GEORGIA DOT RESEARCH PROJECT 23-02

Final Report

ENSURING FAIR AND EQUITABLE FUNDING OF RURAL TRANSIT IN GEORGIA AFTER THE 2020 CENSUS

Office of Performance-Based Management and Research
600 West Peachtree Street NW | Atlanta, GA 30308

January 2025

TECHNICAL REPORT DOCUMENTATION PAGE

1. Report No.: FHWA-GA-25-2302	2. Government Accession No.: N/A	3. Recipient's Catalog No.: N/A

4. Title and Subtitle: Ensuring Fair and Equitable Funding of Rural Transit in Georgia after the 2020 Census	5. Report Date: January 2025
	6. Performing Organization Code: N/A
7. Author(s): Laurie A. Garrow, Ph.D. https://orcid.org//0000-0003-2445-9687 Subhrajit Guhathakurta, Ph.D. https://orcid.org/0000-0002-2456-3284. Jing Luan	8. Performing Organization Report No.: RP 23-02
9. Performing Organization Name and Address: Georgia Institute of Technology 790 Atlantic Drive Atlanta, GA 30332-0355	10. Work Unit No.: N/A
	11. Contract or Grant No.: PI# 0015650
12. Sponsoring Agency Name and Address: Georgia Department of Transportation Office of Performance-based Management and Research 600 W. Peachtree St. NW Atlanta, GA 30308	13. Type of Report and Period Covered: Final; January 2024–March 2025
	14. Sponsoring Agency Code: N/A

15. Supplementary Notes:
Prepared in cooperation with the U.S. Department of Transportation, Federal Highway Administration.

16. Abstract:

Rural public transit systems are typically small, demand-responsive systems. Revenues are generally not sufficient to cover the system's costs, and the Federal Transit Administration (FTA) § 5311 program provides capital, planning, and operating assistance in support of these systems. State departments of transportation (DOTs) are responsible for developing and executing a process to fairly and equitably distribute federal transit funds to rural public transit systems. In fiscal year 2021 (FY21), more than $728 million in federal funding was allocated nationwide for rural transit, and Georgia DOT (GDOT) distributed $25 million to 85 rural transit operators. GDOT is responsible for disseminating federal transit funds fairly and equitably to rural transit operators in Georgia, which creates a key challenge. Specifically, the federal funding that GDOT receives each year is based on the total rural population and total rural land area for the state, as well as other factors. Because rural transit systems operate in specific counties, GDOT needs to know how much federal funding is associated with each county so that the amounts GDOT allocates to each county and to individual transit operators are aligned with the federal funding formula. This study calculates the FTA § 5311 funding appropriations at a county level for FY23, analyzes how funding levels for this program have changed since FY19, and illustrates ways in which these county-level calculations help support transit planning in Georgia.

17. Key Words: FTA Section 5311 rural funding, demand-responsive	18. Distribution Statement: No restrictions. This document is available through the National Technical Information Service, Springfield, VA 22161.

19. Security Classification (of this report): Unclassified	20. Security Classification (of this page): Unclassified	21. No. of Pages: 48	22. Price: Free

GDOT Research Project 23-02

Final Report

ENSURING FAIR AND EQUITABLE FUNDING FOR RURAL TRANSIT IN GEORGIA AFTER THE 2020 CENSUS

By

Laurie A. Garrow and Subhrajit Guhathakurta
Professors

and

Jing Luan
Master's Student

Georgia Institute of Technology

Contract with
Georgia Department of Transportation

In cooperation with
U.S. Department of Transportation, Federal Highway Administration

January 2025

SI* (MODERN METRIC) CONVERSION FACTORS

APPROXIMATE CONVERSIONS TO SI UNITS

Symbol	When You Know	Multiply By	To Find	Symbol
		LENGTH		
in	inches	25.4	millimeters	mm
ft	feet	0.305	meters	m
yd	yards	0.914	meters	m
mi	miles	1.61	kilometers	km
		AREA		
in^2	square inches	645.2	square millimeters	mm^2
ft^2	square feet	0.093	square meters	m^2
yd^2	square yard	0.836	square meters	m^2
ac	acres	0.405	hectares	ha
mi^2	square miles	2.59	square kilometers	km^2
		VOLUME		
fl oz	fluid ounces	29.57	milliliters	mL
gal	gallons	3.785	liters	L
ft^3	cubic feet	0.028	cubic meters	m^3
yd^3	cubic yards	0.765	cubic meters	m^3
		NOTE: volumes greater than 1000 L shall be shown in m^3		
		MASS		
oz	ounces	28.35	grams	g
lb	pounds	0.454	kilograms	kg
T	short tons (2000 lb)	0.907	megagrams (or "metric ton")	Mg (or "t")
		TEMPERATURE (exact degrees)		
°F	Fahrenheit	5 (F-32)/9 or (F-32)/1.8	Celsius	°C
		ILLUMINATION		
fc	foot-candles	10.76	lux	lx
fl	foot-Lamberts	3.426	$candela/m^2$	cd/m^2
		FORCE and PRESSURE or STRESS		
lbf	poundforce	4.45	newtons	N
lbf/in^2	poundforce per square inch	6.89	kilopascals	kPa

APPROXIMATE CONVERSIONS FROM SI UNITS

Symbol	When You Know	Multiply By	To Find	Symbol
		LENGTH		
mm	millimeters	0.039	inches	in
m	meters	3.28	feet	ft
m	meters	1.09	yards	yd
km	kilometers	0.621	miles	mi
		AREA		
mm^2	square millimeters	0.0016	square inches	in^2
m^2	square meters	10.764	square feet	ft^2
m^2	square meters	1.195	square yards	yd^2
ha	hectares	2.47	acres	ac
km^2	square kilometers	0.386	square miles	mi^2
		VOLUME		
mL	milliliters	0.034	fluid ounces	fl oz
L	liters	0.264	gallons	gal
m^3	cubic meters	35.314	cubic feet	ft^3
m^3	cubic meters	1.307	cubic yards	yd^3
		MASS		
g	grams	0.035	ounces	oz
kg	kilograms	2.202	pounds	lb
Mg (or "t")	megagrams (or "metric ton")	1.103	short tons (2000 lb)	T
		TEMPERATURE (exact degrees)		
°C	Celsius	1.8C+32	Fahrenheit	°F
		ILLUMINATION		
lx	lux	0.0929	foot-candles	fc
cd/m^2	$candela/m^2$	0.2919	foot-Lamberts	fl
		FORCE and PRESSURE or STRESS		
N	newtons	0.225	poundforce	lbf
kPa	kilopascals	0.145	poundforce per square inch	lbf/in^2

* SI is the symbol for the International System of Units. Appropriate rounding should be made to comply with Section 4 of ASTM E380. (Revised March 2003)

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF SYMBOLS AND ABBREVIATIONS

§	"Section"
ACS	American Community Survey
DOT	Department of Transportation
FTA	Federal Transit Administration
FY	Fiscal Year
GIS	Geographic Information Systems
NTD	National Transit Database
RTAP	Rural Transit Assistance Program
UZA	Urbanized Area
VRM	Vehicle Revenue Mile

EXECUTIVE SUMMARY

Rural public transit systems are typically small, demand-responsive systems. The Federal Transit Administration (FTA) provides federal funding to states for capital, planning, and operating assistance in support of transit systems in rural areas with populations less than 50,000 through two key programs: the FTA § 5311 (Formula Grants for Rural Areas) and § 5340 (Growing States and High Density States Formula Program). State departments of transportation (DOTs) are responsible for developing and executing a process to fairly and equitably distribute federal transit funds to rural public transit systems. In FY23, more than $914 million in federal funding were allocated nationwide for rural transit, and Georgia DOT (GDOT) distributed $31 million to 68 rural transit operators. In FY23, these operators provided demand-responsive transit service for 116 (of 159) counties in Georgia.

GDOT is responsible for disseminating federal transit funds fairly and equitably to rural transit operators in Georgia, and it faces two key challenges. First, the federal funding that GDOT receives each year primarily comes from the § 5311 program and is based on the total rural population and total rural land area for the state, but GDOT allocates funding to individual providers that provide service within specific counties. Thus, there is a need to replicate the federal funding formulas at the county level to ensure a fair and equitable distribution of funds across these providers. Second, about 85 percent of GDOT's funding has historically come from the § 5311 program and 15 percent from the § 5340 program. Conceptually, the § 5311 funding is based on population counts from the 2020 decennial census whereas the § 5340 program provides supplemental funding based on how fast the state's population is growing. Given that Georgia has recently been one of the fastest growing states in the nation, a significant portion of

its total federal funding would be from the § 5340 program. It is thus important to assess the drivers of both programs in order to forecast the total rural transit funding for Georgia.

The objectives of this research are to: (1) review how actual or established appropriation amounts for the § 5311 and § 5340 programs have evolved from FY20 to FY26 at a national level and for the state of Georgia and (2) calculate § 5311 and § 5340 funding appropriations for counties in Georgia for FY23. These county-level estimates of federal funding can be used to support GDOT's budget allocation process to individual transit providers in the state and support other transit planning efforts.

CHAPTER 1. INTRODUCTION

Rural public transit systems are typically small, demand-responsive systems. The Federal Transit Administration (FTA) provides federal funding to states for capital, planning, and operating assistance in support of these systems in rural areas with populations of less than 50,000 through two key programs: the FTA § 5311 (Formula Grants for Rural Areas) and § 5340 (Growing States and High Density States Formula Program). State departments of transportation (DOTs) are responsible for developing and executing a process to fairly and equitably distribute federal transit funds to rural public transit systems. In FY23, more than $914 million in federal funding were allocated nationwide for rural transit and the Georgia DOT (GDOT) distributed $31 million to 68 rural transit operators. In FY23, these operators provided demand-responsive transit service for 116 (of 159) counties in Georgia.

GDOT is responsible for disseminating federal transit funds fairly and equitably to rural transit operators in Georgia, and it faces two key challenges. First, the federal funding that GDOT receives each year primarily comes from the § 5311 program and is based on the total rural population and 8total rural land area for the state, but GDOT allocates funding to individual providers that provide service within specific counties. Thus, there is a need to replicate the federal funding formulas at the county level to ensure a fair and equitable distribution of funds across these providers. Second, about 85 percent of GDOT's funding has historically come from the § 5311 program and 15 percent from the § 5340 program. Conceptually, § 5311 funding is based on population counts from the 2020 decennial census whereas the § 5340 program provides supplemental funding based on how fast the state's population is growing. Given that Georgia has recently been one of the fastest growing states in the nation, a significant portion of

its total federal funding would be from the § 5340 program. It is thus important to assess the drivers of both programs in order to forecast the total rural transit funding for Georgia.

The objectives of this research are to: (1) review how actual or established appropriation amounts for the § 5311 and § 5340 programs have evolved from FY20 to FY26 at a national level and for the state of Georgia and (2) calculate § 5311 and § 5340 funding appropriations for counties in Georgia for FY23. These county-level estimates of federal funding can be used to support GDOT's budget allocation process to individual transit providers in the state and support other transit planning efforts.

This report comprises four chapters: Chapter 2 outlines the data and methodology used to calculate annual funding levels for the § 5311 and § 5340 FTA appropriations for Georgia counties from fiscal years 2020 to 2026. Chapter 3 presents the results, featuring an interactive map that allows users to explore how funding levels vary with changing inputs at the county level. The chapter also includes examples that demonstrate how the findings can support transit planning efforts across the state. The report is supplemented by an appendix, which summarizes county-level § 5311 and § 5340 FTA appropriations for FY23 in Georgia. The report concludes with a summary of key findings in chapter 4.

CHAPTER 2. DATA AND METHODOLOGY

This chapter reviews the data and methodology used to calculate annual funding levels for the § 5311 FTA appropriations for fiscal years 2020–2026 for counties in Georgia. The description of the methodology draws heavily from Garrow et al. (2020). The next chapter presents the key results from the analysis.

The calculation of annual funding levels is based on multiple inputs and can be categorized based on whether they are obtained from: (1) authorized or expected federal appropriations for the § 5311 program, (2) census, (3) revenue and operating metrics for different transit modes reported to the National Transit Database (NTD), or (4) FTA data value tables. Figure 1 provides an overview of the steps used to calculate annual funding levels for counties in Georgia.

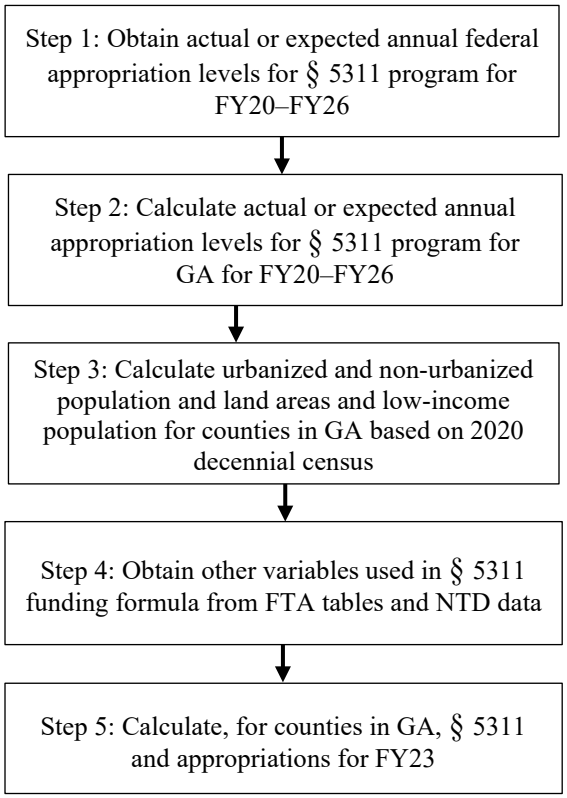


Figure 1. Flowchart. Overview of methodology.

We discuss each of these modeling steps in detail in the sections that follow.

STEP 1: DETERMINE FEDERAL FTA § 5311 FEDERAL APPROPRIATIONS

The Bipartisan Infrastructure Law established appropriation levels for § 5311 (rural) program through FY26. Table 1 summarizes the actual or established appropriation amounts for each year of this program from FY20 to FY26. Note that the amount of § 5311 appropriation is often reported with a supplemental appropriation from the § 5340 program for "growing states/high density states." Conceptually, we can think of the § 5340 program as a "bump" in appropriation that accounts for population changes between the 2010 decennial census and the 2030 decennial census. That is, because the § 5311 appropriation is based on the 2010 decennial census, the

§ 5340 program provides additional funding that is explicitly tied to more recent population trends.

Table 1. § 5311 appropriations (includes § 5340 amounts).

FY	§ 5311
2020	727,197,332
2021	728,734,295
2022	896,275,765
2023	914,581,455
2024	935,000,000
2025	955,000,000
2026	979,000,000

Sources: FTA (2020, 2021a, 2021b, 2022c, 2023e).

Because the funding formulas for the "pure" § 5311 program differ from that used for the § 5340 program, it is useful to separate out the appropriation levels for each program component (see table 2 and table 3).

Table 2. § 5340 appropriations included in § 5311 totals.

FY	§ 5340 (Growing States)
2020	85,648,257
2021	85,779,099
2022	112,286,712
2023	114,641,584
2024	117,000,000
2025	120,000,000
2026	123,000,000

Sources: FTA (2020, 2021a, 2021b, 2022c, 2023e).

Table 3. § 5311 appropriations (excludes § 5340 amounts).

FY	§ 5311
2020	641,549,075
2021	642,955,196
2022	783,989,053
2023	799,939,871
2024	818,000,000
2025	835,000,000
2026	856,000,000

Sources: FTA (2020, 2021a, 2021b, 2022c, 2023e).

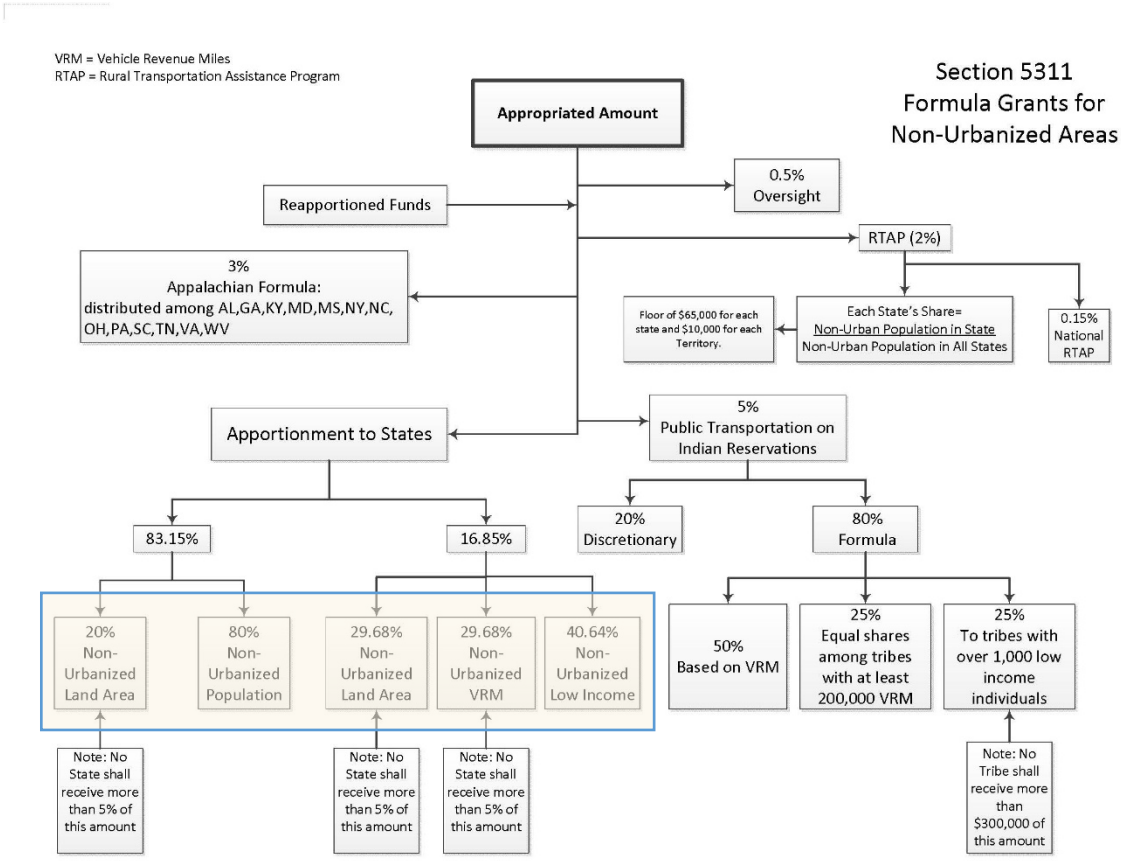
STEP 2: DETERMINE FTA § 5311 APPROPRIATIONS FOR GEORGIA

Overview of How Funds are Distributed to Individual States

In addition to establishing appropriation levels for the § 5311 program, the Bipartisan Infrastructure Law specifies how these funds are to be distributed across different programs and to individual states and U.S. territories. FTA publishes flowcharts that detail the methodology used to distribute funds, which are reproduced in this section as figure 2 and figure 3. Finally, FTA publishes information about how much funding each state received from different programs, including from the § 5311 program (FTA, 2023c). Having information on both the methodology as well as the final amount allocated to Georgia is helpful because it allows us to replicate the funding allocation formula and verify that the methodology and simplifying assumptions are accurate before applying the methodology to individual counties.

The FTA flowcharts have several important characteristics. First, only certain sections of the flowcharts are relevant to calculating the appropriations distributed to the State of Georgia. For example, for the § 5311 program shown in figure 2, 7.5 percent of the appropriated amount is directed to oversite, rural transit assistance programs (RTAPs), and public transportation on Indian reservations, which are not relevant to Georgia's appropriation. Further, although Georgia

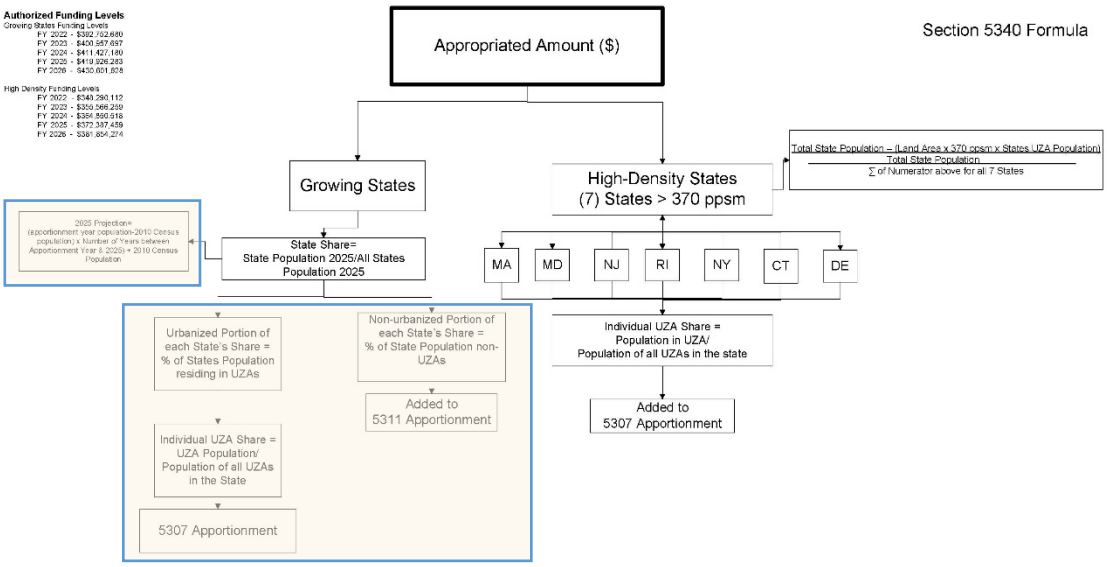
receives part of its appropriation because a portion of the state is located in the Appalachian area, only about 3 percent of the total funds for the § 5311 program are appropriated for the Appalachian area, and Georgia is one of 13 states that receive these funds.[1] Thus, the amount of funding Georgia receives through this program is modest. For these reasons, when calculating Georgia's appropriation, we focus on the shaded boxes in figure 2 and figure 3 because these represent the majority of funding that the state receives from these grant programs.



Source: FTA (2022a).

Figure 2. Flowchart. § 5311 formula grant.

[1] Based on FTA (2023e), Georgia received $794,732 in FY23 based on the Appalachian criterion, which represents 2.48 percent of Georgia's total § 5311 funding.



Source: FTA (2022b). UZA = Urbanized area.

Figure 3. Flowchart. § 5340 formula grant.

A second key characteristic of these flowcharts is that the amount of funding Georgia receives depends on the values of a particular input variable for the State of Georgia as well as the nation. For example, rural population is used as an input to the § 5311 program. When determining the amount of § 5311 funding allocated to Georgia based on this input variable, we need to compute the percent of the nation's rural population that is based in Georgia. Geographic information systems (GISs) and related tools can be used to determine these funding formula input variables for each state and U.S. territory; however, because this can be a time-consuming process, FTA publishes these input variables as well as "data value tables" that convert each unit of an input variable into an equivalent allocation dollar amount. For example, in the FY23 allocation, the data value associated with the rural population input variable was 5.9636 (FTA 2023f) and the rural population in Georgia was 3,353,382 (FTA 2023a); thus, Georgia's § 5311 funding allocation based just on the rural population input variable was $19,998,229. The complete

example calculation for Georgia's § 5311 allocation is included in Example Calculations in this chapter.

A final point relevant to the discussion of funding flowcharts is that although FTA provides "all" of the input variables used to determine state allocations shown in figure 2 for the "pure" § 5311 program, FTA does not provide all of the input variables used to determine state allocations for the supplemental § 5340 amounts shown in figure 3 on its website. Because Georgia has been one of the nation's fastest growing states, it receives a non-trivial amount of supplemental § 5311 funding through the § 5340 (growing states) program. For example, in FY19, 14 percent of Georgia's total § 5311 funding was from the § 5340 (growing states) program (Garrow et al., 2020). For these reasons, we create the "missing" input variables used for the § 5340 (growing states) portion, specifically population for the nation and Georgia for the years 2020–2025.

Data Sources Used for Allocating Funds to Individual States

This section compiles all of the input data sources required to calculate the § 5311 (rural) and § 5340 (growing states) funding that is distributed to each state and U.S. territory. Table 4 summarizes each of the input variables used to determine the § 5311 allocations, and table 5 provides references for each data source used to create the input variables.

To determine the supplemental amount of funding added to the § 5311 appropriations for growing states as part of the § 5340 program, census data were used to determine rural and urban populations for different years (e.g., 2010, 2020, 2025). In particular, 2010 rural populations for the nation and Georgia were obtained from FTA data tables (FTA, 2023a) and more recent census data were used for other years (U.S. Census Bureau, 2022).

Table 4. Input variables used to determine § 5311 appropriations.

Urbanized Status	Funding Subcategory	Variable	Data Source
Non-Urbanized Areas	5311 Based on Land Area and Population	Population	Census
		Land Area	
	5311 Based on Land Area, Vehicle Revenue Miles, and Low-income Individuals	Land Area	Census
		Vehicle Revenue Miles	FTA Table
		Low-income	FTA Table

Table 5. FTA tables used to predict § 5311 appropriations.

Reference	FTA Source Tables
FTA (2023a)	Census Data on Rural Population and Land Area
FTA (2023b)	Census Low Income Population
FTA (2023d)	National Transit Database Data Used for § 5311
FTA (2023f)	Table 5: FY 2023 Formula Apportionments Data Unit Values (Full Year)

Example Calculations

This section provides examples of how to calculate § 5311 (rural) and the supplemental § 5340 (growing states) funds to states.

Example 1: § 5311 Appropriation for Georgia

As shown in figure 2, we used four inputs to predict the § 5311 appropriation (the shaded parts of the figure). These are summarized in table 4 and include the non-urbanized[2] land area, non-urbanized population, non-urbanized vehicle revenue miles (VRM), and non-urbanized low-income population. We used "FTA Table 5" (FTA, 2023f) to convert each of these inputs into a dollar amount, and these "data values" are shown in table 6.

[2] In this report, we use the terms rural and non-urbanized interchangeably.

Table 6. FTA values used for § 5311 appropriation (FY23).

Appropriation Formula Piece	Data Value
Based on Land Area and Population	
Population	5.964
Land Area	38.589
Based on Land Area, Vehicle Revenue Miles, and Low-Income Population	
Land Area	11.605
Vehicle Revenue Mile	0.067
Low-Income	2.683

The calculation for the FY23 § 5311 appropriation for Georgia (without the § 5340 [growing states] supplement) is the following:

2023 § 5311 Appropriation = 5.964 × (2010 non-urbanized population) + 38.589 × (2010 non-urbanized land area) + 11.605 × (2010 non-urbanized land area) + 0.067 × (2021 non-urbanized VRM) + 2.683 × (2020 low-income)

Thus,

2023 § 5311 Appropriation = 5.964 × (3,353,382) + 38.589 × (53,560) + 11.605 × (53,560) + 0.067 × (16,139,589) + 2.683 × (900,434) = 26,185,178

Example 2: § 5340 Supplement to § 5311 Appropriation for Georgia

As shown in Example 1, the FTA input tables for the FY23 appropriation are based on 2010 non-urbanized populations and land areas. Since 2010, however, populations across different states have changed, with some states growing (or declining) in population faster than others. The § 5340 program provides additional funding to the base § 5311 calculation to account for these shifting populations using the following four equations:

FY23 § 5340 Supplement to § 5311 Program for Georgia = FY23 Appropriation × GA Share × Percent of GA's Population that is Rural (1)

where,

2025 Population Projection = (Apportionment year population – 2010 population) × (2025 – Apportionment year) + 2010 population (2)

GA Share = Georgia 2025 Population Projection / National 2025 Population Projection (3)

Percent of GA's Population that is Rural = GA's 2010 rural population / GA's 2010 total population (4)

Applying these formulas to FY23 allocation using 2022 population data gives the following:

FY23 § 5340 Supplement to § 5311 Program for Georgia = 400,957,697 × 0.0357 × 0.35 = 5,009,966 (1)

where,

2025 Georgia Population Projection = (10,912,876 − 9,687,653) × 3 + 9,687,653 = 13,363,322 (2)

$$\text{2025 National Population Projection} = (333{,}287{,}557 - 312{,}740{,}087) \times 3 + 312{,}740{,}087 = 374{,}382{,}497 \quad (2)$$

$$\text{GA Share} = 13{,}363{,}322 / 374{,}382{,}497 = 0.0357 \quad (3)$$

$$\text{Percent of Georgia's Population that is Rural} = 3{,}353{,}382 / 9{,}687{,}653 = 0.35 \quad (4)$$

Adding the § 5340 supplement to the base § 5311 allocation gives a total FY23 § 5311 allocation to Georgia of 26,185,178 + 5,009,966 = 31,195,144. As a check, we can compare this number to that reported by FTA (2023c), which is 31,249,628. Thus, our calculation based on the flowcharts matches within 0.17 percent.

Bringing it All Together: Georgia's § 5311 and § 5340 Appropriations for FY20–FY26

Table 7 summarizes the § 5311 (rural) funding for the State of Georgia for FY20–FY26 and breaks out the § 5340 supplement that is part of the total § 5311 allocations. Funding for FY20–FY23 is based on actual values (FTA, 2023c), and funding for FY24–FY26 is based on FY23 values that are scaled to reflect the higher authorized appropriation amounts in subsequent years. For all rows, the amount of § 5340 funding included in the total § 5311 amount is estimated based on the calculations in previous sections, showing that in FY23 15.9 percent of the total § 5311 funding could be attributed to the § 5340 supplement.

Table 7. § 5311 appropriations for Georgia.

FY	§ 5311 and § 5340	§ 5340 Supplement to § 5311
2020	24,868,631	3,954,112
2021	24,968,615	3,970,010
2022	30,680,043	4,878,127
2023	31,249,628	4,968,691
2024	32,243,339	5,126,691
2025	32,893,232	5,230,024
2026	33,716,317	5,360,894

Sources: FTA (2023e) and table 1 in this report.

STEP 3: CALCULATE DATA INPUTS FOR GEORGIA COUNTIES BASED ON 2020 DECENNIAL CENSUS

Steps 1 and 2 provided information on how funding formulas are used to determine the § 5311 and § 5340 amounts appropriated to Georgia for FY20–FY26. Thus far, we have applied these formulas using statewide information. However, GDOT is responsible for distributing the funds it receives from the § 5311 program to rural transit providers in the state. Thus, we need to replicate the methodology outlined in step 2 using county and transit provider information as inputs.

Step 3 compiles required information based on census data. Consistent with funding formulas, the 2010 decennial census is used to calculate urbanized and non-urbanized population and land areas. Low-income populations are calculated consistent with the methodology reported in FTA (2023b): "Rural population estimates are derived by subtracting the number of persons up to 150% of poverty residing in urbanized areas over 50,000 in population from the total number of persons up to 150% of poverty statewide, based on data from ACS table ACSDT5Y2020.B17024, 'Age by Ratio of Income to Poverty Level in the Last Twelve Months,'

(2016–2020 dataset).” See the U.S. Census Bureau (2021) for the American Community Survey (ACS) table.

STEP 4: DETERMINE DATA INPUTS FOR GEORGIA COUNTIES BASED ON NTD DATA AND FTA TABLES

Step 4 compiles additional inputs used to determine the § 5311 allocations based on the FTA data tables shown in table 3.

For the § 5311 appropriation calculations, we need information on VRM for each provider. This information is reported annually to the NTD and is available online at NTD (2021) under the “2021 Service_static” Excel file. In addition, GDOT compiles and reports service data for rural transit providers and maintains an Excel file with more recent data from 2023 that were used in the analysis (GDOT, 2024). However, because GDOT is not required to report VRM for “joint reporters” that offer both § 5311 (rural) and § 5307 (small urban) service, we use the NTD (2021) VRM data for these providers.

STEP 5: CALCULATE § 5311 AND § 5340 ALLOCATIONS FOR COUNTIES AND TRANSIT PROVIDERS IN GEORGIA FOR FY23

Given data inputs compiled from steps 3 and 4, the funding formulas for the § 5311 and § 5340 programs are applied based on county- and provider-level data inputs. For those providers that serve multiple counties, 2020 population data were used to allocate funding to individual counties. We used table 13 (provided in the appendix) to assign the counties served by a given provider and then used rural populations based on the 2020 census to allocate funding to individual counties.

CHAPTER 3. RESULTS

This chapter presents county-level appropriations for the FTA's § 5311 (Formula Grants for Rural Areas) and § 5340 (Growing States and High Density States Formula Program) programs, with detailed results provided in the appendix. The chapter is organized into two key sections. The first section examines changes in the combined § 5311 and § 5340 appropriation levels from 2020 to 2026, contextualizing the funding increases relative to rising capital costs during the same period. It also includes a map illustrating how sensitive the appropriations are to different input assumptions. The second section illustrates how GDOT uses these county-level appropriations to support its decision-making processes. First, GDOT uses these data to ensure the fair and equitable distribution of transit funding across rural counties. Second, the appropriations data inform discussions about initiating or expanding transit services, enabling data-driven decisions that enhance mobility and accessibility for Georgia's rural communities.

CHANGES IN COMBINED § 5311 AND § 5340 APPROPRIATION LEVELS SINCE 2020

The Bipartisan Infrastructure Law, signed on November 15, 2021, established funding levels for § 5311 from FY22 through FY26. As shown in table 8, at first glance, the program appears to have experienced a significant funding increase. For example, Georgia received 23 percent more funding in 2022 than in 2021, and annual funding is projected to rise by 34.6 percent from 2020 to 2026.

However, it is important to consider the impact of inflation and rising operational costs faced by rural transit systems during this period. For instance, in FY20, the 80 percent federal § 5311 match applied to the purchase of a rural transit vehicle was $78,000. By FY26, this amount is

expected to rise to $108,000—a 38 percent increase. This figure closely aligns with the projected 34.6 percent funding increase (see table 8) and indicates that appropriations have likely kept pace with inflation and have not provided additional resources for service expansion or wage increases beyond inflation adjustments.

Table 8. Trends in § 5311 appropriations for Georgia (2020–2026).

FY	Federal Appropriation	Georgia's Appropriation	% Increase from Prior Year for Georgia	% Increase from 2020 for Georgia
2020	727,197,332	28,822,743		
2021	728,734,295	28,938,625	0.2	0.2
2022	896,275,765	35,558,170	23.0	23.3
2023	914,581,455	36,218,319	2.0	25.8
2024	935,000,000	37,370,030	2.2	28.6
2025	955,000,000	38,123,256	2.1	31.3
2026	979,000,000	39,077,211	2.5	34.6

To better understand how sensitive federal allocations are to different inputs, we can examine the FTA's data input values specific to Georgia (see table 9). Using FY23 figures for the § 5311 program, each person contributes $5.96 in allocation dollars ($8.64 for a person classified as low-income), each square mile of rural land generates $50.19, and each VRM adds 6.7¢ to the total allocation.

Applying these values to Georgia's FY23 data reveals that 85 percent of the total § 5311 allocation came from the rural population, 10 percent from rural land area, and 4 percent from VRM, resulting in a total of $26 million in § 5311 funding. An additional $5 million was allocated through the § 5340 Growing States Formula, which is based solely on population. Combining the § 5311 and § 5340 program allocations, 88 percent of Georgia's funding came from rural population, 9 percent from rural land area, and 4 percent from VRM. These figures

underscore that the majority of federal funding through these programs is driven by rural population metrics.

Table 9. Contribution of population, land area, and VRM to § 5311 funding in Georgia.

5311 Input Value	$ per Unit	Georgia Input Value	$ Contribution	% Contribution
Population	$5.96	3,353,382	$19,986,157	76
Low-income Population	$2.68	900,434	$2,413,163	9
Land Area (mi^2)	$50.19	53,560	$2,688,176	10
VRM	$0.067	16,340,485	$1,094,812	4
TOTAL			**$26,182,309**	

Note: An additional $5M is included in the total appropriation as part § 5340.

To help understand how § 5311 funding may change for a specific county experiencing above- or below-average rural population growth, initiating new rural transit service, or expanding existing service by increasing VRM, we developed an interactive map-based tool that can be used by GDOT. This tool provides funding forecasts based on changes in rural population and VRM, offering a dynamic way to explore potential allocation adjustments.

We developed the mapping tool using a user-friendly Tableau interface (see figure 4). The map displays county-level distributions of the four key inputs to the § 5311 funding formula: (1) non-urbanized population, (2) non-urbanized low-income population, (3) non-urbanized land area, and (4) non-urbanized VRM. Separate calculations are provided for the § 5311 and § 5340 programs, enabling a clear and detailed view of how each input contributes to federal transit funding allocations. The choropleth map of Georgia counties is arranged according to the distribution of the selected attribute (which includes one of the four key inputs, the § 5340 appropriation, or the combined § 5311 and § 5340 appropriation). This distribution and the color ranges are shown directly under the drop-down menu.

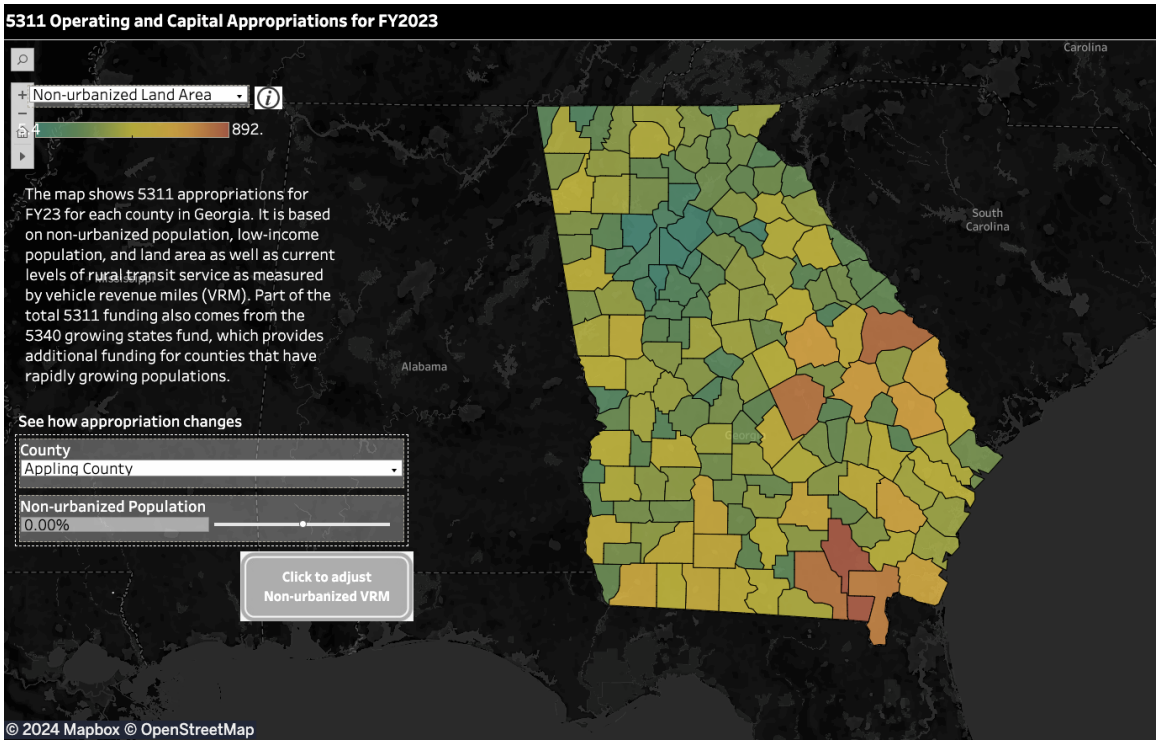


Figure 4. Map. § 5311 operating and capital appropriations for FY23 for counties in Georgia.

One feature of the map is the ability to conduct scenario analyses of the § 5311 appropriations based on changes in non-urbanized populations and VRM. The selection parameters are available at the bottom left of the portal. The scenarios are prepared for the county selected in the drop-down menu, together with the projected non-urbanized population and non-urbanized VRM that are user-adjusted in the slider windows. It is important to note that all counties do not have an existing rural transit network and, therefore, may not have a baseline allocation to project from. For the counties without such a system, we used a different method to project the § 5311 appropriations based on user-supplied VRM. Accordingly, the map portal displays a different menu for selecting the non-urbanized VRM for those counties without transit. The visibility of either of the two non-urbanized VRM menus is context-dependent on the selected county.

As an example, we perform a sensitivity analysis for two counties: Dooly, which currently has rural transit service, and Montgomery, which does not. By entering Dooly County into the search bar in the upper-left corner of the mapping tool, details about its current FY23 allocation are displayed. The tool shows that Dooly County's current § 5311 appropriation is $146,413 (see figure 5).

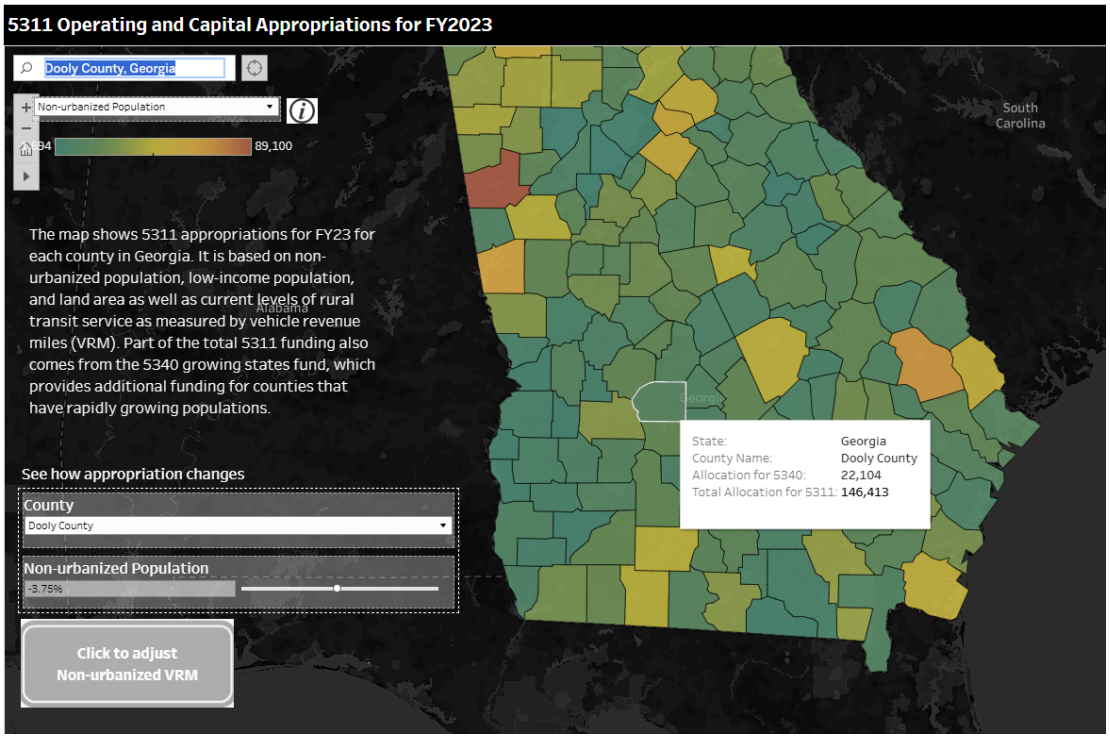


Figure 5. Map. Baseline § 5311 funding allocation for Dooly County (has transit service): $146,413.

To perform a sensitivity analysis, the user can adjust the non-urbanized population slider from −100 to 100 percent of current levels. For counties like Dooly that currently have transit service, the user can also click the "Click to adjust Non-urbanized VRM" tab in the lower-left corner of the interface (figure 6) and adjust VRM from −100 to 100 percent (see figure 6). Applying these

extreme adjustments—reducing the population by 100 percent and increasing VRM by 100 percent—results in Dooly County's § 5311 allocation decreasing to $75,238.

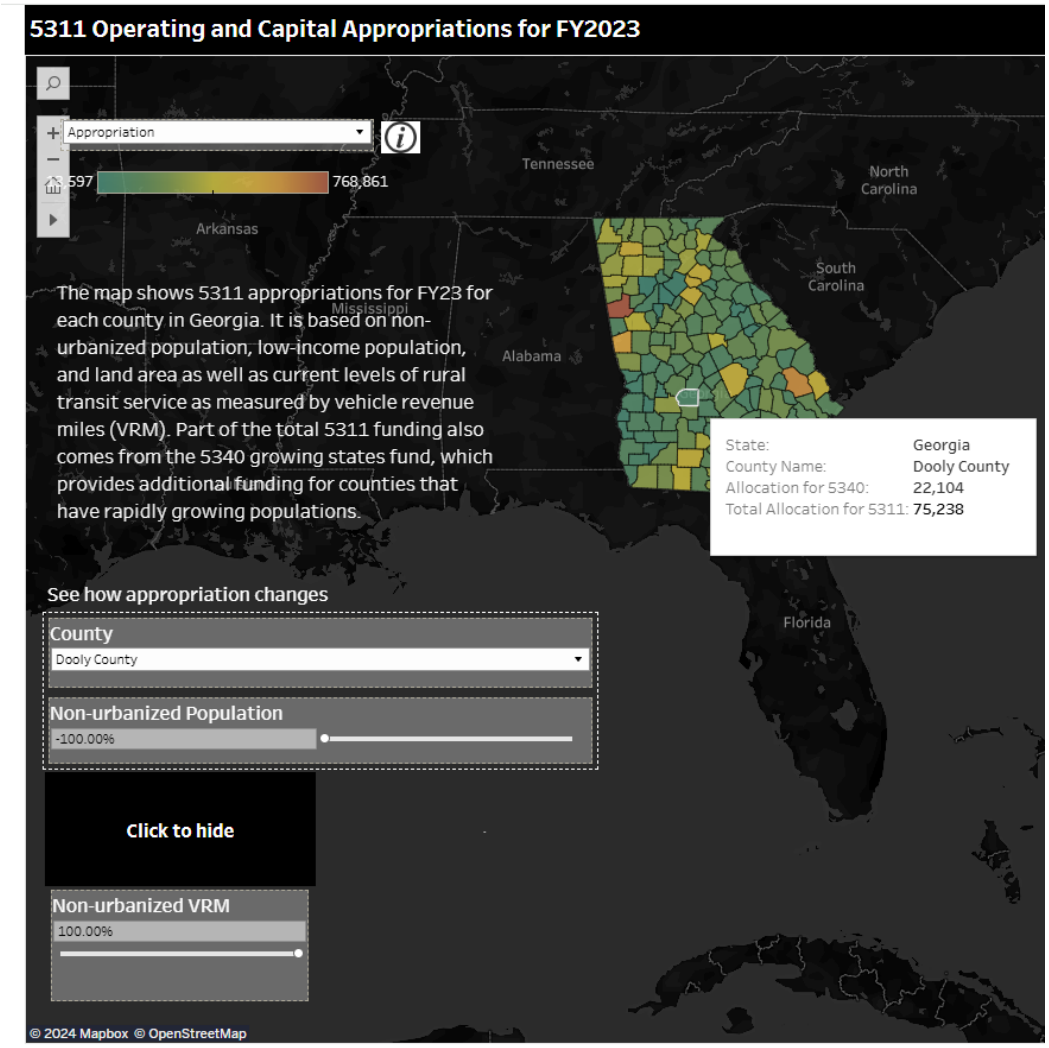


Figure 6. Map. Example sensitivity analysis of § 5311 funding allocation for Dooly County: $75,238.

The process is similar for counties that do not currently have transit service. Because the current VRM is zero, taking a percentage of this value would be meaningless. Instead, a separate tab is provided, which defaults to the average VRM across all rural transit systems for FY23, with a range spanning from the FY23 minimum to maximum values. This tab is initially hidden but can

be accessed by clicking just to the right of the VRM adjustment tab for counties with existing service. Figure 7 and figure 8 illustrate this process for Montgomery County, showing the sensitivity analysis using the default VRM setting.

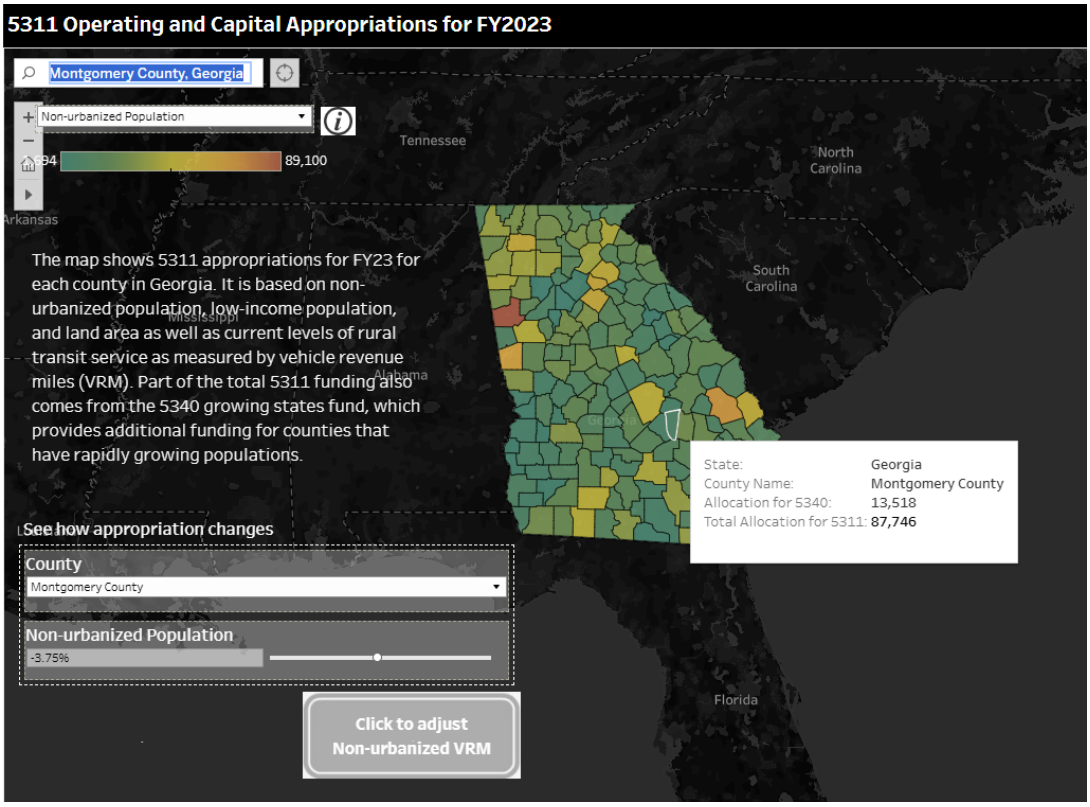


Figure 7. Map. Baseline § 5311 funding allocation for Montgomery County (does not have transit service): $87,746.

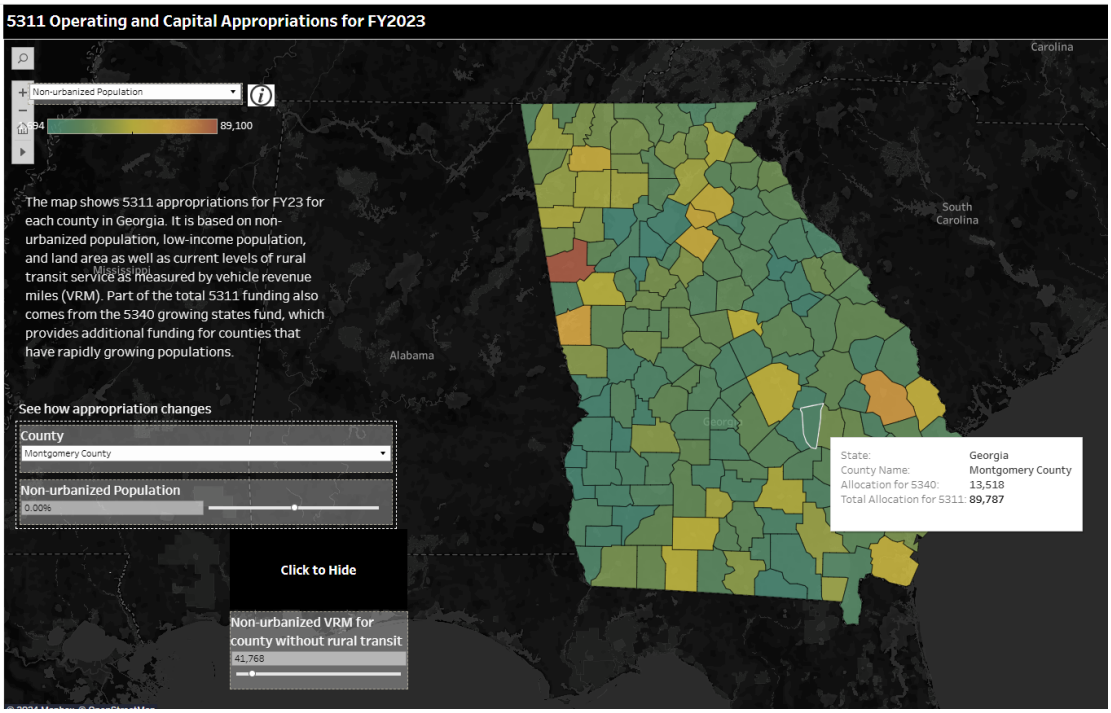


Figure 8. Map. Example sensitivity analysis of § 5311 funding allocation for Montgomery County: $89,797.

In summary, the interactive mapping tool provides a dynamic way to explore how federal transit funding allocations under the § 5311 program respond to changes in key inputs such as rural population and VRM. By allowing users to perform sensitivity analyses for counties with and without existing transit service, the tool supports data-driven planning and decision-making. It highlights the significance of these inputs in determining funding levels, enabling transit planners and policymakers to better anticipate how demographic and service-level changes impact federal appropriations.

TYPICAL COMBINED § 5311 AND § 5340 APPROPRIATION LEVELS FOR COUNTIES IN GEORGIA

The appendix presents estimates for the combined § 5311 and § 5340 appropriations for each county in Georgia for FY23. The average county appropriation was $194,428, with significant

variation across counties. The minimum appropriation received by a county was $13,597, whereas the maximum reached $768,861, with a standard deviation of $126,448. This variation can be attributed to several factors. Understanding these factors is crucial because they guide how the data should be segmented and analyzed to provide meaningful insights that can help transit providers make informed decisions.

One key point is that there are two primary reasons why a county may receive a small § 5311 appropriation. The first reason is that the county is predominantly rural but has a small land area and/or population. For example, Montgomery County in southeast Georgia has a rural population of less than 10,000 and received an appropriation of about $87K in FY23. The second reason is that the county is predominantly urban, with only a small rural population. An example of this is DeKalb County, which encompasses much of the Atlanta metro area and has a rural population of fewer than 2,000. DeKalb County received an appropriation of about $15K in FY23.

With an understanding of the factors influencing whether a county receives § 5311 funding, the next two examples illustrate how GDOT leverages this information to support its decision-making processes.

Business Application 1: Using County-Level Appropriations to Help Ensure Fair and Equitable Funding Allocations

GDOT is responsible for distributing federal transit funds fairly and equitably to rural transit operators in Georgia. County-level estimates play a critical role in supporting this objective by serving as benchmarks for assessing proposed budgets from subrecipients against actual federal appropriations. These estimates were instrumental during GDOT's December 2024 meetings to determine FY26 funding levels for subrecipients, providing valuable insights in several ways.

When a third-party operator provides transit services, county-level estimates help evaluate whether the operator's costs are reasonable, particularly when compared to counties offering similar services in-house. They are also crucial when new transit service is being initiated, as historical data may be unavailable. In such cases, the estimates provide a baseline for assessing transit needs in the proposed service area. Similarly, when expanding transit service into a new county, the estimates offer insight into the expected level of service and potential demand that could be supported by the new service.

Overall, county-level estimates provide GDOT with a data-driven foundation for making informed decisions about transit funding, ensuring that resources are allocated efficiently, equitably, and in alignment with the transportation needs of Georgia's rural communities.

Business Application 2: Using County-Level Appropriations to Help Initiate Discussions with Counties on Offering or Sustaining Rural Transit Service

GDOT has used county-level appropriation information to facilitate discussions with counties about launching new services and forming partnerships with neighboring counties when economies of scale suggest a regional approach would be more sustainable. In particular, when we exclude counties in Georgia that provide urban transit service, we can gain insights into why counties may be struggling to offer rural transit service and develop strategies to help them initiate and/or help them participate in regional systems to help them sustain service. Specifically, when we exclude the 20 counties in Georgia that provide urban transit service, we observe that smaller counties are generally less likely to offer rural transit service. As shown in table 10, among the 139 counties in this category, the likelihood of providing rural transit service increases with the amount of combined § 5311 and § 5340 appropriations. In FY23, 66 percent of counties receiving less than $100K in appropriations offered rural transit service, compared to

76 percent of those receiving between $100K and $250K, and 87 percent of those receiving more than $250K.

Table 10. Likelihood of providing rural transit service as a function of combined § 5311 and § 5340 appropriation amount.

FY23 Combined § 5311 and § 5340 Appropriation	# (%) Counties Without 5311 Transit Service	# (%) Counties With 5311 Transit Service
< $100K	10 (34%)	19 (66%)
[$100K, $250K)	19 (24%)	60 (76%)
≥ $250K	4 (13%)	27 (87%)

Note: Table excludes 20 counties that offer 5307 (urban) transit service.

This insight is helpful because it suggests that counties with smaller appropriations may need to join regional systems to gain scales of economy to be successful. The 10 counties in Georgia that have the smallest combined § 5311 and § 5340 (and that do not provide urban transit service) are shown in table 11. Several of these counties—most notably Montgomery and Treutlen—have previously provided § 5311 transit service but were unable to sustain it. Notably, since the publication of our last report in 2020 (Garrow et al., 2020), four counties listed in the appendix—Atkinson, Charlton, Coffee, and Irwin—have launched § 5311 service as part of regional transit systems in part due to GDOT initiating conversations with these counties on their willingness to join a regional system.

Additionally, several counties that have faced challenges providing service independently are planning to collaborate with neighboring counties in FY25. For example, Morgan County assumed transit service responsibilities for the City of Americus (Sumter County), and Dodge County took over service for Telfair County.

Table 11. Counties in Georgia with smallest FY23 appropriation that do not have § 5311 transit service.

County	FY23 Appropriation
Webster	33,651
Chattahoochee	38,649
Schley	48,921
Echols	53,161
Treutlen	68,363
Montgomery	86,988
Marion	93,660
Lanier	95,989
Johnson	97,727
Clinch	98,988

These examples highlight how county-level appropriation estimates are valuable for helping GDOT: (1) identify potential challenges that subrecipients may face in initiating and sustaining rural transit service due to economies of scale and (2) find solutions that often include forming multi-county service areas that provide economies of scale needed to sustain operations.

CHAPTER 4. SUMMARY

This report examined how federal transit funding under the § 5311 and § 5340 programs is allocated to Georgia counties and how these allocations influence transit planning decisions by GDOT. Through detailed modeling, data analysis, and an interactive mapping tool, we provided a transparent and data-driven method for evaluating funding levels based on key inputs, including rural population, low-income population, rural land area, and VRM. This approach supports GDOT's mission of ensuring equitable and efficient allocation of transit funds across Georgia's rural communities.

KEY FINDINGS

Our analysis revealed that rural population remains the most significant driver of § 5311 and § 5340 funding allocations, contributing 88 percent of total funding when combined with the § 5340 program. VRM plays a role, particularly in counties that plan to establish or expand service. The sensitivity analyses conducted through the newly created interactive mapping tool demonstrated how funding levels respond to changes in these key inputs, offering a valuable resource for forecasting and planning.

Case studies of Dooly and Montgomery Counties highlighted the practical implications of our findings. For counties with existing transit service, adjustments in population levels led to significant changes in funding. For counties without service, the tool helped project potential funding levels based on estimated VRM, enabling data-supported discussions about initiating transit operations. These examples underscored the tool's potential to guide decisions on resource allocation, service expansion, and funding sustainability.

POLICY IMPLICATIONS AND RECOMMENDATIONS

1. **Data-Driven Decision-making:** GDOT should continue to integrate county-level funding estimates into its budget planning process. These estimates provide a transparent basis for evaluating subrecipient budgets, ensuring that proposed costs align with federal funding formulas.
2. **Supporting Regional Partnerships:** The findings suggest that smaller counties with limited federal appropriations may benefit from forming regional transit partnerships. Counties such as Montgomery and Treutlen, which faced challenges sustaining independent transit systems, could explore regional collaboration models to achieve economies of scale. GDOT's ongoing engagement with counties on forming multi-county systems is a promising approach that should be expanded.
3. **Funding Forecasting and Planning:** The interactive mapping tool should be maintained and regularly updated as a forecasting resource. Incorporating more recent census data, updated VRM figures, and inflation-adjusted cost projections would further enhance its accuracy and usefulness.
4. **Equitable Resource Allocation:** As the § 5311 and § 5340 programs evolve, GDOT should remain vigilant about changes in federal funding formulas and population trends. Periodic reassessments will ensure that allocations continue to reflect Georgia's transit needs fairly and equitably.

By leveraging data-driven tools and fostering regional collaboration, GDOT can maximize the impact of federal transit funds while ensuring access and mobility for Georgia's rural communities. These steps will strengthen transit systems, promote service sustainability, and support the state's broader transportation goals.

APPENDIX.
SUPPORTING TABLES FOR § 5311 FUNDING ALLOCATIONS BY COUNTY IN GEORGIA

In this appendix, table 12 reports the breakout of FY23 funding for the rural program for the § 5311 portion, the § 5340 (growing states) portion, and the total combined § 5311 and § 5340 programs for individual counties in Georgia. Counties that belong to regional or multi-county systems are identified in table 13.

Table 12. FY23 § 5311 and § 5340 funding for counties in Georgia.

	§ 5311 only	§ 5340 only	§ 5311 and § 5340 combined
County	**FY23**	**FY23**	**FY23**
Appling	152,615	27,020	179,635
Atkinson	79,985	12,409	92,394
Bacon	92,400	16,441	108,841
Baker	42,976	5,113	48,089
Baldwin	322,667	67,743	390,410
Banks	134,419	27,256	161,675
Barrow	387,771	85,627	473,398
Bartow	301,343	59,332	360,675
Ben Hill	141,050	26,128	167,178
Berrien	161,495	28,576	190,071
Bibb	161,502	33,212	194,714
Bleckley	100,259	19,355	119,614
Brantley	153,494	27,279	180,773
Brooks	138,312	22,682	160,994
Bryan	161,548	31,105	192,653
Bulloch	531,982	104,040	636,022
Burke	209,356	34,547	243,903
Butts	169,620	35,050	204,670
Calhoun	62,404	9,918	72,322
Camden	379,313	74,845	454,158
Candler	88,120	16,296	104,416
Carroll	636,842	132,019	768,861
Catoosa	132,103	26,625	158,728
Charlton	127,029	18,034	145,063
Chatham	117,831	22,442	140,273
Chattahoochee	33,721	4,928	38,649
Chattooga	197,245	38,546	235,791
Cherokee	274,975	57,405	332,380
Clarke	50,368	10,133	60,501
Clay	41,452	4,716	46,168
Clayton	16,796	3,412	20,208
Clinch	88,915	10,073	98,988
Cobb	11,087	2,510	13,597
Coffee	334,845	62,759	397,604
Colquitt	372,279	67,414	439,693
Columbia	173,088	33,836	206,924
Cook	136,364	25,503	161,867
Coweta	320,242	65,935	386,177
Crawford	102,889	18,714	121,603
Crisp	178,390	34,729	213,119
Dade	110,656	21,999	132,655
Dawson	132,515	26,571	159,086

Table 12. FY23 § 5311 and § 5340 funding for counties in Georgia. (Continued)

	§ 5311 only	§ 5340 only	§ 5311 and § 5340 combined
County	**FY23**	**FY23**	**FY23**
Decatur	240,387	41,253	281,640
DeKalb	12,644	2,697	15,341
Dodge	175,054	32,295	207,349
Dooly	129,270	22,104	151,374
Dougherty	112,826	19,560	132,386
Douglas	142,015	30,913	172,928
Early	108,036	16,311	124,347
Echols	47,184	5,977	53,161
Effingham	364,523	75,263	439,786
Elbert	158,114	29,880	187,994
Emanuel	187,646	33,483	221,129
Evans	84,236	16,299	100,535
Fannin	181,992	35,090	217,082
Fayette	126,602	28,703	155,305
Floyd	261,683	52,550	314,233
Forsyth	127,807	25,802	153,609
Franklin	163,317	32,722	196,039
Fulton	70,571	14,700	85,271
Gilmer	213,816	41,920	255,736
Glascock	29,700	4,567	34,267
Glynn	215,196	42,379	257,575
Gordon	397,017	81,769	478,786
Grady	210,084	37,059	247,143
Greene	133,116	23,698	156,814
Gwinnett	26,640	5,793	32,433
Habersham	301,430	63,774	365,204
Hall	274,266	58,520	332,786
Hancock	97,459	13,971	111,430
Haralson	205,572	42,643	248,215
Harris	224,729	47,204	271,933
Hart	181,290	37,358	218,648
Heard	94,369	17,534	111,903
Henry	197,174	41,858	239,032
Houston	105,308	20,650	125,958
Irwin	86,459	14,132	100,591
Jackson	371,284	78,669	449,953
Jasper	111,178	20,596	131,774
Jeff Davis	121,132	22,326	143,458
Jefferson	157,017	25,085	182,102
Jenkins	77,414	12,357	89,771
Johnson	82,940	14,787	97,727
Jones	180,375	35,530	215,905

Table 12. FY23 § 5311 and § 5340 funding for counties in Georgia. (Continued)

	§ 5311 only	§ 5340 only	§ 5311 and § 5340 combined
County	**FY23**	**FY23**	**FY23**
Lamar	133,043	27,140	160,183
Lanier	81,056	14,933	95,989
Laurens	375,323	71,764	447,087
Lee	115,011	20,570	135,581
Liberty	124,280	21,775	146,055
Lincoln	66,030	11,848	77,878
Long	101,623	17,432	119,055
Lowndes	259,294	49,019	308,313
Lumpkin	215,808	44,400	260,208
McDuffie	161,190	32,412	193,602
McIntosh	134,472	21,237	155,709
Macon	117,196	21,840	139,036
Madison	183,195	38,286	221,481
Marion	80,707	12,953	93,660
Meriwether	177,118	32,585	209,703
Miller	60,305	9,075	69,380
Mitchell	202,284	34,817	237,101
Monroe	189,784	38,574	228,358
Montgomery	73,470	13,518	86,988
Morgan	141,252	26,475	167,727
Murray	203,836	41,176	245,012
Muscogee	44,721	8,378	53,099
Newton	217,437	46,275	263,712
Oconee	109,780	24,460	134,240
Oglethorpe	118,445	21,911	140,356
Paulding	220,265	47,161	267,426
Peach	149,882	31,399	181,281
Pickens	210,961	43,608	254,569
Pierce	149,915	27,794	177,709
Pike	126,774	26,202	152,976
Polk	296,340	61,453	357,793
Pulaski	92,328	17,795	110,123
Putnam	165,968	31,439	197,407
Quitman	30,169	3,724	33,893
Rabun	130,228	24,116	154,344
Randolph	94,369	11,437	105,806
Richmond	153,251	27,386	180,637
Rockdale	88,542	18,855	107,397
Schley	41,498	7,423	48,921
Screven	133,314	21,622	154,936
Seminole	76,948	12,934	89,882
Spalding	193,368	39,512	232,880

Table 12. FY23 § 5311 and § 5340 funding for counties in Georgia. (Continued)

	§ 5311 only	§ 5340 only	§ 5311 and § 5340 combined
County	**FY23**	**FY23**	**FY23**
Stephens	183,172	38,783	221,955
Stewart	76,176	8,976	85,152
Sumter	253,480	48,628	302,108
Talbot	72,257	10,172	82,429
Taliaferro	22,286	2,544	24,830
Tattnall	193,849	37,813	231,662
Taylor	87,809	13,196	101,005
Telfair	133,020	24,448	157,468
Terrell	87,573	13,802	101,375
Thomas	348,142	66,261	414,403
Tift	299,480	59,443	358,923
Toombs	205,145	40,336	245,481
Towns	82,099	15,515	97,614
Treutlen	58,162	10,201	68,363
Troup	484,004	99,339	583,343
Turner	80,136	13,232	93,368
Twiggs	79,149	13,369	92,518
Union	159,460	31,643	191,103
Upson	205,848	40,232	246,080
Walker	297,918	55,587	353,505
Walton	382,895	82,693	465,588
Ware	305,430	53,803	359,233
Warren	54,946	8,644	63,590
Washington	177,688	31,393	209,081
Wayne	254,843	44,598	299,441
Webster	29,504	4,147	33,651
Wheeler	69,540	10,996	80,536
White	187,751	40,219	227,970
Whitfield	219,540	44,203	263,743
Wilcox	84,955	13,713	98,668
Wilkes	98,553	15,696	114,249
Wilkinson	91,205	14,169	105,374
Worth	187,392	32,122	219,514
TOTAL	25,945,322	4,968,687	30,914,009

Table 13. Counties that belong to a regional or multi-county transit system as of FY23.

County	Name of Transit System
Bryan	Coastal Regional Commission (CRC)
Bulloch	Coastal Regional Commission (CRC)
Camden	Coastal Regional Commission (CRC)
Chatham	Coastal Regional Commission (CRC)
Effingham	Coastal Regional Commission (CRC)
Glynn	Coastal Regional Commission (CRC)
Liberty	Coastal Regional Commission (CRC)
Long	Coastal Regional Commission (CRC)
McIntosh	Coastal Regional Commission (CRC)
Screven	Coastal Regional Commission (CRC)
Fannin	North Georgia Community Action (NGCA)
Gilmer	North Georgia Community Action (NGCA)
Gordon	North Georgia Community Action (NGCA)
Pickens	North Georgia Community Action (NGCA)
Murray	North Georgia Community Action (NGCA)
Atkinson	Southern Georgia Regional Commission (SGRC)
Bacon	Southern Georgia Regional Commission (SGRC)
Ben Hill	Southern Georgia Regional Commission (SGRC)
Berrien	Southern Georgia Regional Commission (SGRC)
Brantley	Southern Georgia Regional Commission (SGRC)
Brooks	Southern Georgia Regional Commission (SGRC)
Charlton	Southern Georgia Regional Commission (SGRC)
Coffee	Southern Georgia Regional Commission (SGRC)
Cook	Southern Georgia Regional Commission (SGRC)
Irwin	Southern Georgia Regional Commission (SGRC)
Lowndes	Southern Georgia Regional Commission (SGRC)
Pierce	Southern Georgia Regional Commission (SGRC)
Tift	Southern Georgia Regional Commission (SGRC)
Turner	Southern Georgia Regional Commission (SGRC)
Ware	Southern Georgia Regional Commission (SGRC)
Baker	Southwest Georgia Regional Commission (SWGRC)
Calhoun	Southwest Georgia Regional Commission (SWGRC)
Colquitt	Southwest Georgia Regional Commission (SWGRC)
Decatur	Southwest Georgia Regional Commission (SWGRC)
Dougherty	Southwest Georgia Regional Commission (SWGRC)
Early	Southwest Georgia Regional Commission (SWGRC)
Grady	Southwest Georgia Regional Commission (SWGRC)
Lee	Southwest Georgia Regional Commission (SWGRC)
Miller	Southwest Georgia Regional Commission (SWGRC)
Mitchell	Southwest Georgia Regional Commission (SWGRC)
Seminole	Southwest Georgia Regional Commission (SWGRC)
Terrell	Southwest Georgia Regional Commission (SWGRC)
Worth	Southwest Georgia Regional Commission (SWGRC)
Butts	Three Rivers Regional Commission (TRRC)
Carroll	Three Rivers Regional Commission (TRRC)
Lamar	Three Rivers Regional Commission (TRRC)
Meriwether	Three Rivers Regional Commission (TRRC)

Table 13. Counties that belong to a regional or multi-county transit system as of FY23. (Continued)

County	Name of Transit System
Pike	Three Rivers Regional Commission (TRRC)
Spalding	Three Rivers Regional Commission (TRRC)
Quitman	Lower Chattahoochee Regional Transit Authority (LCRTA)
Randolph	Lower Chattahoochee Regional Transit Authority (LCRTA)
Stewart	Lower Chattahoochee Regional Transit Authority (LCRTA)

ACKNOWLEDGMENTS

We thank the Georgia Department of Transportation for their support, particularly Patricia Smith, Troy Green, and Md Sabbir Ahmed for their helpful input. We are also grateful to Sharon Dunn, who copy edited this report.

REFERENCES

Federal Transit Administration (FTA). (2020). Table 1: FY 2020 FTA Appropriations and Apportionments for Grant Programs (Full Year). Available online at: https://www.transit.dot.gov/funding/apportionments/table-1-fy-2020-fta-appropriations-and-apportionments-grant-programs-full. Accessed July 31, 2023.

Federal Transit Administration (FTA). (2021a). Fact Sheet: Formula Grants for Rural Areas. Available online at: https://www.transit.dot.gov/funding/grants/fact-sheet-formula-grants-rural-areas. Accessed August 1, 2023.

Federal Transit Administration (FTA). (2021b). Table 1: FY 2021 FTA Appropriations and Apportionments for Grant Programs (Full Year). Available online at: https://www.transit.dot.gov/funding/apportionments/table-1-fy-2021-fta-appropriations-and-apportionments-grant-programs. Accessed July 31, 2023.

Federal Transit Administration (FTA). (2022a). Section 5311 Rural Formula Program – BIL. Available online at: https://www.transit.dot.gov/funding/grants/section-5311-rural-formula-program-bil. Accessed August 1, 2023.

Federal Transit Administration (FTA). (2022b). Section 5340 Growing States/High Density States – BIL. Available online at: https://www.transit.dot.gov/funding/grants/section-5340-growing-stateshigh-density-states-program-bil. Accessed August 1, 2023.

Federal Transit Administration (FTA). (2022c). Table 1: FY 2022 FTA Appropriations and Apportionments for Grant Programs (Full Year). Available online at: https://www.transit.dot.gov/funding/apportionments/table-1-fy-2022-fta-appropriations-and-apportionments-grant-programs-full. Accessed July 31, 2023.

Federal Transit Administration (FTA). (2023a). Census Data on Rural Population and Land Area (Used for the Section 5311 Rural Area Formula Apportionments). Available online at: https://www.transit.dot.gov/funding/apportionments/census-data-rural-population-and-land-area-used-section-5311-rural-area. Accessed August 1, 2023.

Federal Transit Administration (FTA). (2023b). Census Low Income Population Data (Used for the Section 5307 and 5311 Apportionments). Available online at: https://www.transit.dot.gov/funding/apportionments/census-low-income-population-data-used-section-5307-and-5311-apportionments. Accessed August 1, 2023.

Federal Transit Administration (FTA). (2023c). FTA Allocations for Formula and Discretionary Programs by State FY 1998–2023 Full Year. Available online at: https://www.transit.dot.gov/funding/grants/fta-allocations-formula-and-discretionary-programs-state-fy-1998-2023-full-year. Accessed August 5, 2023.

Federal Transit Administration (FTA). (2023d). National Transit Database Data Used for the Section 5311 Apportionments. Available online at: https://www.transit.dot.gov/funding/apportionments/national-transit-database-data-used-section-5311-apportionments. Accessed August 1, 2023.

Federal Transit Administration (FTA). (2023e). Table 1: FY 2023 FTA Appropriations and Apportionments for Grant Programs (Full Year). Available online at: https://www.transit.dot.gov/funding/apportionments/table-1-fy-2023-fta-appropriations-and-apportionments-grant-programs-full. Accessed July 31, 2023.

Federal Transit Administration (FTA). (2023f). Table 5: FY 2023 Formula Apportionments Data Unit Values (Full Year). Available online at: https://www.transit.dot.gov/funding/apportionments/table-5-fy-2023-formula-apportionments-data-unit-values-full-year. Accessed August 1, 2023.

Garrow, L.A., Douthat, T., Lynch, S.D., and Nord. A. (2020). *A Statewide Assessment of Public Transit Funding Needs for Counties Trending Urban in Georgia*. Report FHWA-GA-20-1701, Georgia Department of Transportation (GDOT), Atlanta, GA.

Georgia Department of Transportation (GDOT). (2024). Master spreadsheet used for reporting FY23 rural transit data to the National Transit Database. GDOT, Atlanta, GA.

National Transit Database (NTD). (2021). 2021 Service_static.xlxs file contained within the 2021 Data Tables Zip download file. Available online at: https://www.transit.dot.gov/ntd/data-product/2021-data-tables. Accessed August 7, 2023.

U.S. Census Bureau. (2021). American Community Survey (ACS) Table B17024: Age by Ratio of Income to Poverty Level in the Past 12 Months (ACS 2021 5-year). Available online at: https://censusreporter.org/data/map/?table=B17024&geo_ids=060|04000US13,050|04000US13&primary_geo_id=04000US13#column|B17024002,sumlev|050. Accessed August 7, 2023.

U.S. Census Bureau. (2022). Annual Estimates of the Resident Population for the United States, Regions, States, District of Columbia and Puerto Rico: April 1, 2020 to July 1, 2022 (NST-EST-2022-POP). Available online at: https://www.census.gov/data/tables/time-series/demo/popest/2020s-national-total.html#v2022. Accessed August 4, 2023.