and ride lots, schedule information systems, wheelchair accessibility, marketing, etc.

Do you want to receive future notifications about this study, including any additional surveys, meeting notices, or study reports

- Yes
- No

Do you see any potential need or opportunity to expand or modify these services to connect with existing intercity bus services or meet needs for intercity bus services? Which, if any, of these additional services might be feasible if operating subsidies were available? This could be in areas with no service, or connections between existing services. Please list and/or describe:

Do you operate any other kinds of service, such as connections to airports or train stations, Amtrak Thruway bus service, charter or tour service? Please describe:

How/Where do you make information about these services available to the public? (Websites, brochures, posted schedules, social media, etc.)

Are there areas or corridors that you consider as having a need for more intercity bus service (particularly in rural areas)? This could be areas with no service, or places with existing service that could benefit from additional service (more schedules, local service, etc.).

Are there particular markets or groups that you see needing more service? For example, college students, people making train connections, airport trips, etc.?

Where do you think people wish to go - are there destinations needing additional service? Please describe.

Please offer any comments regarding other aspects of intercity bus services that you see as needing improvement, such as vehicles, facilities such as stations or park and ride lots, schedule information systems, wheelchair accessibility, marketing, etc.

Do you want to receive future notifications about this study, including any additional surveys, meeting notices, or study reports

- Yes
- No

Appendix D
Summary of Discussion with Intercity Operators

GREYHOUND CONSULTATION CONFERENCE CALL – 3/12/2019

The purpose of the call was to obtain and clarify responses to Greyhound's Intercity Bus Operator Survey, and as consultation with Greyhound about Virginia's intercity bus needs.

On the call:
DRPT: Neil Sherman and Emily DelRoss
KFH Group, Inc.: Fred Fravel
Isaacs & Associates, Inc. (Greyhound's State and Local Affairs consultants): Stephanie Gonterman and Steve Abernathy.
Greyhound Lines, Inc.: Tim Therrian and John Baranowski

Discussion of unmet needs began with Fred asking about Greyhound's current Virginia network, and whether or not there are existing routes that are vulnerable to discontinuance or could use assistance to maintain current service levels.

One particular service he asked about was the Table 143 Charlottesville-Baltimore service via Fredericksburg, which was not included in the schedule tables Greyhound had attached. Tim replied that it was still operated, it was an oversight to omit it from the attachment. However, he said there had been some recent reductions in service, and that demand is seasonal—so recently they dropped service on one schedule to five days per week (effective 10.25/18—during the school year). The morning trip northbound and its afternoon return trip could be considered as vulnerable.

Mr. Therrian suggested an alternative routing between Charlottesville and Washington. The alternative would go up Route 29 and possibly serve Culpeper, Warrenton, Gainesville, and could serve Dulles Airport. There are no stops on the existing schedule between Charlottesville and Fredericksburg—other stops include Springfield and Washington, D.C.

The discussion turned to the former service to Danville on a route between Atlanta/Charlotte and Richmond (part of Table 424). It was in operation at the time of the previous Virginia intercity bus study, not mentioned as at risk, and then discontinued shortly after the study came out. Mr. Therrian said it was not dropped because of low ridership (in particular), but as a result of competitive pressures from other firms operating only express services that were much faster than the routing via Danville. So, the trip was moved to the I-85 corridor at that time. Greyhound would be interested in bidding on service through Danville, if good connections can be developed and if the route can be served given the location of Greyhound's resources.

Another route discussed as having limited service frequency is the Table 420 service between Baltimore or New York and Norfolk, serving the Eastern Shore of Delaware, Maryland and Virginia. The Virginia stops of Oak Hall, and Exmore are served on three schedules, but one of them operates only Fridays, Sundays and Holidays (the northbound

trip does not serve Exmore and Oak Hall), and a second one does not operate Mondays or Tuesdays (southbound) or Tuesdays or Wednesdays (northbound), leaving one schedule as a daily service. Mr. Therrian acknowledged difficulty in supporting more than the one service, and there was some discussion about how a state could issue an RFP for an additional trip on an existing service—as that would open it up to a competitor who could potentially take the resources to operate competing service—one example in Colorado was mentioned.

Greyhound is very open to working with Amtrak cooperatively, and has recently coordinated services with Amtrak in Pennsylvania on the Harrisburg-Pittsburgh route. Each carrier can sell the other's tickets, and schedules have been coordinated. The Greyhound bus services the same stations. Greyhound views it as a success.

Greyhound would like to co-locate with Amtrak in Charlottesville. There is concern about the adequacy of the size of the rail station, and Greyhound would need to be assured of access to loading space in the adjacent parking lot. Greyhound does not have funding for station capital projects. Other potential locations in the future might be Roanoke (currently in the transit center), as Greyhound's passengers have similar needs to those of Amtrak, as they are both intercity long-distance passengers needing waiting rooms, restrooms, etc.

Greyhound sees its three key connection points in Virginia as Richmond, Wytheville, and Charlottesville—as places that potential new services could make connections.

Greyhound is currently working with Amtrak to offer joint ticketing and coordinated schedules on evening service from Washington to Richmond's Staples Mill Road station. There are no southbound Amtrak schedules from Washington after 5:00 p.m., but trains from the northeast keep arriving until late in the evening—this effort would allow southbound Amtrak passengers to a southbound Greyhound connection to allow Amtrak to sell tickets to Richmond on those late arriving trains.

Greyhound is a member of the National Bus Traffic Association (NBTA) and can therefore work within that framework to have interline ticketing with rural transit systems under the "sponsored member" option of NBTA. Greyhound does do interline ticketing with connecting rural carriers, such as Shore Transit in Salisbury, Maryland. Shore Transit provides the connection from Salisbury to Ocean City, and is included in Greyhound's information and ticketing systems. Greyhound pays Shore transit their fare on any tickets it sells through a simple reporting process. Greyhound can only do this for fixed-route, fixed-schedule services.

With regard to providing in-kind match, Greyhound will support Section 5311(f) services with in-kind match if the proposed services meeting Greyhound's criteria:

- Interline ticketing (NBTA or direct with Greyhound).
- Schedules within a two-hour window of connecting Greyhound schedules.

- Connecting schedules must be fixed-schedule, fixed-route.
- Connecting schedules must operate at least five days per week, preferably seven.
- Connecting schedules must serve the same point to allow an easy passenger transfer.
- No in-kind match will be provided for competing services.
- Connecting carrier must have appropriate insurance and regulatory authority, and be fully compliant with FMCSA and/or FTA requirements.

Greyhound is open to bidding on an RFP that includes branding requirements explicitly, and is particularly supportive if the state also provides the capital funding for the buses. In the event that the state wants the carrier to procure and brand the buses, it is critical that the contract be long enough to allow the carrier to amortize the cost of the dedicated buses that would be required. Greyhound pointed out that a number of states have branded their services, and made the buses into rolling billboards for tourism, etc. Indian Trails Michigan service is an example.

AMTRAK CONSULTATION MEETING - 3/5/2019

On March 5 Adam Krom met with Fred Fravel to discuss Virginia's intercity bus needs in relation to Amtrak and Amtrak Thruway bus. Mr. Krom described the current Amtrak Thruway services in Virginia, which include three round-trips per day between Charlottesville and Richmond, time to connect with Amtrak trains in Charlottesville. This service is a dedicated service provided by James River Bus Lines in response to an Amtrak RFP. Passengers must have an Amtrak ticket. The buses are scheduled to leave Richmond on time, but wait for connecting trains in Charlottesville. Another Thruway connects Norfolk trains with Virginia Beach.

In terms of future rail passenger development, bus connections to Richmond would benefit from increased frequencies on the corridor between Richmond and Washington. Some of these additional future trains will continue to Norfolk, and some to Newport News. The Cardinal, today's tri-weekly service from New York to Chicago via Charlottesville, Staunton, and Clifton Forge could become a daily train to and from Charlottesville, and could eventually serve Roanoke. The Crescent operates daily from New York to New Orleans, via a number of Virginia stops including Danville—but the Danville stops are in the very early morning hours.

In terms of future coordination with intercity bus, Mr. Krom made the point that Section 5311(f) could be used to fund the rural ends of services that might be Amtrak Thruway between larger urban areas—the example he used was New Hampshire, where the Concord Coach bus from Littleton is funded with Section 5311(f) in the nonurbanized part of the state, and with other sources (primarily fare revenue) from Concord south to Boston. The concept could be applied in Virginia to use the S.5311(f) funding for services from Clifton Forge to Richmond via Charlottesville, and from Harrisonburg via Waynesboro to Charlottesville and Richmond, thereby adding frequencies between

Charlottesville and Richmond (note that there are also three Greyhound round-trips between these cities as well). With enough frequency Amtrak would no longer need to have dedicated service to wait for the trains, as riders on a late train could simply catch a later bus. They could still be Amtrak Thruway, but on an interline arrangement or a coop agreement (as in Oregon) where Amtrak guarantees a certain number of seats. He noted that Greyhound and Amtrak are increasingly interline ticketing arrangements, with additional ridership as seen in a recent Harrisburg-Pittsburgh joint service. He noted that another potential joint effort could provide for evening schedules south from Washington to Richmond, as the last Richmond train leaves Washington at ____ but trains from New York and points north continue to arrive through the evening. Passengers on these trains wishing to reach Richmond could continue on Greyhound on a later schedule, with an Amtrak ticket.

The topic of the Charlottesville station came up, as it is already too small for Amtrak and adding Greyhound or Virginia Breeze is likely not possible without some construction. The issue of needing the City to seek funding for potential solutions was discussed, along with the possible role of Amtrak in constructing a facility.

Mr. Krom made a point about the need to consider Section 5311(f) funding as a means of enhancing the core intercity network with additional frequencies or more direct connections, rather than utilizing limited funding to serve rural areas with likely marginal ridership. He noted that Greyhound has been reducing frequencies on its lines, so that there is less service to connect with.

DILLON'S BUS

Mr. Derrick Kazimierski of Dillon's Bus Service, Inc. provided a written survey response. Dillon's is the contract operator of the Virginia Breeze. His firm is also the operator of Megabus services in Virginia. Megabus routes include service from Virginia Beach to Washington, D.C. with stops in Hampton and Richmond, and from Charlottesville to Washington, D.C. with no intermediate stops.

In his survey he commented that potential changes to the Virginia Breeze service could include a stop in Roanoke, and a Friday northbound express trip with stops only in Blacksburg, Harrisonburg, Dulles and Washington. He also suggested that service from the University of Virginia in Charlottesville to Dulles and Washington, D.C. would be beneficial (to the intercity network), as would service from Norfolk and Richmond to Dulles and Washington, D.C. He noted the popularity of the airport service on the current Virginia Breeze, and suggested that additional marketing and social media presences for Virginia Breeze could not hurt. His overall view is that services to airports and major cities with other transportation connections are the key destinations needing service.

Appendix E
Mobility Managers Survey Questions and Responses

MOBILITY MANAGER SURVEY RESPONSES

Organization	Mailing Address	City	Zip	Phone
Fairfax County Government	12011 Government Center Parkway, 10th floor	Fairfax	22035	703-324-7055
Appalachian Independence Center, Inc.	230 Charwood Drive, Suite G	Abingdon	24210	276-628-2979
Chesterfield County Citizen Info & Resources	P.O Box 40, 9800 Government Center Parkway	Chesterfield	23832	804-751-4960
Healthy Generations Area Agency on Aging	460 Lendall Lane	Fredericksburg	22405	540-656-2985
Senior Services of Southeastern VA	6350 Center Drive	Norfolk	23502	757-461-9481
Rockbridge Area Transportation System	712 N Main Street	Lexington	24450	540-463-3346
RADAR/ UHSTS	P.O. Box 13825			540-343-1721
Bay Transit	111 Commerce Parkway	Warsaw		804-824-2543
Citizen				
SAAA	204 Cleveland Avenue	Martinsville	24112	276-632-6442
JAUNT	104 Keystone Place	Charlottesville	22902	434-296-3184 x133
Old Dominion University	4310 Elkhorn Avenue	Norfolk	23508	757-683-3560
Senior Services of South Eastern VA	6350 Center Drive, Bldg. 5	Norfolk	23502	757-642-0338

Name	1. What type of services does your organization provide?
Fairfax County Government	Paratransit transportation, mobility management, subsidized taxi voucher program, travel training
Appalachian Independence Center, Inc.	AIC is a Center for Independent Living. Our services are; Advocacy, Peer Counseling, Independent Living Skills Training, Information and Referral and Transitions-Youth from high school to community life, and persons with a significant disability who can transition from institutions to community life with the proper community-based services.
Chesterfield County Citizen Info & Resources	Human Service 1 express Bus to Richmond
Healthy Generations Area Agency on Aging	Transportation counseling + Door to door Paratransit Service
Senior Services of Southeastern VA	On demand, fixed route
Rockbridge Area Transportation System	Door-to door, demand response, Non-emergency transportation for people with disabilities, elderly, veterans, low income & those without other transportation options
RADAR/ UHSTS	Paratransit in Roanoke/Salem City, Roanoke county; Fixed route in Covington/Alleghany County, Lexington/Rockbridge, Martioville/Henry County
Bay Transit	5311 and 5310 Demand, deviated fixed & seasonal deviated fixed
Citizen	
SAAA	Senior transportation, veteran transportation, volunteer driver program, Local+ out of town NEMT
JAUNT	Public transportation, fixed route, para transit, demand response
Old Dominion University	
Senior Services of South Eastern VA	Paratransit; Medicare benefit counselling; ombudsman services; case coordination; in-home services; community advocacy; meals on wheel screening

Name	2. What is your organization's catchment area?
Fairfax County Government	All of Fairfax County
Appalachian Independence Center, Inc.	Virginia's Planning District 3 which includes Bland, Carroll, Grayson Smyth, Washington and Wythe Counties and the Cities of Bristol and Galax
Chesterfield County Citizen Info & Resources	Chesterfield County Residence to Petersburg, Richmond, Hopewell, Colonial heights, parts of Mechanicsville & Henrico County
Healthy Generations Area Agency on Aging	PDC 16
Senior Services of Southeastern VA	Norfolk Beach, Chesapeake, Portsmouth, Suffolk, Franklin, Courtland, Smithfield and Isle of Night
Rockbridge Area Transportation System	Rockbridge County, Lexington, Buena Vista
RADAR/ UHSTS	
Bay Transit	Northern Neck & Middle Peninsula; New Kent & Charles City
Citizen	
SAAA	West Piedmont Planning District (PD12)
JAUNT	Charlottesville+ counties of Albemarle, Louisa, Nelson, Fluvanna + Bulkingham
Old Dominion University	
Senior Services of South Eastern VA	Hampton Roads area: Norfolk Beach, Chesapeake Western Tidewater: Franklin, Isle of Wight, Zuni, Ivor, Suffolk

Name	3. Does your organization serve a particular clientele? Please indicate characteristics of your target market/those eligible for your services.
Fairfax County Government	those w/ limited incomes, individuals' w/ disabilities, older adults
Appalachian Independence Center, Inc.	People with significant disabilities
Chesterfield County Citizen Info & Resources	Elderly (60+), low income & people with disabilities
Healthy Generations Area Agency on Aging	Persons of disabilities and older adults
Senior Services of Southeastern VA	60 and older and disable for on demand service, All ages for fixed route
Rockbridge Area Transportation System	We serve anyone that needs transportation but specifically people with disabilities, low income, veterans and elderly
RADAR/ UHSTS	Varied by area
Bay Transit	Senior, low income, disabled
Citizen	
SAAA	Over 60 population, veterans, people with disabilities, low income
JAUNT	general public (for paratransit in Charlottesville, must be ADA certified through CAT)
Old Dominion University	
Senior Services of South Eastern VA	Clients are 60+ and most are disabled

Name	4.Does your organization assist your clientele in finding long-distance transportation when needed? (information and referral, carpool matching, operation of transportation services, arranging for rides with volunteers or other providers, etc.)
Fairfax County Government	We often get these requests but due to catchment areas and limited resources, we are unable to assist and connect w/ the appropriate resource.
Appalachian Independence Center, Inc.	Yes, using information and referral and other means to arrange for rides.
Chesterfield County Citizen Info & Resources	As we now have mobility service (new since October 2017), yes-very few requests to date.
Healthy Generations Area Agency on Aging	Create a One-Stop-Shop and provide transportation services to all areas
Senior Services of Southeastern VA	Referral-American Cancer Society
Rockbridge Area Transportation System	Yes, we give any information available that may benefit these riders. We arrange rides to connect with other options if available.
RADAR/ UHSTS	Referral and information
Bay Transit	As mobility manager our team does assist with this when needed.
Citizen	
SAAA	Yes, through Miles 4Vets, volunteer driver program, information+ referrals
JAUNT	Yes, now that I'm on board as mobility manager I provide info + referral
Old Dominion University	
Senior Services of South Eastern VA	Yes, carpool / referral services in Western Tidewater: Suffolk

Name	5. Do you provide financial assistance to individuals or other organizations for intercity or other long-distance travel? (bus/train tickets, mileage reimbursement, gas vouchers, etc.)	6. Are there areas or corridors that you consider as having a need for more intercity bus service (particularly in rural areas)? This could be areas with no service, or places with existing service that could benefit from additional service (more schedules, local service, etc.).
Fairfax County Government	not at this time. But we can refer to a human service agency (coordinated services and planning) for gas assistance and bus tickets (case by case determination)	We often receive requests to Charlottesville (UVA Hospital that provides charitable work). We've been approached by our health dept, other county agencies and local hospitals (?)
Appalachian Independence Center, Inc.	No	Yes, AIC recommends that transit service be expanded in the Washington County and Bristol corridor. It is very difficult to travel on transit from Washington County into Bristol City service areas. The localities, DRPT and the Federal Highway Administration need to create the open exchange of passengers and vehicles across jurisdiction boundaries. This comment would apply to the Galax to Hillsville area and the same areas to Mount Airy, NC and Winston, NC areas.
Chesterfield County Citizen Info & Resources	No	Petersburg to Colonial Heights to Chester to Richmond-->up 95
Healthy Generations Area Agency on Aging	We can provide discounted local fixed route services tickets	Service starting in Hammon Roads to Fredericksburg to middle peninsula / northern neck is much needed
Senior Services of Southeastern VA	No	No
Rockbridge Area Transportation System	Not at this time.	Charlottesville may be an option and coastal areas.
RADAR/ UHSTS	No	Rockbridge and Alleghany County
Bay Transit	No	Route 17 through our service area from Newport News to Fredericksburg

Name	5. Do you provide financial assistance to individuals or other organizations for intercity or other long-distance travel? (bus/train tickets, mileage reimbursement, gas vouchers, etc.)	6. Are there areas or corridors that you consider as having a need for more intercity bus service (particularly in rural areas)? This could be areas with no service, or places with existing service that could benefit from additional service (more schedules, local service, etc.).
Citizen		Consider extending the Virginia Breeze serve "the rest of" southern I-81- 1. Bristol as a matter of Title VI equity should probably have its line on the map and a connection to Va Tech, VMI, W&M, & JMU, Dulles & NoVa 2. For riders, you'd probably get Motor Speedway fans. The Speedway (in TN) holds 165,000 people and has a mix of weekend and weekday events. Taking a bus to a car race is "a thing" (https://rally.co/bristol) 3. The Breeze trip would be 2 hours faster and same-bus service compared to Greyhound 4. And Greyhound + Breeze would have very complementary timings (need not compete too directly, but together would offer greatly improved service) <u>Suggested Northbound</u> City - Weekday - Friday Bristol 5:50am 11:50am (Downtown; Train Station?) Ft.Ch 6:40am 12:40pm (Exit 80 Park and Ride) VTssc 8:00am 2:00pm (Existing VT stop) WAS 2:30pm 8:30pm <u>Suggested Southbound</u> City - Weekday - Sunday WAS 9:20am 5:00pm VTssc 3:30pm 11:10pm Ft.Ch 4:50pm 12:30am (Monday) Bristol 5:40pm 1:20am
SAAA	No, we provide services or information referrals	Danville
JAUNT	We have a scholarship program for JAUNT bus tickets, called JAUNT Friends.	connecting Lynchburg to Charlottesville

Name	5. Do you provide financial assistance to individuals or other organizations for intercity or other long-distance travel? (bus/train tickets, mileage reimbursement, gas vouchers, etc.)	6. Are there areas or corridors that you consider as having a need for more intercity bus service (particularly in rural areas)? This could be areas with no service, or places with existing service that could benefit from additional service (more schedules, local service, etc.).
Old Dominion University		Many of our students have limited ability to travel back to more rural area in Virginia or cities that are not connected by current routes. Routes from the Hampton Roads region to these more rural destinations (southern-central part of state) would be of assistance to a significant portion of students.
Senior Services of South Eastern VA	Yes, Taxi vouchers	Megabus located in Norfolk. Norfolk is saturated with college students as it is two universities in the area Norfolk State University & Old Dominion University

Name	7. Are there particular markets or groups that you see needing more service?
Fairfax County Government	
Appalachian Independence Center, Inc.	Yes, there are markets and groups that need more transit service. Transit needs to operate for a longer period of time. Example: people with disabilities must arrange their travel times to appointments and other trips in order to stay within the Transit company's schedules of operation. Our Consumers have a limited time to use transit because its schedule is so narrow and limited. A consumer might get to a destination and only have 15 to 30 minutes to complete their business or face being left without transit service due to the limited amount of time and the short amount of time it operates. Longer operating time would increase people with disabilities time to shop or receive needed services.
Chesterfield County Citizen Info & Resources	the populations we serve (referenced early) seem to have the biggest need.
Healthy Generations Area Agency on Aging	
Senior Services of Southeastern VA	Dialysis Patients- Needing to get to their appointment. This is a serious unmet need.
Rockbridge Area Transportation System	College students and people connecting with airports.
RADAR/ UHSTS	
Bay Transit	
Citizen	
SAAA	
JAUNT	Elderly, people with disabilities and low-income people in the rural areas (Nelson & Fluvanna)
Old Dominion University	Students need more service due to limited budgets for travel and limited access to personal vehicles for transportation.
Senior Services of South Eastern VA	Seniors-->medical appointments/dialysis Students-->various travels

Name	8. Where do you think people wish to go—are there destinations needing additional service?
Fairfax County Government	UVA Hospital in Charlottesville
Appalachian Independence Center, Inc.	
Chesterfield County Citizen Info & Resources	
Healthy Generations Area Agency on Aging	Middle peninsula / Northern Neck Has no connectivity to transit points at all
Senior Services of Southeastern VA	
Rockbridge Area Transportation System	We get calls often of people wanting to go to airports.
RADAR/ UHSTS	Most of our fixed route clients wish to connect to Roanoke
Bay Transit	Rural to urban, airports, Bus depot, Medical Facilities Retail all of these are limited in rural area
Citizen	
SAAA	Employment transportation Danville-Martinsville-Rocky Mount
JAUNT	
Old Dominion University	Most cities and rural areas in the southern and central part of the state (think in between HR and Lynchburg/Roanoke and south of Petersburg).
Senior Services of South Eastern VA	Seniors-->medical appointments/dialysis Students-->various travels

Name	9. Please offer any comments regarding other aspects of intercity bus services that you see as needing improvement, such as vehicles, condition of bus facilities, schedule information, wheelchair accessibility, marketing, etc.
Fairfax County Government	N/A
Appalachian Independence Center, Inc.	In our service area we have heard and witnessed poor management of transit systems. One transit system was asked for the schedule and timing of routes and stops and the transit company's schedule that was available was dated in 2005. There was no schedule of operations. Transit vehicles left the garage and drive around without a published schedule. Planning for on time boarding and stops are impossible to schedule. Accessibility is always a problem at many stops. There may not be curb cuts or wide walks for people with disabilities to move about safely. These are but a few of the barriers to transit in our area.
Chesterfield County Citizen Info & Resources	
Healthy Generations Area Agency on Aging	Publicity In? For older adults and persons with disabilities who may be challenged to use online services
Senior Services of Southeastern VA	No comments
Rockbridge Area Transportation System	Marketing. I think people have not heard of the Virginia Breeze with the advertising you have done. May be advertisement in local papers etc.
RADAR/ UHSTS	N/A
Bay Transit	
Citizen	
SAAA	
JAUNT	getting riders to that bus stop (1st mile/last mile issue)
Old Dominion University	I only found out about this service via social media. I have not seen any TV ads, billboards, etc. advertising this service or advertising to specific populations who would benefit from them.
Senior Services of South Eastern VA	I'd like to see a stronger marketing presence to get the word out.

Name	10. Is any long-distance service currently operated in your area? (Scheduled or demand-response)?	If "Yes" please describe in terms of pickup points, destinations, stops served, how passengers make reservations, eligibility restrictions, schedules, fares, etc. (attach timetables or other information if available)
Fairfax County Government	No	
Appalachian Independence Center, Inc.		
Chesterfield County Citizen Info & Resources	Yes	We have train service out of the Ettrick Station
Healthy Generations Area Agency on Aging	Yes	Amtrak & Greyhound Are in Fredericksburg
Senior Services of Southeastern VA	Yes	HRT
Rockbridge Area Transportation System	Yes	Virginia Breeze comes through Lexington
RADAR/ UHSTS	Yes & No	Yes, in Roanoke/Lexington w/ Virginia Breeze No in Merdinsville/Covington areas
Bay Transit	Yes	Just employer commuter service or Park n Ride. All for employment
Citizen		
SAAA	No	
JAUNT	Yes (Amtrak/Greyhound/ Megabus?)	Amtrak will take people long distance & there is a station.
Old Dominion University	Yes	Greyhound-Private company providing service to some location in Virginia, mostly larger cities. Route map online is confusing and non-specific about routes and stations. HRT- Provides local service to stops throughout Hampton Roads.
Senior Services of South Eastern VA	Yes	Megabus-->located on Newtown Rol. In Norfolk. This bus travels to New York and DC. Price point is around $25.00

Name	11. How/Where is information of these services made available to users? Websites, brochures, posted schedules, etc.
Fairfax County Government	Websites, transportation guides
Appalachian Independence Center, Inc.	
Chesterfield County Citizen Info & Resources	Website-Amtrak-widely used by students at Virginia State University
Healthy Generations Area Agency on Aging	Website and brochures are readily available
Senior Services of Southeastern VA	
Rockbridge Area Transportation System	
RADAR/ UHSTS	Brochures/ Referrals to companies providing connections
Bay Transit	Websites, through local government pages
Citizen	
SAAA	
JAUNT	Google. I am currently in the process of creating a transportation resource guide.
Old Dominion University	All of the above for both companies
Senior Services of South Eastern VA	I am not aware of any marketing/posted schedules.

Name	12. Do you see any potential need or opportunity to expand or modify these services to connect with existing intercity bus services or meet needs for intercity bus services?
Fairfax County Government	
Appalachian Independence Center, Inc.	There must be some potential for modifying services to make it easier to use public transit. There is a disconnect with it comes to traveling between jurisdictions. Localities must create policies that will enable people with disabilities and all passengers to change transit between providers easily and with expanded windows of time that will enable passengers time to make travel decisions on public transit as easy as making a phone call. Dispatchers of transit must be available to answer calls which does not happen some of the time in our region.
Chesterfield County Citizen Info & Resources	Absolutely
Healthy Generations Area Agency on Aging	More service is always needed and improves the chance that more folks will us it.
Senior Services of Southeastern VA	No
Rockbridge Area Transportation System	
RADAR/ UHSTS	Expansion into areas along Rt 22O in both directions from Roanoke
Bay Transit	Absolutely!
Citizen	
SAAA	
JAUNT	I think collaboration would improve
Old Dominion University	HRT is slow and unreliable. Not very many people use it unless they have no other option for transportation. Greyhound is more selective, most people are traveling further and staying at their destination longer. Both services would benefit from expansion of DRPT Virginia Breeze services, as they would provide another option and possibly additional stops/routes to areas currently not serviced or poorly serviced.
Senior Services of South Eastern VA	

Name	13. Do you want to receive future notifications about this study, including any additional surveys, meeting notices, or study reports?
Fairfax County Government	Yes
Appalachian Independence Center, Inc.	Yes
Chesterfield County Citizen Info & Resources	Yes
Healthy Generations Area Agency on Aging	Yes
Senior Services of Southeastern VA	Yes
Rockbridge Area Transportation System	Yes
RADAR/ UHSTS	Yes
Bay Transit	Yes
Citizen	
SAAA	
JAUNT	Yes
Old Dominion University	Yes
Senior Services of South Eastern VA	Yes

Appendix F
Community Survey and Responses

Q1 Which city/town do you live in?

Answered: 82 Skipped: 0

#	RESPONSES	DATE
1	Tappahannock	5/9/2019 8:57 AM
2	Montross	5/5/2019 11:23 PM
3	Callao	5/5/2019 1:47 PM
4	kilmarnock	5/1/2019 12:22 PM
5	Heathsville	4/22/2019 3:31 PM
6	Kilmarnock, VA	4/17/2019 4:11 PM
7	Gloucester	4/16/2019 6:22 PM
8	Lancaster	4/16/2019 8:59 AM
9	Lottsburg	4/15/2019 2:47 PM
10	Tappahannock, Va	4/15/2019 2:06 PM
11	Montross	4/15/2019 1:39 PM
12	Tappahannock	4/15/2019 10:11 AM
13	Heathsville	4/15/2019 9:50 AM
14	Tappahannock	4/15/2019 9:44 AM
15	Yorktown	4/15/2019 9:32 AM
16	Tappahannock, VA	4/14/2019 10:23 AM
17	Gloucester	4/14/2019 10:00 AM
18	heathsville	4/14/2019 9:38 AM
19	Lottsburg, VA	4/13/2019 5:32 PM
20	Lottsburg	4/13/2019 3:03 PM
21	Lottsburg	4/13/2019 11:56 AM
22	Tappahannock	4/13/2019 9:22 AM
23	Tappahannock	4/13/2019 9:06 AM
24	Tappahannock	4/12/2019 8:13 PM
25	Tappahannock	4/12/2019 6:11 PM
26	Tappahannock	4/12/2019 6:10 PM
27	Warsaw	4/12/2019 6:05 PM
28	tappahannock	4/12/2019 6:02 PM
29	Tappahannock	4/12/2019 5:36 PM
30	Center Cross	4/12/2019 4:09 PM
31	Hayes	4/12/2019 3:50 PM
32	Colonial Beach	4/12/2019 1:56 PM
33	warsaw	4/12/2019 1:43 PM
34	Kilmarnock VA	4/12/2019 11:31 AM
35	Irvington	4/12/2019 9:50 AM

36	Montross, VA	4/12/2019 8:07 AM
37	Heathsville	4/11/2019 8:39 PM
38	Montross, VA	4/9/2019 10:18 PM
39	Warsaw, VA	4/9/2019 6:01 PM
40	Heathsville	4/9/2019 12:50 PM
41	Heathsville	4/9/2019 12:25 PM
42	Kilmarnock	4/8/2019 4:05 PM
43	James City County (near City of Williamsburg)	4/8/2019 2:31 PM
44	Heathsville	4/8/2019 2:25 PM
45	Urbanna	4/8/2019 2:02 PM
46	West Point	4/8/2019 12:25 PM
47	Montross, Virginia	4/8/2019 10:59 AM
48	Montross VA	4/8/2019 10:59 AM
49	Water View VA	4/8/2019 10:13 AM
50	Kilmarnock	4/8/2019 9:54 AM
51	Saluda, Virginia	4/8/2019 9:47 AM
52	Lancaster	4/8/2019 9:37 AM
53	Lancaster	4/8/2019 9:23 AM
54	Topping	4/8/2019 9:15 AM
55	Hayes, VA	4/8/2019 8:49 AM
56	Tappahannock	4/8/2019 8:39 AM
57	Weems, va	4/7/2019 10:51 PM
58	Heathsville	4/7/2019 9:23 PM
59	Weems	4/7/2019 4:51 PM
60	Topping	4/7/2019 3:51 PM
61	Lancaster	4/7/2019 3:33 PM
62	King william	4/7/2019 11:07 AM
63	Tappahannock	4/7/2019 9:17 AM
64	Montross	4/7/2019 7:58 AM
65	Cobbs Creek	4/7/2019 7:45 AM
66	Hague, Va.	4/6/2019 8:26 PM
67	Gloucester	4/6/2019 7:06 PM
68	White Stone	4/6/2019 5:01 PM
69	Kilmarnock	4/6/2019 4:26 PM
70	Heathsville	4/6/2019 4:16 PM
71	Montross VA	4/6/2019 4:02 PM
72	White Stone	4/6/2019 3:57 PM
73	Tappahannock	4/6/2019 1:36 PM
74	Fredericksburg	4/6/2019 8:14 AM
75	Gloucester	4/5/2019 3:50 PM
76	Tappahannock VA	4/5/2019 3:09 PM

77	Heathsville, VA	4/3/2019 10:09 PM
78	Burgess, VA	4/3/2019 11:51 AM
79	Martinsville	4/1/2019 10:09 PM
80	Saluda VA	3/26/2019 1:49 PM
81	Richmond	3/26/2019 5:53 AM
82	Richmond	3/25/2019 4:36 PM

Q2 What towns/cities outside of your home county are final destinations for long-distance trips?

Answered: 82 Skipped: 0

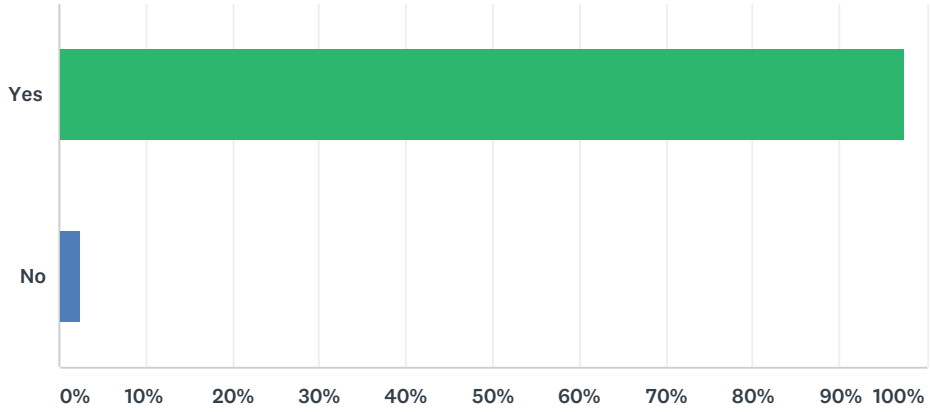
#	RESPONSES	DATE
1	Fredericksburg, Va Richmond ,Va	5/9/2019 8:57 AM
2	Dahlgren	5/5/2019 11:23 PM
3	Fredericksburg Richmond Washington	5/5/2019 1:47 PM
4	washington dc and baltimore	5/1/2019 12:22 PM
5	Bethesda, Md. Fredricksburg, Va. Mechanicsville, Va. Richmond, Va. Washington, DC	4/22/2019 3:31 PM
6	Lorton, VA Fredricksburg, Va Hampton, Va, Washington, D.C.	4/17/2019 4:11 PM
7	Richmond, Charlottesville, Waynesboro, Newport News	4/16/2019 6:22 PM
8	Richmond Newport News	4/16/2019 8:59 AM
9	Richmond, VA; Vienna, VA; Baltimore, MD; Washington, DC; Fredericksburg, VA.	4/15/2019 2:47 PM
10	any where	4/15/2019 2:06 PM
11	Washington DC, Fredericksburg	4/15/2019 1:39 PM
12	Richmond, Fredericksburg, Norfolk, Washington DC	4/15/2019 10:11 AM
13	Gloucester, Yorktown, Newport News, Richmond, Mechanicsville	4/15/2019 9:50 AM
14	Washington, Baltimore, Philadelphia, New York	4/15/2019 9:44 AM
15	Tappahannock, Richmond, D.C., Norfolk	4/15/2019 9:32 AM
16	Dulles Airport/Reagan National	4/14/2019 10:23 AM
17	Tappahannock	4/14/2019 10:00 AM
18	fredericksburg	4/14/2019 9:38 AM
19	Baltimore, MD, Richmond, VA, and Washington, DC	4/13/2019 5:32 PM
20	St. Louis, MO; Dallas, TX; Seattle, WA; Washington, DC; Richmond, VA	4/13/2019 3:03 PM
21	Roanoke lynchburg	4/13/2019 11:56 AM
22	Fredericksburg, Gloucester, Kilmarnock, Montross, and Port Royal	4/13/2019 9:22 AM
23	Washington DC Hampton Virginia Beach	4/13/2019 9:06 AM
24	It varies	4/12/2019 8:13 PM
25	Northern Virginia/Dulles Airport and National Airport	4/12/2019 6:11 PM
26	Fredericksburg	4/12/2019 6:10 PM
27	Richmond, Fredericksburg, Waldorf, Williamsburg, Virginia Beach	4/12/2019 6:05 PM
28	warsaw Richmond	4/12/2019 6:02 PM
29	Portsmouth, D.C., NYC, Raleigh/Durham, Oxford (MS), Charlotte NC	4/12/2019 5:36 PM
30	DC Virginia Beach	4/12/2019 4:09 PM
31	Washington, D.C.	4/12/2019 3:50 PM
32	Blacksburg, Richmond, Frederick, MD	4/12/2019 1:56 PM
33	Fredericksburg, Richmond, BWI airport, Waldorf	4/12/2019 1:43 PM
34	Richmond, Newport News, Hampton, Williamsburg	4/12/2019 11:31 AM

35	Gloucester warsaw tappahannock	4/12/2019 9:50 AM
36	Richmond, Northern Virginia, Hampton Roads area, Washington DC, Radford, Charlottesville	4/12/2019 8:07 AM
37	Richmond, Fredericksburg , St. Charles, MD, Williamsburg	4/11/2019 8:39 PM
38	Fredericksburg, Washington, DC	4/9/2019 10:18 PM
39	Richmond	4/9/2019 6:01 PM
40	Richmond, Hampton, Newport News, Gloucester	4/9/2019 12:50 PM
41	none	4/9/2019 12:25 PM
42	Washington, DC Richmond, VA Newport News, VA Fredericksburg, VA	4/8/2019 4:05 PM
43	Washington, D.C., Outer Banks, NC, Charlottesville, VA	4/8/2019 2:31 PM
44	Washington, DC	4/8/2019 2:25 PM
45	Richmond, Newport News, Williamsburg	4/8/2019 2:02 PM
46	Washington DC, Northern Virginia, Gloucester, Northern Neck	4/8/2019 12:25 PM
47	Fredericksburg, VA Richmond, VA Washington, D.C.	4/8/2019 10:59 AM
48	Northern VA (Fairfax county) Virginia Beach & surrounding	4/8/2019 10:59 AM
49	Newport News, Williamsburg, Richmond	4/8/2019 10:13 AM
50	Washington DC. Fredricksburg. Spotsilvania.	4/8/2019 9:54 AM
51	Richmond, Williamsburg, Newport News, Hampton, Kilmarnock	4/8/2019 9:47 AM
52	Fredericksburg, Washington DC, Hampton, norfolk, Virginia beach	4/8/2019 9:37 AM
53	Washington, DC Fredericksburg, VA Newport News, VA	4/8/2019 9:23 AM
54	Washington	4/8/2019 9:15 AM
55	Washington DC, Reagan & Dulles Airports, Alexandria, Fairfax	4/8/2019 8:49 AM
56	Northern Virginia area	4/8/2019 8:39 AM
57	Newport News, Fredericksburg, Richmond	4/7/2019 10:51 PM
58	Baltimore, Maryland; Jacksonville, Florida; Tampa, Florida; Washington, DC	4/7/2019 9:23 PM
59	Richmond, Williamsburg, D.C., Charlottesville,	4/7/2019 4:51 PM
60	Richmond, Newport News, Virginia Beach, Hampton	4/7/2019 3:51 PM
61	Fredericksburg, Richmond, Damascus, MD	4/7/2019 3:33 PM
62	DC, Hampton Roads / Norfolk areas	4/7/2019 11:07 AM
63	Fredericksburg, Richmond, Philadelphia,	4/7/2019 9:17 AM
64	Washington DC	4/7/2019 7:58 AM
65	Wilmington NC; Washington DC; Annapolis MD; Wichita KS; San Antonion TX; Cleveland OH; Kansas City KS; Knoxville TN; Syracuse NY	4/7/2019 7:45 AM
66	Washington DC, Richmond, Fredericksburg, Va; Baltimore, Md; San Antonio, Tx; Milwaukee, Wi; Tucson, AZ; NYC	4/6/2019 8:26 PM
67	Hampton, Newport News, DC, Warsaw, Tappahannock, Richmond, Williamsburg, va Beach	4/6/2019 7:06 PM
68	Norfolk, Newport News, Williamsburg, Fredericksburg, Richmond, Washington, D.C.	4/6/2019 5:01 PM
69	Washington- Gloucester- tappahanock- Virginia etc...	4/6/2019 4:26 PM
70	Fredericksburg, Washington, DC, Richmond, Williamsburg	4/6/2019 4:16 PM
71	Washington, DC; Richmond, VA; Fredericksburg VA; Williamsburg VA; Fairfax, VA	4/6/2019 4:02 PM
72	Washington, DC	4/6/2019 3:57 PM
73	Richmond, Fredericksburg, Hampton, Newport News	4/6/2019 1:36 PM

74	Pittsburgh Union Station Virginia Beach Charlottesville	4/6/2019 8:14 AM
75	Colonial Beach, Hampton Roads, Richmond	4/5/2019 3:50 PM
76	Washington DC, Fredericksburg	4/5/2019 3:09 PM
77	Washington D.C., Richmond, Williamsburg, Fredericksburg, Charlottesville	4/3/2019 10:09 PM
78	Charlottesville, Washington	4/3/2019 11:51 AM
79	Roanoke, Danville, Greensboro	4/1/2019 10:09 PM
80	Richmond Federicksburg Newport News Hampton Virginia Beach Norfolk	3/26/2019 1:49 PM
81	Charlottesville, Blacksburg, Washington D.C., Williamsburg, Fredericksburg	3/26/2019 5:53 AM
82	Alexandria, VA; Washington, D.C.; Virginia Beach, VA.	3/25/2019 4:36 PM

Q3 Have you or any other adult in your household traveled at least 50 miles or more one way in the past 12 months?

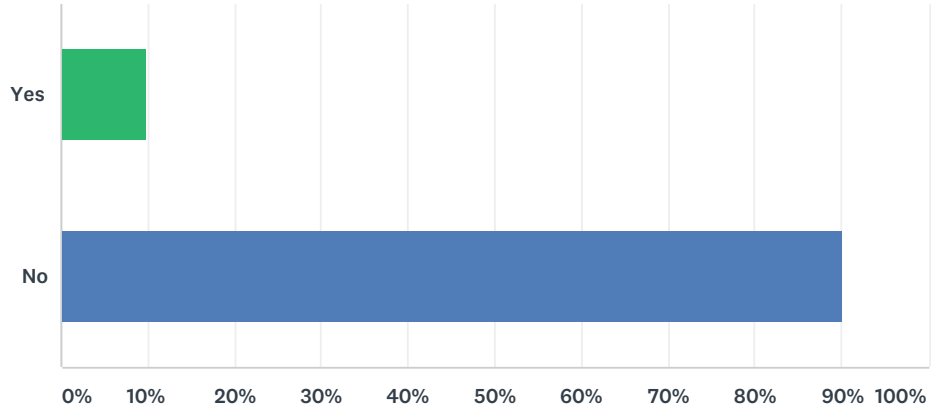
Answered: 82 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	97.56%	80
No	2.44%	2
TOTAL		82

Q4 Before taking this survey were you aware of Virginia Breeze Services?

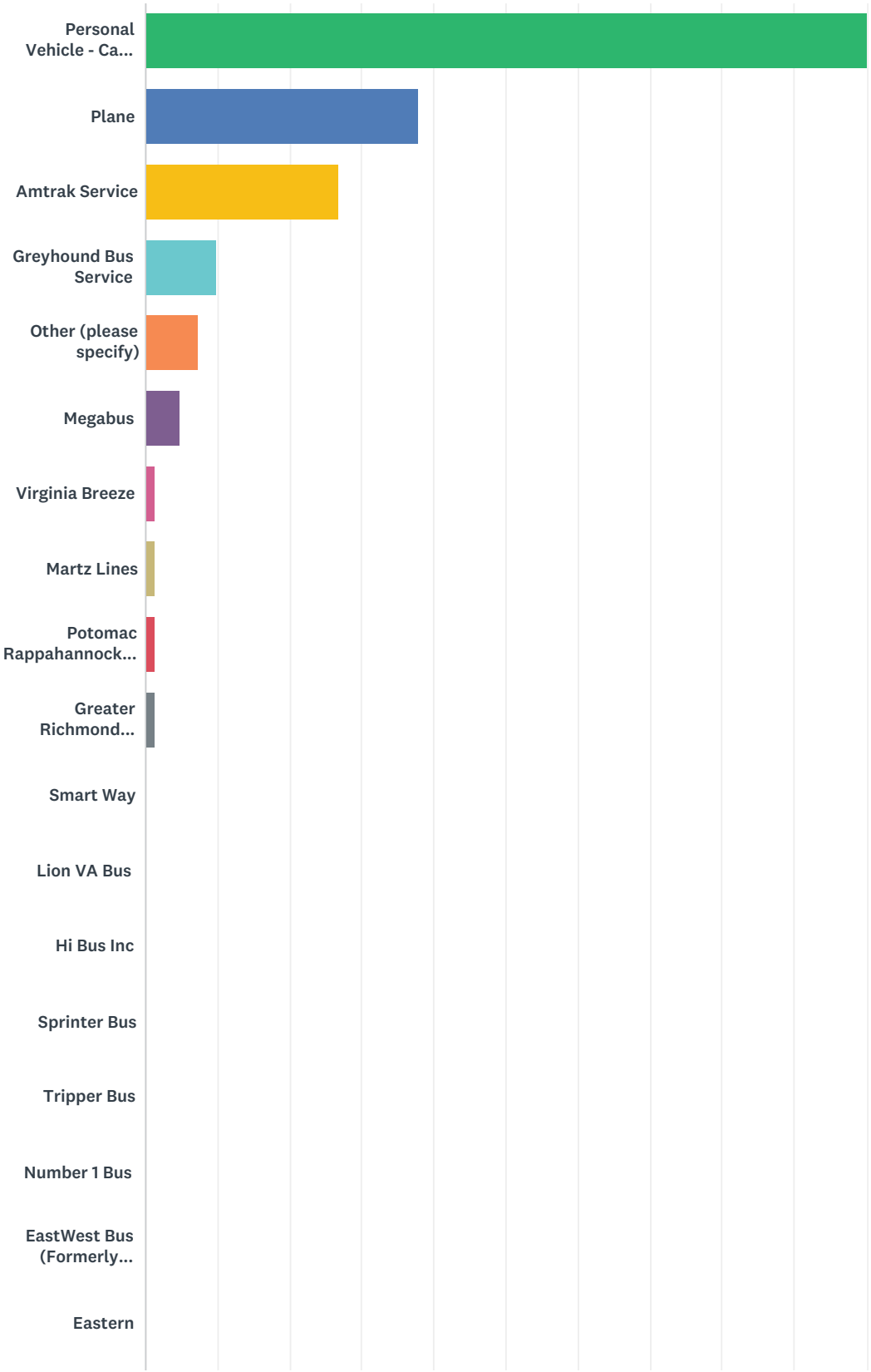
Answered: 81 Skipped: 1

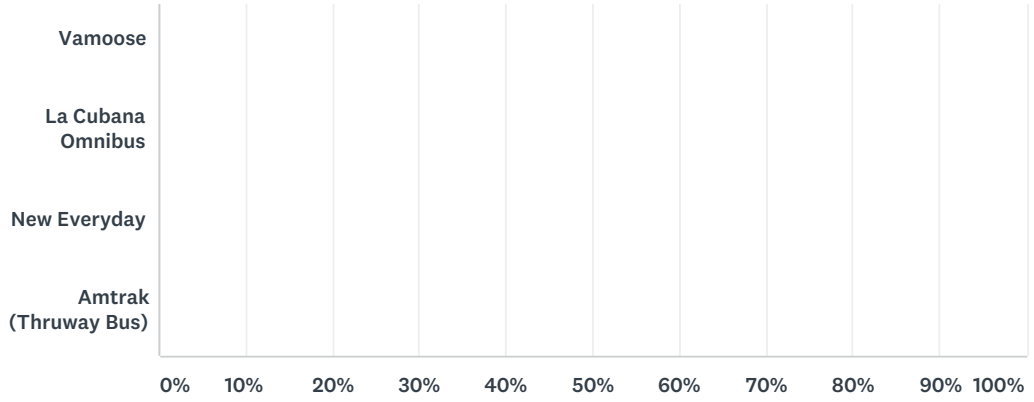


ANSWER CHOICES	RESPONSES	
Yes	9.88%	8
No	90.12%	73
TOTAL		81

Q5 Which of these modes have you or someone in your household used for intercity travel in the past 12 months? (Check all that apply)

Answered: 82 Skipped: 0





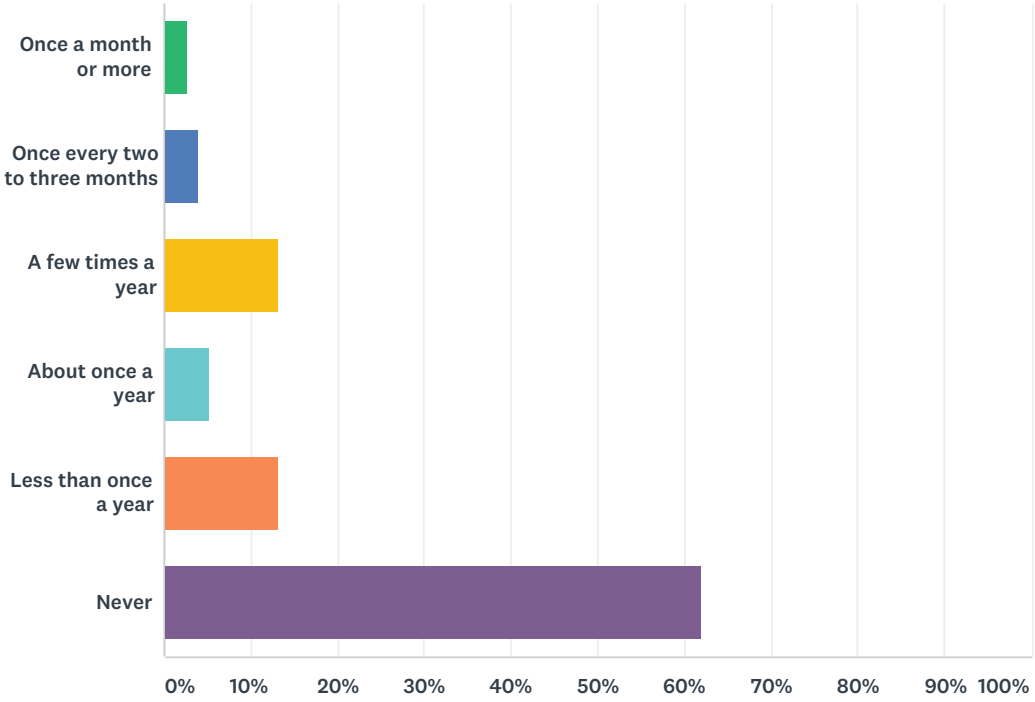
ANSWER CHOICES	RESPONSES	
Personal Vehicle - Car/ Truck	100.00%	82
Plane	37.80%	31
Amtrak Service	26.83%	22
Greyhound Bus Service	9.76%	8
Other (please specify)	7.32%	6
Megabus	4.88%	4
Virginia Breeze	1.22%	1
Martz Lines	1.22%	1
Potomac Rappahannock Transit Commission (PRTC)	1.22%	1
Greater Richmond Transit Commission (GRTC)	1.22%	1
Smart Way	0.00%	0
Lion VA Bus	0.00%	0
Hi Bus Inc	0.00%	0
Sprinter Bus	0.00%	0
Tripper Bus	0.00%	0
Number 1 Bus	0.00%	0
EastWest Bus (Formerly HorseRun Bus)	0.00%	0
Eastern	0.00%	0
Vamoose	0.00%	0
La Cubana Omnibus	0.00%	0
New Everyday	0.00%	0
Amtrak (Thruway Bus)	0.00%	0
Total Respondents: 82		

#	OTHER (PLEASE SPECIFY)	DATE
1	Nft	4/15/2019 1:39 PM

2	Uber	4/15/2019 9:32 AM
3	Bay Transit	4/13/2019 9:22 AM
4	VRT	4/8/2019 9:23 AM
5	Don't recall the bus lines' name	4/6/2019 8:26 PM
6	Metro (Northern VA/ DC)	4/6/2019 8:14 AM

Q6 How often do you travel on intercity buses? (Check one)

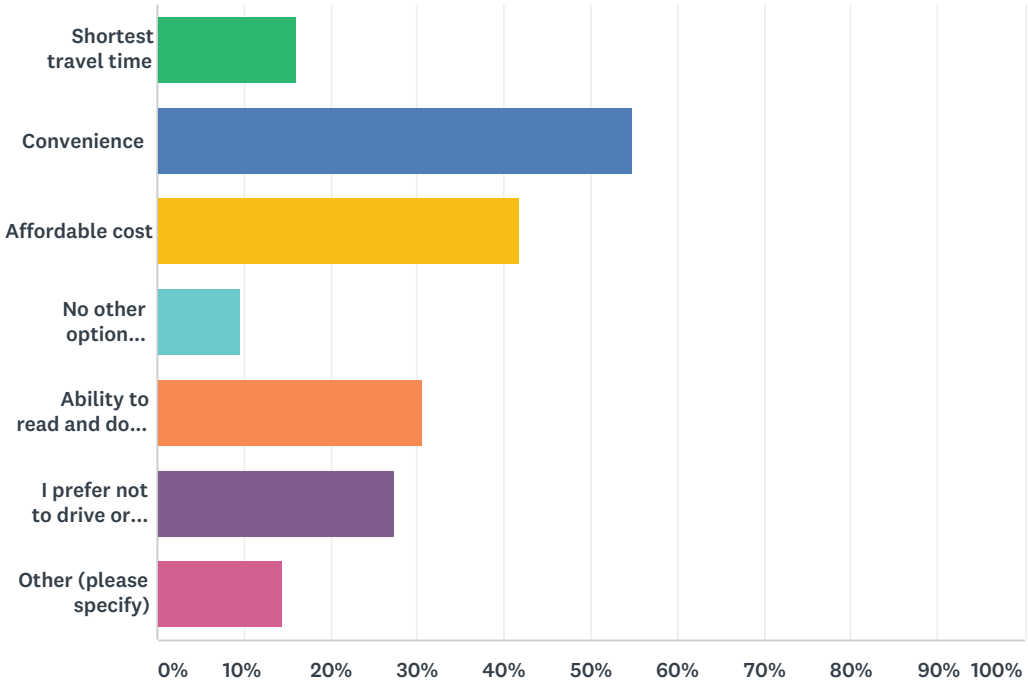
Answered: 76 Skipped: 6



ANSWER CHOICES	RESPONSES	
Once a month or more	2.63%	2
Once every two to three months	3.95%	3
A few times a year	13.16%	10
About once a year	5.26%	4
Less than once a year	13.16%	10
Never	61.84%	47
TOTAL		76

Q7 When you decided to take an intercity bus trip, what was the reason for using this mode rather than some other means of transportation? (Check all the apply)

Answered: 62 Skipped: 20



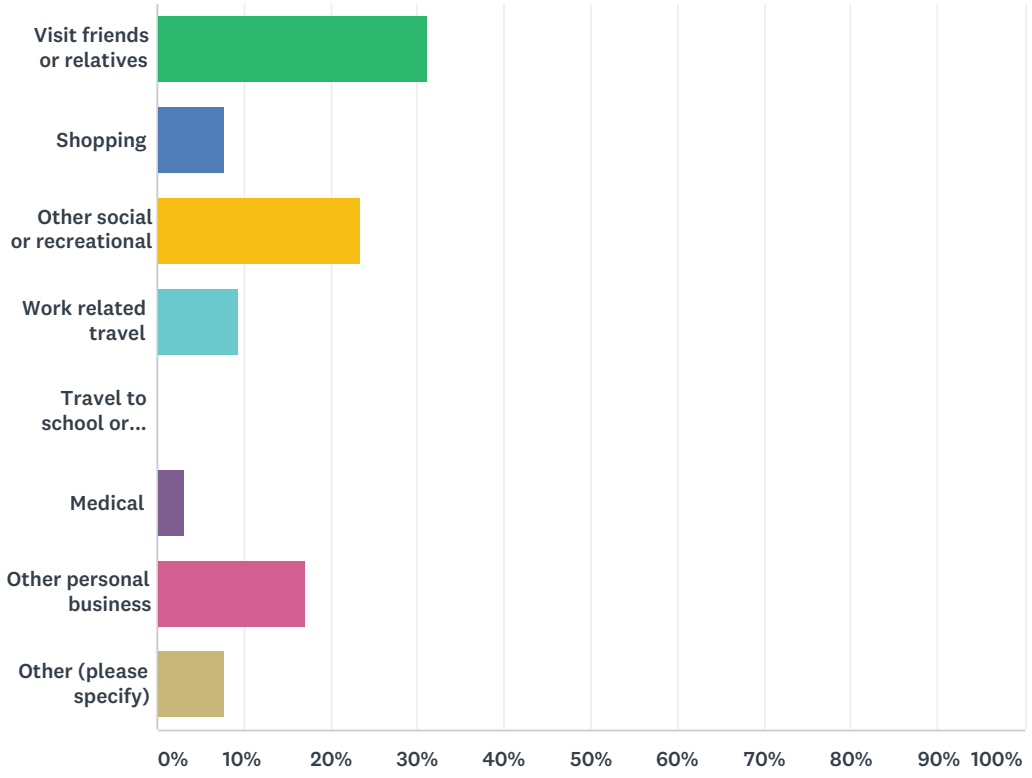
ANSWER CHOICES	RESPONSES	
Shortest travel time	16.13%	10
Convenience	54.84%	34
Affordable cost	41.94%	26
No other option available	9.68%	6
Ability to read and do other things	30.65%	19
I prefer not to drive or cannot drive	27.42%	17
Other (please specify)	14.52%	9
Total Respondents: 62		

#	OTHER (PLEASE SPECIFY)	DATE
1	have not taken bus. not in my area	4/22/2019 3:33 PM
2	It was available	4/15/2019 1:42 PM
3	N/A	4/15/2019 9:34 AM
4	I don't use intercity buses	4/12/2019 6:14 PM
5	didn't want to park my car in unfamiliar place	4/12/2019 1:45 PM
6	Have not used; clients however would benefit	4/12/2019 8:08 AM
7	Driving ability limited - need bus service here	4/9/2019 10:19 PM

8	No such service here	4/7/2019 4:52 PM
9	Currently this isn't an option where I live.	4/6/2019 5:04 PM

Q8 What was the primary purpose of this trip? (Only select one answer to this question)

Answered: 64 Skipped: 18



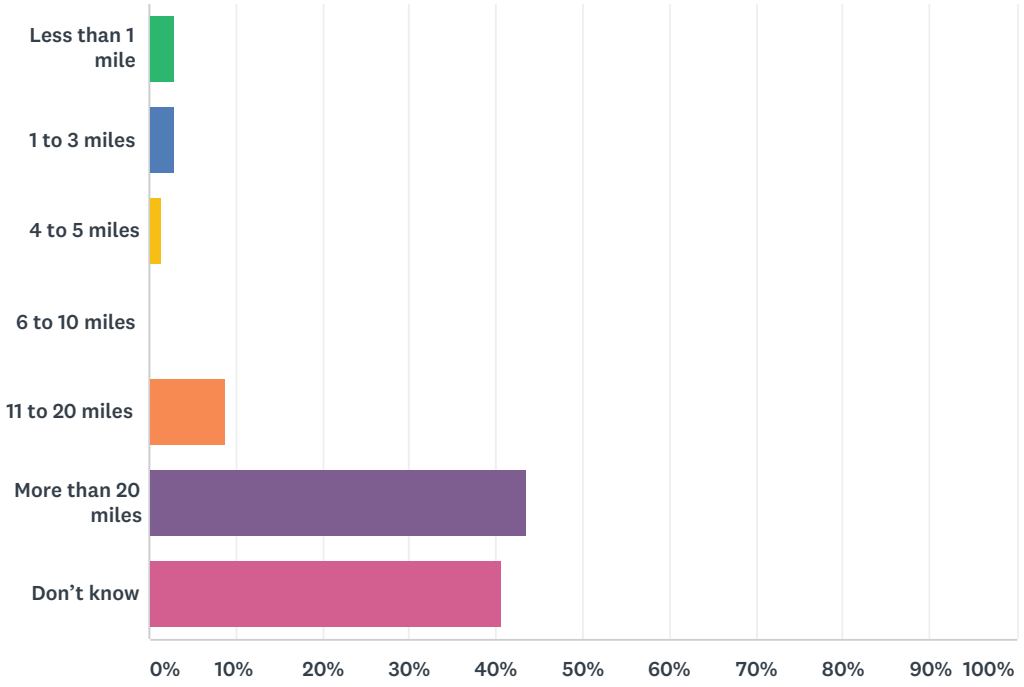
ANSWER CHOICES	RESPONSES	
Visit friends or relatives	31.25%	20
Shopping	7.81%	5
Other social or recreational	23.44%	15
Work related travel	9.38%	6
Travel to school or college	0.00%	0
Medical	3.13%	2
Other personal business	17.19%	11
Other (please specify)	7.81%	5
TOTAL		64

#	OTHER (PLEASE SPECIFY)	DATE
1	N/A	4/15/2019 9:34 AM
2	none	4/12/2019 6:14 PM
3	Have not used but clients would benefit for medical appointments or to visit family outside of the area	4/12/2019 8:08 AM
4	No trip	4/7/2019 4:52 PM

5	Work, Visiting Family, Medical, and Social/ Recreational	4/6/2019 5:04 PM

Q9 How many miles is your home from the most convenient intercity bus terminal or stop? (Select one)

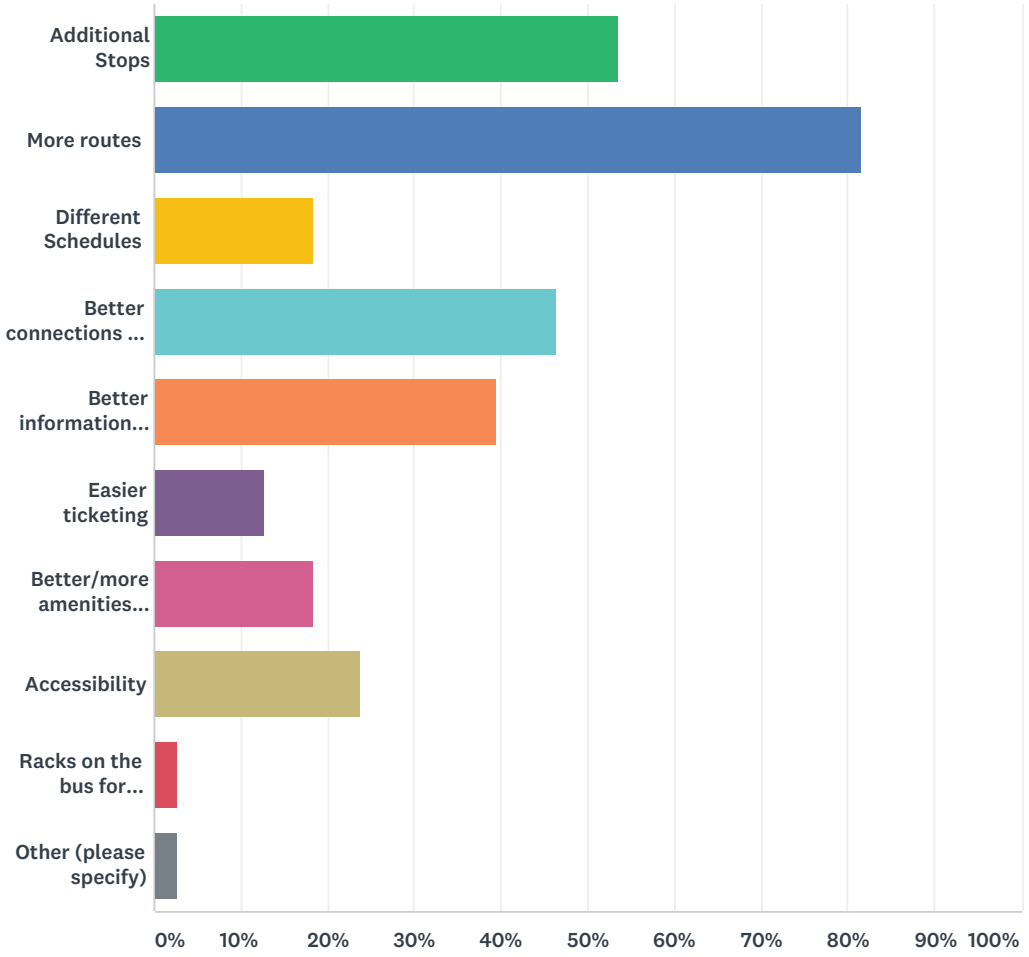
Answered: 69 Skipped: 13



ANSWER CHOICES	RESPONSES	
Less than 1 mile	2.90%	2
1 to 3 miles	2.90%	2
4 to 5 miles	1.45%	1
6 to 10 miles	0.00%	0
11 to 20 miles	8.70%	6
More than 20 miles	43.48%	30
Don't know	40.58%	28
TOTAL		69

Q10 What would you choose to improve intercity bus service in the state of Virginia?

Answered: 71 Skipped: 11



ANSWER CHOICES	RESPONSES	
Additional Stops	53.52%	38
More routes	81.69%	58
Different Schedules	18.31%	13
Better connections to other modes	46.48%	33
Better information sources	39.44%	28
Easier ticketing	12.68%	9
Better/more amenities (Wi-Fi, seating, baggage)	18.31%	13
Accessibility	23.94%	17
Racks on the bus for bicycles	2.82%	2
Other (please specify)	2.82%	2

Total Respondents: 71

#	OTHER (PLEASE SPECIFY)	DATE
1	We need them in our area	4/15/2019 1:42 PM
2	I	4/6/2019 8:15 AM

Q11 If you checked additional stops what places would you locate them?

Answered: 42 Skipped: 40

ANSWER CHOICES	RESPONSES	
Place	100.00%	42
Place	76.19%	32
Place	52.38%	22

#	PLACE	DATE
1	Banks	5/9/2019 9:03 AM
2	Tappahannock	5/5/2019 1:50 PM
3	kilmarnock, Va.	4/22/2019 3:33 PM
4	Kilmarnock, VA	4/17/2019 4:24 PM
5	Warsaw	4/15/2019 1:44 PM
6	Northern Neck	4/15/2019 10:05 AM
7	Norfolk	4/15/2019 9:34 AM
8	Dulles International Airport (IAD)	4/14/2019 10:26 AM
9	Tappahannock	4/14/2019 10:03 AM
10	Gloucester Point	4/13/2019 9:27 AM
11	Fredericksburg	4/12/2019 6:14 PM
12	Warsaw	4/12/2019 1:58 PM
13	Gloucester	4/12/2019 11:35 AM
14	Lower Northern neck	4/12/2019 9:52 AM
15	Montross	4/12/2019 8:09 AM
16	Warsaw	4/11/2019 8:46 PM
17	Montross, VA	4/9/2019 10:20 PM
18	Richmond	4/9/2019 12:53 PM
19	Gloucester	4/9/2019 12:27 PM
20	Kilmarnock	4/8/2019 4:08 PM
21	Callao	4/8/2019 2:28 PM
22	More options in the Northern Neck and Middle Peninsula	4/8/2019 2:04 PM
23	Montross, Virginia	4/8/2019 11:01 AM
24	Fredericksburg	4/8/2019 11:00 AM
25	Middlesex County	4/8/2019 10:15 AM
26	Kilmarnock	4/8/2019 9:39 AM
27	Fredericksburg	4/8/2019 9:18 AM
28	Main points in Yorktow	4/8/2019 8:52 AM
29	Fredericksburg	4/8/2019 8:41 AM
30	Kilmarnock	4/7/2019 10:54 PM

31	Kilmarnock	4/7/2019 4:53 PM
32	Fredericksburg	4/7/2019 3:36 PM
33	Gloucester	4/6/2019 7:09 PM
34	Saluda	4/6/2019 5:06 PM
35	Kilmarnock	4/6/2019 4:30 PM
36	Montross, VA	4/6/2019 4:10 PM
37	Fredericksburg	4/6/2019 3:59 PM
38	Fredericksburg	4/6/2019 8:16 AM
39	Warsaw, VA	4/5/2019 3:51 PM
40	Tappahannock	4/3/2019 10:16 PM
41	Warsaw	4/3/2019 11:55 AM
42	Alexandria, VA	3/25/2019 4:39 PM

#	PLACE	DATE
1	Doctor Offices	5/9/2019 9:03 AM
2	Montross	5/5/2019 1:50 PM
3	Warsaw, VA	4/17/2019 4:24 PM
4	Tappahannock	4/15/2019 1:44 PM
5	Middle Peninsula	4/15/2019 10:05 AM
6	Richmond	4/15/2019 9:34 AM
7	Richmond	4/14/2019 10:03 AM
8	10300 block of Spotslyvania, Fredericksburg, VA	4/13/2019 9:27 AM
9	King George	4/12/2019 1:58 PM
10	Kilmarnock	4/12/2019 11:35 AM
11	Colonial Beach	4/12/2019 8:09 AM
12	Tappahannock	4/11/2019 8:46 PM
13	Northern Virginia	4/9/2019 12:53 PM
14	Warsaw	4/9/2019 12:27 PM
15	Urbanna	4/8/2019 4:08 PM
16	Warsaw, Virginia	4/8/2019 11:01 AM
17	Warsaw	4/8/2019 9:39 AM
18	Charlotte	4/8/2019 9:18 AM
19	Richmond attractions	4/8/2019 8:52 AM
20	Warrenton	4/8/2019 8:41 AM
21	Gloucester	4/7/2019 10:54 PM
22	West point	4/7/2019 4:53 PM
23	Richmond	4/7/2019 3:36 PM
24	New Kent	4/6/2019 7:09 PM
25	Tappahannock	4/6/2019 5:06 PM
26	Gloucester	4/6/2019 4:30 PM
27	Fredericksburg & Richmond VA	4/6/2019 4:10 PM
28	Newport News	4/6/2019 3:59 PM

29	Northern Neck, VA/ VA Beach	4/6/2019 8:16 AM
30	Warsaw	4/3/2019 10:16 PM
31	King George	4/3/2019 11:55 AM
32	Washington, DC	3/25/2019 4:39 PM

#	PLACE	DATE
1	Post Offices	5/9/2019 9:03 AM
2	Warsaw	5/5/2019 1:50 PM
3	King George	4/15/2019 1:44 PM
4	Tappahannock	4/15/2019 9:34 AM
5	Norfolk	4/14/2019 10:03 AM
6	Tappahannock	4/12/2019 1:58 PM
7	Tappahannock	4/12/2019 11:35 AM
8	Warsaw	4/12/2019 8:09 AM
9	Kilmarnock	4/11/2019 8:46 PM
10	Hampton	4/9/2019 12:53 PM
11	Tappahannock	4/9/2019 12:27 PM
12	Hartfield	4/8/2019 4:08 PM
13	Tappahannock, Virginia	4/8/2019 11:01 AM
14	Richmond	4/8/2019 9:39 AM
15	Manassas	4/8/2019 8:41 AM
16	Saluda	4/7/2019 10:54 PM
17	Warsaw	4/7/2019 3:36 PM
18	Williamsburg	4/6/2019 7:09 PM
19	Warsaw	4/6/2019 5:06 PM
20	Washington DC	4/6/2019 4:10 PM
21	Tappahannock	4/3/2019 11:55 AM
22	Virginia Beach, VA	3/25/2019 4:39 PM

Q12 If you checked easier ticketing - Please explain what would make ticketing easier.

Answered: 15 Skipped: 67

#	RESPONSES	DATE
1	N/A	4/15/2019 9:34 AM
2	online	4/9/2019 10:20 PM
3	online ticketing and printing	4/8/2019 4:08 PM
4	N/A	4/8/2019 11:01 AM
5	online services	4/8/2019 9:18 AM
6	I tried to purchase a ticket for Amtrak and the site is not friendly	4/8/2019 8:52 AM
7	On line	4/7/2019 4:53 PM
8	don't know	4/7/2019 3:36 PM
9	Online ticketing	4/6/2019 7:09 PM
10	Over the internet.	4/6/2019 5:06 PM
11	Online purchase Phone purchases	4/6/2019 4:30 PM
12	On line ticketing like the Amtrak system	4/6/2019 4:10 PM
13	N/a	4/6/2019 8:16 AM
14	Phone app to purchase with a credit card	4/3/2019 11:55 AM
15	Mobile Tickets.	3/25/2019 4:39 PM

Q13 If you checked different schedules - On what routes, during what times or how often?

Answered: 15 Skipped: 67

#	RESPONSES	DATE
1	Weekends.There is No Public Transportation For weekends in Tappahannock.Va hours need to extend longer than 9am-2pm.cut off time	5/9/2019 9:03 AM
2	N/A	4/15/2019 9:34 AM
3	Tappahannock to DC--more times during the day	4/13/2019 3:06 PM
4	Later times then offered now.	4/13/2019 9:27 AM
5	24/7	4/9/2019 12:27 PM
6	early morning, afternoon, evening -- something that would assist commuters	4/8/2019 4:08 PM
7	Warsaw	4/8/2019 2:28 PM
8	Unknown	4/8/2019 11:01 AM
9	All day and night	4/8/2019 8:52 AM
10	All routes	4/7/2019 4:53 PM
11	Not sure at present time	4/6/2019 4:30 PM
12	At least 2 times per day in the morning & late afternoon To/From Richmond, Fredericksburg, Washington DC	4/6/2019 4:10 PM
13	N/a	4/6/2019 8:16 AM
14	At least once a day each way, preferably with morning departure	4/3/2019 11:55 AM
15	Weekends, too.	3/25/2019 4:39 PM

Q14 What places would you like to be able to take a bus to?

Answered: 62 Skipped: 20

ANSWER CHOICES	RESPONSES	
To:	100.00%	62
From:	98.39%	61

#	TO:	DATE
1	Fredericksburg,Va	5/9/2019 9:05 AM
2	Fredericksburg	5/5/2019 1:51 PM
3	mechanicsville and fredricksburg and DC	4/22/2019 3:34 PM
4	Waynesboro	4/16/2019 6:30 PM
5	Richmond Charlottesville Newport News	4/16/2019 9:01 AM
6	Fredericksburg	4/15/2019 1:45 PM
7	Richmond	4/15/2019 10:14 AM
8	D.C.	4/15/2019 10:04 AM
9	Baltimore	4/15/2019 9:47 AM
10	Dulles International	4/14/2019 10:27 AM
11	Tappahannock	4/14/2019 10:04 AM
12	fredericksburg	4/14/2019 9:39 AM
13	BWI/Thurgood Marshall International Airport or RIC	4/13/2019 5:39 PM
14	Richmond, VA; Washington, DC	4/13/2019 3:07 PM
15	Fredericksburg, Montross, Gloucester	4/13/2019 9:29 AM
16	Washington DC, Richmond	4/13/2019 9:11 AM
17	Airports	4/12/2019 8:16 PM
18	Northern Virginia	4/12/2019 6:15 PM
19	D.C. and airports (incl. Dulles), Fredericksburg, Richmond,	4/12/2019 5:45 PM
20	Va beach	4/12/2019 4:12 PM
21	Washington, D.C	4/12/2019 3:52 PM
22	Blacksburg	4/12/2019 1:58 PM
23	mechanicsville, va	4/12/2019 1:46 PM
24	Anywhere	4/12/2019 11:36 AM
25	Gloucester	4/12/2019 9:53 AM
26	Northern Virginia, Hampton Roads area, Charlottesville	4/12/2019 8:10 AM
27	Tappahannock	4/11/2019 8:47 PM
28	Fredericksburg, Washington DC	4/9/2019 10:21 PM
29	Richmond	4/9/2019 12:54 PM
30	Norfolk	4/9/2019 12:28 PM
31	Washington, DC	4/8/2019 4:09 PM

32	Richmond and/or Norfolk Airports	4/8/2019 2:34 PM
33	Warsaw	4/8/2019 2:30 PM
34	Washington, D.c.	4/8/2019 11:01 AM
35	Fredericksburg & northern va (fairfax co)	4/8/2019 11:01 AM
36	Richmond	4/8/2019 10:15 AM
37	Washington DC	4/8/2019 10:09 AM
38	Richmond Airport	4/8/2019 9:50 AM
39	Washington dc	4/8/2019 9:40 AM
40	Warsaw	4/8/2019 9:26 AM
41	richmond, washington, charlotte	4/8/2019 9:19 AM
42	Washington DC	4/8/2019 8:53 AM
43	Richmond, Maryland, Newport News, VA Beach, Fredericksburg	4/7/2019 10:55 PM
44	Heathsville	4/7/2019 9:28 PM
45	Kilmarnock	4/7/2019 4:54 PM
46	Fredericksburg	4/7/2019 3:37 PM
47	Norfolk	4/7/2019 11:09 AM
48	Richmond, Fredericksburg, D.C., Hampton, Philadelphia	4/7/2019 9:23 AM
49	Washington DC	4/7/2019 8:02 AM
50	Washington DC	4/7/2019 7:47 AM
51	Washington DC and DC airports; Richmond Airport; Baltimore Airport	4/6/2019 8:33 PM
52	DC	4/6/2019 7:11 PM
53	Washington, D.C.	4/6/2019 5:07 PM
54	All of east coast USA	4/6/2019 4:32 PM
55	Richmond, Frericksburg & Fairfax VA; Upper Marlboro, Waldorf, National Harbor MD; Washington DC; Baltimore MD; Philadelphia PA, New York NY	4/6/2019 4:17 PM
56	Fredericksburg	4/6/2019 4:00 PM
57	Washington DC/ Northern VA	4/6/2019 8:18 AM
58	DC	4/5/2019 3:52 PM
59	Washington D.C.	4/3/2019 10:18 PM
60	Washington or Richmond	4/3/2019 11:56 AM
61	Richmond, Hampton Roads	3/26/2019 1:51 PM
62	Washington, DC area	3/25/2019 4:39 PM
#	**FROM:**	**DATE**
1	Tappahannock.Va	5/9/2019 9:05 AM
2	Montross	5/5/2019 1:51 PM
3	Kilmarnock, Va	4/22/2019 3:34 PM
4	Gloucester	4/16/2019 6:30 PM
5	LAncaster county	4/16/2019 9:01 AM
6	Warsaw	4/15/2019 1:45 PM
7	Tappahannock	4/15/2019 10:14 AM
8	Yorktown	4/15/2019 10:04 AM

9	Tappahannock	4/15/2019 9:47 AM
10	Tappahannock	4/14/2019 10:27 AM
11	Gloucester	4/14/2019 10:04 AM
12	heathsville	4/14/2019 9:39 AM
13	Warsaw, VA	4/13/2019 5:39 PM
14	Warsaw, VA	4/13/2019 3:07 PM
15	Tappahannock	4/13/2019 9:29 AM
16	Tappahannock	4/13/2019 9:11 AM
17	Tappahannock	4/12/2019 8:16 PM
18	Tappahannock	4/12/2019 6:15 PM
19	Tappahannock	4/12/2019 5:45 PM
20	Tappahannock	4/12/2019 4:12 PM
21	Hayes, Virginia	4/12/2019 3:52 PM
22	Colonial Beach	4/12/2019 1:58 PM
23	Kilmarnock	4/12/2019 11:36 AM
24	Irvington	4/12/2019 9:53 AM
25	Montross/Northern Neck	4/12/2019 8:10 AM
26	Washington, DC	4/11/2019 8:47 PM
27	Montross, VA	4/9/2019 10:21 PM
28	Warsaw	4/9/2019 12:54 PM
29	Heathsville	4/9/2019 12:28 PM
30	Kilmarnock	4/8/2019 4:09 PM
31	Williamsburg, VA	4/8/2019 2:34 PM
32	Callao	4/8/2019 2:30 PM
33	Montross, VA	4/8/2019 11:01 AM
34	Warsaw	4/8/2019 11:01 AM
35	Water View	4/8/2019 10:15 AM
36	Warsaw	4/8/2019 10:09 AM
37	West Point	4/8/2019 9:50 AM
38	Kilmarnock	4/8/2019 9:40 AM
39	Washington, DC	4/8/2019 9:26 AM
40	Gloucester	4/8/2019 9:19 AM
41	Gloucester	4/8/2019 8:53 AM
42	Kilmarnock	4/7/2019 10:55 PM
43	Richmond	4/7/2019 9:28 PM
44	Anywhere/everywhere!	4/7/2019 4:54 PM
45	Lancaster	4/7/2019 3:37 PM
46	King William	4/7/2019 11:09 AM
47	Tappahannock	4/7/2019 9:23 AM
48	Montross	4/7/2019 8:02 AM
49	Gloucester VA	4/7/2019 7:47 AM

50	Warsaw, Va	4/6/2019 8:33 PM
51	Gloucester	4/6/2019 7:11 PM
52	Saluda or Warsaw	4/6/2019 5:07 PM
53	Kilmarnock VA	4/6/2019 4:32 PM
54	Montross VA	4/6/2019 4:17 PM
55	Warsaw	4/6/2019 4:00 PM
56	Fredericksburg	4/6/2019 8:18 AM
57	Hampton Roads	4/5/2019 3:52 PM
58	Warsaw	4/3/2019 10:18 PM
59	Warsaw	4/3/2019 11:56 AM
60	Middle Peninsula	3/26/2019 1:51 PM
61	Richmond, VA	3/25/2019 4:39 PM

Q15 What would make you more likely to consider traveling on an intercity bus in the future?

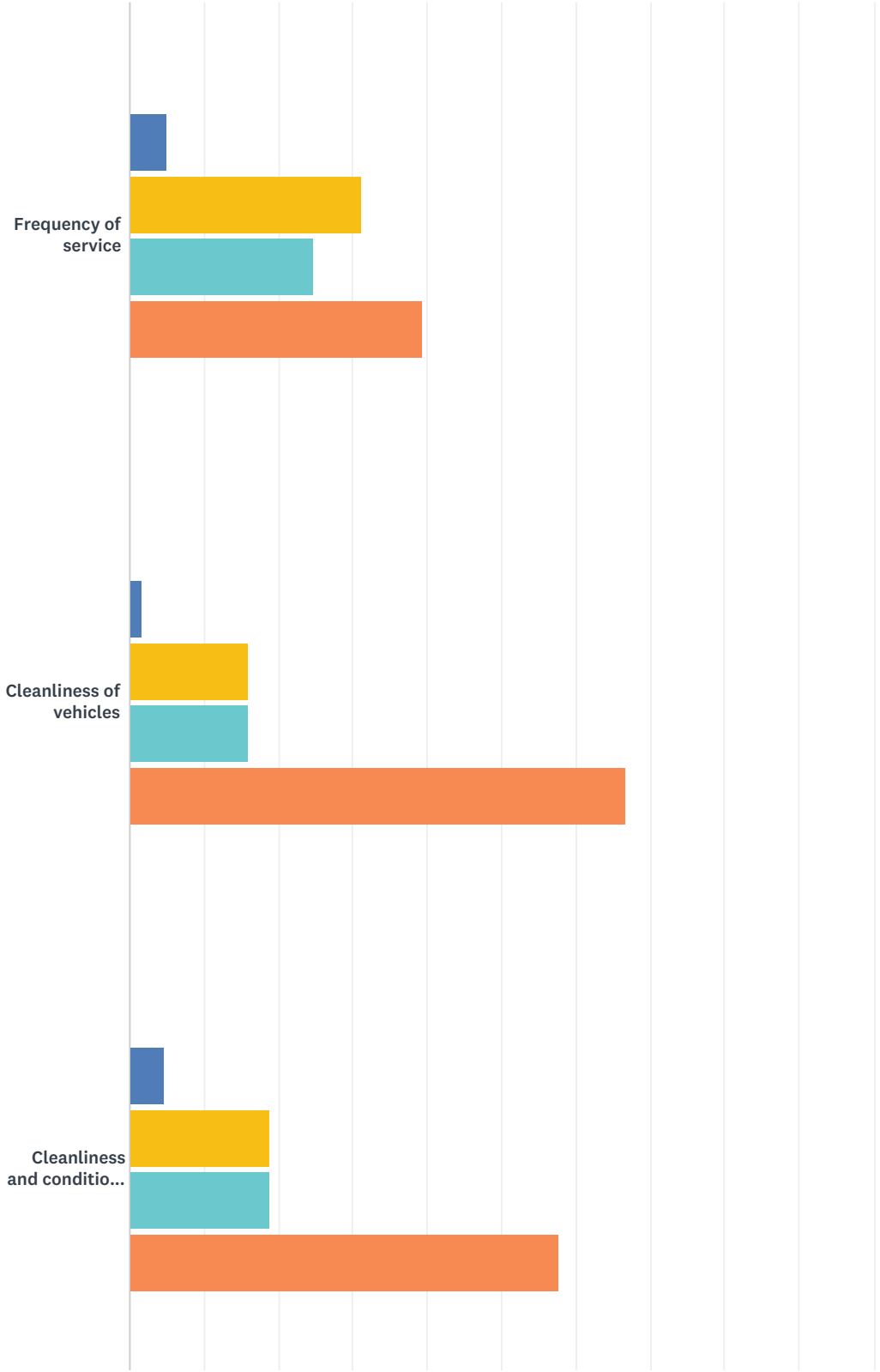
Answered: 58 Skipped: 24

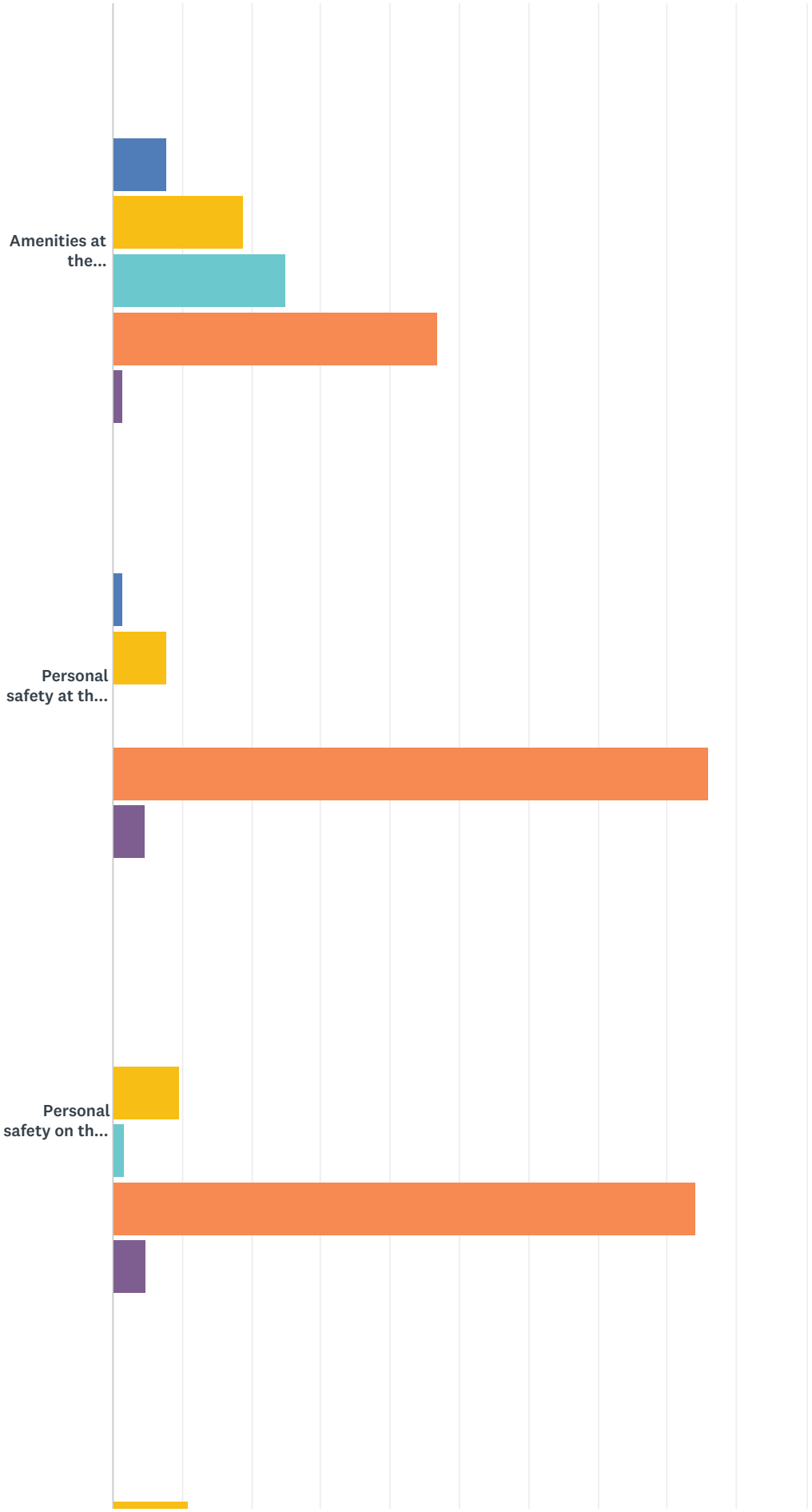
#	RESPONSES	DATE
1	Accessability. Extended Hours& Weekend Services.	5/9/2019 9:05 AM
2	Availability	5/5/2019 1:51 PM
3	knowledge of knowing it existed.	4/22/2019 3:34 PM
4	Availability of accessible routes	4/16/2019 6:30 PM
5	Convenience	4/16/2019 9:01 AM
6	Convenient	4/15/2019 1:45 PM
7	yes	4/15/2019 10:14 AM
8	More routes	4/15/2019 10:04 AM
9	easy transportation to DC airports	4/14/2019 10:27 AM
10	schedule	4/14/2019 9:39 AM
11	Frequency and schedule of service	4/13/2019 5:39 PM
12	Routes from Warsaw, VA	4/13/2019 3:07 PM
13	Later travel times and more options of locations.	4/13/2019 9:29 AM
14	AVAILABILITY!	4/13/2019 9:11 AM
15	Cost, schedule,convenience.	4/12/2019 8:16 PM
16	Very likely	4/12/2019 6:15 PM
17	If there was a stop in Tappahannock or Warsaw	4/12/2019 5:45 PM
18	Pick up points near my home	4/12/2019 4:12 PM
19	Scheduling	4/12/2019 3:52 PM
20	route that works for me	4/12/2019 1:58 PM
21	time, distance, not having to leave my car and pay daily rates	4/12/2019 1:46 PM
22	Convenience	4/12/2019 11:36 AM
23	Closer stop to my home	4/12/2019 9:53 AM
24	Cost, reliability, accessibility of stops	4/12/2019 8:10 AM
25	Just having the route as an option.	4/11/2019 8:47 PM
26	COnvenience - scheduling several times a day	4/9/2019 10:21 PM
27	convenience	4/9/2019 12:54 PM
28	Convenience	4/9/2019 12:28 PM
29	Cleanliness, qualified drivers, very nice motor coaches with wifi, etc. Additional business people using the service	4/8/2019 4:09 PM
30	Convenience	4/8/2019 2:34 PM
31	More routes between eastern Northumberland County to DC or Richmond train station.	4/8/2019 2:30 PM
32	More routes closer to rural areas	4/8/2019 11:01 AM
33	ease of use	4/8/2019 11:01 AM

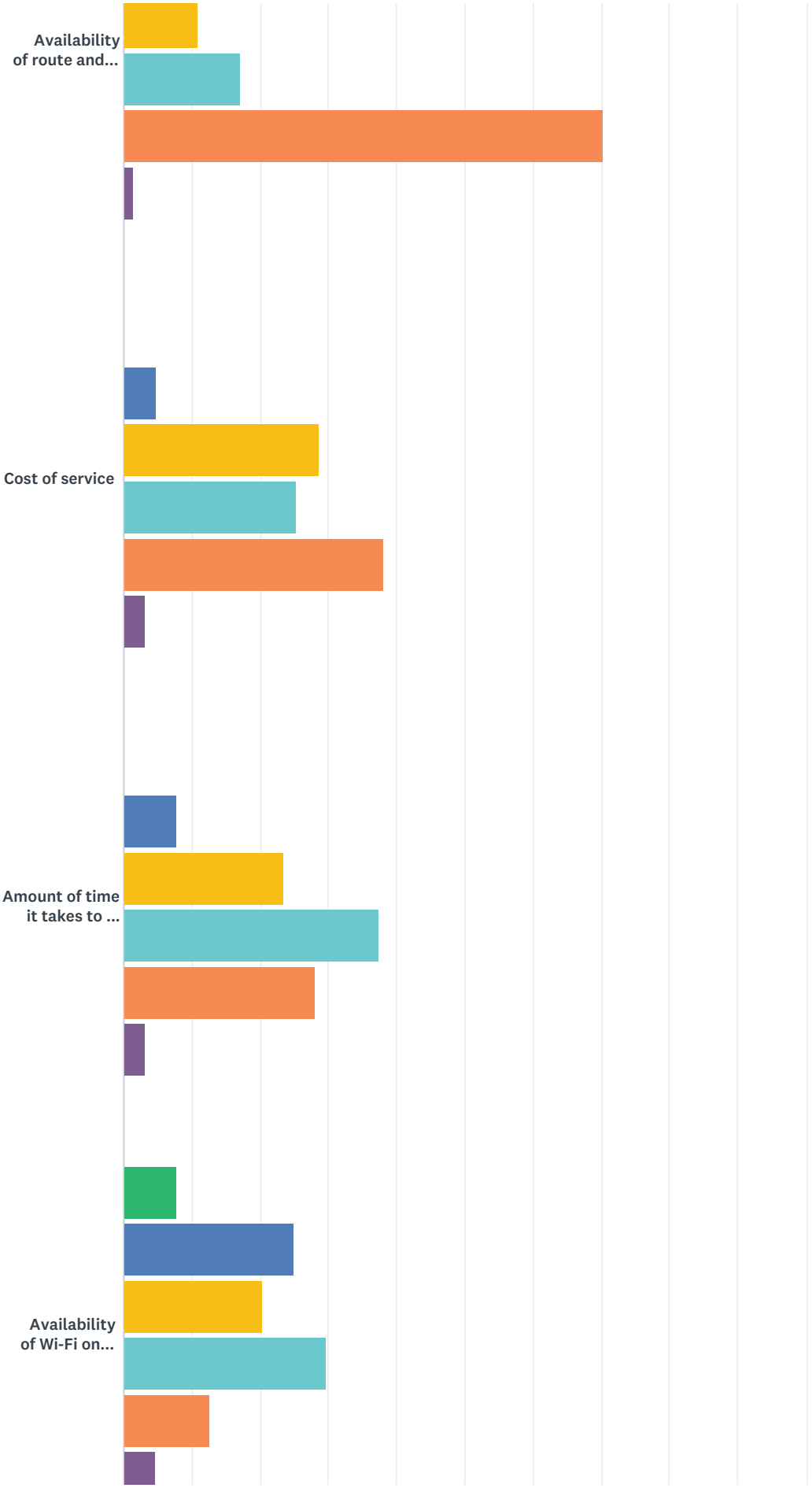
34	Affordability	4/8/2019 10:15 AM
35	Cost	4/8/2019 10:09 AM
36	Good schedules	4/8/2019 9:50 AM
37	Convenient stop near me and convenient schedule	4/8/2019 9:40 AM
38	less driving	4/8/2019 9:19 AM
39	Safety, one more time safety. Cleanliness, again cleanliness. Convenience, affordability	4/8/2019 8:53 AM
40	Convenience	4/8/2019 8:42 AM
41	Not having to drive myself.	4/7/2019 10:55 PM
42	Safety and availability	4/7/2019 4:54 PM
43	Availability	4/7/2019 11:09 AM
44	Stops in my hometown	4/7/2019 9:23 AM
45	convenience and affordability	4/7/2019 8:02 AM
46	availability	4/7/2019 7:47 AM
47	Closer location to board	4/6/2019 8:33 PM
48	More routes	4/6/2019 7:11 PM
49	Days of service, including week ends. Frequency of routes/trips a day.	4/6/2019 5:07 PM
50	Cost Ease of purchasing tix Closeness of a terminal	4/6/2019 4:32 PM
51	Having access to an intercity bus system that provides daily service to/from geographical areas	4/6/2019 4:17 PM
52	Not having to drive in traffic.	4/6/2019 4:00 PM
53	Cost effectiveness, and a nearby route	4/6/2019 8:18 AM
54	Convenient stops, easy ticketing, multiple scheduling options	4/5/2019 3:52 PM
55	If it were convenient, with frequent departures so that I could get to and from my destination according to my needs	4/3/2019 10:18 PM
56	Availability. Right now, there is none.	4/3/2019 11:56 AM
57	Having one	3/26/2019 1:51 PM
58	Cost, frequency, weekend service	3/25/2019 4:39 PM

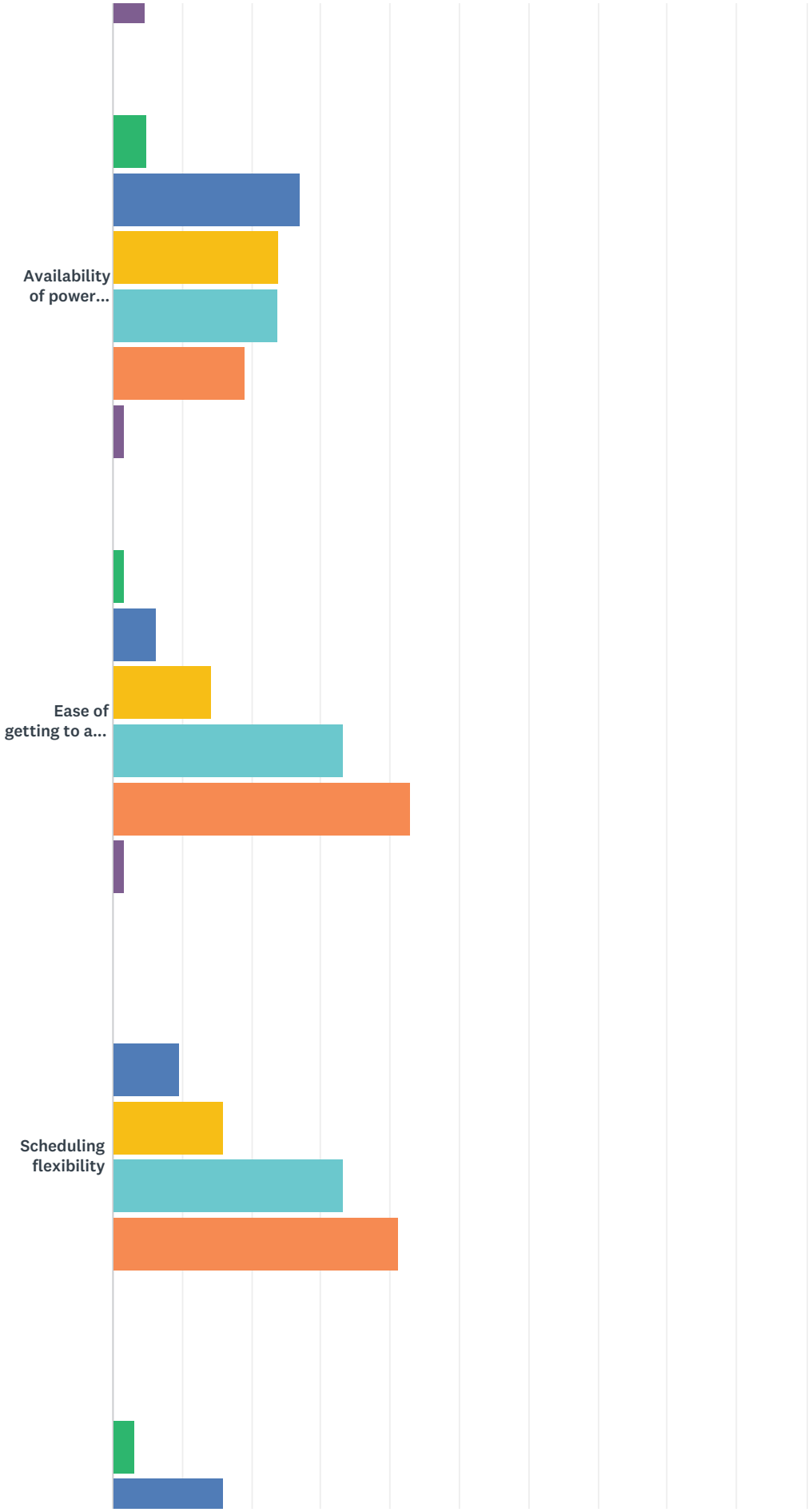
Q16 Thinking about going to the places you want to travel in the Continental U.S. that are 50 miles or more away, please rate the following traits when selecting a method of intercity travel.

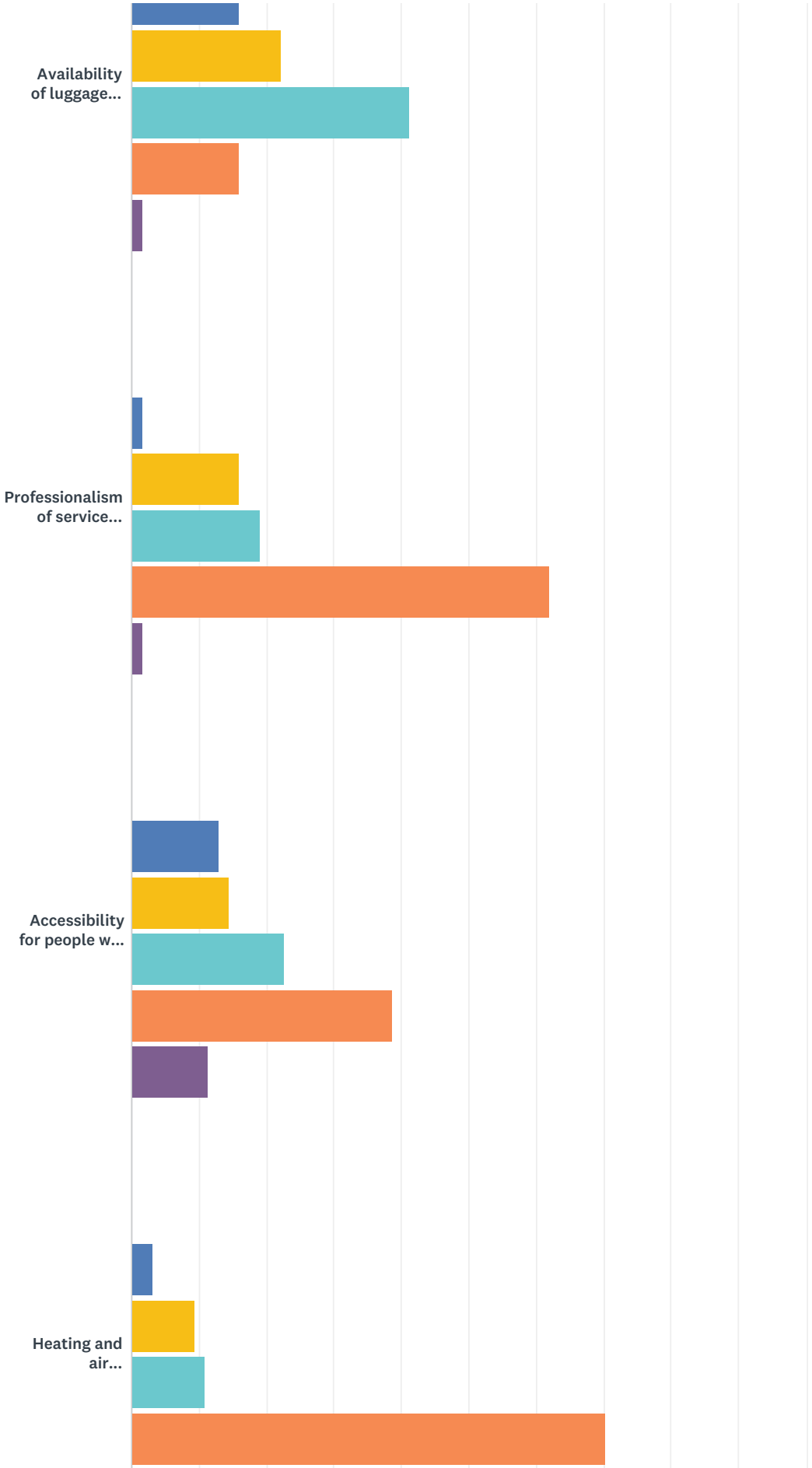
Answered: 64 Skipped: 18

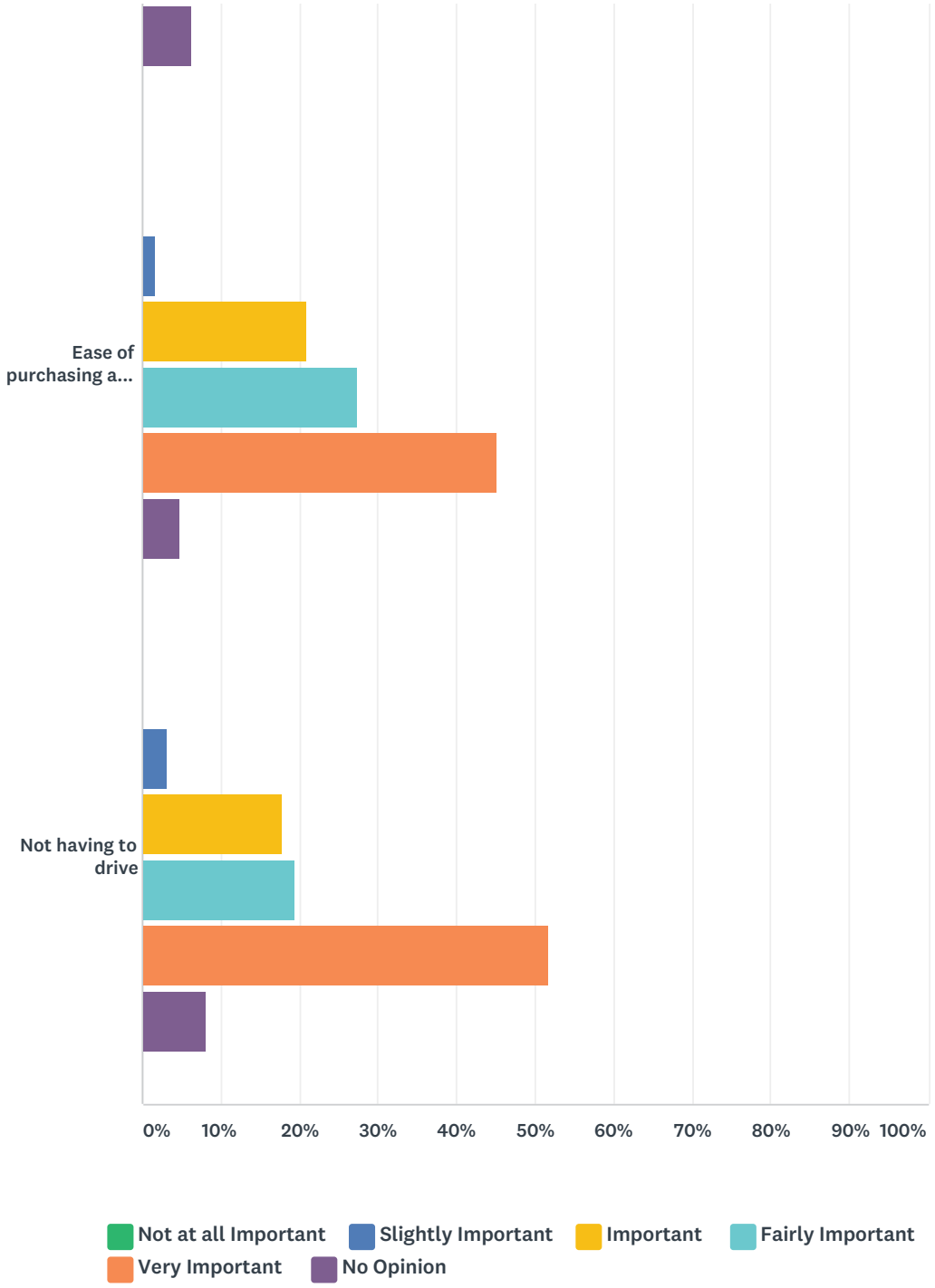



Amenities at the...
Personal safety at th...
Personal safety on th...


Availability of route and...
Cost of service
Amount of time it takes to ...
Availability of Wi-Fi on...


Availability of power...
Ease of getting to a...
Scheduling flexibility


Availability of luggage...
Professionalism of service...
Accessibility for people w...
Heating and air...



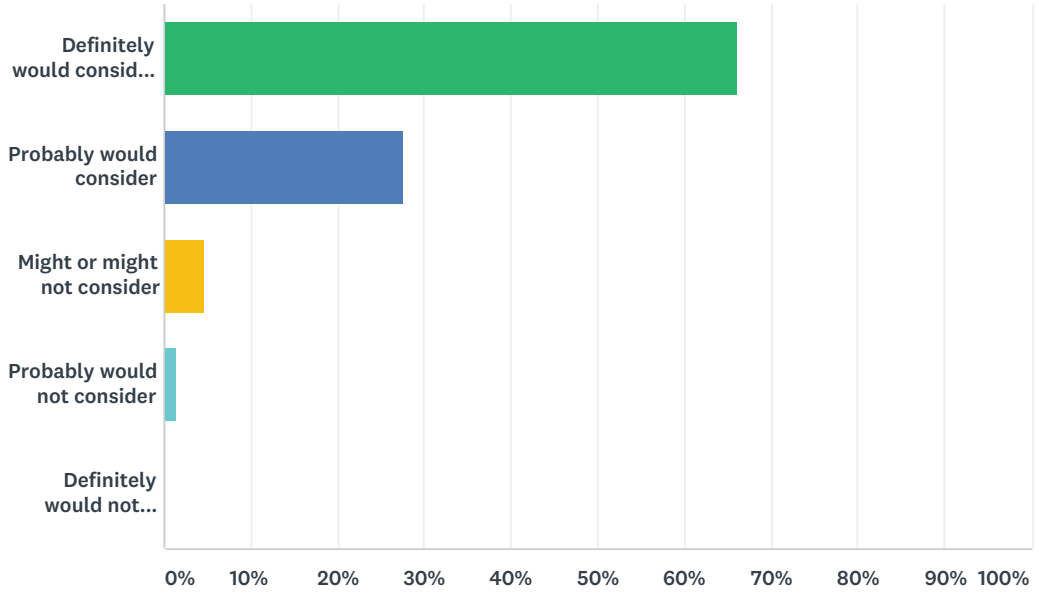
	NOT AT ALL IMPORTANT	SLIGHTLY IMPORTANT	IMPORTANT	FAIRLY IMPORTANT	VERY IMPORTANT	NO OPINION	TOTAL
Frequency of service	0.00% 0	4.92% 3	31.15% 19	24.59% 15	39.34% 24	0.00% 0	61
Cleanliness of vehicles	0.00% 0	1.59% 1	15.87% 10	15.87% 10	66.67% 42	0.00% 0	63
Cleanliness and condition of stations or stops	0.00% 0	4.69% 3	18.75% 12	18.75% 12	57.81% 37	0.00% 0	64
Amenities at the stops/station (For example, shelter, seating, restrooms, staff)	0.00% 0	7.81% 5	18.75% 12	25.00% 16	46.88% 30	1.56% 1	64

Personal safety at the stations or stops (Is the stop in a safe location and do you feel comfortable waiting there.)	0.00% 0	1.56% 1	7.81% 5	0.00% 0	85.94% 55	4.69% 3	64
Personal safety on the bus (Do you feel safe and comfortable riding the vehicle.)	0.00% 0	0.00% 0	9.52% 6	1.59% 1	84.13% 53	4.76% 3	63
Availability of route and schedule information	0.00% 0	0.00% 0	10.94% 7	17.19% 11	70.31% 45	1.56% 1	64
Cost of service	0.00% 0	4.76% 3	28.57% 18	25.40% 16	38.10% 24	3.17% 2	63
Amount of time it takes to get to your destination	0.00% 0	7.81% 5	23.44% 15	37.50% 24	28.13% 18	3.13% 2	64
Availability of Wi-Fi on vehicles	7.81% 5	25.00% 16	20.31% 13	29.69% 19	12.50% 8	4.69% 3	64
Availability of power outlets on vehicles	4.76% 3	26.98% 17	23.81% 15	23.81% 15	19.05% 12	1.59% 1	63
Ease of getting to and from stations and stops	1.59% 1	6.35% 4	14.29% 9	33.33% 21	42.86% 27	1.59% 1	63
Scheduling flexibility	0.00% 0	9.52% 6	15.87% 10	33.33% 21	41.27% 26	0.00% 0	63
Availability of luggage space	3.17% 2	15.87% 10	22.22% 14	41.27% 26	15.87% 10	1.59% 1	63
Professionalism of service providers	0.00% 0	1.59% 1	15.87% 10	19.05% 12	61.90% 39	1.59% 1	63
Accessibility for people with special needs	0.00% 0	12.90% 8	14.52% 9	22.58% 14	38.71% 24	11.29% 7	62
Heating and air conditioning on vehicles	0.00% 0	3.13% 2	9.38% 6	10.94% 7	70.31% 45	6.25% 4	64
Ease of purchasing a ticket	0.00% 0	1.61% 1	20.97% 13	27.42% 17	45.16% 28	4.84% 3	62
Not having to drive	0.00% 0	3.23% 2	17.74% 11	19.35% 12	51.61% 32	8.06% 5	62

#	OTHER (PLEASE SPECIFY)	DATE
1	Connection to other popular modes of transportation, i.e. airports, train stations, seaports	4/13/2019 5:43 PM
2	longer route travel times, later in the evening	4/13/2019 9:30 AM
3	Question needs to be clearer	4/11/2019 8:51 PM
4	For routes to stop a college campuses, airports, transportation hubs --- very important	4/3/2019 12:00 PM

Q17 How likely would you be to consider traveling on an intercity bus in the future? Would you say you…?

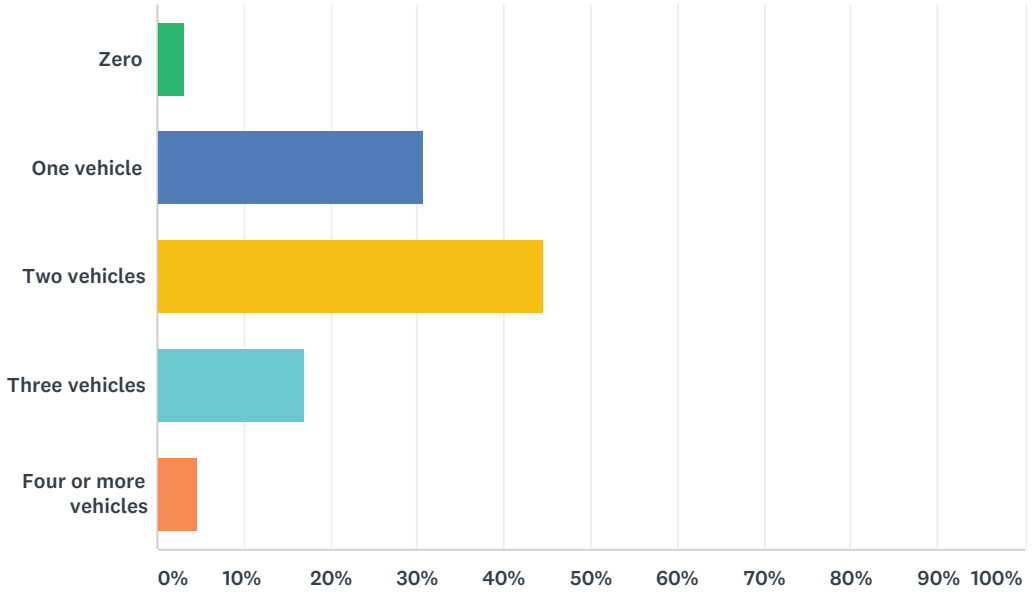
Answered: 65 Skipped: 17



ANSWER CHOICES	RESPONSES	
Definitely would consider traveling on an intercity bus	66.15%	43
Probably would consider	27.69%	18
Might or might not consider	4.62%	3
Probably would not consider	1.54%	1
Definitely would not consider traveling on an intercity bus	0.00%	0
TOTAL		65

Q18 How many motor vehicles are available for regular use by members of your household, including yourself? (This can include cars, vans, motorcycles, etc. Please check one)

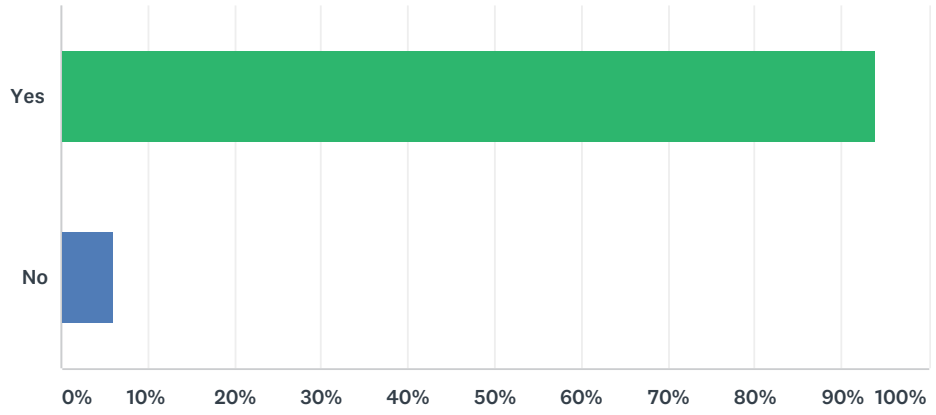
Answered: 65 Skipped: 17



ANSWER CHOICES	RESPONSES	
Zero	3.08%	2
One vehicle	30.77%	20
Two vehicles	44.62%	29
Three vehicles	16.92%	11
Four or more vehicles	4.62%	3
TOTAL		65

Q19 Do you have a valid driver's license?

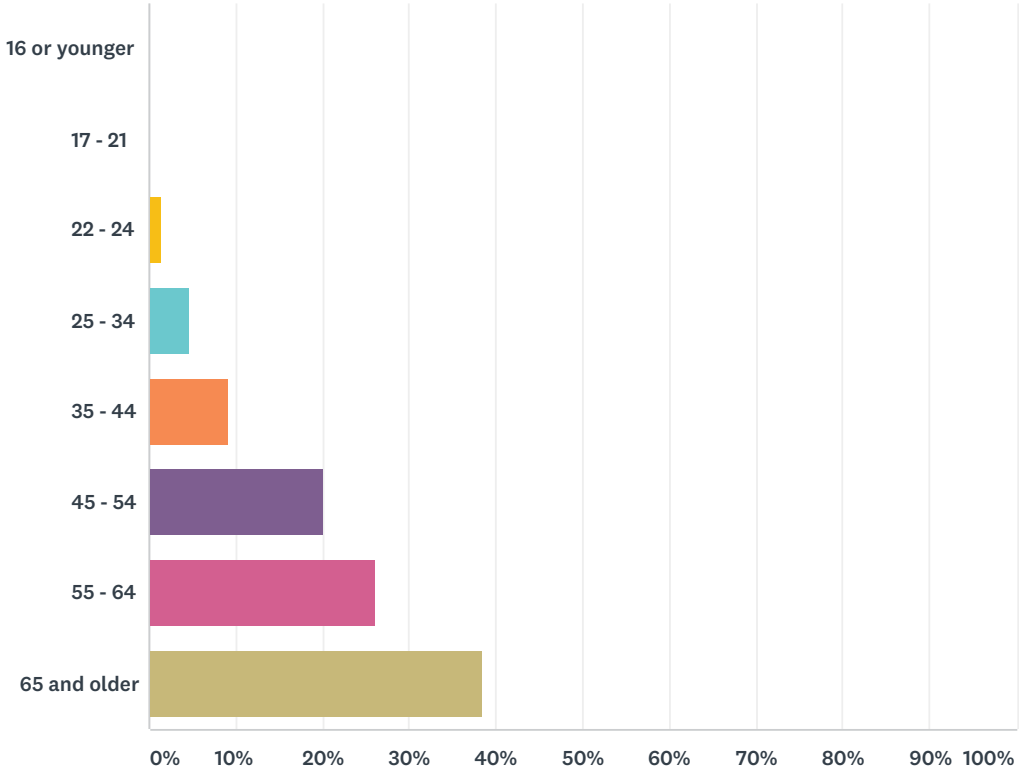
Answered: 65 Skipped: 17



ANSWER CHOICES	RESPONSES	
Yes	93.85%	61
No	6.15%	4
TOTAL		65

Q20 Please check your age group:

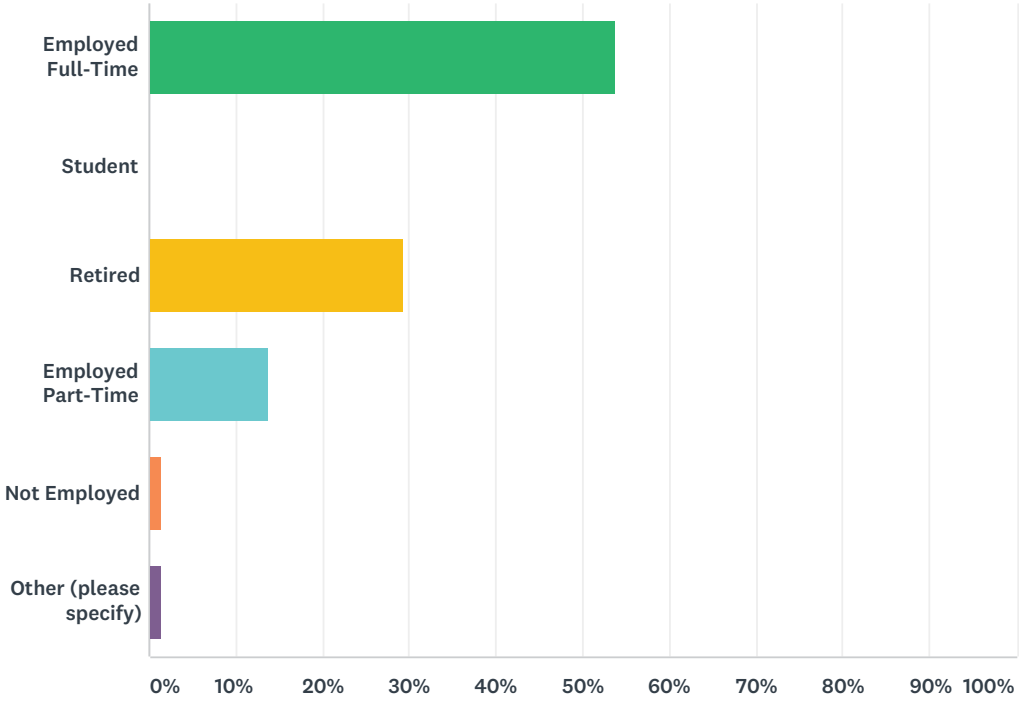
Answered: 65 Skipped: 17



ANSWER CHOICES	RESPONSES	
16 or younger	0.00%	0
17 - 21	0.00%	0
22 - 24	1.54%	1
25 - 34	4.62%	3
35 - 44	9.23%	6
45 - 54	20.00%	13
55 - 64	26.15%	17
65 and older	38.46%	25
TOTAL		65

Q21 What is your employment status:

Answered: 65 Skipped: 17

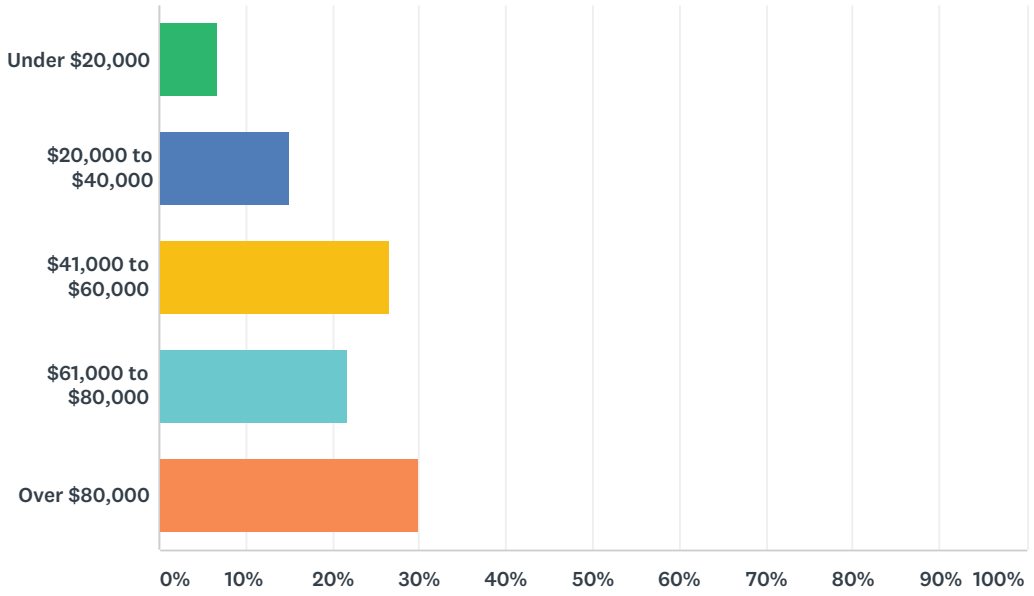


ANSWER CHOICES	RESPONSES	
Employed Full-Time	53.85%	35
Student	0.00%	0
Retired	29.23%	19
Employed Part-Time	13.85%	9
Not Employed	1.54%	1
Other (please specify)	1.54%	1
TOTAL		65

#	OTHER (PLEASE SPECIFY)	DATE
1	Disabled	5/9/2019 9:09 AM

Q22 What is your estimated annual household income?

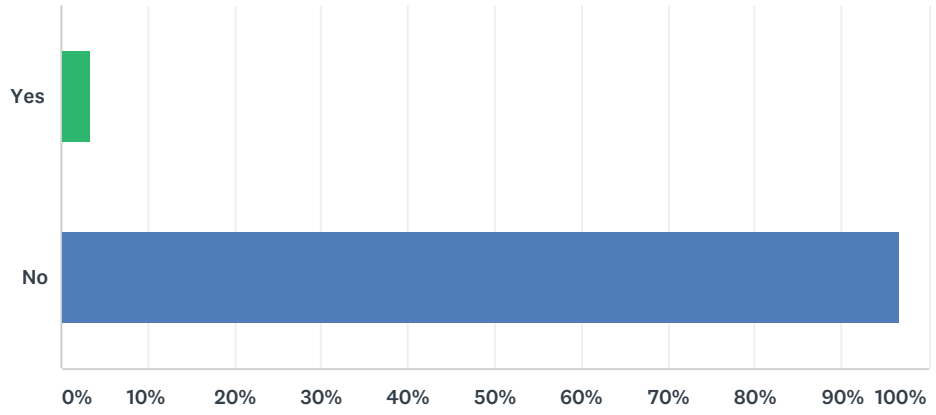
Answered: 60 Skipped: 22



ANSWER CHOICES	RESPONSES	
Under $20,000	6.67%	4
$20,000 to $40,000	15.00%	9
$41,000 to $60,000	26.67%	16
$61,000 to $80,000	21.67%	13
Over $80,000	30.00%	18
TOTAL		60

Q23 Are you Hispanic or of Latino descent?

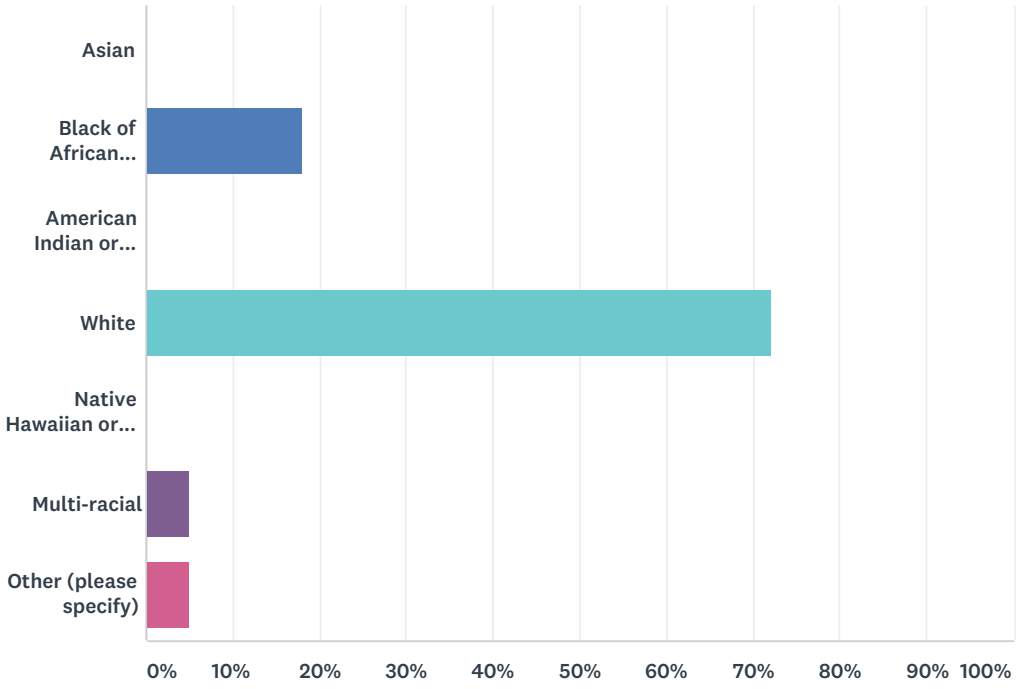
Answered: 60 Skipped: 22



ANSWER CHOICES	RESPONSES	
Yes	3.33%	2
No	96.67%	58
TOTAL		60

Q24 Which of the following best describes your race?

Answered: 61 Skipped: 21

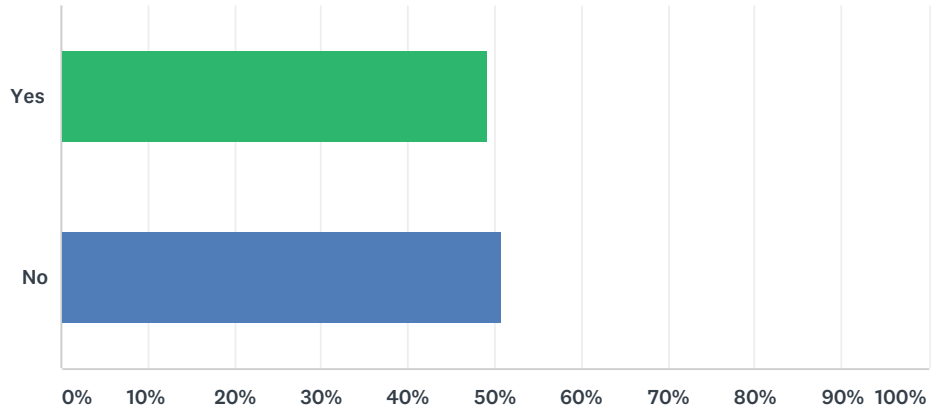


ANSWER CHOICES	RESPONSES	
Asian	0.00%	0
Black of African American	18.03%	11
American Indian or Alaska Native	0.00%	0
White	72.13%	44
Native Hawaiian or Other Pacific Islander	0.00%	0
Multi-racial	4.92%	3
Other (please specify)	4.92%	3
TOTAL		61

#	OTHER (PLEASE SPECIFY)	DATE
1	not your business	4/22/2019 3:37 PM
2	Black OR African American	4/13/2019 9:17 AM
3	Mostly white	4/8/2019 8:56 AM

Q25 Would you like to receive more information about the study?

Answered: 65 Skipped: 17



ANSWER CHOICES	RESPONSES	
Yes	49.23%	32
No	50.77%	33
TOTAL		65

Q26 Please enter your contact information if you would like to receive more information about the study.

Answered: 27 Skipped: 55

ANSWER CHOICES	RESPONSES	
Name	96.30%	26
Company	0.00%	0
Address	88.89%	24
Address 2	0.00%	0
City/Town	88.89%	24
State/Province	0.00%	0
ZIP/Postal Code	88.89%	24
Country	0.00%	0
Email Address	96.30%	26
Phone Number	70.37%	19

#	NAME	DATE
1	Jeanette Hunt	5/9/2019 9:10 AM
2	Heather	4/16/2019 6:34 PM
3	Kay Carlton	4/15/2019 2:11 PM
4	Glenn Sturm	4/15/2019 10:21 AM
5	betsy gorn	4/14/2019 10:31 AM
6	Mary Sanders	4/14/2019 10:08 AM
7	Jennifer E Troy-Black	4/14/2019 9:43 AM
8	Sandie Doptis	4/13/2019 3:10 PM
9	Mary J. Leslie	4/13/2019 9:32 AM
10	C.	4/13/2019 9:19 AM
11	Anita Harrower	4/12/2019 6:17 PM
12	Johnalynn Stephanie Billups	4/12/2019 3:56 PM
13	Michele Inderrieden	4/12/2019 2:01 PM
14	in newspaper or library	4/12/2019 1:49 PM
15	Chandra Johnson	4/11/2019 9:02 PM
16	John Canning	4/9/2019 10:25 PM
17	Shelby Davis	4/8/2019 4:11 PM
18	Kim McCartney	4/8/2019 11:04 AM
19	Frances Kenyear	4/8/2019 9:21 AM
20	Kathleen Watson	4/8/2019 8:45 AM
21	Linda Kelly	4/7/2019 10:59 PM

22	JerryDavis	4/7/2019 8:06 AM
23	Patrick Frere	4/6/2019 5:17 PM
24	Iris Lane	4/6/2019 4:22 PM
25	Frances Stoughton	4/6/2019 4:03 PM
26	Carrie Rose Pace	3/25/2019 4:41 PM

#	COMPANY	DATE
	There are no responses.	

#	ADDRESS	DATE
1	POBox2112	5/9/2019 9:10 AM
2	7322 Wellford Lane	4/16/2019 6:34 PM
3	Katherine Carlton	4/15/2019 2:11 PM
4	701 Bridge Xing, Unit A	4/15/2019 10:21 AM
5	7066 Isaiah Rd	4/14/2019 10:08 AM
6	836 Bay Quarter Drive	4/14/2019 9:43 AM
7	802 Coan Haven Road	4/13/2019 3:10 PM
8	PO Box 2025	4/13/2019 9:32 AM
9	Harper	4/13/2019 9:19 AM
10	PO Box 1139	4/12/2019 6:17 PM
11	7005 Elm Street	4/12/2019 3:56 PM
12	263 Barracks Beach Drive	4/12/2019 2:01 PM
13	111 NNN Rd	4/12/2019 1:49 PM
14	P O BOX 633	4/11/2019 9:02 PM
15	220 Nomini Bay Drvie	4/9/2019 10:25 PM
16	221 Templemans Rd	4/8/2019 11:04 AM
17	P. O. Box 319	4/8/2019 9:21 AM
18	PO Box 220	4/8/2019 8:45 AM
19	379 Wilson Lane	4/7/2019 10:59 PM
20	13920 Kings Highway	4/7/2019 8:06 AM
21	527 James Wharf Road	4/6/2019 5:17 PM
22	3441 Mount Holly Road	4/6/2019 4:22 PM
23	297 Pleasant Banks Ln	4/6/2019 4:03 PM
24	301 E Belt Boulevard	3/25/2019 4:41 PM

#	ADDRESS 2	DATE
	There are no responses.	

#	CITY/TOWN	DATE
1	Tappahannock	5/9/2019 9:10 AM
2	Gloucester	4/16/2019 6:34 PM
3	Tappahannock	4/15/2019 2:11 PM
4	Yorktown	4/15/2019 10:21 AM
5	Gloucester	4/14/2019 10:08 AM
6	Heathdsville	4/14/2019 9:43 AM

7	Lottsburg	4/13/2019 3:10 PM
8	Tappahannock	4/13/2019 9:32 AM
9	Tappahannock	4/13/2019 9:19 AM
10	Dunnsville	4/12/2019 6:17 PM
11	Hayes	4/12/2019 3:56 PM
12	Colonial Beach	4/12/2019 2:01 PM
13	Warsaw	4/12/2019 1:49 PM
14	Warsaw	4/11/2019 9:02 PM
15	Montross	4/9/2019 10:25 PM
16	Montross	4/8/2019 11:04 AM
17	Topping	4/8/2019 9:21 AM
18	Warsaw	4/8/2019 8:45 AM
19	Weems	4/7/2019 10:59 PM
20	Montross	4/7/2019 8:06 AM
21	White Stone	4/6/2019 5:17 PM
22	Montross	4/6/2019 4:22 PM
23	White Stone	4/6/2019 4:03 PM
24	Richmond	3/25/2019 4:41 PM

#	STATE/PROVINCE	DATE
	There are no responses.	

#	ZIP/POSTAL CODE	DATE
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3	22560	4/15/2019 2:11 PM
4	23692	4/15/2019 10:21 AM
5	23061	4/14/2019 10:08 AM
6	22473	4/14/2019 9:43 AM
7	VA	4/13/2019 3:10 PM
8	22560	4/13/2019 9:32 AM
9	22560	4/13/2019 9:19 AM
10	22454	4/12/2019 6:17 PM
11	23072	4/12/2019 3:56 PM
12	22443	4/12/2019 2:01 PM
13	22572	4/12/2019 1:49 PM
14	22572	4/11/2019 9:02 PM
15	22520	4/9/2019 10:25 PM
16	22520	4/8/2019 11:04 AM
17	23169	4/8/2019 9:21 AM
18	22572	4/8/2019 8:45 AM
19	22576	4/7/2019 10:59 PM
20	22520	4/7/2019 8:06 AM

21	22578	4/6/2019 5:17 PM
22	22520	4/6/2019 4:22 PM
23	22578	4/6/2019 4:03 PM
24	23224	3/25/2019 4:41 PM

#	COUNTRY	DATE
	There are no responses.	

#	EMAIL ADDRESS	DATE
1	missjeanettehunt@gmail.com	5/9/2019 9:10 AM
2	heatherowens67@gmail.com	4/16/2019 6:34 PM
3	kcarlton@essex-virginia.org	4/15/2019 2:11 PM
4	gjsturm@vt.edu	4/15/2019 10:21 AM
5	betsygorn@yahoo.com	4/14/2019 10:31 AM
6	maryjuliawatkins@yahoo.com	4/14/2019 10:08 AM
7	jentroyblack@cs.com	4/14/2019 9:43 AM
8	sandie8118@gmail.com	4/13/2019 3:10 PM
9	merryjovialL@aol.com	4/13/2019 9:32 AM
10	charperutbc@hotmail.com	4/13/2019 9:19 AM
11	anitaharrower@gmail.com	4/12/2019 6:17 PM
12	johnalynnb@outlook.com	4/12/2019 3:56 PM
13	inderrieden4@verizon.net	4/12/2019 2:01 PM
14	agapej2002@yahoo.com	4/12/2019 11:39 AM
15	chandraj23@gmail.com	4/11/2019 9:02 PM
16	johncann3@gmail.com	4/9/2019 10:25 PM
17	ldavis@va.metrocast.net	4/8/2019 4:11 PM
18	kmccartney@legalaidworks.org	4/8/2019 11:04 AM
19	zetateacher@hotmail.com	4/8/2019 9:21 AM
20	kathleen.watson@nnswcd.org	4/8/2019 8:45 AM
21	ld53_22576@yahoo.com	4/7/2019 10:59 PM
22	jerrymontross@gmail.com	4/7/2019 8:06 AM
23	frere37@yahoo.com	4/6/2019 5:17 PM
24	ILane500@gmail.com	4/6/2019 4:22 PM
25	fstoughton@verizon.net	4/6/2019 4:03 PM
26	carrie.rosepace@ridegrtc.com	3/25/2019 4:41 PM

#	PHONE NUMBER	DATE
1	8042964774	5/9/2019 9:10 AM
2	7573239930	4/16/2019 6:34 PM
3	804-445-0303	4/15/2019 2:11 PM
4	804-815-9458	4/15/2019 10:21 AM
5	8046957315	4/14/2019 10:08 AM
6	8043471778	4/14/2019 9:43 AM
7	2027499693	4/13/2019 9:19 AM

8	8044431822	4/12/2019 6:17 PM
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10	8043336824	4/12/2019 2:01 PM
11	8042961508	4/11/2019 9:02 PM
12	unlisted	4/9/2019 10:25 PM
13	804-443-9393	4/8/2019 11:04 AM
14	8048409557	4/8/2019 9:21 AM
15	8044359145	4/7/2019 10:59 PM
16	804-436-4935	4/6/2019 5:17 PM
17	8044723596	4/6/2019 4:22 PM
18	804-435-2385	4/6/2019 4:03 PM
19	8044749354	3/25/2019 4:41 PM

Appendix G
Community Meeting Presentation

Virginia Breeze Expansion Alternatives Analysis

March 2019 Public and Stakeholder Meetings

3/27/2019-Ashland
3/28/2019-Lynchburg

Today's Agenda:

1. Welcome
2. What is the Virginia Breeze Expansion Alternatives Analysis?
   - What is Virginia Breeze?
   - What is Intercity Bus Service?
   - What is Virginia's Intercity Bus Network?
3. Discussion of intercity needs and issues
4. Provide input to study team

About this project…

- Review and assess Virginia's intercity network
- Identify unmet intercity bus needs/service gaps
- Develop, prioritize and recommend future Virginia Breeze routes
- Recommend potential near-term intercity service expansion for inclusion in RFP

Project Schedule

January	• Technical Memorandum #1—Virginia's Intercity Network • Memorandum #2 –Needs Assessment
February	• Surveys
March	• Public and Stakeholder Meetings
April	• Develop Alternatives
May	• Prioritize and Draft Final Report

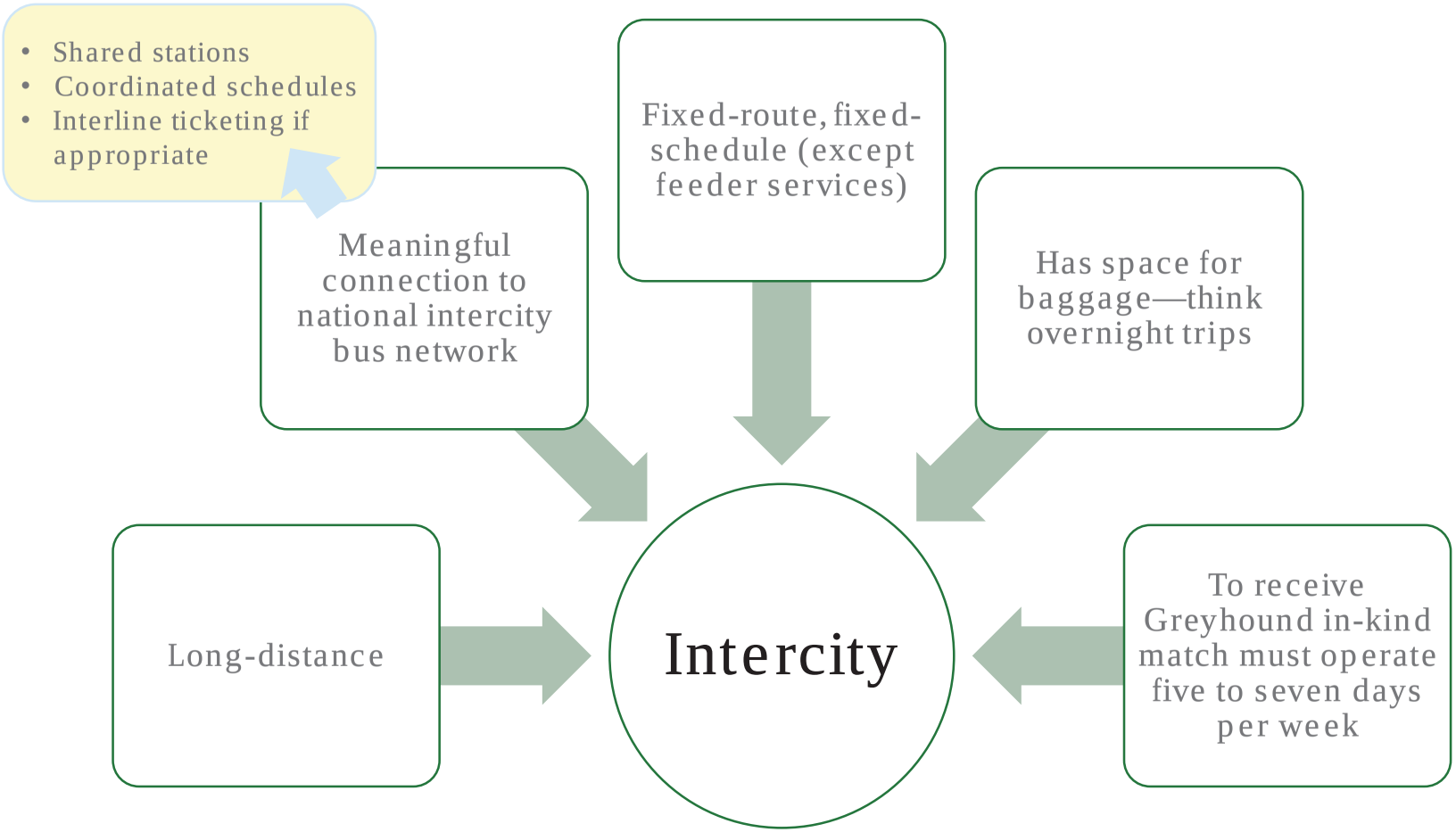
Provide Input

- On-board surveys on the Virginia Breeze route
- Surveys of regional planning agencies
- Surveys of public transit providers
- Surveys/interviews with private intercity carriers
- Surveys of other stakeholders – Mobility Managers, human service agencies, colleges, etc.
- Regional public meetings (**this is one of them**!)

Stakeholder survey is currently available at:
https://www.surveymonkey.com/r/LNC6H5N

General public survey is currently available at:
https://www.surveymonkey.com/r/VYSYN7X

What do we mean by "Intercity"?



What long-distance services are not "Intercity"?

Not commuter services—

not designed for daily work trips

Long distance medical or other human service trips that are:

- Demand response—pre-scheduled
- Do not service shared intercity network stops

BUT—

Regional services can be considered intercity if they make connections…

AND—

DRPT wants to include information on these kinds of unmet needs in the study—

so tell us about these issues as well!

DRPT Vision:

A Statewide Network of Connected Public Transportation Services

Improved linkages between the state's rural areas and the services available in the state's urban areas, particularly for persons with limited options for personal mobility,

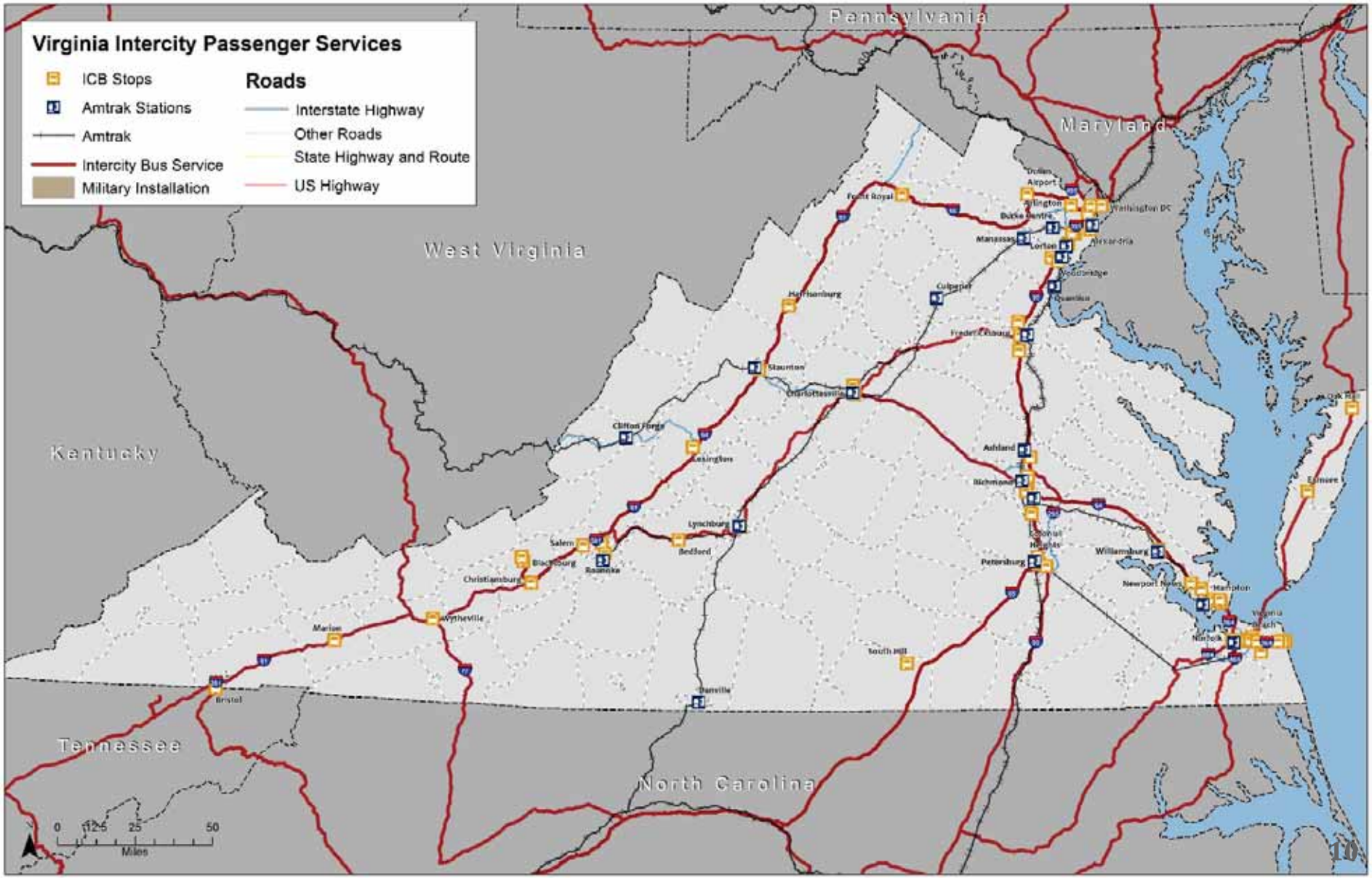
and

Access to the national intercity bus, rail and air networks for persons living in rural areas and small towns and cities.

Virginia's Intercity Network:

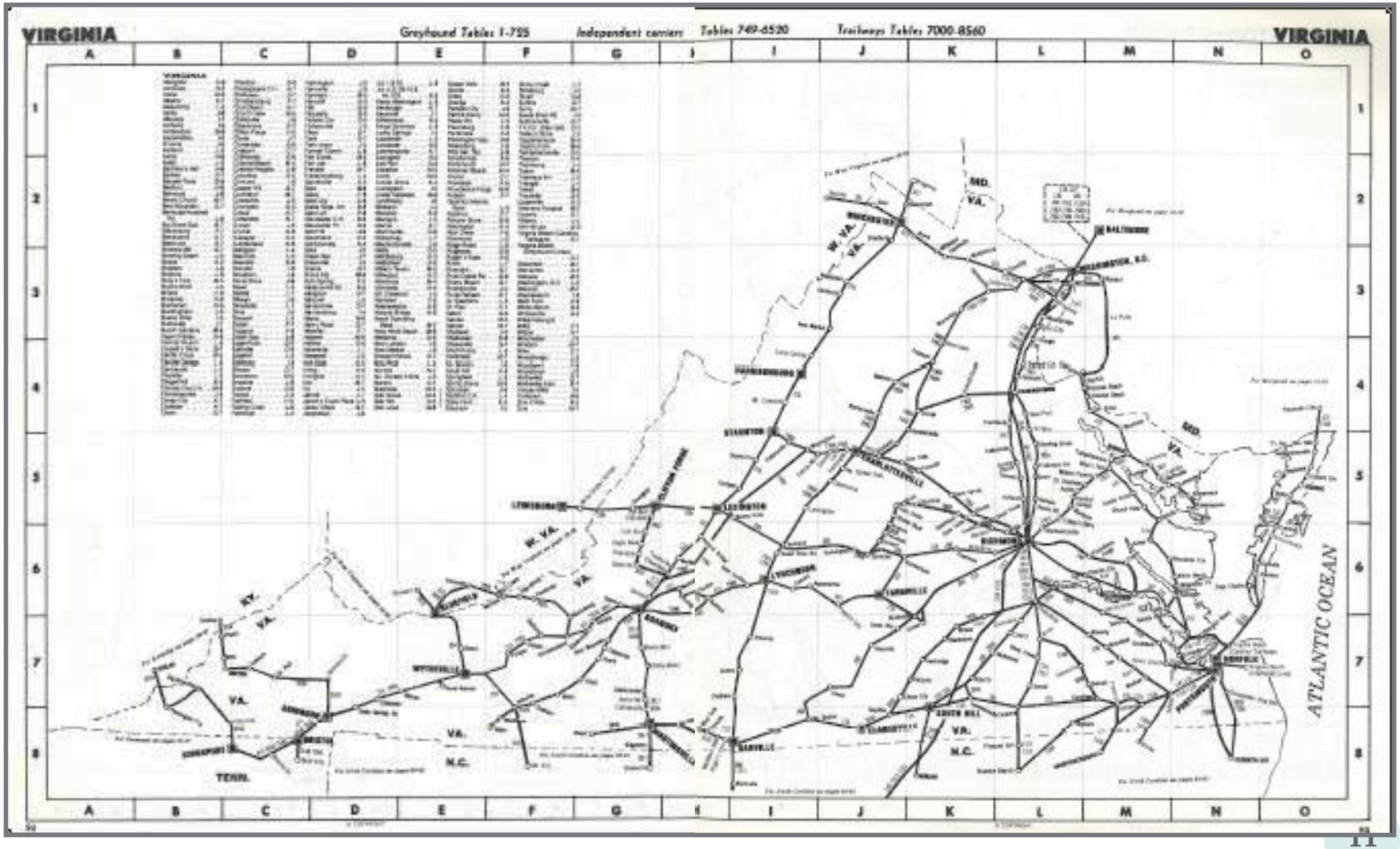
- **Virginia Breeze** in the I-81 and I-66 corridors
- **Greyhound** service statewide
- **Amtrak rail** passenger and connecting Thruway Bus service
- **Megabus express** service in two corridors
- **Curbside service**—express to major cities

Virginia's Intercity Network Today:



Virginia's Intercity Bus Network in 1983

(just before deregulation)



Coverage of Virginia's Intercity Network

Virginia Total Population: **8,310,301** (2016 ACS)

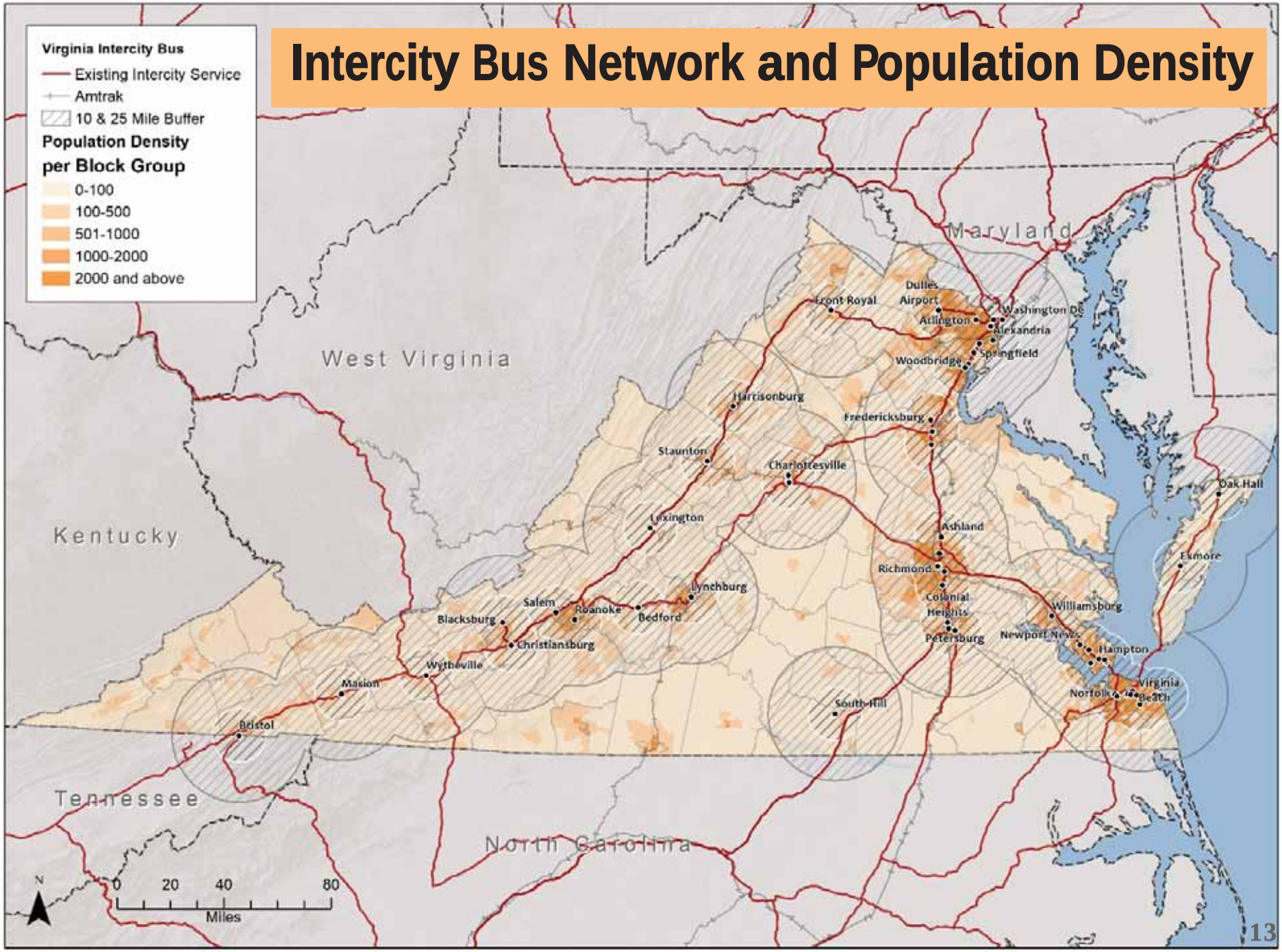
Population within 10 miles of an intercity bus stop:
5,884,356

Population within 25 miles of an intercity bus stop:
7,595,37

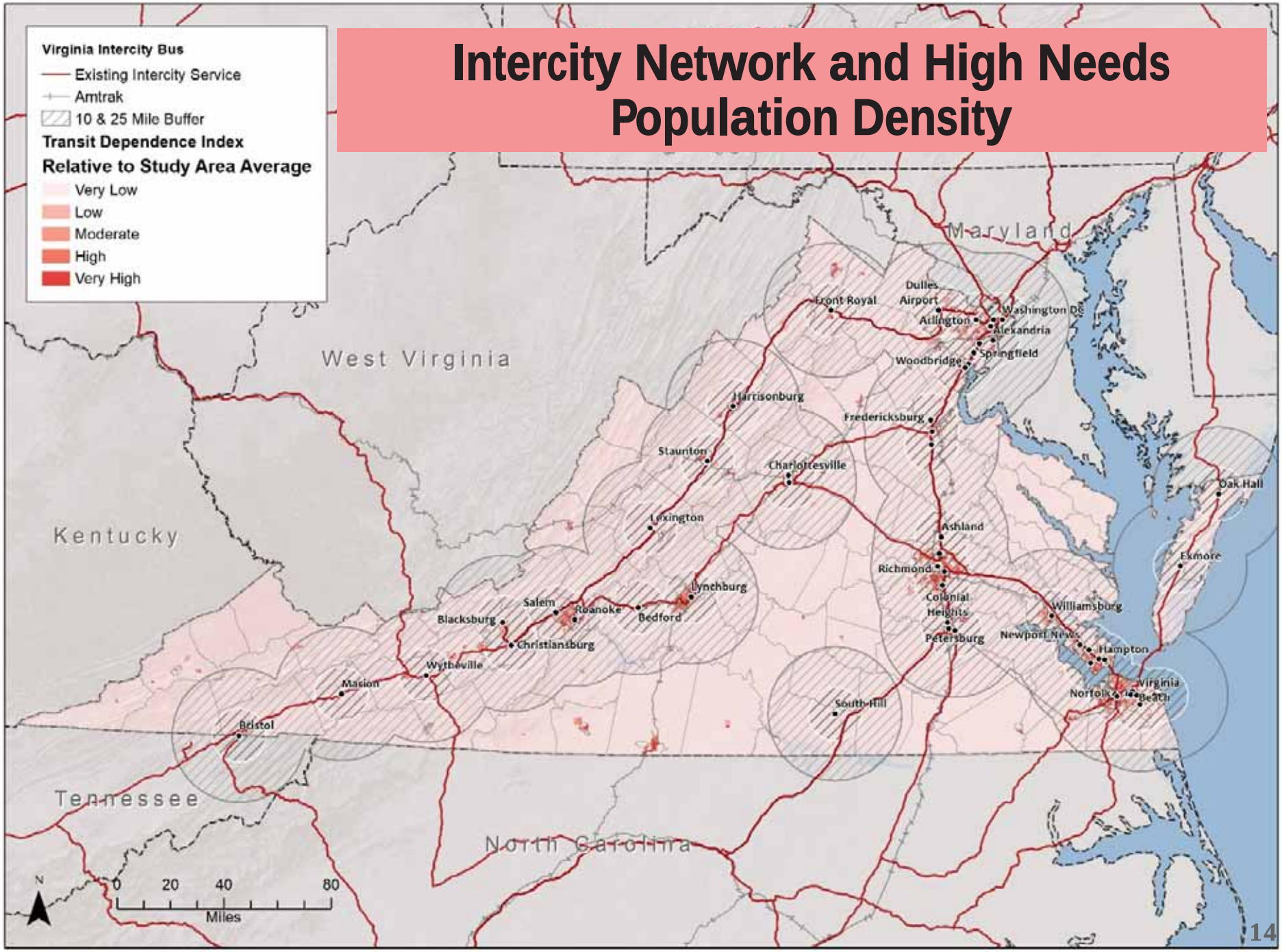
70.8% of Virginia's population lives **within 10 miles** of an intercity bus stop

91.4% of Virginia's population lives **within 25 miles** of an intercity bus stop

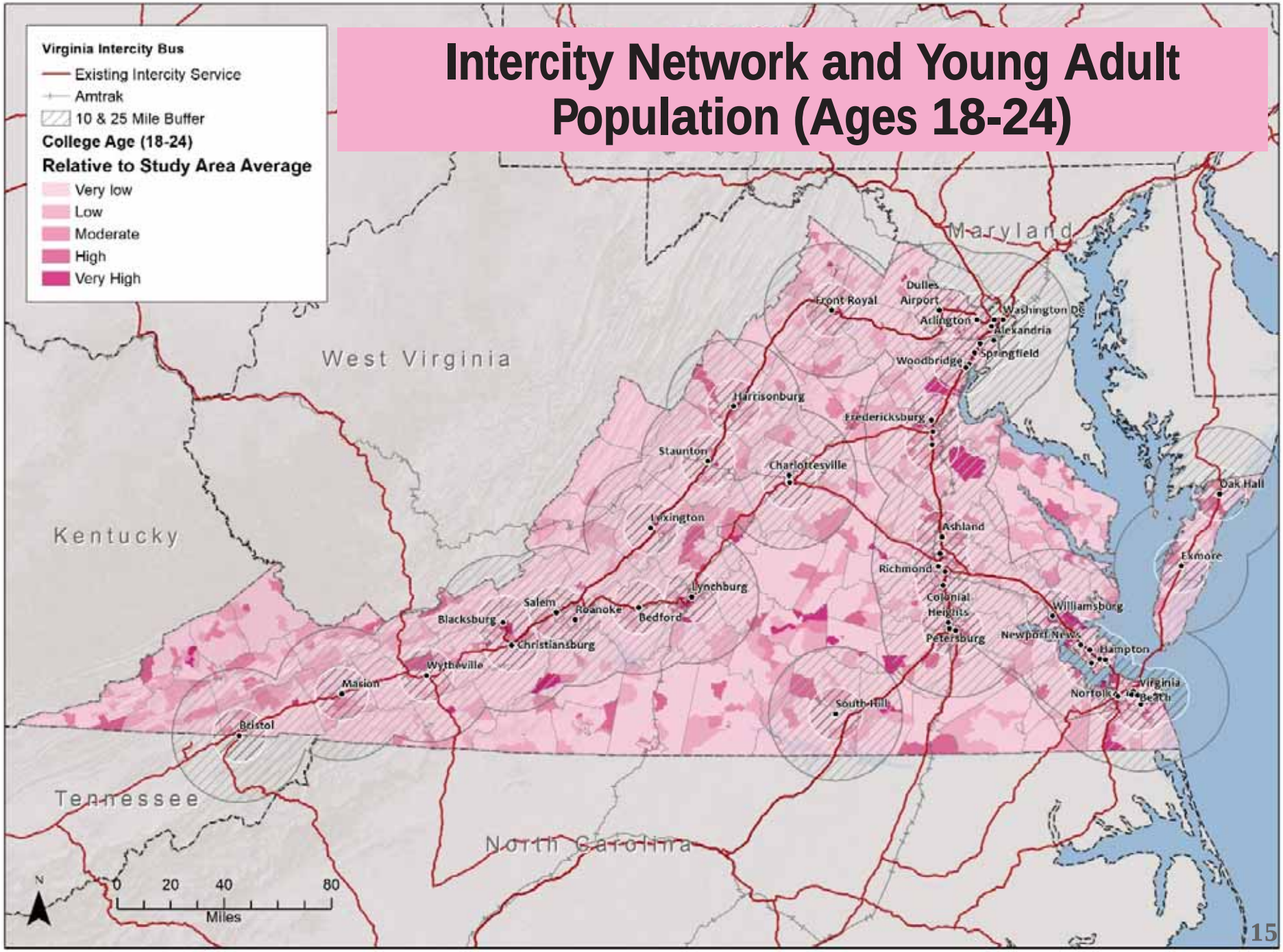
Intercity Bus Network and Population Density



Intercity Network and High Needs Population Density



Intercity Network and Young Adult Population (Ages 18-24)



Some Potential Route Concepts Based on Survey Results:

East-West Connections:

- Harrisonburg-Staunton-Waynesboro-Charlottesville
- Covington-Clifton Forge-Lexington-Staunton-Charlottesville
- Roanoke-Lynchburg-Richmond (Hampton Roads/Norfolk)
- Norfolk-Suffolk-Emporia-South Hill-South Boston-Danville (Martinsville)
- Norfolk-Suffolk-Petersburg-Richmond (460 corridor)

Route 220 corridor:

- Greensboro (NC) to Roanoke, Clifton Forge, Covington

Some Potential Route Concepts Based on Survey Results:

Route 29 Corridor:

- Charlottesville-Culpeper-Warrenton-Gainesville-Dulles Airport (Washington, D.C.)
- (Greensboro, N.C.) Danville—Farmville-Richmond
- Danville-Lynchburg-Charlottesville-Culpeper-Warrenton-Gainesville, Dulles Airport, Washington (D.C.)
- (Greensboro, N.C.) Danville-Lynchburg-Charlottesville-Culpeper-Warrenton-Gainesville, Dulles Airport, Washington (D.C.)

Peninsula and Eastern Shore:

- Hampton-Tappahannock-Warsaw-Fredericksburg
- Additional frequency Norfolk-Salisbury (MD)-Baltimore or Philadelphia via Eastern Shore

Some Potential Route Concepts Based on Survey Results:

Additional Virginia Breeze service

(frequency, stop in Roanoke, stops north of Roanoke, Woodstock?)

Bristol-Abingdon-Wytheville-Roanoke

Feeder connections

(less than daily) from southwest Virginia to Bristol or Wytheville (or Blacksburg/Roanoke)

Now we need to hear from you…

Tell us about your intercity travel needs:

Where do you want to go?

How often?

Do you use any of the existing services?

How well do they work?

Where do we need additional service?

New **routes**?

More **schedules**?

More/better **connections** with other services?

For More Information Or to Tell us what you forgot to say today:

DRPT:

Rebecca Askey (804-786-6797)

rebecca.askey@drpt.virginia.gov

or

Emily DelRoss (804-786-6796)

emily.Delross@drpt.virginia.gov

KFH:

Fred Fravel (301-951-8660)

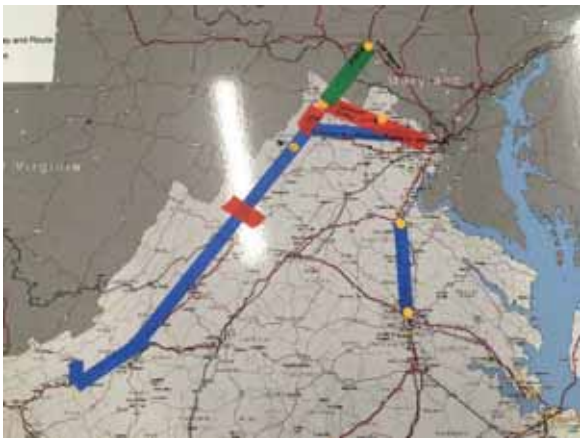
ffravel@kfhgroup.com

Thank you for your help today!

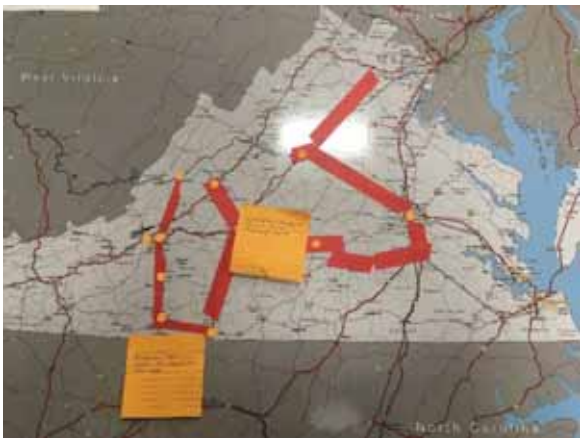
Appendix H
Community Meeting Maps with Comments

Ashland Meeting—Norfolk to Washington

Ashland Meeting—Blacksburg to DC, I-95 Local

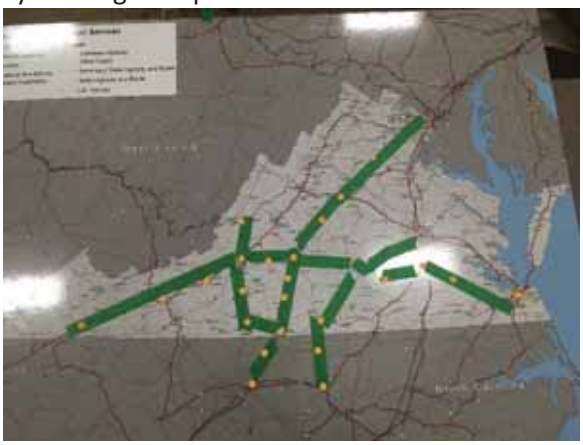


Ashland Meeting—Blacksburg to D.C., Winchester and Hagerstown, MD

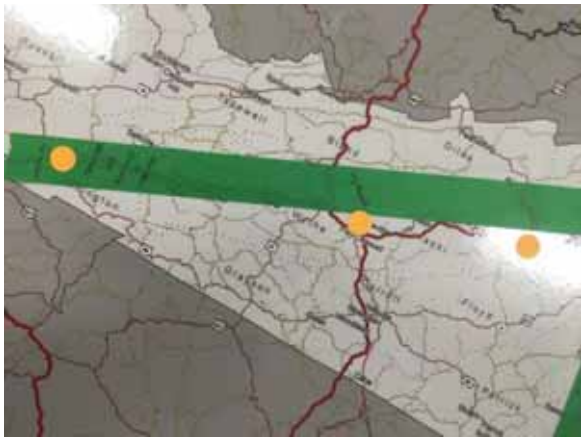


Lynchburg Group 1: Overview

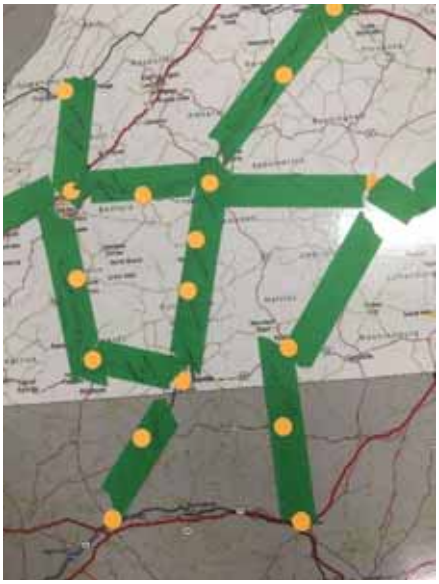
Lynchburg Group 2 -Combined Routes



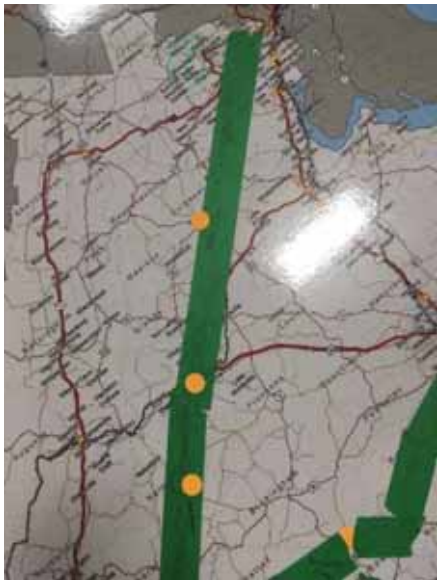
Lynchburg Group 2--Overview



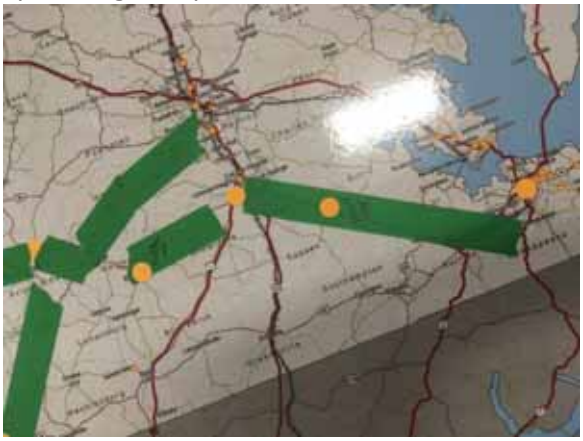
Lynchburg Group 2—Bristol to Roanoke



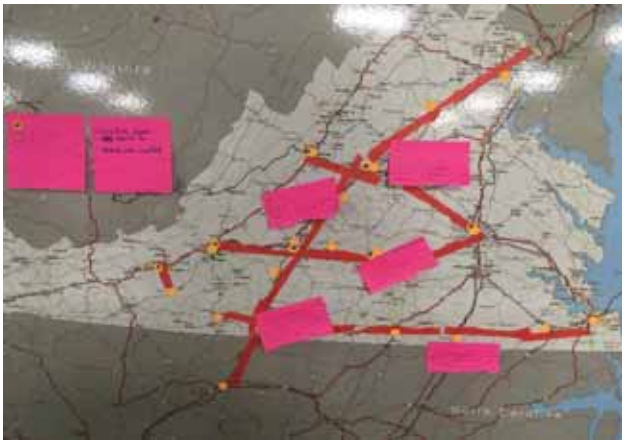
Lynchburg Group 2—South Central Network



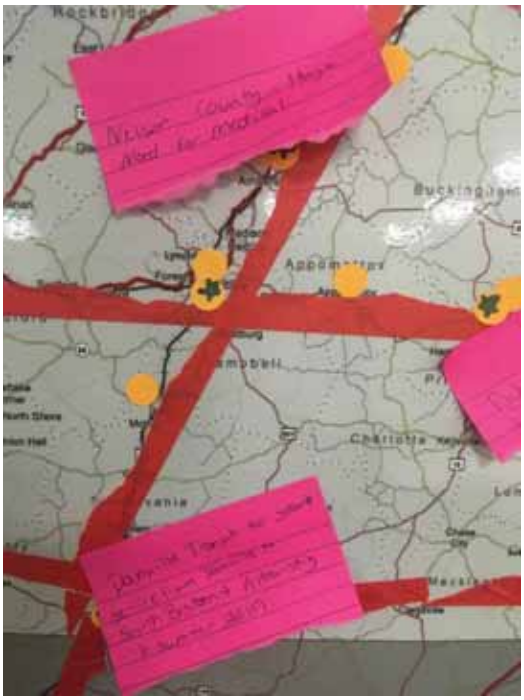
Lynchburg Group 2- Route 29 Corridor



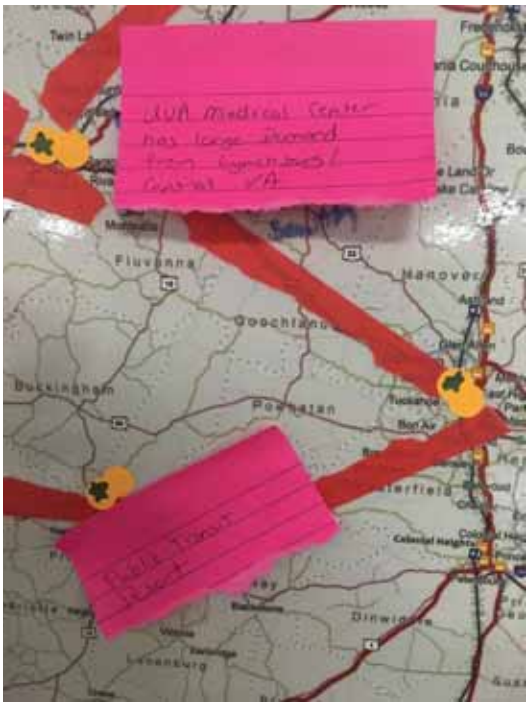
Lynchburg Group 2—Southeast Connections



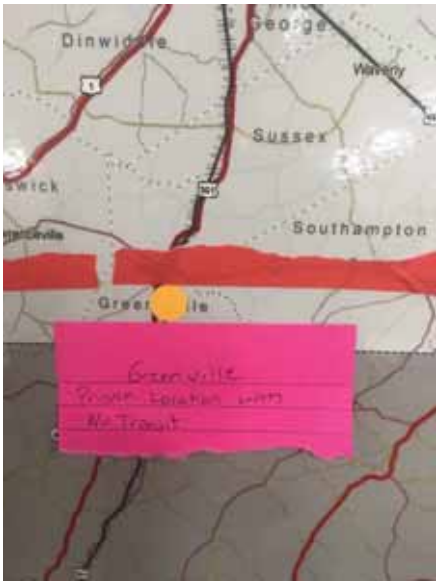
Lynchburg Group 3--Overview



Lynchburg Group 3—Central Virginia Notes



Lynchburg Group 3-Central Virginia Transit Desert



Lynchburg Group 3—Prison with no Transit

Appendix I
Sample Fare Data for Virginia Intercity Bus Route

Sample Fare Data for Virginia Intercity Bus Routes

		Low Price		Mid-Price		High Price	
Virginia Fares	**Distance (Miles)**	**Low Fare**	**Fare Per Mile**	**Mid-Level Fare**	**Fare Per Mile**	**High Fare**	**Fare Per Mile**
Roanoke-DC	243	$38.00	$0.16	$54.00	$0.22	$67.00	$0.28
Roanoke-Norfolk	291	$61.00	$0.21	$80.00	$0.27	$108.00	$0.37
Richmond-DC	109	$22.00	$0.20	$31.00	$0.28	$39.00	$0.36
Richmond-Fredericksburg	57	$20.00	$0.35	$28.00	$0.49	$36.00	$0.63
Richmond-Norfolk	93	$26.00	$0.28	$37.00	$0.40	$46.00	$0.49
Charlottesville-DC (GL)	117	$24.00	$0.21	$31.00	$0.26	$34.00	$0.29
Charlottesville-DC (Megabus)	120	$20.00	$0.17	$25.00	$0.21		$0.00
Blacksburg- DC (Virginia Breeze)	272	$50.00	$0.18	$50.00	$0.18		$0.00
Blacksburg-Harrisonburg (Virginia Breeze)	138	$36.00	$0.26	$36.00	$0.26		$0.00
Average Fare per Passenger-Mile			**$0.22**		**$0.29**		**$0.40**

Appendix J
Prioritization Tables

Proposed Route	New 10-Mile Population Coverage	Score	Weight	Weighted Score	Subsidy per Passenger	Score	Weight	Weighted Score
Weight			3				1	
Danville-Charlottesville-Union Station(DC)	420,492	3	3	9	$ 53.47	3	1	3
Greensboro (NC)-Danville(VA)-Union Station (DC)	420,492	3	3	9	$ 66.32	2	1	2
Greensboro (NC)-South Boston-Richmond	127,241	2	3	6	$ 68.62	2	1	2
Martinsville-Norfolk	228,635	2	3	6	$ 82.81	1	1	1
Charlottesville-Warrenton-Union Station (DC)	311,464	3	3	9	$ 44.91	3	1	3
Danville-Richmond	104,334	2	3	6	$ 64.16	2	1	2
Danville-Hampden Sydney-Richmond	127,241	2	3	6	$ 81.60	1	1	1
Hampton-Union Station(DC)	306,017	3	3	9	$ 99.85	1	1	1
Norfolk-Union Station (DC)	306,017	3	3	9	$ 98.67	1	1	1
Greensboro (NC)-Danville-Lynchburg	87,923	1	3	3	$ 59.06	3	1	3
Blacksburg-Richmond	33,995	1	3	3	$ 68.12	2	1	2
Danville-Lynchburg-Charlottesville	109,028	2	3	6	$ 87.39	1	1	1
Greensboro (NC)-Danville-Charlottesville	109,028	2	3	6	$ 117.06	0	1	0
Hampton-Fredericksburg	57,894	1	3	3	$ 162.70	0	1	0
Norfolk-Fredericksburg	57,894	1	3	3	$ 187.86	0	1	0
Weight			3				1	

Proposed Route	New 10-Mile Population Coverage	Farebox Recovery	Score	Weight	Weighted Score	Boardings per Trip	Score	Weight	Weighted Score
Weight				1				1	
Danville-Charlottesville-Union Station(DC)	420,492	40%	3	1	3	14	3	1	3
Greensboro (NC)-Danville(VA)-Union Station (DC)	420,492	39%	3	1	3	13	3	1	3
Greensboro (NC)-South Boston-Richmond	127,241	25%	2	1	2	10	3	1	3
Martinsville-Norfolk	228,635	19%	2	1	2	10	3	1	3
Charlottesville-Warrenton-Union Station (DC)	311,464	42%	3	1	3	8	2	1	2
Danville-Richmond	104,334	34%	3	1	3	7	2	1	2
Danville-Hampden Sydney-Richmond	127,241	31%	3	1	3	6	2	1	2
Hampton-Union Station(DC)	306,017	22%	2	1	2	7	2	1	2
Norfolk-Union Station (DC)	306,017	28%	2	1	2	7	2	1	2
Greensboro (NC)-Danville-Lynchburg	87,923	18%	2	1	2	7	2	1	2
Blacksburg-Richmond	33,995	22%	2	1	2	11	3	1	3
Danville-Lynchburg-Charlottesville	109,028	15%	1	1	1	6	2	1	2
Greensboro (NC)-Danville-Charlottesville	109,028	15%	1	1	1	6	2	1	2
Hampton-Fredericksburg	57,894	13%	1	1	1	3	1	1	1
Norfolk-Fredericksburg	57,894	7%	1	1	1	4	1	1	1
Weight				1				1	

Proposed Route	New 10-Mile Population Coverage	Mean Demand	Score	Weight	Weighted Score	% Stops Previously Unserved	Score	Weight	Weighted Score
Weight				3				3	
Danville-Charlottesville-Union Station(DC)	420,492	10,050	3	3	9	64	2	3	6
Greensboro (NC)-Danville(VA)-Union Station (DC)	420,492	9,750	3	3	9	62	2	3	6
Greensboro (NC)-South Boston-Richmond	127,241	7,600	3	3	9	75	3	3	9
Martinsville-Norfolk	228,635	7,100	3	3	9	71	3	3	9
Charlottesville-Warrenton-Union Station (DC)	311,464	5,850	2	3	6	57	2	3	6
Danville-Richmond	104,334	4,950	2	3	6	75	3	3	9
Danville-Hampden Sydney-Richmond	127,241	4,550	2	3	6	83	3	3	9
Hampton-Union Station(DC)	306,017	5,100	2	3	6	57	2	3	6
Norfolk-Union Station (DC)	306,017	5,200	2	3	6	50	1	3	3
Greensboro (NC)-Danville-Lynchburg	87,923	5,400	2	3	6	60	2	3	6
Blacksburg-Richmond	33,995	8,200	3	3	9	38	1	3	3
Danville-Lynchburg-Charlottesville	109,028	4,400	2	3	6	67	2	3	6
Greensboro (NC)-Danville-Charlottesville	109,028	4,450	2	3	6	63	2	3	6
Hampton-Fredericksburg	57,894	2,500	1	3	3	60	2	3	6
Norfolk-Fredericksburg	57,894	2,600	1	3	3	50	1	3	3
Weight				3				3	

Proposed Route	New 10-Mile Population Coverage	Sum of Weighted Scores
Weight		
Danville-Charlottesville-Union Station(DC)	420,492	33
Greensboro (NC)-Danville(VA)-Union Station (DC)	420,492	32
Greensboro (NC)-South Boston-Richmond	127,241	31
Martinsville-Norfolk	228,635	30
Charlottesville-Warrenton-Union Station (DC)	311,464	29
Danville-Richmond	104,334	28
Danville-Hampden Sydney-Richmond	127,241	27
Hampton-Union Station(DC)	306,017	26
Norfolk-Union Station (DC)	306,017	23
Greensboro (NC)-Danville-Lynchburg	87,923	22
Blacksburg-Richmond	33,995	22
Danville-Lynchburg-Charlottesville	109,028	22
Greensboro (NC)-Danville-Charlottesville	109,028	21
Hampton-Fredericksburg	57,894	14
Norfolk-Fredericksburg	57,894	11
Weight		