

EXISTING CONDITIONS

JUNE 2020



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Introduction

The Existing Conditions report for the Forsyth County Public Transportation Master Plan is composed of two volumes of information within a single document. The first part, the Market Assessment, focuses on the critical elements of the community that will help to determine the who, where, and how of providing short-term and long-term transit service within Forsyth County. The Market Assessment provides background on the Forsyth County Public Transportation Master Plan, establishes the goals of the plan, examines previous plans related to transit planning and services, explores the County's demographics, and provides information regarding County mobility.

The second part, Existing Services, focuses on the existing transit systems within Forsyth County and peer systems that may serve as a model for the future of transit in the County. The Existing Services section evaluates the service characteristics, system performance, and funding of the three transit services within the County today: Dial-A-Ride, Senior Services transportation, and Commuter Xpress Bus. The Existing Services section also examines the service characteristics, system performance, and funding sources for two peer systems to provide context of the evaluation of the County's existing services.

Together the Market Assessment and the Existing Services section provide background information on the current condition of mobility services and need in the County, including demographic trends and an overview of existing public transportation infrastructure. This Existing Conditions report is not intended to provide a comprehensive analysis of all information required to carry out the plan, but rather a snapshot of the County to lay the groundwork for dialogue regarding current conditions, plans and practices, and the importance of public transportation in Forsyth County.

**FORSYTH COUNTY
PUBLIC TRANSPORTATION MASTER PLAN**

**MARKET ASSESSMENT – DEMOGRAPHICS
AND TRAVEL FLOWS**

Background

The Forsyth County Public Transportation Master Plan is the County's first ever public transportation master plan. It comes at a time of great innovation and advancement in technology, specifically as it relates to transportation and the growing ability and desire for people to access destinations within and outside of their communities through a variety of modes. While multi-modal transportation is an essential component of a robust transportation network, this plan focuses specifically on *public transportation* options and improvements for Forsyth County. Currently, the County is served by three existing public transportation services: Dial-A-Ride, State Road and Tollway Authority (SRTA) Commuter Xpress Bus, and Senior Services. Dial-A-Ride is a County-operated on-call transportation service that connects residents directly to their destination. The County is additionally served by the Route 400 SRTA Commuter Xpress Bus, which connects the Cumming Park-and-Ride to Downtown Atlanta, and Route 401 to Perimeter Center. The County also offers ride share service for seniors and other disadvantaged groups. Specific characteristics of each existing public transportation service will be detailed later in the document.

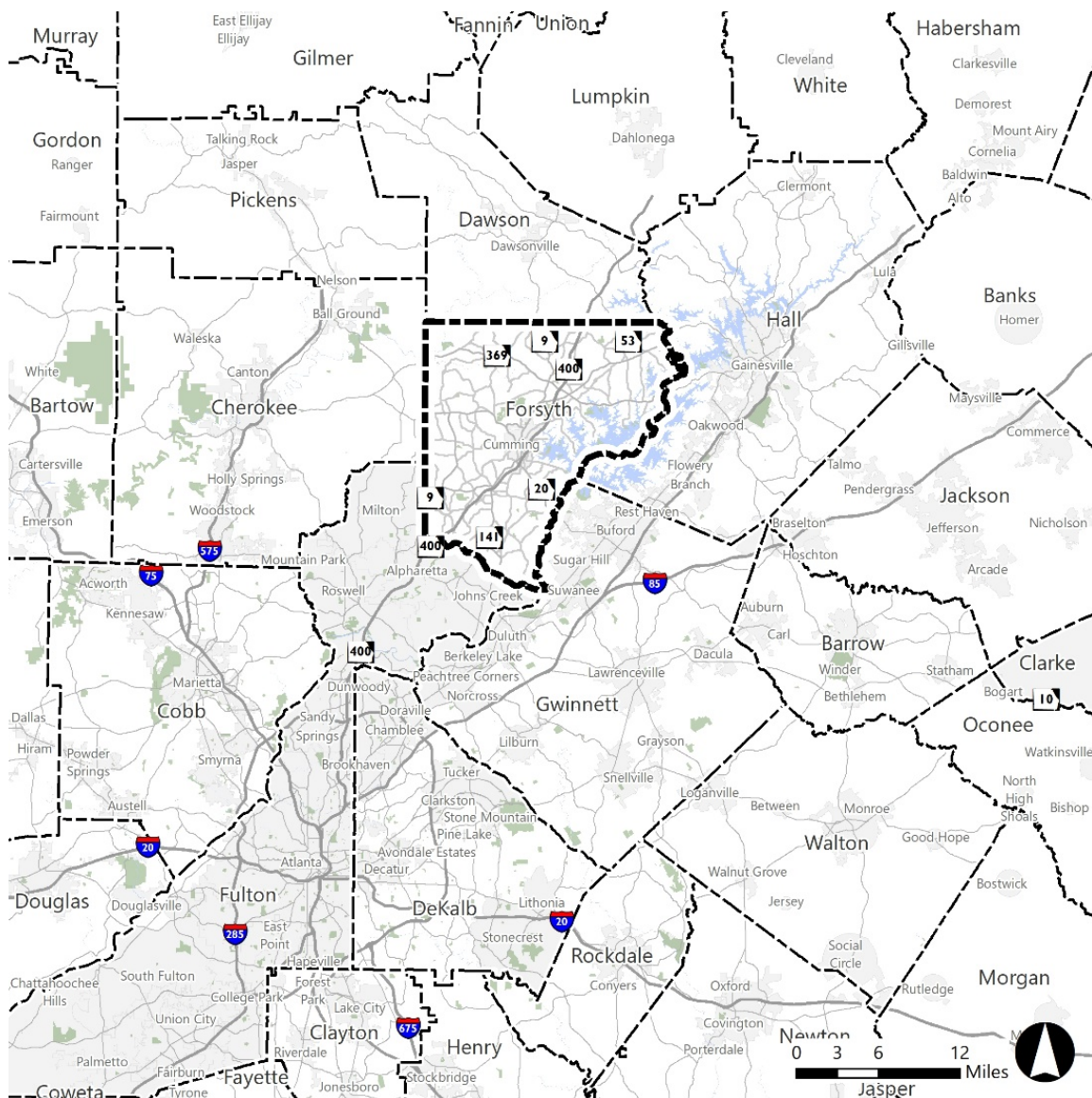
This planning effort stems from the recent formation of the ATL, the Atlanta-Region Transit Link Authority. The ATL seeks to better connect public transportation options across the 13-county region of Atlanta. As the 13-county region, with the inclusion of Forsyth County, begins to see unprecedented growth in the coming years, building a connected, effective, and efficient public transportation system to support this growth will be more critical now than ever before. Public transportation will continue to support and enhance the community's health, wealth, and vibrancy through equitable access to jobs, education, and healthcare.

By the end of this 12-month process, the Forsyth County Public Transportation Plan will:

- Provide an inventory and assessment of existing conditions and trends
- Identify vision, goals, and priorities for public transportation in Forsyth County
- Identify short, medium, and long-term needs
- Recommend fare policy for Forsyth public transportation services
- Make short-term and long-term recommendations for implementing Forsyth's public transportation plan

Study Area

Forsyth County is part of the larger metro Atlanta region. The County borders Gwinnett and Hall Counties to the east, Dawson County to the north, Cherokee County to the west, and Fulton County to the south. The largest and only incorporated city within the County is Cumming, located in the south-central portion of the County, bordering Lake Lanier. According to the 2018 U.S. Census, Forsyth was the 130th-largest County in Georgia by area at 224 square miles and 7th largest in terms of population with a total population of 219,880.



Forsyth County Public Transportation Master Plan Goals

The Project Management team has set forth a draft list of comprehensive goals for the Public Transportation Master Plan to follow to achieve the desired vision for public transportation in Forsyth County. These goals include:

QUALITY OF LIFE

Enhance Forsyth County's overall quality of life by improving local multi-mobility and accessibility for all people

BALANCED ACCESSIBILITY

Develop a balanced transportation network that serves residents, employees, and visitors of Forsyth County

SYSTEM PRODUCTIVITY

Utilize available resources to maintain a productive and efficient public transportation system

Previous Plans

As this planning effort builds on past community and transportation planning efforts as well as comparable regional studies and trends, it is beneficial to both include and consider previous plans in the current public transportation plan. Relevant previous plans that have been reviewed for this study include:

- North Fulton County Comprehensive Transportation Plan (2010)
- Cherokee County Comprehensive Transportation Plan – Transit Sustainability Appendix (2016)
- **Forsyth County Comprehensive Plan (2017)**
- Gwinnett County Comprehensive Transportation Plan (2017)
- **Forsyth County Comprehensive Transportation Plan (2018)**
- **Forsyth County Economic Development Strategic Plan (2018)**
- Fulton County Transit Master Plan (2018)
- Gwinnett County Comprehensive Transit Development Plan (2018)
- **Forsyth County North Subarea Trails Master Plan (2019)**
- The Atlanta Regional Commission’s Regional Transportation Plan (2020)
- Cobb County Comprehensive Transportation Plan (Ongoing)
- Georgia Department of Transportation’s (GDOT) Strategic Goals
- Fixing America’s Surface Transportation (FAST) Act
- SRTA Future Plans (Horizon 2 and 3)

Forsyth County Comprehensive Plan (2017)

The Forsyth County Comprehensive Plan, completed in 2017, is the County's long-term policy guide and strategy for future growth and development. Overall, the plan focuses on four key elements: land use, housing, economic development, and transportation. Together, these elements help shape the County's quality of life and vision moving forward. The plan also guides the County's future growth and development through the identification of 11 Character Areas. Focusing specifically on the transportation element, the plan emphasizes the importance of transportation infrastructure to support growth. Transportation priorities identified in the plan include:

- Address congestion on GA 400
- Reduce congestion through a smart transportation network
- Improve internal connectivity
- Provide alternatives to single-occupancy vehicles for County residents and workers
- Ensure transportation investments positively impact community character area and aesthetics

To achieve these priorities, the plan offers strategic steps forward and community investment preferences, which include transportation studies and investments to be prioritized in coming years.

Forsyth County Comprehensive Transportation Plan (2018)

The 2018 Forsyth County Comprehensive Transportation Plan is a long-range transportation plan that complements the County's comprehensive plan. The planning process, which included robust community engagement, was comprised of three steps: inventory of existing conditions, assessment of current and future needs, and recommendations. The plan identifies recommendations for three project categories: roadway, transit, and active transportation. Overall, the plan emphasizes the importance of improving connectivity and addressing roadway capacity within the County. The plan includes the following transit recommendations:

- Extend Dial-A-Ride operating hours from (8:30AM – 3:30PM) to (8:00AM – 4:30PM)
- Purchase an extra Dial-A-Ride van, equipped with wheelchair lifts
- Add a SRTA Xpress Bus Route 401 stop in Alpharetta

Forsyth County Economic Development Strategic Plan (2018)

The 2018 Forsyth Economic Development Strategic Plan identifies goals to create a strong economic identity for the County, including business attraction, expansion, retention, and entrepreneurial advancement. To aid in this goal, commercial and mixed-use developments, along with quality-of-life amenities are recommended in key areas. The plan identifies a list of catalyst projects to support the growing economy. These include:

- Emerging technologies as target industries
- Convention centers and hotels
- Industrial site development
- Interstate highway designation for GA 400

The plan goes on to identify key assets and opportunities as well as challenges and threats to economic development within the County. Assets for the County include strong public-private partnerships, high educational attainment, proximity to growth, available land, industry growth and diversity, and natural assets. Some challenges and threats identified include potential for unmanaged growth, limited resources and incentives, housing and transportation shortages, and underperformance in name recognitions/tourism. Understanding the key challenges and opportunities at play will help to craft a viable economic development plan for Forsyth, which will work in tandem with future transit infrastructure investment to enhance the County's overall economic vitality and quality of life.

Forsyth County North Subarea Trails Master Plan (2019)

The 2019 Forsyth County North Subarea Trails Master Plan details existing conditions in the County's north subarea, defined by predominant single-family land use, commercial nodes at primary highway intersections, and significant development opportunities in pockets along GA 400 and other state routes. Based on this analysis, the plan recommends a trail network that would create new sidepath and off-road connections between community landmarks and destinations. Additional themes from the community input process include:

- Connect trails to transportation plan projects
- Need to mitigate vehicle noise along major corridors
- Potential road crossings across Highway 369
- Need emergency access in off-road sections
- Incorporate implementation of the trail system as part of roadway projects
- Create regional connections

Demographics

The demographic analysis of the County is centered around four areas: population, employment, community centers, and transit propensity.

Population

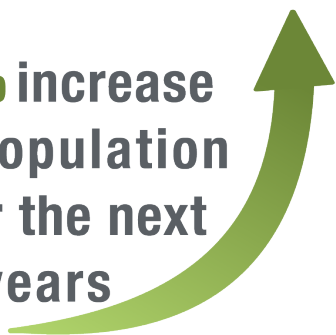
The first step to understanding the County's current transportation network and its challenges is to understand the people who live, work, and play in Forsyth. This section provides a brief overview of population demographics in the County and highlights any significant future trends that will be important to consider in planning for public transportation. Additional figures illustrating the data mentioned below will be included in a Map Book as an appendix to this document.

Overall Population

According to 2015 Atlanta Regional Commission (ARC) population data, the total population of Forsyth County was 211,950. The ARC predicts an upward trend in population for the 21-county metro area over the next 20 years. The ARC predicts the population of Forsyth County will grow by 170,943 between 2015 and 2040. That's a 80% increase in population over the next 25 years. The predicted population growth in Forsyth County is in

on trend with the rest of the 21-county metro region, as the ARC forecasts the 21-county region will potentially add 2.9 million people by 2050. The ARC puts that number into perspective by adding that that is equivalent to all of metropolitan Denver moving to the Atlanta region over the next 30 years.

**80% increase
in population
over the next
25 years**



Demographic Trends

Like the rest of the region and the country, Forsyth County’s older adult population is rapidly growing as people live longer and the Baby Boom generation ages. According to 2017 American Community Survey (ACS) data, 11% of Forsyth’s population was age 65 years and older. By 2050, ARC forecasts the number of residents age 75 and over will grow to 12% of the Atlanta region, totaling just over 1 million people. As the population continues to grow and age, it will be even more important to provide public transportation options that will allow this segment of the population to remain mobile, active, and independent.

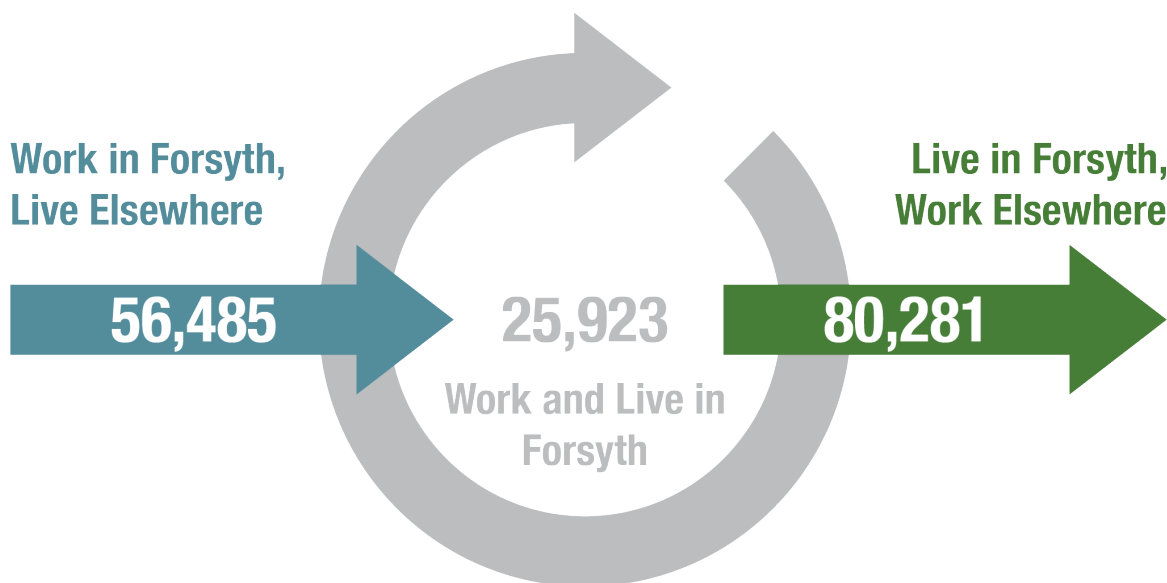
Forsyth County is home to a largely white population, and when compared to national averages, has higher median household incomes, educational attainment, home ownership rates and lower poverty rates. About 1,438 households (2% of total households) in Forsyth County are classified as zero vehicle households. While the demographics of Forsyth County do not align with what would traditionally be considered a “transit-dependent” population, it is important to consider the anticipated growth, aging of residents, and those without access to a vehicle. More importantly, the geography of the County and relative distance to major employment and activity centers, which will be covered in the following sections, poses a tremendous challenge to the small but growing population that is transit dependent. These demographic trends will help inform Title VI and Environmental Justice considerations for the plan’s final recommendations.

	FORSYTH COUNTY	UNITED STATES
Median Household Income	\$96,445	\$57,652
Percent Below Poverty Level	6.5%	14.6%
High School Degree or Higher	92.5%	87.3%
Have a Bachelor’s Degree	50.2%	30.9%
Owner-Occupied Housing Units	84.3%	63.8%

Source: 2017 ACS 5-Year Estimates

Employment

The Atlanta region is a major employment hub, with businesses clustered across multiple jurisdictions. Forsyth County's location makes it a desirable place to live for residents who commute to and from surrounding employment hubs in various counties throughout the metro region. The total number of jobs in the County itself is 82,408. The County is also home to 106,204 workers, the majority of which (75%) commute outside of the County for work.



Source: 2017 OnTheMap Data

Where are Workers Going

Of the 82,408 workers employed in Forsyth County, the majority commute into the County from other locations. These locations include cities from the following counties: Gwinnett, Fulton, Cherokee, Cobb, DeKalb, Hall, Dawson, Paulding, and Lumpkin. Johns Creek, located in Fulton County, is the home to the largest share of Forsyth County workers (2.6%). The 25,923 employees that both live and work in Forsyth are primarily located in the County's only city, Cumming, which is also a major employment destination.

While Forsyth is home to 106,204 workers, the majority do not work within the County. The 80,281 residents that commute outside of the County for work are travelling to locations in the following counties: Fulton, Gwinnett, Cobb, DeKalb, Hall, Cherokee, Dawson, Clayton, and Bartow. The largest share of Forsyth workers commute to Alpharetta, located just south of Forsyth in Fulton County (11.5%).

Job Counts by Places (Cities, CPDs, etc.) | Where Workers Live - Private Primary Jobs

City, CDPs, etc.	2017 COUNT	2017 SHARE
Total All Places	69,247	100%
Johns Creek	1,781	2.6%
Roswell	1,503	2.2%
Alpharetta	1,466	2.1%
Atlanta	1,442	2.1%
Milton	984	1.4%
Sandy Springs	946	1.4%
Cumming	808	1.2%
Sugar Hill	686	1.0%
Gainesville	605	0.9%
Peachtree Corners	571	0.8%
All Other Locations	58,455	84.4%

Job Counts by Places (Cities, CPDs, etc.) | Where Workers are Employed - Private Primary Jobs

City, CDPs, etc.	2017 COUNT	2017 SHARE
Total All Places	91,516	100%
Alpharetta	10,538	11.5%
Atlanta	7,317	8.0%
Sandy Springs	6,120	6.7%
Cumming	4,229	4.6%
Roswell	2,992	3.3%
Johns Creek	2,539	2.8%
Dunwoody	2,027	2.2%
Peachtree Corners	1,949	2.1%
Gainesville	1,635	1.8%
Milton	1,304	1.4%
All Other Locations	50,866	55.6%

Source: 2017 OnTheMap Data

This analysis shows a strong live-work connection between Forsyth County, particularly the City of Cumming, and north Fulton County. It will be essential to consider this connection in planning for public transportation options and routes to provide for the large share of workers and residents travelling between the two destinations.

Employment and Activity Centers

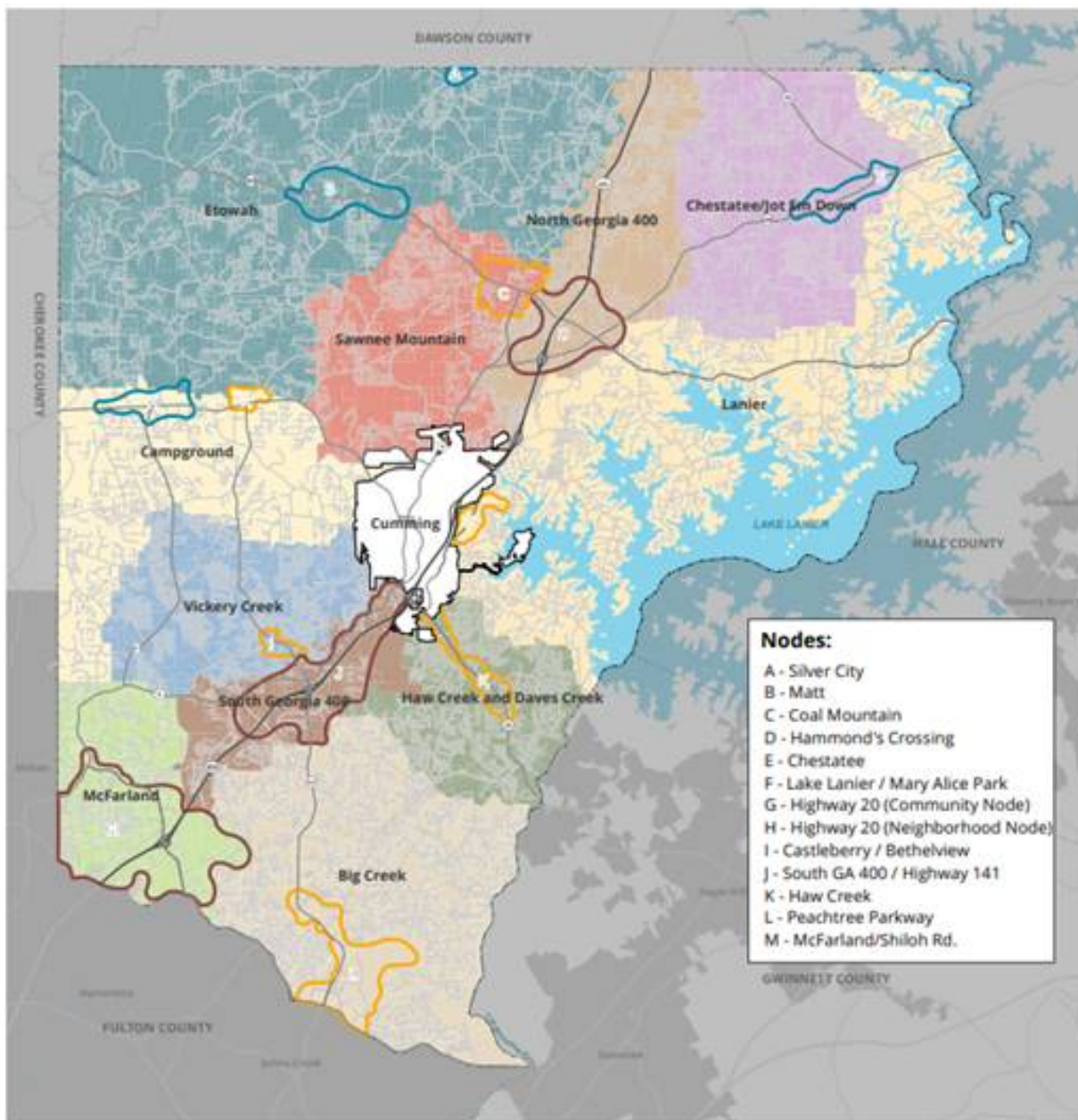
The ARC identifies one activity center in Forsyth County near the City of Cumming. Cumming is the county seat and contains many large administrative and governmental facilities as well as the University of North Georgia, Cottrell MBA program in downtown Cumming. The activity center designation reinforces the importance of creating public transportation connections to and from Cumming.

The 2017 Forsyth County Comprehensive plan identifies three types of nodes throughout the County – regional, community, and neighborhood. Regional nodes are regional employment/activity destinations that accommodate the most intensive land uses, generally industrial or mixed-use. Community nodes are more modest in scale and provide benefits for the immediate community. Neighborhood nodes are the smallest in scale and density and generally provide commercial uses for the surrounding residential area. The map below identifies these additional activity nodes to consider when planning for a connected and accessible public transportation system.

Top Five Employers



Source: Forward Forsyth



Character Areas:

- North Georgia 400
- South Georgia 400
- Chestatee/Jot Em Down
- Campground
- City of Cumming

Character Areas:

- Haw Creek and Daves Creek
- Lanier
- McFarland
- Etowah
- Sawnee Mountain
- Big Creek
- Vickery Creek

Nodes:

- Regional Node
- Community Node
- Neighborhood Node

Source: Forsyth County Comprehensive Plan (2017-2037)

Expected Employment Growth

Along with a growing population, the ARC also predicts regional employment growth over the next 20 years. According to 2015 ARC employment data, Forsyth County had 81,045 jobs. They predict that this number will increase to 103,159 by 2040. That's a 27% increase in the number of jobs. In effort to combat congestion and negative environment externalities, it will be critical to start planning for this influx in workers travelling to and from Forsyth in the coming years. The ARC forecasts 1.2 million jobs will be added to the region by 2050, making regional connections via public transportation critically important.

27%
increase
in the number of jobs 

Community Centers

Activity centers can serve as more than just employment centers, as they often contain other important community functions and facilities. Parks and recreation centers, hospitals, senior centers, and higher education facilities are important community centers to consider for potential transit services.

Parks and Recreation Centers

Forsyth County hosts a variety of outdoor recreational opportunities. For this reason, parks and recreation centers act as important community centers and facilities. Four major parks and recreation community and nature centers in the county are: Central Park, Fowler Park, Old Atlanta, and the Sawnee Mountain Nature Center.

Hospitals

Forsyth County is fortunate to have more than one major medical center within its reach. Northside Hospital Forsyth is located adjacent to GA 400 within the city of Cumming. It contains multiple medical facilities including the Forsyth Cancer Center. Emory Johns Creek Hospital is just outside of the county boundary within the City of Johns Creek but serves as a major healthcare center for county residents.

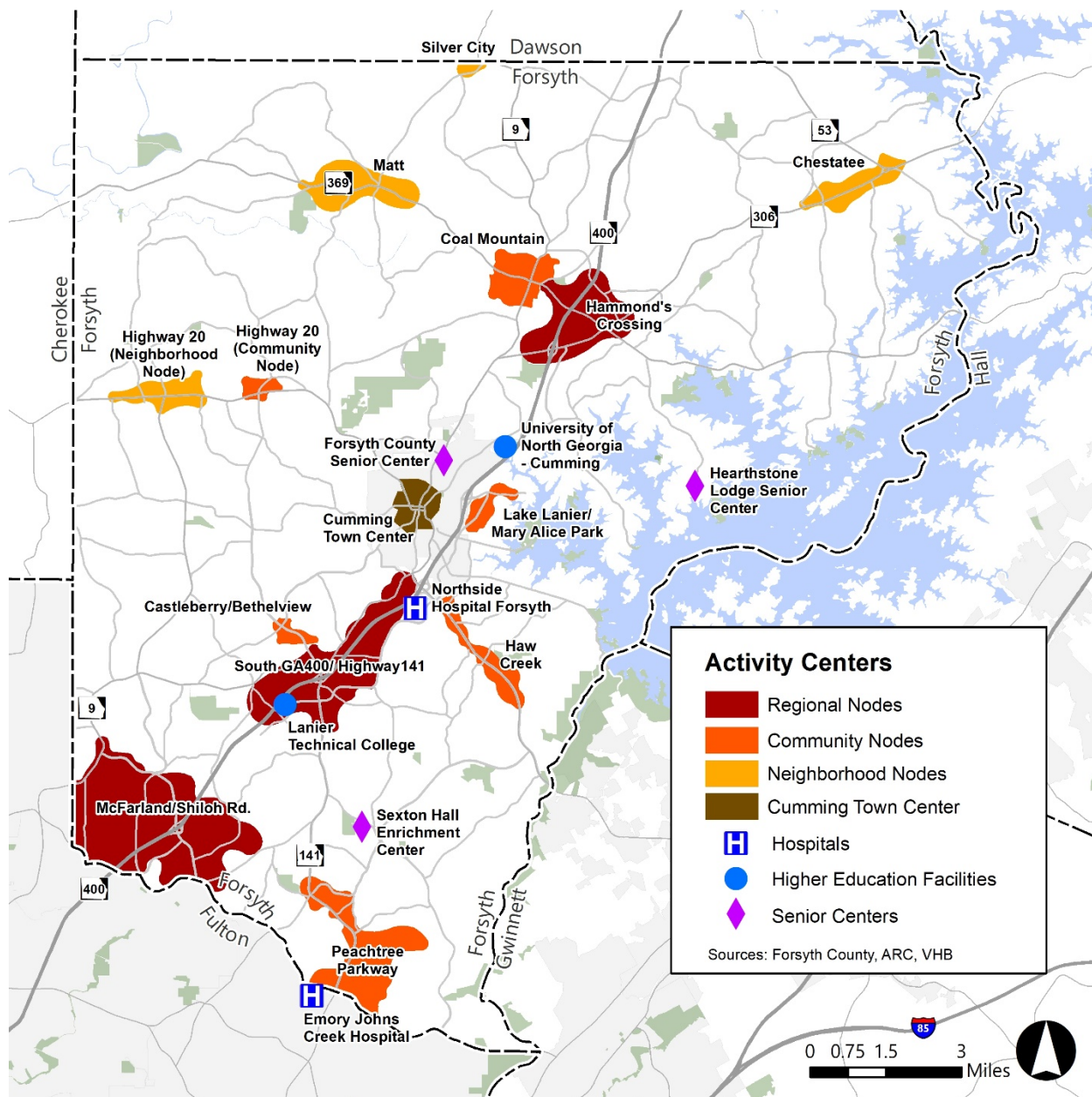
Senior Centers

The Forsyth County government owns and operates multiple senior centers. The Forsyth County Senior Center, also referred to as Charles Place, operates as a traditional senior center, with a focus on Older American Act grant programs. Charles Place will be moving to Central Park in fall 2021, emphasizing the importance of connecting transit services to parks and recreation community centers. Hearthstone Lodge Center is located near Lake Lanier and operates primarily as a fitness

facility for those age 50 and above. Sexton Hall Enrichment Center is located in southern Forsyth County and operates as a lifelong learning center and community event space.

Higher Education Facilities

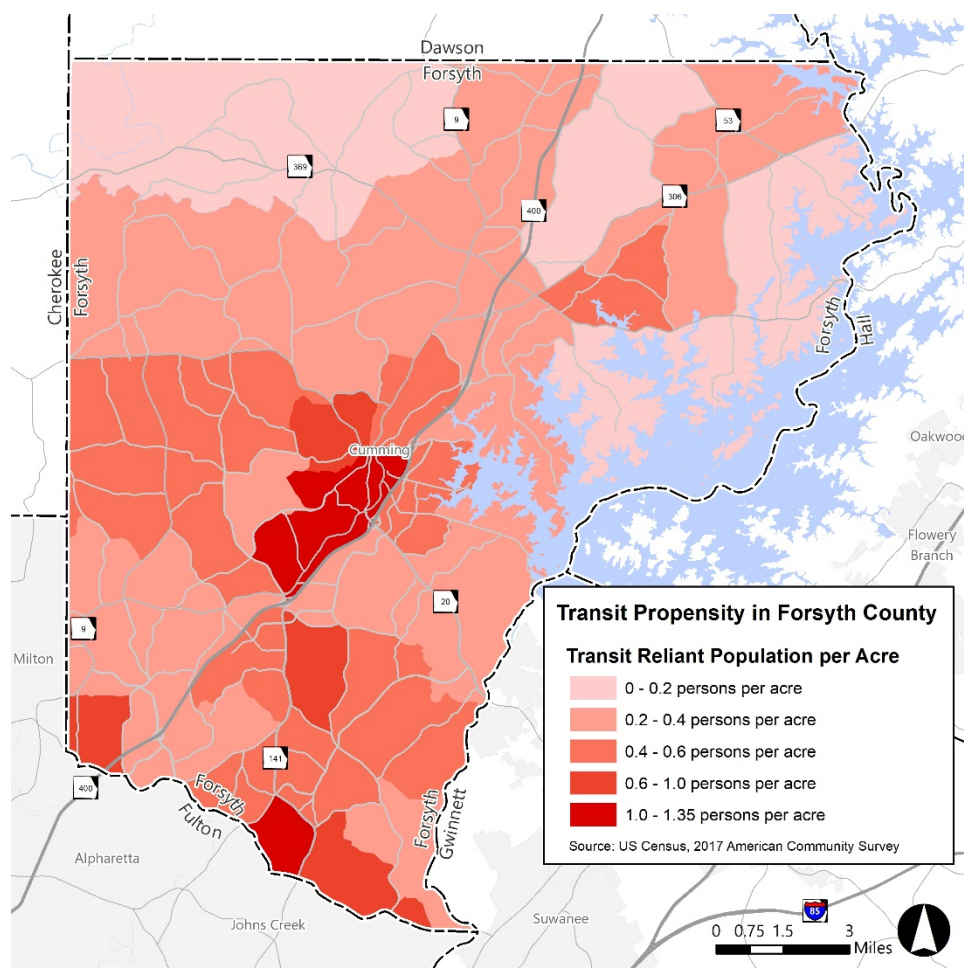
Two major higher education facilities are located within Forsyth County. The University of North Georgia – Cumming Campus is located on Pilgrim Mill Road adjacent to GA 400. Lanier Technical College is also located adjacent to GA 400 on Ronald Reagan Boulevard within the South GA 400/Highway 141 regional node.



Transit Propensity

A transit propensity analysis seeks to recognize the geographic distribution of population groups with a high likelihood of using transit to identify areas where transit service is particularly needed. This analysis focuses on four population groups considered to be more transit reliant. These groups include seniors (aged 65+), zero-car households, low-income persons (in-poverty status) and disabled persons (non-institutionalized individuals with a disability).

To identify areas with dense concentrations of transit propensity, transit reliant populations were totaled within each census tract and divided by the land area of each in acres. This resulted in an indicator of concentrated transit propensity, transit reliant persons per acre. Areas with high concentrations include the city of Cumming, particularly areas to the south of the city between GA 400 and Castleberry Road. Other pockets of transit propensity include areas just north of McGinnis Ferry Road bordering Johns Creek in Fulton County. Other notable concentration is seen in southern Forsyth between GA 400 and the city of Milton border in Fulton County. General swaths of transit propensity are indicated between the city of Cumming west to the Cherokee County border and in southeast Forsyth County.






Travel Patterns

According to the Census, nearly 215,000 workers travel to, from, or within Forsyth County for work every day. In addition to traveling to and from work, people travel to the grocery store, to the doctor, or to visit friends and family. Understanding the travel patterns associated with these trips helps to inform if and how transit can effectively serve Forsyth County. Travel patterns are evaluated by first examining mode split information, then by looking at information about the average travel time and distance for work trips of Forsyth residents, and finally by examining how much travel is occurring between significant locations, or travel flows.

Mode Splits


In 2011, the Atlanta Regional Commission (ARC) conducted a household travel survey to understand how, why, and where the region travels. The question of how explains what type of transportation someone uses to get to their destination, whether that be walking, driving, or taking transit. As a region, 83% of trips are taken in a motor vehicle (either as driver or passenger) but for Forsyth County households, that percentage is higher with 92% of trips being taken by a motor vehicle (either as driver or passenger). Transit usage for Forsyth households is lower than the regional average. The high percentage of motor vehicle trips and low percentage of transit trips in Forsyth is not unexpected, especially given that nearly 98% of Forsyth households own at least one car according to the Census.

	FORSYTH COUNTY	REGION
 Walk/Bike	1.71%	7.61%
 Driving	91.82%	82.73%
 Transit	0.75%	3.12%
Other*	5.72%	6.54%

* Includes School Bus, Motorcycle/Moped, and Other responses
Source: ARC 2011 HH Survey

Travel Time and Distance to Work

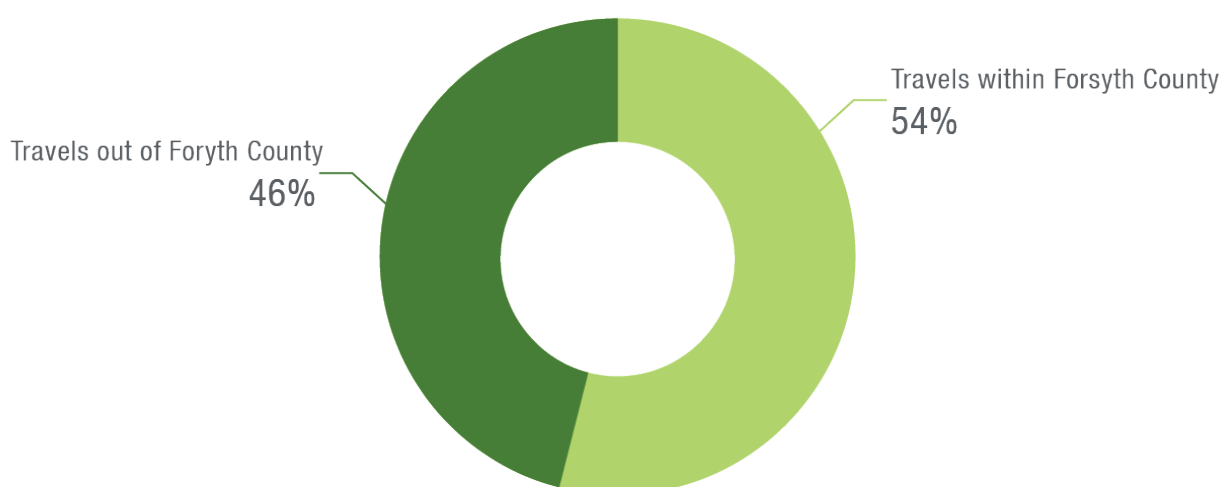
According to the ARC’s 2019 Regional Commuter survey, the average commute time for Forsyth residents is approximately 48 minutes and the average commute distance is 24 miles. The average for the region is 39 minutes and 19 miles. While many Forsyth residents travel within the County or to nearby job centers in North Fulton, the relative location of the County to the largest job centers in the region is most likely the reason for Forsyth having longer average commute times and distances than the rest of the region. Transit service will not be able to change the distance between the region’s major job centers and Forsyth County, but it may be able to provide Forsyth residents with a comfortable, time-competitive alternative to driving.

	FORSYTH	REGION
Travel time to work	39 minutes	48 minutes
Distance to work	19 miles	24 miles

Travel Flows – Internal

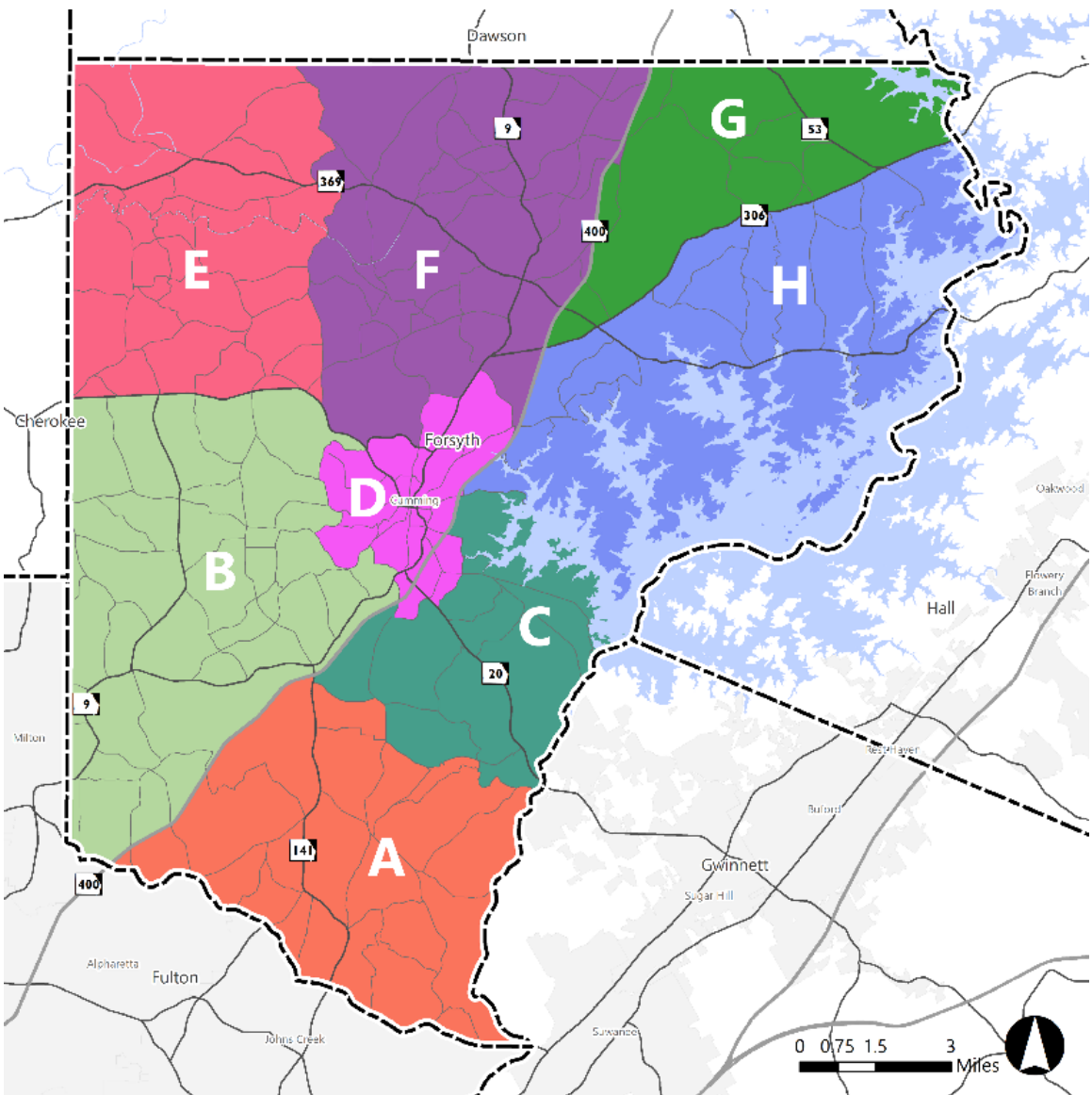
Most travel in Forsyth occurs near or within the County. The region commutes an average of 19 miles to work, but according to ARC’s 2011 Household Travel survey, the region only travels an average of 7 miles when accounting for all types of trips not just work trips.

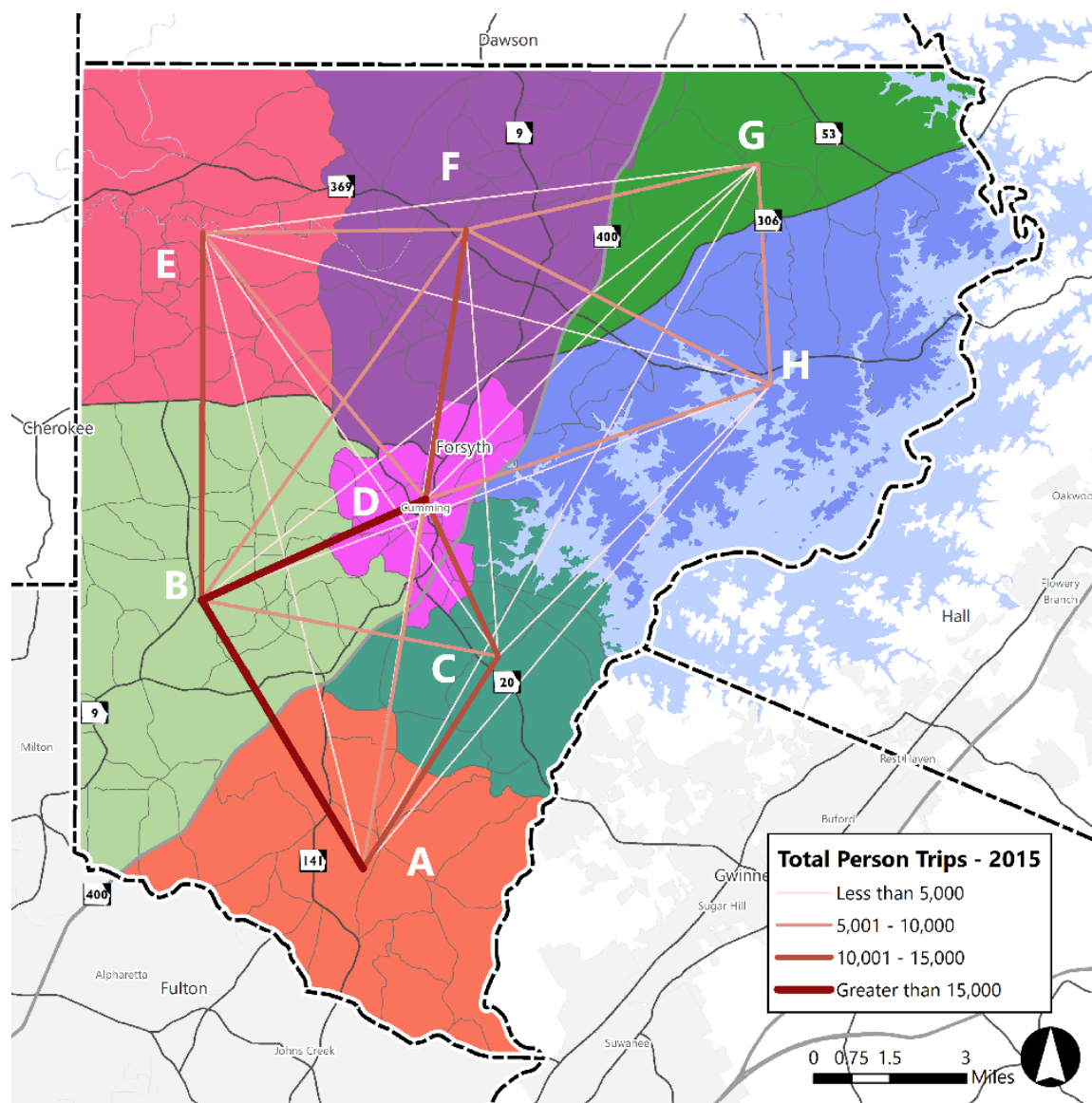
Data from ARC’s Activity Based Model (ABM) confirms that Forsyth residents tend to do most of their travel within the County. Of the total number of trips that either start or end in Forsyth County, 54% stay within Forsyth while 46% cross the Countyline.



Looking further into the ABM data found that of the trips that start and end in Forsyth, 42% start and end within respective the boundaries of eight smaller zones that the County was divided into for analysis. For three of the eight zones, these intrazonal trips (start and end within the same zone) account for more than a third of the zone’s internal Forsyth County trips.

ZONE		Number of Intrazonal (% of zone's Forsyth trips)
A	South Forsyth (3)	83,093 (60%)
B	West Forsyth (4)	70,288 (47%)
C	Southeast Forsyth (1)	12,920 (26%)
D	Cumming (2)	36,737 (33%)
E	Northwest Forsyth (5)	10,710 (29%)
F	North Forsyth (6)	19,992 (33%)
G	Northeast Forsyth (8)	5,393 (24%)
H	East Forsyth (7)	19,702 (38%)





The data shows that there are strong existing travel flows between southern Forsyth (A) and western Forsyth (B) and between western Forsyth (B) and Cumming (D) with greater than 15,000 trips occurring between these zones every day. Flows across the County are expected to grow. By 2040, the model projects that trips will increase to be greater than 15,000 per day between all adjacent zones except for the northeastern zone (G).

Travel Flows – External

For longer distance travel, transit is most effective at serving trips that are predictable and that start and end in dense geographic areas. Work trips, for example, tend to be predictable because they happen at the same time every day and are likely concentrated within dense job centers.

The Census shows that approximately 80,000 Forsyth residents leave the County for work every day. Of the Forsyth residents who leave the county for work approximately 34,000 work in Fulton County and 14,000 work in Gwinnett County. For transit service, the density of jobs at the destination is just as important as the number of jobs in predicting how well a service will be used because transit depends on good first mile and last mile connectivity. When jobs are concentrated together, more transit riders can easily get to their destination. To determine locations outside the County where concentrations of Forsyth residents work, Census data was further examined for major activity centers as defined by the ARC.

ACTIVITY CENTER	NUMBER OF FORSYTH WORKERS
SR 400 Corridor North of Old Milton Pkwy	6099
Perimeter Center	5493
SR 400 Corridor Between Holcomb Bridge Rd and Old Milton Pkwy	4199
Downtown/Midtown Atlanta	2828
Buckhead Atlanta	2169
Gwinnett Place/Sugarloaf Mills	2096
Peachtree Corners/Norcross	1591
Gainesville	1304

The importance of north-south travel through the southern edge of the County is exemplified by the SR 400 corridor. The SR 400 corridor provides a connection between Forsyth County and the top five ARC activity centers outside of the County. In addition to the concentration of Forsyth workers who work and travel along the corridor, an additional 1,800 Dawson County residents work in Fulton County and likely utilize SR 400 to get to their destination.

Outside of the SR 400 corridor, another important north-south connection exists along SR 141 to the Peachtree Corners/Norcross activity centers. The Gwinnett Place/Sugarloaf Mills activity centers also draw some Forsyth workers southeast of the County. Finally, the Gainesville area to the east is an employment destination that has constraints due to limited connectivity to Forsyth County across Lanier. SR 369 and SR 53 are the only two connections from east Forsyth into Hall County and Gainesville.

Non-work trips are still the most prevalent type of travel within the County. According to the TDM, just 19% of trips that begin or end in the County are considered work trips. When considering the broad spectrum of trips beyond work, two activity centers outside of those that lie along the SR 400 corridor arise into the top five: Gainesville and Buford/Sugar Hill.

Please refer to **Figure 17** and **Figure 19** of the Map Book for an illustration of travel patterns and trips to and between regional activity centers.

- 1 SR 400 Corridor North of Old Milton Pkwy
- 2 SR 400 Corridor Between Holcomb Bridge Rd and Old Milton Pkwy
- 3 Gainesville
- 4 Perimeter
- 5 Buford/Sugar Hill

Conclusion

Forsyth County has completed several planning efforts that include and envision public transportation as a mobility component, but the Forsyth County Public Transportation Master Plan is the first time the County has taken a comprehensive look at transit service. By examining the demographics, employment, and travel patterns in the County, it is possible to identify needs, both today and in the future, that transit can help to address. The expected growth of the population and employment both regionally and within the County means that there will be a greater demand for travel. Additionally, aging populations will increase the need for mobility options for the elderly. Providing transit services that meet the needs of Forsyth County residents on a limited basis today and potentially an expanded basis in the future will be critical in maintaining a high-quality of life that the residents expect.

**FORSYTH COUNTY
PUBLIC TRANSPORTATION MASTER PLAN**

EXISTING SERVICES

Existing Transit System

The existing public transit system in Forsyth County is comprised of three primary services. The Dial-A-Ride demand response service and Senior Services transportation are both operated by Forsyth County. Commuter express bus service is the third service and is operated by the Georgia State Road and Toll Authority (SRTA).

Dial-A-Ride Service

Forsyth County Dial-A-Ride is operated by the Forsyth County's Fleet Services Department and provides transportation for medical appointments, shopping, employment, education, and personal errands for any Forsyth County resident. Riders are typically picked up and returned to their residences. The service provides independence and an enhanced quality-of-life for many county residents who otherwise would have limited access to transportation.

This assessment of the Dial-A-Ride service focuses on major service characteristics, a system performance evaluation, and a funding analysis. The major characteristics of Dial-A-Ride service are detailed in Table 1.

Table 1: Forsyth County Dial-A-Ride Service Characteristics

Population Served	Service is available to any Forsyth County resident aged 18 years or older. Riders younger than 18 must be accompanied by an adult.
Service Area	The service area is limited to destinations within Forsyth County, and Emory Johns Creek Hospital, which is located just outside of the County's southern boundary.
Service Hours	8:30 AM to 3:30 PM – Monday through Friday
Scheduling Hours	8:00 AM to 3:30 PM – Monday through Friday
Scheduling Window	Appointments can be made up to 30 days in advance on a first come first serve basis.
Fee Schedule and Policy	Current fees are \$2.00 a trip. If time permits within a scheduled trip window a second destination may be served for an additional \$2.00 fee. Exact change is required. Cancellations are requested at least 24-hours in advance.
Vehicle Fleet	The service fleet consists of nine passenger vans. Passenger vans have a capacity of 10-persons and are equipped with wheelchair lifts. Eight vans are used in full-time operation and one is retained as a back-up vehicle.
Staff	Staff includes one manager, one dispatcher, eight full-time drivers (3 of which are trained as back-up dispatchers), and four part-time drivers.

Funding Sources

Forsyth County's demand response service is funded through three main sources: Federal Transit Administration (FTA) Section 5311 funds, county general funds, and farebox revenue. FTA Section 5311 funds are formula grants for rural public transit. In Georgia, the Georgia Department of Transportation (GDOT) manages and distributes these funds to eligible service providers.

Section 5311 funds can be used for capital and operating expenses but require local matching funds. A 50/50 local match is required for operating costs, 85/15 for capital, 80/20 for maintenance and administrative costs. Local matching funds may come from a variety of sources, even other federal funding sources with some limitations.

Figure 1 details Dial-A-Ride funding sources, amounts and contribution percentages in 2019. The Forsyth County general fund is the primary funding source contributing 79% of all funding. Forsyth County provides funds from its general fund to meet the local match requirement for FTA Section 5311 funds and to cover any additional operating and maintenance costs. These funds do not have any restrictions and do not come from a dedicated source.

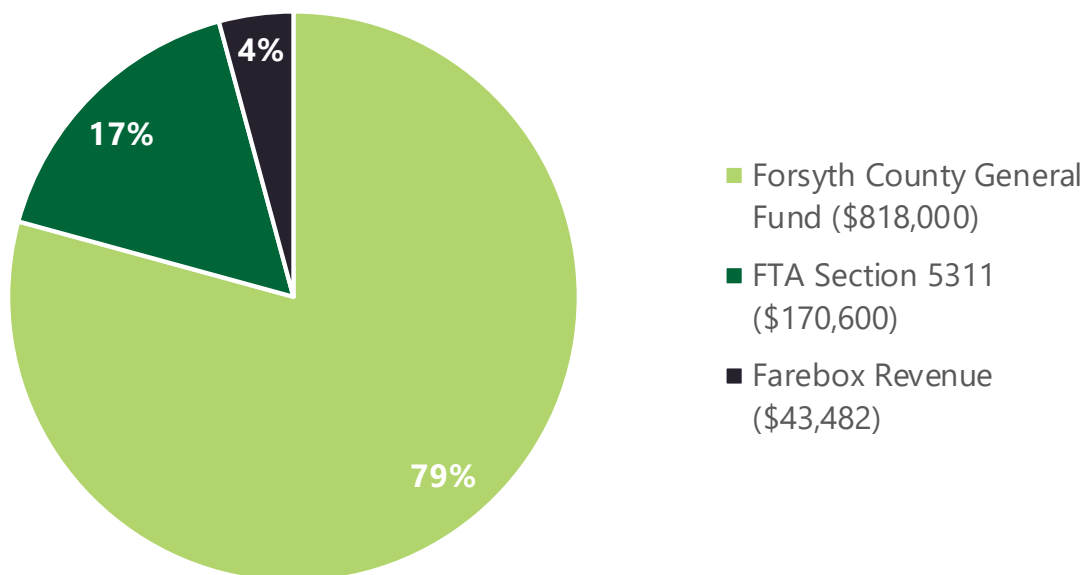


Figure 1: Dial-A-Ride Funding Sources

FTA Section 5311 funding comprises 17% of the total funding amount. These funds are only available to agencies who provide services outside of urban areas. When the boundary for the Atlanta urbanized area expands after the 2020 Census it is projected that Forsyth County will be almost 100% within the urbanized area. This will result in a loss of eligibility for 5311 funding.

FTA Section 5307 grants will be needed to fill this funding gap. Section 5307 provides funding grants for transit capital and operating assistance in urbanized areas. A large percentage of Forsyth County is currently located within the urbanized area and could become eligible for Section 5307 funding. Cherokee and Henry Counties both currently access Section 5311 and 5307 funding streams, which eases the burden on their general fund contributions.

The FTA has relaxed eligibility requirements for 5307 funds expanding it to agencies who provide demand response service without fixed-route service. Under FTA's '100 Bus Rule' agencies who operate less than 75 buses are eligible to use up to 75 percent of grant funds on operations assistance. This provides significant advantages over the 50 percent cap on operations funding provided through Section 5311. Operations funding is often a more critical need than capital funding.

Forsyth County should begin the process now to become eligible for Section 5307 funding to avoid an impending federal funding gap. There is a two-year lag between when you start 5307 service and when certified reporting data can be used by FTA for appropriating funds. The expanded urbanized area is anticipated to apply to 2022 funding allocations so commencing 5307 service in 2020 is critical. The first steps include contacting the National Transit Database (NTD) and raising reporting levels from a rural reporter to a small urban reporter. An NTD analyst will be assigned to the county and will work with staff to separate out rural and urban trips for reporting. Specific recommendations to begin this process will be included in the final recommendations phase of this study.

Farebox revenue comprises four percent of the total funding sources. It is typical for demand response service to have low recovery ratios from passenger fees due to the limited number of riders, personalized service and reduced fares for low-income populations. Placing an emphasis on maximizing farebox revenue is not recommended as it will not significantly change the overall funding picture. Farebox revenues should not be expected to serve as a major source of operating funds.

System Performance Evaluation

An evaluation of the existing system's performance was conducted to identify areas where the service is meeting goals and where potential improvements should be considered. Improvement areas will become the focus of further needs analysis and serve as the basis for recommended service enhancements to be provided later in the recommendations phase of this study. Potential system improvement areas received attention in the peer system analysis.

To evaluate system performance, data was collected for the past five years to develop evaluation metrics and identify historic trends. Table 2 through Table 6 provide an overview of system performance from 2015 through 2019.

Table 2: Dial-A-Ride Passenger Trip and Passenger Mile Statistics (2015-2019)

	2015	2016	2017	2018	2019
Annual Passenger Trips	18,986	19,116	19,266	20,940	22,925
Average Daily Passenger Trips	76	76	77	83	91
Annual Service Miles	224,480	227,867	226,584	261,661	286,613
Requested Trips	21,609	22,659	23,948	23,664	25,150
Trip Denials	2,623	3,493	4,682	2,724	2,225
Trip Denials per 1,000 Trips Requested	121	154	198	115	89
Trip Denials per Day	11	14	19	11	9

Table 3: Dial-A-Ride Safety Statistics (2015-2019)

	2015	2016	2017	2018	2019
Accidents/Safety Incidents	6	7	7	11	8
Accidents/Safety Incidents per 100,000 Service Mils	2.7	3.1	3.1	4.2	2.8

Table 4: Dial-A-Ride O&M Costs Statistics (2015-2019)

	2015	2016	2017	2018	2019
Operating and Maintenance Costs	\$558,742	\$564,252	\$603,415	\$741,170	\$849,607
Operating and Maintenance Costs per Passenger Trip	\$29.43	\$29.52	\$31.32	\$35.39	\$37.06

Table 5: Dial-A-Ride Fleet Statistics (2015-2019)

	2015	2016	2017	2018	2019
Number of Full-Time Vehicles in Operation	6	6	6	6-8 (Avg. 7.4)	8
Daily Passenger Trips per Full-Time Vehicle in Operation	12.6	12.7	12.8	11.3	11.4

Table 6: Dial-A-Ride Fare Statistics (2015-2019)

	2015	2016	2017	2018	2019
Fare Revenue Collected	\$36,646	\$36,944	\$36,746	\$39,720	\$43,482
Farebox Recovery Ratio (Percentage of trip costs recovered through fares)	6.8%	6.8%	6.4%	5.7%	5.4%

Source: Forsyth County, VHB

In 2018, Forsyth County's Dial-A-Ride service expanded their fleet from six full-time vehicles to eight full-time vehicles. These two additional vehicles began operating in the spring of 2018. The first in April and the other in May. With additional vehicle capacity becoming available, the department made projections for how service improvements. Several service targets were identified, including:

- Reducing the number of trip denials from 19 to 10 a day.
- Increasing passenger trips to 25,500 annual trips or 100 trips per day.
- Increasing annual service miles to 302,000 or 1,200 miles per day.
- Increasing annual passenger fare revenue to \$49,000.

The additional vehicle capacity has resulted in a significant reduction in the number of daily trip denials from 19 in 2017 to 9 in 2019. This has exceeded the service goal of 10 rejected trips per day. The other three service targets were not met however with numbers approaching the stated goals. For example, in 2019, the system averaged 91 trips per day, which was nine trips shy of the 100-trip target.

Most of these service targets would have been reached if vehicle efficiency was maintained at pre-2018 levels. Vehicle efficiency as measured through daily passenger trips per full-time vehicle in operation has declined from an average of 12.8 in 2017 to 11.4 in 2019. This stands out as an area for further study and potential service improvements.

Other areas for additional study and potential service needs identified through the system evaluation include:

- Reducing high operating and maintenance costs. These have increased significantly in recent years and are only partially attributable to an expanded vehicle fleet, additional staff and fuel costs.
- Improving service effectiveness through reductions in high operating costs per passenger trip.
- Additional study of scheduling, dispatching and route planning procedures.
- Increasing vehicle efficiency, specifically in number of passenger trips per day.

Senior Services Transportation

Forsyth County’s Senior Services department provides two major transit services for older adults in the county. These services include grant programs and the county’s active adult program. Grant program service is primarily transportation to and from the county’s senior centers for seniors who are no longer able to drive. The active adult program provides group transportation in a large passenger bus for once-a-week day trips to hiking trails or regional destinations.

These services tend to serve different population groups. Grant program passengers are often older and have limited incomes. Participants in the active adult program tend to be younger seniors (aged 50-75) and have higher incomes.

FTA’s Section 5310 is the grant program that provides mobility for seniors and individuals with disabilities. The goal of Section 5310 is to assist local service providers with the costs of passenger trips for the elderly and disabled. Local providers are reimbursed for senior transit trips at designated rates by the Georgia Department of Human Services (DHS). In Georgia, DHS administers Section 5310 funding grants. DHS uses subcontractors to oversee funding distributions and trip reimbursements to local transit agencies. Deanna Specialty Transportation Inc. manages the subcontract for DHS senior transit rides in Forsyth County and reimburses the county for Section 5310 eligible trips.

Table 7 provides an overview of the service characteristics of Senior Services Transportation for both grant programs and active adult programs.

Table 7: Senior Services Transportation Characteristics

Service Area	<u>Grant programs</u> – Forsyth County <u>Active adult program</u> – Atlanta region and north Georgia.
Service Hours	<u>Grant programs</u> - 7:30 a.m. to 2:45 p.m. – Monday through Friday <u>Active adult program</u> – 9:00 AM to 4:00 PM – Four days per month
Fare Rates	<u>Grant programs</u> – Fares are \$2 one-way. Low-income passengers ride for free. <u>Active adult program</u> – Hiking trips are \$10 per day and day trips range from \$10-25 per day depending on the destination.
Vehicle Fleet	The entire Senior Services fleet consists of eleven vehicles: <ul style="list-style-type: none"> • Two (13-person) passenger vans • Two (15-person) passenger vans • Two (10-person) passenger vans, equipped with wheel-chair lifts • One (28-person) passenger bus • Four (6-person) minivans (primarily used for staff needs) • Two vehicles (strictly for staff use): cargo van equipped with homebound program supplies and a Hot-Cold truck for picking up and delivering meals
Staff	<u>Grant programs</u> - four full-time drivers (one is also a team leader) and one part-time driver. Currently in the process of hiring a second part-time driver. <u>Active adult program</u> - 32 staff members have received defensive driving instruction and may drive minivans for meetings and errands, or to fill-in as a grant program driver.

Source: Forsyth County

Grant programs trips are primarily from senior's residences to senior centers in the morning and back to their homes in the afternoon. Morning pick-ups take place between 7:30 am-9:00 am and afternoon returns between 1:15 pm-2:45 pm. Transportation is provided between these times for medical appointments, shopping, and personal errands. Six individuals currently use this special mid-day service, averaging one trip per month each. Group trips to an indoor walking track are

provided daily with 10-20 people participating. Two to four times a month, special day trip outings are scheduled with 6-20 persons participating. These outings are often to Walmart, restaurants or thrift shops.

Grant programs are intended to serve low-income, minority, and rural elderly populations, but only approximately 20 percent of users fit this demographic. In December of 2019, 192 persons were registered for grant programs' transportation services, but 55 unduplicated riders used the service in 2019. It is important to note; however, that all that sign up for the Congregate program are eligible for transportation, but most drive their own car.

Table 8 details key service metrics for grant programs transportation in 2019. This provides an overview of the scale and extent of the service and an indication of system performance. Operating costs per passenger trip is frequently used to measure service effectiveness. The cost of \$13.91 per trip is lower than most demand response services in the Atlanta region, suggesting efficient service delivery. This is to be expected as the characteristics of DHS trips lend themselves to efficient service provision. They allow for the scheduling of shared rides to a common destination point at consistent times.

Table 8: DHS Grant Programs Transportation 2019 Service Metrics

Annual Passenger Trips	11,782
Unduplicated Riders	112 (including active adults)
Annual Service Miles	89,033
Operating and Maintenance Costs	\$163,859
Capital Costs (vehicle purchase)	\$250,782
Passenger Fees Collected	\$12,953
Operating Costs per Passenger Trip	\$13.91
Average Trips per Day	47
Service Miles per Passenger Trip	7.6 mi

Source: Forsyth County, VHB

The active adult program provides four day trips a month. Two of these are hiking excursions to area trails and the other two are to various destinations within the region. These are all-day trips that usually run from 9:00 am-4:00 pm. Participants meet in the morning at the Senior Center where they board a 28-person passenger bus and return in the afternoon. Typically, 12-25 individuals participate. The fee for hiking trips is \$10 a day and day trips cost between \$10-\$25 a

day depending on the destination. In 2019 fare collections totaled \$5,640 and the service transported 388 riders. This number reflects duplicated riders, not unique riders.

Funding Sources

Senior Services transportation is funded through four primary funding sources. These include the DHS transportation grant contract, Forsyth County general fund, grant programs cost share fees and Active Adult program trip fees. Figure 2 presents the overview of all funding sources and a breakdown of each source's contribution.

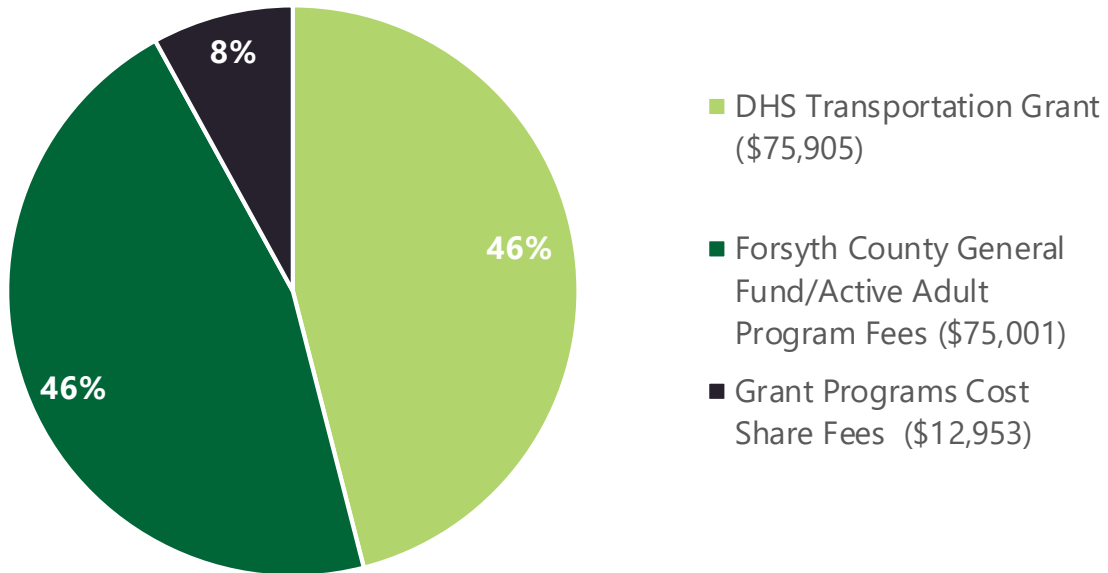


Figure 2: Senior Services Transportation Funding Sources

The largest funding source is the DHS contract which partially reimburses the county for the costs of senior trips provided. The County maintains an annual contract with Deanna Specialty Transportation, Inc. which manages reimbursements for DHS. The county is currently reimbursed at the following rates in FY 2020:

- Regular - \$6.50
- Wheelchair - \$15.00
- Field Trip Hourly - \$35.00 per hour
- Daily Field Trip - \$200

In 2019, the county was reimbursed \$79,205 for DHS eligible trips. This represents 46 percent of the total funding received for Senior Services transportation. DHS trips have set cost share fees of \$2 per ride, one-way. Trip fees are waived for low-income riders who ride for free. In 2019, Senior Services collected \$12,953 in cost share fees from DHS riders. This reflects eight percent of the total funding received for transportation services.

The remaining 46 percent of total funding comes from two sources, the general fund and the fees paid by Active Adult Trip participants. The Active Adult Trip fees were approximately \$9,500 in 2019 but the fees cover more than just the cost of transportation related to the Active Adult program. The general fund covers the remainder of the funding after the grants and the Active Adult fees.

Commuter Xpress Bus

SRTA operates Xpress commuter bus service in Forsyth County. This service is provided Monday through Friday during peak morning and evening commute hours. Service is offered through three Xpress bus routes. These routes include:

- Route 400 - Cumming Park and Ride to downtown Atlanta (North Avenue MARTA, Courtland Street at Auburn Avenue, Peachtree Center, Spring Street at Linden Street and Federal Center.)
- Route 401 - Cumming Park and Ride to Perimeter Center (Sandy Springs, Dunwoody, and Medical Center MARTA stations).
- Route 408 – Emory Johns Creek Hospital to Chamblee MARTA station (SR 141 at Abbots Bridge Road, Market Place at Peachtree Parkway, and Publix at Peachtree Parkway).

All three routes originate in the Xpress Blue Zone. Fares in this zone are \$4 for a one-way trip and \$7 for a round-trip. Monthly passes are available for \$125 and 10-trip packages for \$35.

Route 400 features four morning departure times (5:45 a.m., 6:30 a.m., 7:00 a.m., and 7:20 a.m.) and three afternoon return times (3:40 p.m., 4:10 p.m., 5:10 p.m.). Route 401 features three morning departure times (5:45 a.m., 6:25 a.m., and 7:25 a.m.) and three afternoon pick-up times (3:25 p.m., 4:25 p.m., 5:25 p.m.).

Route 408 features two morning and afternoon southbound trips (7:00 a.m., 8:00 a.m., 4:05 p.m., and 5:05 p.m.) and two morning and afternoon northbound trips (5:55 a.m., 6:50 a.m., 5:30 p.m., 6:30 p.m.). This route serves Forsyth County commuters and employees at Emory Johns Creek Hospital who reverse commute from the Chamblee MARTA Station.

A detailed ridership analysis of the three Xpress routes serving Forsyth County was conducted in 2018, as part of the SRTA Xpress Bus Study. The results of this analysis are shown in Table 9. Service changes were recommended in response to this analysis and have subsequently been made by SRTA.

Table 9: Ridership Analysis of Forsyth County Xpress Bus Routes (2018)

Xpress Route	Monthly Boardings	Trips per Day (in 2018)	Average Boardings per Trip	Trips per Day (in 2020)
400	4,050	6	31	7
401	3,242	6	25	6
408	2,072	10	9	8

Source: SRTA, Kimley Horn

Route 400 (Cumming to Downtown) had the highest ridership levels of any route. It totaled 4,050 monthly boardings and averaged 31 boardings per trip in 2018. On multiple weekdays ridership demand exceeded seated capacity on the 7:00 AM bus. To adequately serve this demand an additional in-bound trip was added at 7:20 AM.

Ridership analysis of Route 401 (Cumming to Perimeter) indicated that it was a popular route with high ridership levels, but demands were not in danger of exceeding capacity. No service changes were needed or recommended on this route.

Route 408 (Emory Hospital to Chamblee) had the lowest ridership levels of the three routes, averaging nine boardings per trip. This route also featured the highest number of trips per day. The number of daily trips has been reduced from ten to eight to better serve the level of demand. Two southbound and northbound trips are now provided during the AM and PM commuting periods.

Peer System Assessment

A peer system assessment was conducted to evaluate Forsyth County's level of service provision against benchmarks set by similar systems. The goals of this analysis were to detect areas for service improvements in Forsyth County and review the best practices of peer systems. This assessment included a review of publicly available data, interviews with the agency directors and a performance evaluation based upon requested system data.

Peer Selection Process

Nine potential peer systems were initially examined to narrow the selection to two transit systems most appropriate for further study and comparison to Forsyth County. Data was collected on each system's service characteristics to inform the selection process. The service factors evaluated included:

- County population and geographic size
- Types of transit services provided
- Vehicle fleet characteristics
- Annual passenger trips
- Annual fare collection
- Service effectiveness (operating expenses per passenger trip)

Most information was publicly available through the National Transit Database (NTD). Candidate systems included all county operated transit systems in the Atlanta region that primarily provide demand response service. This included Bartow, Cherokee, Coweta, Dawson, Henry and Paulding Counties. Several systems in North Carolina were also considered as potential peers, including Davidson County in the Charlotte region and Johnston County in the Raleigh metropolitan area.

The two systems selected for peer analysis were Cherokee County and Bartow County. An overview of both peer systems is provided in Table 10. Cherokee County was selected because it shares a similar demographic profile and geographic setting to Forsyth County and features a more developed transit network that includes limited fixed-route service. Cherokee County serves as a good example for how Forsyth might build upon its existing transit system in the future.

Bartow County was chosen because it operates a vehicle fleet of similar size to Forsyth County, but shows much higher service efficiency in various performance metrics, such as operating costs per passenger trip. Bartow Transit also won the Frank J Hill award for excellence in rural public transportation in 2017 from the Georgia Department of Transportation (GDOT). Bartow Transit represents a system of similar size to Forsyth's, which runs with greater efficiency and has been recognized by the state as an example of high-quality service provision. Bartow Transit was selected to help identify best practices to improve Forsyth County's existing service.

Table 10: Peer System Overview

	Forsyth County	Cherokee Area Transportation System (CATS)	Bartow Transit
County Population (2018, US Census ACS)	236,612	254,149	106,408
County Size	224.6 square miles	421.1 square miles	459.5 square miles
Transit Services Provided	<ul style="list-style-type: none"> Countywide Demand Response Senior Services Transportation 	<ul style="list-style-type: none"> Fixed-Route Local Bus Complementary Paratransit Countywide Demand Response Senior Services Transportation Vanpool 	<ul style="list-style-type: none"> Countywide Demand Response
Demand Response Fleet Size	8 passenger vans (passenger capacity 10 persons)	16 shuttle buses (passenger capacity 8-16 persons)	13 passenger vans (passenger capacity 10-13 persons)
Annual Passenger Trips (2018)	20,940 (Dial-A-Ride)	55,372	45,766

Sources: National Transit Database, US Census, Forsyth County, Bartow County, Cherokee County

Cherokee County (CATS)

Cherokee County’s transit agency, Cherokee Area Transportation System (CATS), provides five distinct types of transit service. These include fixed-route local bus service, complementary paratransit service, countywide demand response service, vanpool service, and Senior Services transportation. An overview of the key service characteristics of each service type is detailed in Table 11.



Table 11: Cherokee Area Transportation System (CATS) Service Characteristics

Service Type	Key Service Characteristics
Canton Fixed Route Service	<ul style="list-style-type: none"> Two fixed-route local bus routes (Route 100 and 200) operate within the Canton area with 60-minute headways. Buses operate Monday-Friday from 8:00 a.m. to 4:00 p.m. Standard fares for adults and children over 42" are \$1.25. Seniors and disabled passengers qualify for a reduced rate of \$0.60. Children under 42" ride for free.
Complementary Paratransit Service	<ul style="list-style-type: none"> ADA compliant complementary paratransit service is provided for residents with origins and destinations within ¾ of a mile of fixed-route service who cannot access and/or utilize fixed-route service due to disability. Service is provided Monday-Friday from 8:00 AM-4:00 PM. Fares are \$2.50 per trip.
Countywide Demand Response Service	<ul style="list-style-type: none"> Service is available to all county residents. Service is provided Monday-Friday from 6:30 AM-4:00 PM Fares are \$1.50 for the first 5 miles and an additional \$0.30 per mile over 5 miles. Payment is due at boarding. Debit and credit cards are accepted over the phone. If paying cash, must have correct amount.
Vanpool Service	<ul style="list-style-type: none"> CATS is partnered with Commute with Enterprise to provide vanpool services. This service features newer model SUVs or passenger vans with insurance, maintenance, roadside assistance and Peach Pass included. Prices vary by distance and number of riders per vehicle (4-15 people). CATS pays for 50% of the lease amount and fuel. The remaining costs are divided equally among riders.
Senior Services	<ul style="list-style-type: none"> The Senior Services division of Cherokee County provides pre-scheduled transportation services for seniors to the Senior Services Center in Canton via a 32-passenger bus that is equipped with a lift and wheelchair assistance. This service is oriented towards providing transportation to large groups of seniors while trips for senior individuals and small groups are served by the countywide demand response service described above. The fare is \$1.00 per trip. Residents aged 65 and over are eligible for reduced fare to the Senior Services Center for programs. This service also transports seniors who are part of the congregate meal program to the Senior Services Center.

While CATS provides a variety of transportation services the peer system analysis is focused primarily on countywide demand response since this is the primary service provided by Forsyth County. CATS provides demand response through 16 shuttle buses with a capacity of 8-16 persons. The service begins at 6:30 a.m. and ends at approximately 4:00 p.m. each weekday. Start and end times vary by vehicle based upon trips scheduled each day.

CATS maintains a contract with the Georgia Department of Human Services (DHS), which reimburses the agency for trips to the Cherokee Training Center, Empower Cherokee, Cherokee Senior Center, the Department of Family and Children Services (DFCS), Vocational Rehabilitation, and Briggs & Associates. Reimbursements are based upon fixed rates for each destination. The Cherokee Senior Center and Cherokee Training Center also contribute a portion of their trip costs to CATS.

Demand response service can be scheduled for any trip purpose if the origins and destinations are within Cherokee County. In addition to DHS trip destinations, other major destinations include Northside – Cherokee Hospital, Highland Rivers, Cherokee Wellness Center, medical facilities in Canton and Woodstock, nursing homes, shopping centers, and employment sites.

CATS uses QRyde software to schedule requested trips. QRyde is an ADA-complaint scheduling and dispatching software designed to serve the needs of local demand response transit. It features a Global Scheduling Engine™ (GSE) that schedules rides through advanced booking and also manages will-calls by keeping track of vehicle capacity in real-time. This feature can be used to maximize seat occupancy and increase ridership.

CATS' experience with QRyde has been mixed. Some features of the software work well, like the NTD reporting while some do not. QRyde has not been effective in optimizing routes in the county. The preferred method for route planning is through the local knowledge of dispatchers and CATS typically relies on 17 set routes throughout the county to provide service.

Cherokee County like Forsyth County is partially located within the Atlanta urbanized area boundary. Cherokee County currently receives federal funding through FTA 5311 (Rural Area Formula Grants) and FTA 5307 (Urbanized Area Formula Grants). They are well-positioned to receive more federal transit funding as the portion of the county in the urbanized area increases with the release of the updated Census 2020 boundary in 2022. They are classified as an eligible recipient of FTA 5307 grants and will not experience any funding gaps when the transition occurs after the 2020 Census. Forsyth County should begin the process of becoming an FTA 5307 recipient now to avoid any federal funding gaps in the future.

System Evaluation

Performance metrics were collected from CATS for their demand response service to conduct a system evaluation and provide a benchmark for comparison with Forsyth County. Comparisons are helpful in identifying areas for further evaluation that may require service improvements. It is important to note that no two systems are identical, and they may vary considerably in performance metrics due to differences in service demands, trip types, transit markets and vehicle fleets. Direct comparisons should consider the variety of influencing factors at play.

Table 12 and Table 13 provide comparisons between Forsyth County and CATS across key performance metrics for 2019. These include annual passenger trips, annual service miles, average daily passenger trips, and daily passenger trips per vehicle.

Table 12: CATS Demand Response Service Statistics Comparison (2019)

	Forsyth Dial-A-Ride	CATS Demand Response
Annual Passenger Trips	22,925	57,254
Average Daily Passenger Trips	91	228
Annual Service Miles	286,613	289,462
Daily Passenger Trips per Full-Time Vehicle	11	14
Service Miles per Passenger Trip	12.5	5.1 mi

Table 13: CATS Demand Response O&M Statistics Comparison (2019)

	Forsyth Dial-A-Ride	CATS Demand Response
Operating and Maintenance Costs	\$849,607	\$1,057,160
Operating and Maintenance Costs per Passenger Trip	\$37.06	\$18.46

Sources: Forsyth County, Cherokee County, VHB

The system performance comparison indicates major differences in service effectiveness. This is particularly evident in operating costs per passenger trip, daily passenger trips per vehicle and service miles per passenger trip. It is important to note that CATS Demand Response service includes DHS trips, while Forsyth's Dial-A-Ride does not. DHS trips lend themselves to more efficient service provision, so the variances in service effectiveness can be at least partially explained by differences in trip types.

CATS cites being able to keep operating costs down through employing part-time drivers, particularly to serve DHS clients, which are heaviest in the early mornings and afternoons. Staggering the start times for full-time drivers into three shifts has also been helpful in maximizing resources to meet demands. Another key factor in increasing service efficiency has been a significant expansion in service hours. Demand response service has expanded from operating from 9:00 a.m. to 1:00 p.m. to 6:30 a.m. to 4:00 pm.

Bartow County Transit

Bartow Transit operates demand response transit as a public service to Bartow County residents. Demand response is the only type of transit service currently provided by the County. The most common trip destinations include medical appointments, shopping centers and local senior centers. Major service characteristics are detailed in **Table 14**.

Table 14: Bartow Transit Demand Response Service Characteristics

Population Served	Service is available to any Bartow County resident aged 18 years or older. Riders younger than 18 must be accompanied by an adult. Children under five must be in a car seat, which are not provided by the county.
Service Area	The service area is primarily to destinations within Bartow County. Limited service is provided to destinations outside the county (Rome and Acworth, GA) for an additional fee.
Service Hours	8:00 a.m. to 4:30 p.m. – Monday through Friday
Scheduling Hours	8:00 a.m. to 4:30 p.m. – Monday through Friday
Scheduling Window	Reservations are requested at least 24-hours in advance. Calls must be placed before noon for next day service.
Fee Schedule and Policy	Fees are \$1.00 a trip (one-way) for riders age six and above to destinations within the county. Trips to Rome are \$5 and from Adairsville to Acworth are \$2.50. Cancellations are requested at least one hour prior to pick-up. Failure to cancel a trip before this window will result in a 'no-show.' Three 'no-shows' will result in riding privileges being suspended for a period of 30 days.
Vehicle Fleet	The service fleet consists of 14 passenger vans. Seven vans have a capacity of 10 persons and the other seven have a capacity of 12-13 persons. Five vehicles are handicap accessible with wheel-chair lifts. 13 vans operate daily and one is kept as a back-up vehicle.

Source: Bartow Transit

In 2017, Bartow County received the Frank J. Hill award for excellence in rural public transportation from GDOT. Each year one rural public transit system in the state is recognized for performance in growth in ridership, quality of service, customer satisfaction, using innovative approaches to service delivery, safety record, and marketing/community outreach. In 2017, Barrow Transit was recognized for:

- Expanding service hours within the county's rural service area.
- Providing a transit link to Cobb County's CobbLinc at the I-75 at US 92 exit, which connected Bartow commuters to job centers in Cobb County and metropolitan Atlanta.
- Completion of the county's first long-range transit plan to guide the system's development over the next 20 years.
- Advancing the development of fixed-route transit service in the urban portion of the county.

Performance Evaluation

Bartow County recently switched their scheduling and reporting software from RouteMatch to QRYde in 2018. Data located within the Routematch system was not available for a historic performance evaluation or comparison with Forsyth County. However, system data from 2018 was available from QRYde, and in combination with publicly available data from the NTD, was used to develop a system evaluation and comparison.

Table 15 provides a comparison and evaluation of Bartow Transit and Forsyth County Dial-A-Ride service in 2018. Bartow Transit features one of the lowest operating costs per passenger trip ratios in the Atlanta region. The agency cites maximizing vehicle efficiency and capacity through the coordinated provision of DHS trips in the mornings and afternoons as a factor. The county receives approximately \$60,000 a year in funding from their DHS contract. It is estimated that approximately twenty percent of all demand response trips are DHS. The agency also cites frequent vehicle inspections as a practice that keeps operating costs low by catching problems early before they become costly repairs.

Table 15: Service Comparison of Bartow Transit and Forsyth County Dial-A-Ride (2018)

	Bartow Transit Demand Response	Forsyth County Dial-A- Ride
Annual Passenger Trips	45,766	22,925
Annual Service Miles	404,743	261,661
Operating and Maintenance Costs	\$560,152*	\$741,170
Operating Costs per Passenger Trip	\$12.24*	\$35.39
Passenger Fees Collected	\$29,499	\$39,720
Average Trips per Day	138	83
Average Daily trips per Vehicle	14	11
Service Miles per Passenger Trip	8.8 mi	12.5 mi

Source: Bartow County, Forsyth County, National Transit Database*

Bartow County uses QRyde as their scheduling and reporting software. However, they do not utilize the route planning features of the software, preferring to manually plan daily routes. They rely on eight set routes that serve specific geographic areas of the county, and maximize efficiency by running the same routes every day with the high number of standing orders they have from riders completing the same trips daily.

Other performance metrics that indicate efficient service provision include average daily trips per vehicle (14 vs. 11) and service miles per passenger trip. Service miles per passenger trip is not a direct measure of trip length, since it includes revenue and non-revenue miles, but it does provide a general indication of efficiency. The measure for Bartow Transit is 30 percent lower in a county that is twice as large as Forsyth in total land area.

Peer System Conclusions

Key findings from the peer systems assessment are summarized below:

- Operating and maintenance costs are notably higher for Forsyth County compared to peer systems. This is likely the result of major transportation services (DHS and general demand response) being operated through separate departments. With combined services peer systems can take advantage of economies of scale and operating efficiencies in ways Forsyth County is currently unable. The proposed new transportation department could be instrumental in consolidating service provision and streamlining operating costs.
- The peer system analysis has identified several service areas requiring further study as a component of the needs assessment. These areas include scheduling, dispatching, and route planning, optimizing vehicle efficiency and minimizing operating expenses.
- The County should start the transition process between FTA Section 5311 and 5307 now to avoid any gaps in federal funding.
- Cherokee County is similar in population size to Forsyth County but provides service to three times as many DHS trips. Given that only 55 of the 192 registered DHS clients utilize this service annually in Forsyth County could indicate a benefit to increasing community outreach and education to expand ridership.
- There is a need to collect additional system data for NTD reporting including annual revenue and non-revenue miles and vehicle revenue hours needed for FTA Section 5307 funding.

Regional Transit Perspective

Transit has come to the forefront of the transportation conversation in metro Atlanta in recent years. The State has taken a more active role in coordinating transit in the region through the creation of a new authority and has planned high capacity transit investments along SR 400. Many of Forsyth's neighboring counties have also evaluated their transit needs and developed plans for transit expansion

HB 930 and the ATL

In 2018 the State Legislature passed House Bill 930 (HB 930) that created the Atlanta Region Transit Link Authority (ATL) and created a new mechanism to leverage additional sales tax funding for transit. The ATL has many key functions including regional coordination on technology, innovation, branding, and funding, creating and maintaining the Atlanta Regional Transit Plan (ARTP), conducting annual audits/reporting, and providing transit planning services. Through the ARTP, the ATL has created a comprehensive plan for the region that will aid the region in prioritizing projects for regional, state, and federal funding. Any transit project pursuing state or federal transit funding must be included in the ARTP and go through an evaluation process to prioritize projects from across the region.

HB 930 also creates a new mechanism for providing sales tax funding for transit projects. Counties can apply up to 1-cent for a maximum of 30 years to fund transit through a referendum. The referendum must include a list of projects that are included in the ARTP.

SR 400 BRT

As part of the Georgia Department of Transportation's (GDOT) Major Mobility Investment Program (MMIP), new managed Express Lanes are to be constructed along SR 400 from I-285 to north of McFarland Parkway in Forsyth County. The State of Georgia has put forward \$100 million worth of general obligation bonds to fund the construction of bus rapid transit (BRT) infrastructure as part of the SR 400 Express Lanes project. The SR 400 BRT project is currently proposed to serve Fulton County from North Springs MARTA station to Windward Parkway.

Surrounding Counties

Gwinnett County completed a Comprehensive Transit Development Plan in June 2018 that includes nearly \$12 billion in transit investments across the constrained and aspirational project lists. Gwinnett voted down a referendum to join MARTA in March 2019 but is currently exploring another referendum in November 2020 to fund the transit plan.

Fulton County completed the Fulton County Transit Master Plan in February 2018 that identifies \$1.6 billion in project costs for short-term priorities. Fulton is considering a sales tax referendum to fund the short-term priorities of the plan.

CobbLinc, the Cobb County transit provider, completed a transit service plan in July 2019 and implemented changes to their transit network in September 2019. The transit service plan included recommendation for mid-range improvements. Cobb County is also in the process of completing CobbForward, an update to the County's transportation master plan. As part of the CobbForward process, transit investments are being considered.

In addition to the plans identified above, the ATL is in the process of updating the ATL Regional Transit Plan (ARTP) for 2020. The 2019 ARTP included 192 projects submitted by project sponsors from across the Atlanta region. The 2020 ARTP will build upon this effort and create opportunities for additional regional coordination of service and potential connections between providers. By leveraging the regional work being done for the 2020 ARTP, the Forsyth County Public Transportation Master Plan has the opportunity to begin to plan for future transportation services that will provide critical connections for those who need it to surrounding communities. **Figure 17** of the Map Book illustrates trips to regional activity centers and provides a starting point for potential collaboration and transportation connections with Hall, Fulton, and Gwinnett Counties.

Conclusion

There are currently three types of transit services provided in Forsyth County: Dial-A-Ride, Senior Services Transportation, and Xpress Commuter. These services are primarily focused on seniors, commuters, and those with limited transportation options.

As Forsyth County moves forward with the Public Transportation Master Plan, it will be important to decide the types of users that the system wants to prioritize, how that relates to the overall vision for the system and how system efficiency can be enhanced. As the project moves forward into public involvement and gathering feedback, it will be important to leverage information received to help to shape the short-term and long-term future of public transportation for the County.

**FORSYTH COUNTY
PUBLIC TRANSPORTATION MASTER PLAN**

**EXISTING CONDITIONS REPORT
MAP BOOK**

Background

This document serves as a supplement to the Forsyth County Public Transportation Master Plan Existing Conditions report. It contains both maps that are found within the Existing Conditions report and maps that were excluded from the main report document but informed the findings of the report.

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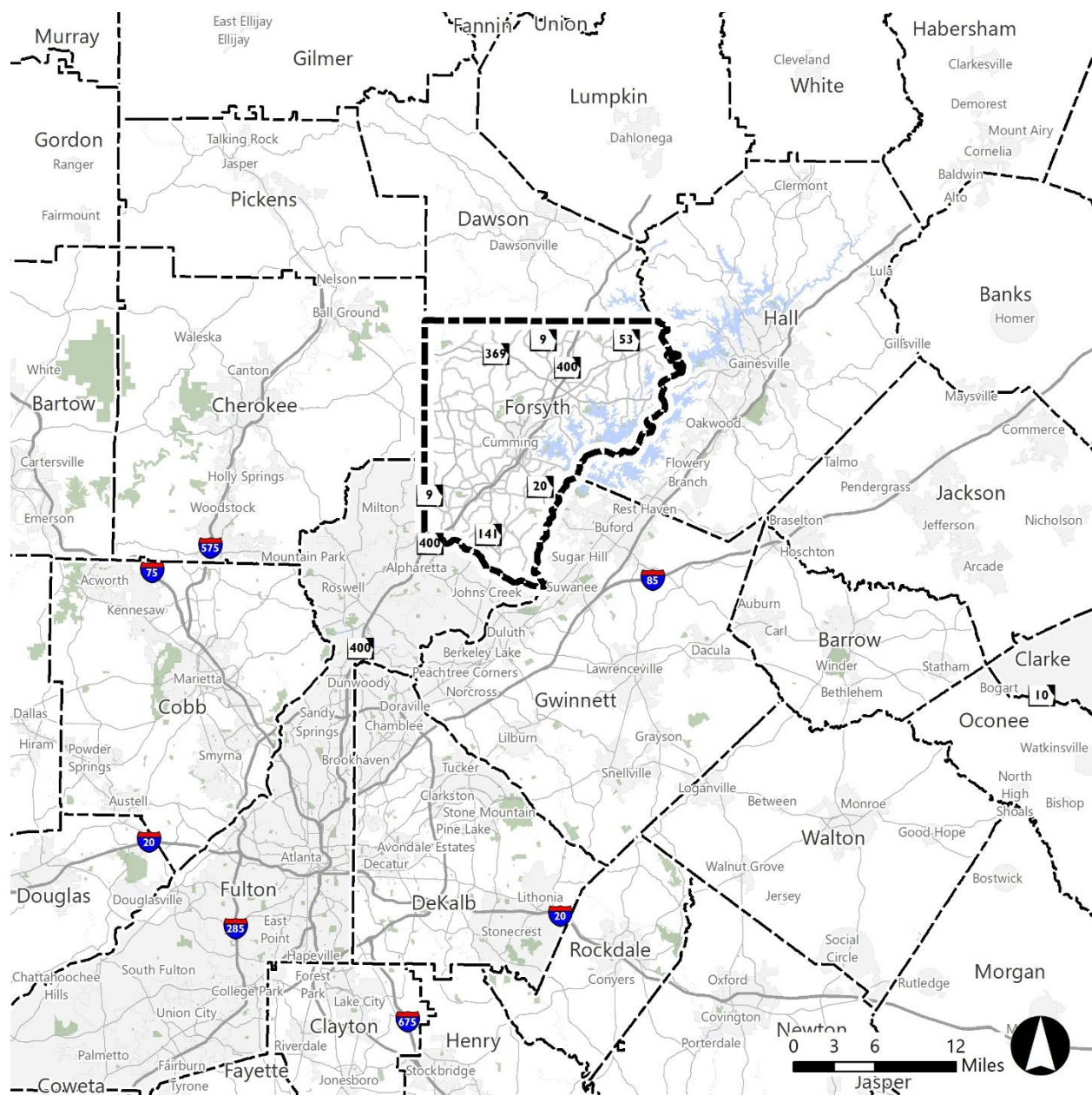


Figure 1: Regional Context Map

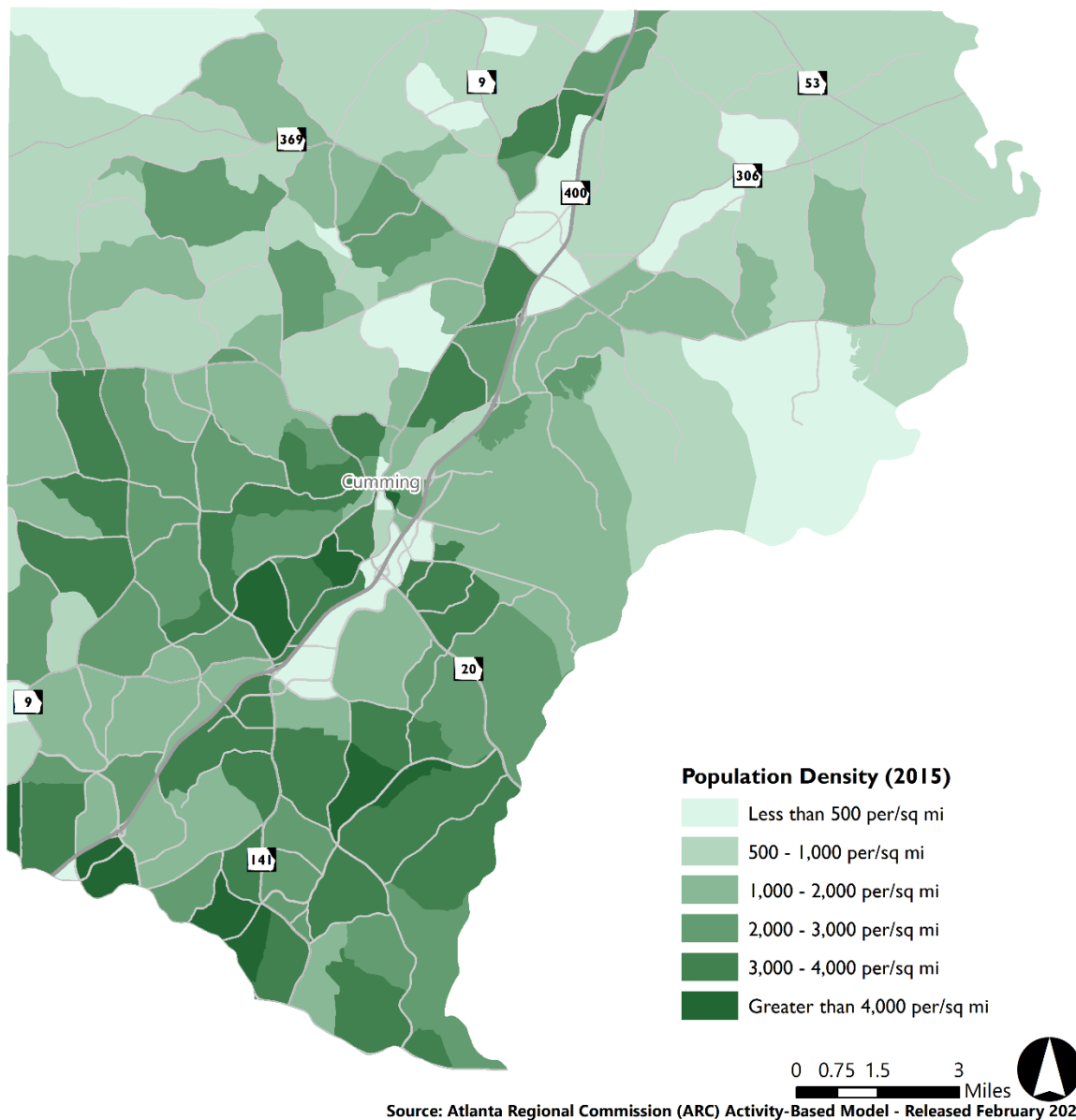


Figure 2: Existing Population Density (2015)

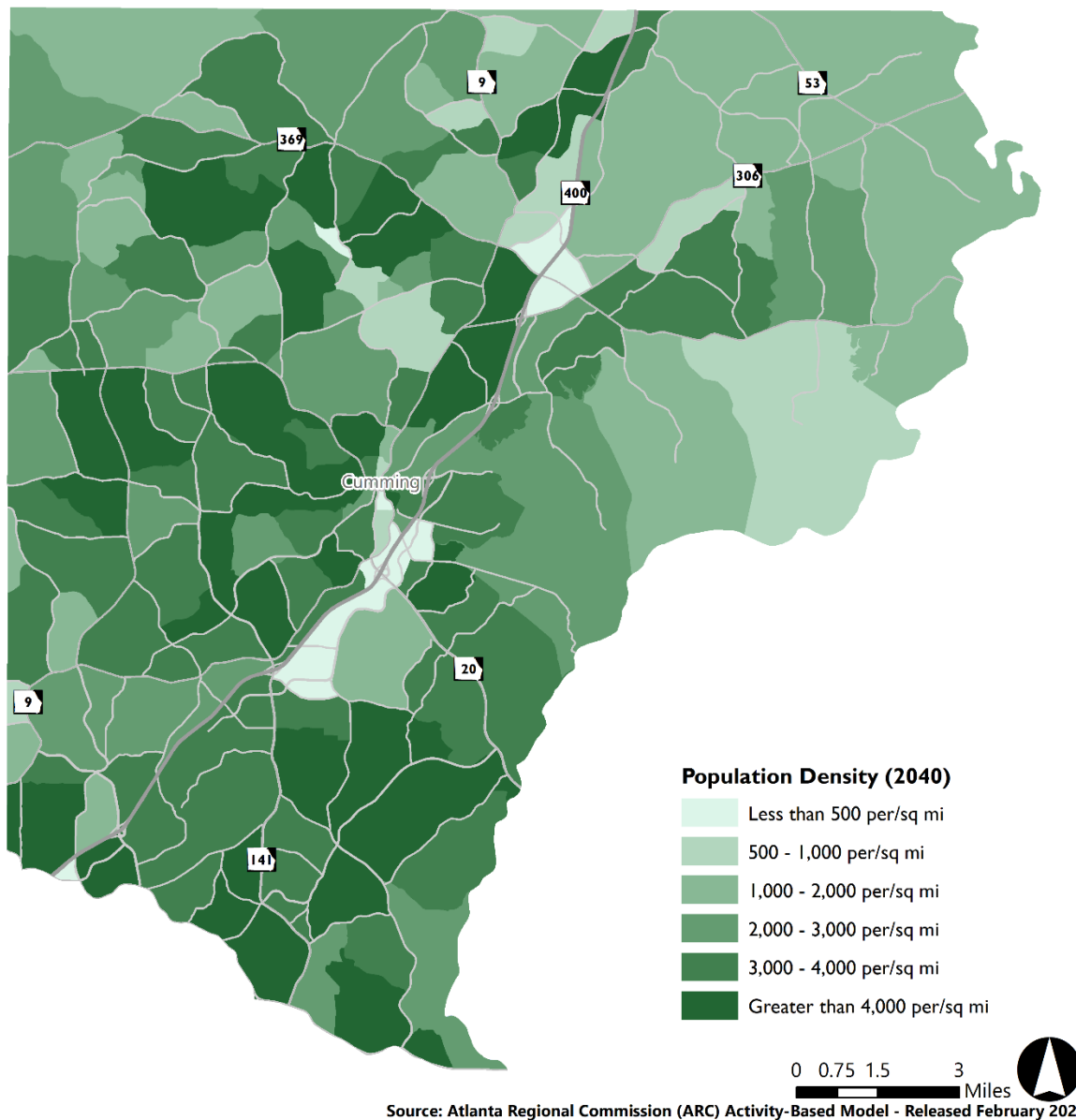


Figure 3: Future Population Density (2040)

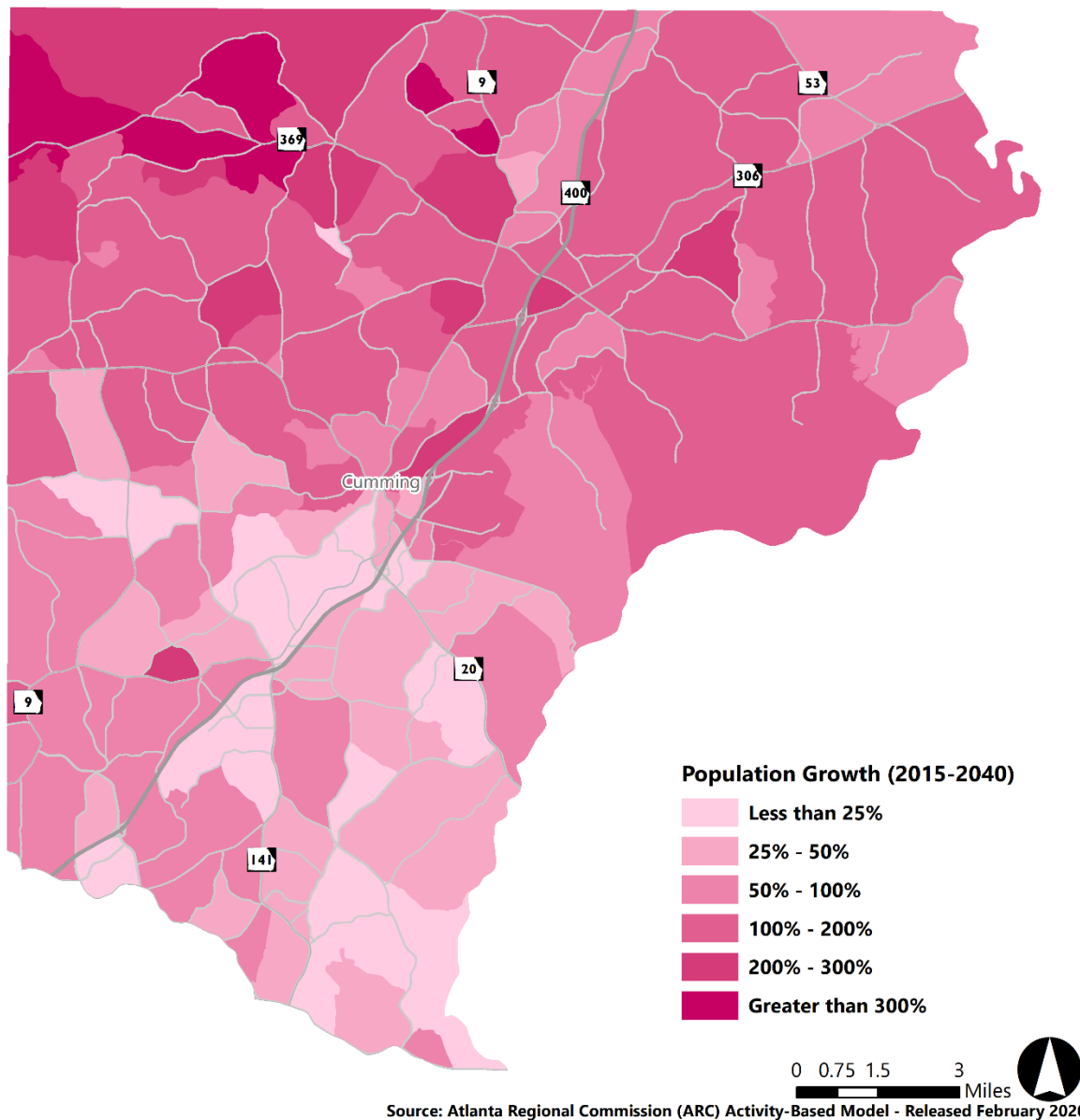


Figure 4: Population Growth (2015-2040)

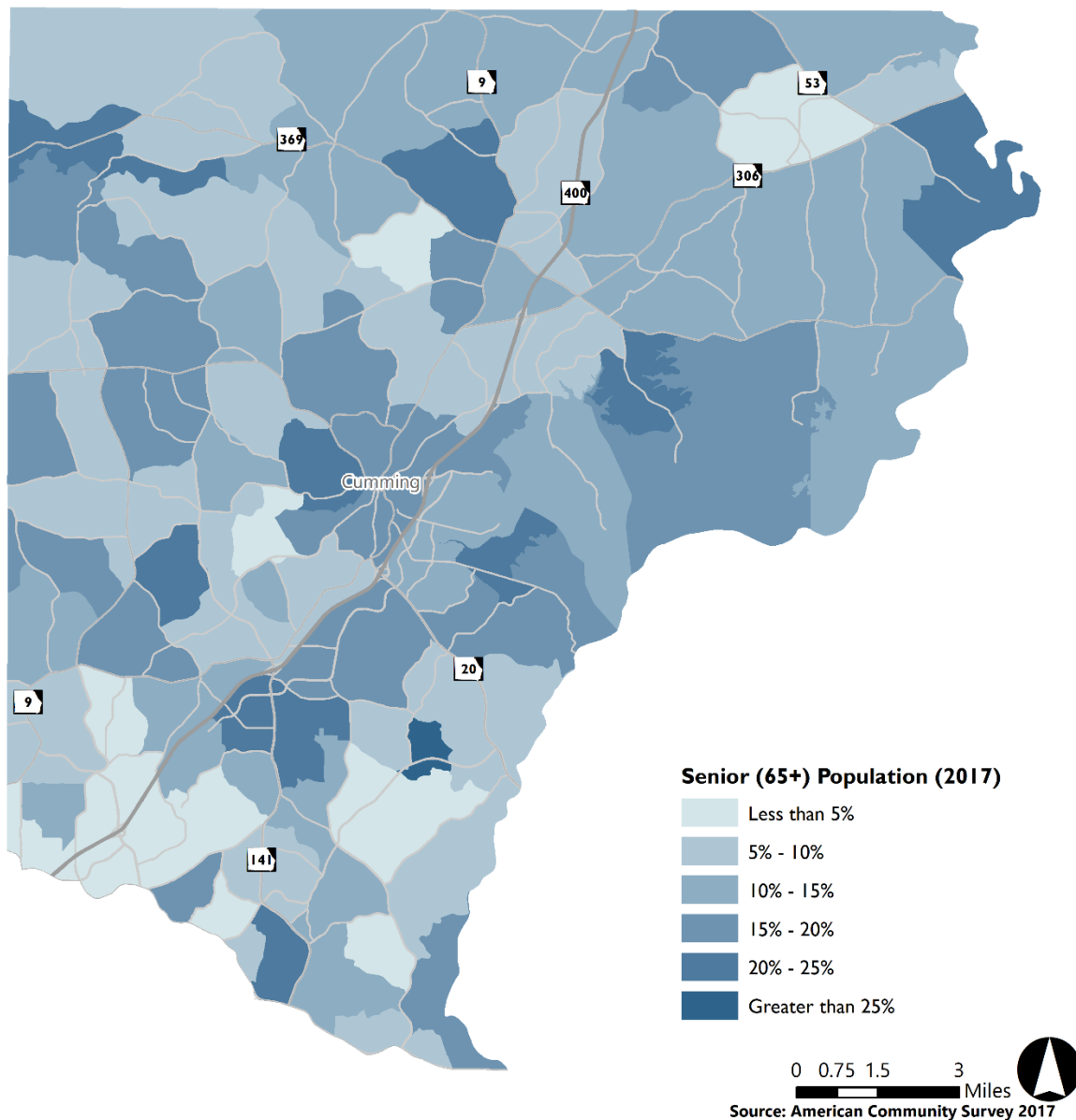


Figure 5: Senior (65+) Population (2017)

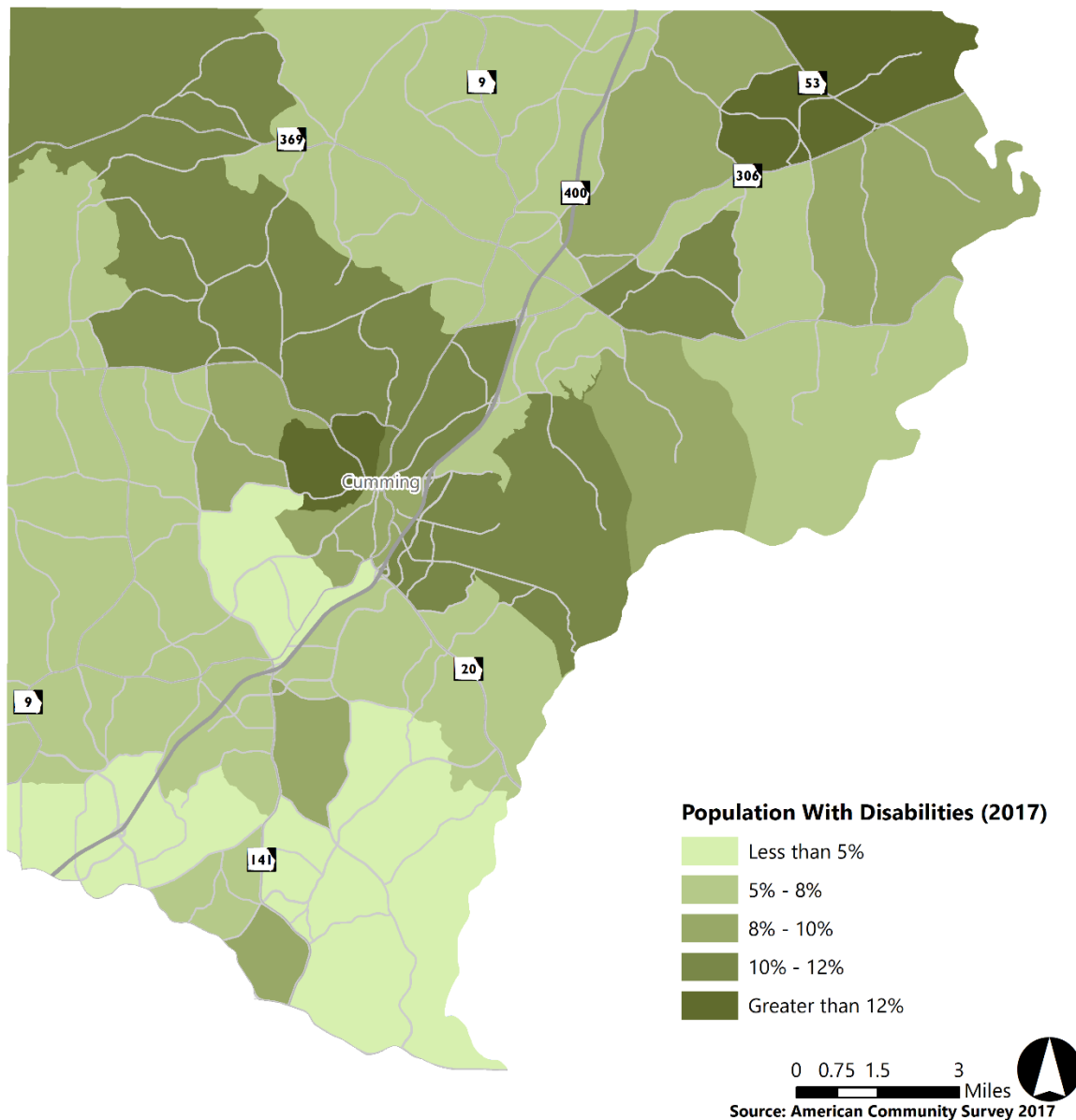


Figure 6: Population with Disabilities (2017)

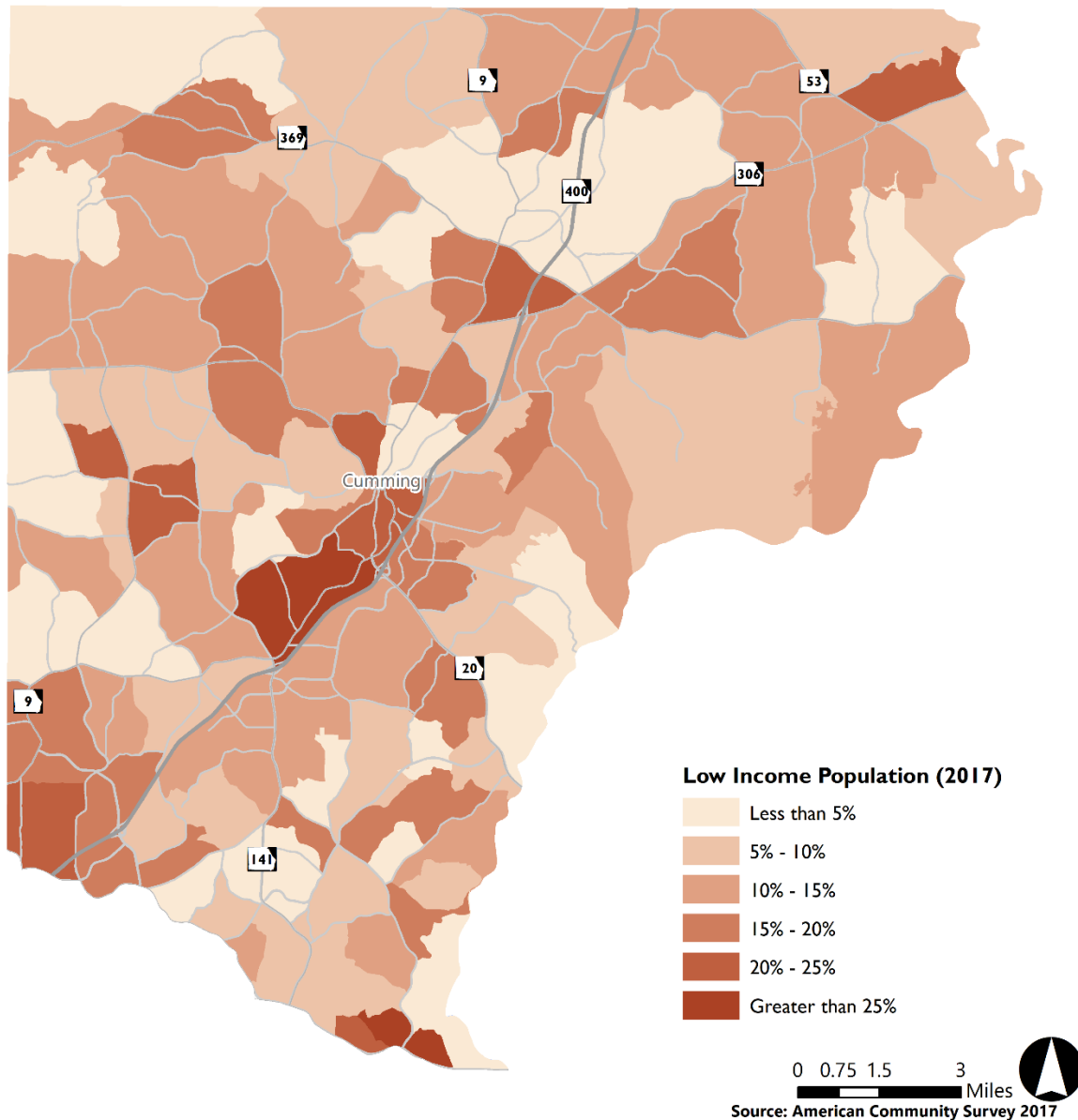


Figure 7: Low Income Population (2017)

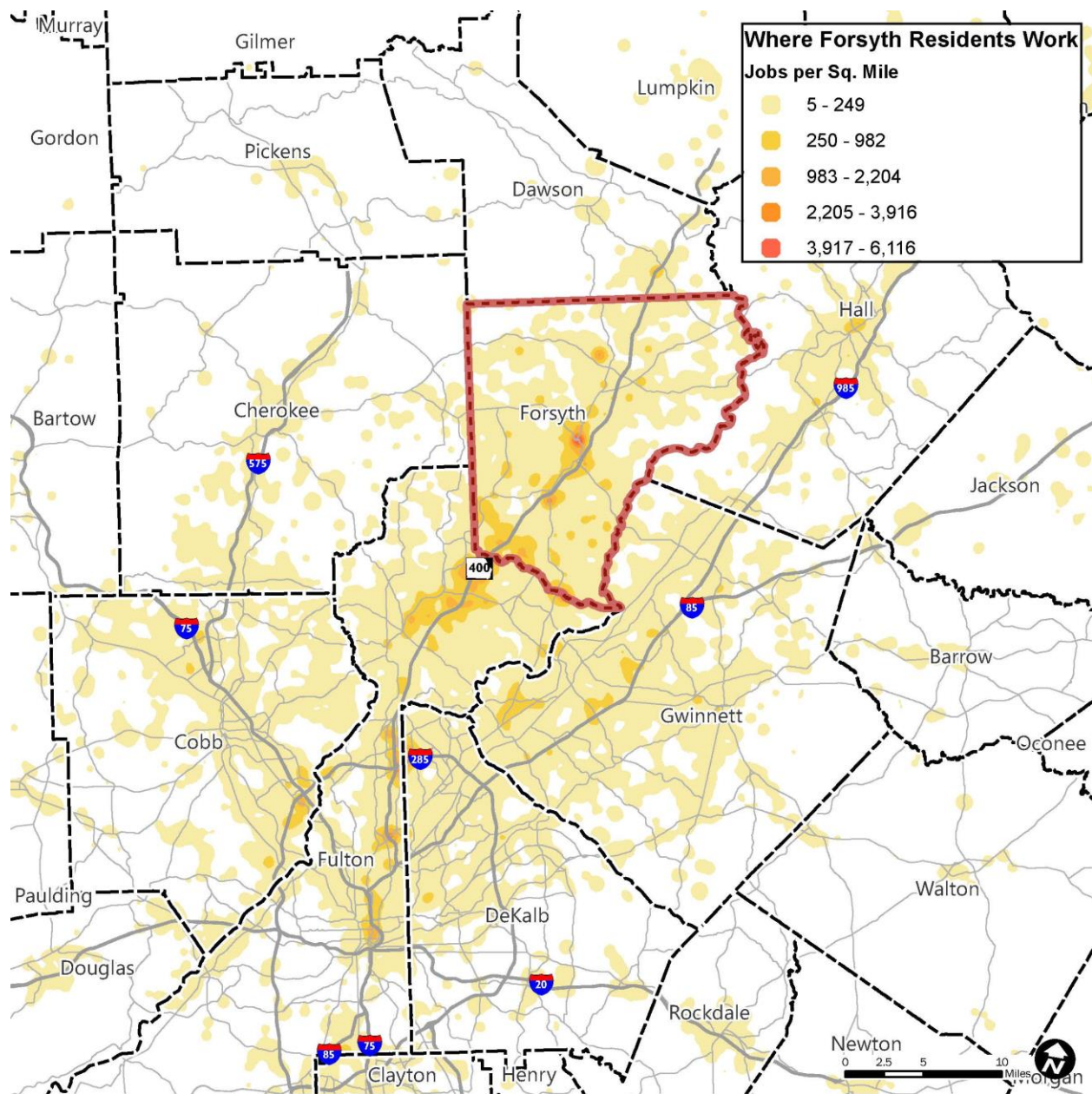


Figure 8: Where Residents Work

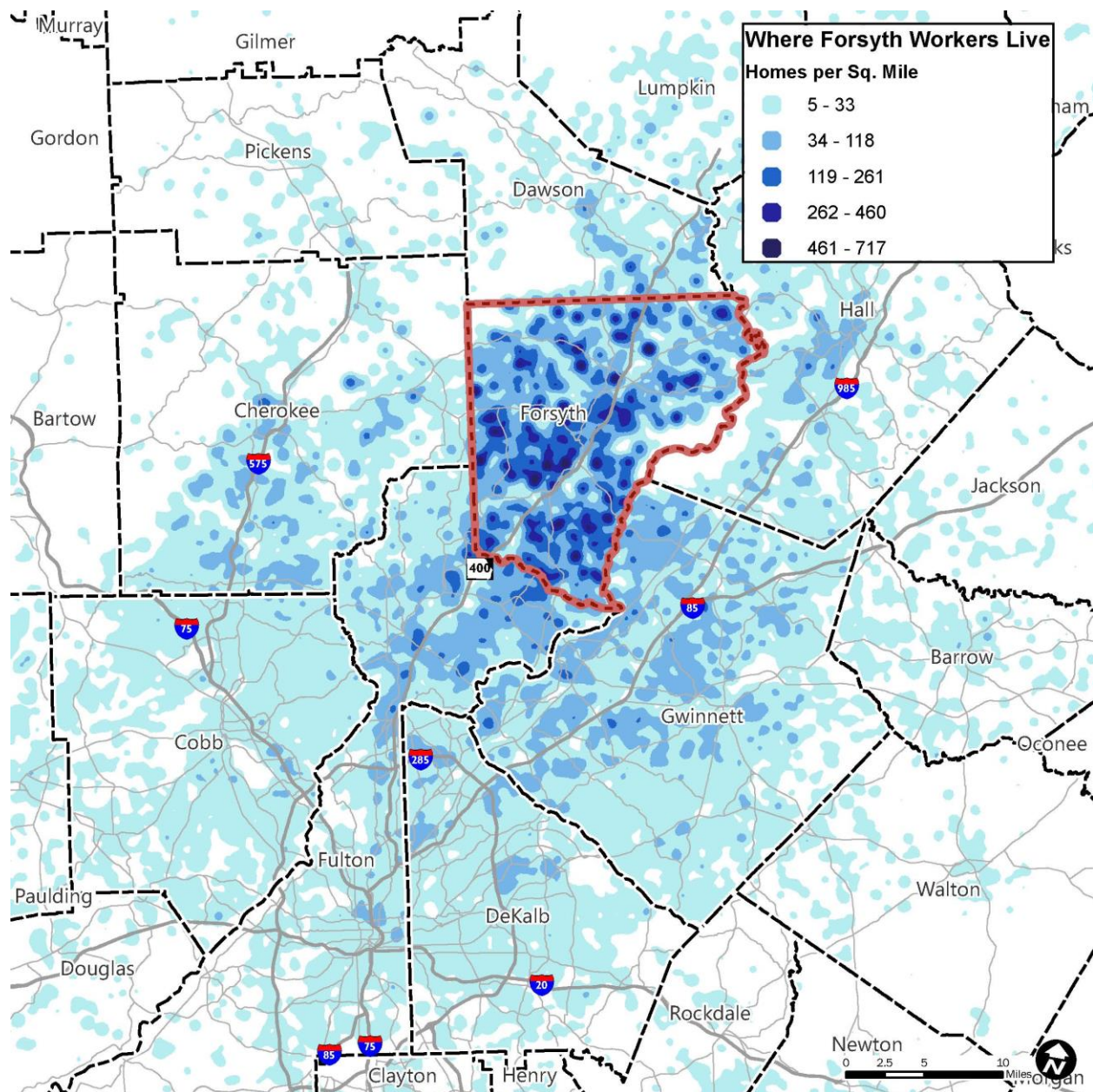


Figure 9: Where Workers Live

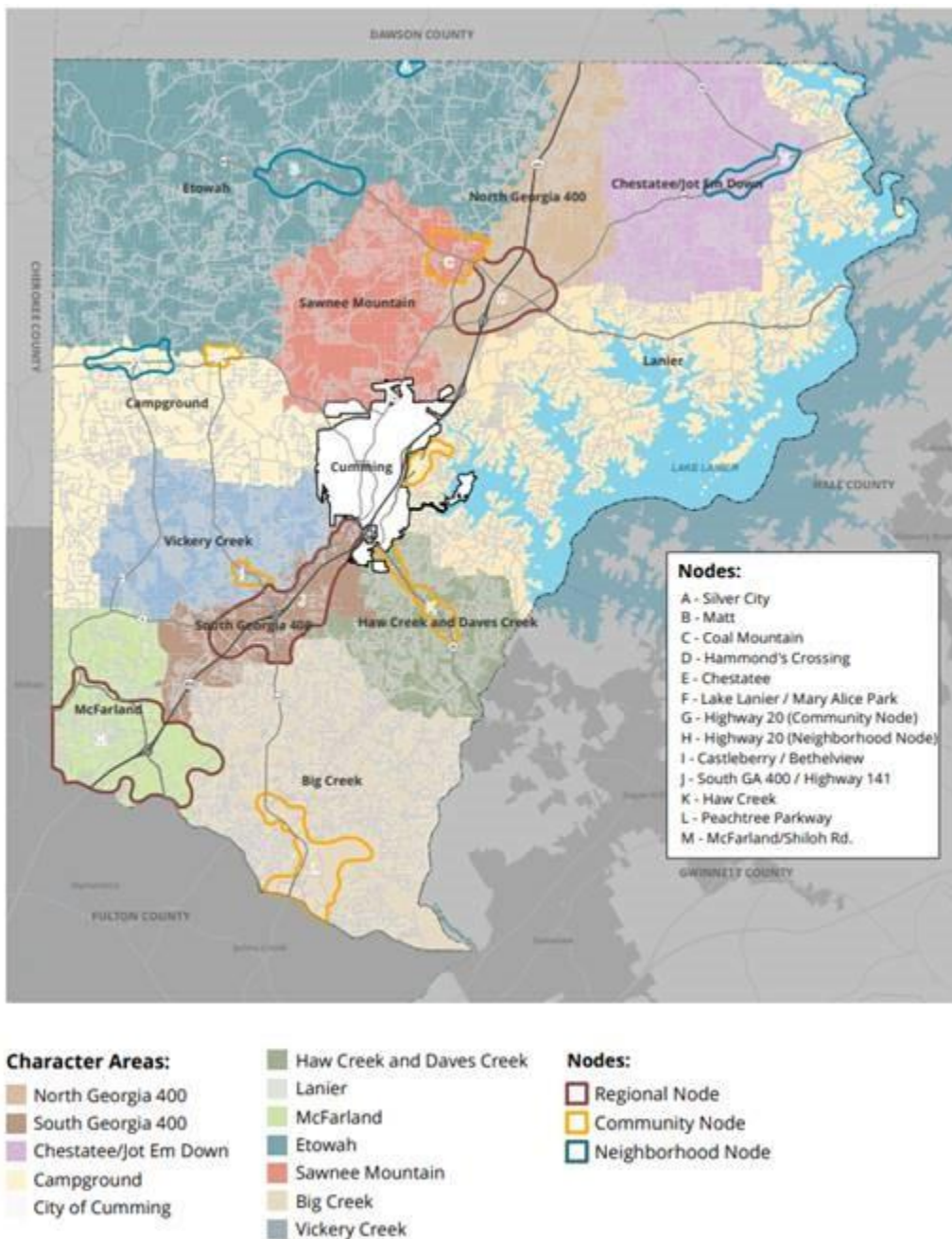


Figure 10: Forsyth Comprehensive Plan Character Areas and Nodes

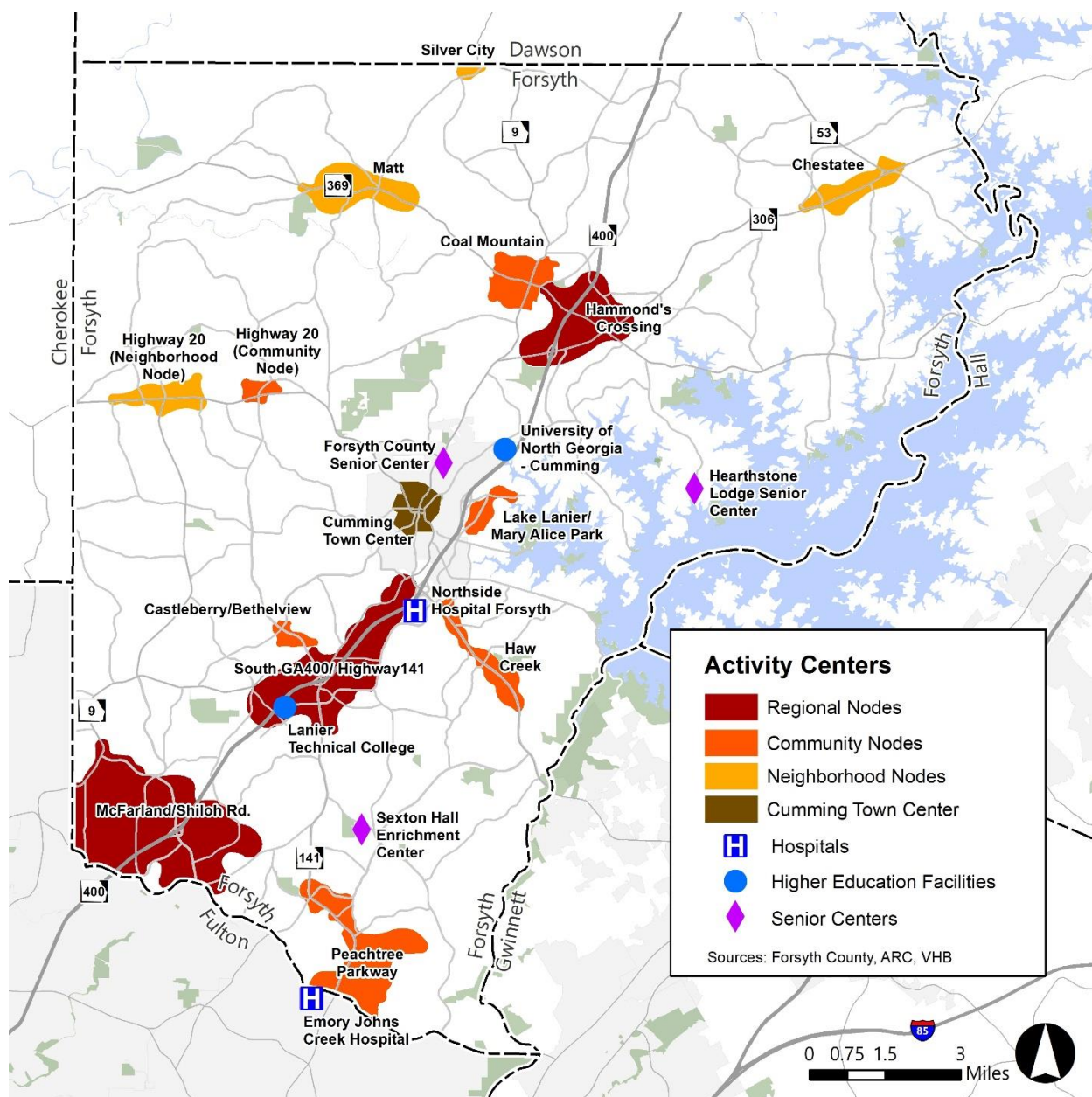


Figure 11: Activity Centers

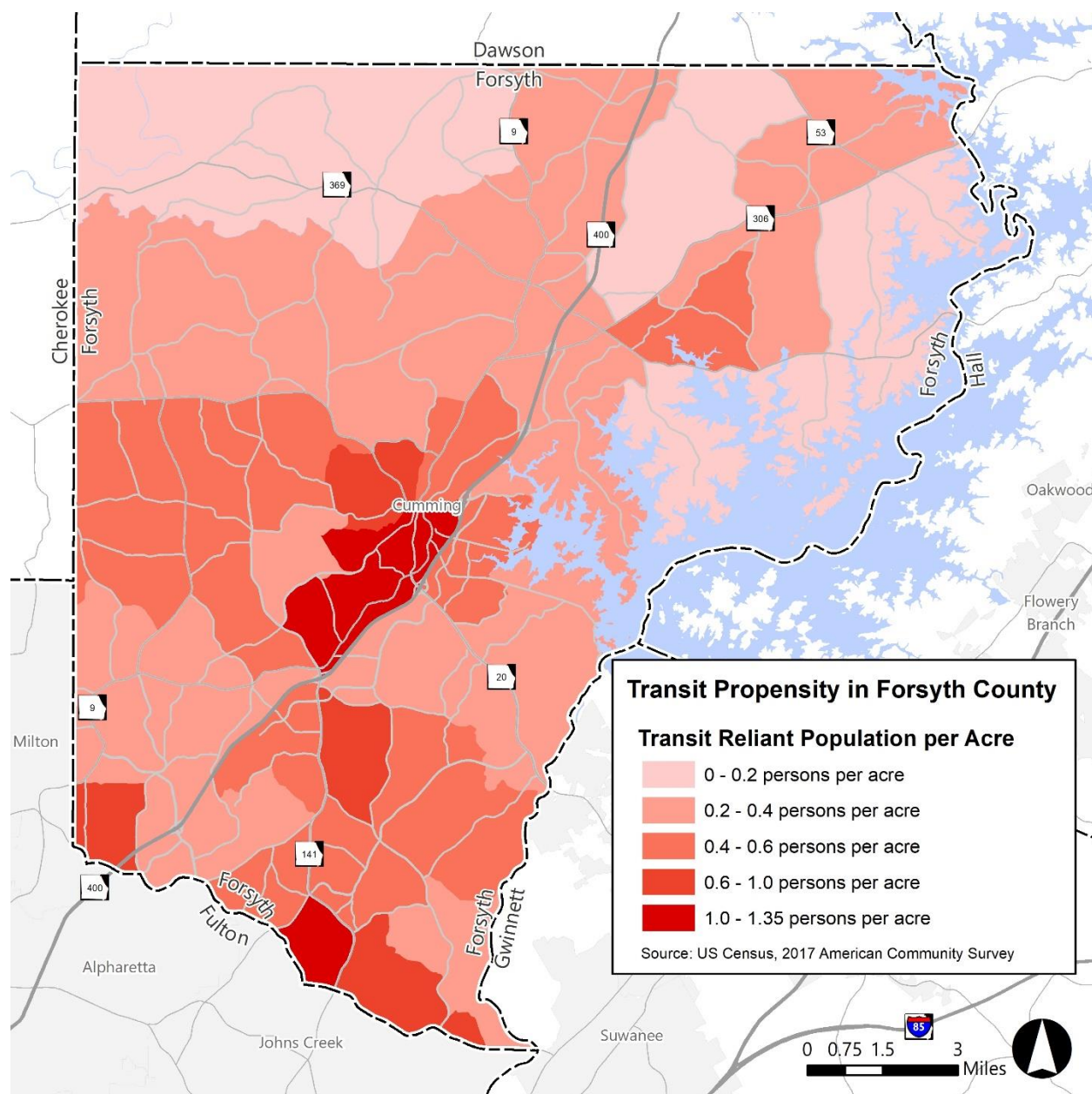


Figure 12: Transit Propensity

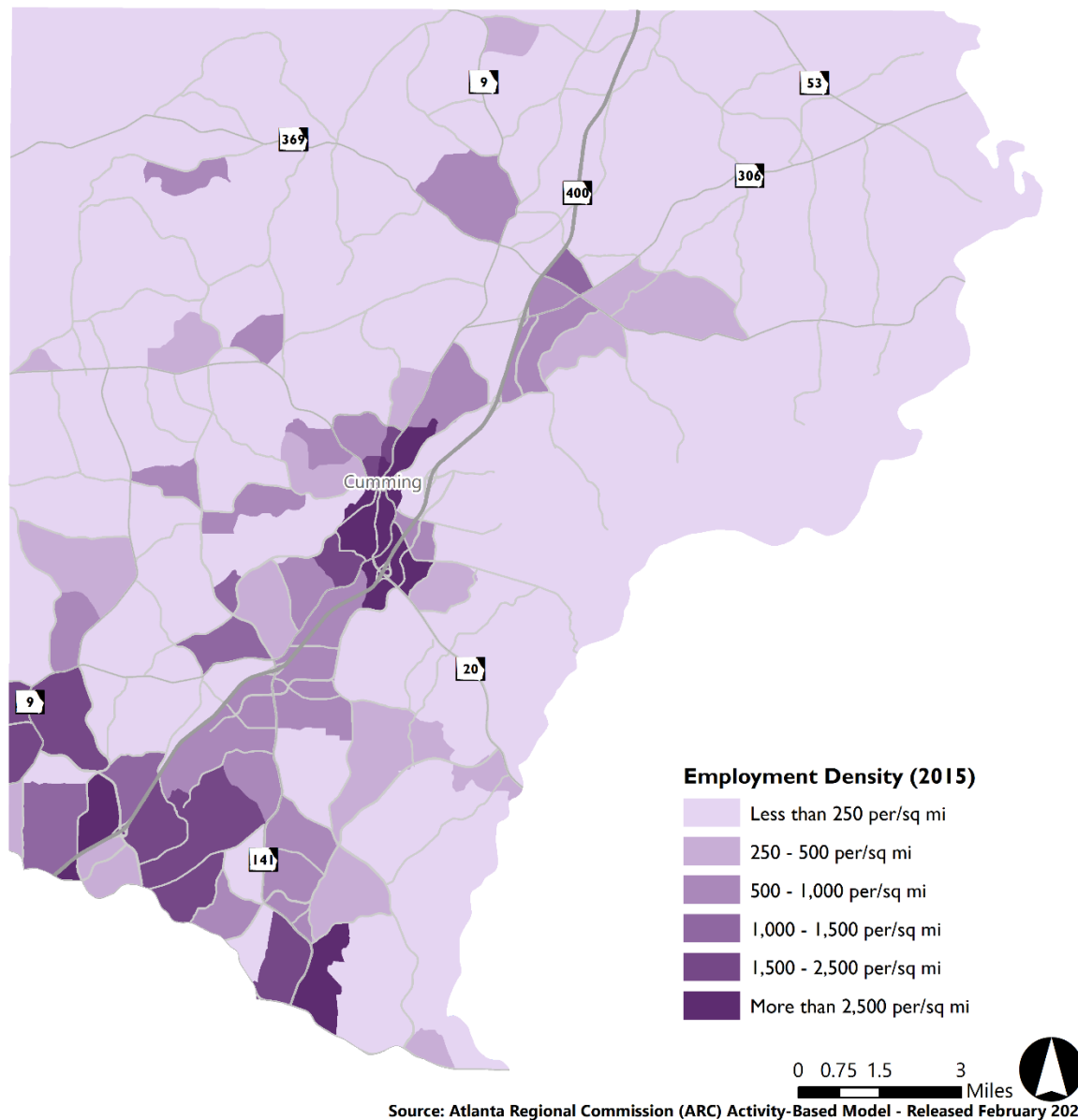


Figure 13: Existing Employment Density (2015)

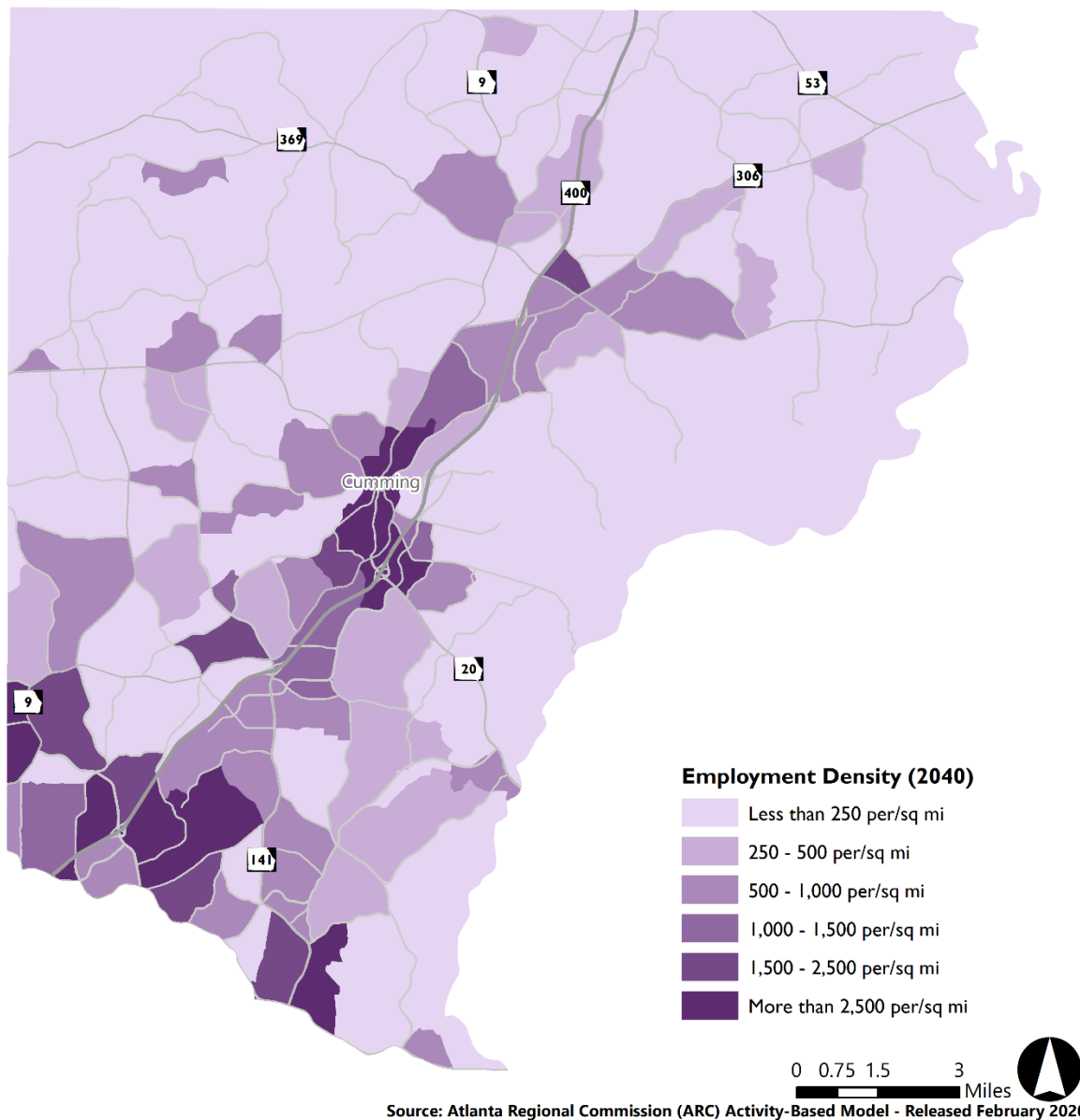


Figure 14: Future Employment Density (2040)

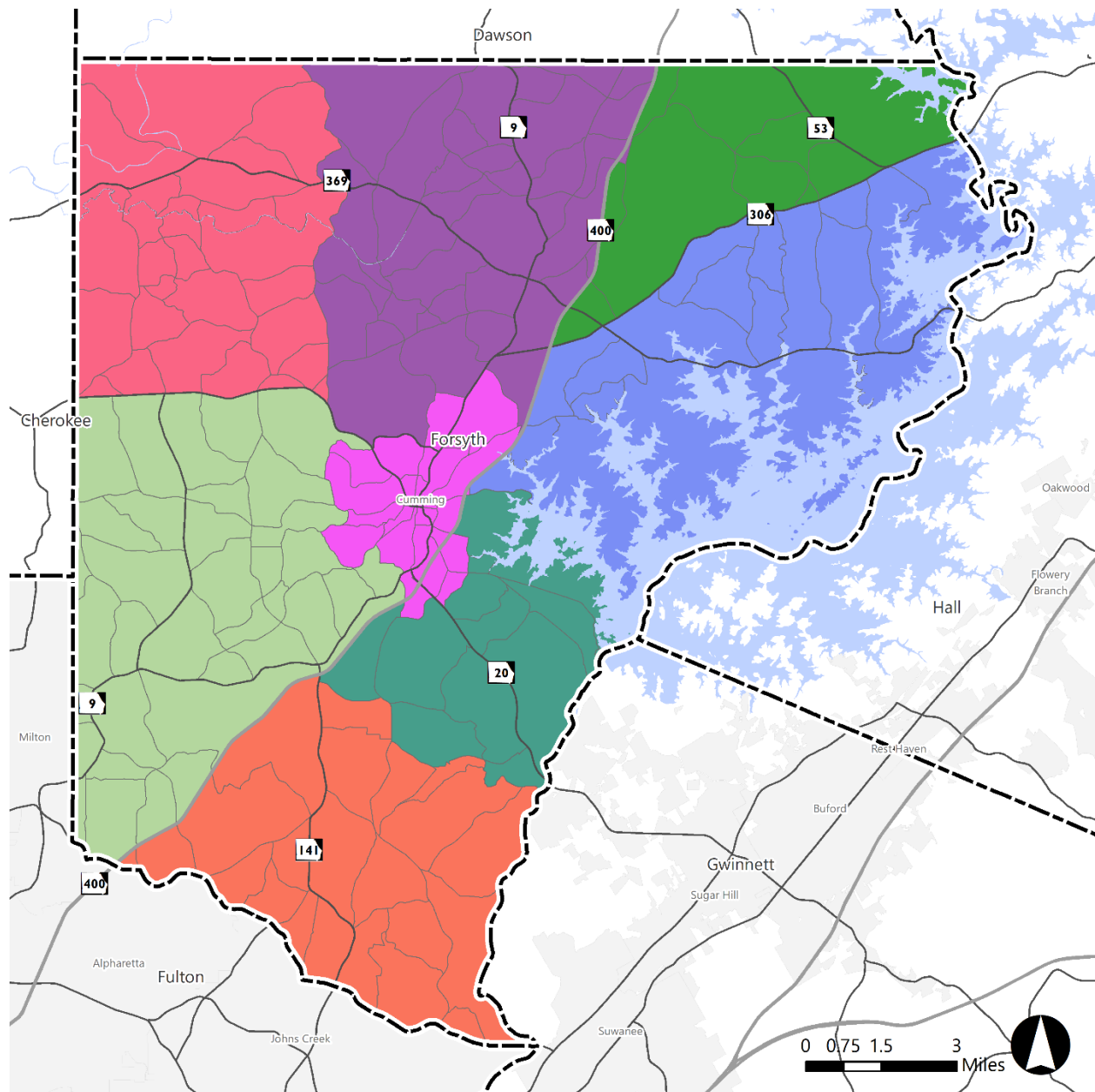


Figure 15: Forsyth TAZ Groupings



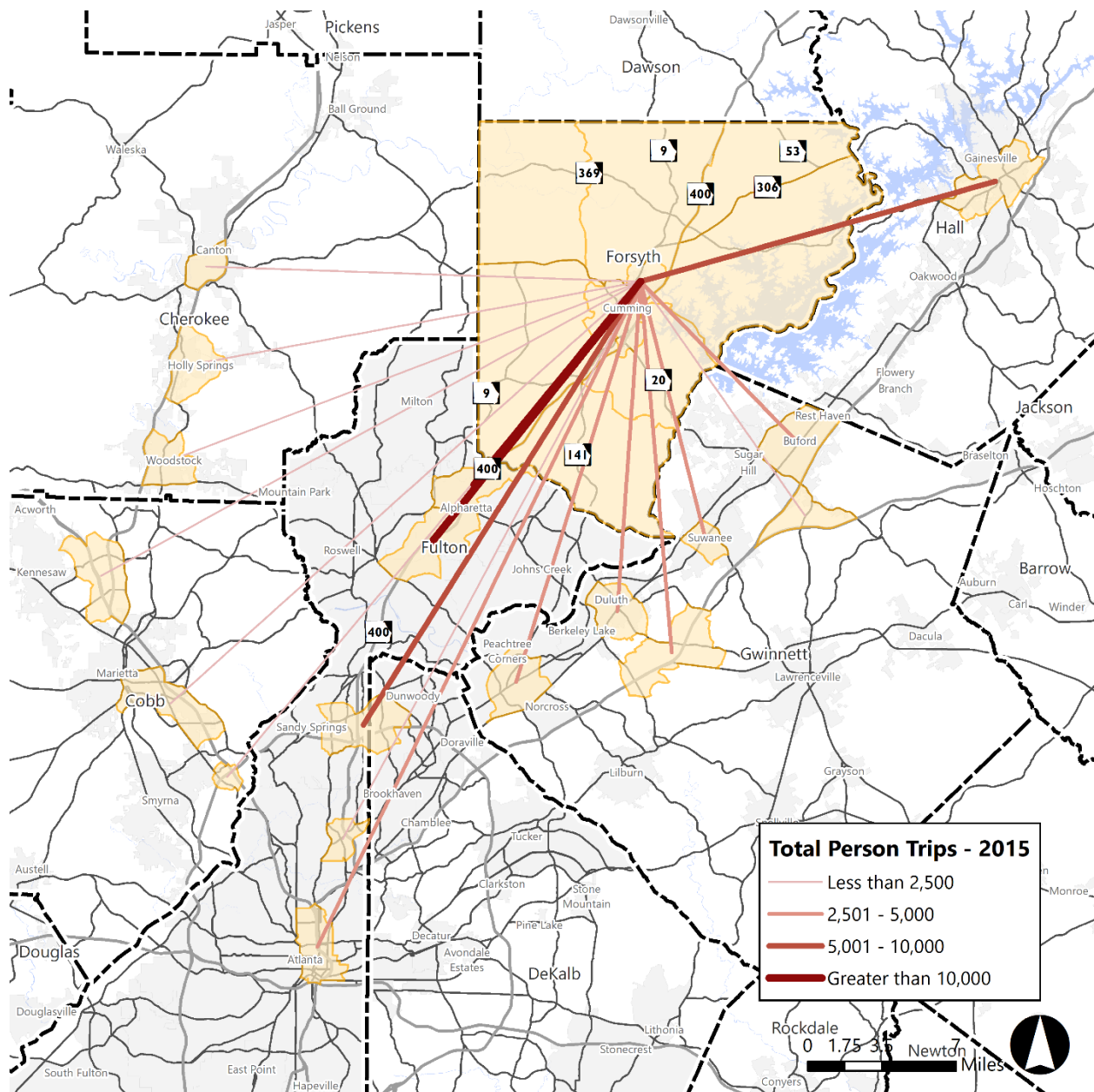


Figure 17: Total Person Trips to Regional Centers (2015)

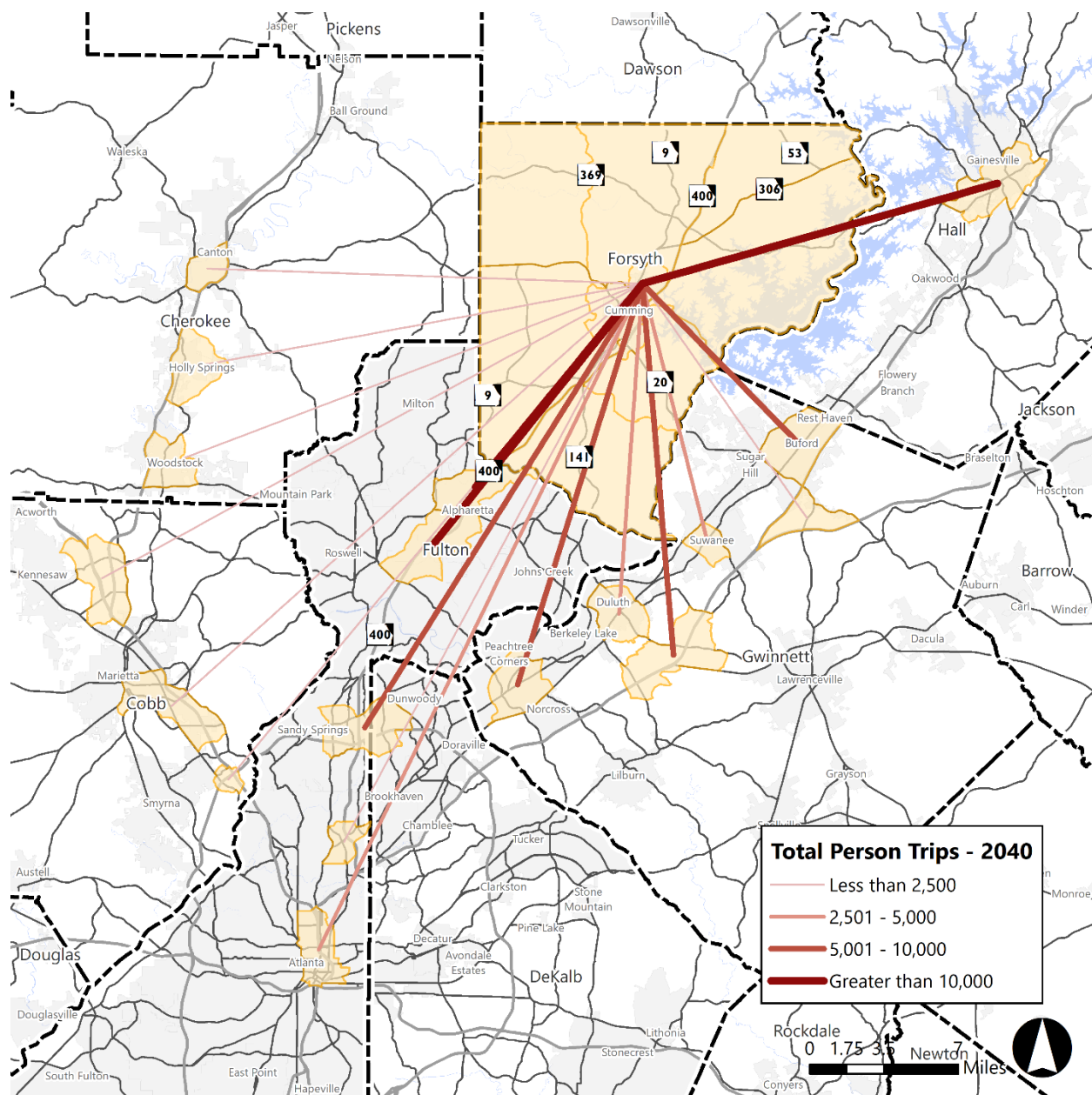


Figure 18: Total Person Trips to Regional Centers (2040)

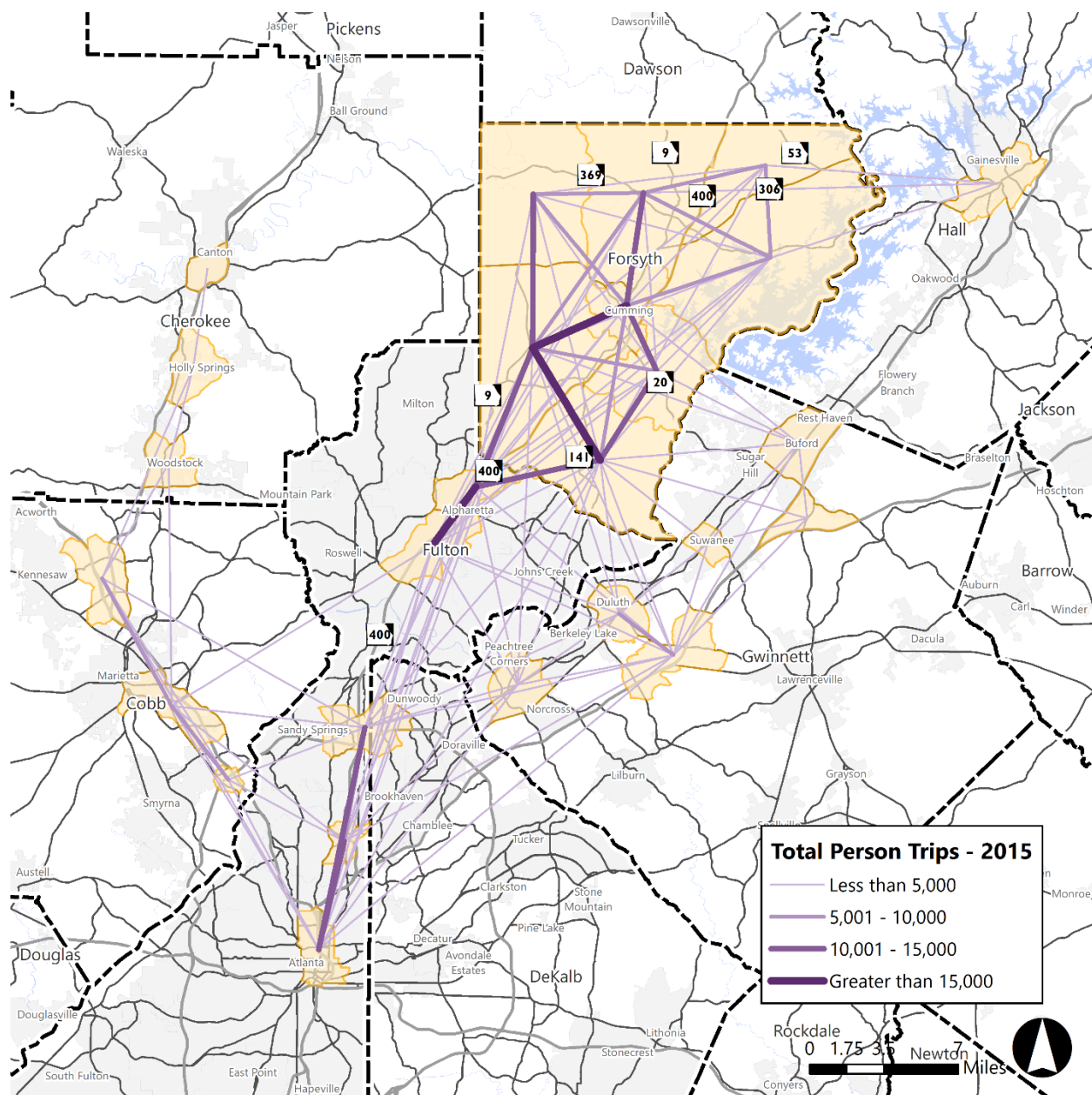


Figure 19: Total Person Trips Between All Groupings (2015)

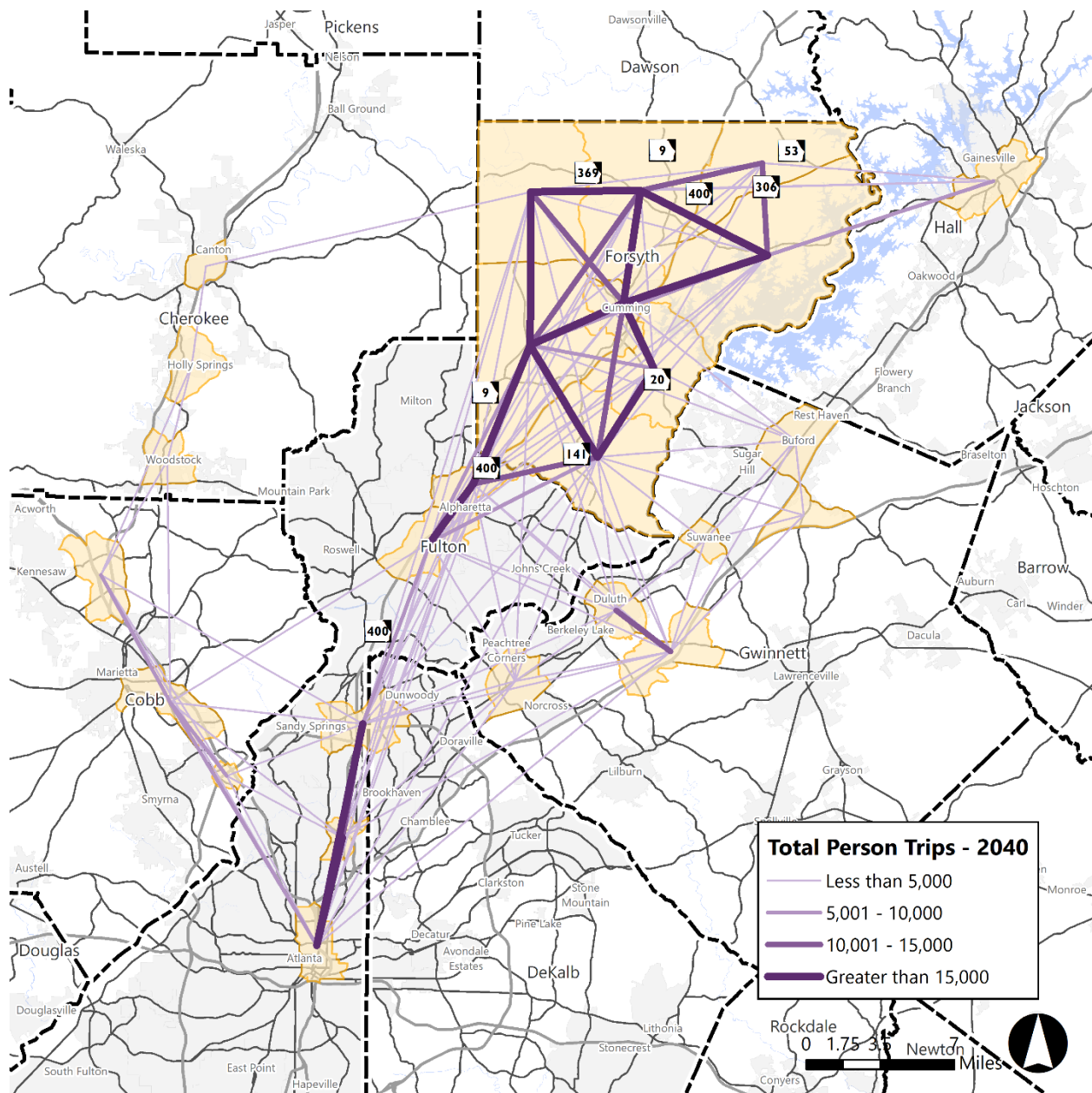


Figure 20: Total Person Trips Between All Groupings (2040)

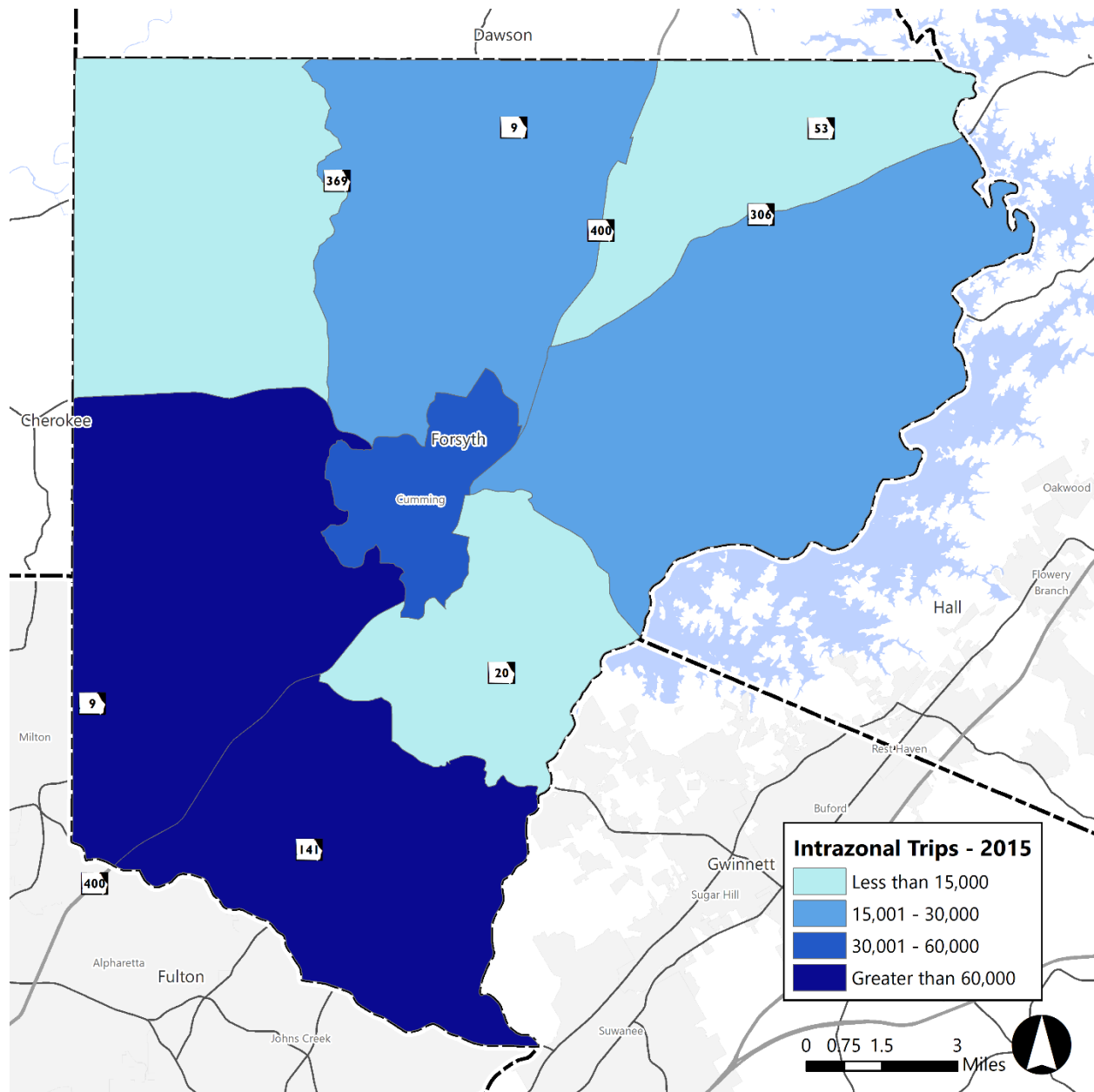


Figure 21: Intrazonal Trips (2015)

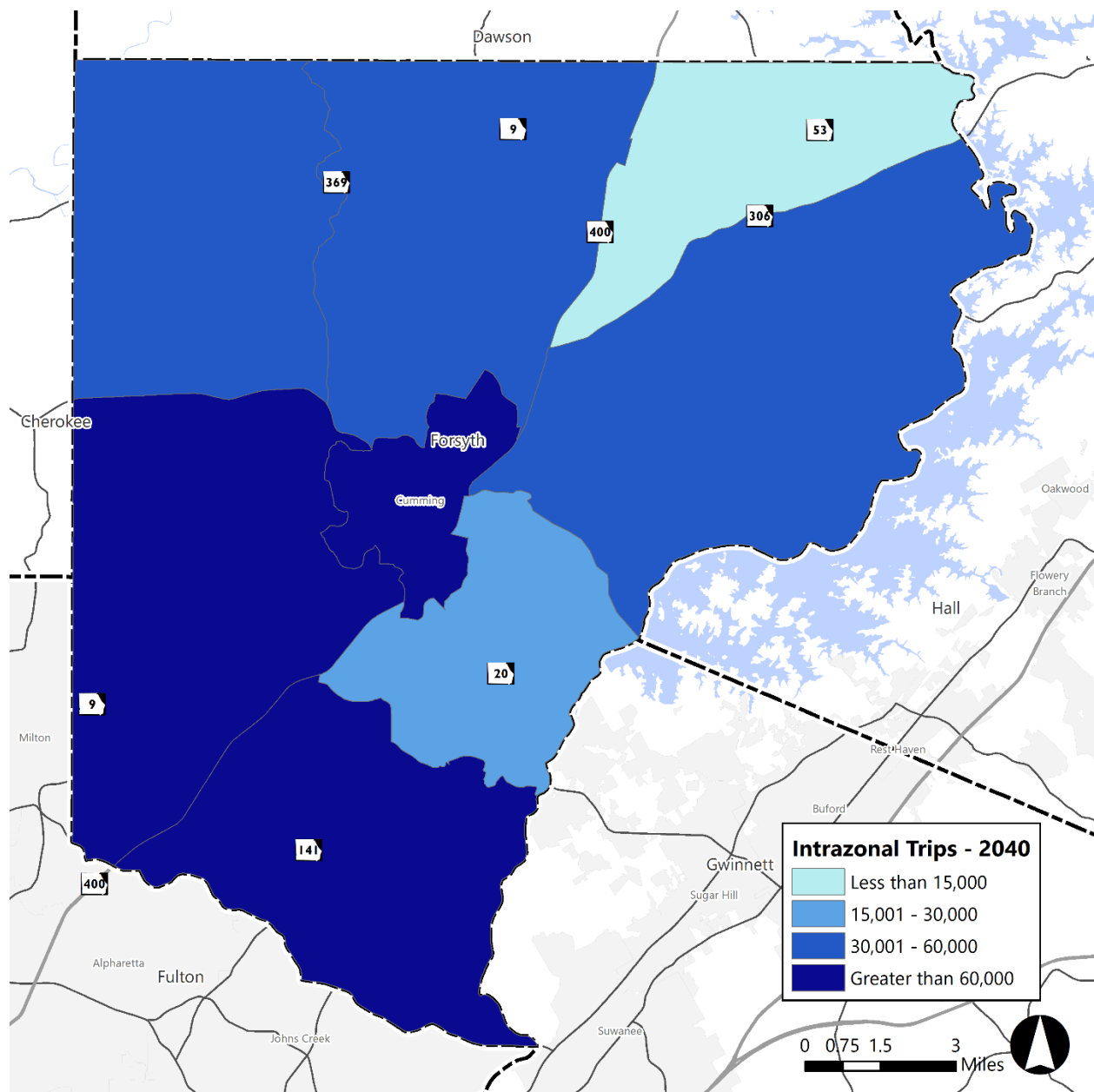


Figure 22: Intrazonal Trips (2040)