II. Regional Service and Gap Analysis

About the Analysis

This gap analysis was completed in spring 2017. The purpose of the analysis was to determine the existing conditions in each of the 15 analysis districts, review transit plans to gather gaps already identified by the jurisdictions, and find additional gaps that could be addressed through the Public Transportation Strategic Plan.

At nine community meetings in May 2017, the analysis was tailored to the community area and presented for feedback from the participants. This feedback was collected and organized into strengths, weaknesses, opportunities and threats faced by North Carolina's transit providers.

Material presented in this chapter was developed by Foursquare Integrated Transportation Planning with support from WRA.

Methodology

National Transit Database (NTD) data from 2015 was the starting point to determine existing providers and their service types. Service area populations were determined using American Community Survey 5-year estimates for 2011-2015. For county providers, the county population was used, and for city or town-based providers, the place was used. If the provider had multiple counties, the county populations were summed to determine a service area population.

Some providers required different estimation; for example, Mecklenburg County DSS provides service to non-Charlotte Mecklenburg County residents. This was estimated by subtracting the population of Charlotte from the population of Mecklenburg County.

Transit provider websites were used to collect data on current services, destinations, and eligibility to use the services. Interviews were arranged with select agencies to fill gaps in the data collection. Coordinated transportation plans and transit development plans were reviewed to include gaps identified by providers previously. Additional gaps were identified from sectors not served, duplicative service, or practices from other providers, and categorized under expansion, coordination, and communication.

Key destinations were determined using data from Department of Homeland Security Homeland Infrastructure Foundation-Level Data and from Institute for Transportation Research and Education (ITRE), an institutional center out of North Carolina State University.

Summary of Findings

Through the gap analysis, similar gaps were found among the 15 analysis districts. The following section lists common gaps identified by providers and the analysis team.

Recommendations to Address Common Gaps Identified by Demand Response Providers

- Expand Existing Service:
  - Extend hours and days of service for existing service
  - Expand eligibility to serve more trip purposes and customers
  - Coordinate transfers between demand response and fixed-route transit
- Capital Needs:
  - Purchase or replace ADA-compliant vehicles
  - Enhance technology, like routing and scheduling software; real-time passenger information; or intelligent transportation systems, and improve data collection methods
- Improve Customer Service:
  - Reduce length of reservation windows and waiting times for pick-up
  - Hire more customer-facing staff, like mobility coordinators, travel trainers, or bus aides/attendants
  - Improve customer service for hearing/vision-impaired and limited English proficiency populations
- New Service or Funding:
  - Reduce fares for customers or provide additional funding for medical/other essential trips
  - Create deviated fixed-routes or vanpools

Recommendations to Address Common Gaps Identified by Fixed-Route Providers

- Expand Existing Service:
  - Extend hours and days of service for existing service
  - Expand coverage to suburban and rural areas, especially employment centers
  - Increase frequency on existing service
- Capital Needs:
  - Create and improve bus stop amenities and park-and-ride facilities
- Improve Customer Service:
  - Hire more customer-facing staff, like mobility coordinators and travel trainers

- o   Improve customer service for hearing/vision-impaired and limited English proficiency populations
  - o   Improve marketing and advertising for existing services, e.g. advertise transit for special events
- New Service:
  - o   Create express routes along major corridors and to major employers

Recommendations to Address Other Common Gaps Identified in Gap Analysis

- Ensure vital connections like Social Security offices and hospitals/medical facilities are available from every provider
- Coordinate service among demand response providers in neighboring counties. This may take the form of coordinating certain types of trips, like medical trips for veterans, or coordinating trips that cross county borders
- Create access to colleges and universities through new service or connections to existing service
- Enhance education about services in residents' home counties and how to use transit when traveling in other counties.
- Increase information available on providers' websites; make websites accessible for vision/hearing-impaired residents

Gap Analysis Results By Analysis District

The remainder of this section show the gap analysis results by each of the 15 analysis districts that were created for this study. Each section includes existing conditions and service gaps. Gaps identified by providers were listed in coordinated transportation plans and transit development plans. Additional gaps were found by comparing services between similarly-sized providers and determining if major trip generators were connected by transit.

Additionally, there is an appendix for each analysis district. The appendices show more detailed information about providers, lists of major destinations within the analysis district, and population density maps.

Asheville

The Asheville analysis district includes Buncombe County, Haywood County, and Henderson County and is centered around the City of Asheville.

Existing Services and Connections

Table 2-1 lists the providers in the Asheville analysis district. Each county has demand response transit, while fixed route transit is also provided by Apple County Public Transit, Asheville Redefines Transit (ART), and Mountain Mobility.

Table 2- 1: Providers in the Asheville Analysis District, 2017

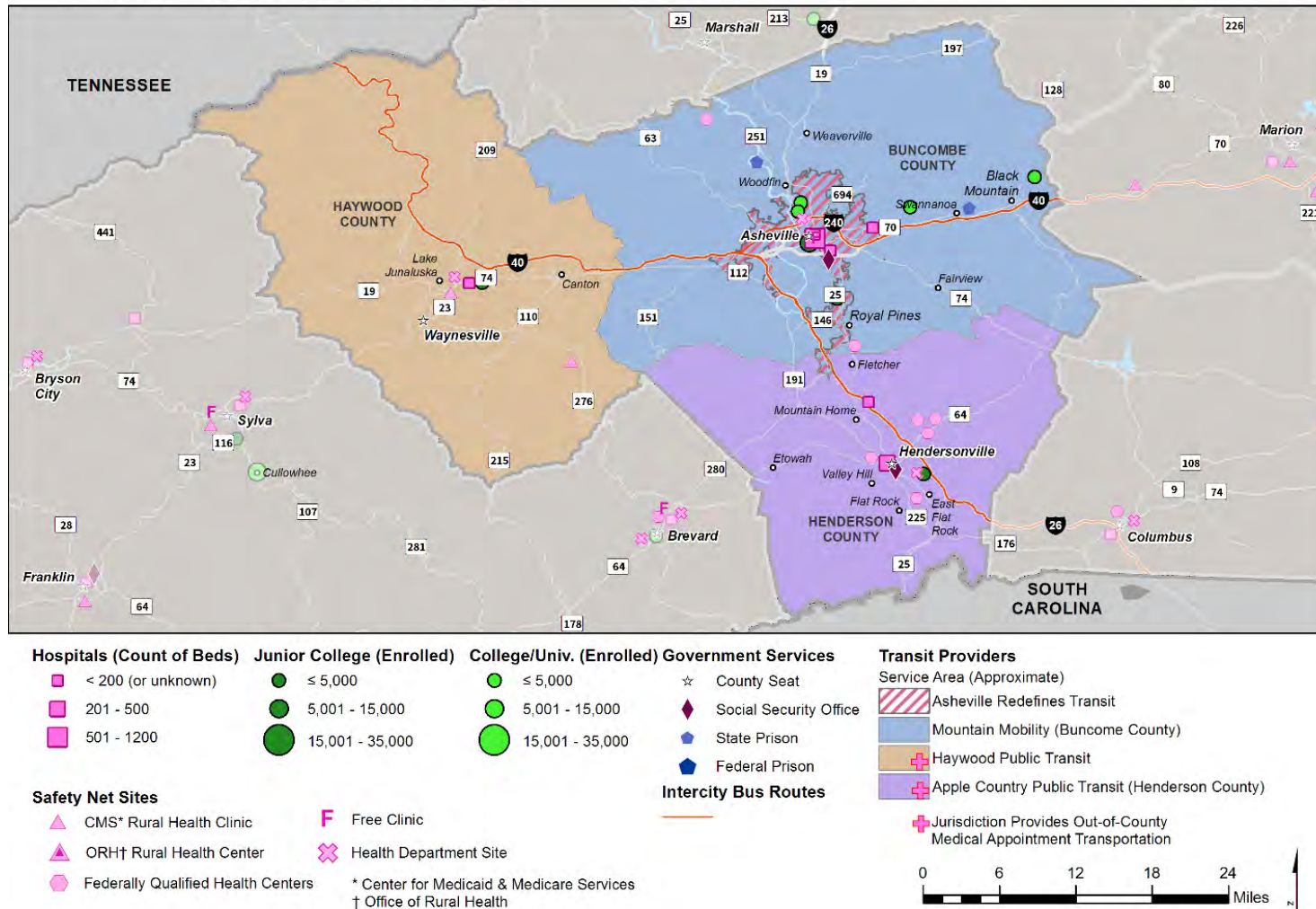| Provider	NTD Reporting Name	Level of Government	Service Area	Service Types
Apple Country Public Transit	Henderson County/ Apple Country Public Transit	County	Henderson County	• Demand Response • Fixed Route
Asheville Redefines Transit (ART)	ART (Asheville Redefines Transit)	City	City of Asheville	• Fixed Route
Haywood Public Transit	Mountain Projects, Inc.	Non-Profit	Haywood County	• Demand Response
Mountain Mobility	Buncombe County	County	Buncombe County	• Demand Response • Fixed Route

Figure 2-1 shows the Asheville analysis district, its transit providers, and the major destinations in the district. Haywood Public Transit and Apple County Public Transit provide out-of-county transportation to medical appointments through their demand responses services.

Figure 2 - 1: Map of Asheville Transit Service Areas and Major Destinations

Asheville
Transit Service Areas and Major Destinations

Service Gaps

A review of coordinated transportation plans and transit development plans for the Asheville analysis district identifies the following needs, grouped by type of provider.

Recommendations to Address Gaps Identified by Demand Response Providers

- Extend hours of service (weekends and evenings)
- Reduce length of reservation window for customers
- Expand eligibility for demand response services to serve a wider range of trip purposes and customers
- Provide door-through-door services and connections to fixed route services
- Increase distribution of information about available services and eligibility
- Improve workforce transportation
- Create connections between counties

Recommendations to Address Gaps Identified by Fixed-Route Providers

- Extend hours of service (weekends and evenings)
- Expand coverage into more rural or suburban areas, especially emerging residential and employment centers
- Improve facilitation of transfers between providers and connections between counties
- Increase frequency on routes at or near capacity
- Hire a mobility coordinator / travel trainer
- Serve employment centers with work trips
- Make corridor-specific investments to improve speed or reliability of transit
- Add additional express, local and neighborhood fixed routes
- Create park-and-ride facilities
- Improve amenities at bus stops

Further analysis has identified possible recommendations for gaps in transportation services in the analysis district, summarized in the bullets below.

- Service Expansion
  - Expand access to regional and statewide destinations with high travel demand. Existing services in Haywood and Henderson county are oriented towards connections to Buncombe County and the City of Asheville. Services to other counties in the region are more limited, especially for non-medical appointment trips.
- Service Coordination

- o Coordinate or enhance services between counties that serve each other with demand response transit. Haywood Public Transit already participates in a regional effort by rural transit providers to coordinate transportation of veterans to medical services. Expand to additional populations and trip types.
- Communications
  - o Communication strategies may include information for those traveling to major cities on how to take transit when visiting.

Charlotte

The Charlotte analysis district includes Cabarrus County, Gaston County, Iredell County, Lincoln County, Mecklenburg County, Rowan County, Stanly County, and Union County. This analysis district consists of the city of Charlotte, its suburbs, and adjacent more rural areas.

Existing Services and Connections

Table 2-2 lists the transit providers in the Charlotte analysis district, their service areas, and the types of service they provide. The Charlotte analysis district benefits from a diversity of large transit providers (CATS), small urban fixed-route providers (City of Salisbury, Concord Kannapolis Area Transit, Gastonia Transit), and county-level systems that provide a mix of demand response and fixed-route service.

Table 2- 2: Providers in the Charlotte Analysis District, 2017

Provider	NTD Reporting Name	Level of Government	Service Area	Service Types
Cabarrus County Transportation Services	Cabarrus County Transportation Services	County	Cabarrus County	• Demand Response
Charlotte Area Transit System (CATS)	Charlotte Area Transit System	Transit Agency	City of Charlotte and areas of Mecklenburg County	• Demand Response • Vanpool • Fixed Route • Commuter Bus • Light Rail
City of Salisbury	City of Salisbury - Salisbury	City	City of Salisbury	• Fixed Route
Concord Kannapolis Area Transit	Concord Kannapolis Area Transit	City	Cities of Concord and Kannapolis	• Fixed Route
Gaston County ACCESS Central Transportation	Gaston County	County	Gaston County	• Demand Response • Fixed Route
Gastonia Transit	City of Gastonia	City	City of Gastonia	• Demand Response • Fixed Route
Iredell County Area Transportation Services	Iredell County Area Transportation Services			

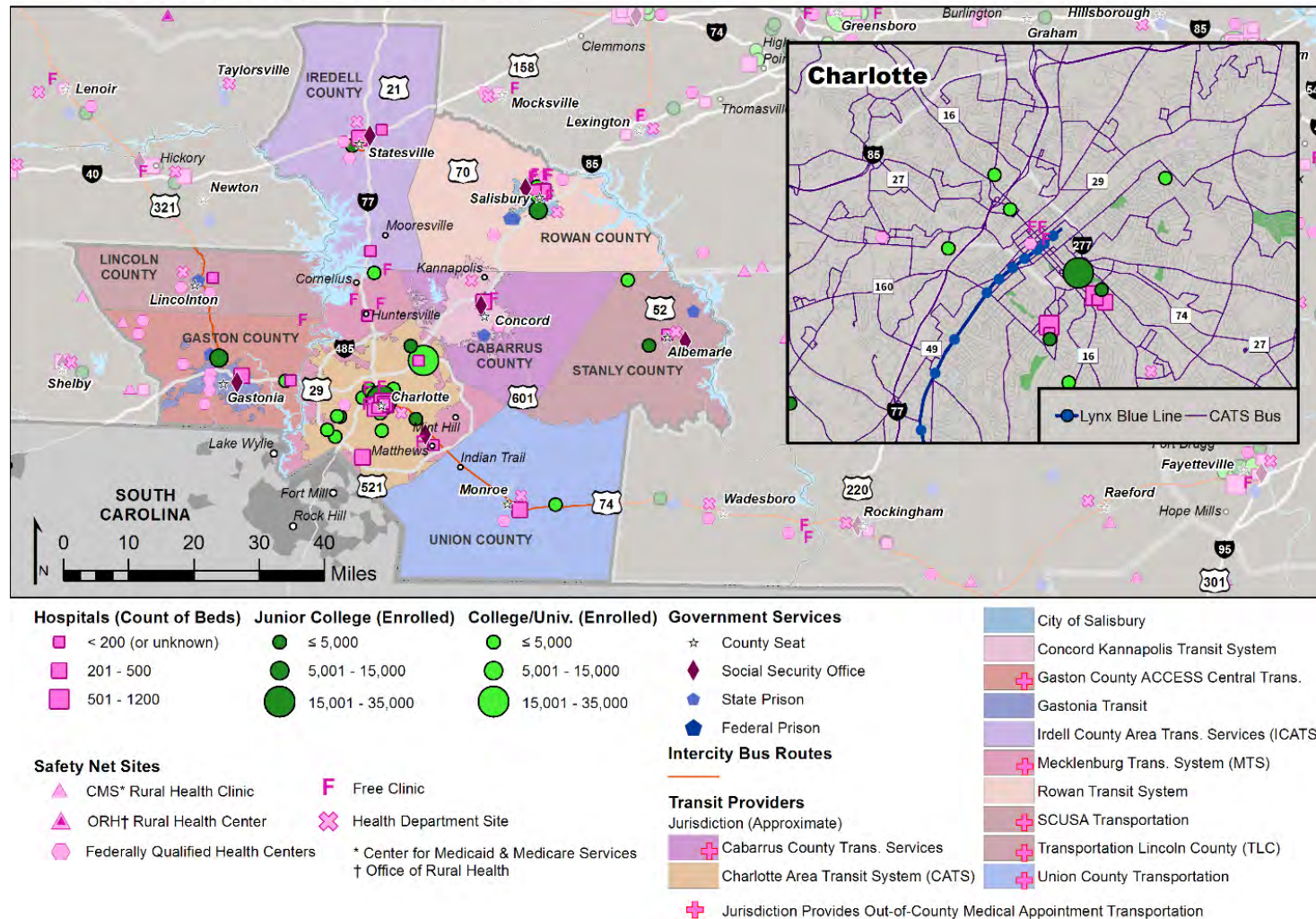| Provider	NTD Reporting Name	Level of Government	Service Area	Service Types
				• Fixed Route
Mecklenburg Transportation System (MTS)	Mecklenburg County DSS	County	Mecklenburg County	• Demand Response • Demand Response Taxi
Rowan Transit System	Rowan Transit System	County	Rowan County	• Demand Response • Fixed Route
SCUSA Transportation	Stanly County	County	Stanly County	• Demand Response
Transportation Lincoln County (TLC)	Lincoln County	County	Lincoln County	• Demand Response • Fixed Route
Union County Transportation	Union County Transportation	County	Union County	• Demand Response

Figure 2-2 shows the Charlotte analysis district, its transit providers, and the major destinations in the district. Most county-level systems provide out-of-county transportation to medical appointments.

Figure 2 - 2: Map of Charlotte Transit Service Areas and Major Destinations

Charlotte
Transit Service Areas and Major Destinations

Hospitals (Count of Beds)
- < 200 (or unknown)
- 201 - 500
- 501 - 1200

Safety Net Sites
- △ CMS* Rural Health Clinic
- ▲ ORH† Rural Health Center
- ⬡ Federally Qualified Health Centers
- F Free Clinic
- ✕ Health Department Site

* Center for Medicaid & Medicare Services
† Office of Rural Health

Junior College (Enrolled)
- ≤ 5,000
- 5,001 - 15,000
- 15,001 - 35,000

College/Univ. (Enrolled)
- ≤ 5,000
- 5,001 - 15,000
- 15,001 - 35,000

Government Services
- ☆ County Seat
- ◆ Social Security Office
- ⬟ State Prison
- ⬠ Federal Prison

Intercity Bus Routes

Transit Providers
Jurisdiction (Approximate)
- Cabarrus County Trans. Services
- Charlotte Area Transit System (CATS)

- City of Salisbury
- Concord Kannapolis Transit System
- Gaston County ACCESS Central Trans.
- Gastonia Transit
- Irdell County Area Trans. Services (ICATS)
- Mecklenburg Trans. System (MTS)
- Rowan Transit System
- SCUSA Transportation
- Transportation Lincoln County (TLC)
- Union County Transportation

➕ Jurisdiction Provides Out-of-County Medical Appointment Transportation

Service Gaps

A review of coordinated transportation plans and transit development plans for the Charlotte analysis district identifies the following needs, grouped by type of provider.

Recommendations to Address Gaps Identified by Demand Response Providers

- Provide better information to residents on transit options and eligibility, especially among disadvantaged communities.
- Expand eligibility for demand response services to serve a wider range of trip purposes and customers
- Extend hours of service (during weekends, evenings, holidays and to suit shift-work schedules)
- Increase availability of out-of-county services to allow medical appointments to be scheduled on a wider range of dates and times
- Reduce cost of service to customers
- Coordinate fares and transfers between providers
- Coordinate transfers between demand response and fixed-route transit
- Increase fleet size and hire additional staff to accommodate expanded service
- Hire a mobility coordinator to identify transportation services for clients across providers
- Use improved dispatch and scheduling technologies to improve the efficiency of services

Recommendations to Address Gaps Identified by Fixed-Route Providers

- Improve amenities at bus stops
- Expand coverage into more rural or suburban areas, especially emerging residential and employment centers
- Increase distribution of information about available services and eligibility, especially to underserved communities
- Create park-and-ride facilities for bus services, vanpools, and carpools
- Add additional express, crosstown, local and neighborhood fixed routes, as well as rail services in Charlotte area
- Improve frequency on existing services and timed transfers
- Increase number of vehicles to expand service and provide additional capacity on existing services
- Develop subsidized pass programs for additional populations
- Hire a mobility coordinator / travel trainer

Further analysis has identified possible recommendations for gaps in transportation services in the analysis district, summarized in the bullets below.

- Service Expansion
  - Higher education institutions in non-urban areas are disconnected from fixed-route transit. Creating connections to existing service (for example, connecting Belmont Abbey College to the CATS 85X bus via a shuttle) and adding fixed-route service between towns and educational institutions would increase access for students and employees.
  - Existing fixed-route services outside of Charlotte have headways over an hour. Increasing the frequency of the service would create increase service quality for riders.
- Service Coordination
  - Some demand response services could pick up passengers in another county en route to a destination. For instance, both Lincoln and Gaston counties provide service into Charlotte, and trips departing from certain locations in Lincoln County could pick up passengers in Gaston County on the way to Charlotte.
  - Demand response vehicles serving out-of-county destinations may have downtime while waiting for their passengers to finish their medical appointments. During this time, dispatch these vehicles to provide demand response service to residents.
- Communications
  - Communication strategies may include information and education for those traveling to major cities on how to take transit when visiting.

Eastern Northern

The Eastern Northern analysis district includes a 16-county expanse of North Carolina's northern coastal plain / tide water region: Beaufort County, Bertie County, Camden County, Chowan County, and Currituck County, Dare County, Gates County, Halifax County, Hertford County, Hyde County, Northampton County, Martin County, Pasquotank County, Perquimans County, Tyrrell County, and Washington County. The area is largely rural and includes much of the Outer Banks.

Existing Services and Connections

Table 2-3 lists the providers in the Eastern Northern Analysis District. While the providers are diverse in organization (county government, agency, and non-profit), all provide demand response.

Table 2 - 3: Providers in the Eastern Northern Analysis District, 2017

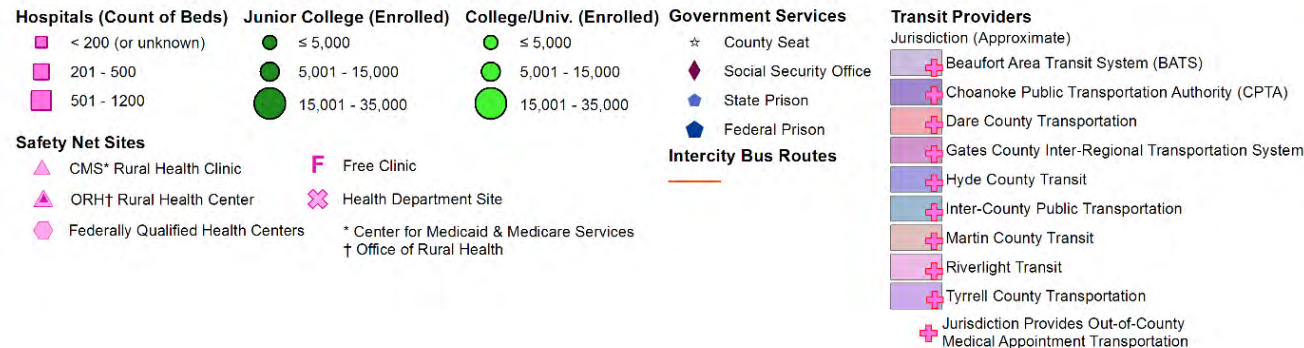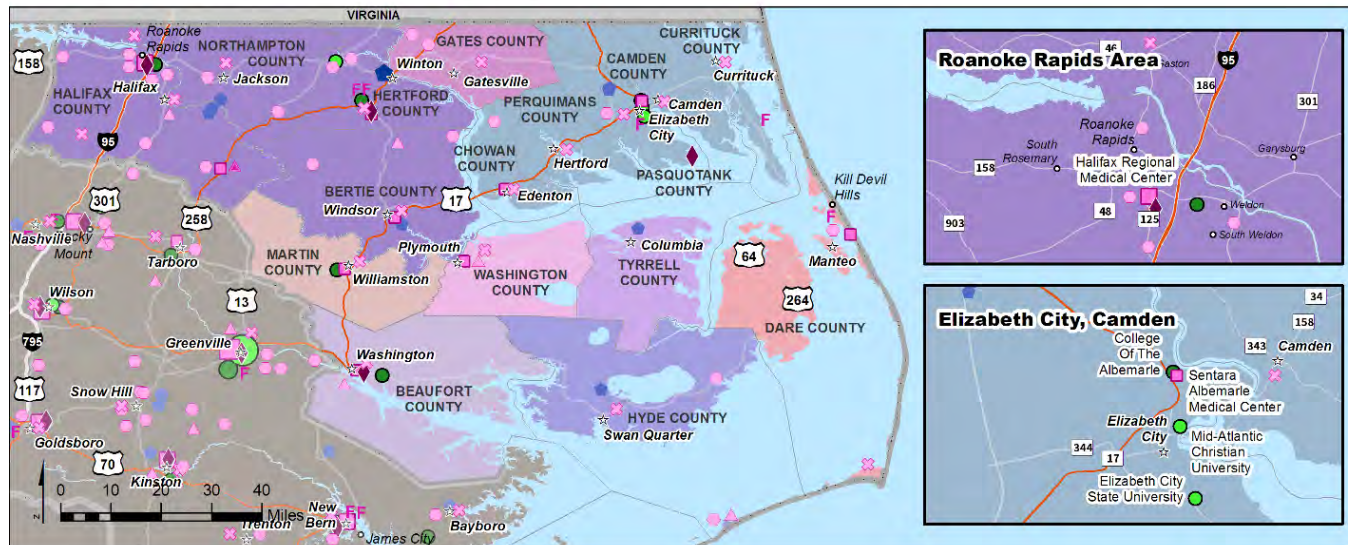| Provider	NTD Reporting Name	Level of Government	Service Area	Service Types
Beaufort Area Transit System (BATS)	Beaufort County Developmental Center, Inc.	County	Beaufort County	• Demand Response
Choanoke Public Transportation Authority (CPTA)	Choanoke Public Transportation Authority	Transportation Agency	Bertie, Halifax, Hertford and Northampton Counties	• Demand Response
Dare County Transportation System	Dare County	County	Dare County	• Demand Response • Demand Response Taxi
Gates County Inter-Regional Transportation System	Gates County	County	Gates County	• Demand Response
Hyde County Transit	Hyde County Private Non-Profit Transp. Corp. Inc.	Non-profit	Hyde County	• Demand Response
Inter-County Public Transportation Authority (ICPTA)	Albemarle Regional Health Services	Regional Public Health Agency	Pasquotank, Perquimans, Camden, Chowan and Currituck counties	• Demand Response
Martin County Transit (MCT)	Martin County	County	Martin County	• Demand Response
Riverlight Transit	Washington County	County	Washington County	• Demand Response
Tyrrell County Senior and Disabled Transportation System	Does not report to NTD	County	Tyrrell County	• Demand Response

Figure 2-3 shows the Eastern Northern analysis district, its transit providers, and the major destinations in the district. All county-level systems provide out-of-county transportation to medical appointments.

Figure 2-1: Map of Eastern Northern Transit Service Areas and Major Destinations

Eastern Northern
Transit Service Areas and Major Destinations

Service Gaps

A review of coordinated transportation plans and transit development plans for the Eastern-Northern analysis district identifies the following needs.

Recommendations to Address Gaps Identified by Providers

- Expand door-to-door services and bus aides
- Expand existing services to include express transportation to major employers and increase span
- Increase local area service with deviated fixed route, shuttles, or circulators.
- Enhance bus stops with sidewalks, lighting, benches, and audible signs.
- Expand existing service eligibility to new users
- Provide travel training
- Improve distribution of information and awareness of existing transit options
- Improve customer service and reduce language barriers
- Establish county-to-county transfer agreements
- Provide transportation for newly released offenders
- Provide transportation for youth recreation/sporting events
- Expand park-and-rides

Further analysis has identified possible recommendations for gaps in transportation services in the analysis district, summarized in the bullets below.

- Service Expansion
  - Tyrell County only provides transportation services for senior and elderly residents. Expansion of services to all residents will greatly expand possible connections.
  - Community colleges and universities are not connected to transit. Consider making any new local fixed-route services connect to higher education. For example, a fixed route on NC 344 and US 17 could connect College of the Albemarle and Elizabeth City State University to grocery stores, residential areas, and restaurants.
  - Choanoke Public Transportation Authority (CPTA) currently only provides out-of-area transit to Greenville and Rocky Mount. Because it is further inland than other Eastern-Northern providers, it has a strong opportunity to provide trips to Raleigh, Durham, or Chapel Hill.
- Service Coordination
  - As every provider in the Eastern North region serves out-of-area/county trips to Greenville, coordinate service among neighboring providers.

- o
- Communications
    - o In conjunction with more advertisement and education for existing demand response routes, communication strategies for new fixed-route services should focus on capturing both new riders not currently using demand response routes and current riders that do not need accessibility assistance.
    - o An additional communication strategy may include providing information on how to use transit available in the major cities for passengers traveling from other areas.

Eastern South

The Eastern South analysis district includes five counties in North Carolina's southern Coastal Plain region: Bladen County, Columbus County, Duplin County, Robeson County, and Sampson County. The analysis district is largely rural, but parts of the region are within commuting distance of Fayetteville, the Research Triangle, and Wilmington.

Existing Services and Connections

Table 2-4 lists the providers in the Eastern South analysis district. All providers are county-level and provide demand response as their types of service.

Table 2-1: Providers in the Eastern South Analysis District, 2017

Provider	NTD Reporting Name	Level of Government	Service Area	Service Types
Bladen Area Rural Transportation System (BARTS)	Bladen County	County	Bladen County	• Demand Response
Columbus County Transportation	Columbus County	County	Columbus County	• Demand Response
Duplin County Transportation Department	Duplin County	County	Duplin County	• Demand Response
Sampson Area Transportation (SAT)	Sampson County	County	Sampson County	• Demand Response
South East Area Transit System (SEATS)	Robeson County	County	Robeson County	• Demand Response

Figure 2-4 shows the Eastern South analysis district, its transit providers, and the major destinations in the district. All systems provide out-of-county transportation to medical appointments.
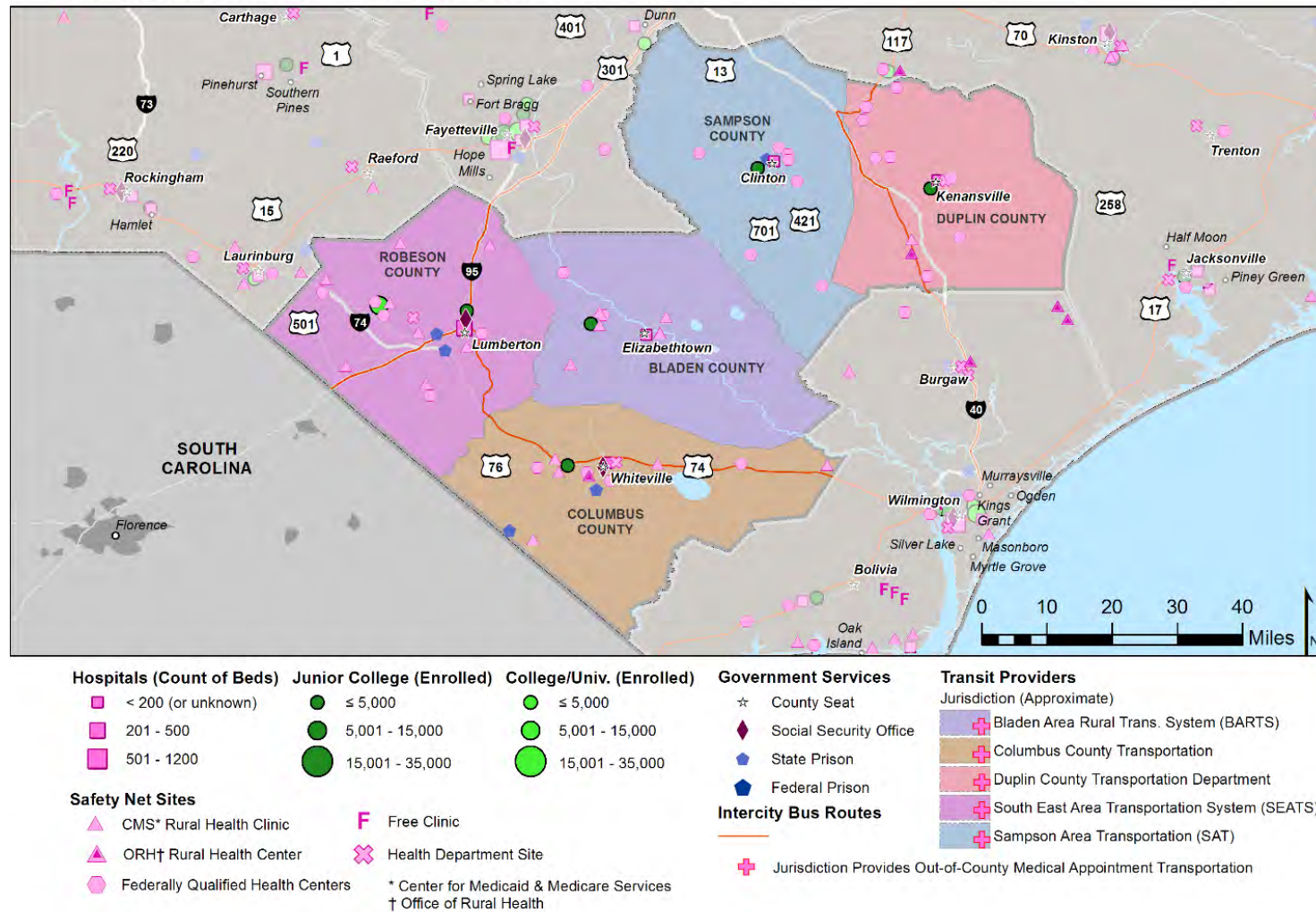
Figure 2-2: Map of Eastern South Transit Service Areas and Major Destinations

Eastern-South
Transit Service Areas and Major Destinations

Service Gaps

Recommendations to Address Gaps Identified by Demand Response Providers

- Provide additional funding for medical transportation and unemployed job seekers
- Expand transportation options for cross-county travel
- Introduce weekend and late-night service
- Create a network of vendors to provide off-peak service
- Introduce fixed-route service along major corridors
- Provide vouchers for those who do not qualify for Medicaid
- Provide dedicated transportation for disabled residents
- Increase advertising and marketing, including for hearing/vision-impaired and limited English proficiency populations
- Improve radio communication technology
- Coordinate between adjacent counties for employment, medical, shopping, and recreational trip purposes
- Enhance bus stop amenities
- Educate senior citizens on how to use services
- Increase connections to community colleges and hospitals
- Expand service to special events and recreation opportunities for all citizens
- Provide transportation for crisis situations that are not emergencies (e.g. needing to go to the hospital but trip does not require an ambulance)

Further analysis has identified possible recommendations for gaps in transportation services in the analysis district, summarized in the bullets below.

- Service Expansion
  - Only one provider (Bladen Area Rural Transportation System) explicitly mentioned it provides service to other Eastern-South counties (Columbus, Duplin, Sampson or Robeson), leaving gaps in access to Social Security offices and other destinations. Providers that do not currently travel to other Eastern-South counties should consider expanding service to create regional access to core services.
  - Four providers only provide out-of-county trips for medical or Veterans Affairs hospital and services trips. Expanding the out-of-county services to all trips would provide a new travel option for this region.
- Service Coordination
  - Almost every provider in the Eastern-South analysis district provides service to Durham and Fayetteville. Coordinate medical trips to these destinations between providers to maximize ridership. This may require further investigation into shared funding coordination.

Eastern Urban

The Eastern Urban analysis district covers a 14-county expanse of North Carolina's Coast Plain / Tidewater region: Carteret County, Craven County, Edgecombe County, Greene County, Jones County, Lenoir County, Nash County, Onslow County, Pamlico County, Pitt County, Wayne County, and Wilson County. The main urban center of the region is Greenville.

Existing Services and Connections

Table 2-5 lists the providers in the Eastern Northern Analysis District. While the providers are diverse in organization (county government, city government, agency, and non-profit), almost all provide demand response service. Six out of twelve providers (mostly city-level providers) have fixed-route bus service.

Table 2-2: Providers in the Eastern Urban Analysis District, 2017

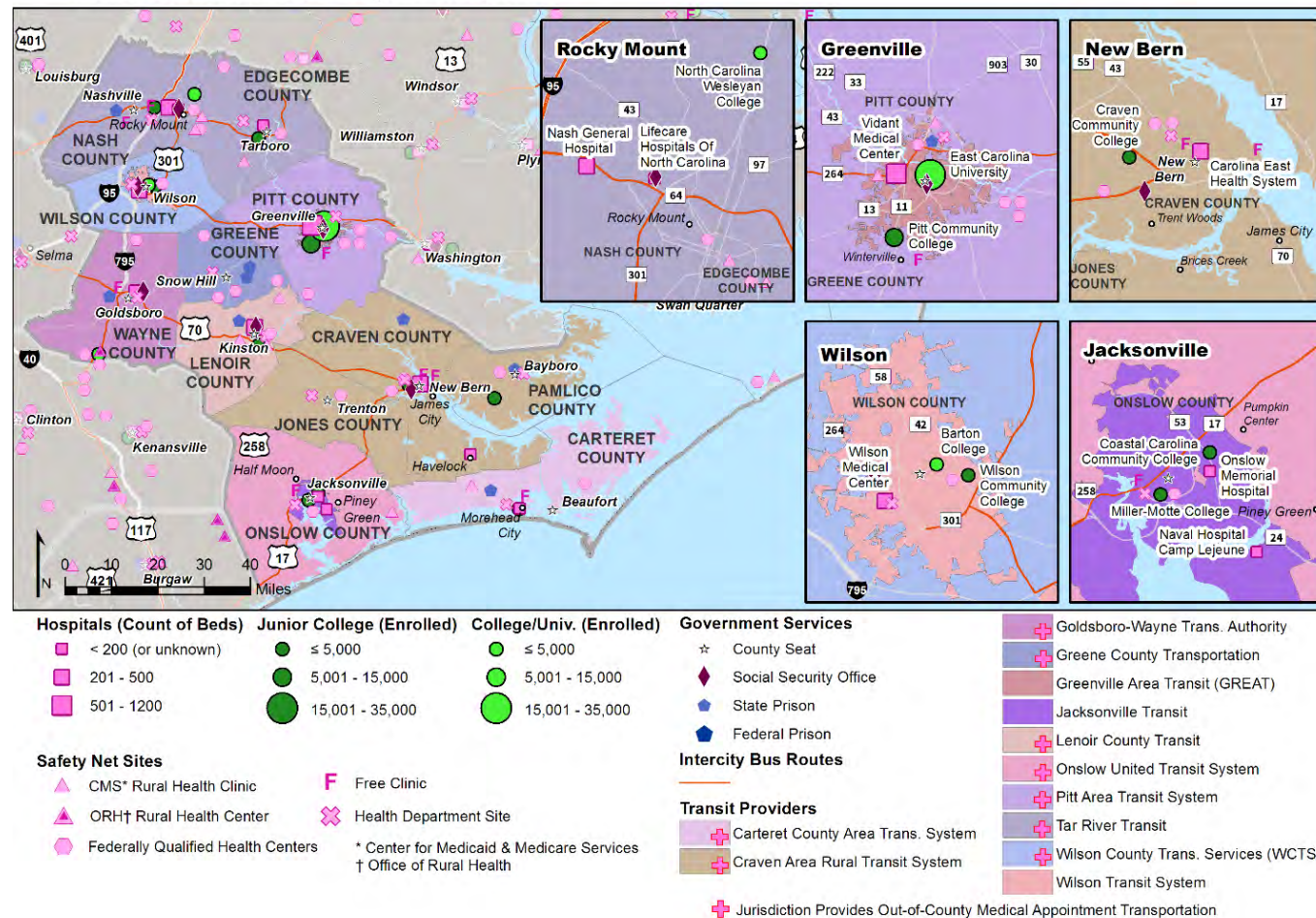| Provider	NTD Reporting Name	Level of Government	Service Area	Service Types
Carteret County Area Transportation System	Carteret County	County	Carteret County	• Demand Response • Fixed Route
Craven Area Rural Transit System (CARTS)	Craven County	County	Craven, Jones, Pamlico Counties	• Demand Response
Goldsboro-Wayne Transportation Authority	Goldsboro-Wayne Transportation Authority	Transit Agency	City of Goldsboro and Wayne County	• Demand Response • Fixed Route
Greene County Transportation	Greene County	County	Greene County	• Demand Response
Greenville Area Transit (GREAT)	Greenville Area Transit	City	City of Greenville	• Demand Response • Fixed Route
Jacksonville Transit	City of Jacksonville	City	City of Jacksonville	• Demand Response • Fixed Route
Lenoir County Transit	Lenoir County	County	Lenoir County	• Demand Response
Onslow United Transit System	Onslow United Transit System	Non-profit	Onslow County	• Demand Response
Pitt Area Transit System	Pitt Area Transit System	County	Pitt County outside of Greenville	• Demand Response
Tar River Transit	Tar River Transit	City	City of Rocky Mount, Nash and Edgecombe counties	• Demand Response • Fixed Route
Wilson County Transportation Services (WCTS)	Wilson County	County	Wilson County	• Demand Response
Wilson Transit System	City of Wilson, NC	City	City of Wilson, NC	• Fixed Route

Figure 2-5 shows the Eastern Urban analysis district, its transit providers, and the major destinations in the district. Most systems provide out-of-county transportation to medical appointments, with the exceptions being city systems.

Figure 2-3: Map of Eastern Urban Transit Service Areas and Major Destinations

Eastern Urban
Transit Service Areas and Major Destinations

Service Gaps

A review of coordinated transportation plans and transit development plans for the Eastern Urban analysis district identifies the following needs, grouped by type of provider.

Recommendations to Address Gaps Identified by Demand Response Providers

- Implement new fixed-routes
- Expand service to nights, weekends, and holidays
- Expand service to serve youth after-school activities
- Expand eligibility so more residents can access services
- Improve education and marketing of transit options to the public
- Bring down costs and create new funding streams
- Institute formal and informal park-and-ride locations
- Expand express and out-of-county services where there is demand
- Work with employers to create park-and-rides or door-to-door service
- Improve data collection methods
- Connect with each county's Department of Social Services, for multi-county systems
- Coordination concerns about Medicaid funding for out-of-county trips

Recommendations to Address Gaps Identified by Fixed-Route Providers

- Improve frequency of service
- Enhance existing bus stops that have greatest riders per day
- Attract choice riders to use existing service during special events
- Develop marketing and public education tools
- Provide information for public in kiosks at major destinations
- Expand routes to include entire city and outlying communities
- Expand routes to focus on transportation to employment
- One call center for multiple providers

Further analysis has identified possible recommendations for gaps in transportation services in the analysis district, summarized in the bullets below.

- Service Expansion
  - While almost all demand response providers travel to Greenville and the Research Triangle, there appears to be less intra-district travel in the Eastern Urban analysis district than other analysis districts. Greater connections

between counties in the analysis district, especially for employment and education trips, will increase accessibility for residents.

- o This analysis district benefits from large community colleges, universities, and colleges in almost every county. Explore fixed-route transit service to these destinations

- Service Coordination
  - o Demand response providers, especially in the southern half of the analysis district, have opportunities to share trips going to major destinations.
- Communications
  - o Communication strategies may include information for those traveling to major cities on how to take transit when visiting.

Foothills

The Foothills analysis district includes three counties in the Piedmont foothills west of Charlotte: Cleveland County, Polk County, and Rutherford County. The area is largely rural, with major towns including Forest City and Shelby. Parts of the district are within commuting distance of Charlotte.

Existing Services and Connections

Table 2-6 lists the providers in the Foothills analysis district. All systems provide demand response service, while Rutherford County Transit and Transportation Administration of Cleveland County also provide fixed-route service.

Table 2-3: Providers in the Foothills Analysis District, 2017

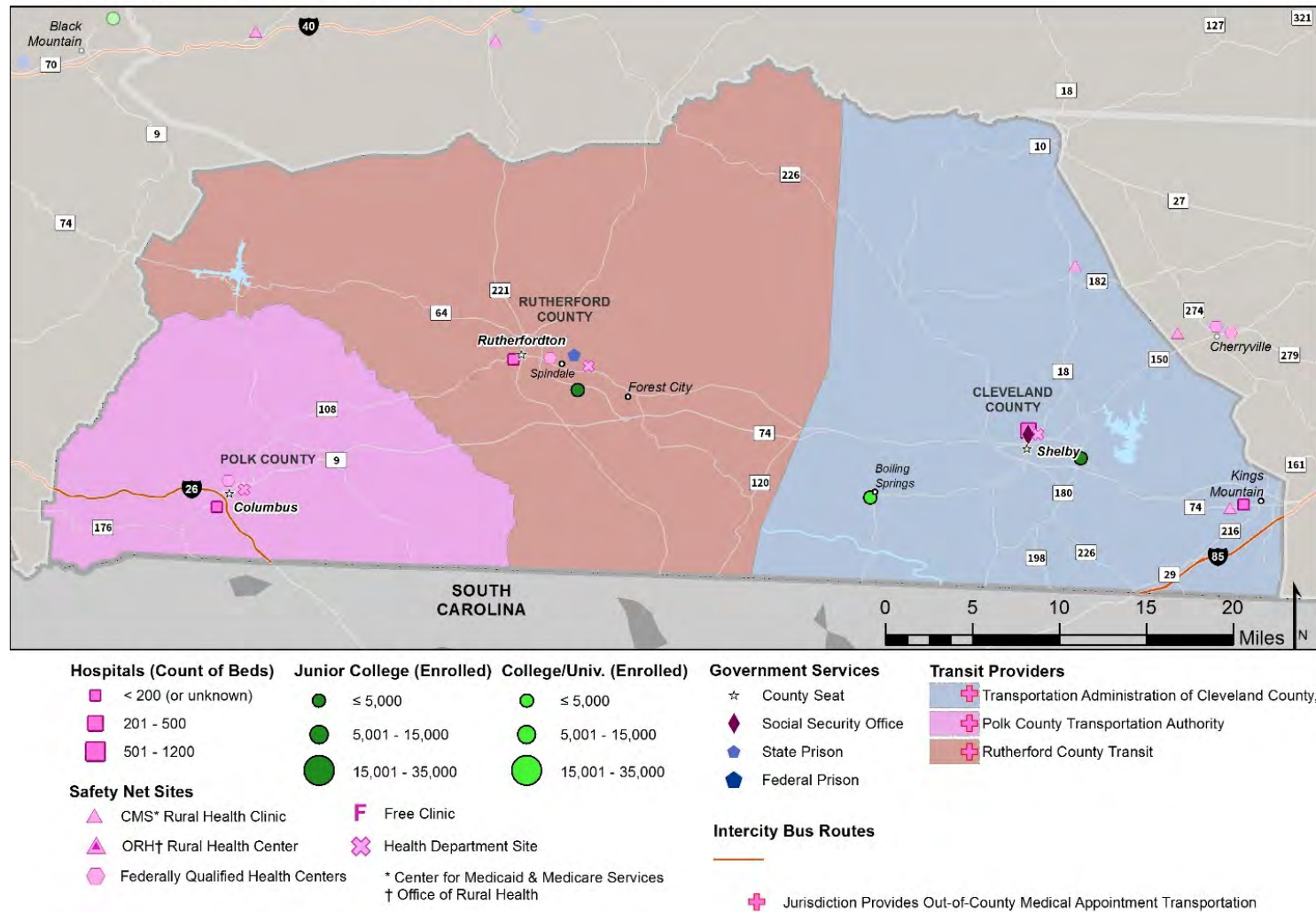| Provider	NTD Reporting Name	Level of Government	Service Area	Service Types
Polk County Transportation Authority	Polk County Transportation Authority	County	Polk County	• Demand Response
Rutherford County Transit	Rutherford County	County	Rutherford County	• Demand Response • Fixed Route
Transportation Administration of Cleveland County (TACC)	Transportation Administration of Cleveland County, Inc	Non-Profit	Cleveland County	• Demand Response • Fixed Route

Figure 2-6 shows the Foothills analysis district, its transit providers, and the major destinations in the district. All three systems provide out-of-county transportation to medical appointments.

Figure 2-4: Map of Foothills Transit Service Areas and Major Destinations

Foothills
Transit Service Areas and Major Destinations

Service Gaps

A review of coordinated transportation plans and transit development plans for the Foothills analysis district identifies the following needs, grouped by type of provider.

Recommendations to Address Gaps Identified by Demand Response Providers

- Increase fleet size and hire additional staff to accommodate expanded service
- Expand services for human service agencies
- Develop partnerships with volunteers and community organizations to provide certain out-of-county and other medical appointment trips
- Coordinate fares and transfers between providers
- Develop vanpool services

Recommendations to Address Gaps Identified by Fixed-Route Providers

- Create park-and-ride facilities for bus services, vanpools, and carpools
- Expand coverage into more areas

Further analysis has identified possible recommendations for gaps in transportation services in the analysis district, summarized in the bullets below.

- Service Expansion
  - Opportunities may exist to expand access to existing services that currently only serve individuals traveling for medical appointments.
  - Opportunities may exist to increase the span of service for demand response and fixed-route services and to reduce headways on fixed-route service.
- Service Coordination
  - Some services could pick up passengers in another county en route to a destination. For instance, Rutherford County Transit provides service to the Charlotte, and could pick up passengers in Cleveland County en route to Charlotte.
  - Demand response vehicles serving out-of-county destinations may have downtime while waiting for their passengers to finish their medical appointments. During this time, dispatch these vehicles to provide demand response service to residents.
- Communications
  - Though providers may serve locations with higher education institutions in their counties, these institutions are not necessarily advertised as destinations. Increased advertising may be warranted to advise residents of opportunities to travel to these locations.

Hickory

The Hickory analysis district includes five counties in North Carolina's western Piedmont region: Alexander County, Burke County, Caldwell County, Catawba County, and McDowell County. The area is largely rural, with the largest urban center being Hickory.

Existing Services and Connections

Table 2-7 lists the providers in the Hickory analysis district. Greenway Public Transportation provides demand response and fixed-route bus service. McDowell County's Department of Social Services provides demand-response medical trips to eligible users.

Table 2-4: Providers in the Hickory Analysis District, 2017

Provider	NTD Reporting Name	Level of Government	Service Area	Service Types
Greenway Public Transportation	Western Piedmont Regional Transit Authority	Transit Agency	Alexander, Burke, Caldwell, and Catawba Counties	• Demand Response • Fixed-Route
McDowell Department of Social Services	Did not report to NTD in 2015	County	McDowell County	• Demand Response

Figure 2-7 shows the Hickory analysis district, its transit providers, and the major destinations in the district. Both Greenway Public Transportation and McDowell Department of Social Services provide out-of-county transportation to medical appointments.
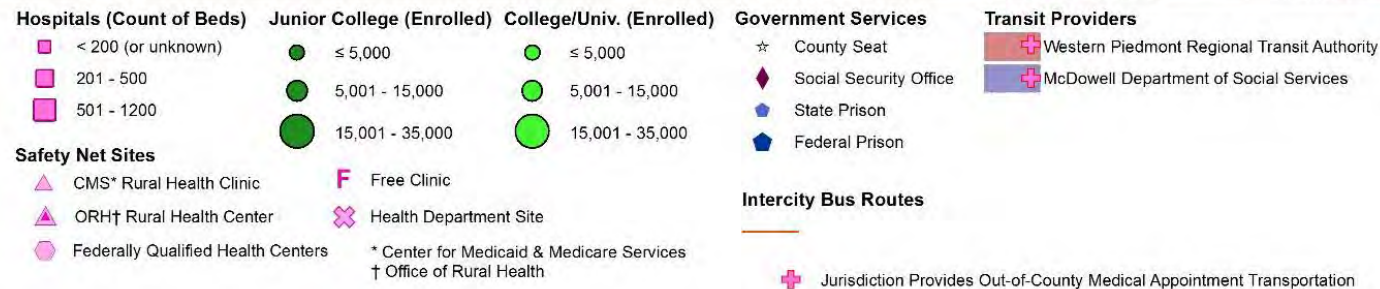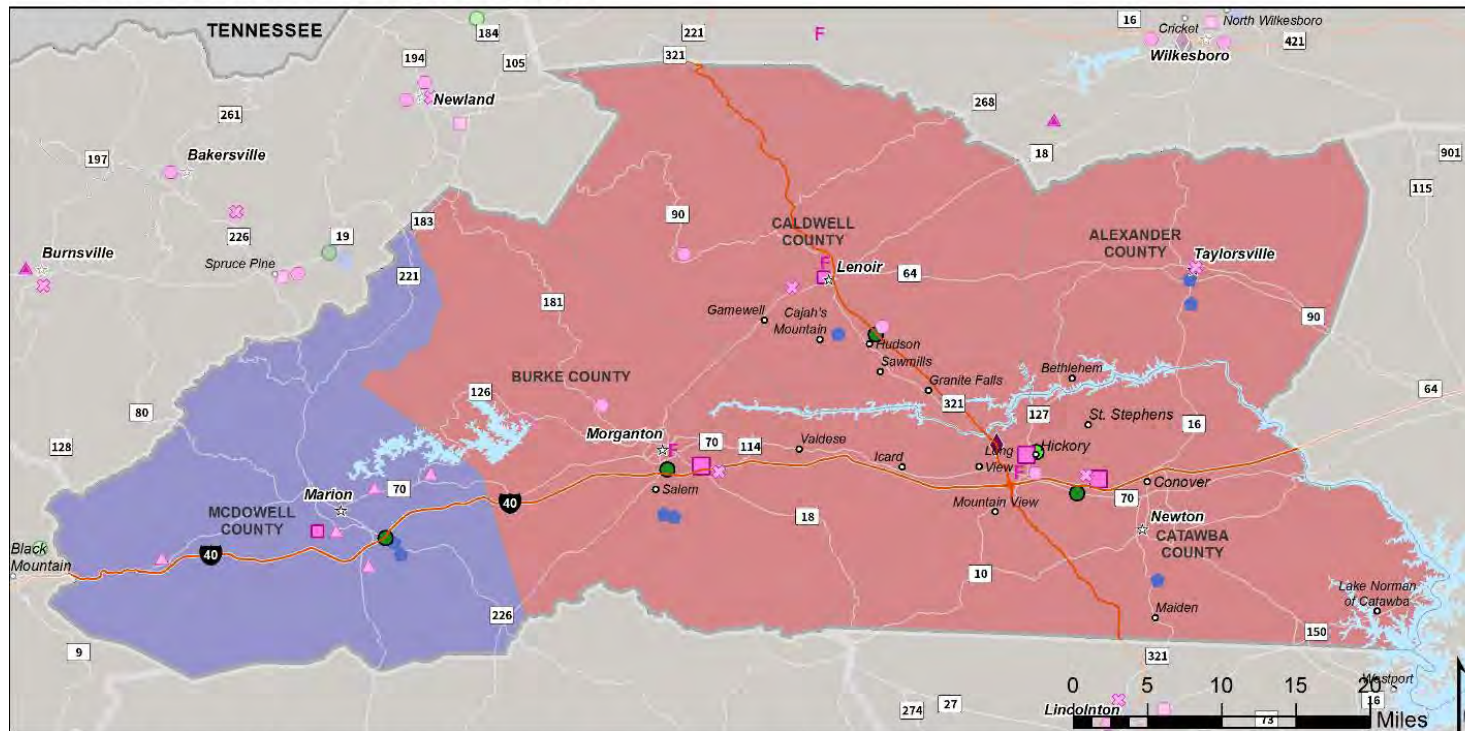
Figure 2-5: Map of Hickory Transit Service Areas and Major Destinations

Hickory
Transit Service Areas and Major Destinations

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Service Gaps

Recommendations to Address Gaps Identified by Demand Response Providers

- Expand eligibility for demand response services to serve a wider range of trip purposes and customers
- Implement travel training programs
- Improve facilitation of transfers at major transfer points
- Coordinate transportation operations, needs, funding across human service agencies
- Continue development of Intelligent Transportation Systems (ITS) to improve the efficiency of service
- Increase distribution of information about available services and eligibility, especially to underserved communities

Recommendations to Address Gaps Identified by Fixed-Route Providers

- Create park-and-ride facilities for buses, vanpools, carpools
- Extend hours and frequency of service (weekends and evenings)
- Add circulator service and express services along major corridors
- Implement travel training programs
- Improve amenities at transit facilities
- Extend service to key medical facilities, group homes, shopping destinations, and workplaces, and adjust existing services to meet demand

Further analysis has identified possible recommendations for gaps in transportation services in the analysis district, summarized in the bullets below.

- Service Expansion
    - Opportunities may exist to expand access to non-medical trips.
    - Opportunities may exist to increase the span of service to out-of-county destinations, which are in some cases limited to certain days of the week.
- Service Coordination
    - Coordination of services, transfers and fares between providers in the region could allow the region's residents to have more widespread access to destinations in North Carolina
    - Some services could pick up passengers in another county en route to a destination. For instance, both McDowell county provides service to Asheville and Buncombe County, and could potentially serve portions of Buncombe County while traveling to medical appointments in that county.

- Communications
  - Providers in the same region should provide links to other agencies' websites so that residents traveling out-of-county can more easily acquire information about services in other locations.
  - Communication strategies may include education for those traveling to major cities on how to take transit when visiting.

Kerr

The Kerr analysis district includes five counties between the Research Triangle urban area and the Virginia state border: Franklin County, Granville County, Person County, Vance County, and Warren County.

Existing Services and Connections

Table 2-8 lists providers in the Kerr analysis district. Both KARTS and Person Area Transportation System (PATS) provide demand response and fixed route service.

Table 2-5: Providers in the Kerr Analysis District, 2017

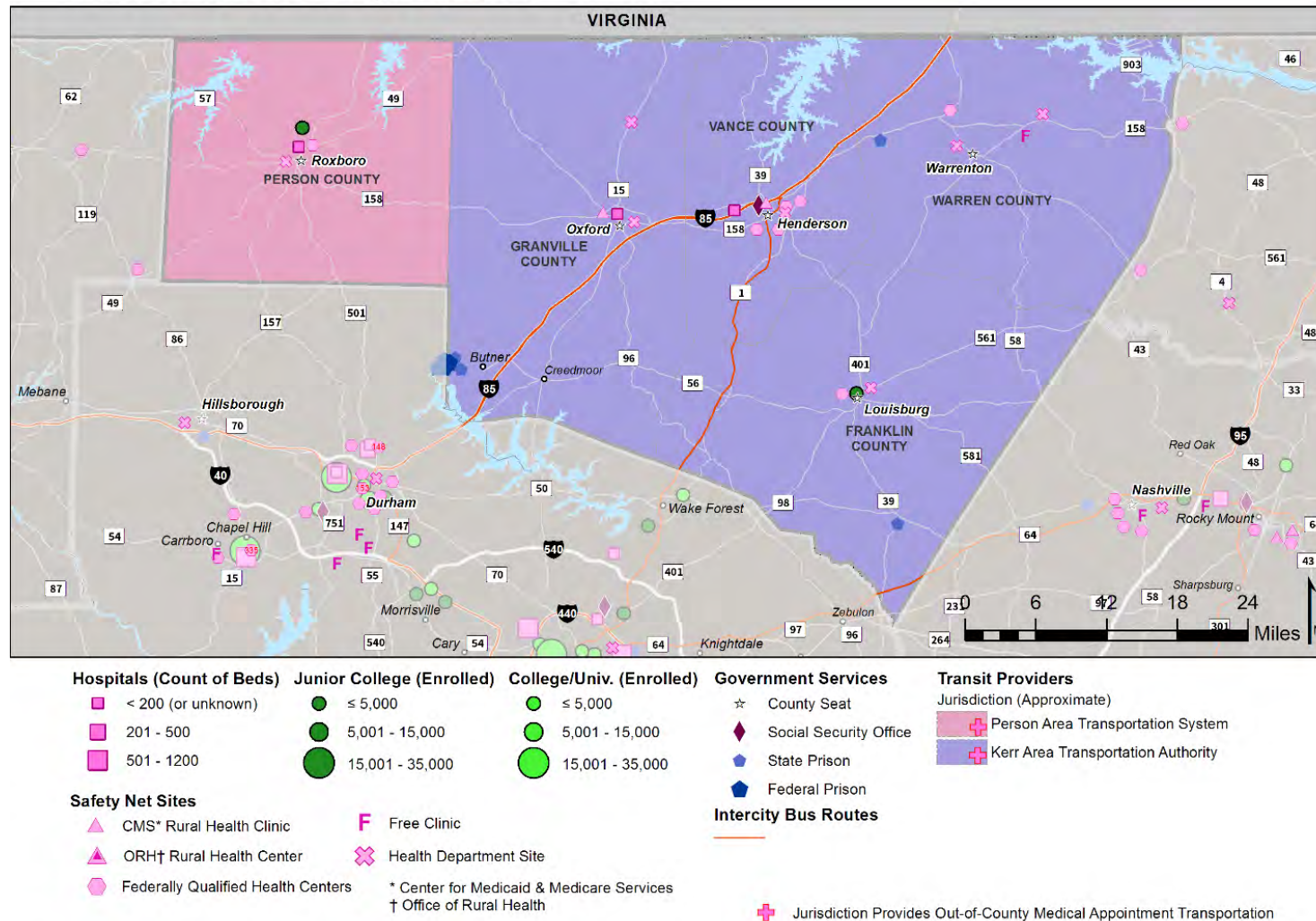| Provider	NTD Reporting Name	Level of Government	Service Area	Service Types
KARTS	Kerr Area Transportation Authority	Transit Agency	Franklin, Granville, Vance, and Warren counties	• Demand Response • Fixed Route
Person Area Transportation System (PATS)	Person County	County	Person County	• Demand Response • Fixed Route

Figure 2-8 shows the Kerr analysis district, its transit providers, and the major destinations in the district. Both systems provide out-of-county transportation to medical appointments.

Figure 2-6: Map of Kerr Transit Service Areas and Major Destinations

Kerr
Transit Service Areas and Major Destinations

Service Gaps

A review of coordinated transportation plans and transit development plans for the Kerr analysis district identifies the following needs, grouped by type of service.

Recommendations to Address Gaps Identified for Demand Response Service

- Expand service, including extended hours on weekends and nights
- Increase trips serving employment destinations
- Increase advertising and education
- Provide travel training for residents who are elderly, disabled, or have limited-English proficiency
- Provide vouchers and transit pass program for non-Medicaid residents

Recommendations to Address Gaps Identified for Fixed-Route Service

- Introduce new fixed-route bus service between activity centers
- Add new park-and-ride lots
- Improve bus stop amenities
- Increase service for new user groups
- Coordinate with local churches and companies to use existing parking lots as park-and-rides

Further analysis has identified possible recommendations for gaps in transportation services in the analysis district, summarized in the bullets below.

- Service Expansion
  - Expand PATS service to allow out-of-county trips for all purposes, not just medical appointments. This may include commuter routes to cities in the Research Triangle.
  - Expand KARTS service to include commuter transportation due to the proximity to major employment hubs in the Research Triangle.
- Communications
  - Introduce marketing and travel training/rider education for residents traveling to the Research Triangle area to improve use of connecting transit services and park and rides. Create marketing materials that highlight connecting transit opportunities for PATS and KARTS riders.

Mountain Central

The Mountain Central analysis district covers a portion of North Carolina's high country and is composed of four counties along the state border with Tennessee: Avery County, Madison County, Mitchell County, and Yancey County. The analysis district lacks any significant urban areas, with the nearest major city being Ashville.

Existing Services and Connections
Table 2-9 lists providers in the Mountain Central analysis district. All systems provide demand response service.

Table 2-6: Providers in the Mountain Central Analysis District, 2017

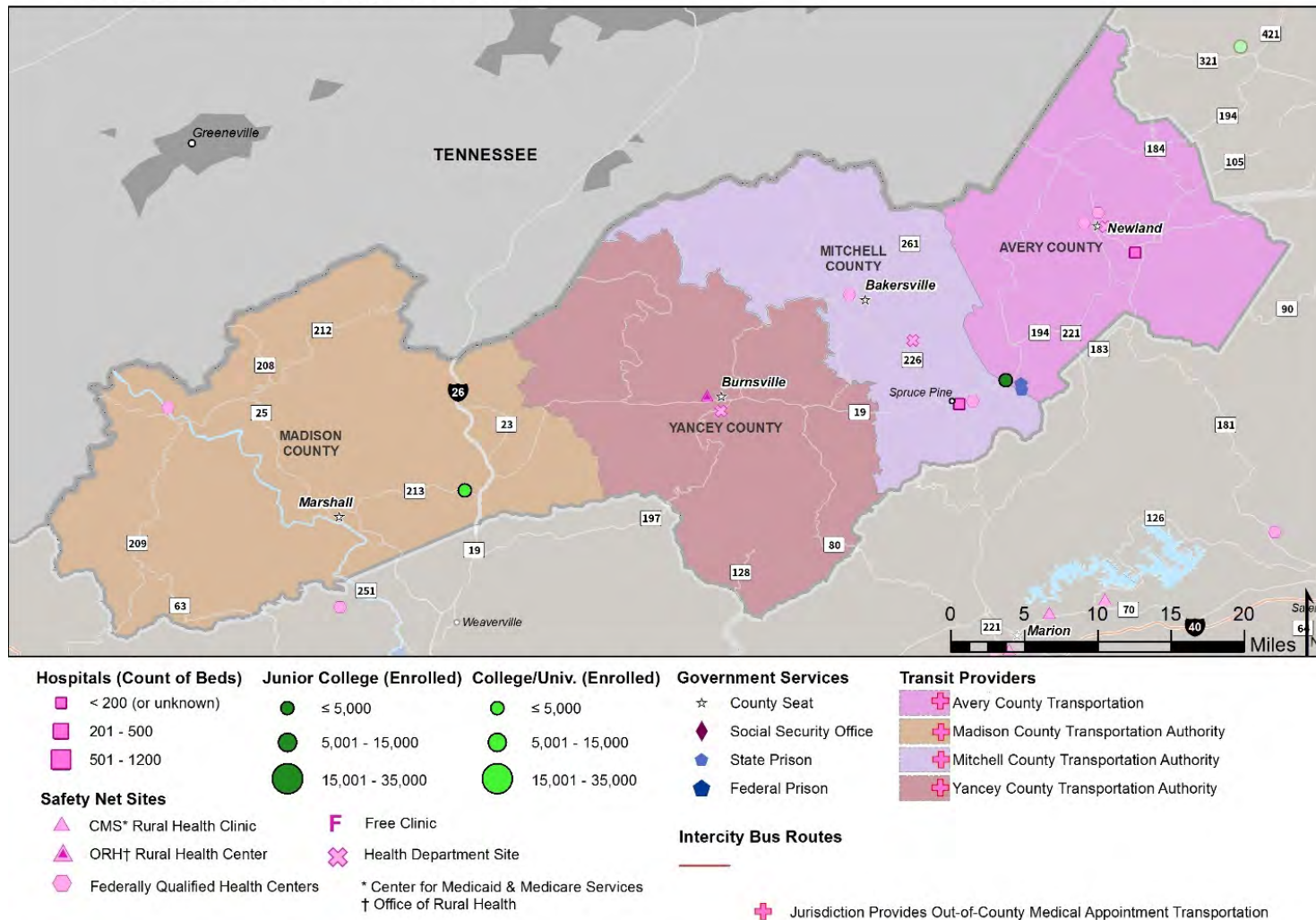| Provider Name	NTD Reporting Name	Level of Government	Service Area	Service Types
Avery County Transportation (ACT)	Avery County Transportation Authority	County	Avery County	Demand Response
Madison County Transportation Authority	Madison County Transportation Authority	County	Madison County	Demand Response
Mitchell County Transportation Authority	Mitchell County Transportation Authority	County	Mitchell County	Demand Response
Yancey County Transportation Authority	Yancey County Transportation Authority	County	Yancey County	Demand Response

Figure 2-9 shows the Mountain Central analysis district, its transit providers, and the major destinations in the district. All systems provide out-of-county transportation to medical appointments.

Mountain Central
Transit Service Areas and Major Destinations

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Service Gaps

A review of coordinated transportation plans and transit development plans for Avery, Mitchel, Madison, and Yancey Counties identifies the following needs, grouped by type of provider.

Recommendations to Address Gaps Identified by Demand Response Providers

- Extend service hours and weekend service
- Implement fixed-route or shuttle services
- Create transportation connections to colleges and universities
- Provide transportation to and from after-school activities for children in low-income households
- Coordinate with county agencies and neighboring counties
- Connect to Asheville Transit
- Increase options for gas vouchers for Medicaid patients
- Purchase improved vehicles (4-wheel drive, lift-equipped, expansion vans)
- Implement improved technology
- Increase advertising and marketing

Further analysis has identified possible recommendations for gaps in transportation services in the analysis district, summarized in the bullets below.

- Service Expansion
  - There are several opportunities for new services. Expanding to Hickory would provide access to the Valley Hills Mall, a regional shopping destination. Increased connections to Charlotte would create access to the Charlotte Douglas International Airport. Additionally, Erwin, TN, may be a viable destination for northern areas of Mitchell and Yancey counties to provide closer access to medical appointments than Boone or Asheville. Additional analysis is required to determine whether demand exists to warrant these new connections.
- Service Coordination
  - Creating links between counties could work best for destinations that attract many trips, like Asheville. All four counties could partner together, especially during times of day or weekends when demand is lower. This would require further investigation into the division of funding.
- Communications
  - Yancey County Transportation Authority reports that public outreach has diversified ridership. After a radio campaign, residents of all ages are using YCTA's demand response service. YCTA says there is newfound demand for connections to Mount Mitchell, a tourist destination, and the Asheville Regional Airport. Demand is so strong that a

second shift is plausible with more funding. Other agencies should do the same public outreach campaigns to reach additional riders.

Mountain North

The Mountain North analysis district includes Alleghany County, Ashe County, Watauga County, and Wilkes County. The area is largely rural and encompasses the Appalachian Mountains and its foothills. Wilksboro and Boone are the main urban centers in the analysis district.

Existing Services and Connections

Table 2-10 lists providers in the Mountain North analysis district. All systems provide demand response service, while Appal Cart, Ashe County Transportation Authority, and Wilkes Transportation Authority provide fixed-route bus service.

Table 2-7: Providers in the Mountain North Analysis District, 2017

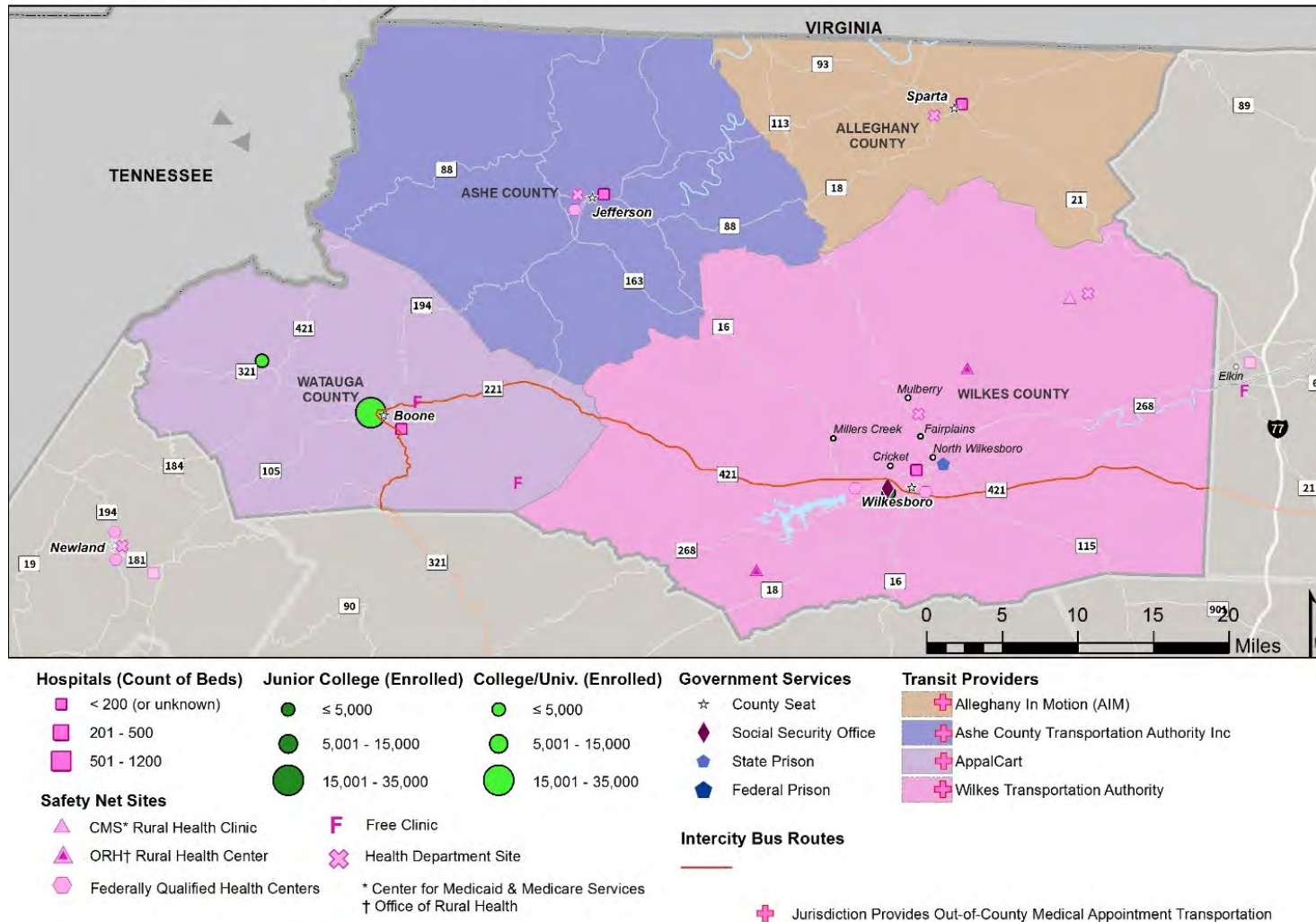| Provider	NTD Reporting Name	Level of Government	Service Area	Service Types
Alleghany In Motion (AIM)	Alleghany County	County	Alleghany County	• Demand Response
AppalCart	AppalCart	Transit Authority	Watauga County	• Demand Response • Fixed Route
Ashe County Transportation Authority	Ashe County Transportation Authority Inc	Non-profit	Ashe County	• Demand Response • Fixed Route
Wilkes Transportation Authority	Wilkes Transportation Authority	Transit Authority	Wilkes County	• Demand Response • Fixed Route

Figure 2-10 shows the Mountain North analysis district, its transit providers, and the major destinations in the district. All systems provide out-of-county transportation to medical appointments.

Figure 2-8: Map of Mountain North Transit Service Areas and Major Destinations

Mountain North
Transit Service Areas and Major Destinations

Service Gaps

A review of coordinated transportation plans and transit development plans for the four counties within the analysis district identifies the following needs, grouped by type of provider.

Recommendations to Address Gaps Identified by Demand Response Providers

- Extend hours of service (weekends and evenings)
- Expand eligibility for demand response services to serve a wider range of trip purposes and customers, especially those just above Medicaid income thresholds and students
- Improve workforce transportation
- Enhance vehicle features, such as wider lifts and car seats
- Increase availability of short-notice trips
- Provide connections to intercity bus transit and other fixed route services
- Reduce fares for targeted populations
- Expand number of trips to out-of-county and out-of-town destinations

Recommendations to Address Gaps Identified by Fixed-Route Providers

- Extend hours of service (weekends and evenings) and maintain more consistent service levels throughout the academic year
- Expand coverage into more rural and underserved areas
- Create park-and-ride facilities
- Improve amenities at bus stops

Further analysis has identified possible recommendations for gaps in transportation services in the analysis district, summarized in the bullets below.

- Service Expansion
  - Vanpool programs could connect rural areas to employment centers not otherwise served by subscription or fixed-route services.
- Service Coordination
  - Some demand response services could pick up passengers in another county en route to a destination. For instance, both Ashe and Wilkes counties provide service into Charlotte, and trips departing from Ashe County could pick up passengers in Wilkes County en route to Charlotte.
  - Demand response vehicles serving out-of-county destinations may have downtime while waiting for their passengers to finish their medical appointments. During this time, dispatch these to provide demand response service to residents.

- o Coordination of services, transfers and fares between providers in the region would allow the region's residents to have more widespread access to destinations in North Carolina, especially for residents of counties where services are more limited.
- Communications
  - o Highlight additional information about discounted services for targeted populations, where applicable.
  - o A mobility manager and/or travel trainer can help connect residents to transit services that meet their needs.

Mountain South

The Mountain South analysis district covers the far western end of North Carolina and includes Eastern Cherokee Indian Reservation, Cherokee County, Clay County, Graham County, Jackson County, Macon County, Swain County, and Transylvania County. This area is largely rural, with the closest urban areas being Ashville, Chattanooga, TN, and Greenville, SC.

Existing Services and Connections

Table 2-11 lists providers in the Mountain South analysis district. All systems provide demand response, while half also provide fixed route bus service.

Table 2-8: Providers in the Mountain South Analysis District, 2017

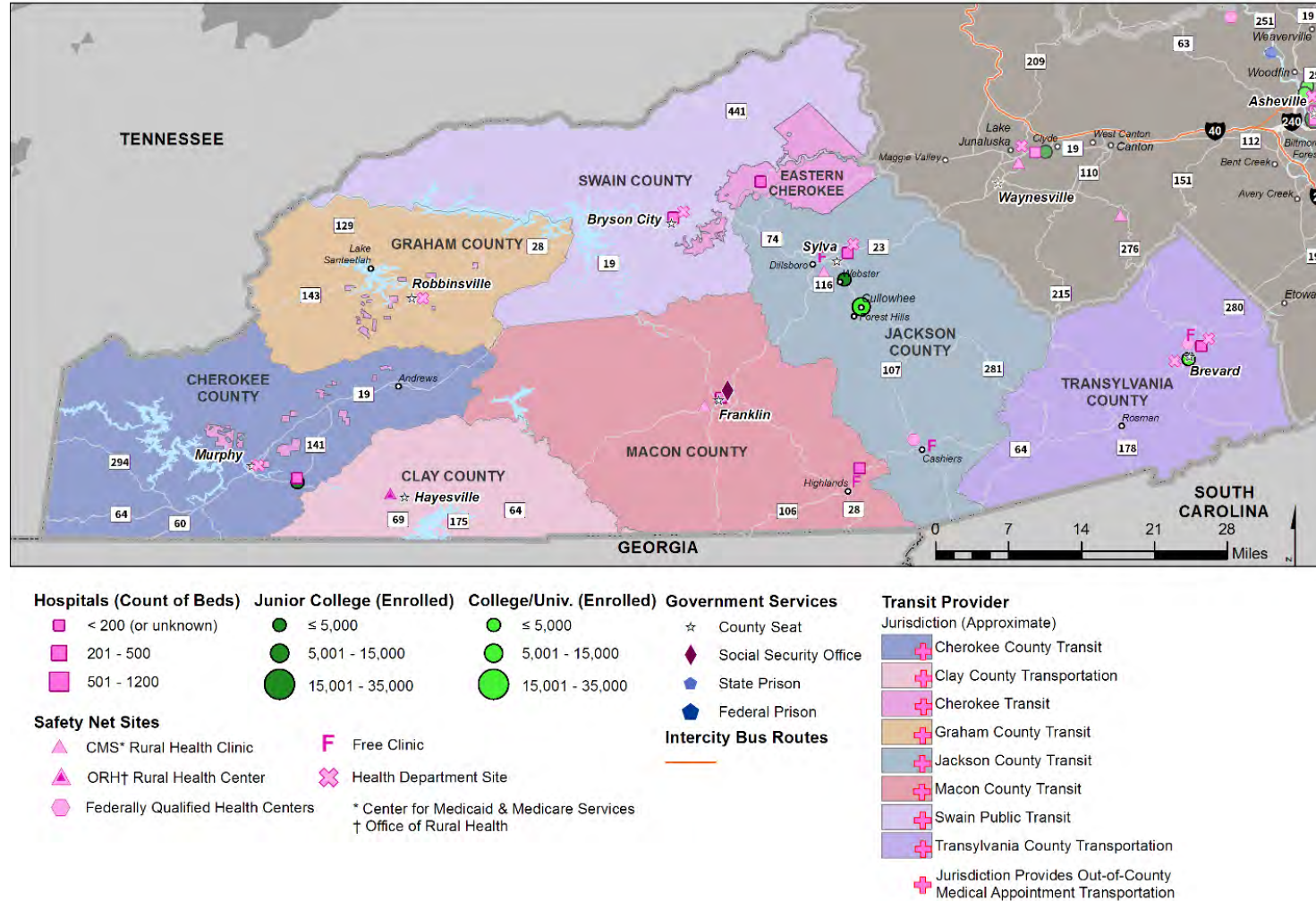| Provider	NTD Reporting Name	Level of Government	Service Area	Service Types
Cherokee County Transit	Cherokee County	County	Cherokee County	• Demand Response • Fixed Route
Cherokee Transit	Eastern Band of Cherokee Indians	Tribe	Eastern Cherokee Indian Reservation (Qualla Boundary)	• Demand Response • Fixed Route
Clay County Transportation	Clay County	County	Clay County	• Demand Response
Graham County Transit	Graham County	County	Graham County	• Demand Response
Jackson County Transit	Jackson County	County	Jackson County	• Demand Response • Fixed Route
Macon County Transit	Macon County	County	Macon County	• Demand Response • Fixed Route
Swain Public Transit	Swain County Focal Point on Aging, Inc.	County	Swain County	• Demand Response
Transylvania County Transportation System	Transylvania County	County	Transylvania County	• Demand Response

Figure 2-11 shows the Mountain South analysis district, its transit providers, and the major destinations in the district. All eight systems provide out-of-county transportation to medical appointments.

Figure 2-9: Map of Mountain South Transit Service Areas and Major Destinations

Mountain South
Transit Service Areas and Major Destinations

Service Gaps

A review of coordinated transportation plans and transit development plans for the Mountain South analysis district identifies the following needs, grouped by type of provider.

Recommendations to Address Gaps Identified by Demand Response Providers

- Extend hours of service (weekends, evenings, and/or holidays)
- Improve capacity and availability of existing services
- Expand employment-related transportation
- Increase fleet size and hire additional operating staff to accommodate expanded service
- Provide door-through-door services and special needs attendants
- Expand services for veterans
- Increase flexibility in scheduling of trips
- Provide fare subsidies and/or vouchers
- Coordinate with regional providers to provide park-and-ride services
- Improve visibility of services through marketing and advertising

Recommendations to Address Gaps Identified by Fixed-Route Providers

- Extend hours of service (weekends, evenings, and/or holidays)
- Improve visibility of services through marketing and advertising
- Implement new or additional routes
- Increase fleet size and hire additional staff to accommodate expanded service
- Add amenities to bus stops

Further analysis has identified possible recommendations for gaps in transportation services in the analysis district, summarized in the bullets below.

- Service Expansion
  - Expand access eligibility to existing services that currently are only available to individuals traveling for medical appointments.
  - While some providers will schedule out-of-county trips for medical appointments on most days of the week, other providers limit the days they will provide out-of-county travel. Opportunities may exist to increase the span of service or availability of out-of-county destinations.

- Service Coordination
  - Opportunities exist to coordinate or enhance service between counties that serve each other with demand response transit. For example, Macon County Transit serves Bryson City in Swain County, while Swain County Transit serves Franklin in Macon County. Both locations are home to hospital facilities and are less than one hour away from each other.
  - Coordination of services, transfers and fares between providers in the region could allow the region's residents to have more widespread access to destinations in North Carolina, especially for residents of counties where services are more limited.
  - Some services could pick up passengers in another county en route to a destination. For instance, both Jackson and Swain counties provide service to the Asheville Airport, and trips departing from certain locations in Swain County could readily serve portions of Jackson County en route to the Asheville Airport.
- Communications
  - Though providers may serve higher education institutions, these institutions are not necessarily advertised as destinations. Increased advertising may be warranted to advise residents of opportunities to travel to these locations.
  - Providers in the same region should provide links to partner agencies so that residents traveling out of county can more easily acquire information about services in other locations.

Piedmont

The Piedmont analysis district includes Alamance County, Caswell County, Davidson County, Davie County, Forsyth County, Guilford County, Randolph County, Rockingham County, Stokes County, Surry County, and Yadkin County. The district encompasses the Piedmont Triad urban area, including the cities of Greensboro, High Point, and Winston-Salem

Existing Services and Connections

Table 2-12 lists providers in the Piedmont analysis district. All providers except Piedmont Authority for Regional Transportation (PART) have demand response service. Seven of the twelve systems provide fixed route bus system. PART provides commuter bus and vanpool services across the Piedmont Triad area.

Table 2-9: Providers in the Piedmont Analysis District, 2017

Provider	NTD Reporting Name	Level of Government	Service Area	Service Types
Alamance County Transportation Authority	Alamance County Transportation Authority	County	Alamance County	• Demand Response
Caswell County Area Transportation System (CATS)	Caswell County	County	Caswell County	• Demand Response
Davidson County Transportation	Davidson County Transportation	County	Davidson County	• Demand Response (Purchased and Operated) • Fixed Route
Greensboro Transit Authority (GTA)	Greensboro Transit Authority	City	City of Greensboro, Guilford County	• Demand Response • Fixed Route
Guilford County Transportation and Mobility Services (TAMS)	Guilford County Transportation	County	Guilford County	• Demand Response
High Point Transit	High Point Transit	City	City of High Point, Guilford County	• Demand Response • Fixed Route
Link Transit	Unknown – began service in 2016	City	Cities of Burlington and Gibsonville, Alamance Community College	• Demand Response • Fixed Route
Piedmont Authority for Regional Transportation (PART)	Piedmont Authority for Regional Transportation	Transit Agency	Piedmont Triad area	• Commuter Bus • Vanpool

Provider	NTD Reporting Name	Level of Government	Service Area	Service Types
Regional Coordinated Area Transportation System (RCATS)	Randolph County Senior Adult Association Inc.	Non-profit	Randolph and Montgomery Counties[1]	• Demand Response
Rockingham County Community Access Transit System (RCATS)	Rockingham County Council on Aging	Non-profit	Rockingham County	• Demand Response • Fixed Route
Winston-Salem Transit Authority (WSTA)	Winston-Salem Transit Authority - Trans-Aid of Forsyth County	City	City of Winston-Salem, Forsyth County	• Demand Response • Fixed Route
YVEDDI Public Transportation	Yadkin Valley Economic Development District, Inc.	Non-profit	Davie, Stokes, Surry, and Yadkin Counties	• Demand Response • Fixed Route

Figure 2-12 shows the Piedmont analysis district, its transit providers, and the major destinations in the district. Six out of the twelve systems provide out-of-county transportation to medical appointments.
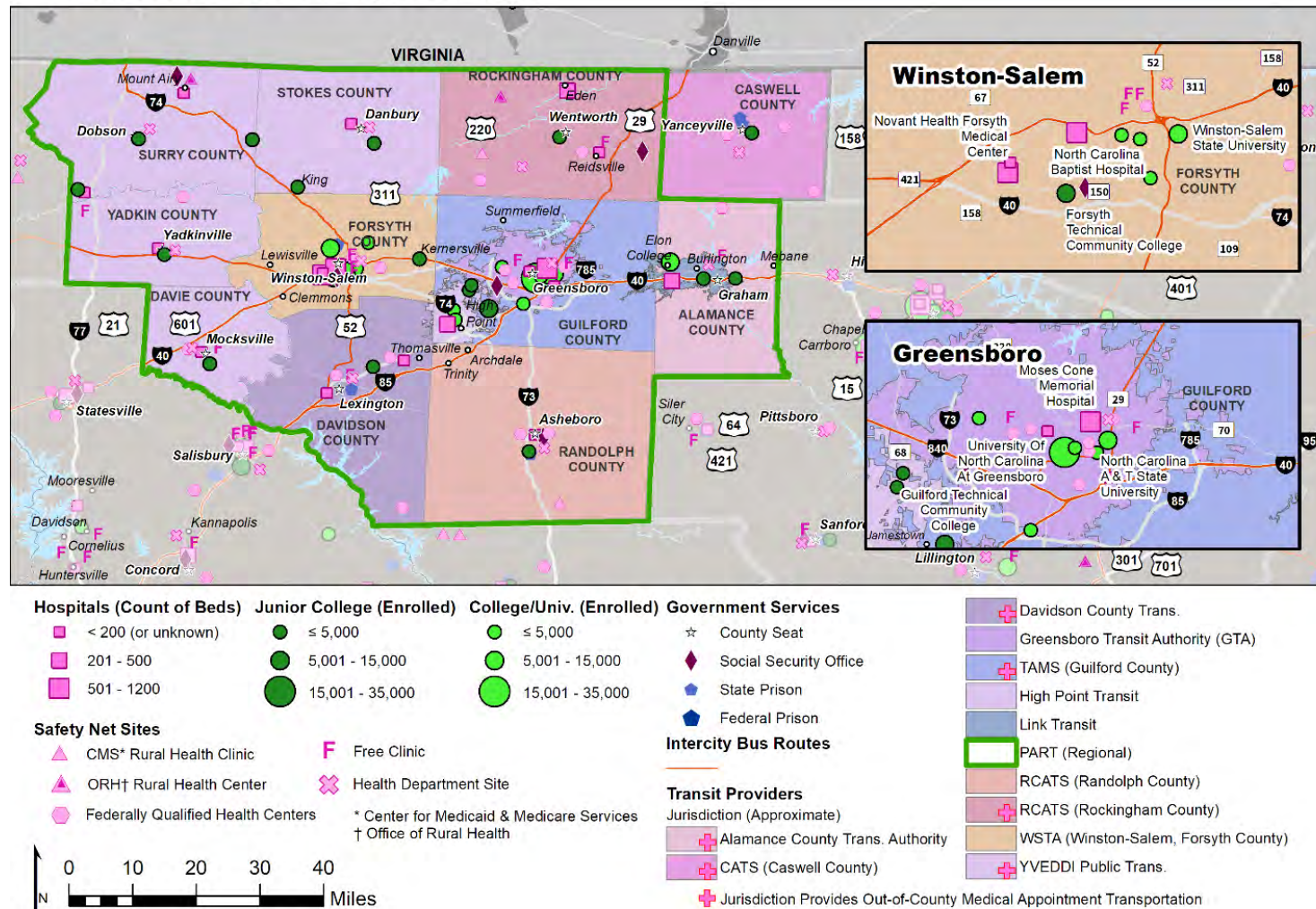
[1] Regional Coordinated Area Transportation System (RCATS) is also listed as a provider in the Sandhills analysis district for Montgomery County

Figure 2-10: Map of Piedmont Transit Service Areas and Major Destinations

Piedmont
Transit Service Areas and Major Destinations

Service Gaps

A review of coordinated transportation plans and transit development plans for the communities and provers in the Piedmont analysis district documented the following needs, grouped by type of provider.

Recommendations to Address Gaps Identified by Demand Response Providers

- Add and extend fixed-route bus service to complement demand response
- Improve commuter transportation
- Expand regional express services
- Improve intermodal connectivity and increase use of existing regional transportation
- Increase transportation in evenings and weekends, service for non-medical trips
- Educate elderly residents and public to use county and out-of-county services
- Increase funding for general services/non-Medicaid customers
- Implement technology to make automatic schedule adjustments in-vehicle
- Purchase routing software
- Purchase additional ADA-accessible vehicles.

Recommendations to Address Gaps Identified by Fixed-Route Providers

- Coordinate a consolidated trip scheduling service
- Create a centralized resource center for customers
- Strengthen accessibility for customers with limited English proficiency and auditory/visual impairments
- Increase communication between regional providers and providers & customers
- Implement interactive real-time communication
- Improve on-time performance
- Implement technology to improve routing, scheduling, and tracking
- Enhance bus stop amenities
- Add trips and extensions on existing PART regional express routes
- Begin new regional express services
- Build new PART park and ride facilities and transit centers

Further analysis has identified possible recommendations for gaps in transportation services in the analysis district, summarized in the bullets below.

- Service Expansion
  - Large schools, like Guilford Technically Community College, Elon University, and Wake Forest University, have limited-to-no transit connections. Adding or increasing service to these destinations would reach potential transit riders.
  - The average headway in this region is 60 minutes, even in the densest areas. More analysis is needed to determine which routes would benefit from more frequent service.
  - Few providers serve destinations outside of the analysis district. Additional destinations, especially to the Research Triangle, would increase access for the analysis district.
- Service Coordination
  - Coordinate demand response trips to major destinations between providers. This would require division of funding.
- Communications
  - Demand response providers in this region rarely list on brochures or websites the out-of-county destinations that they frequently serve or the available windows for appointments. More specific information may encourage more ridership.
  - Regional communication for all riders, including influencing existing riders to try connecting to other modes (for example, using demand response to connect to local or regional fixed-routes).

Sandhills

The Sandhills analysis district includes five counties that straddle the Coastal and Piedmont regions of the state: Anson County, Hoke County, Montgomery County, Moore County, Richmond County, and Scotland County. While the area is largely rural, it is within commuting distance to the Fayetteville, Research Triangle, Piedmont Triad, and Charlotte metropolitan areas.

Existing Services and Connections

Table 2-13 lists providers in the Sandhills analysis district. All systems provide demand response service, and Scotland County Area Transit System also provides fixed-route bus service.

Table 2-10: Providers in the Sandhills Analysis District, 2017

Provider	NTD Reporting Name	Level of Government	Service Area	Service Type
Anson County Transportation System (ACTS)	Anson County	County	Anson County	• Demand Response
Area of Richmond Transit (ART)	Richmond Interagency Transportation Inc.	Non-Profit	Richmond County	• Demand Response
Hoke Area Transit Service (H.A.T.S.)	Hoke County	County	Hoke County	• Demand Response
Moore County Transportation Services	Moore County	County	Moore County	• Demand Response
Regional Coordinated Area Transportation System (RCATS)	Randolph County Senior Adult Association Inc.	Non-profit	Randolph and Montgomery Counties[2]	• Demand Response
Scotland County Area Transit System	Scotland County	County	Scotland County	• Demand Response • Fixed Route

Figure 2-13 shows the Sandhills analysis district, its transit providers, and the major destinations in the district. All systems provide out-of-county transportation to medical appointments.
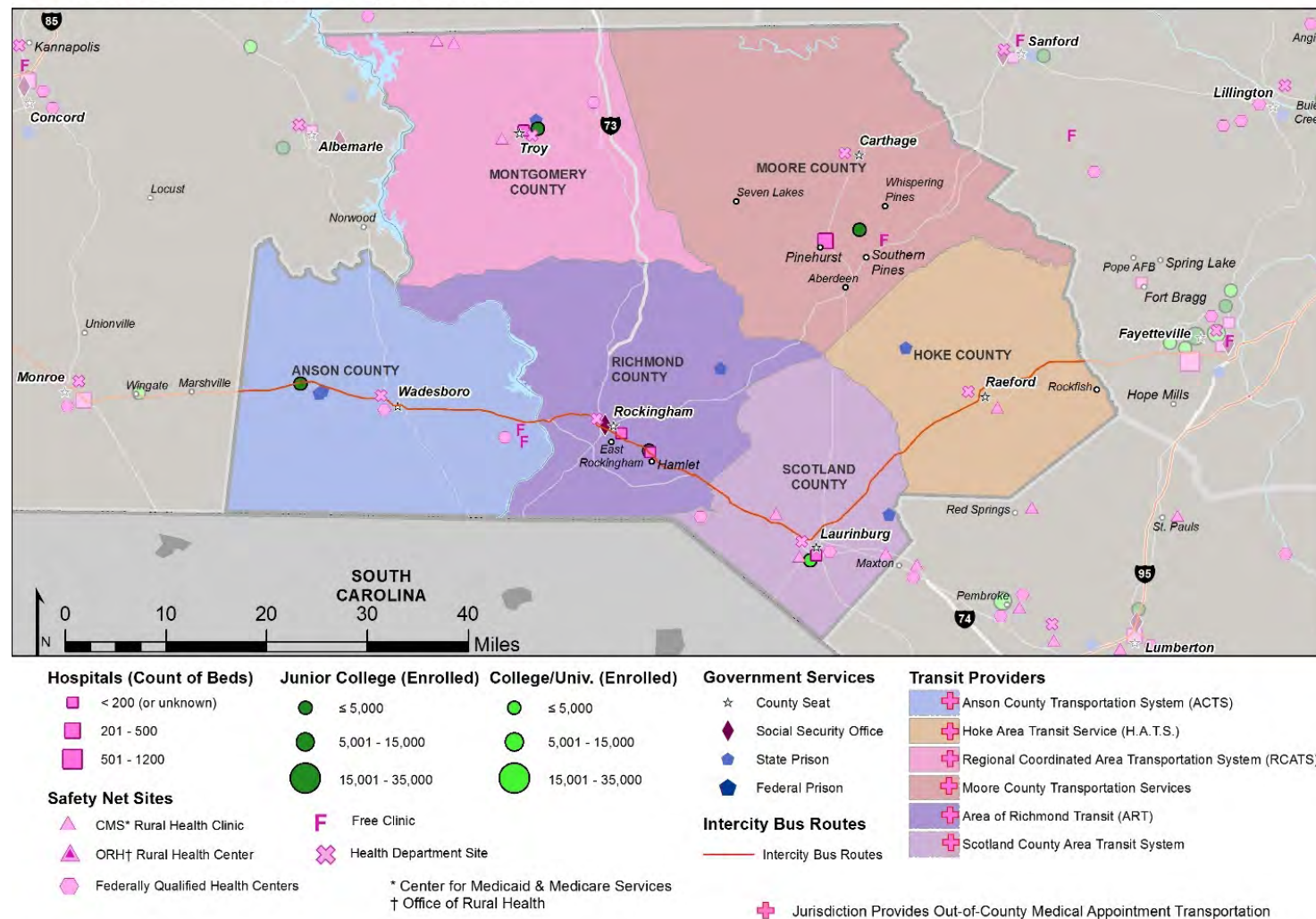
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[2] Regional Coordinated Area Transportation System (RCATS) is also listed as a provider for the Piedmont analysis district.

Figure 2-11: Map of Sandhills Transit Service Areas and Major Destinations

Sandhills
Transit Service Areas and Major Destinations

Service Gaps

A review of coordinated transportation plans and transit development plans for the Sandhills analysis district identifies the following needs.

Recommendations to Address Gaps Identified by Demand Response Providers

- Increase service for inter-county fixed routes and highway service corridors
- Increase local area services through circulators, shuttles, or deviated fixed-routes
- Increase capacity for Rural General Public-funded trips
- Expand existing span of service
- Reduce waiting times
- Travel training for the transit inexperienced, particularly the elderly or hearing-impaired
- Increase outreach and marketing to reach new rider groups
- More travel services needed to major county employment centers
- Provide transit services geared to long-haul commuters
- Improve customer service
- Regional network to use other counties' transit systems
- Remove physical and institutional barriers for the mobility impaired
- Create policies that remove language barriers
- Reduce fees for elderly passengers
- Serve Veterans' Affairs clinics in Rockingham and Fayetteville

Recommendations to Address Gaps Identified by Fixed-Route Providers

- Increase in fixed-route service
- Enhance bus stop amenities

Further analysis has identified possible recommendations for gaps in transportation services in the analysis district, summarized in the bullets below.

- **Service Expansion**
  - All providers should consider serving Rockingham to provide access to the only Social Security office in the analysis district.
  - Multiple providers have opportunities to serve Charlotte, Fayetteville, and Raleigh based on geographic proximity. Expanding service to these locations would expand access to medical care and employment.

- o Several county seats may have the density to support fixed-route bus service. Expanding service to include fixed-routes may free up funding for more demand response service for elderly and disabled residents.
- Communications
  - o Many provider websites in this district do not include information on the out-of-county destinations served or eligibility for their services. More information about providers' service areas and who may use their systems may increase use of existing services.

Triangle

The Triangle analysis district includes Chatham County, Cumberland County, Harnett County, Lee County, Johnston County, Orange County, and Wake County. This district encompasses the Research Triangle urban area, including the cities of Raleigh, Durham and Chapel Hill, as well as the Fayetteville metropolitan area.

Existing Services and Connections

Table 2-14 lists providers in the Triangle analysis district. Every system except Wolfline provides demand response service. Nine out of 14 systems provide fixed route service, while only GoTriangle provides vanpool service.

Table 2-11: Providers in the Triangle Analysis District, 2017

Provider	NTD Reporting Name	Level of Government	Service Area	Service Types
Chapel Hill Transit	Chapel Hill Transit	City	Chapel Hill, Carrboro, and the University of North Carolina at Chapel Hill	• Demand Response • Fixed Route
Chatham Transit Network	Chatham Transit Network	Non-profit	Chatham County	• Demand Response
Community Transportation Program (CTP)	Cumberland County	County	Cumberland County	• Demand Response
County of Lee Transit System (COLTS)	Lee County	County	Lee County	• Demand Response • Fixed Route
Fayetteville Area System of Transit (FAST)	Fayetteville Area System of Transit	City	Fayetteville	• Demand Response • Fixed Route
GoCary	Town of Cary	City	Cary	• Demand Response • Fixed Route
GoDurham	Durham Area Transit Authority	Transit Authority	Durham metro area	• Demand Response • Fixed Route
GoRaleigh	Capital Area Transit	City	Raleigh metro area	• Demand Response Taxi • Fixed Route
GoTriangle	Research Triangle Regional Public Transportation Authority	Transit Authority	Research Triangle	• Demand Response • Fixed Route • Vanpool
Harnett Area Rural Transit System (HARTS)	Harnett County	County	Harnett County	• Demand Response

Provider	NTD Reporting Name	Level of Government	Service Area	Service Types
Johnston County Area Transit System (JCATS)	Johnston County Council on Aging Inc.	Non-profit	Johnston County	• Demand Response
Orange Public Transportation	Orange Public Transportation	County	Orange County	• Demand Response • Fixed Route
Wake Coordinated Transportation Services (WCTS/TRACS)	Wake County DSS	County	Wake County	• Demand Response
Wolfline	North Carolina State University Transportation Department	University	NCSU Campuses	• Fixed Route

Figure 2-14 shows the Triangle analysis district, its transit providers, and the major destinations in the district. Six out of 14 systems provide out-of-county transportation to medical appointments.
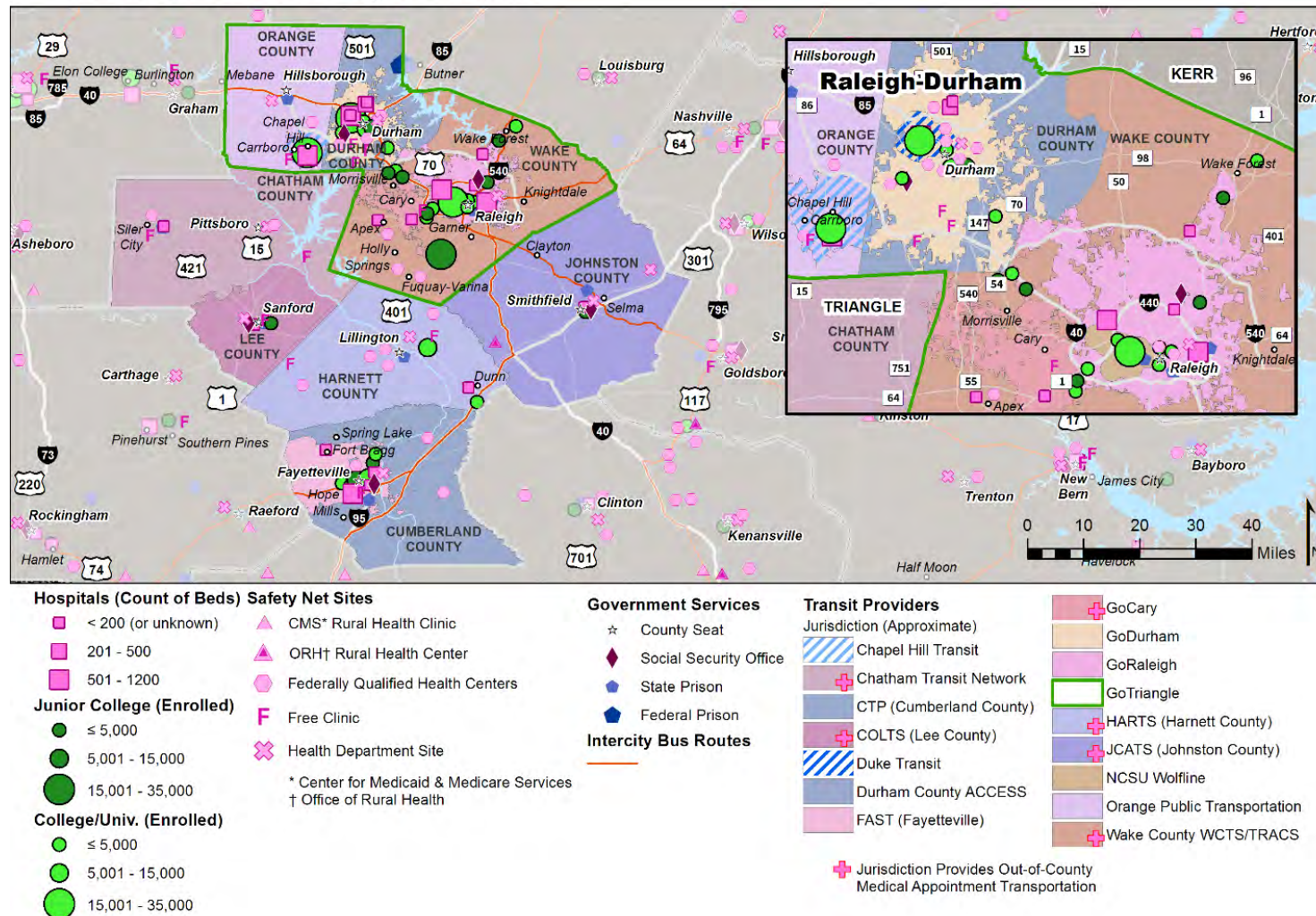
Figure 2-12: Map of Triangle Service Areas and Major Destinations

Triangle
Transit Service Areas and Major Destinations

Hospitals (Count of Beds)
- < 200 (or unknown)
- 201 - 500
- 501 - 1200

Junior College (Enrolled)
- ≤ 5,000
- 5,001 - 15,000
- 15,001 - 35,000

College/Univ. (Enrolled)
- ≤ 5,000
- 5,001 - 15,000
- 15,001 - 35,000

Safety Net Sites
- CMS* Rural Health Clinic
- ORH† Rural Health Center
- Federally Qualified Health Centers
- F Free Clinic
- Health Department Site

* Center for Medicaid & Medicare Services
† Office of Rural Health

Government Services
- ☆ County Seat
- Social Security Office
- State Prison
- Federal Prison

Intercity Bus Routes

Transit Providers
Jurisdiction (Approximate)
- Chapel Hill Transit
- Chatham Transit Network
- CTP (Cumberland County)
- COLTS (Lee County)
- Duke Transit
- Durham County ACCESS
- FAST (Fayetteville)

- GoCary
- GoDurham
- GoRaleigh
- GoTriangle
- HARTS (Harnett County)
- JCATS (Johnston County)
- NCSU Wolfline
- Orange Public Transportation
- Wake County WCTS/TRACS

Jurisdiction Provides Out-of-County
Medical Appointment Transportation

Service Gaps

A review of coordinated transportation plans and transit development plans for the Triangle analysis district identifies the following needs, grouped by type of provider.

Recommendations to Address Gaps Identified by Demand Response Providers

- Expand access to demand-response service rather than limiting trips to medical trips and contract services
- Provide increased connections with major employment centers and commercial areas
- Expand to door-to-door service for the elderly and disabled
- Provide return trips for medical emergencies
- Increase inter-county coordination, especially from the three southern counties that provide medical trips to hospitals in Chapel Hill and Durham.
- Coordinate transfers times for neighboring services
- Provide communication and education on available services, programs, and eligibility requirements

Recommendations to Address Gaps Identified by Fixed-Route Providers

- Enhance bus stop amenities
- Provide increased technology to provide passengers with more accurate information
- Expand transit types to include commuter rail
- Extend local bus routes beyond municipal boundaries to the most logical endpoint, particularly to connect to major commercial areas
- Increase connections to the airport
- Add service to unserved and underserved areas
- Add more frequent service, including "Premium Transit Corridors" with highest levels of frequency and amenities
- Increase span of service, including holiday service that matches weekend service
- Provide real-time transit information

Further analysis has identified possible recommendations for gaps in transportation services in the analysis district, summarized in the bullets below.

- Service Coordination
  - Given the number of transit providers in this analysis district, coordinating aspects of service delivery, customer service, education, or advertising may benefit both transit providers and residents. Coordination in branding and transfers between GoTriangle, GoRaleigh, GoDurham, and GoCary currently exists. Demand response and fixed-

route providers could share a call center and education materials, while demand response providers, especially in non-urbanized areas, could coordinate service to Durham, Raleigh, and Chapel Hill.

- Communications
  - o Many demand response provider websites in this district do not include information on the out-of-county destinations served or eligibility for their services. More information about providers' service areas and who may use their systems may increase use of existing services.

Wilmington

The Wilmington analysis district, centered on the City of Wilmington, includes three coastal counties: Brunswick County, New Hanover County, and Pender County. This district is coterminous with the Cape Fear region.

Existing Services and Connections

Table 2-15 lists providers in the Wilmington analysis district. All three systems provide demand response service, and Wave Transit also provides fixed route bus and vanpool services.

Table 2-12: Providers in the Wilmington Analysis District, 2017

Provider	NTD Reporting Name	Level of Government	Service Area	Service Type
Brunswick Transit System (BTS)	Brunswick Transit System Inc.	Non-profit	Brunswick County	• Demand Response
PAS-TRAN	Pender Adult Services, Inc.	Non-profit	Pender County	• Demand Response
Wave Transit	Cape Fear Public Transportation Authority	Transit Authority	New Hanover County and parts of Brunswick County	• Demand Response • Fixed Route • Vanpool

Figure 2-15 shows the Wilmington analysis district, its transit providers, and the major destinations in the district. Only Brunswick Transit System and PAS-TRAN provide out-of-county transportation for medical appointments.
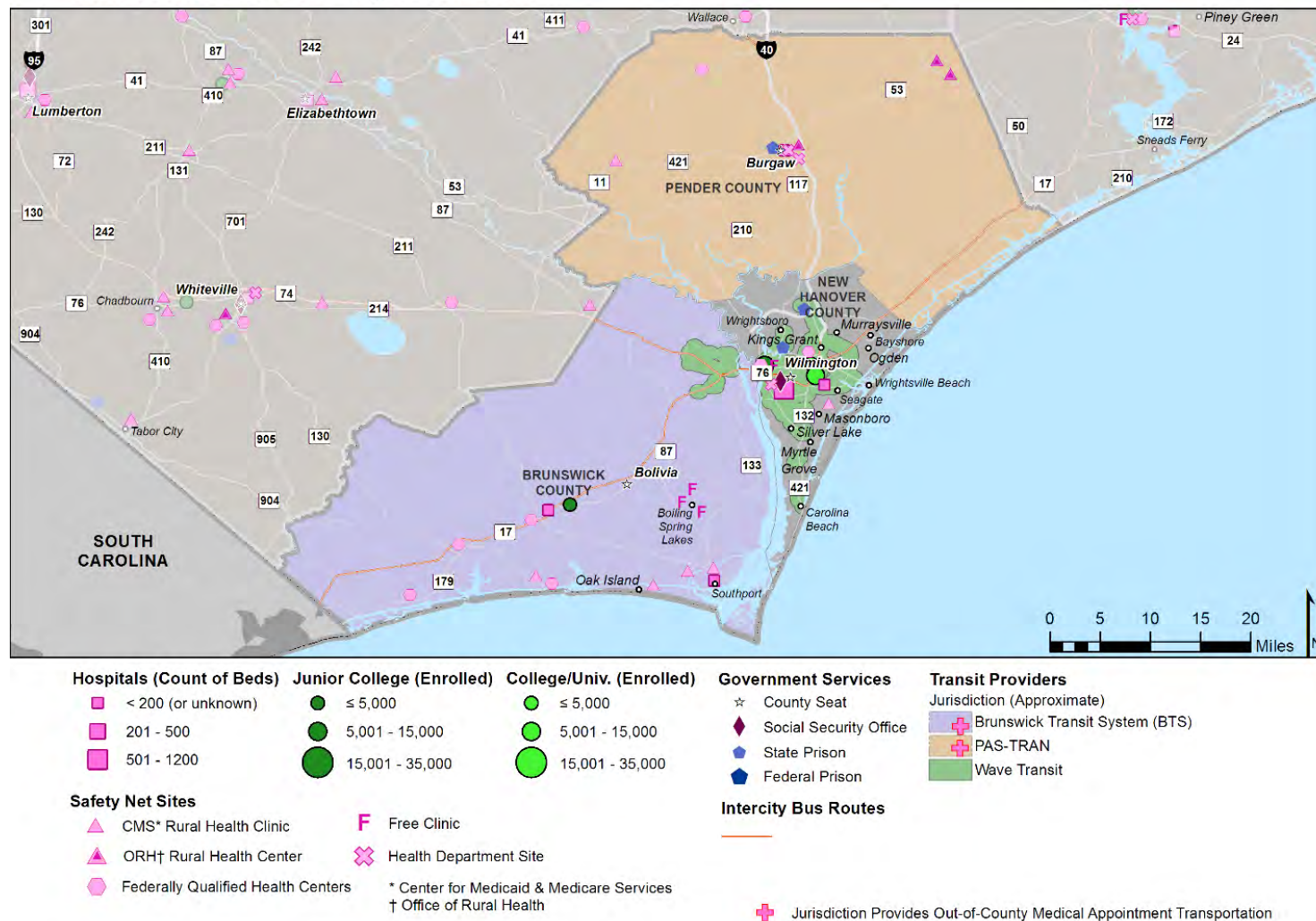
Figure 2-13: Map of Wilmington Transit Service Areas and Major Destinations

Wilmington
Transit Service Areas and Major Destinations

Service Gaps

A review of coordinated transportation plans and transit development plans for the Wilmington analysis district identifies the following needs, grouped by type of provider.

Recommendations to Address Gaps Identified by Demand Response Providers

- Provide fixed route service on Saturdays to fulfill basic needs
- Provide out-of-county transportation on weekends and holidays
- Hire attendants for special needs passengers
- Serve work-related trips
- Provide transportation on short notice and reduce waiting time for pick-ups
- Increase marketing
- Provide long-distance transportation to Raleigh, Charlotte, and Charleston, SC
- Purchase more vans to provide more destinations and increase frequency to existing destinations
- Provide Vouchers for passengers that do not qualify for Medicaid
- Increase efficiency of shared-ride scheduling
- Increase payment options

Recommendations to Address Gaps Identified by Fixed-Route Providers

- Serve as a resource hub for advocacy, outreach, and education, including travel training
- Expand the fixed-route service area, especially needed in rural areas and low-income areas
- Provide more frequent bus service
- Introduce express routes along major corridors
- Expand service hours on weekends
- Implement pedestrian safety improvements and bus stop amenities
- Provide special transportation services needed for victims of domestic violence
- Provide special transportation services for job seekers
- Coordinate between organizations in the area
- Produce transit information in languages other than English and translators for riders who do not speak English
- Educate residents on local transit services
- Introduce programs for riders with cognitive disabilities

Further analysis has identified possible recommendations for gaps in transportation services in the analysis district, summarized in the bullets below.

- Service Expansion
    - None of the three Wilmington analysis district providers serve destinations outside of the district. While most services are available in Wilmington, there may be untapped demand for trips to Raleigh, Durham, Chapel Hill, and Fayetteville.
- Service Coordination
    - If providers decide to expand demand response service to out-of-district destinations, coordination between the three providers may make delivery of long-distance demand response services easier. This may require division of funding.