TRANSIT SERVICE PLANNING FOR GEORGIA'S RURAL COUNTIES

USING RIDERSHIP ANALYSIS TO INFORM ON-DEMAND TRANSIT SERVICES

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TRANSIT SERVICE PLANNING FOR GEORGIA'S RURAL COUNTIES

USING RIDERSHIP ANALYSIS TO INFORM ON-DEMAND TRANSIT SERVICES

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LIST OF SYMBOLS AND ABBREVIATIONS

GDOT   Georgia Department of Transportation

DHS   Department of Health and Human Services

FTA   Federal Transit Administration

TDI   Transit Dependency Index

RTAP   Rural Transit Assistance Program

FY   Fiscal Year

FIPS   Federal Information Processing Standard

TCQSM   Transit Capacity and Quality of Service Manual

NAICS   North American Industry Classification System

DFCS   Department of Family and Children Services

LCRTA   Lower Chattahoochee Regional Transit Authority

SWGRC   Southwest Georgia Regional Commission

MARTA   Metropolitan Atlanta Regional Transit Authority

CSRA-RC   Central Savanah River Area Regional Commission

RVRC   River Valley Regional Commission

CRC   Coastal Regional Commission

RHST   Rural and Human Services Transportation

MSA   Metropolitan Statistical Area

DREDF   Disability Rights & Education Defense Fund

CARTA   Chattanooga Area Regional Transit Authority

TNC   Transportation Network Company

SUMMARY

The Georgia Tech Department of Civil & Environmental Engineering has worked with the Georgia Department of Transportation (GDOT) Transit Planning Division since 2015 to provide guidance on the administration and planning of the state's rural transit system. More background on Georgia's Rural Transit System is available in a 2018 report by authors Laurie A. Garrow, Thomas H. Douthat, Wenhui Yang, Anna Nord, Pooja Rao and Sara Douglass titled *Rural and Small Urban Transit Systems in Georgia*. This thesis serves as follow up to the original report and will dive deeper into the systems' current ridership and travel patterns. This thesis is intended as both a standalone document and as a component of a larger effort to improve transit statewide in close collaboration with GDOT.

From 2011-2018, GDOT used the same software provider to track trips taken on Georgia's rural transit systems. Ridership data from that collection is used in this thesis to investigate three key research areas: 1) To track the most important types of destinations for users of transit in rural environments; 2) quantify of the benefits and costs of extending existing service hours and days of service currently provided; and, 3) explore current trip patterns and what types of new services may better serve both current and potential riders.

Georgia's rural transit program has room to grow, and needs grow to meet the growing demand of the state's aging population. Population growth is declining or stagnating in rural areas, while poverty rates are higher than in the state's urban areas. Access vital services, such as healthcare, is becoming more constrained as rural hospitals across rural parts of the state are closing at an alarming rate (*AJC*).

My analysis found that Georgia's rural transit system is not currently meeting the needs of its users. Typical users tend to come from the poorer and more rural parts of the state. A number of counties in rural areas, though, offer no form of service, and those that do often run on limited hours and only serve a small area. We found demand to expand service to fit these demands, particularly to extend hours of operation into the early morning, to expand service to counties where service is not currently offered and to regionalize services, making it easier for riders to visit destinations across county borders. Further opportunities exist to collaborate with neighboring states to provide services in counties along state lines and to offer additional services in areas of higher demand, such as in rural town centers.

INTRODUCTION

Taliaferro County in eastern Georgia has a population 1,717. Its current mobility offerings are emblematic of the need for transit reform in Georgia. The County provides and operates its own transit service – a network of just two vehicles (FTA: 2018). Virtually all destinations are located outside of the county, with the county itself home to only a few churches, a restaurant, and an assisted living center. Residents, meanwhile, may only use their own county's service. If one were to visit the closest hospital, located 20 miles away in Wilkes County, the person must wait for a return pick-up to arrive from their home county, rather than use the local network in that county.

This adds unnecessary cost to the county and inconvenience to the rider. It also makes it harder to attract new riders and adds confusion. In addition, residents must also navigate numerous other services that are offered, such as from the Department of Human Services (DHS) or from shuttles provided by local community groups.

With 83 separate transit service providers, Georgia has more rural transit providers than any other state (FTA). Georgia has the sixth largest rural population in the U.S., which makes the rural transit system one of the most decentralized systems in the country (US Census Bureau).

This report looks at socio-demographic measures of Georgia's rural community and attempts to assess the state's future transit needs. It aims to fill existing gaps in the understanding of public transportation needs in rural communities. Through the use of several different methodologies, gaps in current service are identified and new investments

are proposed. The report envisions service improvements that are both more customer-friendly and more efficient to the state and county.

Transit reform initiatives have gained momentum in Georgia state politics. In 2017, the State Legislature created the House Commission on Transit Governance and Funding (Atlanta Regional Commission). In 2018, the state passed landmark legislation allowing Atlanta region counties to opt into a regional transit system with state funding (Georgia General Assembly SB 386). This report hopes to build on this momentum to call attention to the need for improvements to public transit in Georgia's rural counties.

CHAPTER 1. EXISTING RURAL AND SMALL URBAN TRANSIT SYSTEMS IN GEORIGA

This first chapter draws heavily on the aforementioned December 22, 2018 report that the rural transit team at Georgia Tech produced (Garrow, et al.).

1.1 System Overview

The Garrow, et al report highlights the state of transit funding in Georgia, the size and scope of each provider and importantly, the relationship between the Georgia Department of Transportation (GDOT), Department of Health and Human Services (DHS) and Georgia's 12 regional commissions.

Funding for public transportation is Georgia is provided by multiple agencies – the Federal Transit Administration (FTA), DHS, the State of Georgia and local counties. Every county in the state that the census defines as non-urbanized is eligible to participate in the Federal Transit Administration's (FTA) Rural Transit Assistance Program (RTAP), often referred to as its "5311" funding program, yet the type of service offered in Georgia varies drastically by each county. The source of operating funds for 5311 services is split, with 50% from the state and 50% from the county. Capital expenses are split with 80% coming from the state, 10% from FTA and 10% from the county (FTA).

Georgia, as mentioned, has a fragmented rural transit system with many small providers. 58% of rural transit providers in Georgia operate five or fewer vehicles (NTD). Figure 1 shows transit offerings statewide by county.
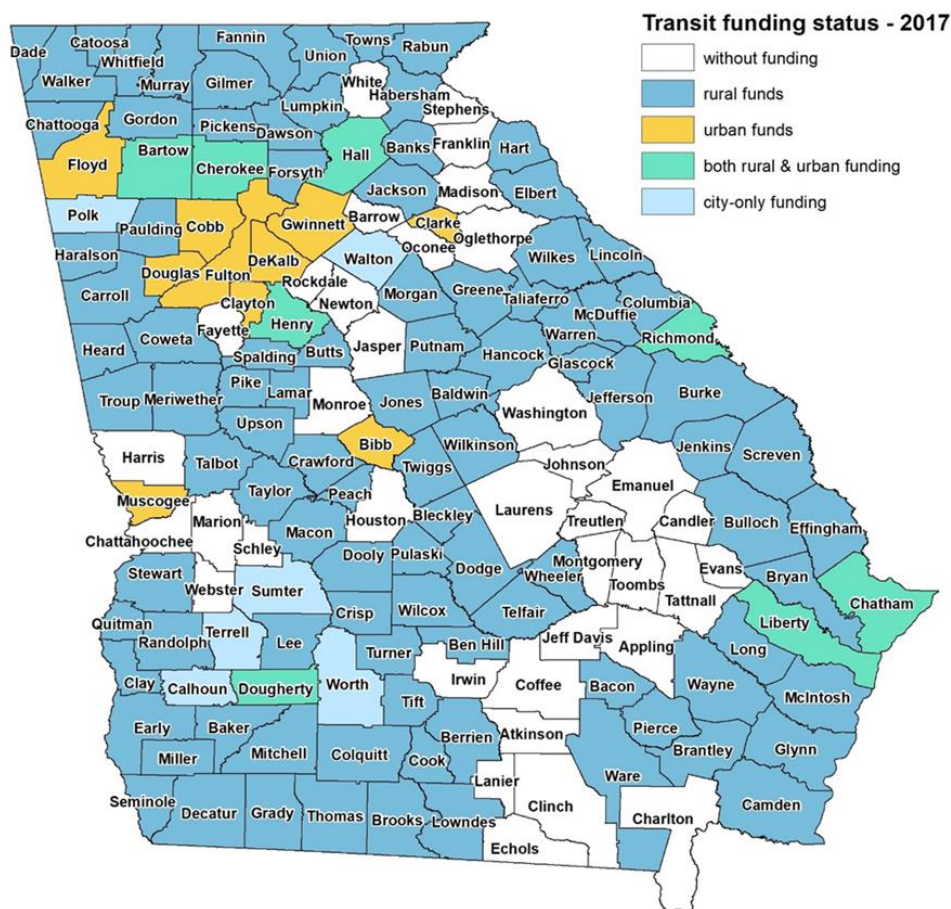
Figure 1: Transit Offerings in Georgia by County

Most counties run their own service. In certain parts of the state, services are run at the regional commission level, such as in Southwest Georgia Regional Commission and Coastal Regional Commission, as seen in Figure 2. Regional services provide the opportunity to run more efficient service across a larger area, but only two of the twelve regional commissions in the state do so.
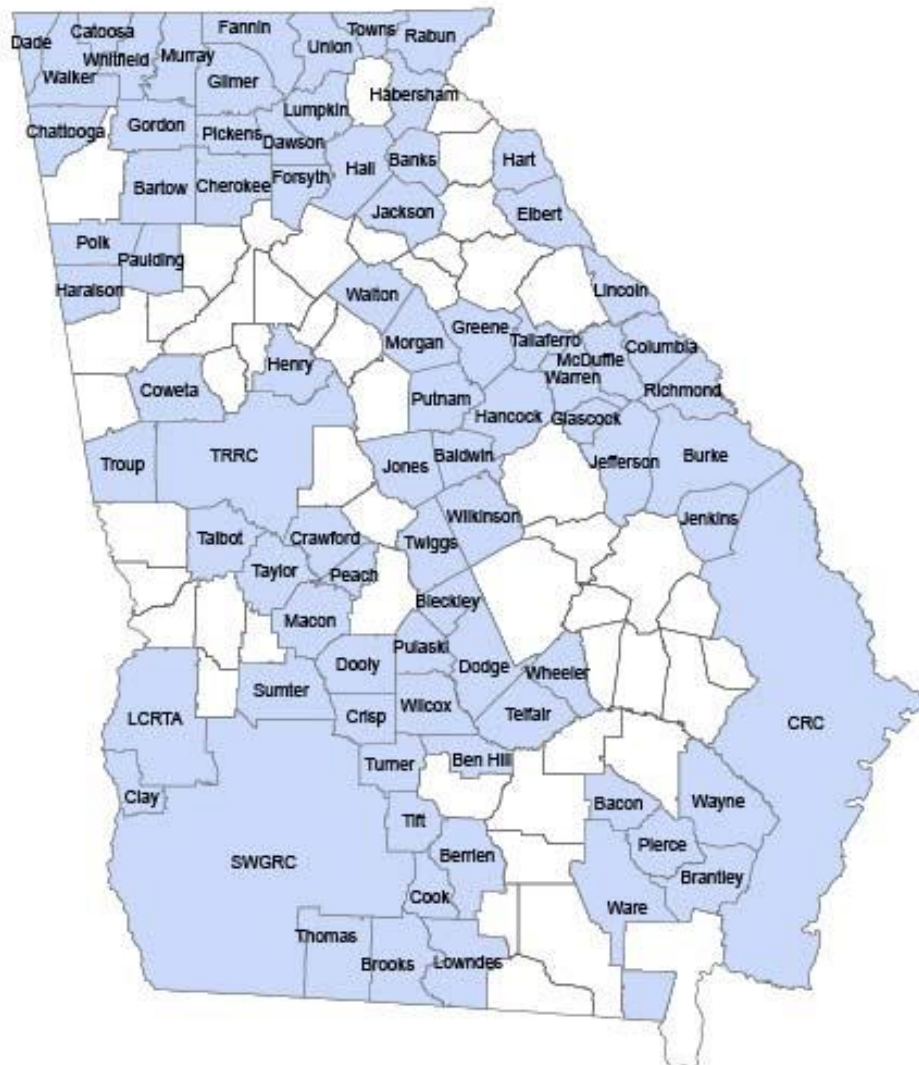
Figure 2: Rural Transit Providers Statewide

In order to run more regional service, regional commissions will need to work closely with DHS and GDOT. As seen below in Figure 3, there is a high degree of overlap between the regional commission and DHS boundaries.

Source: Rural and Small Urban Transit Systems in Georgia, p. 11.
Figure 3: Georgia Regional Commissions and DHS Regions

At the same time, regional commission and GDOT boundaries have little to no

overlap, as shown below in Figure 4.
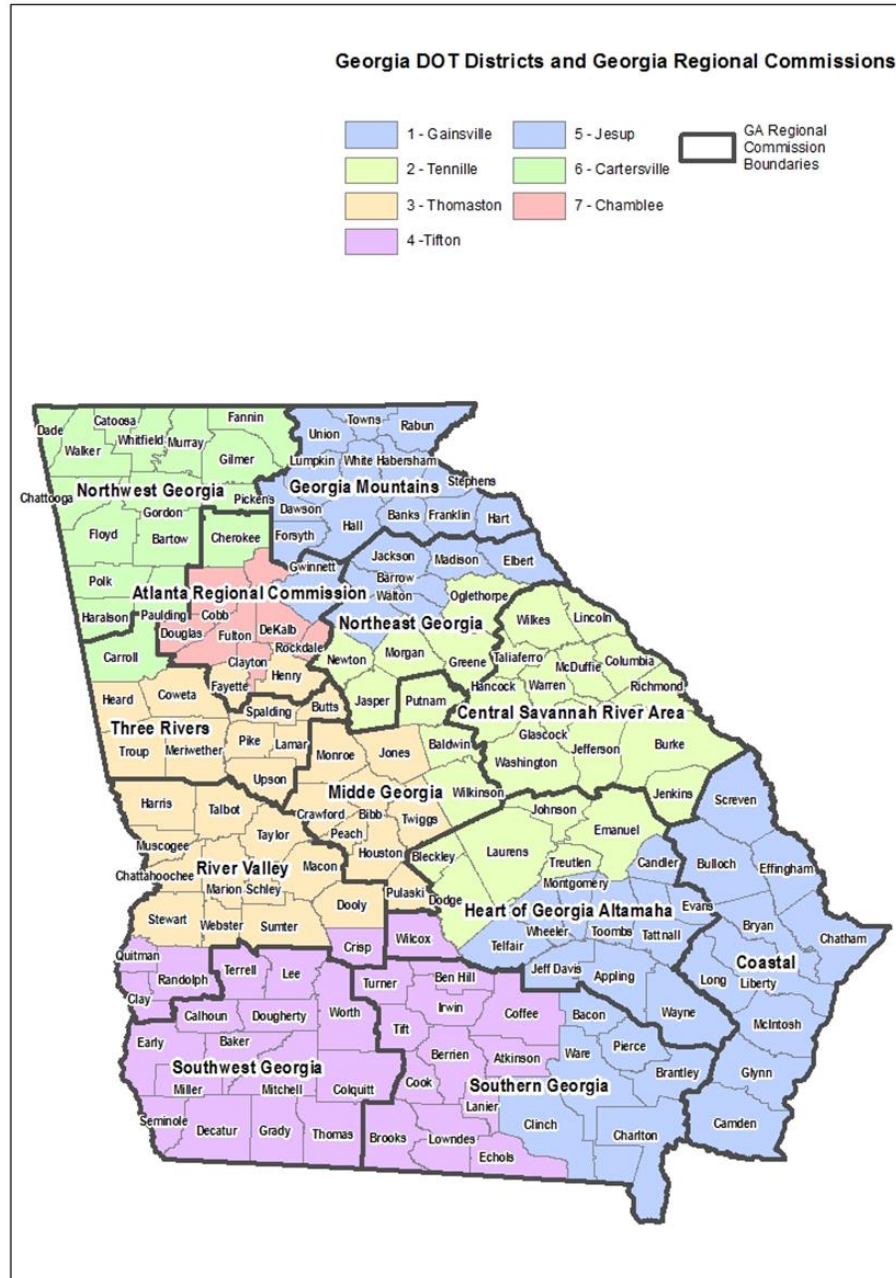
Source: Rural and Small Urban Transit Systems in Georgia, p. 11.
Figure 4: Georgia DOT Districts and Georgia Regional Commissions

Coordinating service across different agency borders is a challenge, but one with

solutions. Some states have coordinated the delivery of transit service across these agencies

and/or have used more regionally-defined areas to deliver service. For example, Vermont defines a single provider for nine state regions, and for two areas that are closely tied to cities across the border in Massachusetts and New Hampshire, the state contracts with the neighboring transit agency to run services in those towns (Source: Vermont Agency of Transportation (VTrans)).

Such consolidation may be one option Georgia could pursue to help provide more extensive service in rural areas throughout the state. In addition, Georgia – like many states – tends to offer service for limited hours during the weekdays only. This can make it difficult for rural systems to serve educational and employment trips, which can be important economic drivers for these rural communities. If better coordination between DHS and GDOT is desired (e.g., via the creation of regional-based transit systems that operate in multiple counties) then coordination among the 12 DHS and seven GDOT administrative areas is needed.

Other states have successfully done so. In Vermont, VTrans and the state's Agency of Human Services (AHS) have an official memorandum of understanding (MOU) adopted by the state legislation addressing how these services should operate in tandem (24 V.S.A, Chapter 126, Section 5090). Efforts are underway to further coordinate services into one seamless reservation system for the end user (Source: VTrans).

1.2 Transit Dependency Index

Georgia has the sixth largest rural population in the nation, but in many rural areas, automobile ownership is lower than the State's urban counties. As seen in Figure 5 below, the percentage of households without a vehicle is over 20% in some parts of the state. Rates

in many rural counties are higher than the state's most urban counties, such as Fulton or DeKalb counties, with 12% and 9% respectively.
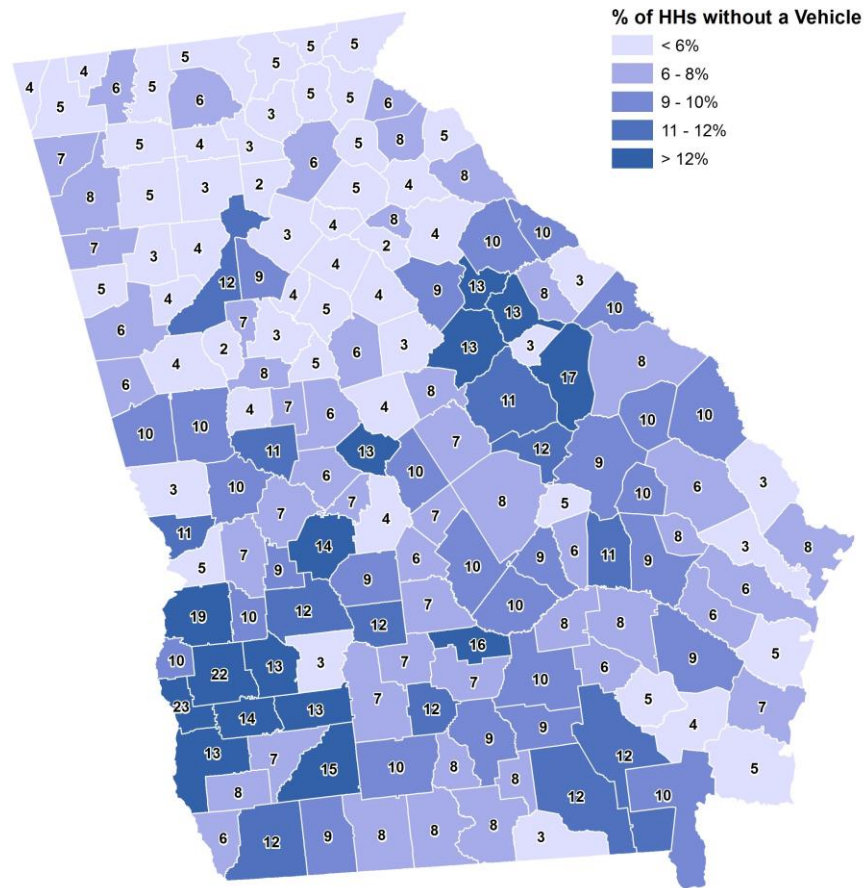
Source: Rural and Small Urban Transit Systems in Georgia, p. 52, Appendix.
Figure 5: Percentage of Households without a Vehicle

However, vehicle ownership is not the only factor is a person's likelihood to use transit in rural areas. Page 3 of the Garrow, et al. report defined a transit dependency index (TDI) based on five factors: (1) Persons aged 65+, (2) % Persons ages 10-19, (3) % Persons with disabilities, (4) low income households (below poverty line), and (5) % households without a vehicle (Garrow, et al.).

Figure 6 below shows the results of the TDI from the Garrow et al report. Even with all five factors, the most transit-dependent populations in the state still tend to live in rural areas. In a number of counties that offer no service, automobile-less households account for at least 10% of the population. This includes, for example, Clinch County (12%), Johnson County (12%), Toombs County (11%), and Washington County (11%). Transit need is heavier in rural areas, but these areas do not lend themselves to fixed routes commonly offered in more urban areas. Finding the proper way to serve such disadvantaged rural populations is a perennial challenge.
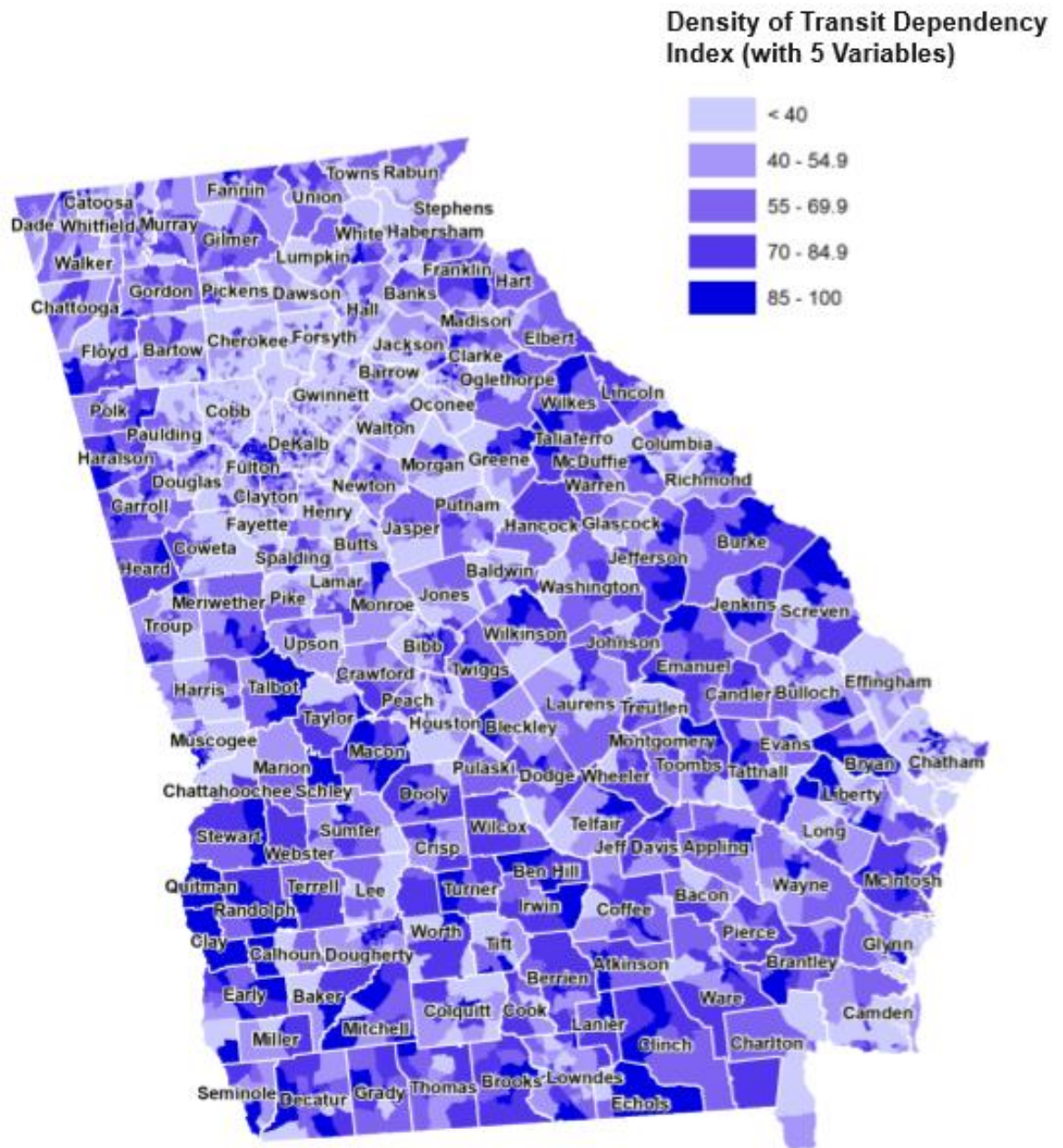
Source: Rural and Small Urban Transit Systems in Georgia, p. 82.
Figure 6: Transit Dependency Index

CHAPTER 2: FUTURE TREND ASSESSMENT

Growing rural poverty is a known phenomenon in the United States (NPR). Current trends indicate that poverty will continue to grow in rural communities. According to the United States Department of Agriculture's (USDA) Economic Research Service, child poverty is most persistent in the Southern United States, notably across the southern parts of Louisiana, Mississippi, Alabama and Georgia. Examining these trends allows us to assess future transit need in these communities.

This research finds that in rural counties in Georgia, poverty levels, the share of the population that is elderly, and transit dependency are rising. Meanwhile, total population levels in rural areas are expected to decrease. Total population and elderly population estimates are taken from the Georgia Governor's Office of Planning and Budget.

Figures 7 below shows the overall forecasted change in population from 2020 to 2030.
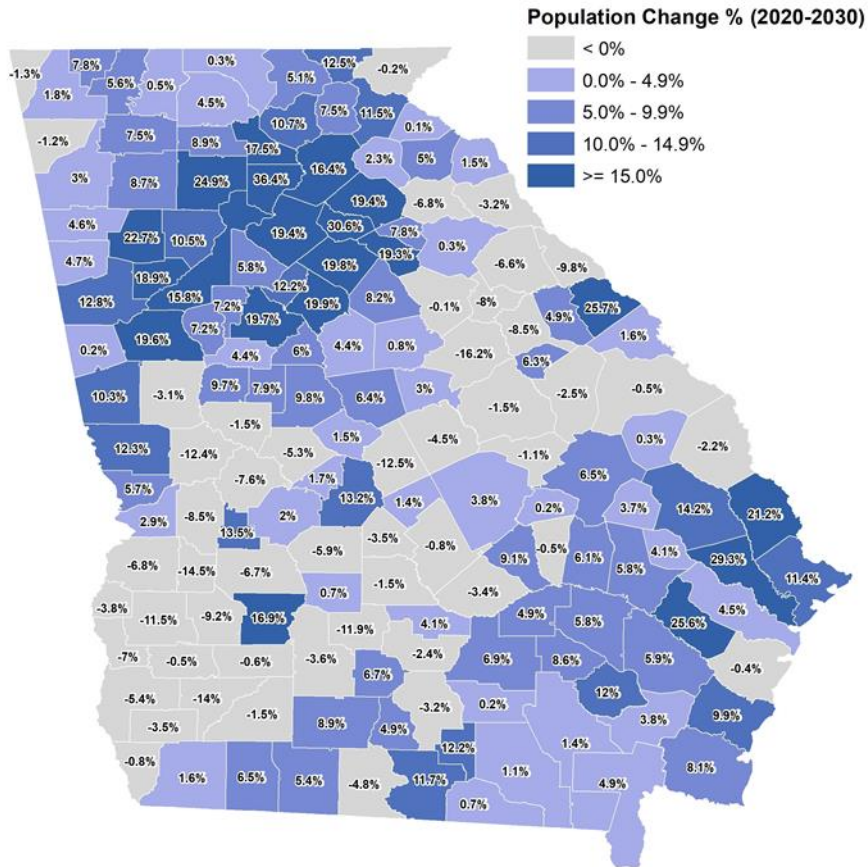
Figure 7: 2020 to 2030 Change in Total Population

The same counties that are losing general population or that are growing the slowest are increasing their share of seniors, as seen below in Figure 8.
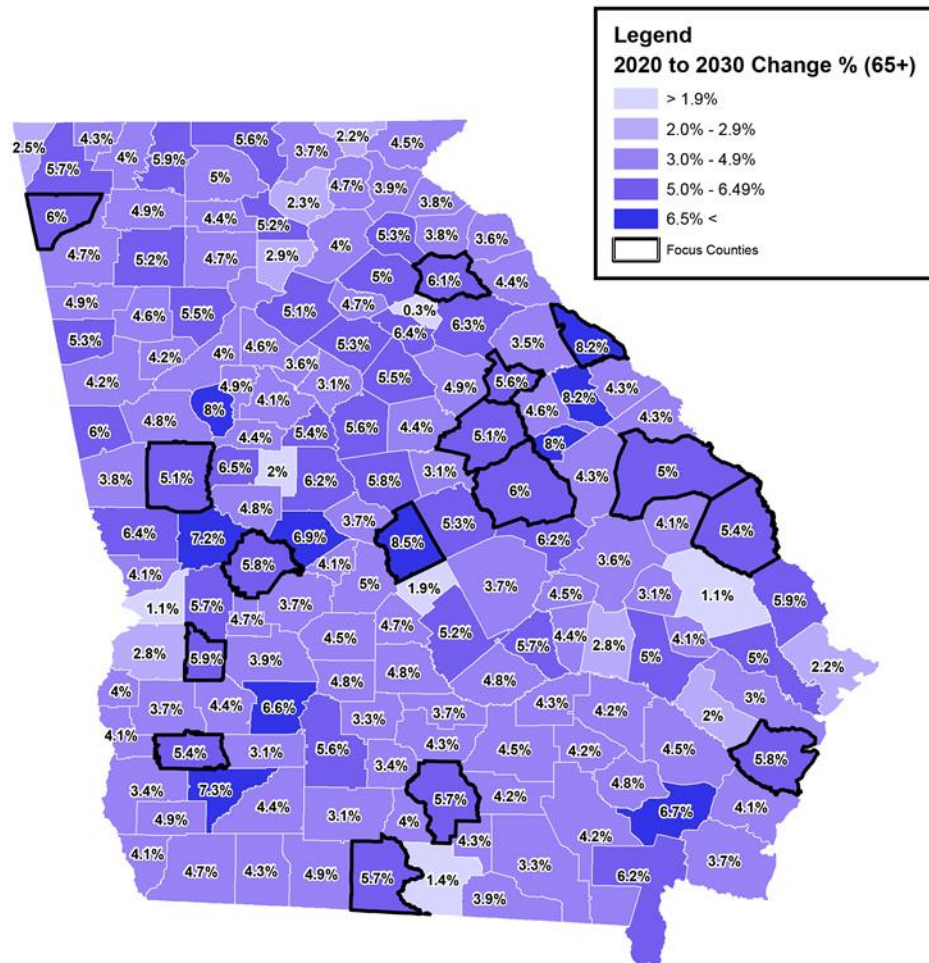
Figure 8: 2020 to 2030 Change in Elderly Population

The proportion of seniors will increase statewide. The numbers in Figure 6 represent the incremental change of the population that is above 65. For example, if 30% of the population of a county is projected to be above 65 in 2020, a label of 5% projects that 35% of the county will be aged above 65 in 2030. The highest increase is seen in rural counties, whereas the lowest is seen counties with large urban centers or counties with large universities, such as Clarke County (Athens, UGA), Muscogee County (Columbus),

Lowndes County (Valdosta), Bulloch County (Statesboro, Georgia Southern) and Chatham County (Savannah).

Many rural parts of the state are forecasted to lose population, especially across the middle of the state. Counties with major cities, or those on the periphery of major cities are expected to grow.

Poverty rates will likely grow across central rural parts of the state. If the current rate of poverty increase were to continue across the state, about half of the counties in the state would see poverty rates of at least 45% by 2030.

Poverty projections are done for the years 2020, 2025, and 2030. I derived these with shift-share analysis, using the methodology described in the book *State and Local Population Projections: Methodology and Analysis* by authors Smith, Swanson and Tyman. Poverty numbers for the most recent year, 2015, are obtained from the US Census Bureau's American Community Survey (ACS). The projection assumes that poverty levels will continue at the same rate of change that occurred from 2011 to 2015. The process is then repeated to calculate 2025 and 2030 poverty, using the forecasted change in the two most recent years, 2015 to 2020 and 2020 to 2025.

I have identified 16 focus counties where the 2030 poverty rate is forecasted to hit at least 45%, there is a negative overall change in population and the percent elderly population is expected to grow by at least 5% percent. These include, in alphabetical order: Berrien, Brooks, Burke, Calhoun, Chattooga, Hancock, Lincoln, Madison, McIntosh, Meriwether, Screven, Taliaferro, Taylor, Twiggs Washington and Webster Counties.

These are some of the most rural counties in the state and the majority of counties in the last do not offer any form of transit.

In Figure 9, below, pockets of poverty emerge across the central and southern parts of the state. Were current trends to continue, poverty levels would remain below 15% for many of the state's urban counties, but in rural counties could grow up to or exceeding 40%.

Figure 9: 2020 Poverty Rate Projection

This same trend is shown below for Figure 10 in the year 2025, with poverty rates worse in the state's most remote areas.
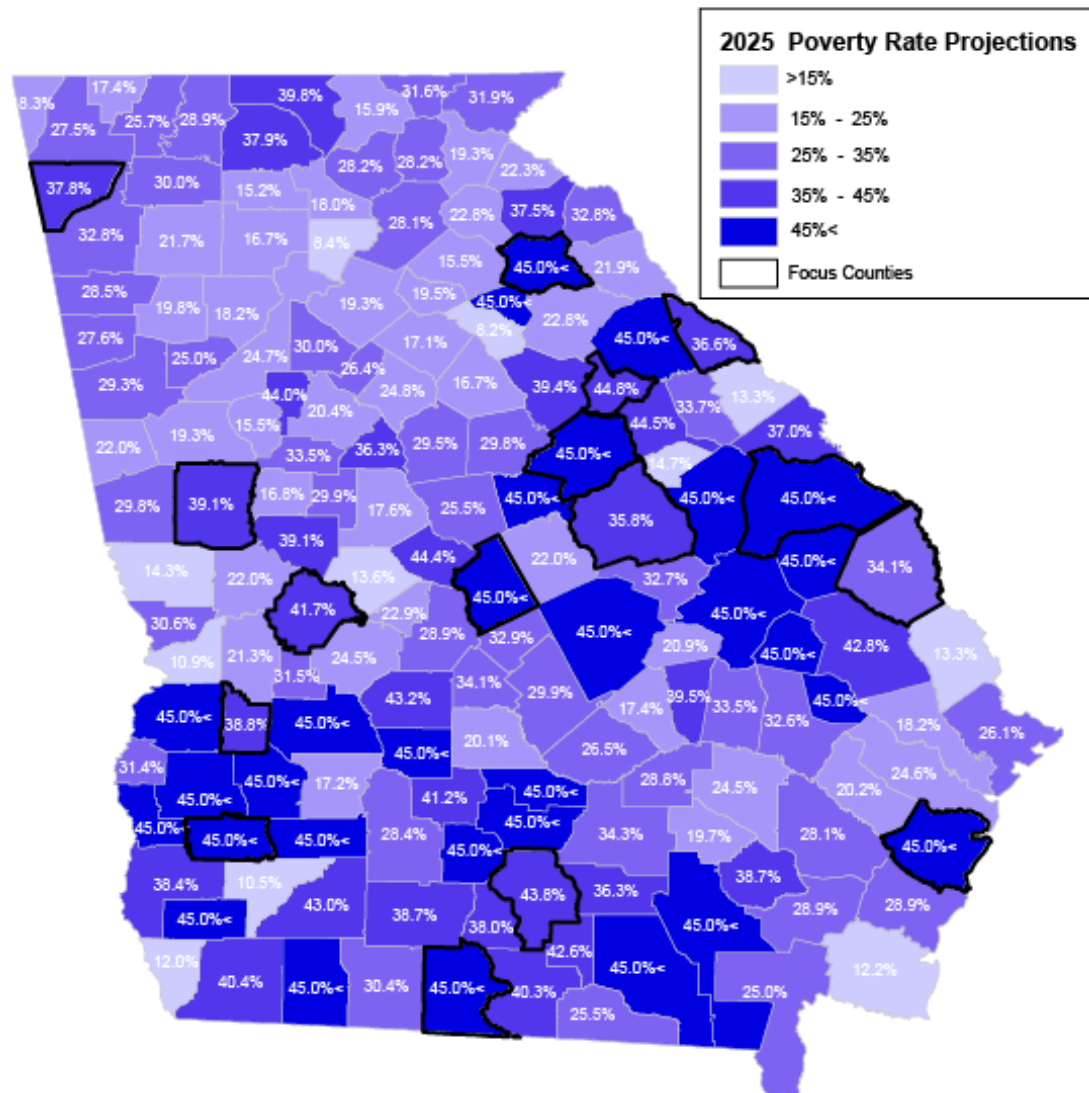
Figure 10: 2025 Poverty Rate Projection

Were current rates to continue, by 2030 most rural counties in the state would have at least 45% of their residents living at or below the poverty line, as shown in Figure 11. These projections, though, are only a reflection of trends from 2011 to 2015. While

these projections are not meant to be read as predictions, they do show how severe recent

trends in poverty in rural counties have been.

Figure 11: 2030 Poverty Rate Projection

CHAPTER 3: DATA CLEANING

3.1 Software Background

From 2011-2018, GDOT retained a software company to track ridership on its 5311 program. The database provides individualized trip information statewide, including each trip's origin and destination coordinates, trip purpose, reservation time, and numerous other fields related to trip scheduling.

Ridership software has the potential to provide GDOT with very in depth service and ridership information, but the sophistication of data varies greatly. Field entries in the current database lack consistent formatting and data reporting varies widely year to year and by provider.

In the summer of 2018, Georgia Tech researcher James Cunningham conducted an analysis of the rural transit trip database. Cunningham identified five consistent reporting issues throughout the dataset, listed below. Solutions were identified that addressed each issue and allowed the team to conduct more thorough analytical research.

Table 1: Data Reporting Issues

Issue	Solution
Inconsistent reporting by year	Final year with 12 months of reporting selected for analysis (2015)
Inconsistent reporting by provider	Compare NTD reported trips with software reported trips
Inconsistent reporting of field entries	Key fields reformatted to single consistent entry
Possibility for grouped trips	Group all entries in the database with the same starting coordinates, same time and same customer ID field

| **Inconsistent Trip Purpose** | Medicaid funded trips given Medical trip purpose, destination field names used to make educated guesses (i.e., University, Tech or State = Education trip) |

3.1.1 Inconsistent Reporting by Year

Table 1 displays the amount of ridership reported by fiscal year, defined from July 1st to June 30th of each year. Ridership numbers obtained from the software are compared against the ridership numbers officially reported to the federal government for each year in the National Transit Database (NTD). The software came closest to the number of NTD reported trips during FY15 (July 1, 2015 to June 30, 2016), capturing about 48% of actual trips. Data used for Cunningham's analysis existed through October 31st, 2016. This report will use the most reliable calendar year of data to the analyze ridership, January 2015 to December 2015.

Table 2: Software Dataset vs. NTD Reported Trips by Year

Year (FY 07/01 – 06/30)	Reported Trips in Software	Total NTD Reported Trips (Rural Reporters)	Percent of Total Reported Trips in NTD
2007	27,445	1,796,059	1.5%
2008	40,986	1,927,233	2.1%
2009	58,656	1,922,458	3.0%
2010	70,283	1,594,574	4.4%
2011	176,232	1,823,175	9.7%
2012	306,505	1,995,393	15.4%
2013	440,672	1,767,358	24.9%
2014	566,925	1,705,740	33.2%
2015	814,235	1,668,568	48.7%
2016	294,354 (Until 10/31/16)	1,702,046	-

3.1.2 Inconsistent Reporting by Provider

Figure 12 below shows which parts of the state have ridership information that will be used in subsequent analysis for this report. For nine providers, the software captured at least 60% of trips, whereas for an additional 25 providers shown in blue, the software captured at least 20% of trips.
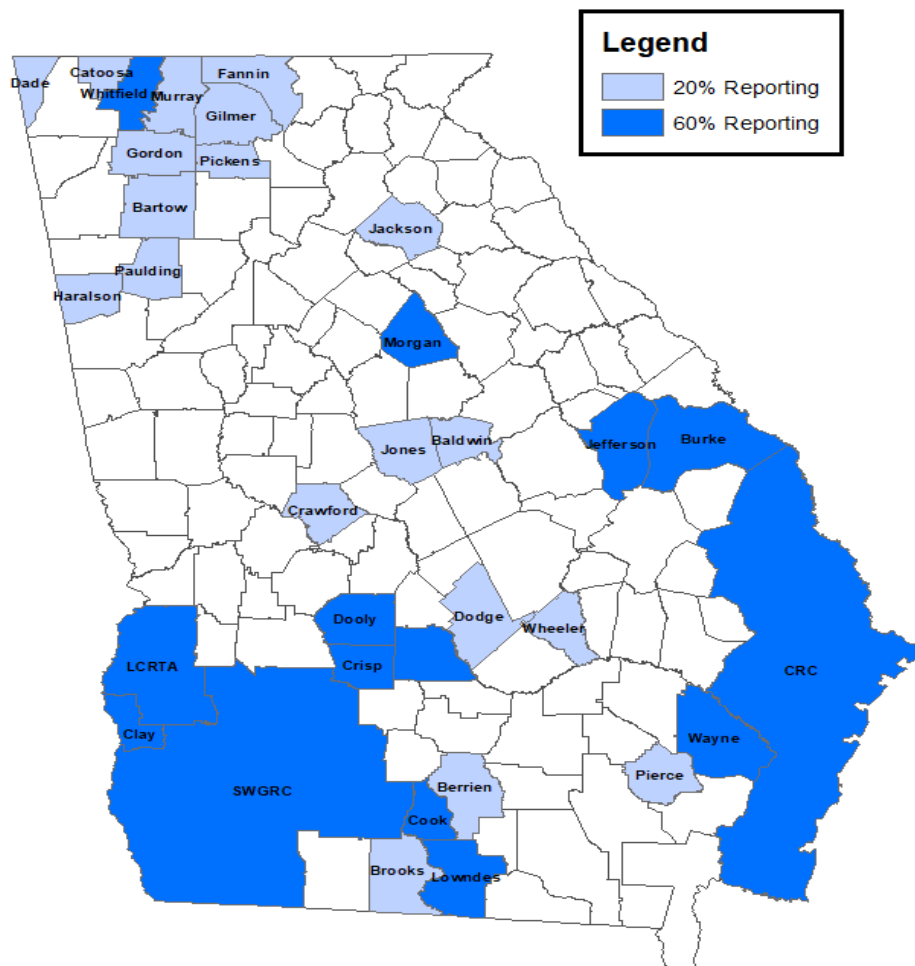
Figure 12: Data Reporting Levels Statewide

3.1.3 Inconsistent Reporting of Field Entries

Fields for Customer Home County, Customer Home State, Trip Purpose Type, Customer Home, County Federal Information Processing Standard (FIPS) Code, Trip Start Year, Agency Name and Trip Actual Start Time were reformatted. In many instances, the provider name field was blank or incorrectly reported. As part of the data cleaning process, the provider field was replaced with information tied to the customer's home county, which defines the person's service. Time and date fields were reformatted into a consistent format and null values, or default values such as "12:00:00 AM" were removed.

3.1.4 Grouped Trips

Cunningham also tested for the risk of grouped trips, the possibility that trips with multiple riders occurring at the same time between the same origin and destination are recorded as a single trip. This happens, for example, if two people living in the same facility receive a ride to the same event. A total of 16.8% of trips recorded statewide had the same origin and destination point and trip start time. Within these, 98% had the same Customer ID, but had different scheduled pick-up dates. This is an indication that repeat customers are using the service, and could be an indication of a "subscribed" trip, a repeated pick up scheduled for the same time each day. Grouped trips represented less than 2% of these trips.

3.1.5 Inconsistent Trip Purpose

The trip purposes reported in the dataset by default often had inconsistencies such as blank fields, or inconsistent spelling. Table 3 below shows the original trip purposes provided in the trip database and the percent of trips each accounted for.

Table 3: Default Dataset Trip Purpose

Purpose	Number of Trips	Percent
Daycare/Education	254,681	9%
Employment	361,387	12.8%
Medical	629,329	22.3%
Nutrition	198,221	7%
Shopping/Personal	309,966	11%
Social/Rec	203,767	7.2%
Blanks	**864,467**	30.6%

Any trip reported as funded through Medicaid was assigned a medical trip purpose. Other trip purposes were recoded based on key words in the name of the destination. For example, destinations with "School", "College", "University" or "Tech" were assigned an educational purpose. This process continued until 93% of trips were accounted for, at which point the 7% of trips remaining without a clear trip purpose were removed. Table 4 shows the distribution of trip purposes after each was reassigned.

Table 4: Reformatted Dataset Trip Purpose

Trip Purpose	Number of Trips	Percent of Trips
Medical	**694,919**	25.7%
Dialysis	88,616	3.3%
Behavioral Health	154,001	5.7%
Rehab	53,307	2.0%
Child Care	74,108	2.8%
Employment	312,687	11.6%
Education	20,084	0.8%
Nursing Home	11,129	0.4%
Social Assistance	136,506	5.1%

Shopping	537,846	19.9%
Adult Daycare/Senior Center	122,512	4.5%
Job Training	13,013	0.5%
Social/Recreation	160,517	6.0%
Other	117,962	4.3%
Blanks (Removed)	196,815	7.3%

Cleaning the original trip purposes proved incredibly powerful. Importantly, it allowed us to match the purpose of a trip to the actual businesses or facility located at the trip's geographic destination point. Each trip purpose category was carefully selected to fall within categories of the North American Industry Classification System (NAICS). For example, "nutrition" trips are spread out across both "Social Assistance" and "Shopping" to distinguish between trips that may be headed to places such a neighborhood food bank or the Department of Family and Children Services (DFCS) and those headed to a discount grocery, such as Dollar General or Walmart.

Potential destinations for riders were categorized using the trip purpose categories identified in Table 4. Registered businesses in the state are sourced from Infogroup, a marketing services provider. The department purchased the dataset in August of 2017. The database includes a NAICS code classification for each business or institution.

Medical trips, which serve a large portion of trips overall, were divided into three categories, 1) Hospitals and Medical Centers, 2) Federally Qualified Health Centers and 3) Local Doctor's Offices. Hospitals and Federally Qualified Health Centers feature layers were taken from the Department of Human Services (DHS). Local doctor's offices are defined as any business with a NAICS code of 621111, 621112, or 621210.

Places of employment, however, were too clustered to distinguish between adjacent destination points. Instead, the number of low-wage jobs was calculated per census tract. This was gathered using Longitudinal Employment-Household Dynamics (LODES) data from the Census Bureau, which provides a summary of workplace characteristics based on various criteria. Categories CE01 and CE02 of the Lodes data were used, representing jobs with earnings of $1250/month or less and from $1251 to $3333/month, and the total was found for each census tract in the state. This is based on a methodology developed at the University of North Carolina's Department of City and Regional Planning (UNC).

Table 5: Distribution of Trip Purposes and Matching Data Source

Destination Type	Trip Purpose	Data Source
Local Doctor's Office	Medical	NAICS Code 621111, 621112, 621210
Federally Qualified Health Centers	Medical	Department of Health and Human Services (DHS)
Medical Centers and Hospitals	Medical	Department of Health and Human Services (DHS)
Kidney Dialysis Centers	Dialysis	NAICS Code 621492
Offices of Mental Health Practitioners	Behavioral Health	NAICS Code 621330
Psychiatric and Substance Abuse Hospitals	Rehab	NAICS Code 622210
Child Day Care Services	Child Care	NAICS Code 624410
Employment	Employment	LODES
Educational Services	Education	NAICS Code 61 Family
Nursing Home	Nursing Home	Department of Health and Human Services
Community Food and Housing, and Emergency and Other Relief Services	Social Assistance	NAICS Code 6242
Retail Trade	Shopping	NAICS Code 44-45
Continuing Care Retirement Communities and Assisted Living for the Elderly	Adult Daycare/Senior Center	NAICS Code 6233
Business Schools and Computer Management Training, Technical and Trade Schools and Vocational Rehabilitation	Job Training	NAICS Codes 6114, 6115 and 6243

CHAPTER 4: SERVICE GAP ANALYSIS

This section will define the system's current gaps. Parts of Georgia offer transit service 24 hours a day. Others offer no service at all. Some communities are easy to serve, while others are more remote. The data cleaning methods and trip purpose definitions identified previously will prove key in this analysis.

4.1 Areas without Service

The Transit Capacity and Quality of Service Manual (TCQSM) defines service gaps for demand response transit by the availability of service (Kittelson). Figure 13 shows the state of transit service in Georgia by county. About 1,000,000 residents, or about 10.5% of the state's population, lack access to any kind of service.
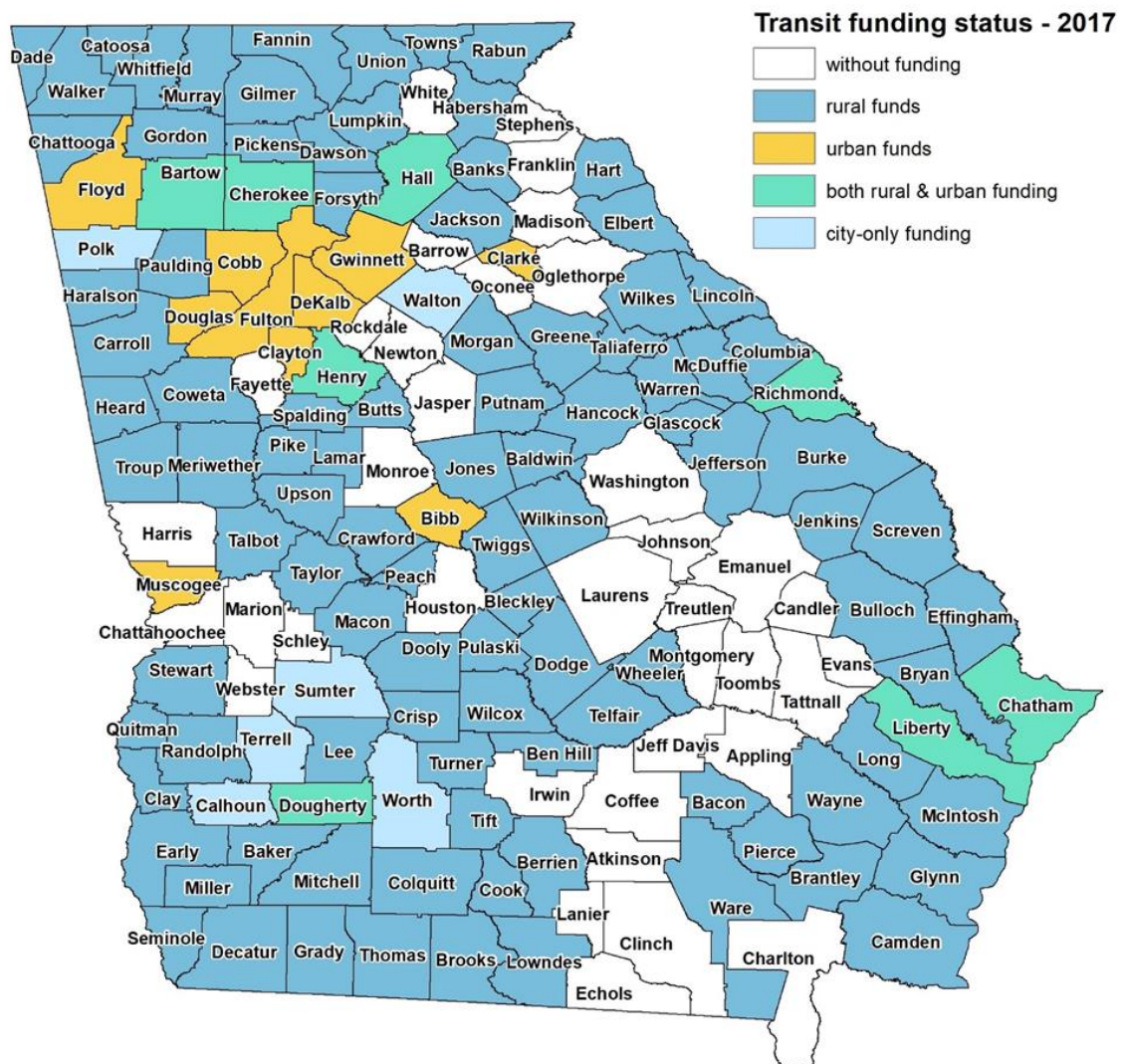
Source: Rural and Small Urban Transit Systems in Georgia, p. 3, Appendix.
Figure 13: Transit Funding Status in Georgia

A total of 37 counties in Georgia offer no transit service, listed below in order of population.

Table 6: Counties in Georgia without Transit

County	Population	Percent of State Population
Houston	152,213	1.46%
Fayette	110,054	1.06%

Newton	106,470	1.02%
Rockdale	89,299	0.86%
Barrow	75,869	0.73%
Laurens	48,543	0.47%
Coffee	43,907	0.42%
Oconee	35,265	0.34%
Harris	33,451	0.32%
White	28,246	0.27%
Toombs	27,723	0.27%
Monroe	27,516	0.26%
Tattnall	25,896	0.25%
Stephens	25,794	0.25%
Emanuel	23,245	0.22%
Franklin	22,282	0.21%
Washington	20,686	0.20%
Appling	18,693	0.18%
Jeff Davis	15,201	0.15%
Oglethorpe	14,612	0.14%
Madison	13,937	0.13%
Marion	13,832	0.13%
Jasper	13,759	0.13%
Charlton	13,411	0.13%
Chattahoochee	12,983	0.12%
Candler	11,039	0.11%
Evans	10,930	0.10%
Lanier	10,712	0.10%
Johnson	9,748	0.09%
Irwin	9,428	0.09%
Montgomery	9,023	0.09%
Atkinson	8,340	0.08%
Clinch	6,848	0.07%
Treutlen	6,728	0.06%
Schley	5,231	0.05%
Echols	4,090	0.04%
Webster	2,648	0.03%
Total	1,107,652	10.62%

As discussed in the system overview presented in Chapter 1, most counties without

service are in more remote parts of the state. Although service may be harder to provide in

these areas, households without vehicles in these places are most prone to isolation. Other

counties on the list, such as Houston or Fayette Counties, are more built-out and may need

to evaluate other types of potential service as well.

4.2 Hours without Service

Each provider in Georgia sets their own hours of service. A list of current service hours for all providers is available in Appendix A. Looking at existing service hours of each provider lets us observe if there is a market for extended hours. As noted, the dataset captured at least 20% of NTD reported trip levels for 34 providers out of the state's 83. The software showed 17 of these 34 services provided trips before 7:00 AM or after 5:00 PM or had stated hours outside of this time period. Trips for these 17 providers were queried by the hour.

4.2.1 Weekly Service

In many cases, hours the software stated rides were given often did not match the provider's hours of service. It is unclear if these represent actual trips or software errors. If true, service providers are flexing their current hours to meet existing demand. It is also possible that the data is unreliable. We recommend that questions be added to interviews that will be conducted as part of the upcoming statewide transit plan to help resolve this issue. This is explored further in the recommendations section, Chapter 6.

Table 7 below provides a breakdown of the ridership patterns of the 17 queried providers.

Table 7: Weekly Ridership by Transit Provider

Provider	Stated Service Hours	Overnight Ridership (Midnight to 5:00 AM)	Late night and early morning ridership (9:00 PM to Midnight	Evening Service (5:00 PM to 9:00 PM)	Total Off-Peak Ridership

Dooly County	Service Offered 24 Hours	16.80%	11.08%	1.11%	29.00%
Lower Chattahoochee Regional Transit Authority (LCRTA)	Service Offered 24 Hours	6.08%	10.63%	1.86%	18.57%
Wayne County Transit	Service Offered 24 Hours	0.01%	10.88%	7.00%	17.89%
Southwest Georgia Regional Commission (SWGRC)	6:00 AM to 8:00 PM	0.61%	6.64%	3.43%	10.68%
Burke County Transit**	6:00 AM to 6:00 PM	2.08%	4.18%	0.00%	6.27%
Clay County	6:00 AM to 6:00 PM	4.99%	14.61%	6.26%	25.85%
Crisp County	6:00 AM to 6:00 PM	1.51%	5.68%	0.66%	7.84%
Haralson County	7:00 AM to 6:00 PM	0.03%	0.03%	0.00%	0.07%
Jefferson County	6:00 AM to 6:00 PM	0.01%	14.53%	1.35%	15.88%
Morgan County Transit	6:00 AM to 5:15 PM	0.00%	6.13%	0.00%	6.13%
Whitfield County	6:30 AM to 6:00 PM	0.01%	2.41%	0.02%	2.45%
Wilcox County Transit	6:00 AM to 6:00 PM	30.03%	9.43%	2.82%	42.28%

Cook County Transit	7:30 AM to 5:00 PM	0.64%	5.77%	2.04%	8.45%
Coastal Regional Commission	7:00 AM to 5:00 PM	0.01%	5.95%	11.91%	17.87%
Dade	8:00 AM to 5:00 PM	0.16%	13.17%	0.02%	13.35%
Pierce	7:30 AM to 5:30 PM	0.22%	2.58%	7.59%	10.39%
Lowndes	7:30 AM to 5:30 PM	0.70%	4.22%	5.56%	10.48%

**Burke does not operate Tuesdays and Thursdays

4.2.2 Weekend Ridership

The dataset reported 18 transit providers serving riders during the weekend. Three providers offer weekend service, Dooly County, Lower Chattahoochee Regional Transit Authority (LCRTA) and Wayne County Transit. These are the only three that offer 24 hour service as well. Others, for example Hancock County, offer weekend service, but their trips were not captured in the software.

These three providers all displayed strong Saturday ridership of at least 4.0% of total weekly ridership. As did Clay, Crisp, Lowndes Counties and the Southwest Georgia Regional Commission (SWGRC). Sunday ridership was not as high for most. Wayne County and Lowndes County showed Sunday ridership levels of at least 4.0% of weekly ridership. For comparison, Saturday ridership on Georgia's one large urban transit system, the Metropolitan Atlanta Regional Transit Authority (MARTA), accounted for about 10% of weekly ridership. Sunday ridership accounted for about 7.5% of weekly ridership (Source: 2017 NTD Transit Agency Profile).

Table 8: Weekend Ridership by Transit Provider

Provider	Percentage of Weekly ridership occurring Saturday	Provider	Percentage of weekly ridership occurring Sunday
Dooly County	5.98%	Dooly County	0.14%
LCRTA	4.75%	LCRTA	0.38%
Wayne County Transit	4.64%	Wayne County Transit	6.92%
SWGRC	6.63%	SWGRC	0.06%
Berrien County	1.96%	Berrien County	
Clay	7.07%	Clay	0.16%
Coastal Regional Commission	2.79%	Coastal Regional Commission	2.26%
Crisp	9.25%	Crisp	0.43%
Jackson	1.22%	Jackson	0.14%
Lowndes	6.63%	Lowndes	5.75%

4.2.3 Summary of Time of Day Ridership Findings

The results from each transit provider are discussed below. As stated before, it is unclear if trips outside of service areas are occurring or are due to software reporting errors. If one assumes enough reliability in the data, three trends occur. *First*, most counties in the state display a need for service as early as 5AM. *Second*, overall evening ridership after 6PM is less vital than early morning ridership. *Third*, more evening ridership is observed in parts of the state where transit service was regionalized and in counties where rural populations live in closer proximity to a major city.

When considering extending existing service hours, it is important to note what other services may exist in an area. For example, early morning ridership may fluctuate county to county depending on whether the transit provider is substituting in for school trips normally provided by the school district. Dialysis visits may also account for a sizeable portion of early morning trips. In other areas, churches or other community groups

may be running private shuttles as well to either supplement service or provide service during off hours.

4.2.4 Individual Provider Summaries

Burke: Burke County provides service from 6AM to 6PM, earlier and later than most agencies. However, it does not provide service on Tuesday or Thursday. The analysis found few trips later than 5PM but service as early as 4AM. Trips before 7AM accounted for 6.27% of service. 0.85% of service occurred on Saturdays. Burke County is located in Eastern Georgia and part of the Central Savanah River Area Regional Commission (CSRA-RC), a region with little to no coordination at the regional commission level.

Clay: Clay County offers service Monday through Friday from 6AM to 6PM. The software reported a high number of trips occurring on the edges of its service hours, with about 8.0% of trips occurring between 5AM and 6AM, 3.6% of trips occurring between 6PM and 7PM and about 7.0% of trips occurring on Saturdays. Significant demand for extended hours may exist if this is correct. Although Clay County currently provides its own service, efforts are ongoing to incorporate its services into the Lower Chattahoochee Regional Transit Authority and combine service with adjacent counties (River Valley Regional Commission (RVRC)).

Crisp: Crisp County has stated service hours of 6AM to 6PM, Monday through Friday. The software reported that about 5.0% of trips occurred during the 4AM to 6AM time period, suggesting the need for an earlier start time. Few rides were reported after 6PM, with service after 5PM trailing the number of rides midday, suggesting that later evening service is less urgent than early morning service. About 9.0% of trips reported occurred on

Saturdays. Crisp County is located in the River Valley Regional Commission, which is continuing to streamline rural transit operations at the regional level (RVRC).

Coastal Regional Commission (CRC): The operating hours of the Coastal Regional Commission's transit service are 7AM to 5PM. However, 3.0% of reported trips occurred between 5AM and 7AM and 14.0% of service occurred between 5PM and 10PM. The Coastal Regional Commission operates over a large area and serves a significantly larger population. If true, this suggests that incorporation of transit services at the regional level encourages more evening ridership.

Cook: Cook County has service hours from 7AM to 5:30PM, Monday through Friday. The software reported 5.0% of trips were reported between 6AM and 7AM, but few trips occurred in the evening, with service after 5PM substantially trailing midday service. As with Crisp County, this suggests that early morning service is more urgent than evening service. Few weekend trips occurred. Cook County is located in the Southern Georgia Regional Commission.

Dade: Dade County has stated service hours of 8AM to 5PM. However, 28.0% of its trips reported occurred between 6AM and 8AM. These numbers reflect the need for early morning service hours. Dade County is located in Northwest Georgia on the border of both Tennessee and Alabama.

Dooly: Dooly County is unique in offering 24 hour service and serving a small area. Early morning service occurred between 4AM and 7AM and on Saturdays. Almost no service occurred after 7PM. 6.0% of ridership occurred Saturdays, while almost none occurred on Sundays. The Dooly County findings are consistent with many of the other counties. First,

that early morning service is more useful than evening service. Second, that Saturday service is more useful than Sunday service and third, low evening ridership numbers further support the hypothesis that regionalization of service supports more evening ridership. Dooly County is located adjacent to Crisp County in the Three Rivers Regional Commission.

Haralson: Haralson County has stated service hours of 7AM to 6PM. The software reported virtually no ridership outside of its stated service hours, but demand may still exist. No rides were reported starting after 5PM. Haralson County is located in the Northwest Georgia Regional Commission along the Alabama border.

Jefferson: Jefferson County has stated service hours of 6AM to 6PM, Monday through Friday. It displayed some potential for trips in the 5AM to 6PM time period, 2.5% of trips, but did not display the need for evening service. The County is located in the Central Savannah River Area.

Lowndes: Lowndes County has stated operating hours from 7:30AM to 5:30PM. It displayed the need for service beginning at 6AM and ending at 8PM with some ridership occurring between 8PM and 11PM. 5.0% of service occurred between 6PM and 11PM. Lowndes County is home to Valdosta, GA, the states 14th largest city and is in an area significantly more populated than other counties analyzed in this section (Source: US Census Bureau). This suggests that larger counties have the potential to attract more evening ridership. Despite years of planning efforts to do so, the City of Valdosta does not provide fixed-route bus transit at this time, which is possibly leading to higher reliance on the rural system (WCTV-TV).

LCRTA: The Lower Chattahoochee Regional Transit Authority provides 24 hour service. Its ridership patterns parallel the findings of other counties that early morning service is more important than evening service. 10.0% of service occurred between 5AM and 7AM whereas less than 1% of service occurred between 6PM and 4AM. 4.75% of service occurred on Saturdays, while less than 0.5% occurred on Sundays.

Morgan: Morgan County's stated service hours are 6:00AM to 5:15PM. It showed no ridership outside its stated service hours and roughly even levels of ridership between 6AM and 7AM and between 4PM and 5PM. Morgan County is located in the Northeast Georgia Regional Commission.

Pierce: Pierce County has stated operating hours of 7:30AM to 5:30PM. Unlike other providers, it reported significant evening ridership. About 7.6% of ridership occurred between 5PM and 9PM. It is located in the Southern Georgia Regional Commission.

SWGRC: The SWGRC's stated hours are 6AM to 8PM on weekdays. 1.3% of trips occurred between 5AM and 6AM, suggesting that the agency could extend service to earlier in the morning. Few trips occurred after 8PM, with evening ridership between 6PM and 8PM trailing ridership earlier in the day. 6.6% of ridership occurred on Saturdays. The Southwest Georgia Regional Commission is the only regional commission in Georgia to have fully coordinated its transit providers at the regional level between GDOT and DHS.

Wayne: Wayne County provides 24 hour service. 3.0% of service occurred between 5AM and 6PM, while an additional 3.0% occurred between 6PM and Midnight, with very little occurring after 8PM. Wayne County is located in the Heart of Georgia Regional Commission.

Whitfield: Whitfield County provides service between 6:30AM and 6:00PM. Steady ridership was observed from its opening until 5PM, with virtually no ridership between 5PM and the 6PM closing. No weekend trips occurred. Whitfield County is located in Northwest Georgia, and home to the City of Dalton, which provides fixed-route transit service.

Wilcox: Wilcox County has stated service hours of 8AM to 5PM, Monday to Friday. However, trips were observed on the system as early as 4AM and as late as 7PM. 11.5% of trips occurred on Saturdays. Wilcox County is located in the Heart of Georgia Regional Commission.

4.3 Rural Accessibility Index

In addition to observing service offerings, we have developed a third service gap tool to address places that offer service, but where it may be inadequate. It is able to capture all parts of the state. The tool creates an index for every census tract in the state based on the roadway travel times between destinations a user of the service is likely to visit. It does not rely on actual ridership data as ridership reporting is inconsistent throughout the state.

4.3.1 Census Tract Transit Accessibility

The index is calculated using the Hansen method. The method is what is referred to as a distance decay function. As distances between destinations grow, their utility "decays". The formula for the Hansen method can be written as $A_i = \sum_j ({B_j}/{d_{ij}^a})$, where A_i is the accessibility of a certain zone, B_j is the number of opportunities, in this case the number of potential destinations in each zone, denoted as j. d_{ij} refers to the distance

between zones. *a* refers to the weight of *attractability* of two locations, in this defined as the typical driving time between the two locations.

4.3.2 Factor Analysis

Once the totals for each destination type were found for each category, a factor analysis was done using SPSS to calculate the effect each type of destination has on accessibility. The destination type or the types with the largest effect are then used to run the accessibility index. The factor process is defined using a method outlined by Dr. Patricia Mokhtarian of Georgia Tech, which is based on principal axis factoring.

As shown in Table 9, the result is that 85% of the variance in accessibly is explained by one factor. This indicates that, as one would expect, destination locations are highly correlated, and tend to cluster in similar locations. Table 10 breaks this down per destination category, showing that one factor accounts for the majority of the variance on every factor. Thus, a single accessibility index with all of the potential destinations explains accessibility statewide.

Table 9: Variance Explained by Certain Factors

Factor	Total	% of Variance	Cumulative %
1	12.817	85.448	85.448
2	.684	4.557	90.006
3	.419	2.794	92.800

Table 10: Load on Each Factor

Trip Destination	Factor	
	1	**2**
Shopping	.987	
Employment	.986	
Adult Daycare/Senior Centers	.976	
Local Doctor's Offices	.962	
Child Care	.954	
Job Training	.953	
Education	.936	
Social Assistance	.912	
Rehab	.907	
Behavioral Health	.906	
Nursing Homes	.869	
Dialysis	.860	
Medical Centers and Hospitals	.761	
Federally Qualified Health Centers	.749	.358

Figure 14 below shows a flow chart of the entire accessibility methodology.
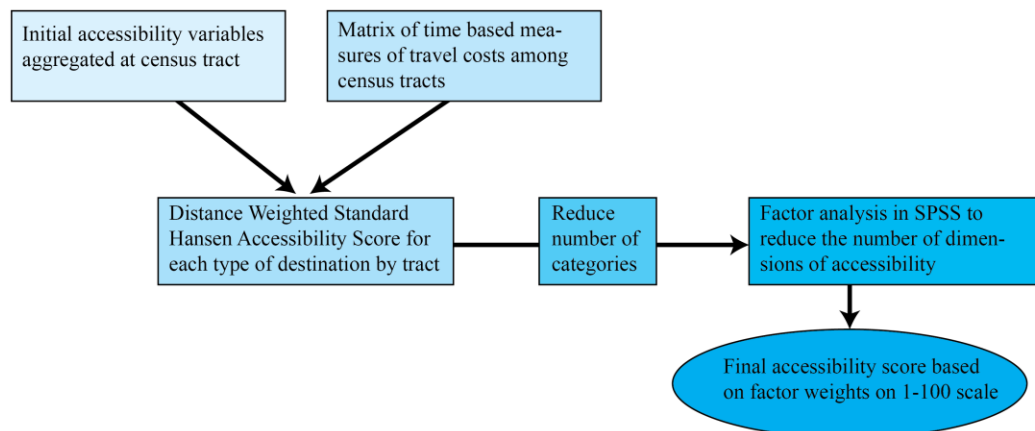
Figure 14: Rural Accessibility Index Methodology

4.3.3 Accessibility Score Results

Figure 15 shows the relative accessibility statewide by census tract to the 10th, 20th, 30th, 40th and 100th percentile. Predictably, parts of the state with a higher density of commercial land-uses have higher accessibility. All census tracts in the 60th to 100th percentile of accessibility were located in areas that offered urban service. The lowest 40% of accessibility scores are subdivided by the 10th percentile to allow the viewer to more closely see patterns that form in the rural sections of the state.

In certain counties, every census tract fell in the lowest 10th percentile of accessibility. Clusters of low accessibility can be seen in the areas around Clinch and Echols Counties in South Georgia, Calhoun and Baker Counties in the southwest and in the area around Treulten, Johnson, Washington and Emmanuel Counties in the east. Two of these clusters lack any form of transit. Rural areas with higher accessibility tend to cluster along corridors, likely the result of interstate highways.
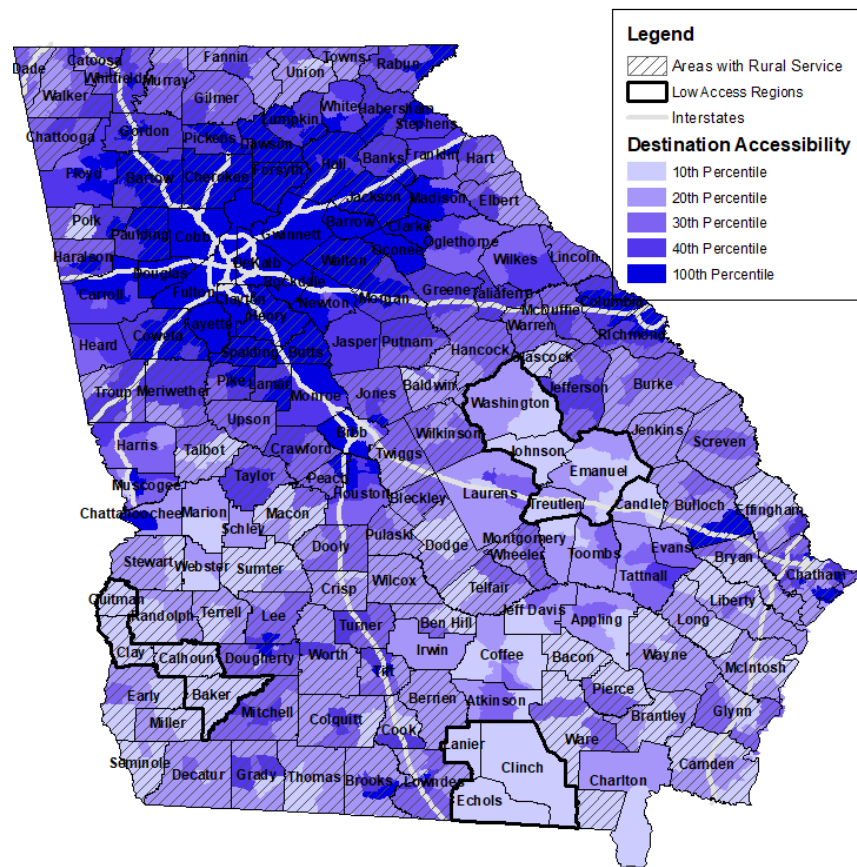
Figure 15: Rural Accessibility Statewide

There is overlap between the places with the lowest accessibility, and those with the highest levels of poverty and lowest levels of automobile ownership. This leads to a sense of isolation for rural residents, especially seniors who can no longer drive.

4.3.4 Comparison of Trip Destination and Potential Destination Locations

For transit providers where reliable data is available, the actual destination points of trips in the dataset can be paired with the destinations used in the accessibility index to test its accuracy. Figure 16 below shows downtown Bainbridge, Georgia, located in the Southwest Georgia Regional Commission. The white outlines in the diagram show two

clusters of destination points. One is located along the city's main arterial, Shotwell Street. Another is located around Memorial Hospital of Bainbridge, and doctor's offices surrounding the hospital. Memorial is defined as a Rural General Hospital, according to the *Atlanta Journal Constitution*, with 80 beds.
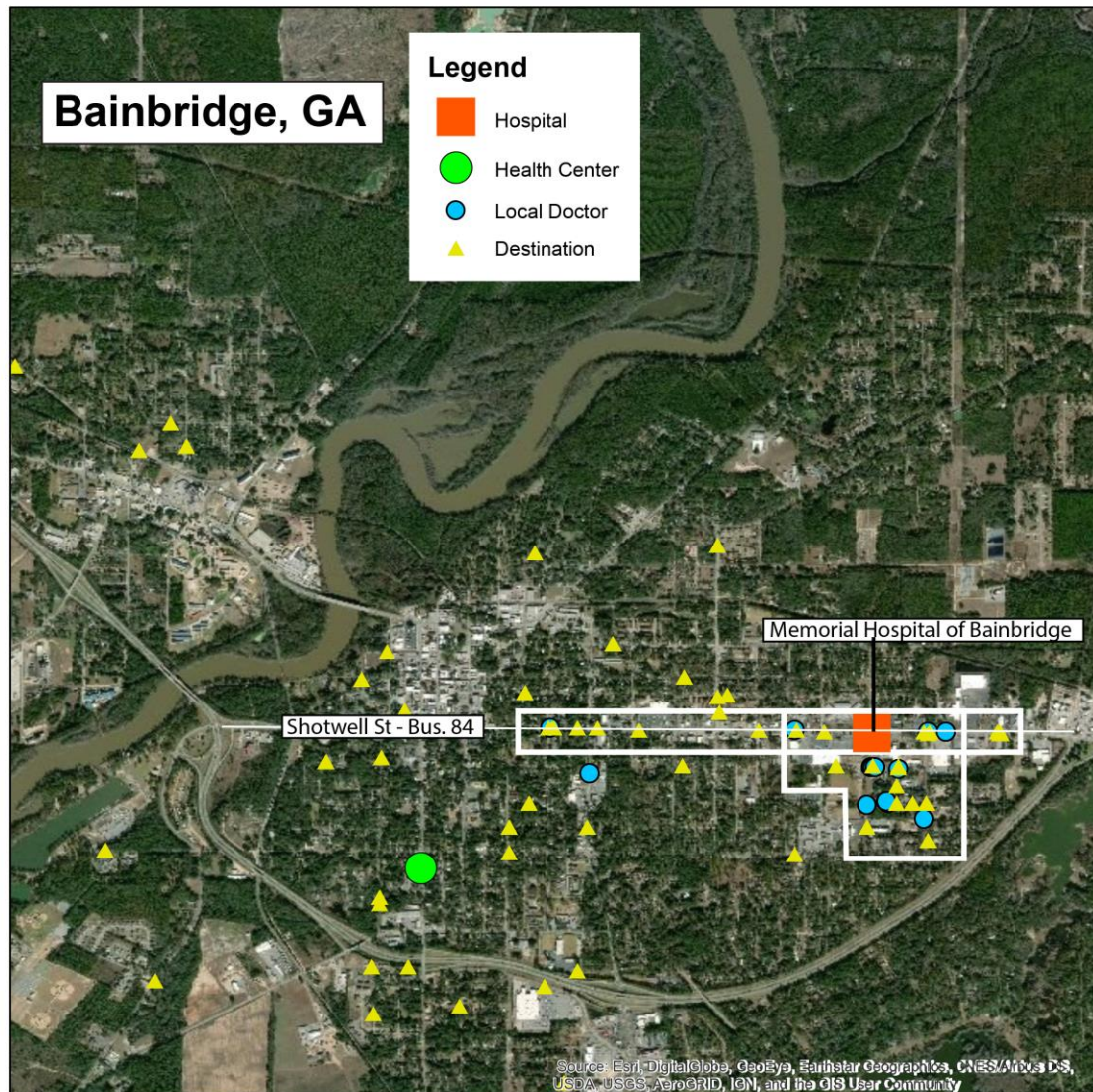

Figure 16: Local Destinations in Bainbridge, GA

The destination points in Bainbridge match closely with what the trip purposes suggest. Trips are serving low-wage job centers, low-wage groceries and medical purposes.

No cluster appears around the health center point shown above to the southwest since this refers to an addiction center, which is not a trip generator.

Similar patterns appear throughout the state. In Albany, a larger city, clusters can be seen around doctors' offices and Phoebe Putney Memorial Hospital.


Figure 17: Local Destinations in Albany, GA
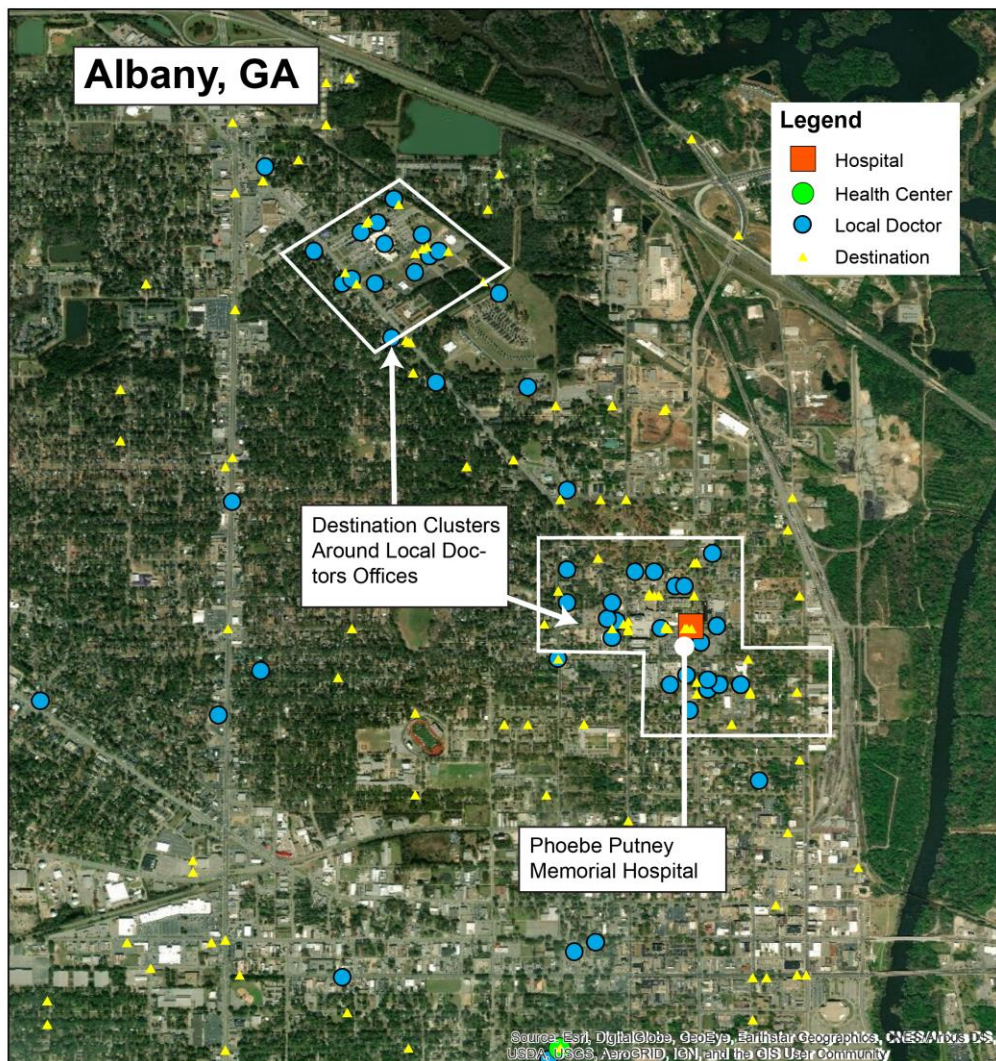
Despite unreliable data, strong ridership patterns still emerge. The trip purposes used to measure the systems accessibility match with what appears on the ground. Local

patterns such as these can also be extremely informative for planning on the local level. It

shows local leaders what services tend to be most valued by an area's residents and can

also let city and county staff collaborate with transit providers and healthcare providers to

provide on-site amenities for riders, such as enhanced waiting areas or staff support.

CHAPTER 5: RIDERSHIP ANALYSIS

Despite the dataset's issues, it can be used to infer important ridership patterns. *First*, we can look at trip destinations to confirm whether service is bringing riders towards places of opportunity. *Second*, we can look at trips that begin at a home address and see if the service is reaching users that live in remote areas. *Third*, we can look at the flow of trips between census tracts to see which destination pairs have the highest rates of travel. We confer that the service is underperforming at accessing important destinations, but is able to reach peoples' homes, even in remote areas and that many trips on the system are concentrated in particular areas.

5.1 Non-Home Based Destinations

In rural areas, the most accessible census tracts are in the 40% to 60% percentile of statewide accessibility. Areas that fall from 40% to 60% accessibility often are either the location of the county seat, home to local government services such as courthouses and assistance programs, or are areas with more intense retail activity, such as grocery stores or commercial doctor's offices – places of importance for rural transit riders.

5.1.1 State-wide results

A high share of non-home based trip destinations in census tracts within the 40% to 60% accessibility range indicates that riders in that area are reaching more places of interest. The easier a rider can reach these areas, the more services and opportunities become available. Table 11 shows the breakdown of non-home destinations across the state.

Table 11: Breakdown of Non-Home Destinations Statewide

Accessibility Percentile of Census Tract	Number of Non-Home Destinations	Percentage of Non-Home Destinations
0% to 20%	29,731	36.5%
20% to 40%	29,494	36.3%
40% to 60%	19,286	23.7%

In total, a surprisingly high number of non-home destinations fall in areas with low accessibility. Important destinations exist in these low-accessibility areas but growth in the number of high-accessibility destinations would display an improved level of service offerings. Comparing annual changes in the types of destinations reached provides GDOT with a tool to track the system's effectiveness.

5.1.2 Provider Close Ups

The nine tables below breakdown trip destination results for transit providers with at least 60% of their trips in the dataset. Exact travel patterns vary based on each area's geography, and are not intended to be compared against one another.

Table 12: Breakdown of Non-Home Destinations in Crawford County

Accessibility Percentile of Census Tract	Number of Non-Home Destinations	Percentage of Non-Home Destinations
0% to 20%	161	5.9%
20% to 40%	2,015	74.4%
40% to 60%	369	13.6%

Table 13: Breakdown of Non-Home Destinations in Coastal Regional Commission

Accessibility Percentile of Census Tract	Number of Non-Home Destinations	Percentage of Non-Home Destinations
0% to 20%	69,211	73.5%
20% to 40%	23,785	25.3%
40% to 60%	863	0.9%

Table 14: Breakdown of Non-Home Destinations in Crisp County

Accessibility Percentile of Census Tract	Number of Non-Home Destinations	Percentage of Non-Home Destinations
0% to 20%	11,357	86.7%
20% to 40%	780	6.0%
40% to 60%	891	6.8%

Table 15: Breakdown of Non-Home Destinations in Dade County

Accessibility Percentile of Census Tract	Number of Non-Home Destinations	Percentage of Non-Home Destinations
0% to 20%	3,034	26.6%
20% to 40%	6,689	58.6%
40% to 60%	0	0.0%
Out of State	1,696	14.8%

Table 16: Breakdown of Non-Home Destinations in Jones County

Accessibility Percentile of Census Tract	Number of Non-Home Destinations	Percentage of Non-Home Destinations
0% to 20%	225	5.7%
20% to 40%	3,472	87.4%
40% to 60%	253	6.4%

Table 17: Breakdown of Non-Home Destinations in Lowndes County

Accessibility Percentile of Census Tract	Number of Non-Home Destinations	Percentage of Non-Home Destinations
0% to 20%	8,136	22.7%
20% to 40%	18,248	50.8%
40% to 60%	7,388	20.6%

Table 18: Breakdown of Non-Home Destinations in Lumpkin County

Accessibility Percentile of Census Tract	Number of Non-Home Destinations	Percentage of Non-Home Destinations
0% to 20%	0	0.0%
20% to 40%	1,758	36.0%
40% to 60%	3,123	64.0%

Table 19: Breakdown of Non-Home Destinations in Pierce County

Accessibility Percentile of Census Tract	Number of Non-Home Destinations	Percentage of Non-Home Destinations

0% to 20%	3,068	33.1%
20% to 40%	6,202	66.9%
40% to 60%	4	0.0%

Table 20: Breakdown of Non-Home Destinations in Southwest Georgia Regional Commission

Accessibility Percentile of Census Tract	Number of Non-Home Destinations	Percentage of Non-Home Destinations
0% to 20%	58,792	43.0%
20% to 40%	56,614	41.4%
40% to 60%	16,773	12.3%

For small transit providers, areas of high activity are often located in neighboring counties. Small service areas are likely negatively affecting these riders' abilities to reach a diverse set of destinations. While users are allowed to set destinations outside of the home provider's service area, rider misinformation, higher fares, or difficulty reserving a return trip may all affect their willingness to do so. Were the number of higher accessibility destinations to increase, it would show that people are reaching a more diverse array of destinations.

5.2 Home Based Origins

Although riders are not reaching a diverse set of destinations, the service does adequately reach people's homes in more remote areas. To assess this, the state is divided into population density percentiles. Statewide, a large portion of riders live in low population density census tracts.

Table 21: Population Density Percentile of Home Addresses Statewide

Number of Homes Served (Reported)	Percentage of Homes Served in Service Area	Population Density Percentile
27,585	46.7%	0% to 20%
16,030	27.1%	20% to 40%

| 9,960 | 16.9% | 40% to 60% |
| 6,717 | 11.4% | 60% to 80% |

The results are favorable. Nearly 50% of users live in the least densely populated parts of the state. Remoteness does not appear to affect whether a user can reserve a pick up. However, poverty rates are also higher in low-density parts of the state, as shown previously in Figures 9-11, which is likely a factor in the higher rate of trips.

5.2.1 Provider Close Ups

Provider specific analysis was only possible in cases where the software accurately coded trips as a home-based pickup. It dives furthest into the service patterns of Coastal Regional Commission and Southwest Georgia Regional Commission, which have the largest service areas and most data. Crisp, Dade and Jones counties are also considered, as a sufficient number of trips were coded as home-based in these places. Figures 18 and 19 below profile home-based trip origins in Coastal Regional Commission and Southwest Georgia Regional Commission.
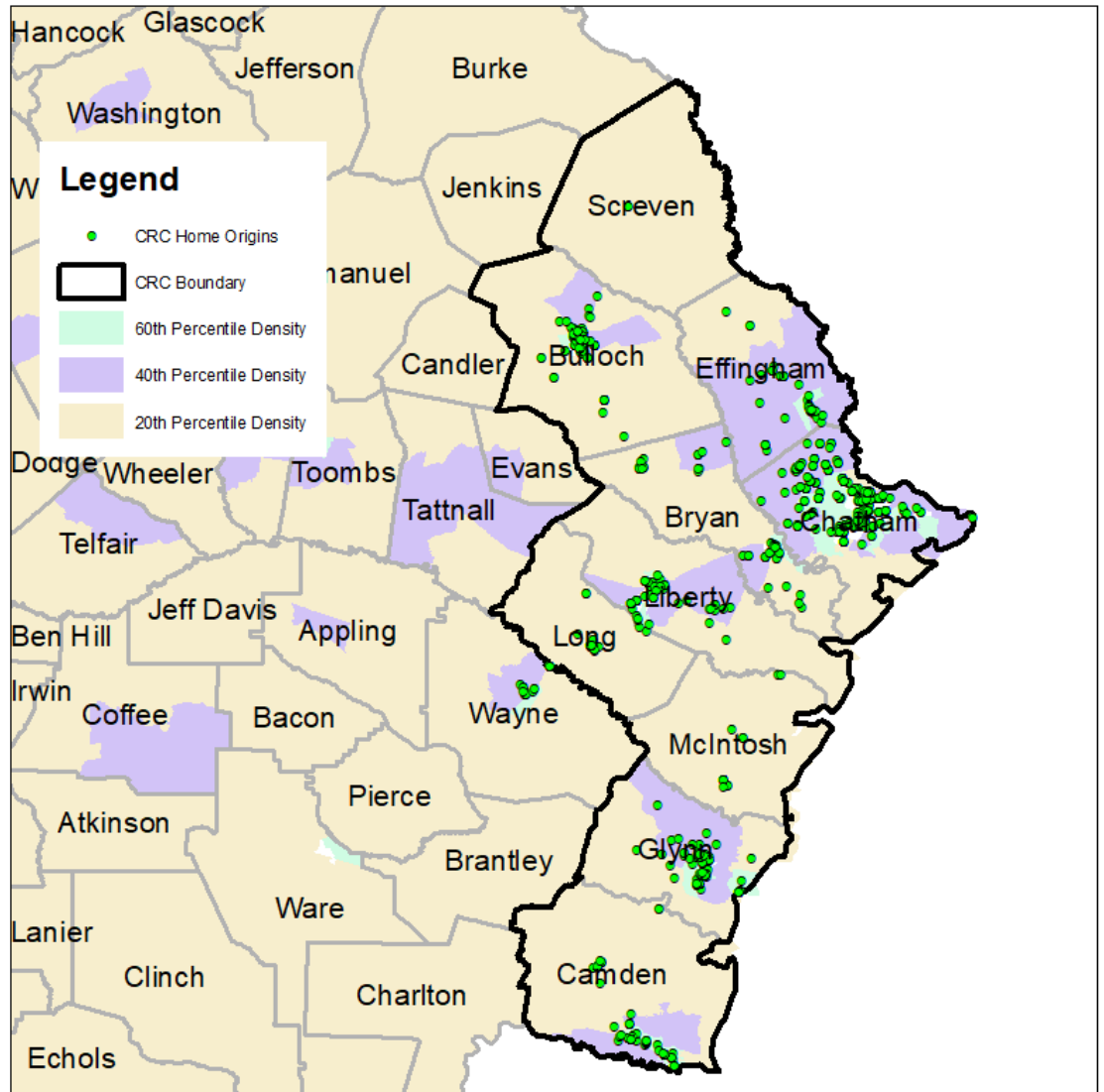
Figure 18: Location of Home-Based Trips for Coastal Regional Commission
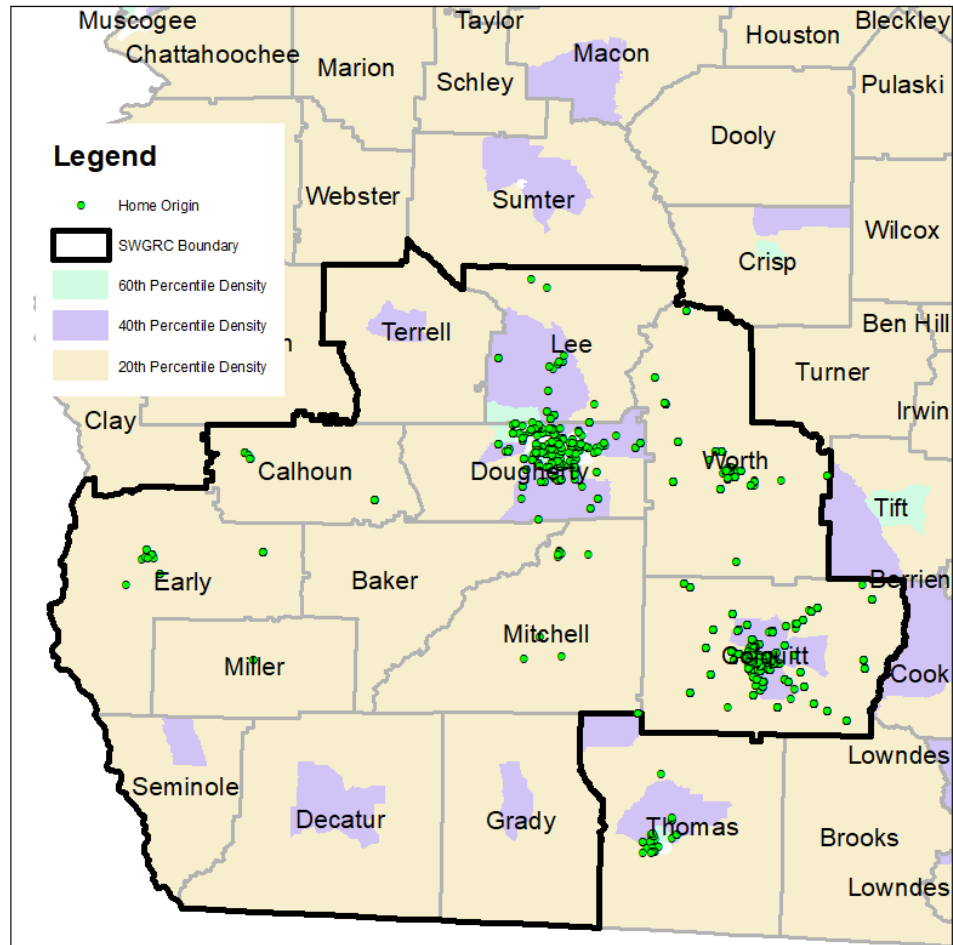
Figure 19: Location of Home-Based Trips for Southwest Georgia Regional Commission

A total of 2,783 homes out of 14,059 homes served in CRC, or 17%, are in the 20th percentile of census tracts with the lowest population density. A total of 2,540 homes out of 6,579 served in SWGRC, or 30%, are in the 20th percentile of census tracts with the lowest population densities.

Table 22: Population Density Percentile of Home Addresses in Coastal Regional Commission

Number of Homes Served	Percentage of Homes Served in Service Area	Population Density Percentile

Number of Homes	Percentage of Homes	Population Density
2,783	16.9%	0% to 20%
6,056	36.7%	20% to 40%
3,991	24.3%	40% to 60%
1,229	7.5%	60% to 80%

Table 23: Population Density Percentile of Home Addresses in Southwest Georgia Regional Commission

Number of Homes Served	Percentage of Homes Served in Service Area	Population Density Percentile
2,450	37.2%	0% to 20%
2,424	36.8%	20% to 40%
809	12.3%	40% to 60%
574	8.7%	60% to 80%

Samples are much smaller for Crisp, Dade and Jones Counties.

Table 24: Population Density Percentile of Home Addresses in Crisp County

Number of Homes Served	Percentage of Homes Served in Service Area	Population Density Percentile
356	45.4%	0% to 20%
151	19.2%	20% to 40%
272	34.6%	40% to 60%
3	0.4%	60% to 80%

Table 25: Population Density Percentile of Home Addresses in Dade County

Number of Homes Served	Percentage of Homes Served in Service Area	Population Density Percentile
2	8.7%	0% to 20%
18	78.3%	20% to 40%
1	4.4%	40% to 60%
0	0.0%	60% to 80%
2	8.7%	Other

Table 26: Population Density Percentile of Home Addresses in Jones County

Number of Homes Served	Percentage of Homes Served in Service Area	Population Density Percentile
5	35.7%	0% to 20%
8	57.1%	20% to 40%
0	0.0%	40% to 60%

5.3 Travel Flows

Knowing the areas with the highest flow of travel allows service providers to adjust services to meet demand. For example, if a high number of trips occur within a confined area, certain services can be pooled to provide faster response times and shorter reservation windows. Figures 20 and 22 below show the flow of trips between census tracts in Bulloch and Colquitt Counties. These counties are located in the Coastal Regional Commission and Southwest Georgia Regional Commission, respectively.
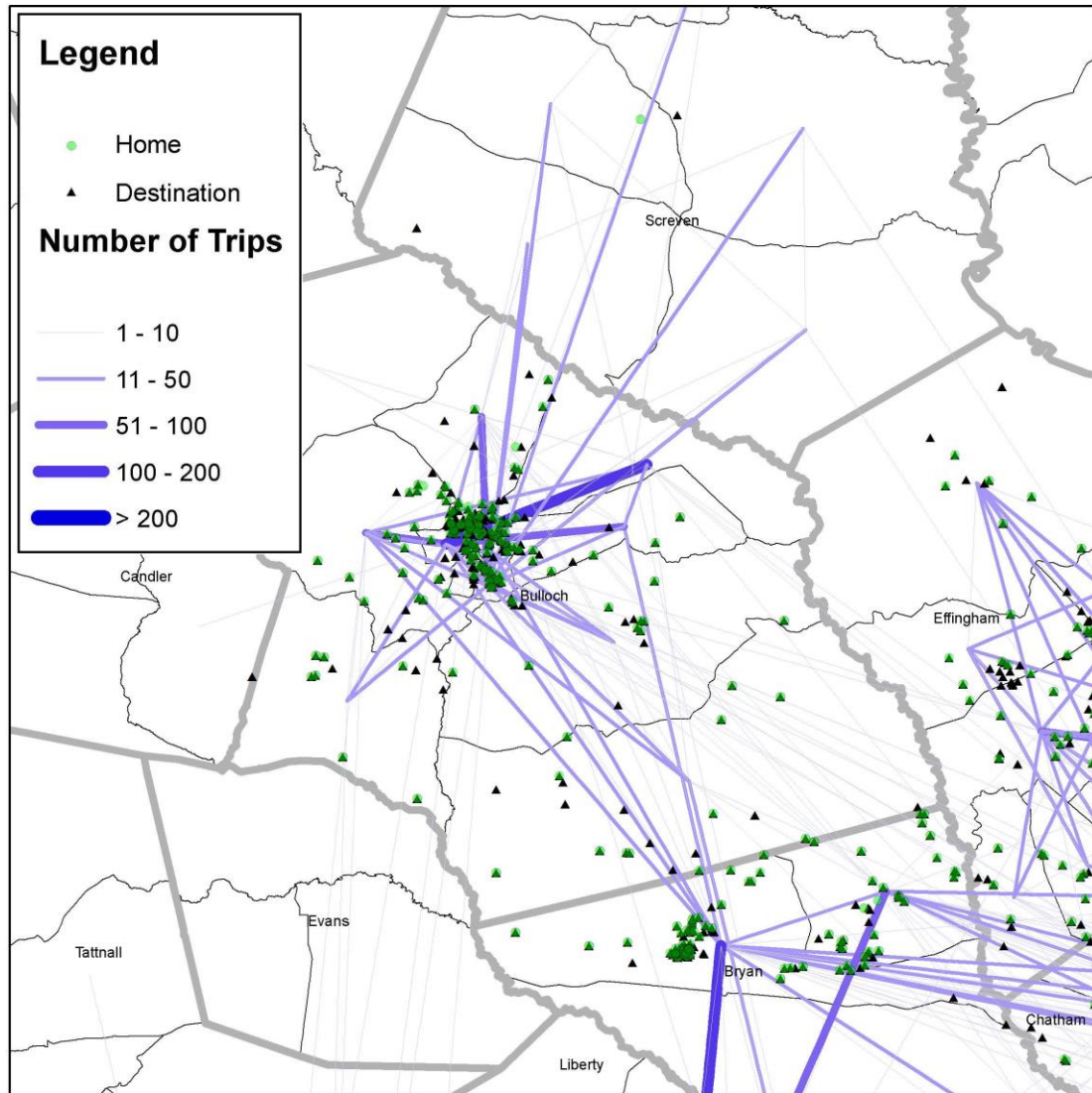
Figure 20: Flow of Trips in Bulloch County

For Bulloch County, above, one census tract pair accounts for the majority of ridership. A closer observation of the county reveals the majority of both home-based and non-home-based destinations are centered in the area surrounding Downtown Statesboro, the shopping district on Route 80 and East Georgia Regional Medical Center.
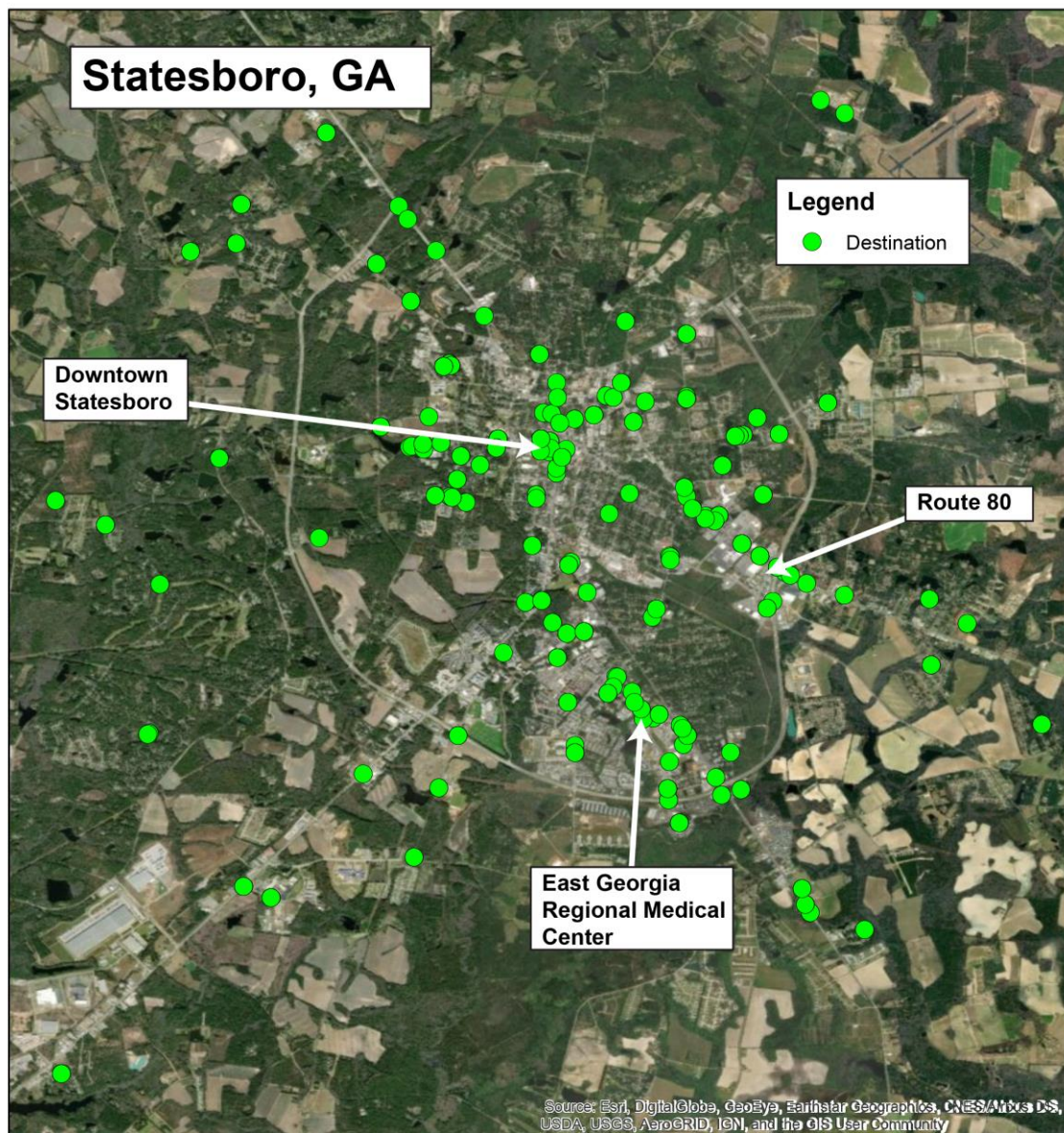
Figure 21: Route Pooling Potential in Statesboro, GA

A very similar pattern can be seen below for Colquitt County. In this case, only two census tract pairs had over 200 trips and all homes and destinations are centered around the main population center, Moultrie and the retail district to the east of town.
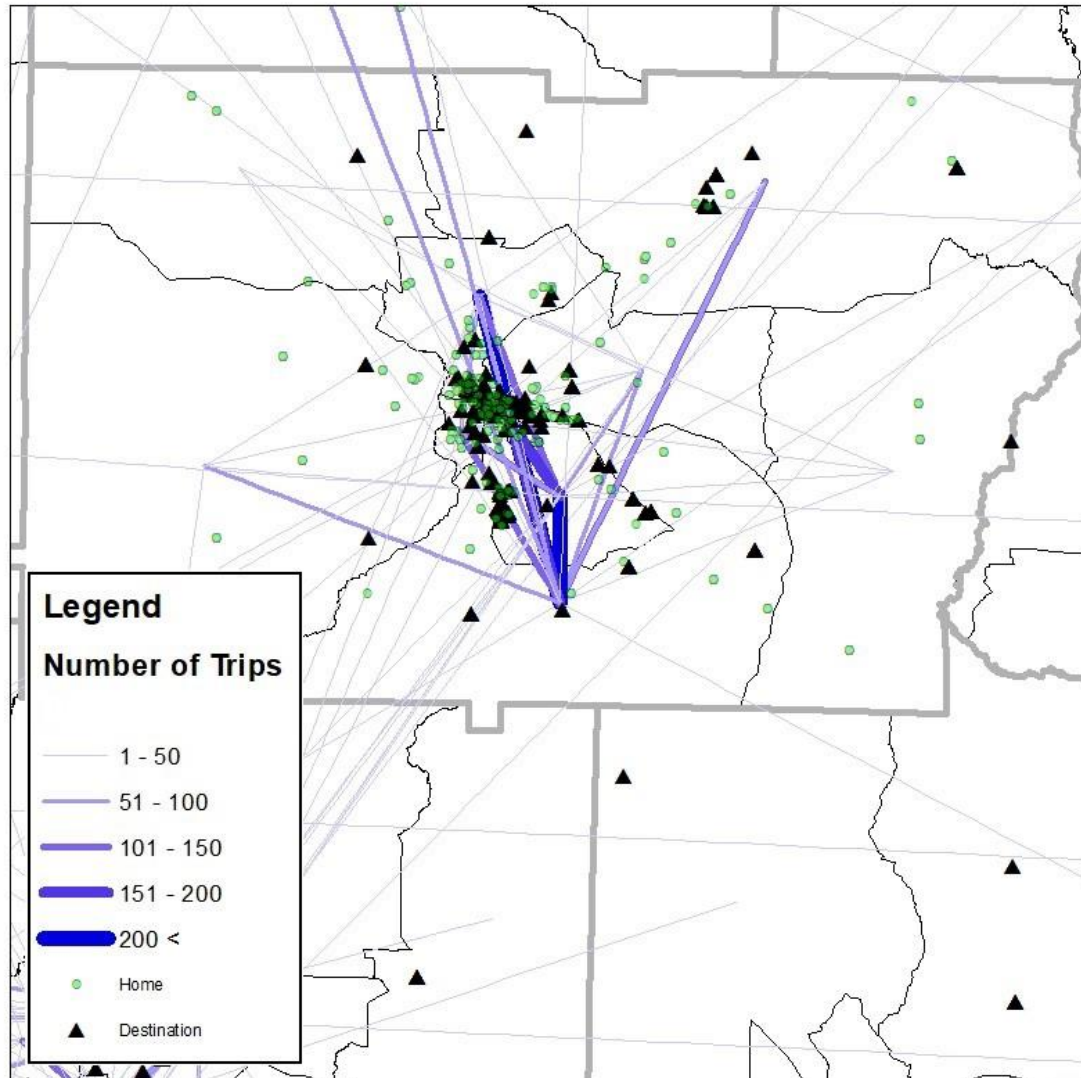
Figure 22: Flow of Trips in Colquitt County
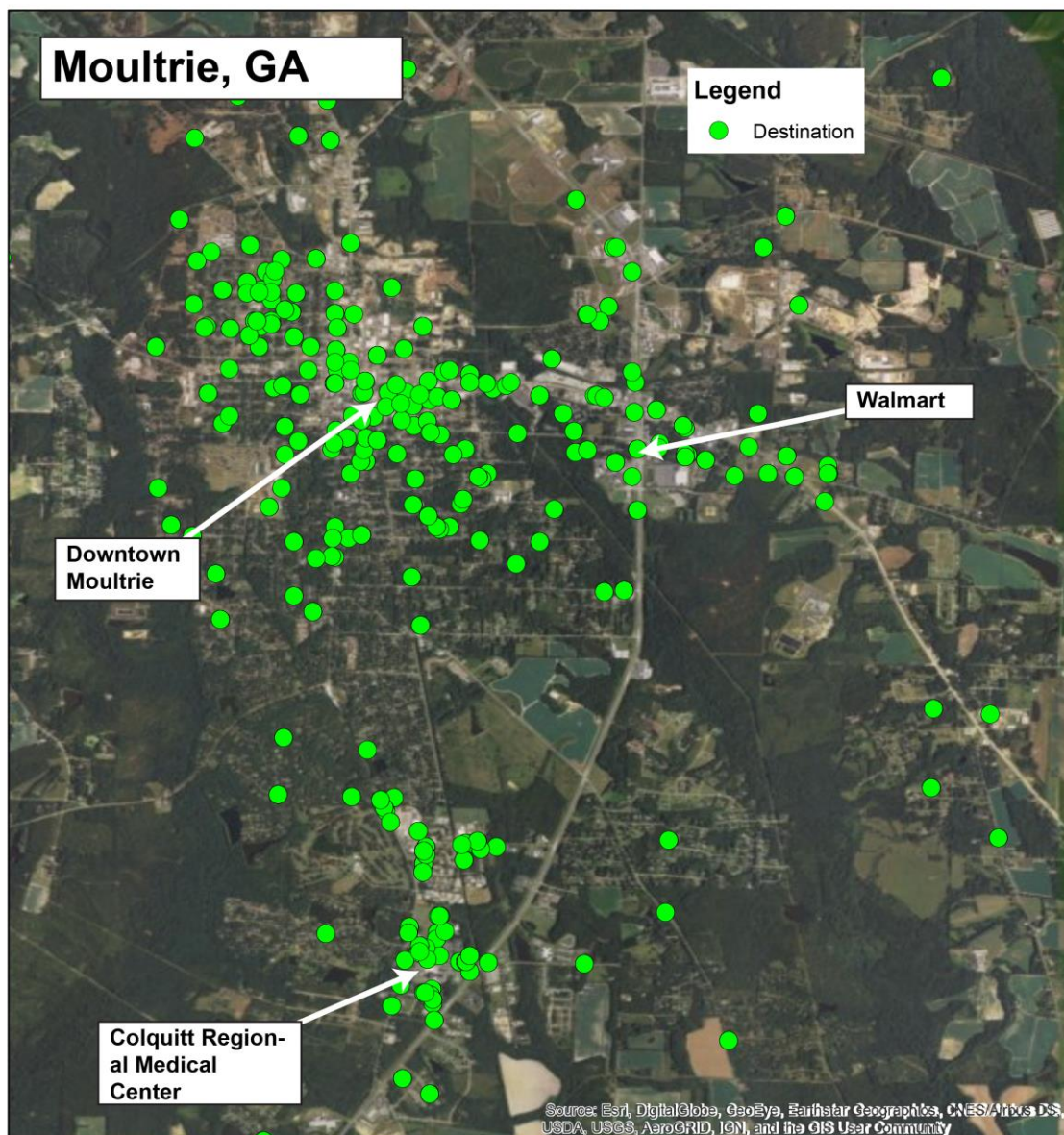
Figure 23: Route Pooling Potential in Moultrie, GA

5.4 Discussion

It is important to caution against using the existing ridership data for route planning purposes. Even among some of the more reported counties in the state, only about half of the trips taken are represented and many of the fields within these observations were

missing. The figures above are meant as a preliminary look into the patterns that may be emerging, and to display the power that route analysis can have with fully accurate data.

Preliminarily, it appears that many of the trips occurring, even on rural systems are highly concentrated in county seats and historic town centers. Three major types of destinations account for the majority of a rider's needs, 1) county offices, such as the district courthouse or the division of family and children services (DFCS), 2) a large discount shopping area, such as a Walmart and 3) the area's regional medical center. More frequent service to and between these three destinations can provide the most benefit.

At the same time, patterns will vary from each jurisdiction, and local planners and staff often have the familiarity to know what services are valued in their community. As GDOT's ridership software becomes more sophisticated, this can become a tool that local planners can use to make changes to service. Combined with community input and conversations with key stakeholders, it's possible to envision a rural transit assessment conducted for each county or regional commission in the state.

CHAPTER 6: RECOMMENDATIONS

This report offers six major recommendations, each explained in detail in the section that follows.

1) Regionalization of existing services
2) Extending services into unserved areas
3) Extending service hours, with an emphasis on serving more early morning trips
4) Developing internal standards for performance analysis
5) Contracting with transit agencies located across state lines
6) Pooling existing services offered in areas of high activity

6.1 Regionalization of services

In 2011, the Transportation Planning firm HNTB prepared a comprehensive list of reforms for GDOT's rural transit system (GDOT). Chapter 2.4 of the report, "Statewide Policy and Programmatic Recommendations" offers clear framework for improved service. This includes the establishment of a Rural and Human Services Transportation (RHST) office and a statewide mobility manager, along with increased regionalization of services.

This report finds that in addition to increasing operating efficiencies and interdepartmental collaboration, regionalization of services can be directly tied to increased ridership. The introduction outlined a common scenario in rural Georgia where most points of interest for a person are located outside of a resident's home county. Regionalized services increase the number of vehicles available to a customer when that destination falls outside of their home county and reduces the amount a driver must travel to reach their

customer. It also streamlines operating procedures and fare structures, making the system more intuitive for the rider.

SWGRC provides a model for other areas of the state to work from. Service has been extended to every county within the regional commission and the commission collaborates with both the Department of Community Health (DCH) and DOT to integrate all of its offerings.

House Bill 511 currently in front of the Georgia State Legislature would fund a state *Mobility Manager* position for each region of the state, tasked with coordinating rural transit services and managing service improvements. (Source: Georgia State Legislature). This is a significant step in the right direction. At the same time, it is a process that will take and require due diligence as few states have completed full integration of service offerings.

6.2 Extension of Service to Fill Gaps

If service were offered along regional commission lines, it would extend to counties not currently offering service. Such efforts are underway in the River Valley Regional Commission. Four counties in the regional commission currently coordinate Medicaid, DHS and GDOT trips collectively and the regional commission website tracks levels of coordination throughout the area. Regional commissions play a critical role in tracking services offered area wide and bringing them closer to one another (Source: RVRC).

Although the least densely populated counties in Georgia often have the least amount of people, residents of these areas tend to be poorer than their urban counterparts

and are most prone to isolation. At least 10% of households do not own automobiles in the states most rural counties, showing a clear need for the service to expand.

6.3 Extension of Service Hours

More early morning service is needed across the state, but in some instances, evening and weekend services are needed as well. Of the states 83 providers, the latest opening time is 8:00 AM. The earliest closing time is 12:00 PM, noon. Our findings suggest that there is baseline demand statewide to start service at 6:00 AM and continue service until at least 4:00 PM, six days a week, Monday through Saturday. Where demand exists, providers may extend hours earlier and later in the day and to Sundays based on needs in that area.

To summarize, four main service hour takeaways are:

1) A higher need for early morning ridership than early evening ridership.
2) Regionalized providers have higher evening ridership than smaller providers.
3) Rural areas within Metropolitan Statistical Areas (MSAs) displayed higher evening ridership than services in more remote areas.
4) Saturdays have the potential for more ridership than Sundays.

Due to the quality of existing data, these findings are extremely rudimentary. Each of these four findings should be further investigated when more accurate ridership information is available.

6.4 Developing Internal Standards for Performance Analysis

Federal regulations (49 CFR 37.131) set numerous requirements for the on-time delivery of paratransit services. The Disability Rights & Education Defense Fund (DREDF) outlines a series of best practices, many of these are more stringent than current federal requirements. GDOT can work with others to set internal standards that both note the federal requirement, but offer more stringent internal standards. These include:

1) Establishing a *latest possible arrival time* and *earliest possible departure time* with each rider. This must fall within the required one hour pick up window.

2) Establish agency specific on-time windows that are stricter than the federal requirements. For example, internally setting a pick-up window of 20 minutes as "on-time" whereas the federal minimum is 30 minutes

3) Avoid early pick-ups. This is especially important in poor weather conditions as a rider may have to unnecessarily wait outside at their destination.

4) Provide Will-Call reservations. Will-call reservations allow riders to request a pick-up for their return trip for the same day when their departure time is uncertain. Although not required, such trips greatly improve rider convenience.

5) Track trip performance beyond the federal reporting requirements, including trips that are missed, declined or cancelled and the reason for the change in the itinerary.

As noted previously, a close relationship with local transit providers is important. GDOT and others can use the upcoming statewide transit plan as an opportunity to conduct interviews with local staff. From this, GDOT can gain a better sense of current service hours and dive into how each service provider tracks on-time performance.

6.5 Cross-State Collaboration

Border communities pose a unique challenge to transit providers. In Vermont, the state contracts with service providers in neighboring states to provide transit in parts of the state that are tied economically to cities across the border. Services in the towns of Hartford and Norwich are offered by Advance Transit, a New Hampshire based provider and four towns in the state's south are served by a Massachusetts based provider, Deerfield Valley Transit Association.

Such service could benefit parts of Dade, Walker, Catoosa and Whitfield Counties in northern Georgia. The Chattanooga Area Regional Transit Authority (CARTA) currently runs fixed route service up to the Tennessee-Georgia border. These services could be extended, or the State of Georgia could contract with CARTA to run demand response service in Georgia counties along the state border, providing better access to major points of interest located in Chattanooga.

6.6 Route Pooling

As shown previously, a large percentage of transit trips often occur within a small area. Our analysis showed that in both Bulloch and Colquitt Counties, a single pair of census tracts accounted for the flow of most trips. Such services could be pooled to offer more efficiency. In the case of Bulloch County, for example, a dedicated van could serve the Downtown Statesboro area while other vehicles follow the current regional service model. Exact service patterns will depend on each provider's needs.

Possible benefits could include the ability for customers to book a ride within a shorter time window, reduced deadheading - time when a vehicles operates without passengers - for current vehicles, the ability to serve a higher number of passengers with a

single driver and the ability to attract new riders. A vanpool type service could also allow a rider to visit multiple locations within a small area before reserving their final trip home.

The exact pattern of new services will vary region to region. One option is to run new service as a *flex route*, which runs on fixed schedule but can deviate from its path when reserved. Another option is to introduce a new such service as *immediate response dial-a-ride,* a reservation type service with a one-hour window, instead of the typical 24-hour window. Counties can also choose to subsidize Transportation Network Company (TNC) service (i.e., Uber or Lyft) for qualified riders where it is offered, either only within certain areas or within certain hours. Dispatch services for TNCs can be made available to users both through the TNC's App and over the phone. This has proven successful for multiple agencies, but requires a thorough examination of existing call center capabilities. Capital Metropolitan Area Transportation Authority in Austin, TX and Dallas Area Rapid Transit are examples where this proved successful (APTA).

CONCLUSION

Georgia has the potential to revolutionize how it conducts transportation in rural communities. New legislation in the State Capital recognizes that rural transit should not just serve as a last resort option for captive riders, but should be examined in the state's larger mobility picture. Rural transit services must always focus on the states most poor residents, but growth in the system's attractiveness to new users will improve service for all.

At the same time, many rural communities are losing population. Working professionals and young families are leaving. Older residents, however, are not. This will increase the demand for rural mobility options. Meanwhile, if rural poverty rates continue to rise, transit will become increasingly important as services become further apart. From 2014 to 2017 alone, seven hospitals in Georgia closed (*AJC*). Jurisdictional cost savings from the closure of hospitals will result in increased transportation costs, both for state run vehicles and for residents. This report hopes to help GDOT tackle this impending issue.

Unfortunately, much of the ridership information used for this report was unreliable. In 2019, GDOT entered into a new software contract. This new data will provide the opportunity for researchers to conduct extremely thorough analysis of the system statewide. This information can be used to plan new routes and services, or better track how changes or improvements are affecting ridership trends. Local jurisdictions can use the information to provide additional amenities, such as bus shelters. As the new software takes effect, GDOT should coordinate with researchers to ensure that the data it is receiving

is formatted for the highest possible use, both for staff within GDOT and for its partners at

Georgia Tech.

Appendix

Exhibit A: NTD Reported Trips vs. Software Reported Trips by Provider

Name	NTD Reported Unlinked Passenger Trips	Software Reported Trips	
Bacon County	4,458	546	12.25%
Baldwin County Transit	10,601	4009	37.82%
Banks County Transit	4,729	35	0.74%
Bartow Transit	35,068	16676	47.55%
Ben Hill County Transit			
Berrien County	7,155	1432	20.01%
Bleckley County Transit	6,809		0.00%
Brantley County			
Brooks County Transit	14,837	5101	34.38%
Burke County Transit	18,283	6908	37.78%
Catoosa County	24,619	9036	36.70%
Chattooga County Transit	10,959		0.00%
Cherokee County			
City of Americus	19,805		0.00%
City of Cedartown	4,247		0.00%
Clay County	10,161	3690	36.32%
Coastal Regional Commission	138,884	94197	67.82%
Columbia County Commission Transit	51,356	8073	15.72%
Cook County Transit	21,929	6412	29.24%
Coweta County	23,301		0.00%
Crawford County Transit	3,060	2709	88.53%
Crisp County Transit	21,659	14945	69.00%
Dade County Transit	16,945	11420	67.39%
Dawson County Transit	9,683	427	4.41%
Dodge County Transit	14,796	8681	58.67%
Dooly County Transit	29,527	11484	38.89%
Elbert County	7,898	14	0.18%
Fannin County	14,439	7763	53.76%
Forsyth County Public Transportation	18,119		0.00%
Gilmer County Transit System	11,969	5217	43.59%
Glascock County Transit	6,098		0.00%
Gordon County Transit	11,688	3744	32.03%
Greene County Commission Transit	18,221		0.00%
Habersham County Transit	5,078	891	17.55%
Hall County Transit			
Hancock County Transit	15,171		0.00%
Haralson County Transit	6,438	2965	46.05%
Hart County Public Transit	8,843		0.00%

Heard County Transit	5,291		0.00%
Henry County Transit			
Jackson County	13,530	2788	20.61%
Jefferson County Transit	27,913	11647	41.73%
Jenkins County Transit	3,946	459	11.63%
Jones County Transit	6,556	3971	60.57%
Lincoln County Transit	11,246		0.00%
Lowndes County	37,463	36026	96.16%
Lumpkin County	5,244	4886	93.17%
Macon County Transit	7,934	760	9.58%
McDuffie County Commission Transit	36,507	34	0.09%
Meriwether County (Three Rivers Regional Commission)	5,165	925	17.91%
Montgomery County Transit	1,539		0.00%
Morgan County Transit	22,165	5189	23.41%
Murray County Transportation System	24,026	6976	29.04%
Paulding County	33,641	12866	38.24%
Peach County Transit	11,328	22	0.19%
Pickens County	18,852	5421	28.76%
Pierce County Transit	14,228	9296	65.34%
Pulaski County Transit	5,018	6	0.12%
Putnam County Commission Transit	15,884	2	0.01%
Rabun County	11,479	5	0.04%
Richmond County			
River Valley Regional Commission (Lower Chattahoochee Regional Transit Authority)	33,711	12687	37.63%
Social Circle Area Transit	10,605		0.00%
Southwest Georgia RC	262,722	161580	61.50%
Talbot County Transit	12,412		0.00%
Taliaferro County Board of Commissioners	5,978	2	0.03%
Taylor County Transit	10,229	2	0.02%
Telfair County Transit	9,774	5	0.05%
Thomas County Transit	87,874		0.00%
Three Rivers Regional Commission	62,316	9865	15.83%
Tift Transit System	10,443	125	1.20%
Towns County	2,197		0.00%
Troup County Transit	25,936		0.00%
Turner County	12,700	966	7.61%
Twiggs County Transit	6,861	26	0.38%
Union County Transit	4,552		0.00%
Walker County	29,975		0.00%
Ware County	13,569	23042	169.81%
Warren County Commission Transit	4,684	287	6.13%

Wayne County Transit	42,910		15138		35.28%		
Wheeler County Transit	4,121		1574		38.19%		
Whitfield County W.T.S.	40,265		12140		30.15%		
Wilcox County Transit	4,274		2514		58.82%		
Wilkes County Commission Transit	15,271				0.00%		
Wilkinson County Commission Transit	9,401				0.00%		

Exhibit B: Full List of Service Hours by Provider

Provider	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Bacon County	7:30A - 5:30P	7:30A - 5:30P	7:30A - 5:30P	7:30A - 5:30P	7:30A - 5:30P		
Baldwin County	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P		
Banks County	8:00A - 4:00P	8:00A - 4:00P	8:00A - 4:00P	8:00A - 4:00P	8:00A - 4:00P		
Bartow County	7:00A - 5:30P	7:00A - 5:30P	7:00A - 5:30P	7:00A - 5:30P	7:00A - 5:30P		
Ben Hill County	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P		
Berrien County	7:30A - 5:30P	7:30A - 5:30P	7:30A - 5:30P	7:30A - 5:30P	7:30A - 5:30P		
Bleckley County	8:00A - 4:00P	8:00A - 4:00P	8:00A - 4:00P	8:00A - 4:00P	8:00A - 4:00P		
Brantley County	7:30A - 5:30P	7:30A - 5:30P	7:30A - 5:30P	7:30A - 5:30P	7:30A - 5:30P		
Brooks County	7:30A - 5:30P	7:30A - 5:30P	7:30A - 5:30P	7:30A - 5:30P	7:30A - 5:30P		
Burke County	6:00A - 6:00P		6:00A - 6:00P		6:00A - 6:00P		
Catoosa County	8:00A - 4:30P	8:00A - 4:30P	8:00A - 4:30P	8:00A - 4:30P	8:00A - 4:30P		
Chattooga County	6:30A - 4:30P	6:30A - 4:30P	6:30A - 4:30P	6:30A - 4:30P	6:30A - 4:30P		
Cherokee County	6:30A - 4:30P	6:30A - 4:30P	6:30A - 4:30P	6:30A - 4:30P	6:30A - 4:30P		
Clay County	6:00A - 6:00P	6:00A - 6:00P	6:00A - 6:00P	6:00A - 6:00P	6:00A - 6:00P		
Coastal Regional Commission	7:00A - 5:00P	7:00A - 5:00P	7:00A - 5:00P	7:00A - 5:00P	7:00A - 5:00P		
Columbia County	7:00A - 5:00P	7:00A - 5:00P	7:00A - 5:00P	7:00A - 5:00P	7:00A - 5:00P		

County							
Cook County	7:30A - 5:30P	7:30A - 5:30P	7:30A - 5:30P	7:30A - 5:30P	7:30A - 5:30P		
Coweta County	8:00A – 5:00P	8:00A – 5:00P	8:00A – 5:00P	8:00A – 5:00P	8:00A – 5:00P		
Crawford County	7:00A - 3:00P	7:00A - 3:00P	7:00A - 3:00P	7:00A - 3:00P	7:00A - 3:00P		
Crisp County	6:00A - 6:00P	6:00A - 6:00P	6:00A - 6:00P	6:00A - 6:00P	6:00A - 6:00P		
Dade County	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P		
Dawson County	8:00A - 4:30P	8:00A - 4:30P	8:00A - 4:30P	8:00A - 4:30P	8:00A - 4:30P		
Dodge County	7:30A - 4:30P	7:30A - 4:30P	7:30A - 4:30P	7:30A - 4:30P	7:30A - 4:30P		
Dooly County	24 hours	24 hours	24 hours	24 hours	24 hours	24 hours	24 Hours
Elbert County	7:00A - 3:30P	7:00A - 3:30P	7:00A - 3:30P	7:00A - 3:30P	7:00A - 3:30P		
Fannin County	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P		
Forsyth County	8:00A - 4:00P	8:00A - 4:00P	8:00A - 4:00P	8:00A - 4:00P	8:00A - 4:00P		
Gilmer County	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P		
Glascock County	8:00A - 5:00P	8:00A - 5:00P	8:00a-12:00p	8:00A - 5:00P	8:00A - 5:00P		
Gordon County	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P		
Greene County	7:00A - 4:00P	7:00A - 4:00P	7:00A - 4:00P	7:00A - 4:00P	7:00A - 4:00P		
Habersham County	7:00A - 4:00P	7:00A - 4:00P	7:00A - 4:00P	7:00A - 4:00P	7:00A - 4:00P		
Hall County	6:00A - 6:00P	6:00A - 6:00P	6:00A - 6:00P	6:00A - 6:00P	6:00A - 6:00P		
Hancock County	4:00A - 8:00P	4:00A - 8:00P	4:00A - 8:00P	4:00A - 8:00P	4:00A - 8:00P	4:00A - 8:00P	
Haralson County	7:00A - 6:00P	7:00A - 6:00P	7:00A - 6:00P	7:00A - 6:00P			
Hart County	8:00A - 4:00P	8:00A - 4:00P	8:00A - 4:00P	8:00A - 4:00P	8:00A - 4:00P		
Heard County	7:00A - 4:00P	7:00A - 4:00P	7:00A - 4:00P	7:00A - 4:00P	7:00A - 4:00P		
Henry County	6:00A - 6:00P	6:00A - 6:00P	6:00A - 6:00P	6:00A - 6:00P	6:00A - 6:00P		
Jackson County	7:00A - 4:00P	7:00A - 4:00P	7:00A - 4:00P	7:00A - 4:00P	7:00A - 4:00P		
Jefferson County	6:00A - 6:00P	6:00A - 6:00P	6:00A - 6:00P	6:00A - 6:00P	6:00A - 6:00P		
Jenkins County	8:00A - 3:30P	8:00A - 3:30P	8:00A - 3:30P	8:00A - 3:30P	8:00A - 3:30P		

Jones County	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P		
Lincoln County	9:00A - 5:00P	9:00A - 5:00P	9:00A - 5:00P	9:00A - 5:00P	9:00A - 5:00P		
LCRTA	24 hours	24 hours	24 hours	24 hours	24 hours	24 hours	24 hours
Lowndes County	7:30A - 5:30P	7:30A - 5:30P	7:30A - 5:30P	7:30A - 5:30P	7:30A - 5:30P		
Lumpkin County	8:00A - 4:00P	8:00A - 4:00P	8:00A - 4:00P	8:00A - 4:00P	8:00A - 4:00P		
Macon County	24 hours	24 hours	24 hours	24 hours	24 hours	24 hours	24 hours
McDuffie County	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P		
Morgan County	6:00a - 5:15p	6:00a - 5:15p	6:00a - 5:15p	6:00a - 5:15p	6:00a - 5:15p		
Murray County	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P		
Paulding County	7:30A - 4:30P	7:30A - 4:30P	7:30A - 4:30P	7:30A - 4:30P	7:30A - 4:30P		
Peach County Transit	8:00A - 5:00P, except holidays	8:00A - 5:00P, except holidays	8:00A - 5:00P, except holidays	8:00A - 5:00P, except holidays	8:00A - 5:00P		
Pickens County	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P		
Pierce County	7:30A - 5:30P	7:30A - 5:30P	7:30A - 5:30P	7:30A - 5:30P	7:30A - 5:30P		
Pulaski County	8:00A - 5:00P, except holidays	8:00A - 5:00P, except holidays	8:00A - 5:00P, except holidays	8:00A - 5:00P, except holidays	8:00A - 5:00P, except holidays		
Putnam County	8:00A - 4:30P8	8:00A - 4:30P8	8:00A - 4:30P8	8:00A - 4:30P8	8:00A - 4:30P		
Rabun County	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P		
Richmond County	5:45A - 5:45P	5:45A - 5:45P	5:45A - 5:45P	5:45A - 5:45P	5:45A - 5:45P		
SWGRC	6:00A - 8:00P	6:00A - 8:00P	6:00A - 8:00P	6:00A - 8:00P	6:00A - 8:00P		
Talbot County	7:30am - 2:30pm	7:30am - 2:30pm	7:30am - 2:30pm	7:30am - 2:30pm	7:30am - 2:30pm		
Taliaferro County	8:00A - 4:00P	8:00A - 4:00P	8:00A - 4:00P	8:00A - 4:00P	8:00A - 4:00P		
Taylor County	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P		
Telfair County	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P		
Thomas County	8AM - 5PM	8AM - 5PM	8AM - 5PM	8AM - 5PM	8AM - 5PM		

County							
Three Rivers	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P		
Tift County	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P		
Towns County	8:00A - 4:00P	8:00A - 4:00P	8:00A - 4:00P	8:00A - 4:00P	8:00A - 4:00P		
Troup County	9:00A - 3:00P	9:00A - 3:00P	9:00A - 3:00P	9:00A - 3:00P	9:00A - 3:00P		
Turner County	7:30A - 5:30P	7:30A - 5:30P	7:30A - 5:30P	7:30A - 5:30P	7:30A - 5:30P		
Twiggs County	8:00A - 5:00, except holidays	8:00A - 5:00, except holidays	8:00A - 5:00, except holidays	8:00A - 5:00, except holidays	8:00A - 5:00, except holidays		
Union County	8:00A - 4:00P	8:00A - 4:00P	8:00A - 4:00P	8:00A - 4:00P	8:00A - 4:00P		
Walker County	6:00A - 6:00P	6:00A - 6:00P	6:00A - 6:00P	6:00A - 6:00P	6:00A - 6:00P		
Ware County	7:30A - 5:30P	7:30A - 5:30P	7:30A - 5:30P	7:30A - 5:30P	7:30A - 5:30P		
Warren County	4:00A - 1200P	8:00A - 4:00P	4:00A - 1200P	8:00A - 4:00P	4:00A - 1200P		
Wayne County	24hrs	24hrs	24hrs	24hrs	24hrs	24hrs	24hrs
Wheeler County	7:00A - 5:00P	7:00A - 5:00P	7:00A - 5:00P	7:00A - 5:00P	7:00A - 5:00P		
Whitfield County	6:30A - 6:00P	6:30A - 6:00P	6:30A - 6:00P	6:30A - 6:00P	6:30A - 6:00P		
Wilcox County	6:00A - 6:00P	6:00A - 6:00P	6:00A - 6:00P	6:00A - 6:00P	6:00A - 6:00P		
Wilkes County	7:30A - 4:00P	7:30A - 4:00P	7:30A - 4:00P	7:30A - 4:00P	7:30A - 4:00P		
Wilkinson County	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P	8:00A - 5:00P		

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