



GDOT

Georgia Department of Transportation

2021 STATEWIDE STRATEGIC TRANSPORTATION PLAN:

2050 Statewide Transportation Plan

Georgia Department of Transportation logo featuring the letters GDOT in blue, with a stylized green and white graphic element integrated into the letter O.

Georgia Department of Transportation

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Welcome
We're glad
Georgia's
on your mind .



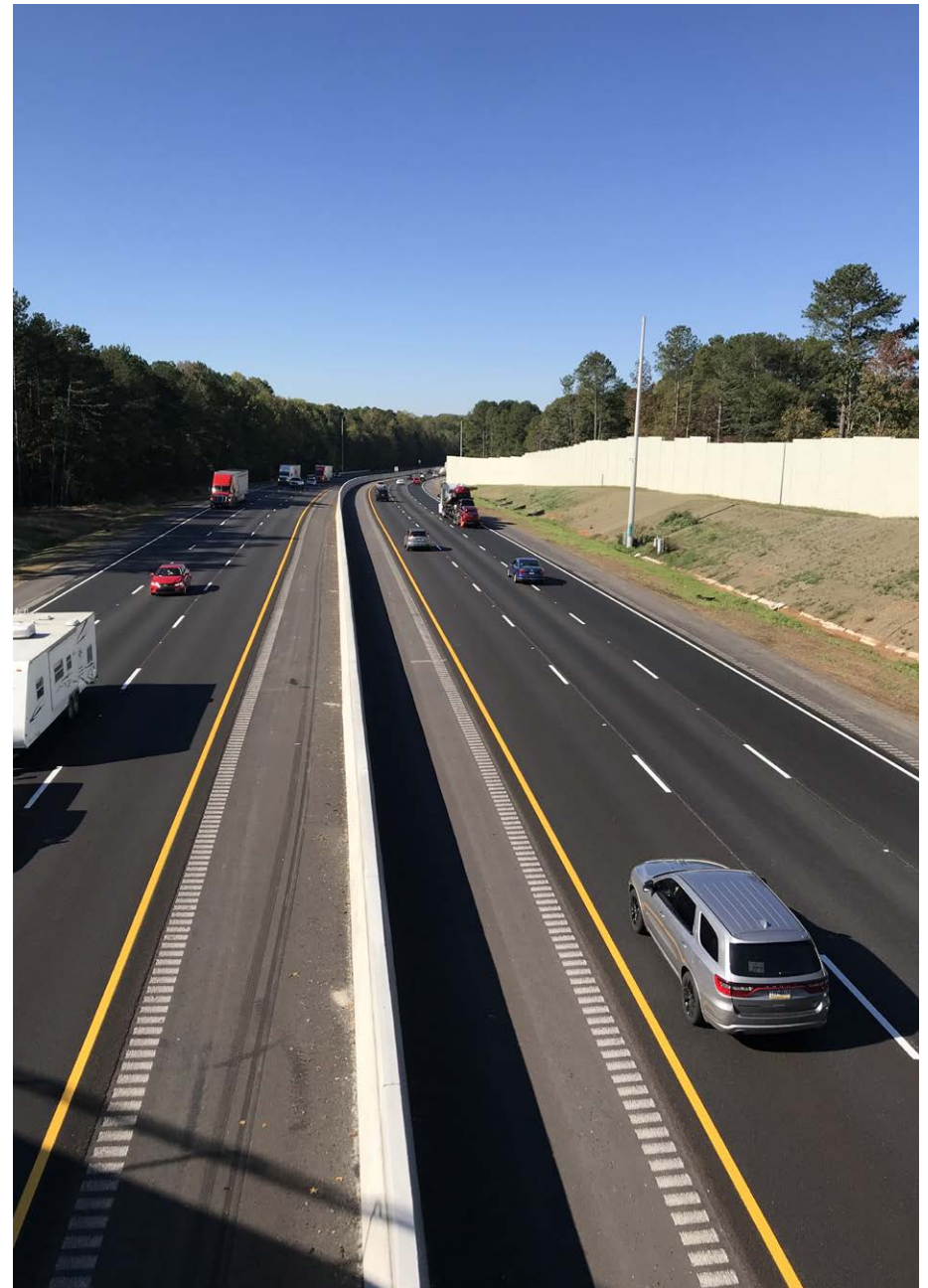
EXECUTIVE SUMMARY

The 2021 Statewide Strategic Transportation Plan (SSTP)/2050 Statewide Transportation Plan (SWTP) combines the Georgia Department of Transportation's (GDOT) strategic business case for transportation investment with the long-range, comprehensive transportation planning considerations required under Federal law. This plan:

- » Reflects **Governor Brian Kemp's Vision for Georgia** – to put hardworking Georgians first through streamlined, accessible, and fiscally responsible government—and describes actions that GDOT will take to make Georgia #1 for small business, reform State government, strengthen rural Georgia, and put Georgians first.
- » Establishes **performance-driven and fiscally-constrained** priorities and investment opportunities through the year 2050.
- » Defines **forward-looking strategies** to advance transportation planning and collaboration for future investment decisions.

GDOT will enhance the State's multimodal transportation system by emphasizing investments that will meet the Governor's strategic goals, boost the State's position as a global commerce hub, meet the mobility needs of a growing population, and strengthen the competitiveness of rural Georgia, emerging metropolitan areas, and metropolitan Atlanta during the next three decades. The State Transportation Board will guide the planning, development, and management of long-range plans and critical transportation projects.

Individuals and businesses rely on Georgia's cost-effective transportation system to provide the connections for moving efficiently, reliably, and safely throughout the State and to the world beyond. Investment in operating and maintaining existing infrastructure, making strategic improvements to capacity and connectivity, and deploying innovations within projected resources available from current revenue streams will position Georgia for continued growth and competitiveness.





Governor Kemp's Vision for Georgia

Put hardworking Georgians first through streamlined, accessible, and fiscally responsible government.

Governor's Strategic Goals and GDOT Priorities

Make Georgia #1 for Small Business



GDOT will focus on supporting the following priorities:

- » Expand Georgia's role as a world-renowned hub for global commerce
- » Develop a skilled workforce to meet current and future needs across the industry spectrum
- » Ensure taxpayers can easily navigate and find necessary information through government interfaces

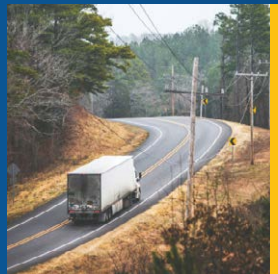
Reform State Government



GDOT will focus on supporting the following priorities:

- » Maximize taxpayer value with conservative budgeting
- » Expand public-private partnerships and leverage technology to best utilize limited State resources

Strengthen Rural Georgia



GDOT will focus on supporting the following priorities:

- » Increase rural broadband access for economic growth
- » Deploy regional strike teams to areas with economic challenges or lessening populations to collaborate with local leaders and seek opportunities for growth

Put Georgians First



GDOT will focus on supporting the following priority:

- » Improve transportation safety and security



Mission

Deliver a transportation system focused on innovation, safety, sustainability, and mobility

Vision

Boost Georgia's competitiveness via leadership in transportation

Plan Highlights

The SSTP furthers GDOT's vision of boosting Georgia's competitiveness through its leadership in transportation. The SSTP:

- » **Continues GDOT's strong emphasis on planning for performance** – This plan builds on prior performance-based planning approaches and incorporates new Federal transportation performance management requirements.
- » **Highlights catalytic and innovation investments** – In addition to foundational investments to improve safety and maintain Georgia's existing transportation system, this plan defines catalytic investments in system expansion to support economic development opportunities, as well as innovative strategies for using new technologies and business practices to position Georgia's transportation system for the future.
- » **Recognizes freight and rural infrastructure require unique evaluation for new investment** – This SSTP introduces two new programs, enabling GDOT to complete small-scale but critical capital projects that are important for all parts of the State. A Freight Operations Lump Sum Program will help improve the efficiency and reliability of truck movements as well as mitigate truck impacts on communities. A Rural Development Lump Sum Program will invest in safety and strategic capital improvements outside of metropolitan areas, including broadband deployment to support transportation technology opportunities.
- » **Describes strategies to advance GDOT's planning processes** – This plan includes specific initiatives to align other GDOT plans, programs, and projects; enhance collaboration with other agencies and the private sector; and further improve data, analysis, and tools to emphasize performance and return-on-investment.
- » **Incorporates new Federal planning requirements** – The plan addresses additional Federal requirements since the most recent iteration of the SSTP. These requirements relate to transportation performance management, travel and tourism, reliability, and resiliency.

Georgia's Mobility Trends, Challenges, and Opportunities

The SSTP is organized into three investment categories, reflecting three major ways people and freight move in Georgia:



Statewide freight and logistics – Georgia's transportation system moved a total of 597 million tons of goods valued at \$875 billion into, out of, and within Georgia in 2018.¹ In addition, logistics-enabled facilities accounted for 84 percent of private investment by companies that chose to locate new or expanded economic development sites in Georgia in fiscal year 2020.² Georgia's freight system must prepare for a growing population and economy, diversifying supply chains and logistics patterns, rapid growth in e-commerce, changing urban and rural dynamics, and emerging technologies for freight vehicles, facilities, and supply chain management.



People mobility in Metro Atlanta – With just over six million residents, Metro Atlanta accounts for more than half of Georgia's population and more than 3.8 million jobs.³ The major employers in the region include 30 Fortune 1000 companies, generating more than \$438 billion in aggregate revenues.⁴ Transportation connectivity is critical to strengthening Metro Atlanta's role as a global business center, supporting a growing and diversifying population and economy, and improving rural Georgians' access to the jobs, goods, and services available in Metro Atlanta.



People mobility in emerging metros and rural Georgia – Emerging metros such as Augusta, Columbus, Macon, and Savannah provide options for residents and businesses and serve as regional business centers. Rural areas account for most of Georgia's land, host key industries such as agriculture and manufacturing, and provide affordable quality-of-life options for more than one out of every five Georgians.⁵ Additionally, nearly one-fourth of personal vehicle miles traveled in Georgia are on rural roadways, which includes urban residents traveling to destinations outside their home metro areas.⁶ Georgia's transportation system supports a robust and resilient economy statewide including the large number of trips between Georgia's regions.

Georgia's Investment Strategy

The SSTP identifies strategies for three components of statewide investment. Taken together, GDOT will invest in:

- » **Foundational investments** – taking care of our existing transportation system
- » **Catalytic investments** – growing Georgia's economy
- » **Innovation investments** – preparing for transportation demands of the future

¹ Federal Highway Administration, Freight Analysis Framework 4.5.1., 2019.



² Georgia Department of Economic Development, 2020.

³ Atlanta Regional Commission, 2020.

⁴ Metro Atlanta Chamber of Commerce, 2019.

⁵ U.S. Census Bureau, 2019.

⁶ Georgia Department of Transportation, 2020.

	Statewide Freight and Logistics	People Mobility in Metro Atlanta	People Mobility in Emerging Metros and Rural Georgia
 <p>Foundational Investments Taking care of our existing transportation system</p>	<ul style="list-style-type: none"> » Commercial motor vehicle and rail safety » Asset management for key freight corridors including truck routes and GDOT-owned rail corridors » New Freight Operations Lump Sum Program 	<ul style="list-style-type: none"> » Highway safety, including driver education, bicyclists and pedestrians, and work zones » Asset management with cost-effective maintenance of pavement and bridges » Intelligent Transportation Systems (ITS) including regional traffic operations and incident management » Multimodal connectivity options 	<ul style="list-style-type: none"> » Highway and rail safety » Asset management, especially bridges in freight-intensive areas » ITS and regional traffic operations and incident management » New Rural Development Lump Sum Program » Emergency response, including evacuation routing
 <p>Catalytic Investments Strategic expansion to support economic development</p>	<ul style="list-style-type: none"> » Major Mobility Investment Program, including truck only lanes in Central Georgia and Savannah area connections » Options to address freight bottlenecks » Intermodal connections based on freight demand » Connectivity to Georgia Ready for Accelerated Development (GRAD) sites and other industrial and agricultural sites » Rail capacity projects on GDOT-owned corridors 	<ul style="list-style-type: none"> » Managed lanes, including Express Lanes as public-private partnerships » Other Major Mobility Investment Program projects » Other targeted efficiency and mobility improvements 	<ul style="list-style-type: none"> » Strategic capital investments in rural corridors » Strategic capacity investments in emerging metro areas » Enhanced connectivity to GRAD sites and other industrial and agricultural sites
 <p>Innovation Investments Positioning Georgia's transportation system for the future</p>	<ul style="list-style-type: none"> » Real-time information sharing » Freight vehicle technologies » Freight corridor technologies » Supply chain management systems 	<ul style="list-style-type: none"> » Preparing for connected and automated vehicles » Integrated corridor management, including traffic signal priority for emergency response vehicles and public transit buses 	<ul style="list-style-type: none"> » Rural broadband infrastructure for transportation technologies » Preparing for connected and automated vehicles » Integrated corridor management, to maximize use of existing rights-of-way

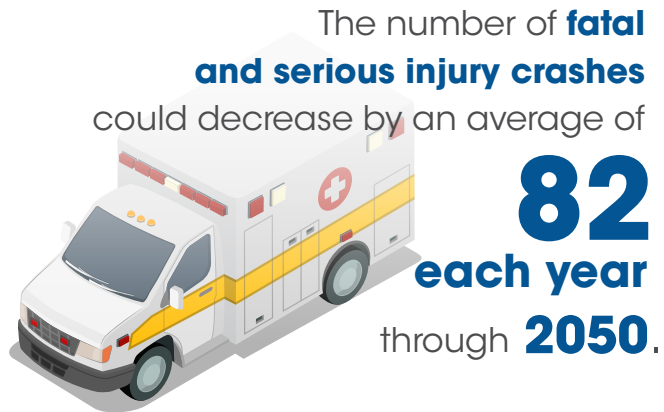


Business Case for Investment

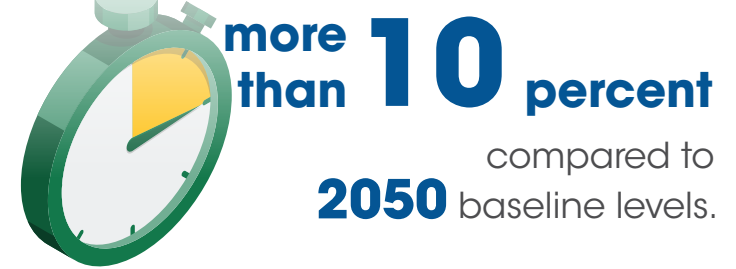
The SSTP describes how GDOT will invest an **estimated \$2.38 billion per year** in Georgia's transportation system, on average, from 2021 to 2050. This investment level will occur within the projections of resources from existing revenue streams. The investment recognizes previously committed projects through the Major Mobility Investment Program (MMIP). The investment plan will implement the SSTP's foundational, catalytic, and innovation investment strategies for statewide freight and logistics, people mobility in Metro Atlanta, and people mobility in emerging metros and rural Georgia.



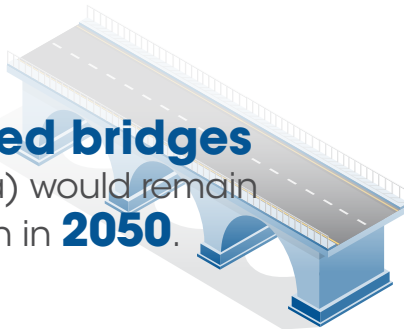
This investment is anticipated to produce significant benefits for the performance of Georgia's entire transportation system, even as the system continues to age and freight- and person-traffic continue to grow. Anticipated benefits of program investments, based on **recommended annual investment levels over the next 30 years**, include:



Average weekly hours of delay statewide would decrease

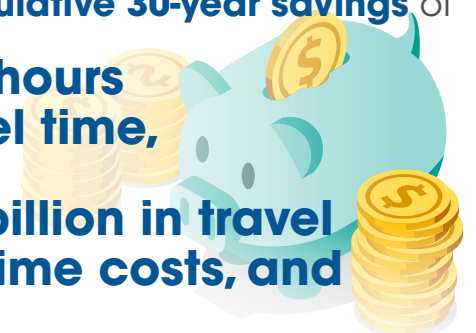


About **90** percent of **GDOT-owned bridges** (measured in deck area) would remain in **good or fair** condition in **2050**.



The share of **GDOT lane-miles** operating at **acceptable levels of service** would remain at today's levels even as travel demand grows, with a **cumulative 30-year savings** of

15.2 billion hours of travel time, **\$425** billion in travel time costs, and



\$28 billion in vehicle operating costs

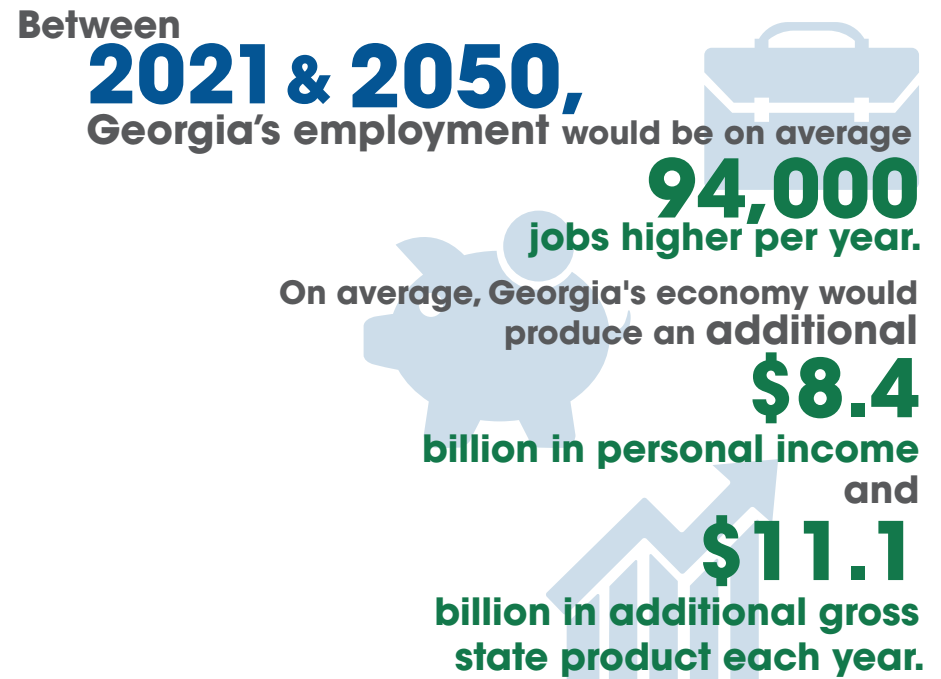
for Georgia's residents, businesses, and visitors.

About **88** percent of **GDOT-owned pavement** (measured in lane-miles) would remain in **good or fair** condition in **2050**.






The performance impact may exceed these benefits because existing models and analyses cannot fully capture all benefits that likely will occur, particularly the value of stronger connectivity in rural Georgia and more reliable operations statewide.

These savings are projected to accrue across the State to businesses and residents. Reduced travel time and vehicle operating costs lowers the direct cost of travel for businesses and residents. More importantly, reduced travel time expands the labor pool from which employers can attract workers and the delivery market businesses can easily serve, increasing Georgia’s overall economic competitiveness. For Georgians, this means greater access to jobs and services, a lower cost of goods, and more time available for work and personal life. For Georgia’s small and large businesses, this means more cost-efficient operations and better access to domestic and international markets. The direct transportation savings lead to a faster growing economy.



Estimated Benefits to Georgia's Economy from Recommended Investment Plan (average annual increase, 2021-2050)

	 Statewide Freight and Logistics	 People Mobility in Metro Atlanta	 People Mobility in Emerging Metros and Rural Atlanta
Jobs	24,440	43,240	26,320
Personal Income (2019 dollars in Billions)	\$2.2	\$3.9	\$2.3
Gross State Product (2019 dollars in Billions)	\$2.9	\$5.1	\$3.1

Preparing for Implementation

GDOT will begin executing the 30-year investment framework outlined in the SSTP, focusing initially on the following actions:

- » Invest in projects and programs in the Statewide Transportation Improvement Program (STIP) to begin carrying out the strategies in the SSTP
- » Update other GDOT modal and system plans to align with the SSTP, beginning with the Georgia Statewide Freight and Logistics Action Plan
- » Continue accountability reports as required by 2009 Georgia General Assembly's SB 200 and OCGA 32-2-41.2

In parallel with these specific planning and resource allocation decisions, GDOT will move forward with enhancements to its planning and collaboration to fully implement the SSTP. These activities will focus on three areas:



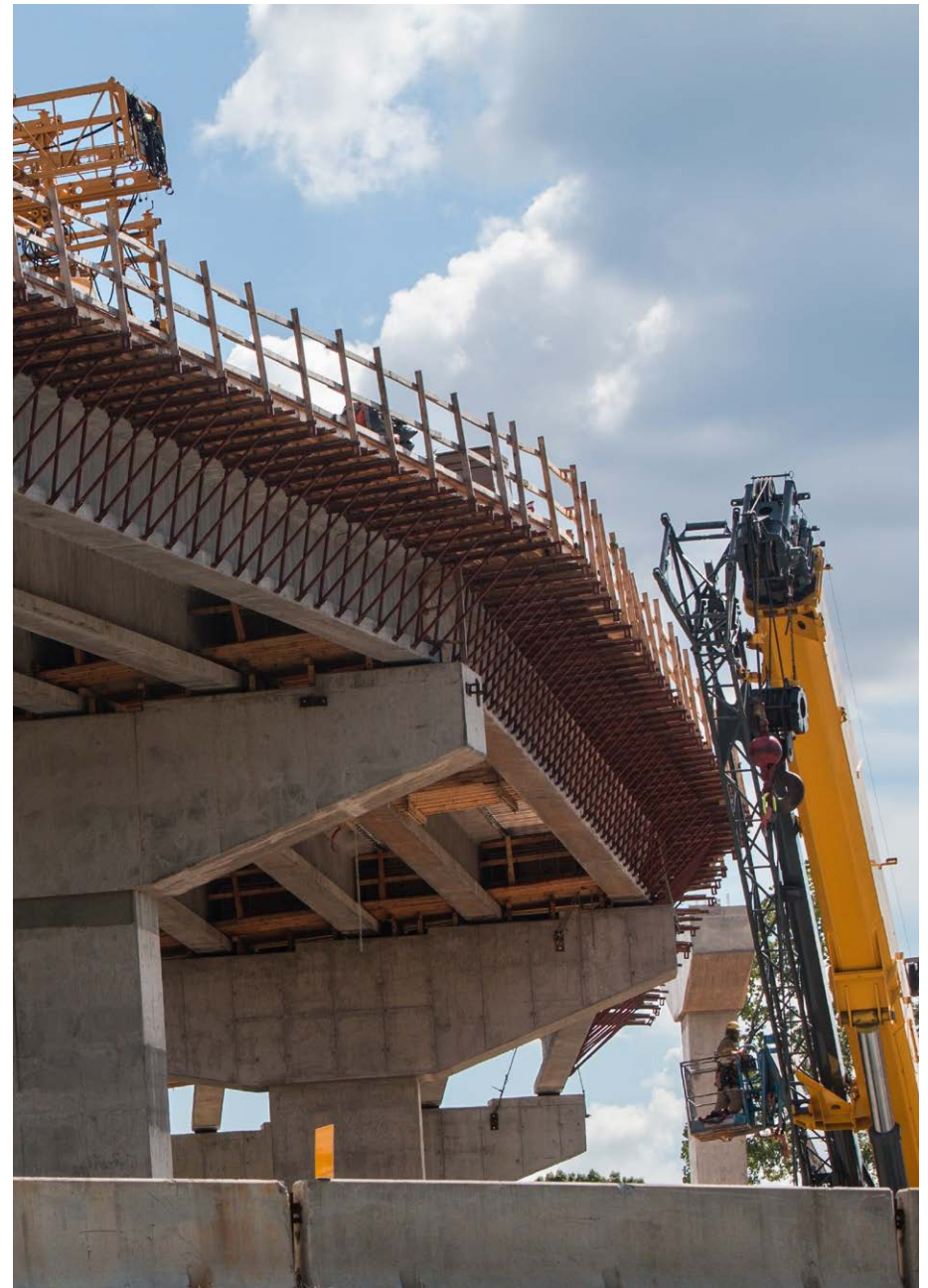
Plans, projects, and programs – Update and align existing modal and system plans and identify program- and project-level investments to be considered in future updates to the SSTP and STIP.



Partnerships – Strengthen partnerships with Metropolitan Planning Organizations, regional commissions, economic development organizations, modal operators, and the private sector to accomplish the Governor's goals and implement the SSTP strategies.



Performance – Enhance GDOT processes, technical capabilities, and supporting data and tools with emphasis on performance, asset, and risk management; economic impact and return-on-investment analysis; and data management and business intelligence.





1

PLAN OVERVIEW

Introduction

Georgia's transportation system—a world-class network of roads, bridges, railways, seaports, airports, transit services, and trails—has been a critical foundation for Georgia's growth and competitiveness. Our transportation system connects cities and rural communities, links businesses to suppliers and customers, and carries visitors to destinations throughout Georgia and beyond.

With more than 50,000 lane-miles of Interstates and State routes, the Georgia Department of Transportation (GDOT) operates the 10th largest state transportation network in the nation. This network connects to the world's busiest commercial service airport (Hartsfield-Jackson Atlanta International Airport) and the single largest and fastest-growing container terminal in North America (at the Port of Savannah). It also provides for the daily needs of Georgians for access to jobs, education, health care, and other critical services. To sustain and improve this system, GDOT will invest on average \$2.38 billion (in constant \$2019) annually over the next 30 years, on top of existing program commitments and debt service, to operate and maintain existing infrastructure, make strategic improvements to capacity and connectivity, and deploy advanced technologies and other innovations. These stewardship responsibilities, if strategically planned and effectively executed, will enable Georgia to expand its role as a world-renowned hub for global commerce and support economic growth and opportunity statewide. These investment levels are identified to address known demands on Georgia's transportation system. GDOT will continue to assess growth in population and freight movement, as well as unanticipated dynamics and requirements that may emerge in coming years.

The 2021 Statewide Strategic Transportation Plan (SSTP)/2050 Statewide Transportation Plan (SWTP) combines GDOT's strategic business case for transportation investment with the long-range, comprehensive transportation planning considerations required under Federal law. This plan provides a strategic look at priorities and investment opportunities in Georgia's transportation system through the year 2050. It develops a set of financially-constrained investment priorities to enact the Governor's strategic goals for Georgia and to address the State's changing demands for moving people and freight. This plan also sets forward-looking strategies to advance transportation planning and collaboration for continuously improving future investment decisions.

Evolution of the SSTP

The origins of the SSTP reside in State law passed in 2009, which requires GDOT to develop a statewide strategic transportation plan with specific investment strategies identified to advance economic growth in Georgia.⁷ GDOT developed the first SSTP in 2010 and since that time has updated the SSTP every two to three years. Additionally, Federal law requires each State to develop and regularly update a multimodal long-range transportation plan that outlines goals, objectives, and policies over a minimum 20-year horizon.⁸ GDOT implements this requirement by updating the SWTP approximately every five years.



⁷ Statewide Strategic Transportation Plan, OCGA 32-2-41.1.

⁸ Moving Ahead for Progress in the 21st Century (MAP-21), Title 23 U.S.C., <https://www.fhwa.dot.gov/map21/legislation.cfm>.

Beginning in 2015, GDOT updated the SSTP to add the Federal requirements for the SWTP during the years in which SWTP updates were scheduled (2015 and, with this plan, 2021) to better align these two planning efforts. During the past few update cycles, a particular emphasis has been on evolving the SSTP to become a performance-based plan, linking investment decisions to measurable targets for the performance of the State's transportation system. Throughout this document, the abbreviation "SSTP" is used to refer to the combined 2021 SSTP/2050 SWTP, unless otherwise noted.

Plan Highlights

In this update of the SSTP, GDOT is taking another step forward to fully realize the potential of the SSTP to guide future investment and planning activities. This plan continues GDOT's history of innovative long-range planning. Key elements of the plan include:

- » **Enacting Governor Kemp's goals for Georgia** – Governor Brian Kemp was sworn into office in January 2019. This plan reflects Governor Kemp's priorities to make Georgia #1 for small business, reform State government, strengthen rural Georgia, and put Georgians first.
- » **Continued strong emphasis on planning for performance** – This SSTP builds on prior performance-based planning approaches and incorporates new transportation performance management requirements enacted by Federal law and rule. The long-term investment recommendations reflect State and Federal performance targets and were developed through a "Planning for Performance" tool that assesses the performance impacts of potential investment levels for major programs.
- » **Emphasis on catalytic and innovation investments** – In addition to foundational investments to improve safety and take care of Georgia's existing transportation system, this plan defines catalytic investments in system expansion to support economic development opportunities. It also defines innovation strategies for using new technologies and business practices to position Georgia's transportation system for the future.

- » **New freight and rural programs** – This plan introduces two new programs, funded from existing revenue sources, for GDOT to help address strategic investment opportunities. A Freight Operations Lump Sum Program will support small-scale improvements in freight facilities to help improve the safety, efficiency, and reliability of truck movements. A Rural Development Lump Sum Program will invest in safety and strategic capital improvements outside of urbanized areas (defined for this purpose as geographies that are not included in the planning area for a Metropolitan Planning Organization (MPO)). The Rural Development Lump Sum Program also will support broadband deployment where conduit, fiber optic cable, and advanced equipment can enable Intelligent Transportation Systems (ITS) and future technologies such as connected vehicles, as well as potentially enable broadband buildout where high-speed internet connectivity is not accessible.
- » **Strategies to advance GDOT's planning processes** – This plan couples the investment strategies with a series of strategies to strengthen GDOT's planning processes. These include specific initiatives to align GDOT plans, programs, and projects with the SSTP; enhance collaboration with other agencies and the private sector; and further improve data, analyses, and tools for evaluating performance, with emphasis on economic impact and return on investment.

This SSTP builds on prior performance-based planning approaches and incorporates new transportation performance management requirements enacted under Federal law and rule.

» **New Federal planning requirements** – Finally, the SSTP incorporates elements required by all applicable Federal transportation laws and rules. These include new Federal transportation performance management requirements as well as new planning factors related to resiliency, reliability, and travel and tourism. The statewide planning factors were considered in identifying future transportation trends, opportunities, challenges, and potential investment opportunities. The Federal performance management requirements were incorporated into the performance-based planning process.

Plan Development Process

The 2021 SSTP/2050 SWTP development process included the following steps:

- » **Alignment with the Governor’s strategic goals** for Georgia to identify key transportation priorities for GDOT (*see Georgia’s Transportation Vision and Goals*).
- » **Review of existing GDOT and partner plans** to identify opportunities for alignment and collaboration. This included review of the most recent versions of the Georgia Statewide Freight and Logistics Action Plan, Transportation Asset Management Plan, Strategic Highway Safety Plan, and statewide rail and transit plans; partner plans including those of other State agencies, modal partners such as the Georgia Ports Authority, and MPO long-range transportation plans and standalone MPO freight plans; multi-state initiatives such as The Eastern Transportation Coalition; and Federal plans such as the National Freight Strategic Plan.
- » **Documentation of current conditions for all modes** of Georgia’s transportation system (*see Georgia’s Transportation System Today*).
- » **Review of changing customer trends, opportunities, and challenges and potential transportation futures** related to moving freight and people in Georgia. The analysis considered freight mobility statewide and people mobility from the unique perspectives of Metro Atlanta,

emerging metropolitan areas, and rural Georgia (*see Mobility Trends, Opportunities, and Challenges*).

- » **Development of revenue projections** through 2050 based on reasonable assumptions about future growth.
- » **Coordination with GDOT offices and programs** to affirm transportation performance targets and potential investments to help meet or maintain those targets.
- » **Development of an investment framework** to focus on statewide priorities and use of this framework to recommend a long-term strategic allocation of resources across program areas (*see Georgia’s Strategy and Business Case for Investment*).
- » **Analysis of the impacts of the recommended investment plan** on Georgia’s transportation system and on the State’s economy (*see Business Case for Investment*).
- » **Identification of strategies to advance GDOT’s planning processes** to prepare for future investment decisions (*see Georgia’s Strategy*).
- » **Review of the draft plan and approval of the final plan** by the Governor and the State Transportation Board.



Partner and Stakeholder Outreach

To ensure that the plan reflects the transportation priorities, opportunities, and challenges facing Georgia’s businesses and residents, GDOT organized a Stakeholder Advisory Committee (SAC) representing 26 organizations, including business, freight, and economic development representatives as well as State and local government partners. To collect additional input on local and rural transportation opportunities, GDOT conducted surveys at the Georgia Municipal Association 2019 Fall Training Event and the 2019 Association of County Commissioners of Georgia Annual Conference. A total of 93 elected officials and municipal staff provided input on opportunities and challenges for the plan.

GDOT organized a Stakeholder Advisory Committee (SAC) representing

26 organizations, including **business, freight, and economic development representatives** as well as State and local government partners.



Stakeholder Advisory Committee Representatives

- » Atlanta Regional Commission
- » Association of County Commissioners of Georgia
- » Georgia Airports Association
- » Georgia Association of Metropolitan Planning Organizations
- » Georgia Association of Regional Commissions
- » Georgia Center of Innovation for Logistics
- » Georgia Chamber of Commerce
- » Georgia Department of Community Affairs
- » Georgia Department of Economic Development
- » Georgia Department of Human Services
- » Georgia Department of Transportation – Executive Management Representatives, Commissioner, and Chief Engineer
- » Georgia Department of Transportation – Intermodal Division
- » Georgia Department of Transportation – State Transportation Board Chair
- » Georgia Emergency Management and Homeland Security Agency
- » Georgia Environmental Protection Division
- » Georgia Municipal Association
- » Georgia Ports Authority
- » Georgia Railroad Association
- » Georgia Regional Transportation Authority
- » Georgia State Patrol and Public Safety
- » Georgia Transit Association
- » Georgia Transportation Alliance
- » Governor’s Office
- » Governor’s Office of Highway Safety
- » Metro Atlanta Chamber of Commerce
- » State Road and Tollway Authority

Public Outreach

Outreach was conducted to assess the public's transportation needs and priorities. GDOT developed a project website and distributed project factsheets and surveys at public events in each of GDOT's seven Districts. The survey captured the public's perspective on personal travel preferences and needs, as well as potential statewide investment priorities. A total of 1,473 surveys were collected from residents in 111 of Georgia's 159 counties. Environmental Justice communities were intentionally engaged through District-level community advocates. More detailed information on the public outreach process is available in the *Public Involvement and Outreach Report*.

Georgia Residents' Top Three Areas to Emphasize in the Future:

- » *Providing more public transportation options*
- » *Reducing traffic congestion*
- » *Better connectivity of the roadway system*

Source: Seasonal Festivals and Website Survey





2

GEORGIA'S TRANSPORTATION VISION & GOALS



Governor Kemp's Vision for Georgia

Put hardworking Georgians first through streamlined, accessible, and fiscally responsible government.

Vision

The SSTP supports and advances Governor Kemp's Vision for Georgia: put hardworking Georgians first through streamlined, accessible, and fiscally responsible government.

The SSTP also is informed by GDOT's agency mission and vision. GDOT's vision is to boost Georgia's competitiveness via leadership in transportation. By explicitly defining how GDOT's investments in the transportation system can support the Governor's goals for Georgia, the SSTP connects GDOT's core mission of transportation innovation, safety, sustainability, and mobility to the State's broader economic development and quality of life goals, as articulated in the Governor's priorities. The State Transportation Board guides the planning, development, and management of long-range plans and critical transportation projects.

Governor Kemp identified four strategic goals with supporting priorities to accomplish Georgia's vision. The following are descriptions of some of the ways GDOT will work with its partners to support these specific goals and priorities, organized into three categories: statewide freight and logistics; people mobility in Metro Atlanta; and people mobility in emerging metro areas and rural Georgia.



Georgia Department of Transportation

GDOT's Mission

Deliver a transportation system focused on innovation, safety, sustainability, and mobility

GDOT's Vision

Boost Georgia's competitiveness via leadership in transportation

Governor's Strategic Goals and GDOT Focus Areas



Make Georgia #1 for Small Business

GDOT will focus on supporting the following priorities:

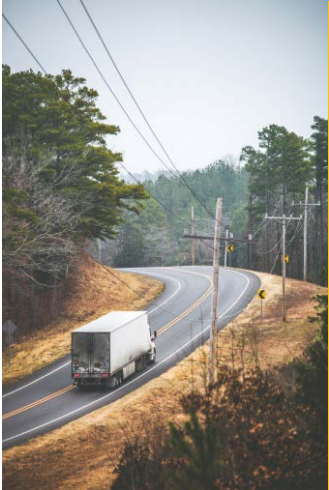
- » Expand Georgia's role as a world-renowned hub for global commerce
- » Develop a skilled workforce to meet current and future needs across the industry spectrum
- » Ensure taxpayers can easily navigate and find necessary information through government interfaces



Reform State Government

GDOT will focus on supporting the following priorities:

- » Maximize taxpayer value with conservative budgeting
- » Expand public-private partnerships and leverage technology to best utilize limited State resources



Strengthen Rural Georgia

GDOT will focus on supporting the following priorities:

- » Increase rural broadband access for economic growth
- » Deploy regional strike teams to areas with economic challenges or lessening populations to collaborate with local leaders and seek opportunities for growth



Put Georgians First

GDOT will focus on supporting the following priority:

- » Improve transportation safety and security

GOAL #1

Make Georgia #1 for Small Businesses



Small businesses are the lifeblood of Georgia's economy. As of June 2020, Georgia has 1.1 million small businesses supporting 1.7 million employees. Small businesses with fewer than 500 employees account for more than 99 percent of all businesses and more than 43 percent of total employment in the State.⁹ To enable these businesses to maintain their vital role within Georgia's economy, the transportation system must provide access to workforce throughout the State and connect businesses to global supply chains and distribution networks. Improving freight mobility and expanding access to jobs can support the productivity and expansion of businesses of all sizes. Facilitating access to transportation-related information for all users supports a stronger business climate.

GDOT will focus on supporting the following priorities:

- » Expand Georgia's role as a world-renowned hub for global commerce
- » Develop a skilled workforce to meet current and future needs across the industry spectrum
- » Ensure taxpayers can easily navigate and find necessary information through government interfaces

Implications for SSTP Investment Categories



Statewide Freight and Logistics

- » Modernize freight infrastructure and operations
- » Support efforts to reduce the cost and time of goods delivery and to increase the resilience of supply chains



People Mobility in Metro Atlanta

- » Improve access to jobs
- » Provide transportation connectivity to strengthen Atlanta's position as a global business hub



People Mobility in Emerging Metros and Rural Georgia

- » Increase access to jobs, goods, and services throughout emerging metros and rural Georgia

⁹ U.S. Small Business Administration Office of Advocacy. Georgia 2020 Small Business Profile.

<https://cdn.advocacy.sba.gov/wp-content/uploads/2020/06/04143015/2020-Small-Business-Economic-Profile-GA.pdf>.

GOAL #2

Reform State Government

GDOT will remain fiscally responsible in allocating State and Federal revenues to an extensive transportation system with significant long-term investment needs, within the bounds of existing funding streams. Stewardship of public assets and public funds includes a commitment to preserve the public's investment in the existing transportation system through cost-effective preventative maintenance and proactive management of these assets; strategic investment decisions based on the best available data and tools to help understand the impacts of investments on the performance of the transportation system and the competitiveness of Georgia's economy; innovative partnerships and technologies to help stretch State and Federal resources; and continual improvements to the processes GDOT uses to develop plans, make investment decisions, and streamline delivery of its projects.

GDOT will focus on supporting the following priorities:

- » Maximize taxpayer value with conservative budgeting
- » Expand public-private partnerships and leverage technology to best utilize limited State resources

Implications for SSTP Investment Categories



Statewide Freight and Logistics

- » Maintain and improve freight infrastructure for safety and performance
- » Expand use of existing and new data and technologies to support freight and logistics
- » Evaluate options for improved connectivity and increased capacity within current revenue streams based on return-on-investment analysis



People Mobility in Metro Atlanta

- » Partner with the private sector to build additional Express Toll Lanes in the Major Mobility Investment Program
- » Improve operation and reliability of existing infrastructure through cost effective advanced technologies
- » Coordinate GDOT investments on State routes with other modes and local visions and plans



People Mobility in Emerging Metros and Rural Georgia

- » Maintain infrastructure for safety and performance
- » Improve operation and reliability of existing infrastructure through cost-effective advanced technologies

GOAL #3

Strengthen Rural Georgia



The prosperity of rural Georgia is important to the entire State, as it is home to key strategic industries such as agriculture, manufacturing, distribution, and tourism. Some rural areas are experiencing rapid population growth and enjoying strategic economic development opportunities; others have experienced prolonged periods of slow growth and are seeking opportunities for revitalization. GDOT crash and travel data reveal that a disproportionate number of roadway fatalities occur in rural areas. Furthermore, the highway fatality rate per 100 million vehicle-miles traveled is 56 percent higher in rural areas than in urban areas. Considering that nearly one-fourth of personal vehicle miles traveled in Georgia are on rural roadways, including urban residents traveling to destinations outside their home metro areas, rural roadway safety and operations matters for all Georgians. Maintaining and enhancing a transportation system that connects all corners of Georgia will boost opportunities for all communities and businesses in the State. In some cases, this means providing better connectivity to strategic sites in rural Georgia, such as industrial sites pre-certified through the Georgia Ready for Accelerated Development (GRAD) Program.¹⁰ In other cases, this means enabling rural businesses and residents to have efficient and reliable access to the resources and services available in Metro Atlanta or other regional business centers, including high-speed broadband connectivity.

GDOT will focus on supporting the following priorities:

- » Increase rural broadband access for economic growth
- » Deploy regional strike teams to areas with economic challenges or lessening populations to collaborate with local leaders and seek opportunities for growth

Implications for SSTP Investment Categories



Statewide Freight and Logistics

- » Support GRAD site development and Georgia Ports Authority identified rail intermodal “inland ports”
- » Support growth in manufacturing, agriculture, and distribution



People Mobility in Metro Atlanta

- » Improve rural Georgians’ access to transportation facilities, jobs, and services in Metro Atlanta



People Mobility in Emerging Metros and Rural Georgia

- » Support strategic economic development (e.g., GRAD sites)
- » Facilitate broadband and other technology deployment

¹⁰ <https://www.georgia.org/grad-certified-sites>

GOAL #4

Put Georgians First

The Governor's final strategic goal focuses on putting Georgians first. For some agencies, that means direct activities that improve health and wellness or reduce crime such as human trafficking or gang violence. For GDOT, an essential way to put Georgians first is to support the Georgians First policy with a safe and secure transportation system. Most immediately, this means reducing roadway crashes, serious injuries, and fatalities. Total traffic crashes in Georgia increased 6 percent between 2015 and 2019, while fatalities increased 16 percent. Ensuring safety and security also means reducing security risks to people and businesses, as well as preparing for, responding to, and recovering from extreme weather events and other disasters.

GDOT will focus on supporting the following priority:

- » Improve transportation safety and security

Implications for SSTP Investment Categories



Statewide Freight and Logistics

- » Improve safety and security of commercial vehicle and freight movements



People Mobility in Metro Atlanta

- » Improve highway safety



People Mobility in Emerging Metros and Rural Georgia

- » Improve highway safety
- » Improve evacuation options










3

GEORGIA'S TRANSPORTATION SYSTEM TODAY

Overview of Georgia's Transportation System

Georgia's transportation system comprises multiple modes that provide the efficient movement of people and freight into, out of, and within Georgia. Georgians are connected to world markets through Hartsfield-Jackson Atlanta International Airport and two deepwater seaports, the Port of Savannah and Port of Brunswick. Two Class I railroads and multiple intermodal terminals and shortline railroads facilitate the movement of freight. The system supports the efficient movement of people with 210 million vehicle miles traveled (VMT) daily on State roads and more than 142 million trips on the State's 17 urban transit systems. The system is a critical component of the State's overall economy and an essential factor in Georgia being named the Number 1 State for Business seven years in a row by *Area Development*.¹¹ This section provides an overview of the dynamic transportation modes in Georgia and how GDOT operates and/or supports each mode.¹²

Mode	Ownership	System Extent
 Roadways	GDOT – 14% Counties – 66% Towns/Municipalities – 18% Other – 2%	128,300 Centerline Miles of All Public Roads
 Bridges	GDOT – 45.8% Counties – 49.7% Towns/Municipalities – 4.0% Other – 0.5%	14,725 Bridges 109,510,700 Square Feet of Bridge Deck Area
 Railways	GDOT – 10% Class I Operators (CSX/Norfolk Southern) – 69% Class III Operators – 21% Amtrak – Trains owned by Amtrak	4,607 Miles of Track 3,288 Miles of Class I Railway Track 1,012 Miles of Class III Railway Track 4 Amtrak Routes
 Ports and Waterways	Georgia Ports Authority – 2 Deepwater Ports, 2 River Ports, 2 Inland Ports Joint Ownership – 1 Inland Port	2 Deepwater Ports 3 Inland Ports 4 Navigable Waterways
 Aviation	Counties or Towns/Municipalities	105 Public Use 9 Commercial Service 95 General Aviation
 Transit and Shared Mobility	Transit – Counties, Towns/Municipalities, or Authorities Intercity Bus – 3 Providers Shareable Dockless Mobility Devices – Multiple Operators	80 Systems Providing Demand Response Rural Transit Service 17 Urban Transit Systems
 Bicycle and Pedestrian	State Bicycle Routes: GDOT – 70% Towns/Municipalities – 30%	14 State Bicycle Routes 2,943 Miles 2 U.S. Bicycle Routes 356.5 Miles

¹¹ www.areadevelopment.com/Top-States-For-Doing-Business.

¹² More detailed information on these transportation modes can be found in the Existing Conditions and Trends Assessment Technical Memorandum.

Georgia's Highways and Bridges

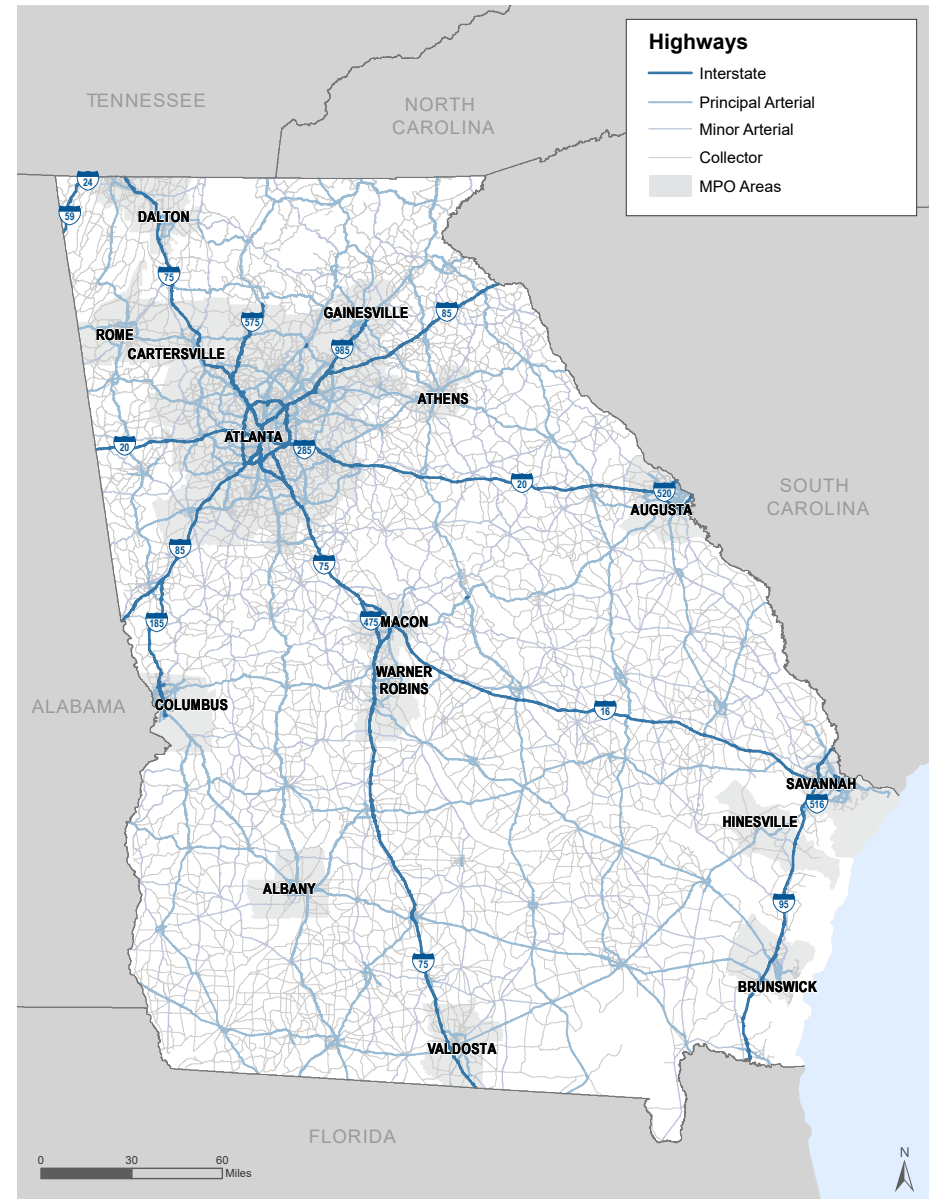
A primary mission of GDOT is to plan, maintain, and operate the State's highway system, which includes the critical corridors that enable the efficient and reliable movement of people and freight. Georgia's highway system consists of nearly 128,300 miles of public roads. Most of these public roads are owned by counties (66 percent) and municipalities (18 percent), while GDOT owns 14 percent.¹³ The Georgia highway system includes 14,725 bridges and GDOT owns, operates, and manages 46 percent of them.

Georgia's State route system accommodates 210 million vehicle-miles of travel each day.

Daily vehicle miles-traveled (VMT) on the GDOT system increased 8.7 percent between 2015 and 2019. GDOT has extensive traffic operations programs, such as SigOps, which proactively manages and maintains traffic signals on key corridors statewide by leveraging existing and emerging technology. This active signal management is critical: corridors managed through the former Regional Traffic Operations Program (RTOP) in Metro Atlanta experienced average annual VMT growth rate of 1.8 percent from 2017 to 2019 but a 15.9 percent average decrease in delay.

To support Georgia's increasing growth, GDOT continues to expand its fiber optic network statewide to support future mobility options, such as automated/connected vehicles. GDOT invests in strategic projects to improve reliability of key corridors through the Major Mobility Investment Program.

¹³ 2017 GDOT Roadway Inventory, Mileage is reported as center line miles; this excludes the double counting of directionally separated roads, and roads that are designated with multiple signage.



Georgia's Railway System

The Georgia rail network is the largest in the Southeast. In 2017, the 4,607-mile network transported over 171 million tons of freight to, from, and within Georgia. Georgia is served by two Class I freight railroads—CSX Transportation and Norfolk Southern Railway.¹⁴ Collectively, they operate 3,288 route miles throughout the State, serving all major economic centers and the State's ports.¹⁵ There are 26 Class III railroads or shortlines, with 1,012 route miles in the State.¹⁶

GDOT leases the railroad track it owns to six short line operators.

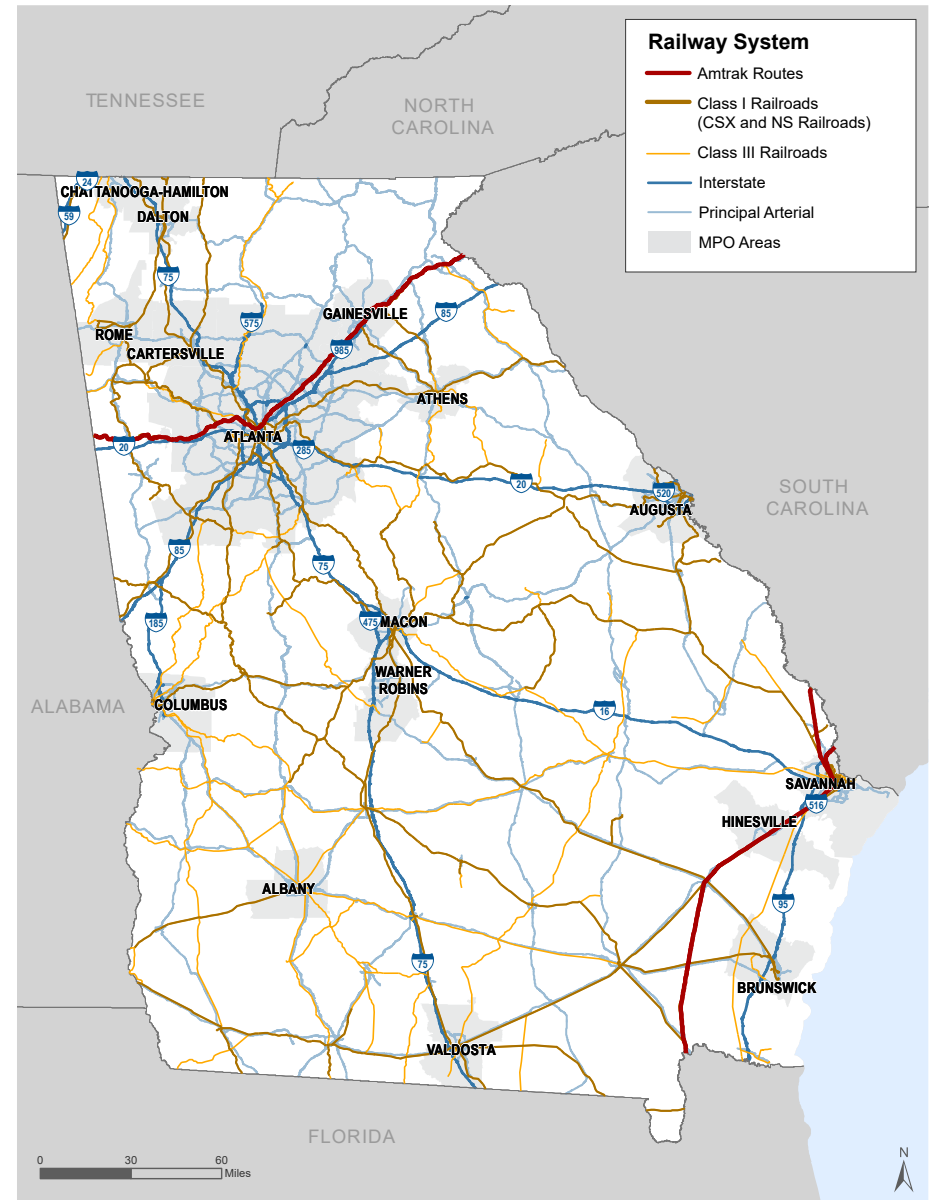
In addition to freight rail, Georgia is served by four long-distance Amtrak passenger routes with five stations that carried over 75,000 originating or terminating passengers in Georgia in 2016.¹⁷ Amtrak trains run along the Class I network. The Silver Meteor and Silver Star offer service between New York City and Miami through coastal Georgia, the Palmetto offers service between New York City and Savannah, and the Crescent offers daily trips between New York City and New Orleans via Atlanta.

¹⁴ Class I freight railroads – operating revenues of over \$447 million.

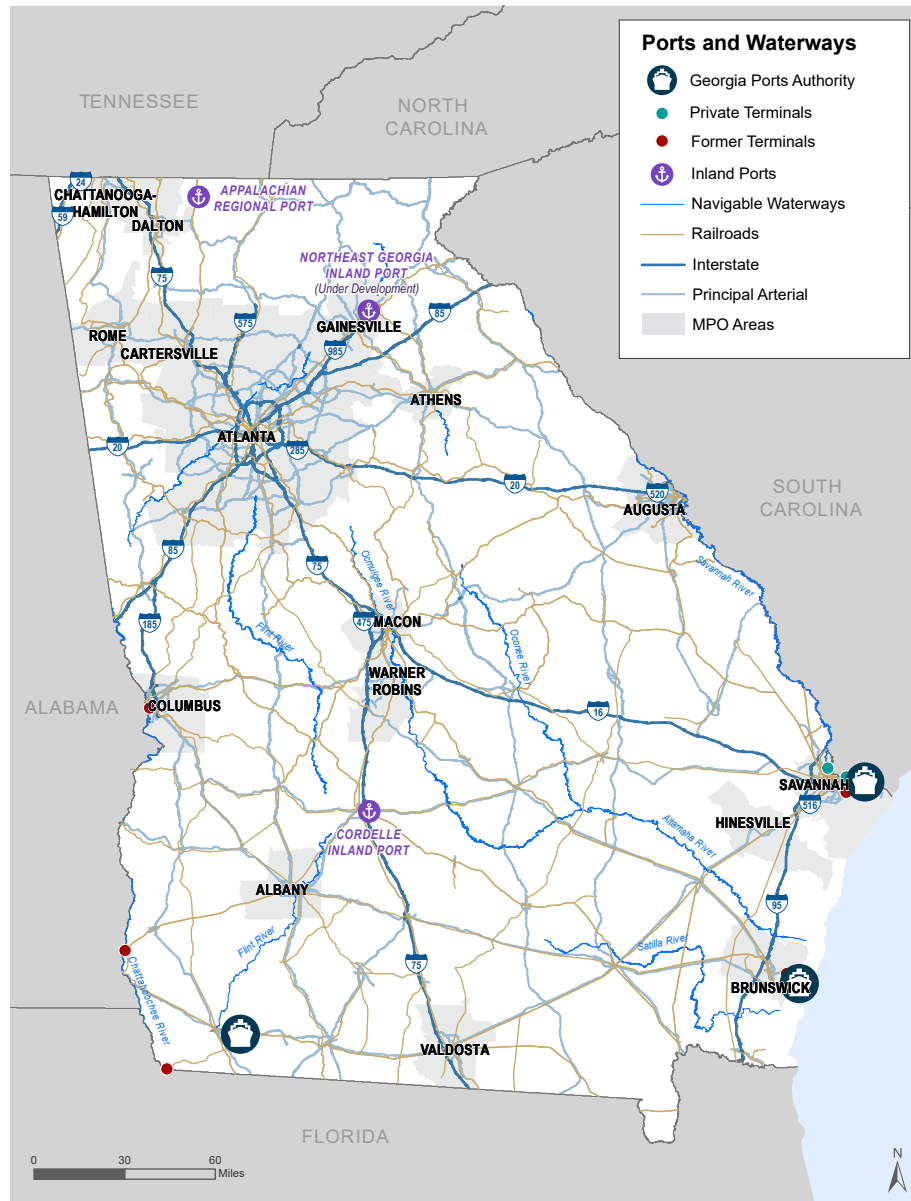
¹⁵ Norfolk Southern and CSX. (2018). Schedule 702. *Class I Railroad Annual Report to the Surface Transportation Board*.

¹⁶ Class III freight railroads – operating revenue of less than \$35 million.

¹⁷ <https://www.amtrak.com/state-economic-impact-brochures>.



Georgia's Ports and Waterways



Georgia is home to an interconnected network of seaports, inland waterways, private marine terminals, and “inland ports.” The vast majority of Georgia’s marine tonnage moves through terminals owned and operated by the Georgia Ports Authority (GPA). GPA’s facilities include the Port of Savannah, which consists of the Garden City Terminal and the Ocean Terminal, North America’s busiest single-terminal container facility. They also include the Port of Brunswick and its Colonel’s Island Terminal, which is the second busiest port in the United States for total roll-on/roll-off cargo. In 2019 over 37.5 million tons of goods moved through these ports.¹⁸ Georgia’s deepwater ports were estimated to account for \$106 billion in sales, \$44 billion in gross state product, and nearly 440,000 jobs statewide in 2017.¹⁹

GPA has identified an “inland port” system to serve the Port of Savannah. This system includes locations in Murray County (Appalachian Regional Port) and Decatur County (Bainbridge Terminal). The Northeast Georgia Inland Port is in early stages of planning in Hall County. While most cargo moves through deepwater ports, Georgia is also home to inland waterways providing mobility to a variety of niche businesses.

GDOT’s Waterways Program partners with the U.S. Army Corps of Engineers to maintain the navigability of the Atlantic Intracoastal Waterway and Georgia’s deepwater ports.

¹⁸ Georgia Ports Authority.

¹⁹ <https://gaports.com/our-port/economic-impact/>.

Georgia's Aviation System

Georgia is served by a diverse mix of airports ranging in size from small general aviation airports to busy corporate general aviation reliever airports to Hartsfield-Jackson Atlanta International, the world's busiest commercial service airport.²⁰ In 2018, Hartsfield-Jackson had over 51.8 million enplanements and the other eight commercial service airports had over 1.8 million enplanements combined.²¹ Hartsfield-Jackson also is a key air cargo facility, the 13th busiest in the United States, moving over 2.9 billion pounds of cargo in 2018. The other major air cargo airport in Georgia is the Southwest Georgia Regional Airport, located in Albany, which moved over 186 million pounds of cargo in 2018.

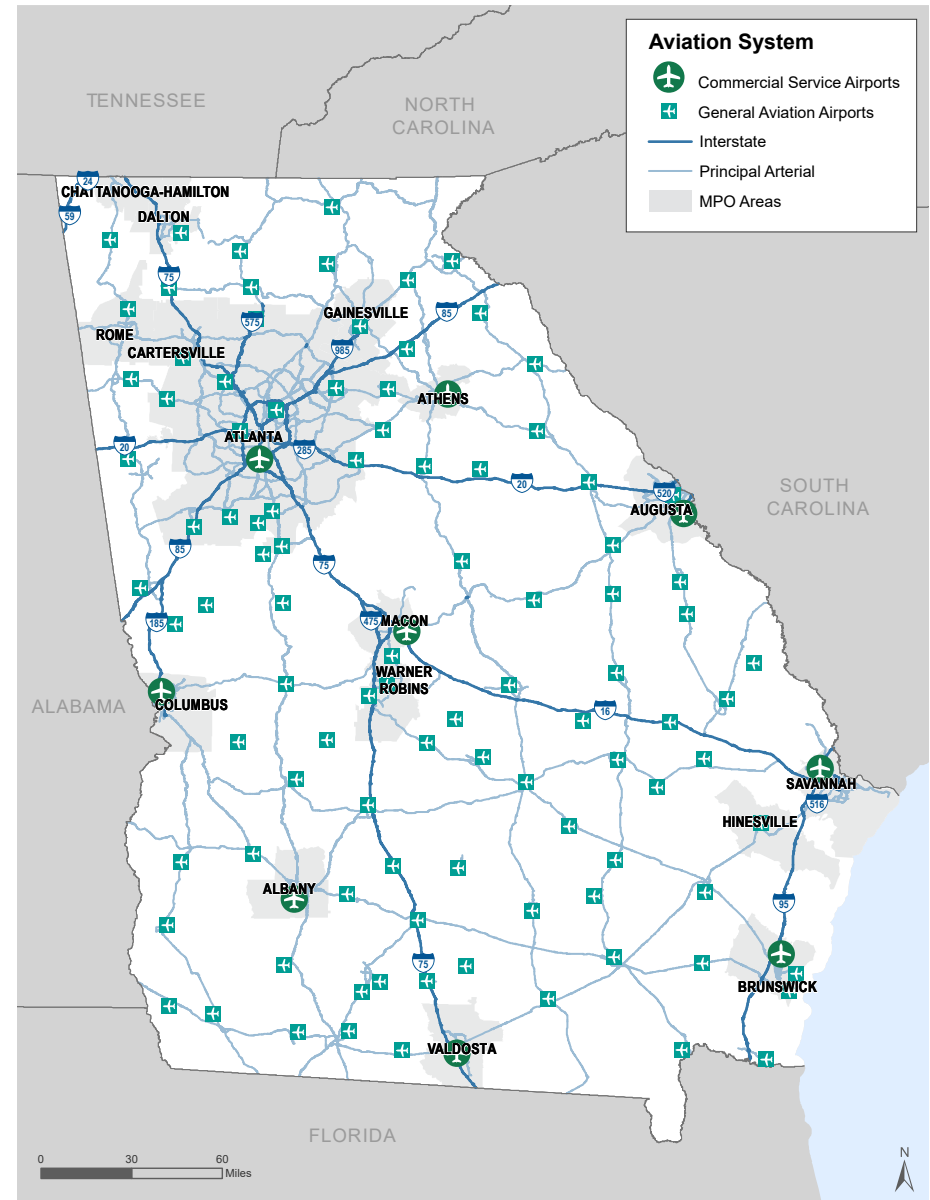
GDOT invests in the aviation system through the Georgia Airport Aid Program (GAAP), which is designed to provide State funding assistance for planning, capital improvements, maintenance, and approach aids to publicly owned, public use airports.

Georgia's aviation system is a major contributor to the Georgia economy. In 2019, the economic impact of Georgia's airports was over \$73.7 billion, supporting more than 450,502 jobs with an annual payroll of \$20.2 billion, and \$196.5 million in direct aviation-related tax revenues to the State.²²

²⁰ Airports Council International Annual World Airport Traffic Report, 2019.

²¹ Federal Aviation Administration Passenger Boarding Data, 2018.

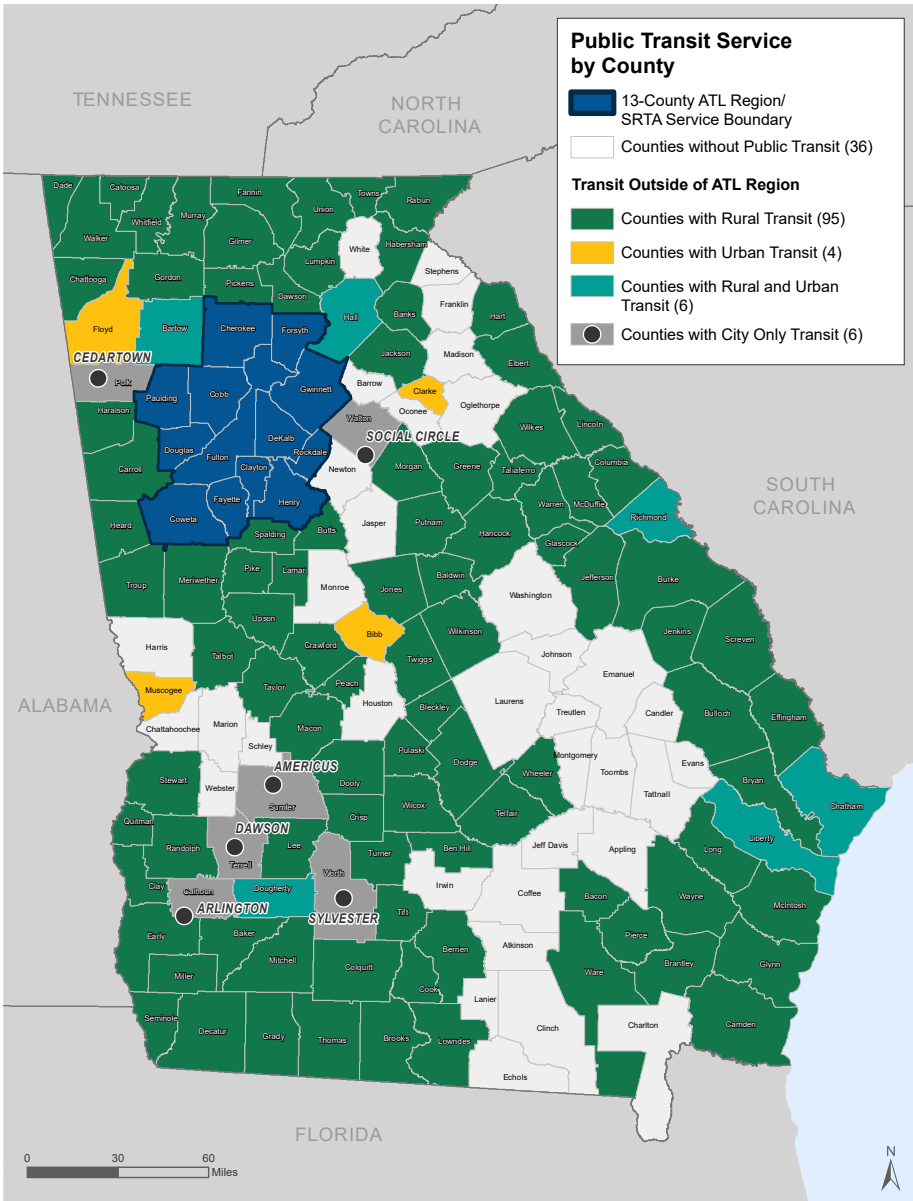
²² GDOT Statewide Airport Economic Impact Study, 2020.



Georgia's Transit and Shared Mobility Systems

Georgia's 17 urban transit systems provided more than 142 million trips in 2017.²³ Urban transit trips were provided mostly via local fixed-route bus, but also using heavy rail (in Metro Atlanta), bus, vanpool, paratransit, streetcar, and ferry vehicles. The Atlanta metropolitan area accounted for almost 92 percent of public transit trips in Georgia, which includes Metropolitan Atlanta Rapid Transit Authority bus and rail transit service, as well as Georgia Regional Transportation Authority Xpress, Cobb County Transit, and Gwinnett County Transit. A total of 80 systems provide demand-response rural transit service. In total, 123 of Georgia's 159 counties are served by some form of public transit. Additional transportation choices include intercity bus services provided by three private providers, 120 park-and-ride facilities, private shuttles, ride hailing, bike sharing, and motorized personal transportation.

GDOT supports transit operations by administering Federal grants and through its Major Mobility Investment Program's Mobility Partnership; GDOT does not directly administer or own any transit systems.

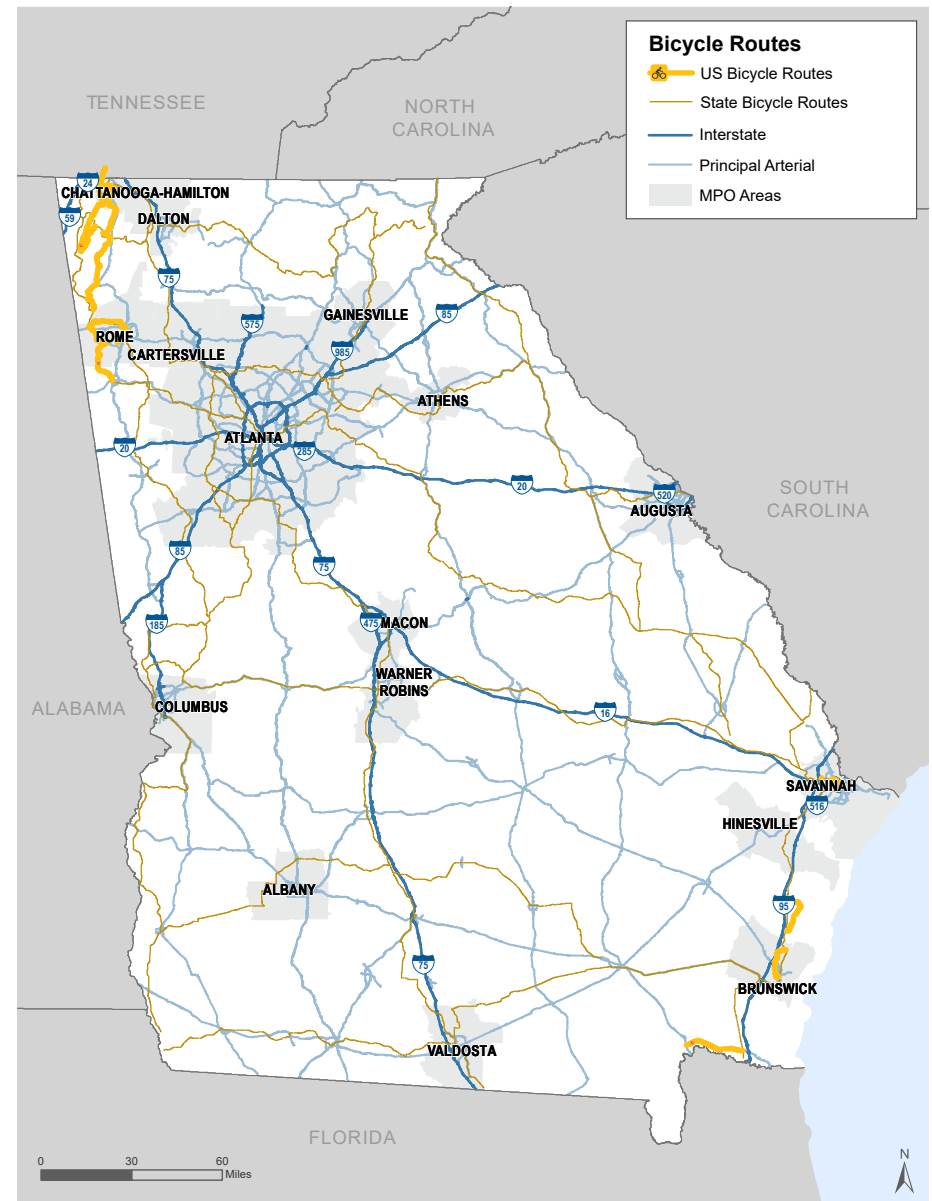


²³ National Transit Database, 2017.

Bicycle and Pedestrian Infrastructure in Georgia

Bicycle and pedestrian infrastructure is expanding in Georgia. GDOT's Complete Streets policy routinely incorporates bicycle, pedestrian, and transit accommodations into transportation infrastructure projects as a means for improving mobility, access, and safety for the traveling public. The State Bicycle Route system includes a network of 14 routes, totaling 2,943 miles that connect all parts of the State. About 70 percent of the network is located on State highway routes. Two U.S. Bicycle Routes (USBR) are part of a separate system in Georgia, with two more under consideration for designation. USBR Routes are designed to connect the entire United States and are designated by the American Association of State Highway and Transportation Officials (AASHTO), the same body that coordinates the numbering of Interstate highways. In addition to the State Bicycle Routes, jurisdictions within Georgia provide numerous local and regional bicycle routes and facilities through programs such as Safe Routes to School and "Walk and Bicycle Friendly Communities."

GDOT supports State bicycle routes and implements Complete Streets policies through new roadway construction and existing roadway maintenance projects. It also partners with local municipalities through the Transportation Alternatives (TA) Set Aside Program, the Livable Communities Initiative (LCI), and other Federal programs.





4

MOBILITY TRENDS, OPPORTUNITIES, AND CHALLENGES

Mobility Trends, Opportunities, and Challenges

To sustain and grow Georgia's competitiveness through leadership in transportation, GDOT seeks to respond to current mobility challenges and to anticipate and position Georgia for future opportunities.

This section documents major mobility trends, opportunities, and challenges, organized into three categories:



» **Statewide freight and logistics**



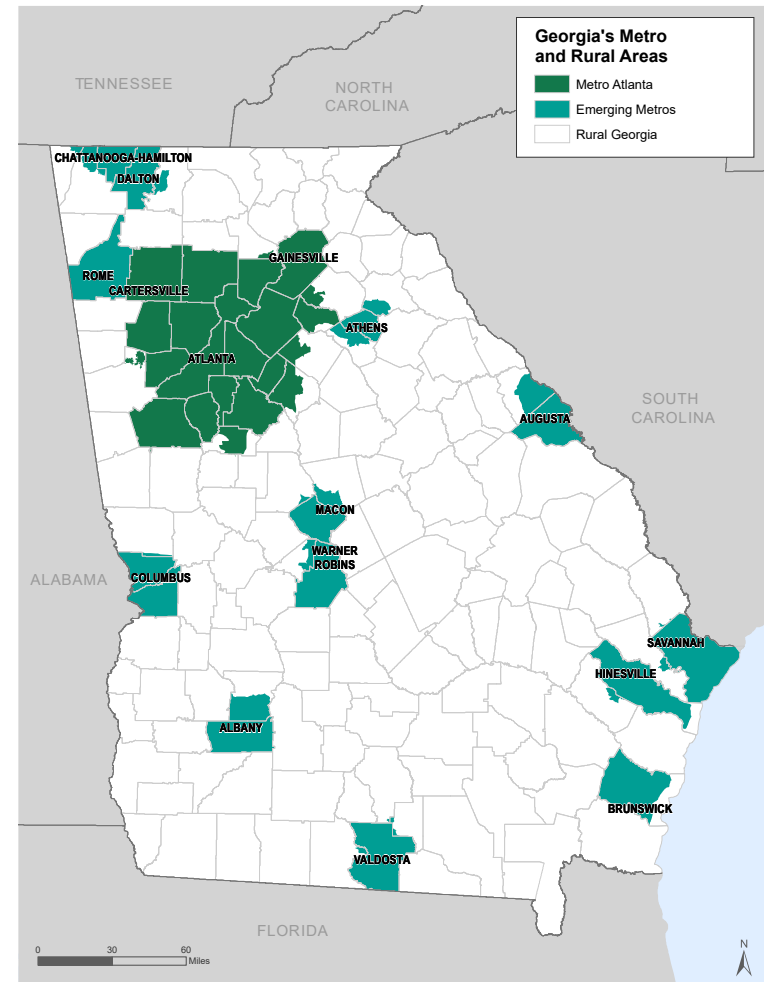
» **People mobility in Metro Atlanta**



» **People mobility in emerging metros and rural areas**

For the purposes of this analysis²⁴:

- » **Metro Atlanta** generally refers to the 22 counties represented by three MPOs: Atlanta Regional Commission, Cartersville-Bartow MPO, and Gainesville-Hall MPO. For certain data points, Metro Atlanta refers to the Atlanta metropolitan statistical area as defined by the U.S. Office of Management and Budget, which includes 29 counties, or to smaller geographic areas reported by other State or regional partners, such as the Georgia Department of Economic Development's 10-county region.
- » **Emerging metros** refer to the areas covered by 13 additional Metropolitan Planning Organizations (MPO): Albany, Athens-Clarke County, Augusta, Brunswick, Chattanooga-Hamilton County, Coastal Region (Savannah), Columbus-Phenix City, Dalton, Hinesville, Macon-Bibb County, Rome/Floyd, Valdosta-Lowndes, and Warner-Robins.
- » **Rural Georgia** refers to areas outside designated MPOs, including smaller urban areas that do not meet the threshold for Federal designation as an MPO planning area as well as nonmetropolitan or rural counties.

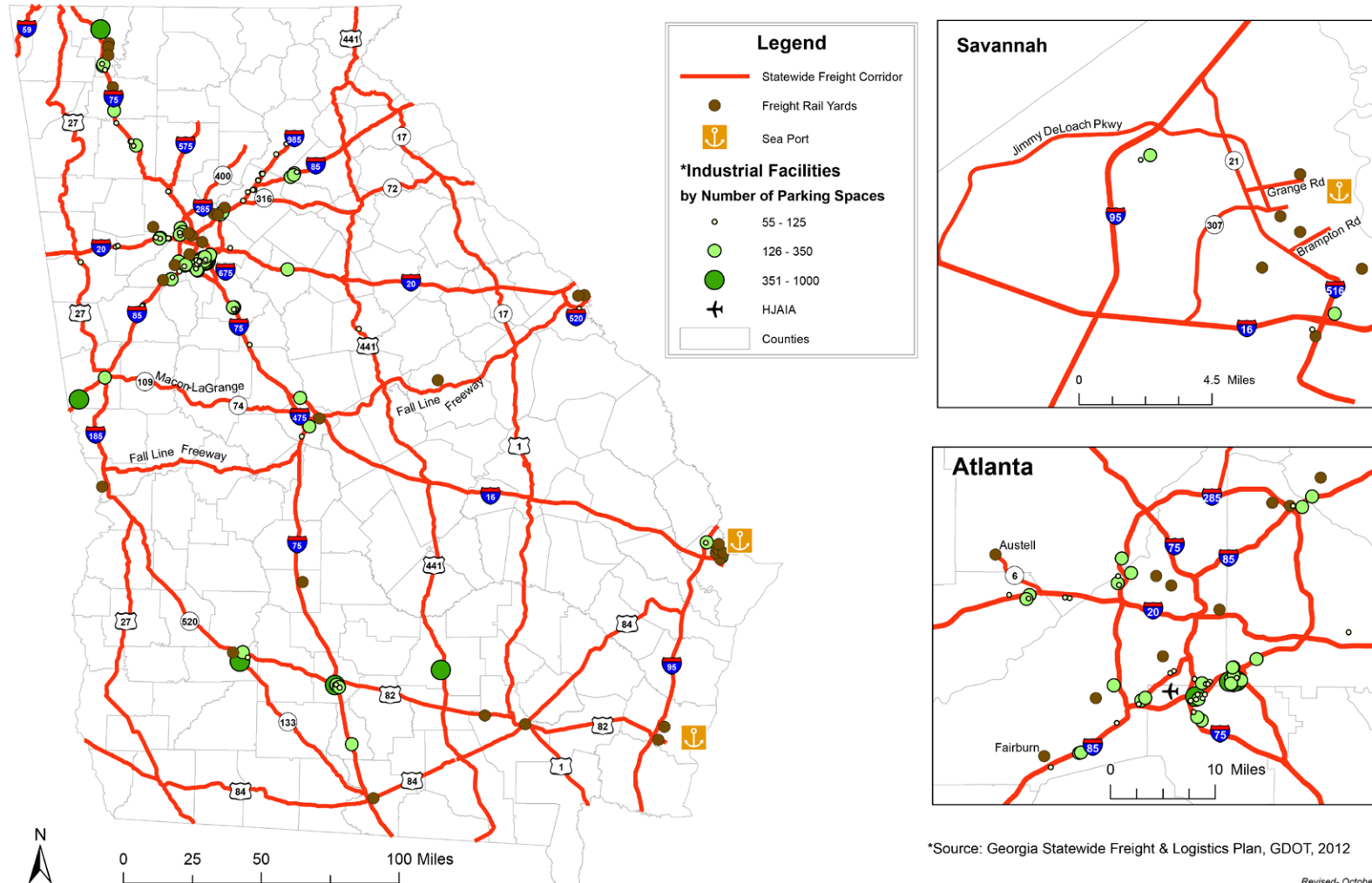


²⁴ The map shows metropolitan planning areas for Georgia's 16 MPOs. Because many data sources are organized at a county level, in most cases the analysis in this section uses the groups of counties that most closely approximate the metropolitan planning areas.

Statewide Freight and Logistics

Georgia's multimodal transportation system includes an extensive network of facilities important for moving freight. This includes 128,300 miles of highways, 3,288 miles of Class 1 rail and 1,012 miles of Class 3 rail, two deepwater ports, two inland ports affiliated with the Georgia Ports Authority (GPA) (and a third in early planning), and nine commercial service airports.

Georgia's Statewide Designated Freight Corridors



*Source: Georgia Statewide Freight & Logistics Plan, GDOT, 2012

Revised- October, 2016

Georgia's highway system is the backbone of its multimodal freight network.

By both tonnage and value, more than 70 percent of the freight moved into, out of, and within Georgia is shipped via truck. Rail accounts for the next highest share by both tonnage and value – 12 percent and 11 percent, respectively. Pipelines, air, water, and intermodal shipments make up the remainder.²⁵

Freight is a significant part of transportation demand. A total of 597 million tons of goods valued at \$875 billion moved into, out of, and within Georgia in 2018.²⁶ Freight tonnage is projected to increase 48 percent to 885 million tons by 2045, while the value of goods will more than double to \$1.8 trillion.

Freight transportation is critical to Georgia's economy. The freight and logistics industry accounted for more than 181,000 jobs in 15,000 businesses statewide in 2018. Including the multiplier impacts of the direct jobs, freight and logistics accounted for more than 362,000 jobs statewide (one in every 14 jobs) and \$33.5 billion in gross domestic product.²⁷ Industries that rely on efficient freight movement, such as agriculture, forest products, mining, manufacturing, and retail, accounted for more than 2 million jobs statewide.²⁸

The freight and logistics industry accounted for more than
181,000 jobs in
15,000 businesses
 statewide in **2018.**

Source: Georgia Center of Innovation for Logistics and Selig Center for Economic Growth, Terry College of Business, University of Georgia.

The Georgia Department of Economic Development announced a total of 350 projects creating \$7.4 billion in investment in fiscal year 2020. Logistics-enabled industries accounted for 84 percent of this investment, including:

- » **Manufacturing and automotive:** \$4.5 billion by 199 companies, creating more than 9,100 jobs
- » **Logistics and distribution:** \$1.2 billion by 43 companies, creating more than 5,700 jobs
- » **Agribusiness and food processing:** \$452 million by 35 companies, creating more than 1,600 jobs

²⁵ Federal Highway Administration (FHWA) Freight Analysis Framework version 4.5.1, released on December 17, 2019. 2018 estimate based on 2012 baseline. This does not include freight that passes through Georgia between other states.

²⁶ FHWA FAF 4.51.

²⁷ Georgia Center of Innovation for Logistics and Selig Center for Economic Growth, Terry College of Business, University of Georgia, In Motion: A Study of Georgia's Logistics Industry in 2018, June 2019. <https://www.georgia.org/georgia-centers-of-innovation/logistics/motion-logistics-economic-impact-study>.

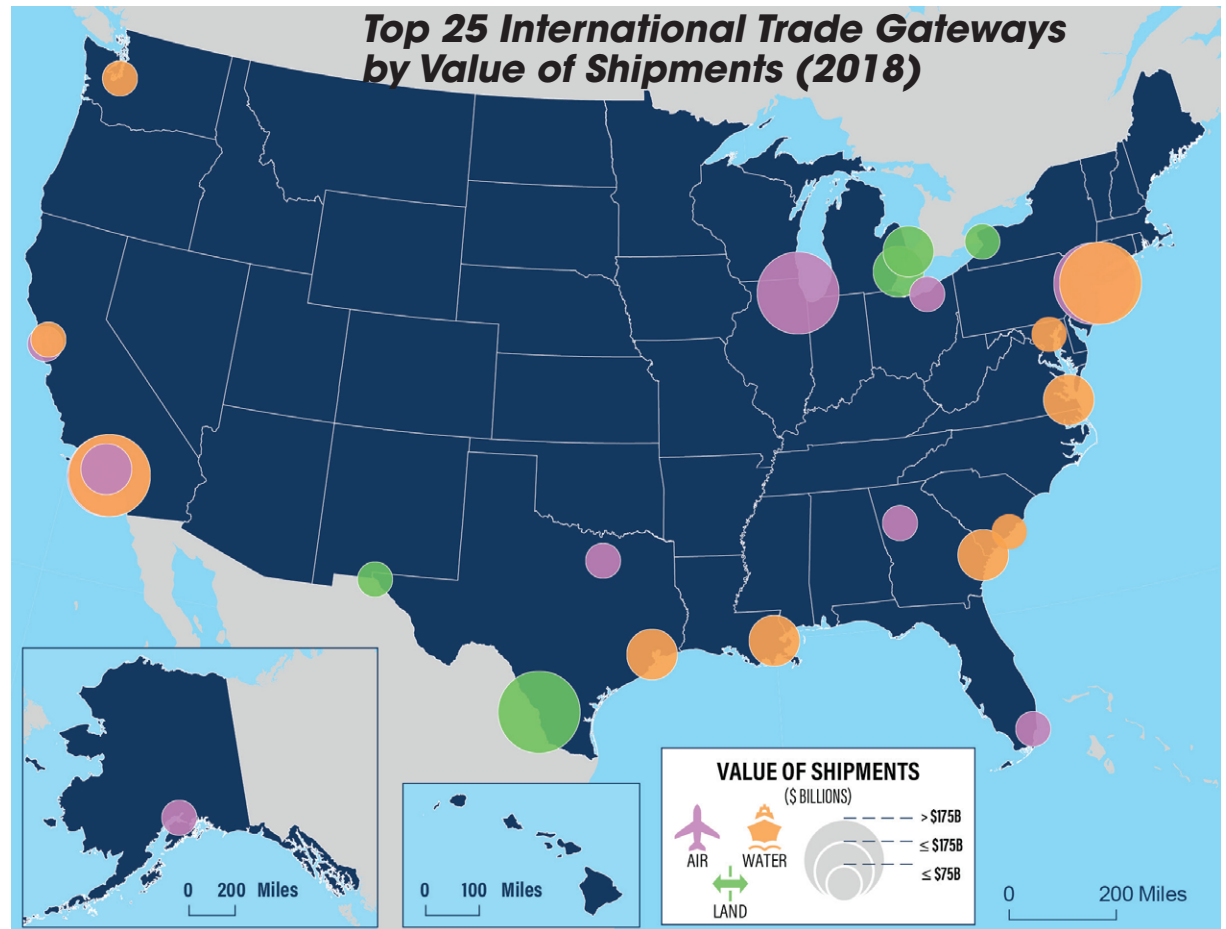
²⁸ U.S. Bureau of Economic Analysis, SAEMP25N Data Series, Updated September 24, 2020.

Georgia is a global hub for international trade. Georgia includes two of the nation's 25 largest gateways for global trade, measured by value of shipments.

The Port of Savannah is the third busiest gateway for global sea trade in the United States and the largest gateway for agricultural exports. The Ports of Savannah and Brunswick together make Georgia the second busiest in the nation for roll-on/roll-off trade. Brunswick is a major American gateway for automobiles.²⁹ The ports account for more than 98 percent of Georgia's merchandise imports and exports by tonnage.



Source: Georgia Ports Authority.



Source: U.S. DOT, National Freight Strategic Plan.

Georgia's airports account for a lesser share of total U.S. trade flows by tonnage but represent 34 percent of exports and 24 percent of imports by value.³⁰ In 2019, Hartsfield-Jackson Atlanta International Airport was the 13th busiest airport in the nation for all-cargo operations.³¹

²⁹ <https://gaports.com/cargo/ro-ro/> .

³⁰ FHWA FAF version 4.5.1.

³¹ www.faa.gov/airports/planning_capacity/passenger_allcargo_stats/passenger/media/cy19-cargo-airports.pdf.

What's Changing

The U.S. Department of Transportation's *National Strategic Freight Plan* documented major economic, demographic, and technological trends driving changes in supply and demand and use of the United States' multimodal transportation system. All of these trends are evident in Georgia.



The population and economy are growing.

The population and economy of Georgia and the United States are growing steadily, contributing to increased demand for moving freight. Georgia's population is expected to increase nearly 30 percent to 13.8 million by 2050, with some forecasts projecting Georgia could become with the 5th most populous state by 2040.³² Georgia's gross domestic product increased 3.8 percent annually between 2000 and 2019.³³

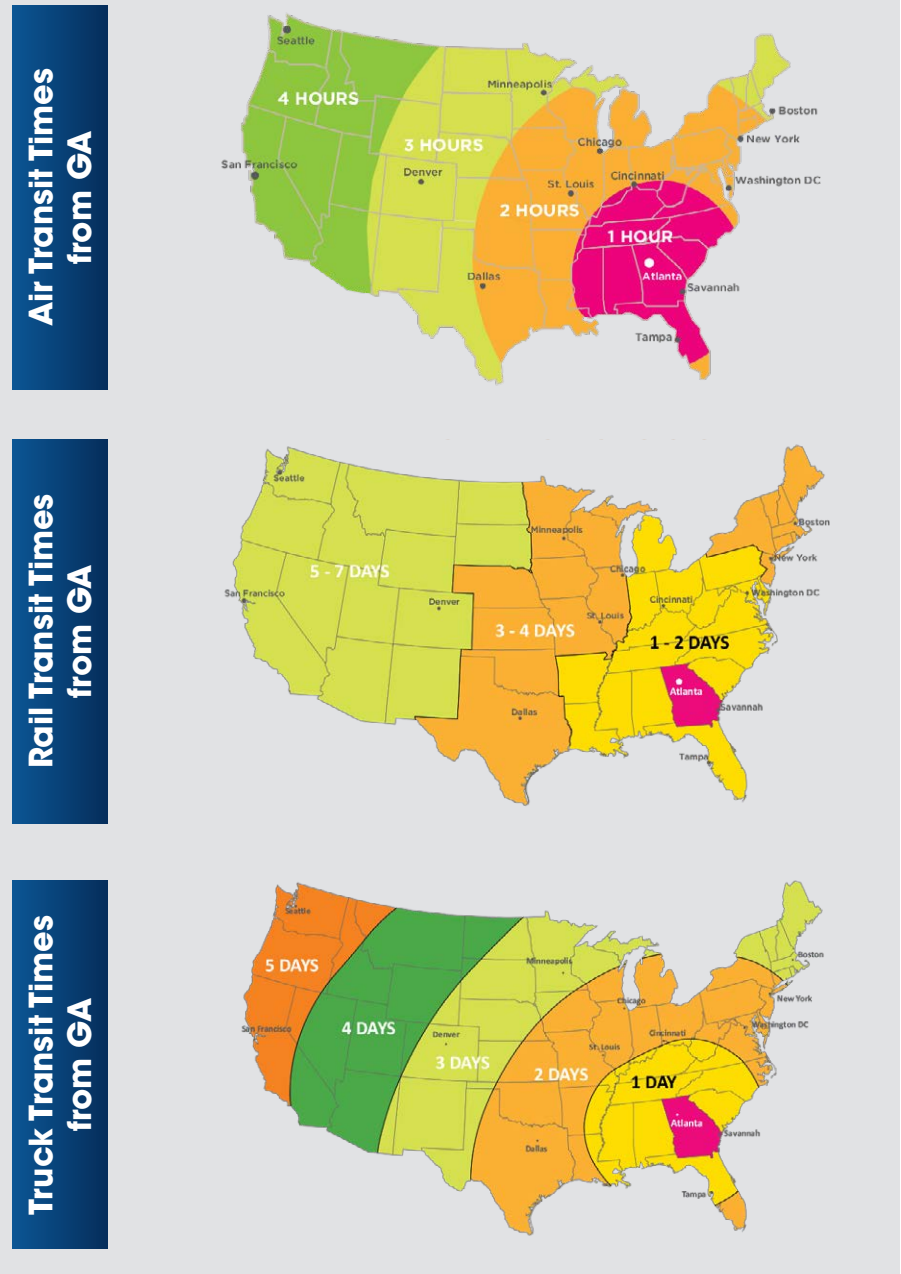
U.S. population growth is shifting to the south and west, with the Southern states from Texas through Florida and Georgia to Virginia anticipated to account for more than half of new residents by 2040.³⁴ Georgia is strategically located to take advantage of this growth, with 80 percent of the U.S. population located within a two-day drive or two-hour flight.³⁵

³² Governor's Office of Planning and Budget, 2019: <https://census.georgia.gov/census-data/population-projections>, University of Virginia Weldon Cooper Center, Demographics Research Group. (2018). National Population Projections. Retrieved from <https://demographics.coopercenter.org/national-population-projections>.

³³ U.S. Bureau of Economic Analysis, Gross Domestic Product by State, 2000 – 2019.

³⁴ University of Virginia Weldon Cooper Center, Demographics Research Group. (2018). National Population Projections. Retrieved from <https://demographics.coopercenter.org/national-population-projections>.

³⁵ <https://www.georgia.org/travel-access> and <https://www.inboundlogistics.com/cms/article/georgia-super-hub-of-the-southeast/>.



Source: Georgia Department of Economic Development .



Global supply chains are diversifying. International trade is growing, and supply chains are becoming increasingly global. Shifts in trade lanes and trading partners create opportunities for Southeast U.S. gateways. Greater shares of containerized imports are flowing into East Coast ports, especially considering the widening of the Panama Canal and the shift in lower-cost production sites from East and Southeast Asia to South Asia and Africa. Between fiscal years 2016 and 2020, containerized trade at the Port of Savannah increased 23 percent.³⁶ Savannah is the only port on the eastern seaboard with two Class I railroads on terminal, and its rail capacity will double with the new Mason Mega Rail Yard to two million container lifts per year.

In addition, the desire for greater transparency and control over supply chains has led some businesses in recent years to “re-shore” production to the United States or “near-shore” production to locations in Canada and Mexico. This changing landscape provides an opportunity for Georgia ports to continue to increase market share, while GPA-affiliated rail-intermodal “inland ports” and distribution centers handle increased trade volumes and attract manufacturing facilities.

³⁶ <https://gaports.com/wp-content/uploads/2020/08/FY20-Annual-Container-Trade.pdf>.

Urban and rural development and industry patterns are changing.

Furthering a long-term trend, the U.S. population is concentrating in metropolitan areas, where congestion can create challenges for both through traffic and “last-mile” goods delivery. This shift is evident in Georgia as well. Five out of six Georgians now live in urban areas.³⁷ These residents rely on rural resources and infrastructure to sustain their urban lives and economies. To do so, rural transportation systems must be safe and efficient for carrying critical long-distance freight between metro areas as well as commodities sourced from rural production and distribution sites, including agricultural, forestry, mining, and manufacturing facilities.

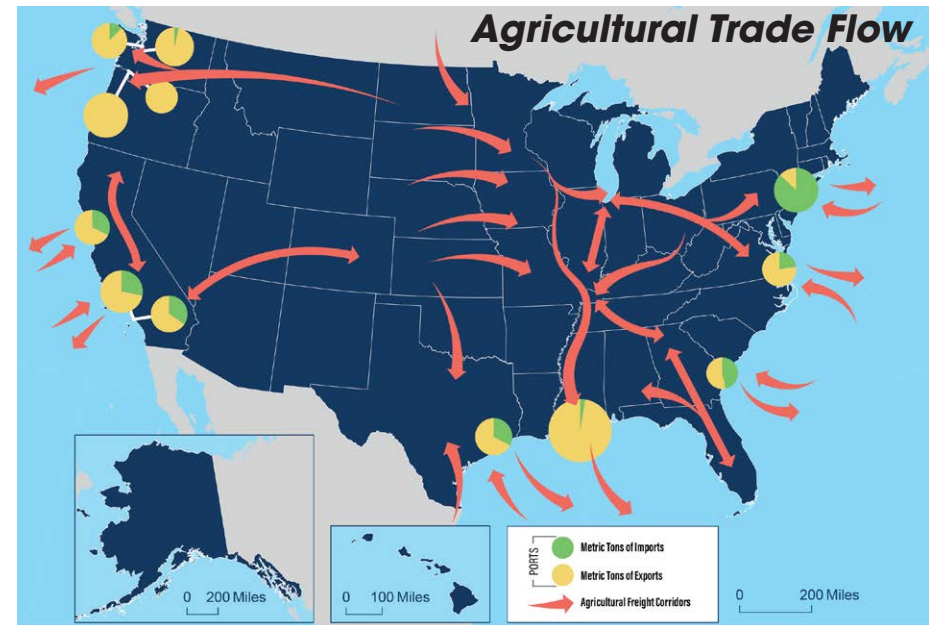
In particular, Georgia is a major producer of poultry, fruits, and vegetables. The transportation connectivity between farms, processing facilities, major highways, rail intermodal terminals, and specialized port facilities moves these products to market. The U.S. Department of Agriculture identified the I-75, I-85, and I-95 corridors in Georgia as part of a system of High-Volume Domestic Agricultural Highways based on existing commodity flow, and highlighted how connectivity and reliability issues on these corridors can impact agriculture and related industries.³⁸ Georgia’s manufacturing and distribution sectors also have significant operations in rural areas, and experience similar connectivity and reliability impacts (further discussion below). Significant volumes of freight flow on rural corridors between urban regions in Georgia and other states.

More than half of all truck trips in Georgia pass through a rural area at some point of their journey.

Source: Georgia Statewide Travel Demand Model; calculations by Cambridge Systematics, Inc.

³⁷ U.S. Census, 2019 Population Estimates.

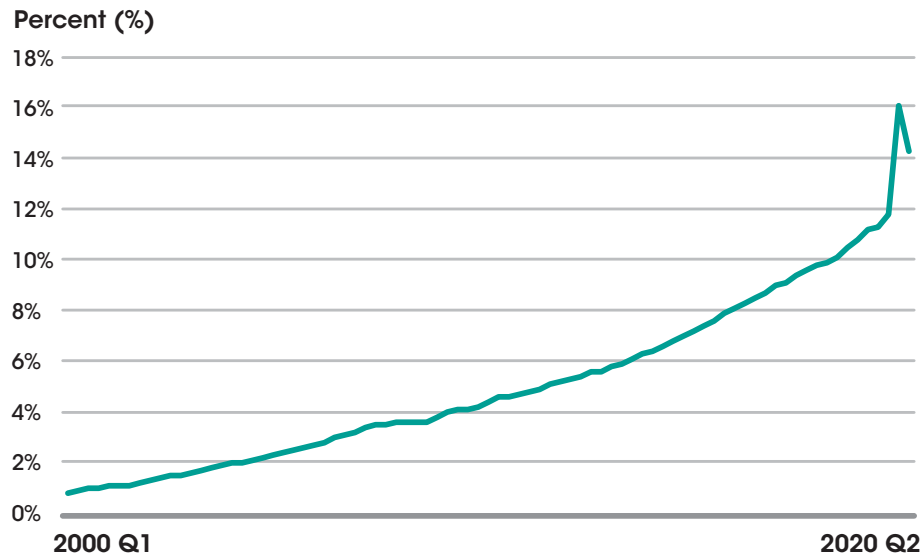
³⁸ U.S. Department of Agriculture, The Importance of Highways to U.S. Agriculture, December 2020.



Source: https://www.transportation.gov/sites/dot.gov/files/2020-09/NFSP_fullplan_508_0.pdf.

E-commerce is surging and reshaping delivery networks. Online shopping is rapidly growing, increasing demand for faster and cheaper delivery of goods directly to consumers. U.S. retail e-commerce sales totaled \$209.5 billion in the third quarter of 2020, 37 percent higher than the third quarter of 2019. E-commerce retail sales have increased 18 percent annually since 2000.³⁹

E-commerce as a Percent of Total Retail Sales



Source: U.S. Census Bureau, Retail Indicators Branch.

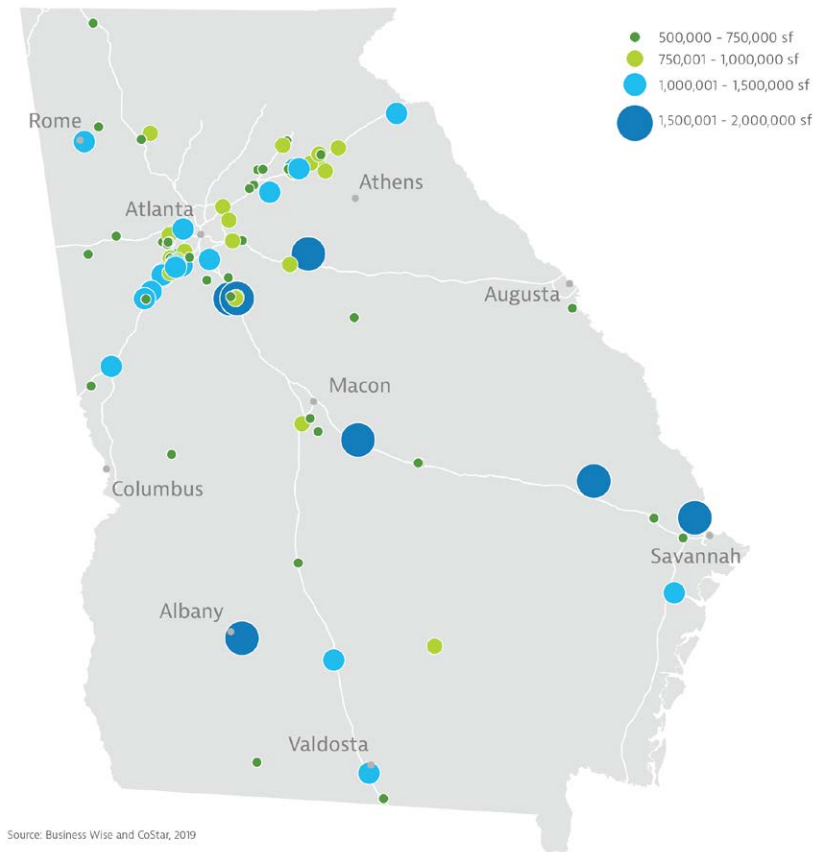
Many companies are locating smaller fulfillment centers in Metro Atlanta locations such as the South Fulton Parkway and Fulton Industrial Boulevard areas to serve same-day and next-day deliveries, while building larger distribution centers in rural areas where land is usually less expensive. This approach separates large distribution centers from residential neighborhoods and other places with urban amenities but generates additional truck trips between large and small centers as well as into residential neighborhoods and commercial centers. The “last mile” delivery trip between the distribution center and final customer averages 7.2 miles per trip in Metro Atlanta.⁴⁰

³⁹ U.S. Census Bureau, Retail Indicators Branch.

⁴⁰ CBRE analysis, 8-23-2017.

Changing development patterns and truck flows may require more capacity on corridors that previously had not carried significant freight volumes or new safe and efficient connections to other nearby freight corridors and facilities. In addition, the increased frequency of deliveries by small trucks can increase competition for curb and delivery zone space in city and town centers, as well as demand for truck parking and staging areas on the urban edge. The shortage in truck parking for both overnight and short-term staging in Metro Atlanta will worsen with increased truck traffic.⁴¹

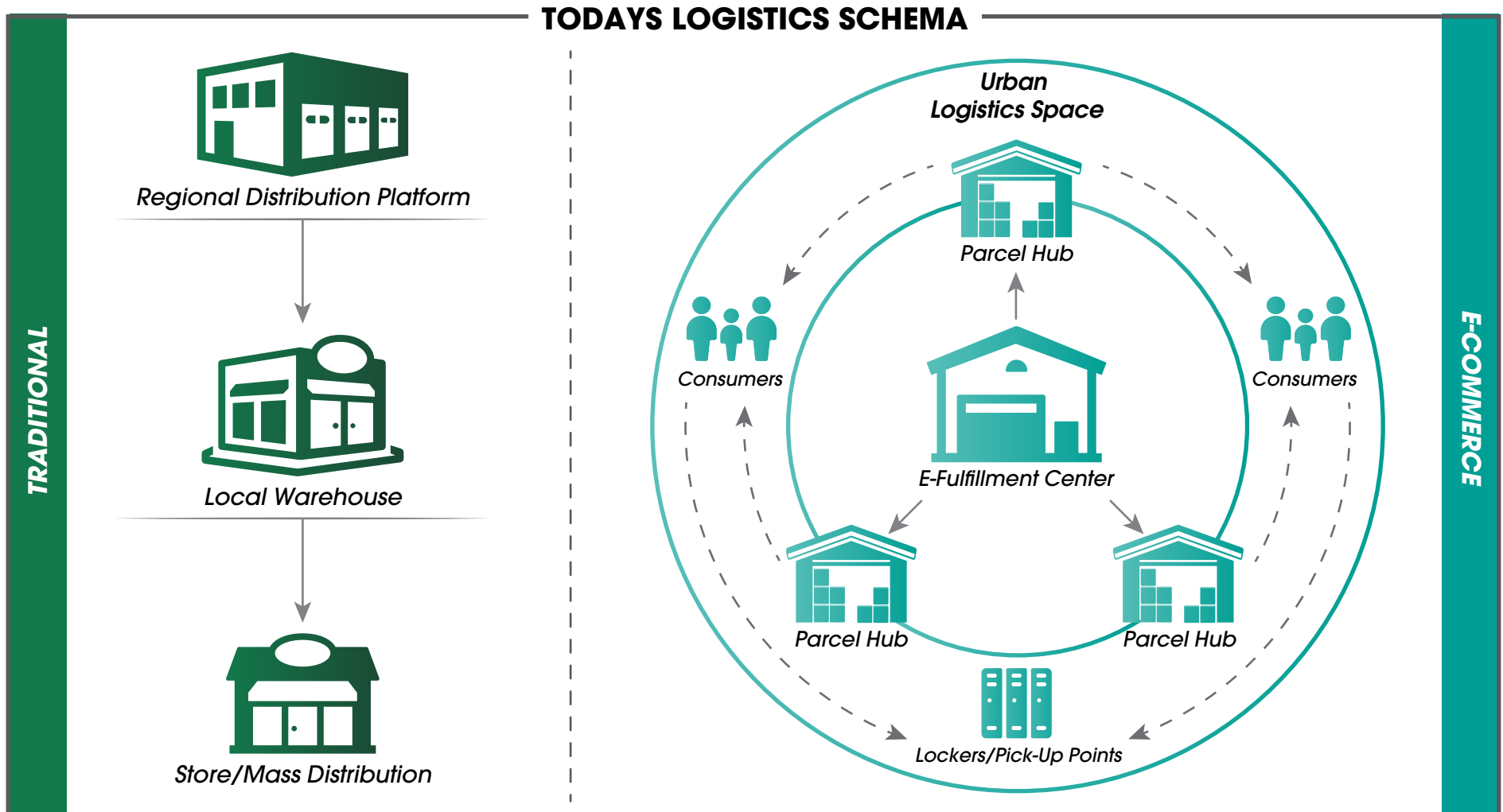
Major Distribution Centers in Georgia



Source: Business Wise and CoStar, 2019

⁴¹ Atlanta Regional Commission, Truck Parking Assessment Study, April 2018.

Technology is advancing. Increasingly complex supply chains put a premium on efficiency and reliability, supported by data and technology-based applications. Emerging technologies from supply chain digitalization to unmanned delivery drones to the Internet of Things are transforming the freight industry, disrupting traditional business models, and transforming the nature of freight movement. Smart transportation systems deployed in trucks allow critical safety, performance, and roadway condition information to be delivered to drivers in-cab. Improved vehicle detection technologies enable other operational enhancements, such as signal priority for large trucks on key corridors. Initiatives such as the I-75 Commercial Vehicle Lanes (CVL) allow Georgia to be at the forefront of freight applications of vehicle-to-infrastructure (V2I) and connected and autonomous vehicle (CAV) technology.



Source: Based on cbre.us 7-2017.

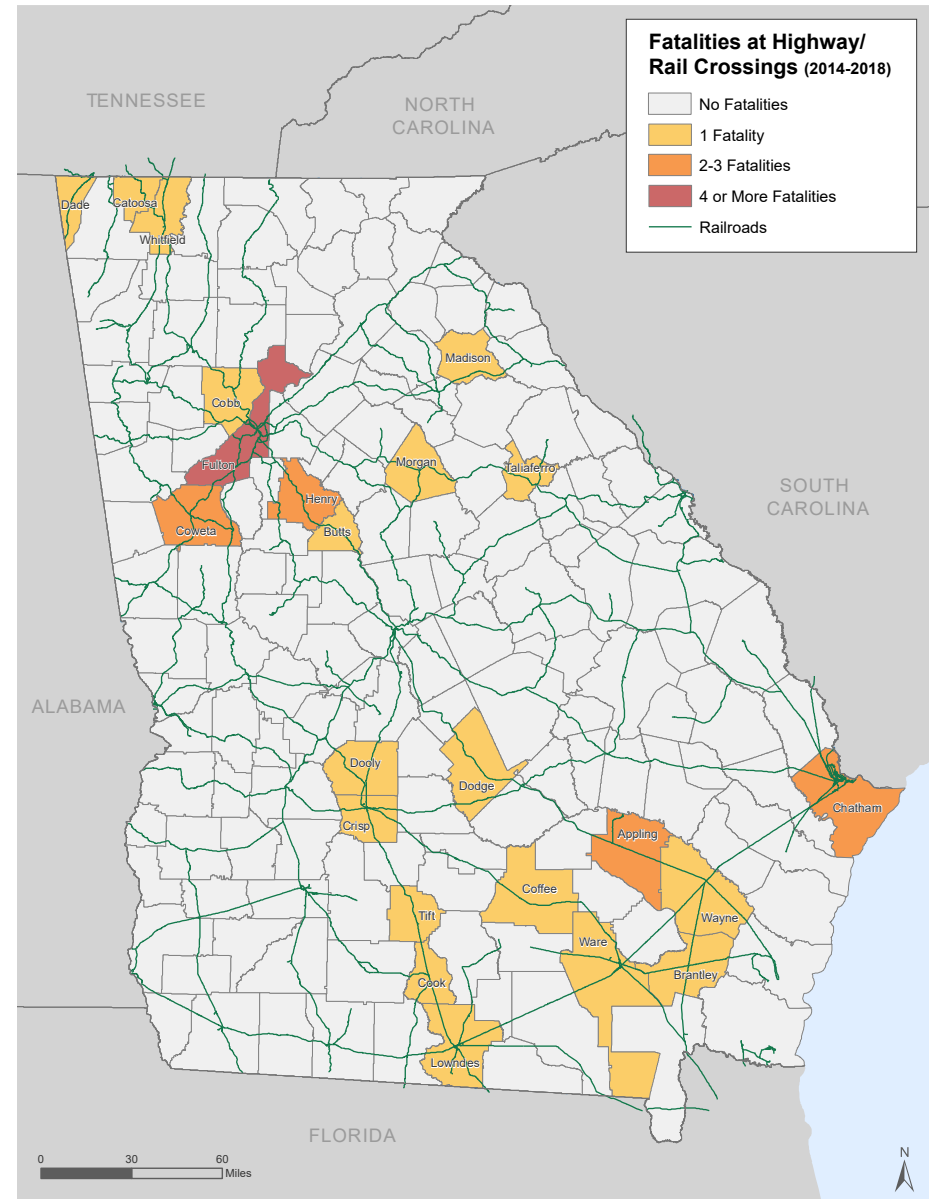
Challenges Facing Statewide Freight and Logistics

Commercial vehicle and rail safety remain a concern. A total of 174 fatal crashes involving large trucks occurred in Georgia in 2018, down slightly from previous years.⁴² A continued focus on commercial vehicle safety is important as both freight and person travel grow. At the same time, more frequent and longer trains may translate to increased delay and greater potential for crashes at highway/rail crossings. Additionally, more than one-third of fatalities at road-rail grade crossings nationally occur in rural areas.⁴³

Increased truck traffic could degrade the condition of Georgia’s pavements, bridges, and rail infrastructure. The potential of these critical facilities to deteriorate at a quicker pace applies not only to Interstate highways and other heavily traveled truck corridors, but also to regional and local roads in both rural and urban areas that are handling more trucks than in the past.

Georgia has more than 1,500 posted bridges that restrict the weight of the vehicles allowed to pass.⁴⁴ Posted bridges with small weight limits—especially those providing the only connection to employers or activity centers, as well as on farm-to-market routes—can limit connectivity and mobility. Weight-posted bridges require detours that are nearly 35 percent longer on average in rural areas than posted bridges in Metro Atlanta.⁴⁵

In addition, GDOT-owned short line rail corridors require regular maintenance to rehabilitate tracks and bridges, replace rail and ties, or upgrade infrastructure to accommodate industry standard 286,000-pound rail cars, according to the Georgia State Rail Plan.



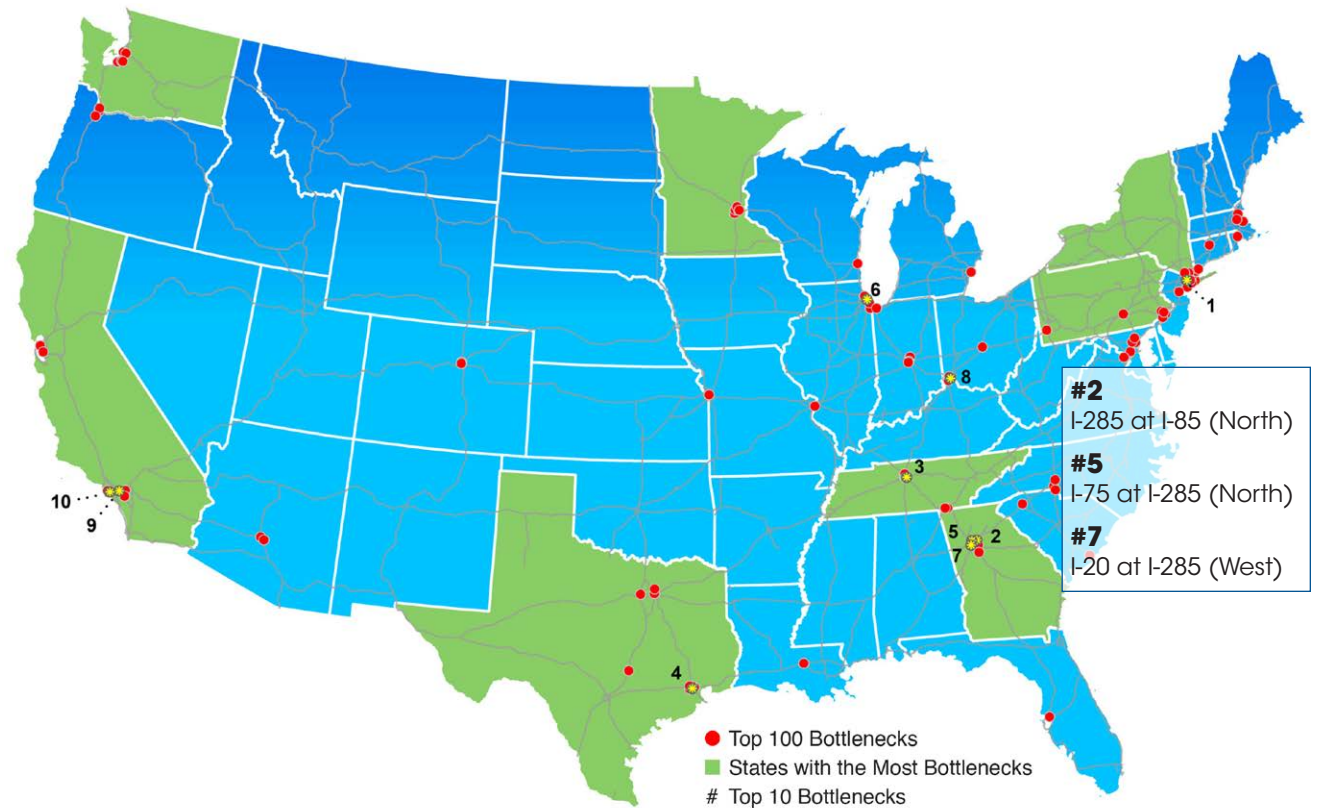
Source: Statewide Rail Plan 2020.

⁴² Federal Motor Carrier Safety Administration, Large Truck and Bus Crash Facts 2018.
⁴³ <https://www.transportation.gov/rural/rural-transportation-statistics>.
⁴⁴ Federal Highway Administration, National Bridge Inventory, 2019.
⁴⁵ National Bridge Inventory, 2019, Federal Highway Administration, calculated by Cambridge Systematics.

Increased freight demand will increase congestion.

Atlanta is one of the nation's most significant inland distribution hubs, serving markets throughout Georgia and the Eastern United States. Based on historic data from the American Transportation Research Institute, three of the nation's top 10 freight bottlenecks are in the Metro Atlanta region.⁴⁶ Other data sources for evaluating the existence and ranking of bottlenecks have similar findings. The coming years are projected to bring growing freight volumes that will contribute to higher levels of congestion throughout Georgia, with pressure on these large bottlenecks as well as less prominent but also crucial last-mile operational pinch points throughout Georgia's system. Truck delay is closely correlated with peak period commuter traffic, and truck movements often are much more reliable during off peak periods. The reliability of travel time for trucks on Georgia's Interstate system declined slightly between 2016 and 2019 but remains within the State's targeted performance metrics. Investments like the expansion of the Georgia Express Lanes Network and the reconstruction of the I-285/I-20 West interchange will help alleviate these truck bottlenecks and improve mobility for all roadway users.

Top Truck Bottlenecks



Source: https://truckingresearch.org/wp-content/uploads/2020/08/ATRI_Bottlenecks2020_Brochure.pdf.

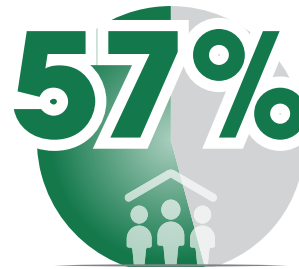
Connectivity remains essential. The capacity and efficiency of intermodal connections between major freight corridors and seaports, air cargo facilities, and intermodal rail terminals/“inland ports” is critical to Georgia's competitiveness in handling international and domestic trade flows. First/last mile connectivity also is important to distribution centers and manufacturing facilities, which often locate on the fringe of existing urban areas or in rural areas close to major transportation corridors, such as at pre-certified sites as part of the Georgia Ready for Accelerated Development (GRAD) site program.

⁴⁶ https://truckingresearch.org/wp-content/uploads/2020/08/ATRI_Bottlenecks2020_Brochure.pdf.

People Mobility in Metro Atlanta

The prosperity of Metro Atlanta is important to the entire State. The Atlanta metro region represents 57 percent of Georgia’s population but produces 61 percent of its workers and 66 percent of its gross domestic product (GDP). People travel from nearby rural areas and emerging metros to work, learn, shop, receive health care and other services, and access transportation facilities in Atlanta. Site selectors look for opportunities within a day’s drive of Atlanta, and distributors are locating small hubs to better serve Metro Atlanta. These economic development opportunities mean job opportunities for workers in Metro Atlanta and in surrounding regions. Atlanta’s success depends on efficient access to workers living in and freight produced in or moving through rural Georgia, and Atlanta’s prosperity creates opportunities for the entire State.

METRO ATLANTA ACCOUNTS FOR...



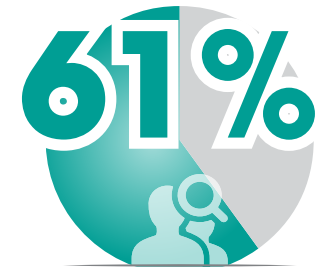
**OF GEORGIA'S
POPULATION**

Source: American Community Survey 5-year Estimates, 2019



**OF GEORGIA'S
GROSS DOMESTIC PRODUCT**

Source: <https://fred.stlouisfed.org/>



**OF GEORGIA'S
EMPLOYEES**

Source: American Community Survey 5-year Estimates, 2019

Atlanta is a regional and national business center. Atlanta is the ninth largest metro area in the United States and home to 16 Fortune 500 and 30 Fortune 1000 companies, making it a critical component of the national and southeastern economy.⁴⁷ Its robust transportation system draws major events such as the 1996 International Olympic Games, three Super Bowls, championship college games, major soccer league matches, and other sporting events. The Georgia World Congress Center is the fourth largest in the nation.⁴⁸ Atlanta is home to 78 consulates and trade offices and 57 colleges or universities.⁴⁹

Atlanta is a globally recognized metropolitan area. As a global hub for commerce, logistics, and finance, Atlanta draws business and recreational travelers alike, making its airport the busiest in the world. As Delta Airline’s headquarters, Hartsfield-Jackson Atlanta International Airport is a national and international gateway for transfers, as well as origins and destinations. In fact, Atlanta accounts for nearly half of Georgia’s annual tourism travel.⁵⁰

ATLANTA IS HOME TO...



Source: <https://metroatlantachamber.com/economic-development/international-trade>



Source: <https://cnn.com/travel/article/worlds-busiest-airports-2019-coronavirus>



Source: <https://metroatlantachamber.com/resources/most-popular/fortune-500-fortune-1000-in-metro-atlanta>

⁴⁷ <https://www.metroatlantachamber.com/resources/most-popular/fortune-500-fortune-1000-in-metro-atlanta>.

⁴⁸ <https://www.atlantadowntown.com/go/georgia-world-congress-center>.

⁴⁹ <https://www.metroatlantachamber.com/economic-development/international-trade>, <https://www.georgia.org/regions/metro-atlanta-georgia>.

⁵⁰ Georgia Department of Economic Development, 2017 Note the GDEcD Metro Atlanta region is smaller than the MSA or ARC planning area. It includes about 10 counties with 2.5 residents (<https://www.georgia.org/regions>) compared to 5.7 million in the ARC planning area and 6 million in the MSA.

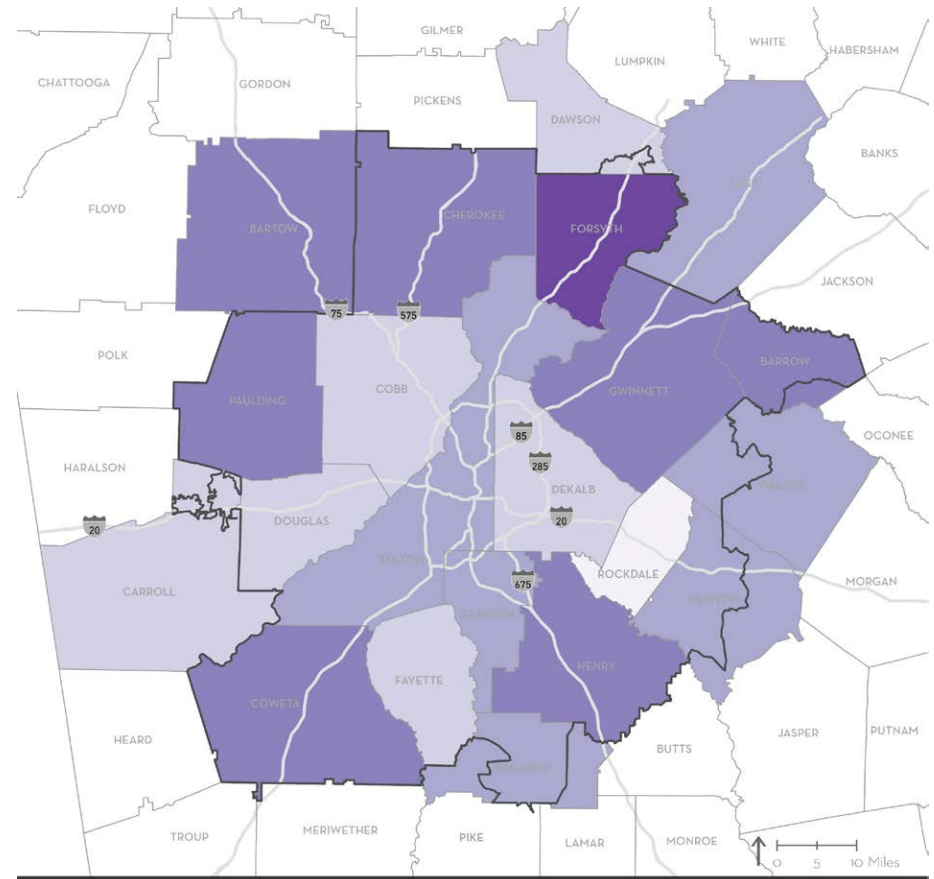
What's Changing

Population and employment growth are expanding the footprint of Metro Atlanta. A global trend of expanding urbanized areas continues in Atlanta. The growth of the urbanized area expanded in at least the last five Censuses. This trend is likely to continue as Metro Atlanta's employment and population continue to grow.⁵¹ The Atlanta Regional Commission (ARC) forecasts Metro Atlanta will add 2.4 million people by 2050, bringing the region's population from 6.2 million in 2020 to 8.6 million in 2050.⁵²

Atlanta's employment is changing. Employment is expected to grow 23 percent between 2020 and 2050, adding 900,000 jobs. Nearly a fifth will be in health care and social assistance, a sector projected to grow nearly 74 percent. Construction will grow nearly 70 percent, reflecting the need to satisfy the demands of a growing and aging population. Retail trade; professional, scientific, and technical services; and administrative and waste management services each will experience significant growth as well. Utilities and manufacturing are both likely to lose net jobs, although productivity growth will enable manufacturers to produce more output with a smaller workforce.⁵³ Employment growth will be concentrated in the region's core—Cobb, DeKalb, Fulton, and Gwinnett counties.⁵⁴

Businesses around the world move to Atlanta because of its transportation network and access to global and regional markets.

Projected Population Change by County, 2015-2050



MAP 2: POPULATION CHANGE BY COUNTY



Source: <https://documents.atlantaregional.com/The-Atlanta-Region-s-Plan/rtp2050/2050-rtp-main-doc.pdf>, U.S. Census 1950-2010.

⁵¹ <https://documents.atlantaregional.com/The-Atlanta-Region-s-Plan/rtp2050/2050-rtp-main-doc.pdf>.

⁵² <https://atlantaregional.org/atlanta-region/population-employment-forecasts/>.

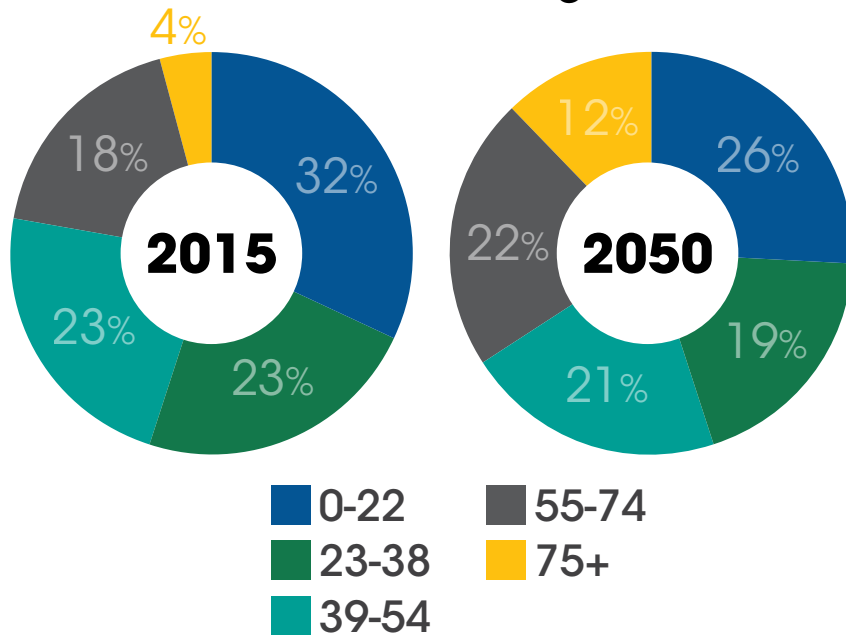
⁵³ <https://documents.atlantaregional.com/The-Atlanta-Region-s-Plan/rtp2050/2050-rtp-main-doc.pdf>.

⁵⁴ <https://atlantaregional.org/atlanta-region/population-employment-forecasts/>.

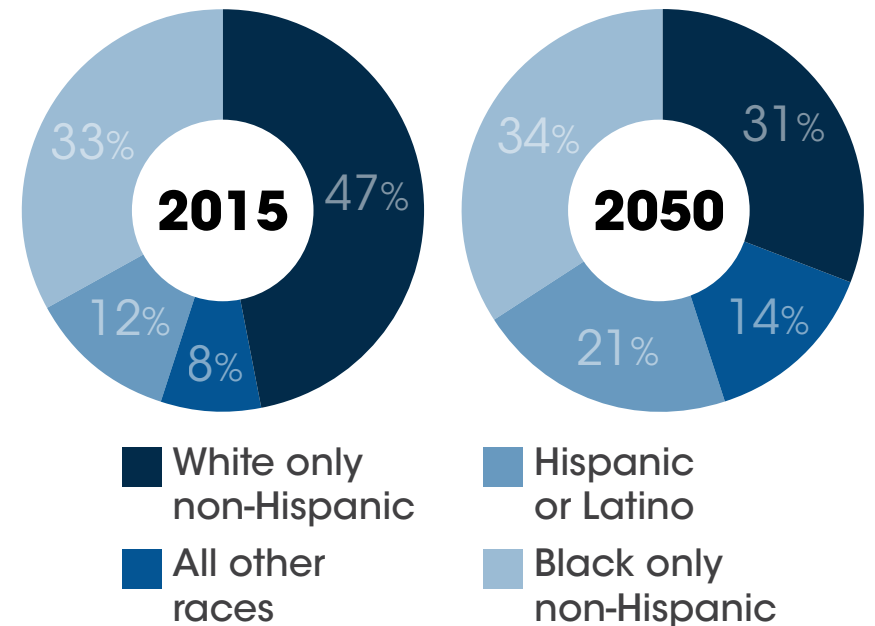
Atlanta’s population is aging and becoming more diverse. The share of residents over the age of 55 is expected to increase from 22 percent in 2015 to 34 percent by 2050, and the share over the age of 75 will triple to 12 percent during that period.⁵⁵ Aging residents often prefer or require specialized mobility options including eventually transitioning away from driving.

Atlanta’s status as a global city is contributing a more diverse population and workforce, which often means a more diverse set of transportation preferences. The share of the region’s population that is White non-Hispanic is projected to decrease from 47 percent to 31 percent by 2050.⁵⁶ About 10 percent of Metro Atlanta’s population has one or more disabilities, and 7.6 percent have limited English proficiency (LEP).⁵⁷ GDOT will help put Georgians first by considering access to transportation for persons with disabilities, signage and access to services for people with LEP, and similar specialized needs in planning future investments.

Current and Projected Age in the Atlanta Region



Current and Projected Race & Ethnicity in the Atlanta Region

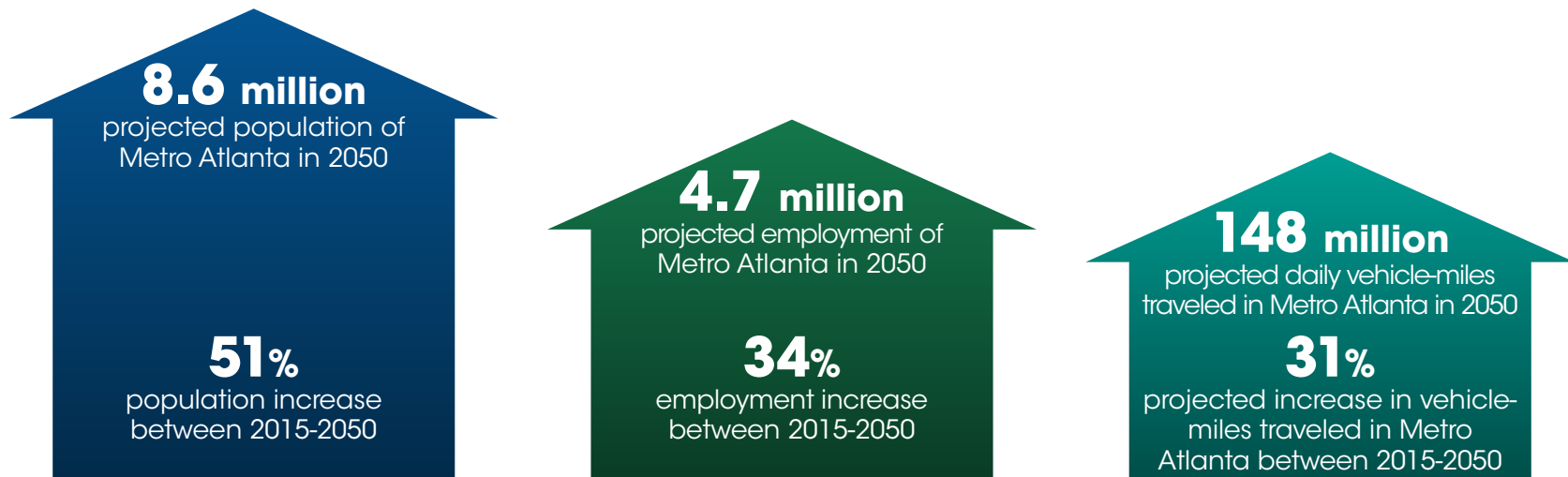


Source: <https://documents.atlantaregional.com/The-Atlanta-Region-s-Plan/rp2050/2050-rtp-main-doc.pdf>.

⁵⁵ <https://documents.atlantaregional.com/The-Atlanta-Region-s-Plan/rp2050/2050-rtp-main-doc.pdf>.

⁵⁶ <https://documents.atlantaregional.com/The-Atlanta-Region-s-Plan/rp2050/2050-rtp-main-doc.pdf>.

⁵⁷ US Census Bureau, American Community Survey, <https://cdn.atlantaregional.org/wp-content/uploads/lep-plan-final-2017.pdf>.



Demand for travel is increasing and changing. Demand for travel is projected to grow more than 30 percent, from 113 million daily vehicle-miles traveled (VMT) in 2015 to 148 million daily VMT in 2050.⁵⁸ Growth in travel is driven by expanding population and employment. While motor vehicles long have accounted for the majority of person travel in Metro Atlanta, transit, walking, bicycling, and micromobility options such as scooters and e-bikes are growing in demand in many parts of the region. Some communities envision more higher-density or mixed-use development. GDOT seeks to support local visions and development preferences, as related to State routes, while also ensuring the State's goals for safety, reliability, and efficiency of people and freight flows are achieved.

Emerging technologies and work arrangements will continue changing how people move. Technology is changing the location and productivity of work for many industries, and this change is expected to accelerate in the after-effects of the pandemic. A May 2020 ARC survey of more than 1,000 workers reported 61 percent of respondents worked five or more days a week from home during the pandemic (up from 11 percent pre-pandemic) and around 10 percent worked one to four days a week from home (down from 20 percent). Post-pandemic, close to 70 percent of respondents reported that they would be interested in continuing this work arrangement.⁵⁹ This shift could have a substantial impact on the characteristics of transportation demand in both the short- and long-term, including potential shifts in trip origins and destinations, time of day, and vehicle mix. Metro Atlanta may experience a flattening in peak period travel but an overall increase in total daily trips as more people work from home or on flexible schedules; replace long daily commute trips (often with stops at either end of the day to pick up children, shop, or run errands) with multiple short trips throughout the day for family, recreational, and social purposes; and replace personal trips to retail stores with home delivery of goods and services. These changes could increase traffic significantly in some parts of the region, while reducing trips and providing an opportunity to repurpose parking or curb space in other areas. Automated vehicles, connected vehicles, shared mobility, and alternative fuels combined with new business models, big data, the Internet of Things, and artificial intelligence and machine learning also will likely have a lasting impact on how people live, work, and travel.

⁵⁸ Calculated from the Georgia Statewide Travel Demand Model for 2050 E+C Network.

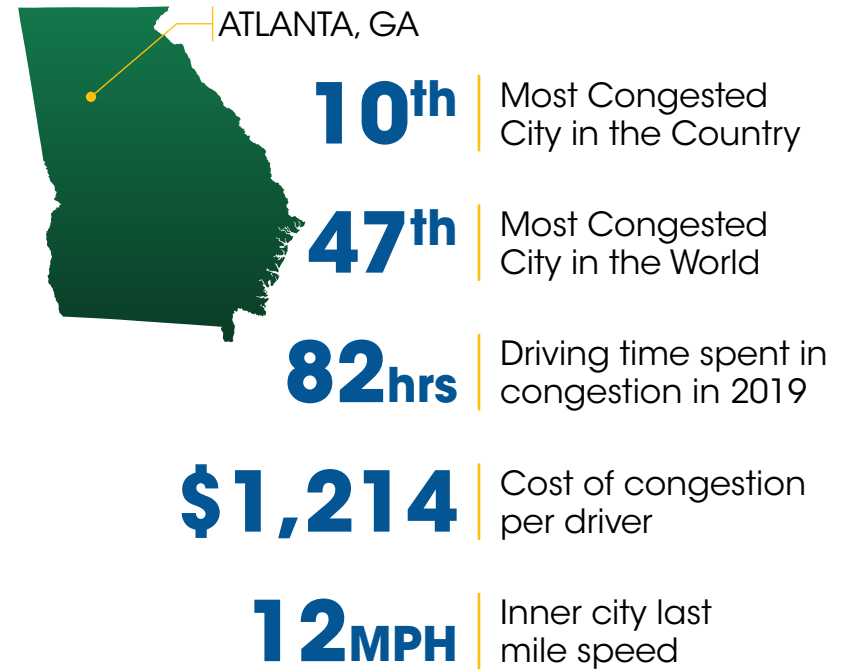
⁵⁹ <https://atlantaregional.org/regional-commuter-survey>.

Challenges Facing Metro Atlanta

Express toll lanes are helping reduce traffic congestion on certain Interstate corridors but regionwide, travel delay is expected to increase.

The projected population growth in Georgia and the Southeastern United States is anticipated to increase demand for travel. With the impact of telework and automated/connected vehicles uncertain, Metro Atlanta’s roadways are likely to become more congested. Inrix, a global traffic data firm, ranked Atlanta as the 10th most congested city in the United States in 2019.⁶⁰ Congestion will increase travel times for visitors and commuters. Even with investments planned in the ARC 2050 Regional Transportation Plan (RTP), average commute times are expected to increase slightly.⁶¹

During recent years, GDOT has implemented the Major Mobility Investment Program (MMIP), including significant investments in express lanes and other capacity projects in Metro Atlanta. Analysis of MMIP projects completed to date have pointed to an overall reduction in congestion and improvement in reliability, including 45 minutes in travel time planning savings.⁶² These benefits are experienced by commuters, trucks, and transit vehicles. The annual hours of peak hour excessive delay per capita in the Atlanta urbanized area decreased from 21.7 in 2018 to 18.9 in 2019.⁶³ GDOT has estimated a 44 percent decrease in travel time for transit vehicles using express lanes.⁶⁴ Between 2019 and 2020, most transit agencies’ on-time performance, defined for fixed-route transit as arriving between the scheduled time and five minutes after the schedule time, remained flat or improved.⁶⁵



Source: <https://inrix.com/scorecard-city/?city=Atlanta%2C%20GA&index=47>.

⁶⁰ <https://inrix.com/scorecard-city/?city=Atlanta%2C%20GA&index=47>.

⁶¹ <https://www.atlantaregionsplan.org/wp-content/uploads/2020/06/RTP-Executive-Summary-FINAL.pdf>.

⁶² <https://majormobilityga.com/>.

⁶³ GDOT 2020 Mid Performance Period Progress Report.

⁶⁴ <https://majormobilityga.com/>.

⁶⁵ GDOT 2020 Mid Performance Period Progress Report.

Major Mobility Investment Program

Relieves traffic through a travel-time savings of **15%** or **\$3.28 billion**



Provides **45 minutes** in trip planning time savings

Improves **freight** mobility



Reduces commercial vehicle fleet costs by saving **\$355 million** in vehicle operating costs



Reduces travel times by **44%** for transit vehicles



Source: <https://majormobilityga.com/>.

Where Are the Projects?



Interchange Reconstruction:

1. I-16/I-95
2. I-285/I-20 West
3. I-285/I-20 East

Express Lanes:

4. I-285 Eastside
5. I-285 Top End East (Two construction packages)
6. I-285 Westside
7. SR 400

Interstate Widening:

8. I-85 Phase 1
9. I-85 Phase 2
10. I-16

Commercial Vehicle Lanes:

11. I-75

I-285 Advanced Improvement Projects:

12. I-285 Westbound Ramp Extension
13. I-285/Peachtree Industrial Boulevard Interchange Improvements
14. I-285 Westside Railroad Crossings Bridge Widening
15. I-285 Westside Bridge Replacements
16. I-285 Eastside Bridge Replacements
17. I-285 Westbound Auxiliary Lane Extension

Commute reliability reduces the talent pool for employers. Congestion can limit the region's ability to match people to jobs by placing fewer jobs within a reasonable commute time. The average Atlanta worker is able to reach 250,000 fewer potential jobs in a 30 minute drive due to congestion today.⁶⁶

Assets are in good condition but require continued investment. Keeping up with maintenance can prevent larger, more disruptive problems as infrastructure ages. Approximately 95 percent of Regional Strategic Transportation System roads identified by ARC had pavement in good condition, and approximately 95 percent of bridges were in good condition.⁶⁷ Asset management demands will increase as MMIP and other capacity projects are completed.

Safety remains a top priority. More than 276,600 crashes occurred on roads in the Atlanta region on average every year from 2014 to 2018, resulting in 642 fatalities and 7,777 serious injuries.⁶⁸ Nearly one out of every five fatalities and serious injuries involved pedestrians or bicyclists. The majority of crashes occurred on roadways with fewer than four lanes and with posted speed limits of 35 miles per hour or greater.

⁶⁶ Center for Transportation Studies, Access Across America: Auto 2018.

⁶⁷ <https://documents.atlantaregional.com/The-Atlanta-Region-s-Plan/rtp2050/2050-rtp-main-doc.pdf>.

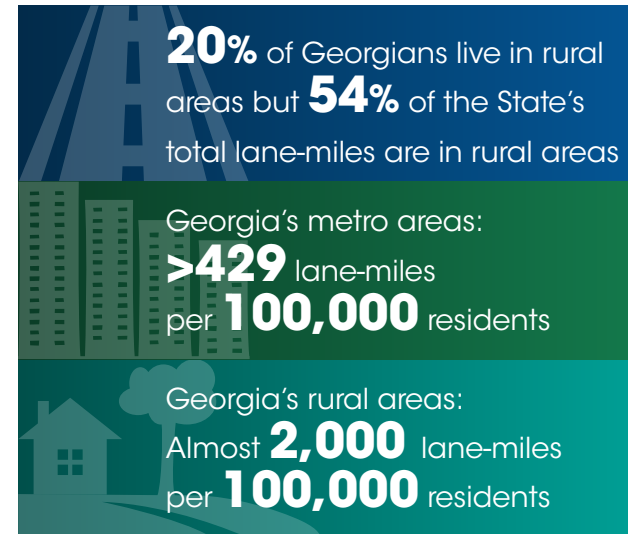
⁶⁸ ARC analysis of GEARS data, obtained spring 2019, <https://documents.atlantaregional.com/The-Atlanta-Region-s-Plan/rtp2050/2050-rtp-main-doc.pdf>.

People Mobility in Emerging Metros and Rural Georgia

Georgia's emerging metro areas offer high quality-of-life and robust economic growth. The term emerging metro area is used in this plan to refer to areas covered by Georgia's Metropolitan Planning Organizations located outside of Metro Atlanta. These 13 emerging metro areas range from large, well established regions like Augusta, Savannah, Columbus, and Macon to smaller markets like Valdosta, Albany, Dalton, and Brunswick. Collectively these emerging metros account for more than 20 percent of Georgia's population and employees.

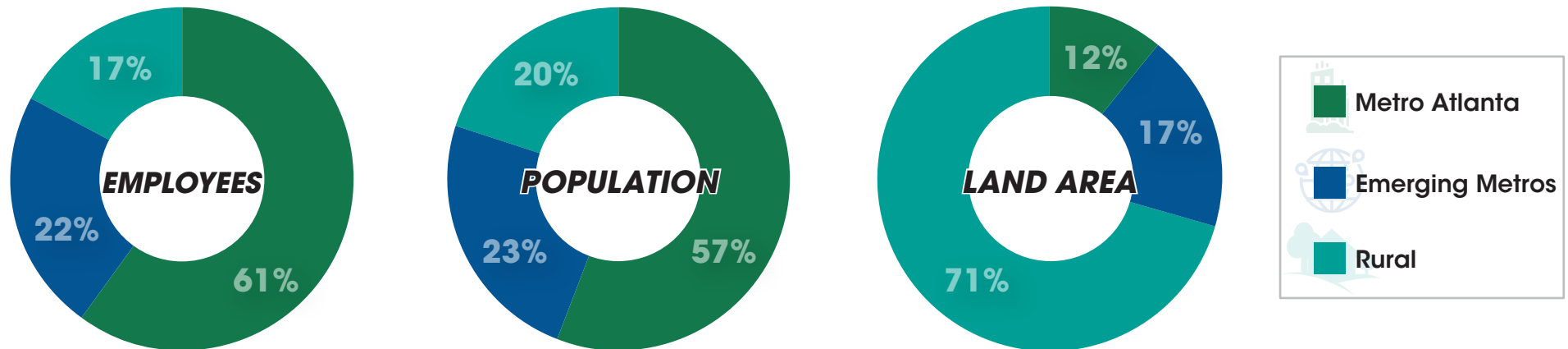
Rural counties cover more than 70 percent of Georgia's land area and represent 20 percent of the State's residents and 17 percent of employees. These offer lower cost-of-living and access to jobs in certain key industries prevalent in non-urban settings, as well as investment options for businesses that require land, other natural resources, and low-cost, reliable transportation connections.

Rural transportation networks are vital for the entire State. Rural areas account for 54 percent of total lane miles on Georgia roads, with more 2,000 lane miles for every 100,000 residents (more than four times as many as the rate in metro areas).⁶⁹ Rural roads account for 35 percent of the State's truck miles traveled and 24 percent of total vehicle miles traveled.⁷⁰



Source: Georgia Statewide Travel Demand Model; calculations by Cambridge Systematics, Inc.

LESS ACTIVITY IS SPREAD OVER MORE LAND...

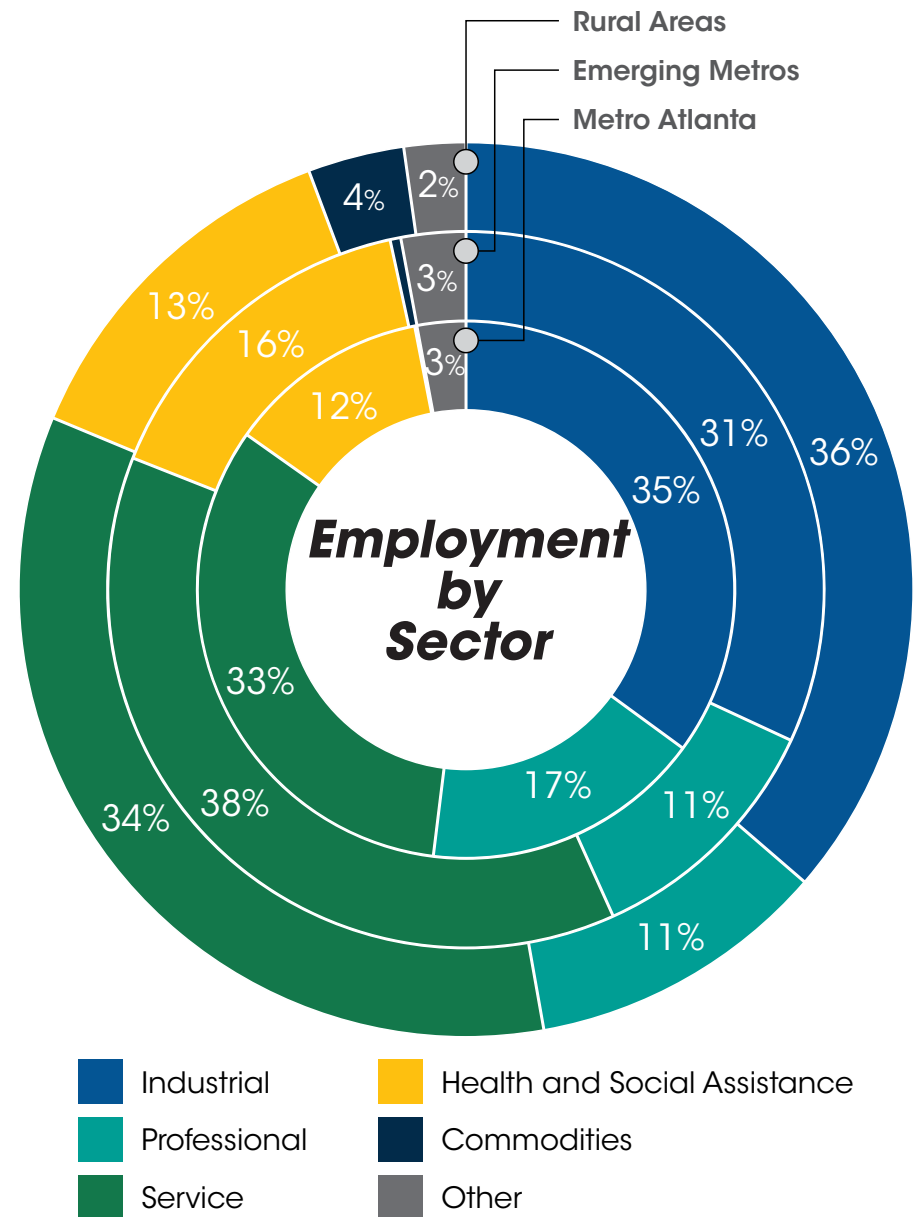


Source: American Community Survey, 2012-2016 5-Year estimates, 2019 TIGER/Line Shapefiles prepared by the U.S. Census Bureau, 2019.

⁶⁹ Federal Highway Administration, Highway Performance Monitoring System, 2017 and American Community Survey 2019, 5-Year Estimates, calculated by Cambridge Systematics.

⁷⁰ Georgia's Statewide Travel Demand Model.

Emerging metros and rural Georgia offer different job opportunities. Industries that rely on natural resources or require significant land for their activities—like agriculture, mining, forest products, distribution, and manufacturing—often are attracted by lower real estate costs found in rural and emerging metro areas. Some emerging metros serve as regional business centers or host regional assets like colleges and universities, hospitals, or other public institutions. The service industry and health care industries represent a larger portion of the overall employment in rural and emerging metro areas than they do in Metro Atlanta.

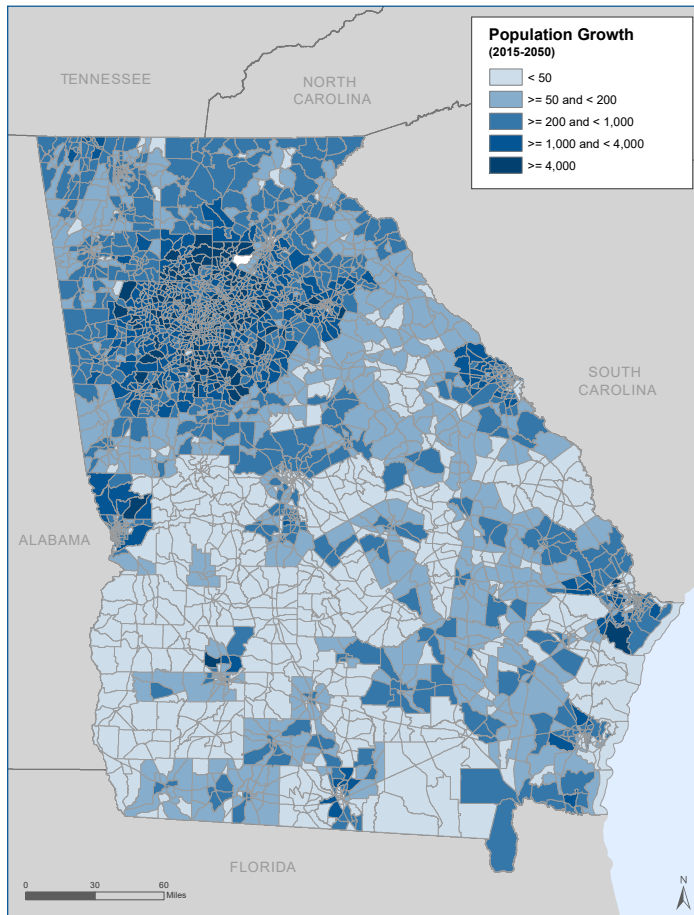


Source: Longitudinal Employer-Household Dynamics 2017, US Census, calculated by Cambridge Systematics, Inc.

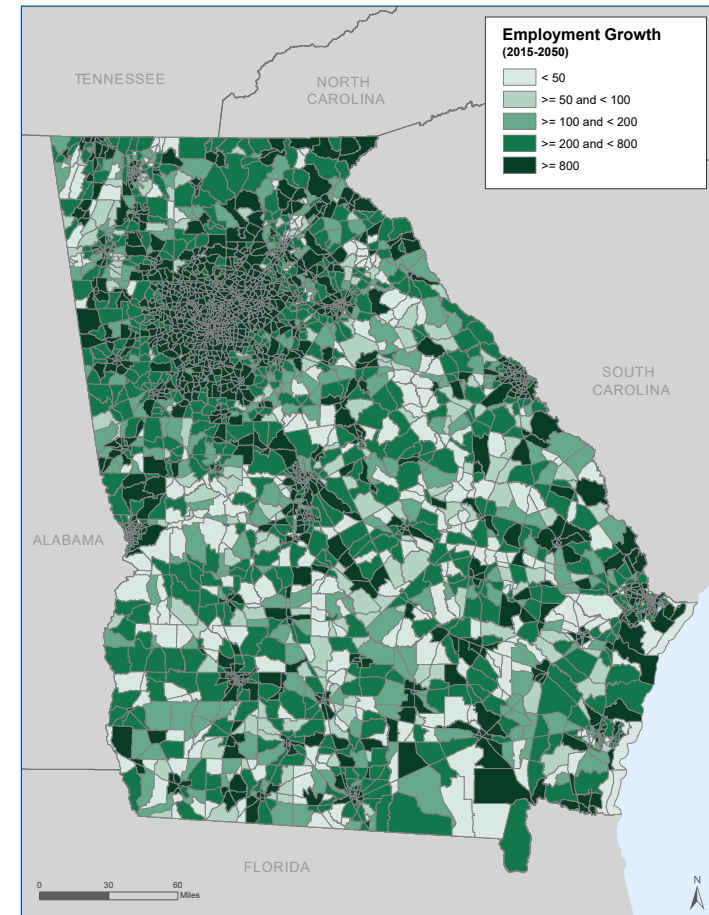
What's Changing

Some emerging metros and rural areas are experiencing strong growth, while some others are seeking revitalization. Between 2010 and 2019, population in emerging metros increased up to 13 percent (Savannah) or declined nearly 5 percent (Albany). Counties just outside of the core cities of emerging metros were among the fastest growing in the State, with Long County (near Hinesville), Bryan and Effingham counties (near Savannah), and Columbia County (near Augusta) all growing more than 23 percent.⁷¹

Growth rates among rural counties vary widely, but proximity to Atlanta or emerging metros and access to major transportation corridors often are associated with growth. These trends are anticipated to continue through 2050.



Source: Georgia Statewide Travel Demand Model.



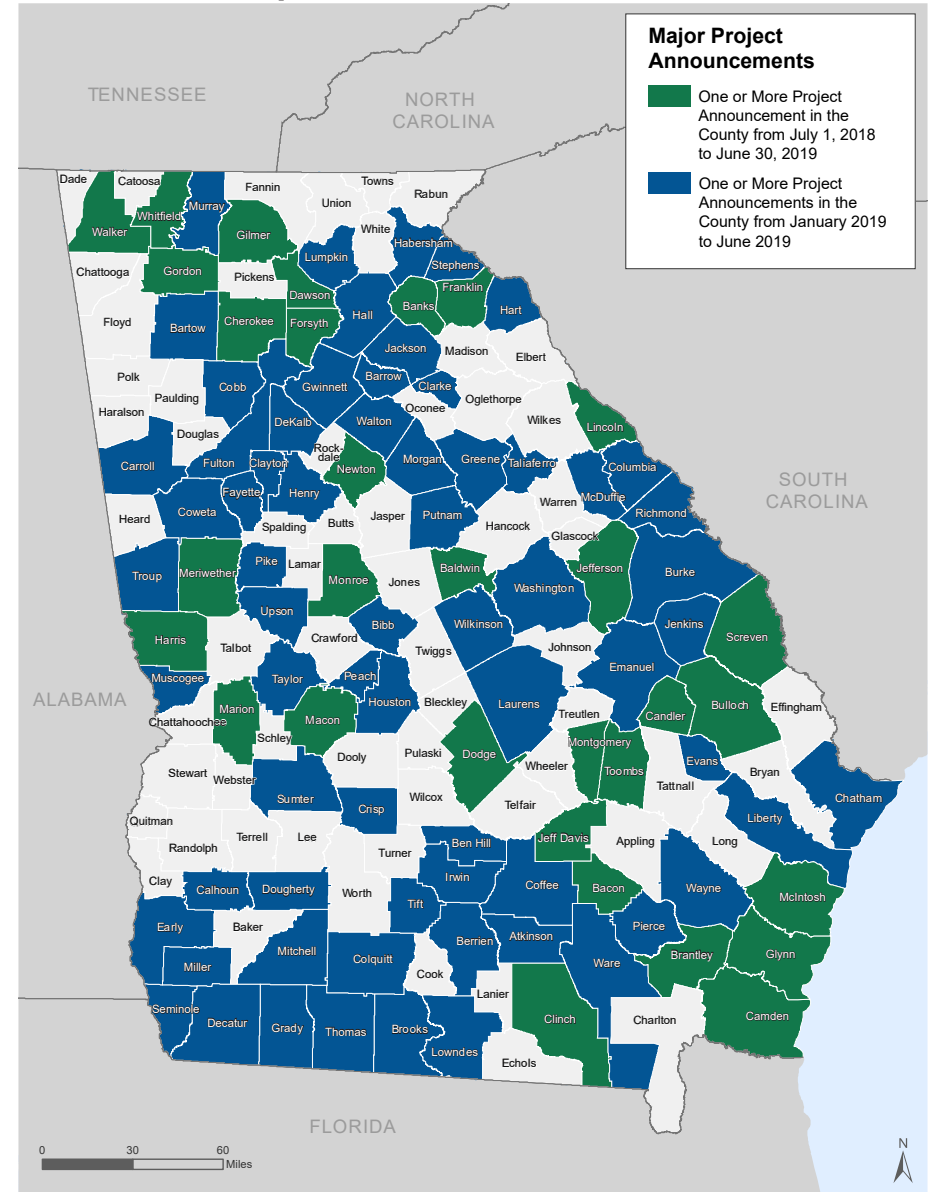
Source: Georgia Statewide Travel Demand Model.

⁷¹ U.S. Bureau of the Census, Metropolitan and Micropolitan Statistical Areas Population Totals and Components of Change: 2010-2019.

Emerging metro and rural economic development opportunities are growing. Growth in health care, education, professional services, and tourism is creating opportunities for emerging metros serving as regional business centers or hosting major hospitals, universities, or attractions. Several trends are creating opportunities for rural Georgia, including demand for locating distribution centers just outside of large urban areas; growth in some manufacturing industries; increasing demand for locally grown food; growing interest in eco-tourism and outdoor recreation; and development around military facilities. With improved transportation and broadband connectivity, more parts of rural Georgia could become choice locations for residents preferring a rural lifestyle and companies seeking available land and other resources with low business costs and reliable market access.

Recent project announcements by the Georgia Department of Economic Development (GDEcD) cover all regions of the State, including significant projects in rural areas such as McRae (Guidoni, 455 jobs), Bainbridge (Taurus, 300 jobs), and Tifton (Coca-Cola, 200 jobs).⁷² GDEcD is working with economic development partners to identify, promote, and develop more than 60 certified industrial sites through the GRAD program. These sites primarily reside in emerging metros and rural areas.

Major Project Announcement by Georgia Department of Economic Development, Fiscal Year 2019



⁷² Georgia Chamber of Commerce, 2020 Rural Recommendations, <https://www.gachamber.com/wp-content/uploads/2018/01/2020-Rural-Recommendations.pdf>.

Source: <https://www.gachamber.com/wp-content/uploads/2018/01/2020-Rural-Recommendations.pdf>.

Georgia's rural population is aging. About a third of Georgia's population 65 and over lives in rural areas.⁷³ Rural areas also have a higher percentage of population with a disability, including people with mobility difficulty.⁷⁴ Like Metro Atlanta, Georgia's rural areas will have more residents requiring mobility assistance in the future.

The use of technology is expanding. Because of the rural landscape, access to technology greatly improves quality of life. This is particularly true when it comes to health and education but also impacts all businesses, including agriculture. For example, U.S. Department of Agriculture (USDA) has concluded broadband connectivity can enable tangible benefits to the agriculture supply chain. The USDA estimates digital platforms can shorten the supply chain and increase producer revenue by 183 percent per unit of blueberries.⁷⁵ Georgia's producers grow and harvest more than \$265 million of blueberries each year.⁷⁶ The USDA recently awarded more than \$26 million of funding to improve broadband in rural Georgia communities. Through the ReConnect Pilot Program, the USDA will create or improve rural e-Connectivity for more than 14,000 rural households, 91 pre-subscribed businesses, and more than 230 pre-subscribed farms in eight counties.⁷⁷ Similarly, the Federal Communications Commission (FCC) Rural Digital Opportunity Fund Phase 1 Auction funded \$326 million for expansion of broadband services to rural Georgia, covering more than 179,000 unserved homes and businesses.⁷⁸ These investments will make these rural places more attractive for residential development as well as enable critical technology for connecting rural businesses supply chains and logistics operations to the worldwide web.

⁷³ <https://www.census.gov/content/dam/Census/library/stories/2019/10/older-population-in-rural-america-figure-2.jpg>.

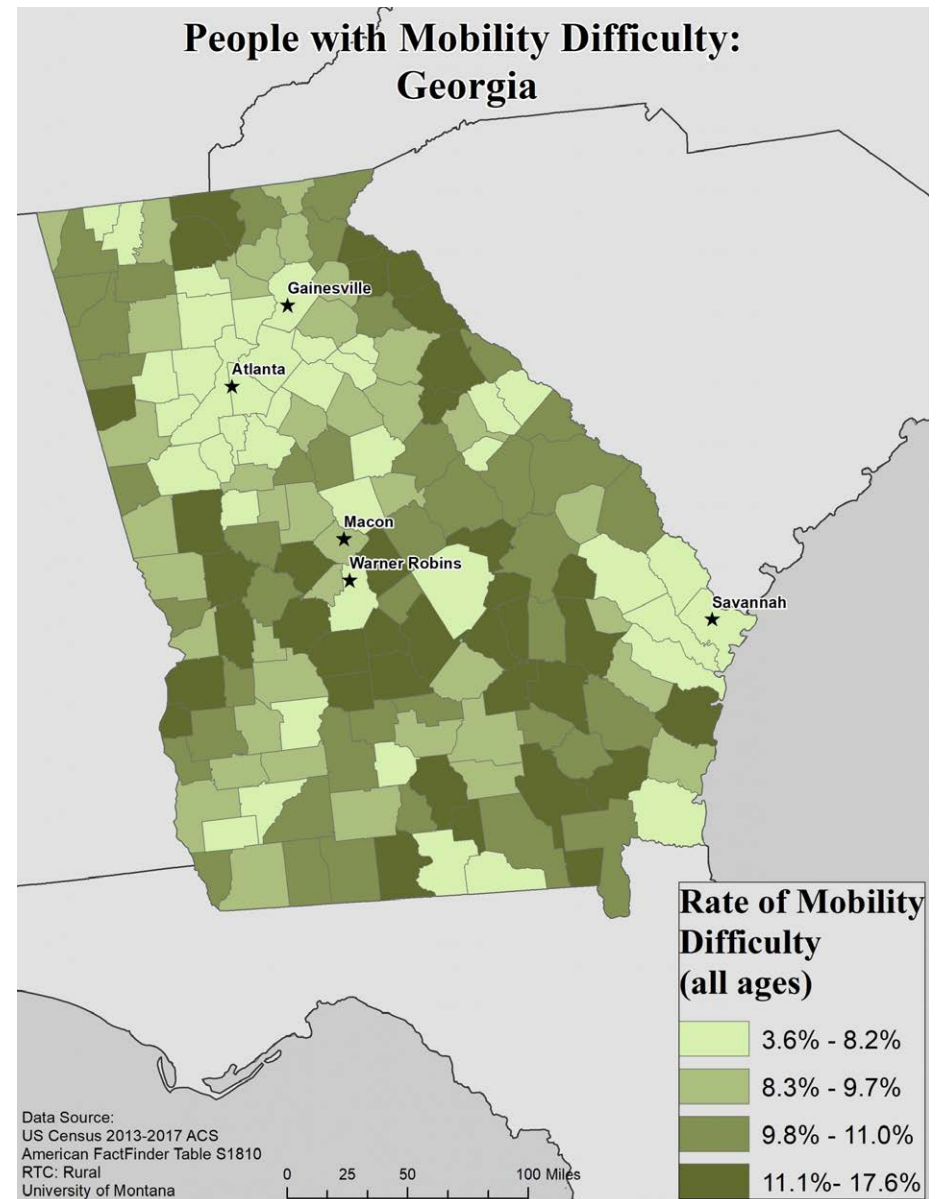
⁷⁴ <http://rtc.ruralinstitute.umn.edu/state-profile-map-series/georgia-state-profile/> and <http://rtc.ruralinstitute.umn.edu/state-profile-map-series/georgia-state-profile/>.

⁷⁵ <https://www.usda.gov/sites/default/files/documents/case-for-rural-broadband.pdf>.

⁷⁶ https://www.nass.usda.gov/Quick_Stats/Ag_Overview/stateOverview.php?state=GEORGIA.

⁷⁷ <https://www.usda.gov/media/press-releases/2020/02/21/usda-invests-5-million-broadband-rural-georgia-communities>.

⁷⁸ <https://docs.fcc.gov/public/attachments/DOC-368588A1.pdf>.



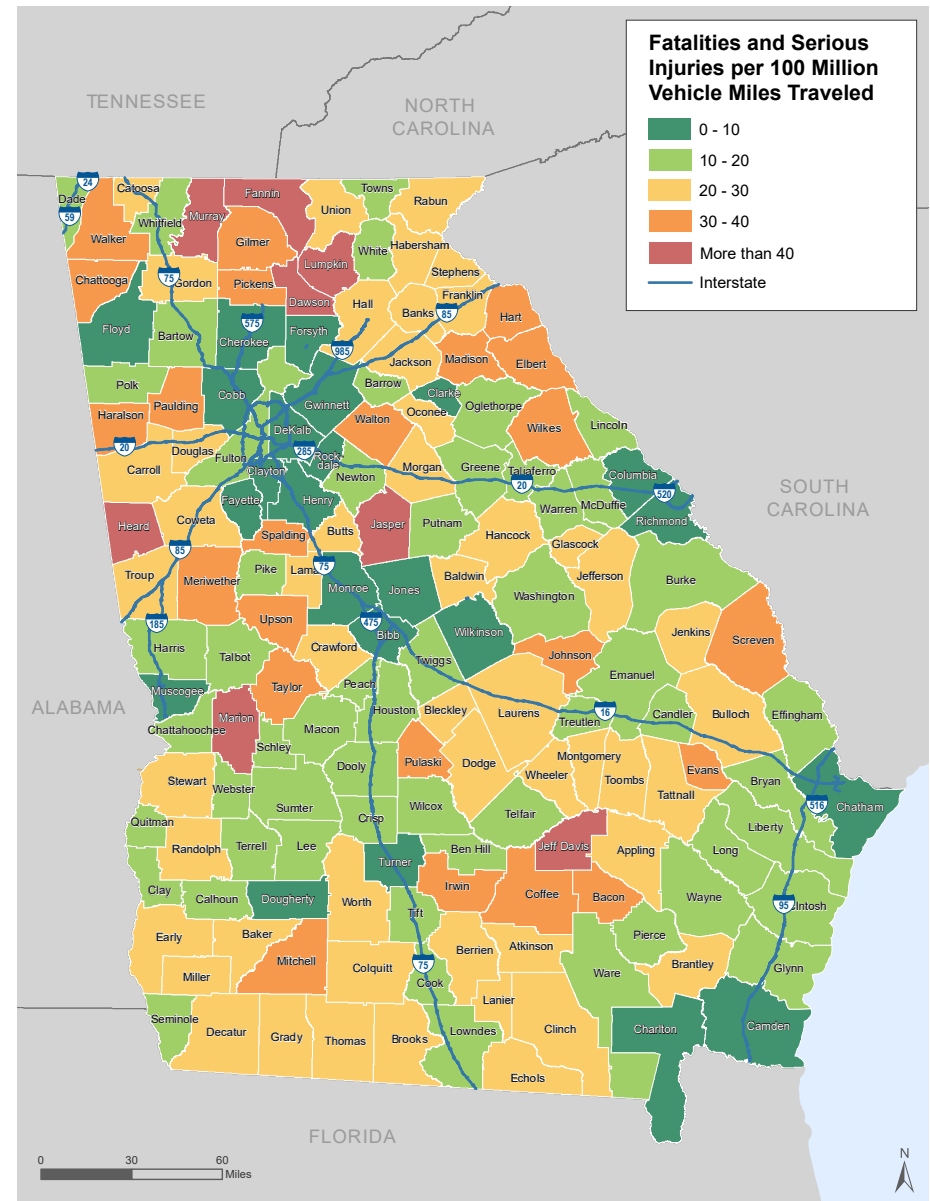
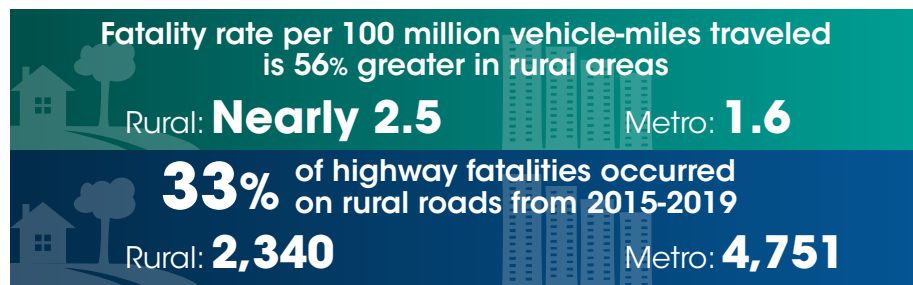
Source: <http://rtc.ruralinstitute.umn.edu/state-profile-map-series/georgia-state-profile/>.

Challenges Facing Emerging Metros and Rural Georgia

Fatalities and serious injury rates are high. Roadway safety challenges in emerging metros and rural areas are disproportionate when comparing crashes to population. These areas represent 43 percent of Georgia’s population but more than 50 percent of traffic fatalities and serious injuries. In rural areas, the fatality rate per 100 million VMT is 30 percent greater than it is in emerging metros and 69 percent greater than in Metro Atlanta. Additional rural safety statistics further explain the disparity. While only 24 percent of the State’s VMT occurs in rural areas:

- » 33 percent of the State’s highway fatality crashes occur on rural roads
- » 26 percent of all serious injury crashes occur on rural roads
- » 36 percent of all highway-rail crossing fatality crashes occur in rural areas
- » 35 percent of all railroad crossing crashes with serious injuries occur in rural areas⁷⁹

Overall, Georgia’s highway fatality rate per 100 million VMT in rural areas is 56 percent higher than that in urban areas. When considering that nearly one-fourth of personal VMT in Georgia are on rural roadways, including urban residents traveling to destinations outside their home metro areas, rural roadway safety matters for all of Georgia’s citizens, businesses, and visitors.



Source: Numetric, Fatality Analysis Reporting System, GDOT 445 Report (2017), Cambridge Systematics, Inc. Analysis.

⁷⁹ GDOT, Numetric, and Georgia Statewide Travel Model data, calculated by Cambridge Systematics.



Asset conditions are starting to decline, causing connectivity issues in rural Georgia. About 13 percent of rural bridges are posted with weight restrictions, compared to 8 percent for emerging metros and 7 percent for Metro Atlanta. Detours required by posted bridges are 35 percent longer in rural Georgia and 32 percent longer in emerging metros than detours in Metro Atlanta.⁸⁰ The statewide Group Transit Asset Management (TAM) Plan, covering small providers, found 10 percent of rolling stock and 4 percent of transit facilities in rural and small urban areas were over their useful life benchmark.⁸¹

Detours required by a posted bridge are
35% longer in rural Georgia
and
32% longer in emerging metros
than in Metro Atlanta

Bridges in rural areas
1,023 posted

Source: National Bridge Inventory, 2019 calculated by Cambridge Systematics, Inc.

⁸⁰ Federal Highway Administration, National Bridge Inventory, 2019.

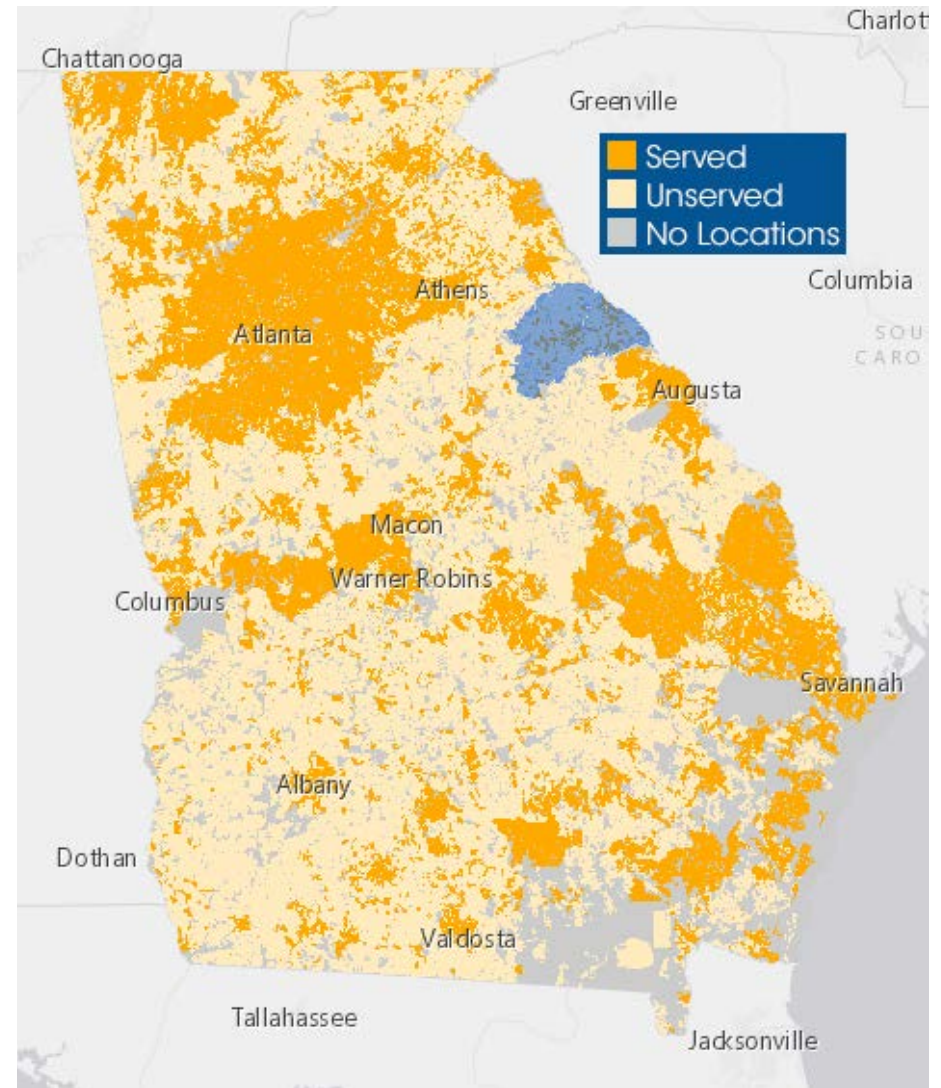
⁸¹ <https://www.dot.ga.gov/InvestSmart/Transit/Documents/TAMP.pdf>
Calculated by Cambridge Systematics, Inc. based on data in the report.

Additional connectivity will support areas primed for business development.

Rural Georgia and emerging metro areas do not experience the same length or degree of congestion as Metro Atlanta, but localized congestion or road restrictions cause impactful connectivity problems for the businesses trying to grow, attract employees, and ship goods. In these areas, capacity often is limited in unexpected situations such as planned and unplanned events, weather, flooding, work zones, and crashes. A posted bridge with weight limits or a two-lane road temporarily closed due to a crash, flooding, or other event can become a significant barrier to connectivity for specific communities.

Broadband and technology connectivity are lacking in some rural areas as well. The Georgia Department of Community Affairs found 31 percent of rural Georgia is unserved by broadband, with 26 rural counties having more than 50 percent of their population without access to high-speed internet. GDOT can play a role supporting the expansion of broadband infrastructure along State routes' rights-of-way to primarily benefit transportation system management while also enabling broadband access to address rural broadband gaps.⁸²

Broadband Coverage in Georgia



Source: <https://broadband.georgia.gov/maps/gbdi-unserved-georgia>.

Note: The area shown in blue on the map indicates a petition has been submitted to the Georgia Broadband Deployment Initiative for potential changes to the map in this area.

⁸² <https://www.census.gov/content/dam/Census/library/stories/2019/10/older-population-in-rural-america-figure-2.jpg>.



5

GEORGIA'S STRATEGY

The core of the SSTP is a series of strategies to guide investments in and planning for future investments in Georgia's transportation system. These strategies focus in two areas:

- » **Invest:** How GDOT is planning to strategically allocate resources for statewide transportation priorities.
- » **Advance:** How GDOT will enhance transportation planning and collaboration activities for continuously improving future investment decisions.

These strategies build on Governor Kemp's vision and strategic goals for Georgia and GDOT's mission, vision, and focus areas (see *Vision and Goals section*). They also reflect the trends, challenges, and opportunities identified in the prior section (see *Mobility Trends, Challenges, and Opportunities*).

GDOT is developing and implementing the SSTP iteratively. The SSTP defines planned investment strategies for meeting goals over a 30-year period. These strategies are to be implemented through future updates to GDOT's Statewide Transportation Improvement Program (STIP) as well as additional GDOT plans and programs, such as the 10-year plan. Although the SSTP does not identify specific projects, it does define strategies to enhance future planning activities to support strategic investment decisions for future STIPs and SSTPs.

GDOT will execute the Governor's vision and provide mobility for freight and people throughout Georgia with strategic investments. GDOT also will endeavor to establish a best-in-class statewide transportation planning process by continuously improving data-driven, outcomes-based investments and exploring partnerships with the private sector and other government bodies.

The SSTP also demonstrates GDOT's commitment to align the State's transportation investment strategies with the Governor's goal for conservative budgeting in State government, allocating investments to fund satisfactory and in many cases, improved, performance using currently-projected revenues.



SSTP Framework

The SSTP is organized into three investment categories, reflecting three major ways people and freight move in Georgia:



Statewide Freight and Logistics

Enabling Georgia's businesses to sustain growth and compete in a global marketplace



People Mobility in Metro Atlanta

Keeping Georgia's largest population and economic center moving



People Mobility in Emerging Metros and Rural Georgia

Helping develop a more robust, resilient economy statewide

For each category, the SSTP identifies strategies for three components of statewide investment. Taken together, GDOT will invest in taking care of the existing system, growing Georgia's economy, and preparing for the future.



Foundational Investments

Taking care of our existing transportation system



Catalytic Investments

Strategic expansion to support economic development



Innovation Investments

Positioning Georgia's transportation system for the future

For each category, the SSTP also identifies future strategies to advance planning and collaboration in three areas. Taken together, GDOT will align plans and programs, strengthen partnerships, and sharpen its focus on performance.



Plans, Programs, and Projects

Moving from SSTP into more detailed investments and activities



Partnerships

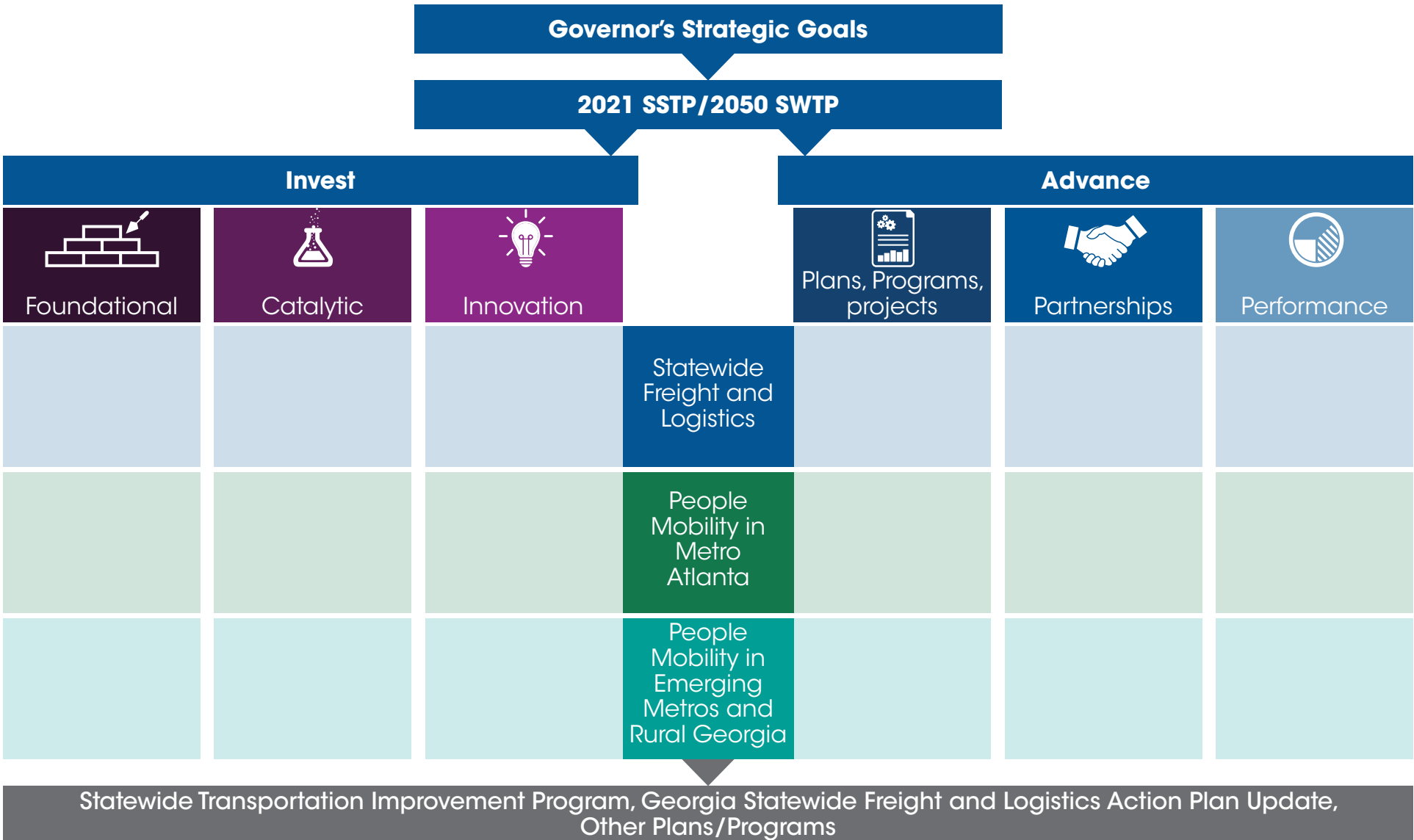
Collaborating with other agencies and the private sector, particularly to support economic development and foster innovation



Performance

Collecting, analyzing, and using performance and related data to support decision-making

This framework connects the Governor's goals to strategic approaches for investment and planning activities for both people and freight, eventually linking to specific program and project-based decisions through the STIP and modal and system plans, such as the Georgia Statewide Freight and Logistics Action Plan.



Statewide Freight and Logistics

GDOT supports the economy of our growing State by operating, maintaining, and investing in State-owned transportation facilities necessary for freight mobility. Georgia's transportation system moved a total of 597 million tons of goods valued at \$875 billion into, out of, and within Georgia in 2018.⁸³ An interconnected, multimodal freight system is a critical foundation for Georgia's economic competitiveness.

Demand for goods is projected to grow along with Georgia's population. Georgia also expects an increase in logistics-enabled companies, which rely on inbound supplies and materials for making products and growing crops, as well as on outbound freight to customers. In fiscal year 2020, Georgia was named the best state for business for the eighth year in a row, which is also evidenced by the more than \$7 billion of private investment announced in Georgia that year. Of that, 84 percent or \$6.2 billion is for the location or expansion of logistics-enabled companies, such as manufacturing, food processing, and distribution.⁸⁴

GDOT plans and manages much of Georgia's freight and logistics network as an intermodal statewide system, emphasizing interregional, interstate, and international connectivity. This statewide strategy also recognizes the unique opportunities and challenges facing freight and logistics in Metro Atlanta, emerging metros, and rural Georgia.

⁸³ Federal Highway Administration, Freight Analysis Framework 4.

⁸⁴ Site Selection Magazine (<https://siteselection.com/issues/2020/nov/2020-business-climate-rankings-cover.cfm>) and the Georgia Department of Economic Development.

Supporting National Initiatives

The investment strategy supports the goals and strategies of the U.S. Department of Transportation's **National Freight Strategic Plan**. It also considers goals and strategies identified by multi-state coalitions in which GDOT participates, including The Eastern Transportation Coalition and the Institute for Trade and Transportation Studies. This supports planning coordination of GDOT's freight investments with surrounding states and the national freight system.

National Freight Policy Strategic Goals

This National Freight Strategic Plan supports the U.S. DOT's strategic goals of Safety, Infrastructure, and Innovation.



SAFETY

Improve the safety, security, and resilience of the national freight system.



INFRASTRUCTURE

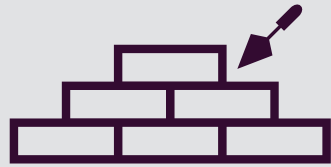
Modernize freight infrastructure and operations to grow the economy, increase competitiveness, and improve quality of life.



INNOVATION

Prepare for the future by supporting the development of data, technologies, and workforce capabilities that improve freight system performance.

Strategies for Investment



Foundational Investments for Statewide Freight and Logistics

Foundational investments focus on maintaining a safe, efficient, and reliable freight network statewide.

- » **Commercial motor vehicle and rail safety**, working with partners to ensure safety for both freight carriers and the public as freight volumes continue to grow. GDOT will consider the unique safety characteristics, challenges, and opportunities facing trucks and the traveling public as part of its ongoing highway safety programs. GDOT also plans to enhance its **Railroad Safety Program**, including development of the State Action Plan, as required by the Federal Railroad Administration, and the use of Federal Highway Administration's Section 130 program to evaluate and fund railroad-highway grade crossing safety improvements at public at-grade railroad crossings throughout the State.
- » **Asset management for key freight corridors**, including maintaining and enhancing the physical condition of pavement, bridges, and other State-owned infrastructure. GDOT's pavement and bridge management programs address all State-owned roads, including those designated as part of the National Highway System (NHS) or as statewide freight corridors. The State Route Prioritization Process helps to establish priorities for asset management. To the extent funding is made available, GDOT also plans to maintain and improve track quality of GDOT-owned short lines and maintain and replace GDOT-owned short line bridges and structures to meet industry standards.
- » **Freight operations**, focusing on improving the safety, efficiency, and reliability of freight mobility. GDOT incorporates commercial vehicles as part of its Intelligent Transportation System (ITS) and traffic operations programs. GDOT is creating a **Freight Operations Lump Sum program** to target freight-specific operational solutions, such as improving turning lanes or enhancing signal timing at key intersections on freight-heavy facilities. This program will enable GDOT to respond quickly to specific truck and freight rail-related issues that impact local communities and reduce supply chain efficiency and industry competitiveness.

A Focus on Rail Grade Crossing Safety

GDOT will increase investment in Rail Grade Crossings using innovative approaches to change driver behavior to increase safety.



Source: Highway-Rail Grade Crossing Handbook - FHWA



Catalytic Investments for Statewide Freight and Logistics

Catalytic investments focus on strategic expansion of freight system capacity and connectivity to support economic development opportunities.

- » **Major Mobility Investment Program (MMIP)**, which is implementing capacity investments in Georgia’s most heavily traveled transportation corridors over the next decade. Completion of MMIP projects will expand capacity, enhance safety, and improve reliability for Georgia’s businesses and residents. While not solely designed to improve freight mobility, many MMIP projects will benefit truck movements in key corridors, especially I-285. Some MMIP projects are specifically designed to enhance freight mobility, including new commercial vehicle lanes on portions of I-75, capacity additions to I-85 to serve the industrial and distribution hubs in Northeast Georgia, and expansion of the I-16 trade corridor serving Port of Savannah traffic, including an improved interchange with I-95.
- » **Freight bottlenecks** with emphasis on designated freight corridors. GDOT will identify and explore solutions to bottlenecks such as chokepoints on major Interstates in Metro Atlanta, pinch points near distribution centers, and weight-limited bridges on rural roads to and from agricultural and production sites.
- » **Intermodal connections** between freight corridors and major hubs such as seaports, air cargo facilities, and intermodal rail terminals/“inland ports.” These solutions could address the largest and most strategic facilities such as the Port of Savannah or Hartsfield-Jackson International Airport, as well as smaller facilities that support specific regions and markets.
- » **Connectivity to Georgia Ready for Accelerated Development (GRAD) sites**, which are certified sites targeted for industrial development, as identified by the Georgia Department of Economic Development (GDEcD). GDOT will work with the GDEcD’s Rural Strike Teams to identify locations where improved transportation access would facilitate private investment and job creation.
- » **Rail capacity projects** consistent with the 2020 Georgia Rail Plan. GDOT will evaluate capital projects on GDOT-owned rail corridors that are anticipated to provide public benefit. Investments may include upgrading tracks and bridges to support 286,000-pound rails cars, raising bridge clearances to support double stacking, and creating new spurs to serve industrial development.

A Focus on Economic Development

GDOT will invest to support targeted economic development opportunities. These investments will upgrade roadway connections from major corridors to GRAD sites. These high-quality connections are critical to keeping goods moving.



Source: <https://www.georgia.org/grad-certified-sites>

GDOT will maintain flexibility to address additional strategic capacity projects on the freight network that may be identified through 2050.



Innovation Investments for Statewide Freight and Logistics

Innovation investments focus on developing, piloting, and deploying new and emerging technologies and business practices for freight and logistics.

- » **Real-time information sharing** with shippers and carriers including ITS expansion to all of Georgia's Interstate corridors. For example, GDOT could share enhanced information on roadway conditions and work zone status. Carriers could share real-time traffic condition experiences.
- » **Freight vehicle technologies**, such as connected trucks, truck platooning, automated trucks, unmanned aerial systems, and robotics and other "first/last 50 feet" solutions for goods delivery.
- » **Freight corridor technologies**, such as roadside sensors and communications infrastructure to support connected trucks.
- » **Supply chain management systems**, such as Internet of Things for tracking and managing the flow of essential products.

While many of these activities may be driven by the private sector, GDOT can play a role supporting research and pilots, sharing public data, and facilitating roadside technology infrastructure including broadband connectivity. With technologies rapidly evolving, specific strategies and investment opportunities will be identified on an ongoing basis.

A Focus on Technology

GDOT will continue to invest in programs like the Regional Connected Vehicle partnership between GDOT and the Atlanta Regional Commission. Through this partnership, Georgia will be able to expand its footprint of connected locations to 1,500.



Source: <https://www.ttnews.com/articles/georgia-dot-expand-connected-vehicle-technology-atlanta/>
https://www.its.dot.gov/communications/image_gallery/image30.htm

Strategies for Advancing Planning

To improve planning and collaboration related to statewide freight and logistics, GDOT will link the SSTP to more detailed plans and programs; strengthen partnerships with other government bodies, economic developers, and the freight industry; and improve data and analysis capabilities, particularly related to performance and economic impacts.



Plans, Programs, and Projects for Statewide Freight and Logistics

- » Update the **Georgia Statewide Freight and Logistics Action Plan**; use this process to determine the need for additional freight programs and partnerships, as well as investments and improvements.
- » Address **freight corridor bridge and pavement priorities** in future updates to the Transportation Asset Management Plan (TAMP).
- » Evaluate the **future of Georgia's Interstate Highway System**, including long-term reconstruction, modernization, and adaptation strategies.
- » Assess investment opportunities on **GDOT-owned rail corridors** providing public benefit, consistent with the Georgia Rail Plan.
- » Update the **State Rail Grade Crossing Safety Action Plan** to identify priority crossings for safety and operational improvements, as required by the Federal Railroad Administration.
- » Identify strategies for improving **intermodal connectivity** including capital investments and potential partnerships, such as with Class I railroads.
- » Continue evaluating options to improve freight movement in the areas of the **Ports of Savannah and Brunswick**.
- » Pursue **discretionary Federal funding opportunities** such as the Infrastructure for Rebuilding America (INFRA) program and other potential opportunities consistent with the National Freight Strategic Plan and future Federal stimulus or transportation authorization acts.
- » Finalize multi-agency assessment regarding Georgia's level of **risk and resiliency** to natural, technological, and manmade disasters, and use the results to inform recommendations in the Georgia Statewide Freight and Logistics Action Plan.
- » Build on the work of GDOT's Interagency Office of Environmental Quality and Planning and Environmental Linkage Task Force to enhance environmental review processes and promote **environmental stewardship** as part of future investment planning.



Partnerships for Statewide Freight and Logistics

- » Explore **truck parking partnership** opportunities with the private sector and local governments to increase truck parking options and share real-time information on available capacity.
- » Collaborate with **Rural Strike Teams** organized through the Georgia Department of Economic Development to pursue road improvements at Georgia Ready for Economic Development (GRAD) sites and other identified industrial and distribution locations that would benefit freight and logistics; identify and help develop connectivity solutions to support economic development opportunities.
- » Collaborate with the Atlanta Regional Commission and other MPOs on **metropolitan and regional freight mobility plans**.
- » Identify strategies to support **broadband connectivity** for freight facilities, working with the private sector and local governments to buildout 5G, connected vehicles, and data flow capacity that will become increasingly necessary for modern supply chains.
- » Explore GDOT participation in **research, development, and pilot tests** for freight vehicle, corridor, and logistics technologies, including such issues as commercial vehicle and rail safety, first/last mile connectivity, truck platooning, and supply chain resilience.
- » Continue or expand **industry partnerships** to advance solutions for Georgia's strategic industries, especially agriculture and manufacturing.



Performance for Statewide Freight and Logistics

- » Enhance GDOT's **economic impact and return on investment analysis** capabilities for freight and logistics projects.
- » Benchmark **Georgia's competitiveness** relative to other global hub states and identify improvement opportunities.
- » Develop a policy framework and performance measures for **freight fluidity and supply chain resilience** in the State, with emphasis on identifying GDOT's role.



People Mobility in Metro Atlanta

The 22-county metropolitan Atlanta area is home to more than 6.2 million Georgians and more than 3.8 million jobs.⁸⁵ Among the major employers in the region, 30 of them are Fortune 1000 companies, generating more than \$438 billion in aggregate revenues.⁸⁶ GDOT supports the mobility of Georgia's largest population and economic center by investing in safely and efficiently moving people in Metro Atlanta.

Metro Atlanta is home to more than half of the State's population, jobs, and gross state product and is a primary demand driver for freight in Georgia. It is also the location of some of its most significant bottlenecks and other mobility challenges, especially during peak commuting times when roadways become congested and impede truck flow. Improving efficiency and reliability on Metro Atlanta's roadways not only strengthens the region but also benefits citizens and businesses throughout Georgia. Near-term investments in Metro Atlanta emphasize multiple phases of the Major Mobility Investment Program (MMIP) capacity-adding initiative, while also continuing a focus on regional operations, multimodal connectivity, and emerging mobility solutions.

⁸⁵ <https://atlantaregional.org/atlanta-region/population-employment-forecasts/>.

⁸⁶ In 2019, according to the Metro Atlanta Chamber of Commerce. <https://www.metroatlantachamber.com/resources/most-popular/fortune-500-fortune-1000-in-metro-atlanta>.

Supporting National Initiatives

GDOT is participating in and supporting multiple national initiatives to plan for emerging mobility solutions. At the Federal level, the U.S. DOT's **Non-traditional and Emerging Transportation Technology (NETT) Council** is identifying and resolving jurisdictional and regulatory gaps that may impede the safe deployment of emerging technologies. Working groups are focused on personal rapid transit, advanced and urban aerial mobility, tunneling, and hyperloop. The U.S. DOT and the National Science and Technology Council developed **Automated Vehicles (AV) 4.0** to define core principles in three areas:

- » protect users and communities
- » promote efficient markets
- » facilitate coordinated efforts

The American Association of State Highway and Transportation Officials, the Intelligent Transportation Society of America, and the Institute of Transportation Engineers established the **Cooperative Automated Transportation (CAT) Coalition** to address critical program and technical issues related to the nationwide deployment of connected and automated vehicles on streets and highways. GDOT will actively participate in these national initiatives to showcase GDOT's innovations and to ensure emerging mobility solutions in Georgia work toward nationwide deployment goals.



Strategies for Investment



Foundational Investments for People Mobility in Metro Atlanta

Foundational investments in Metro Atlanta focus on ensuring GDOT's system is safe, in good condition, and efficient as travel demand continues to grow.

- » **Highway safety**, focusing on proven and promising approaches to reduce fatalities, serious injuries, and crashes in Metro Atlanta. GDOT initiatives address engineering and operational solutions to avoid lane departures and intersection crashes, address safety for pedestrians and bicyclists, and continue educating drivers to mitigate high-risk behaviors such as distracted driving, impaired driving, and failure to use seatbelts and child seats. Protecting road construction and maintenance crews in work zones is also a top priority for GDOT. These initiatives are coordinated through Georgia's Strategic Highway Safety Plan and GDOT's **Highway Safety Improvement Program (HSIP)**.
- » **Asset management** to maintain pavement and bridges on GDOT-owned roads, including planning for future maintenance of new roadway capacity under development through the MMIP and other projects.
- » **ITS and operations**, recognizing that cost-efficient, technology-driven operations of the existing transportation system will become of vital importance as the region may have fewer opportunities to build high-cost capacity expansion projects. GDOT will continue the **SigOps Metro** program (formerly known as the Regional Transportation Operations Program), a multi-jurisdictional program for improving traffic flow and reducing vehicle emissions through improved signal timing on Atlanta's busiest arterial roadways; **Highway Emergency Response Operators (HERO)**, which provides roadside assistance to traffic-related incidents to clear roads so that normal traffic flow is restored; and the **Towing and Recovery Incentive Program (TRIP)**, which facilitates quick clearance of large-scale commercial vehicle incidents.
- » **Multimodal connectivity** to promote additional mobility choices and connections between modes to help manage growth in demand. GDOT will support the Atlanta Regional Commission's 2050 Regional Transportation Plan by coordinating on bus rapid transit, mobility as a service, park and ride lots, and other connections between GDOT roads and local and regional transit. GDOT also will continue to partner with **Georgia Commute Options** and service providers to assist customers, employers, and schools in reducing the length and improving the reliability of trips to and from work.

A Focus on Operations

GDOT will continue to invest in SigOps Metro for signal system improvements in Metro Atlanta. The program has been effective—even as vehicle miles of travel have increased, total delay has decreased. Beyond SigOps Metro, HERO provides for roadside assistance throughout Metro Atlanta.





Catalytic Investments for People Mobility in Metro Atlanta

Catalytic investments focus on strategic expansion of Metro Atlanta's transportation system to reduce congestion, improve reliability, and support economic vitality.

- » **Managed lanes**, using technology and operational practices to improve the efficiency of existing facilities and provide additional mobility options. Managed lane projects through the MMIP improve reliability and expand options for travelers in and through Metro Atlanta, including improving performance for transit vehicles. This results in enhanced economic growth in the region. The **Georgia Express Lanes** are optional pay-for-use lanes that run alongside existing Interstate highways in some of the most congested corridors around Metro Atlanta. To deliver these types of projects on I-75 Northwest Corridor and GA 400, GDOT has utilized public-private partnerships (P3s). P3s will continue to be GDOT's approach to expanding capacity, because they offer benefits including innovative design and construction, sustainable maintenance practices, and cost-effective operations.
- » Additional identified **Major Mobility Investment Program** projects in Metro Atlanta, including widening of I-85, interchange improvements between I-20 and I-285, and a range of upgrades to I-285.
- » **Other efficiency and mobility improvements**. While emphasizing approaches for optimizing the existing system and providing multimodal connectivity, GDOT will continue to evaluate options to advance additional efficiency and mobility priorities in Metro Atlanta beyond the current MMIP projects. These could include interchange improvements, access changes, and other potential investments on the Interstate system as well as major arterials.

A Focus on Reliability

GDOT will continue to invest in MMIP. The program has shown significant benefits. For example, the Northwest Corridor Express Lanes (pre-COVID-19) were 20 percent faster than the general-purpose lanes during peak travel times, and speeds in the general-purpose lanes are up to 20mph faster than before the express lanes opened. Rush hour has been reduced by over an hour during morning and evening commutes.



Source: <https://majormobilityga.com/>



Innovation Investments for People Mobility in Metro Atlanta

Innovation investments focus on developing, piloting, and deploying emerging mobility solutions.

- » **Connected and automated vehicles**, including pilot projects and the roadside infrastructure supporting these vehicles.
- » **Integrated corridor management** solutions to facilitate real-time management of corridors and more flexible use of right of way for multiple purposes, as well as enabling traffic signal priority for emergency response vehicles and public transit buses.

Metro Atlanta's existing infrastructure, strong corporate base, diverse population, and substantial research and academic community make it an attractive testing and proving ground for emerging technologies. Existing investments, such as alternative fuel corridors on I-75 and I-85 or "The Ray" corridor on I-85 outside of Atlanta, provide a foundation for additional pilot projects and deployment.

A Focus on Future Corridors

GDOT will continue to invest in emerging technology deployment. For example, on a stretch of I-85 called 'The Ray', GDOT partnered to install 3M's Connected Roads All Weather Elements striping that will make it more visible to drivers and automated vehicles. The Ray is located outside of Metro Atlanta, but it provides a proving ground for emerging technologies so that they can be used where they are needed most in the future.



Source: www.governing.com/news/headlines/Georgia-Makes-Way-for-Driverless-Vehicles-18-Miles-of-It.html and <https://theray.org/technology/the-ray-today/>

Strategies for Advancing Planning

To improve planning and collaboration related to mobility in Metro Atlanta, GDOT will identify specific project and funding opportunities, enhance coordination with the Atlanta Regional Commission (ARC) and other partners, and strengthen its performance and economic analysis capabilities.



Plans, Programs, and Projects in Metro Atlanta

- » Assess **managed lane** opportunities along limited access facilities throughout Metro Atlanta in collaboration with the State Road and Toll Authority.
- » Continue **planning for performance** to allocate resources to accomplish safety, reliability, and other targets for Metro Atlanta travel.
- » Pursue **discretionary Federal funding opportunities** such as the Infrastructure for Rebuilding America (INFRA) and Advanced Transportation and Congestion Management Technologies Deployment (ATCMTD) programs; participate in Federal and multi-state initiatives related to future mobility.
- » Finalize multi-agency assessment regarding Georgia's level of **risk and resiliency** to natural, technological, and manmade disasters, and use the assessment to inform future planning decisions in Metro Atlanta.
- » Build on the work of GDOT's Interagency Office of Environmental Quality and Planning and Environmental Linkages Task Force to enhance environmental review processes and promote **environmental stewardship** as part of future investment planning.



Partnerships in Metro Atlanta

- » Strengthen **strategic coordination** with ARC, economic development partners, and community improvement districts on future capacity investments.
- » Partner with transit agencies as infrastructure is planned to enable **transit access** where feasible and effective for the safe and efficient movement of people, especially during peak commute times.
- » Collaborate with local partners and the private sector to expand Metro Atlanta as a leader for **emerging transportation technologies and mobility initiatives**.
- » Support local efforts to evaluate and address curb, parking, delivery zone, and other **urban infrastructure management** solutions.



Performance in Metro Atlanta

- » Assess performance of existing infrastructure along **key thoroughfares** for today's commute and future commutes.
- » Assess the safety, mobility, and economic impact of **emerging mobility initiatives**.
- » Expand **economic modeling** capabilities to assess Metro Atlanta mobility investments.

People Mobility in Emerging Metros and Rural Georgia

The transportation facilities that GDOT operates, maintains, and improves support Georgia's robust and resilient economy statewide by enhancing people mobility in emerging metros and rural Georgia. Smaller but growing metro areas include Augusta, Columbus, Macon, and Savannah. They provide high quality of life and employment options for residents and businesses and serve as economic centers for their region of the State. Rural areas are home to more than one of six Georgians and account for most of Georgia's land, which hosts our State's largest industry, agriculture, as well as a strong and growing manufacturing base. Additionally, nearly one-fourth of personal vehicle miles traveled in Georgia are on rural roadways, which includes urban residents traveling to destinations outside their home metro areas. For all these reasons and more, 85 percent of Georgia's chief executive officers support investment in rural infrastructure, according to a recent survey by the Georgia Chamber of Commerce.⁸⁷

Supporting National Initiatives

The U.S. DOT's **Rural Opportunities to Use Transportation for Economic Success (ROUTES)** initiative will enhance safety, connectivity, and economic competitiveness in rural areas by improving the ways that rural areas can use U.S. DOT discretionary grants and credit programs for transportation infrastructure projects. Under the leadership of a U.S. DOT multimodal council, ROUTES is collecting input from stakeholders on the assistance rural projects require; aligning discretionary funding and financing opportunities with the needs of rural communities; and providing education and outreach to rural communities. This program provides a model for how GDOT could support its rural partners. GDOT will actively participate in nationwide rural planning initiatives to understand best practices and leverage upcoming funding opportunities.

U.S. DEPARTMENT OF TRANSPORTATION

R.O.U.T.E.S.
RURAL OPPORTUNITIES TO USE TRANSPORTATION FOR ECONOMIC SUCCESS

WHAT IS R.O.U.T.E.S.?
The Rural Opportunities to Use Transportation for Economic Success (R.O.U.T.E.S.) Initiative will improve the ways that rural areas can use DOT discretionary grants and credit programs for transportation infrastructure projects. By expanding opportunities for rural projects to receive applicable discretionary funds, DOT can tangibly improve safety and economic competitiveness in all parts of the country.

WHY IS R.O.U.T.E.S. NEEDED?
Rural transportation networks are critically important for domestic use and export of agriculture, mining, and energy commodities, as well as the quality of life for all Americans. Yet rural networks face unique challenges in safety, infrastructure condition, and usage:

- While only 19% of the nation's population lives in rural areas, 43% of the nation's highway fatalities occur on rural roads
- 34% of all highway-rail crossing fatalities occur in rural areas, and the highway fatality rate is more than twice that in urban areas
- Nearly half of all truck vehicle-mile-traveled (VMT) occur on rural roads, and two-thirds of rail freight originates in rural areas
- 90% of posted (limited-weight) bridges are in rural areas

WHAT IS R.O.U.T.E.S. DOING?
R.O.U.T.E.S. accomplishes its goals through three areas of activity:

- Collecting input from stakeholders on the assistance rural projects require;
- Aligning the Department's discretionary funding and financing opportunities with the needs of rural communities, based on data and tangible evidence of need; and
- Providing education and outreach to rural communities to assist them in understanding and using DOT discretionary grants.

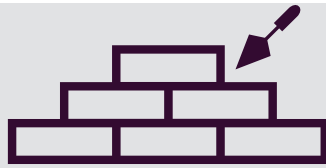
The effort is led by an internal DOT multimodal Council that ensures DOT's rural efforts are coordinated across its mode administrations.

Contact Us
For more information, please visit www.dot.gov/routess or send us an email at routess@dot.gov

43% of truck VMT occurs in rural areas.

⁸⁷ <https://www.gachamber.com/wp-content/uploads/2018/01/2020-Rural-Recommendations.pdf>.

Strategies for Investment



Foundational Investments for People Mobility in Emerging Metros and Rural Georgia

Foundational investments in both emerging metro areas and rural areas focus on the essentials of safety, asset management, and operations with targeted approaches to meet the unique needs of rural Georgia.

- » **Highway and rail safety**, focusing on addressing lane departures, intersections, work zones, and other potential risks, as well as vulnerable road users and driver behaviors. This includes partnering with local governments to address safety needs on high-risk rural roads. With the growth of freight overall and changes in private sector railroad operations, Georgia communities also are beginning to experience more railroad crossings blocked by trains. Investments in mitigation strategies, including grade separations, will be made as funding and engineering allow.
- » **Asset management** to maintain bridges and pavement in good condition. This includes investing in State-owned roads and bridges as well as partnering with local governments to reduce the number of locally-owned bridges that are closed or open with weight restrictions.
- » **Operations**, including working with local governments to improve traffic signals, traveler information, and incident response. GDOT will continue the **SigOps Statewide** program (formerly known as the Regional Traffic Signal Operations program), which provides operational and maintenance support for traffic signals outside Metro Atlanta. **The Coordinated Highway Assistance & Maintenance Program (CHAMP)** provides roadside assistance on Interstates outside Metro Atlanta.
- » A new **Rural Development Lump Sum program** will advance small-scale safety and innovative solutions in rural Georgia, such as closing gaps in broadband connectivity for transportation needs, using ITS for evacuation purposes, and relieving safety or operational constraints at intersections. This program is intended to support more rapid solutions that do not qualify for other funding sources, and also can support future catalytic or innovative investments.
- » **Emergency response**, including continuing to collaborate with local governments to develop emergency management plans, identifying and planning for evacuation routes statewide, and expanding evacuation and response capacity on GDOT roads, such as contraflow and paved median crossovers.

A Focus on Bridges

GDOT will continue to assist local governments in reducing the number of posted or closed bridges through partnerships including the Low Impact Bridge Program (LIBP) and the Local Bridge Replacement Program (LOCBR).



Source: www.dot.ga.gov/InvestSmart/BridgePrograms/Pages/LocalBridges.aspx



Catalytic Investments for People Mobility in Emerging Metros and Rural Georgia

Catalytic investments focus on strategic expansion of the transportation system to help support economic development opportunities in emerging metros and rural Georgia.

- » **Strategic capital investments on rural corridors**, with emphasis on those identified in State law as part of the Governor’s Road Improvement Program (GRIP), designated as freight corridors through the Georgia Statewide Freight and Logistics Action Plan, or designated as emergency evacuation routes. GDOT will work with MPOs, local governments, and other partners to strategically prioritize capital or connectivity improvements on corridors playing multiple functions or supporting strategic economic development opportunities. The GRIP program has been a key factor in Georgia’s economic growth for more than three decades by building a grid network for four-lane roads to connect the majority of Georgia’s cities with more than 2,500 residents to the Interstate Highway System. GDOT will continue to strategically invest in this framework to connect additional population and employment centers, including industrial sites, and to position rural Georgia to generate additional economic opportunities for Georgians.
- » **Strategic capacity investments in emerging metro areas**, including improvements to limited access corridors or arterials. GDOT will partner with MPOs and local governments to identify high priority capacity projects with emphasis on economic development.
- » **Connectivity to Georgia Ready for Accelerated Development (GRAD) sites and other industrial sites**, working with the Georgia Department of Economic Development to identify locations where improved transportation connectivity is needed to support private investment, job creation, and business retention and expansion.

A Focus on Emerging Metros

GDOT will continue to invest strategically in capacity needs in emerging metros. For example, GDOT is the lead agency for the Windsor Spring Road, Phase V (Road and Bridge Widening) project, which will widen the road and include new turn lanes.



Source: www.augustaga.gov/DocumentCenter/View/5656/RC07-000154-Windsor-Spring-Road-Phase-V-Road-and-Bridge-Widening and <https://images.app.goo.gl/24Yx8aD-BqCSP5BVU6>



Innovation Investments for People Mobility in Emerging Metros and Rural Georgia

Innovation investments focus on piloting and deploying new and emerging technologies in a rural or smaller city context.

- » **Rural broadband connectivity** for ITS and other emerging technologies, including broadband deployment for improved roadway operations and communication with the traveling public, as well as potentially leveraging new conduit and fiber optic cable along the roadsides for supporting other entities' buildout of broadband connectivity for currently unserved rural locations.
- » **Connected and automated vehicles**, with emphasis on applications for rural areas or small cities, including traffic signal timing and phasing, emergency vehicle preemption, evacuation and alternative route management, and smart work zones.
- » **Integrated corridor management** solutions to maximize the use of existing facilities and right of way.

A Focus on Broadband

GDOT, as part of a five-agency team, will help implement the Georgia Broadband Deployment Initiative (GBDI). Other agency partners include the Department of Community Affairs, Department of Economic Development, Georgia Technology Authority, and State Properties Commission. The initiative provides for the expansion of broadband infrastructure and services through new State and local planning policies. GDOT is exploring use of rights of way on Interstates and State-owned roads to deploy and maintain broadband services and other emerging communications technologies.



Source: <https://broadband.georgia.gov/about> and the 2020 Broadband Report

Strategies for Advancing Planning

To improve planning and collaboration related to people mobility in emerging metros and rural Georgia, GDOT will link the SSTP to more detailed plans and programs to guide project-level decisions; strengthen partnerships with MPOs and local governments; and improve planning processes including data and analysis capabilities.



Plans, Programs, and Projects in Emerging Metros and Rural Georgia

- » Evaluate **Georgia Ready for Accelerated Development (GRAD)** sites for their ability to support targeted industries; identify connectivity needs to meet Rural Strike Teams' timelines.
- » Continue **planning for performance** to allocate resources to accomplish safety, reliability, and other targets for emerging metros and rural areas.
- » Identify **high priority rural corridor projects**, drawing from the Governor's Road Investment Program (GRIP), freight corridors, and evacuation route networks.
- » Provide **planning support for rural infrastructure investments**, including exploring State-provided technical support to rural communities modeled after the U.S. DOT's "ROUTES" initiative.
- » **Pursue discretionary Federal funding opportunities** such as the Infrastructure for Rebuilding America (INFRA) program; actively participate in national discussions about potential targeted rural programs in the next Federal authorization act.
- » Finalize multi-agency assessment regarding Georgia's level of **risk and resiliency** to natural, technological, and manmade disasters, and use the results of the assessment to inform future statewide planning decisions.
- » Build on the work of GDOT's Interagency Office of Environmental Quality and Planning and Environmental Linkages Task Force to enhance environmental review processes and promote **environmental stewardship** as part of future investment planning.



Partnerships in Emerging Metros and Rural Georgia

- » Continue **strategic coordination** with MPOs and regional commissions on expanding capacity and connecting investments to support economic development in emerging metros and rural areas.
- » Explore options to partner with the private sector to modernize the GDOT right-of-way fee structure to support **broadband buildout** to unserved areas.
- » Explore potential GDOT partnerships for strategic investments on regional **Transportation Investment Act** (TIA) project lists.
- » Encourage and participate in **smaller city/rural technology partnerships** to apply “smart region” technology strategies in smaller city or rural environments.
- » Strengthen the emphasis on rural safety including support for **local road safety plans** and **rail grade crossing action plans**.
- » Provide technical support to local governments for **rural transit asset management and operations**.



Performance in Emerging Metros and Rural Georgia

- » Develop **performance measures** emphasizing connectivity, accessibility, and economic development to better understand the need for and benefits of rural capital projects.
- » Analyze performance and economic benefits of **rural mobility and connectivity projects**, including broadband investments.
- » Review outcomes of the four regions funding projects through sales tax revenues implemented under the **TIA** in relation to the goals of the SSTP.



6

BUSINESS CASE FOR INVESTMENT

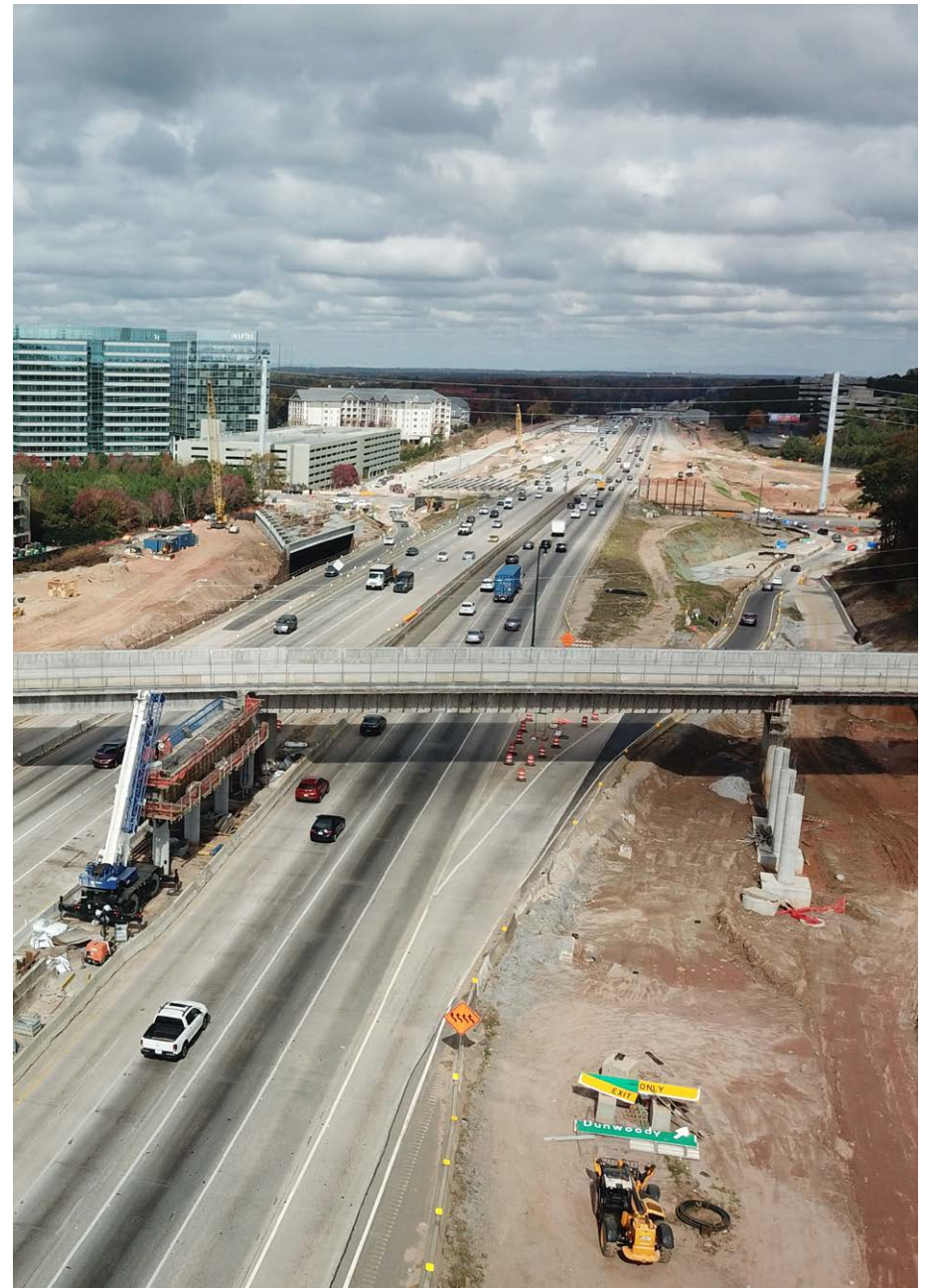
The SSTP includes an investment scenario that moves the investment strategies into action by allocating revenue into investment programs. This section documents how the scenario was developed, describes the key resource allocation decisions, and summarizes anticipated impacts of these investments on the performance of Georgia's transportation system and the State's economy.

Developing the Investment Scenario

The investment scenario allocates revenue into investment programs, including safety, bridges, pavement, operations, and capacity. GDOT developed this investment scenario to improve or maintain performance, where possible, while enabling investment in its priorities consistent with the SSTP strategies in support of the Governor's goals.

The investment scenario is fiscally constrained. It strategically invests the estimated \$2.38 billion in available average annual budget through the year 2050. It describes the resources GDOT will use to make investments in foundational, catalytic, and innovation strategies for statewide freight and logistics, people mobility inside Metro Atlanta, and people mobility in emerging metro areas and in rural Georgia.

GDOT's Office of Planning developed the investment scenario by working with directors of partner offices at GDOT and subject matter experts in various disciplines. GDOT used the best available data and tools to consider how performance would change over time with different investment levels and to balance projected performance impacts within optimal funding allocations. The actual performance impact is likely to exceed the benefits estimated in this report because existing models and analyses do not fully capture all benefits, particularly the value of stronger connectivity in rural Georgia and more reliable operations statewide.



Forecasting Future Revenues

GDOT revenue forecasts indicate the agency will enable an estimated \$2.38 billion of investments in Georgia’s roadway system, on average every year from 2021 to 2050.⁸⁸ These long-range revenue forecasts are based on expected population increases and economic expansion statewide, as well as historic growth trends of Federal and State funding sources such as motor fuel taxes and motor vehicle fees.

- » These available funding resources do not include the recently-enacted ride share fee, as passed by the General Assembly in 2020’s House Bill 105.⁸⁹ Since collection of the new fee is in the very early stages, revenue projections are not yet available and policies for disposition of the new revenues are still in development.
- » GDOT forecasts its revenues through 2050 in Year of Expenditure (YOE) dollars. YOE describes the revenue expected in each future year.
- » In developing the investment scenario, GDOT rolled back the YOE dollars to 2019 dollars using a 1 percent discount rate for the first 15 years (to reflect the current low Federal interest rate on short-term loans, the 2020 economic recession, and uncertain economic recovery) and a 2 percent discount rate for the second 15 years (to reflect a return to a more typical economy). The discount rate is the minimum interest rate set by the Federal Reserve Bank for lending to other banks. This rate can be used to value future cash flows in 2019 dollars.
- » All performance models were developed to show how spending in 2019 dollars would impact performance of the system in 2050, relative to both 2019 performance and 2050 performance if current resource allocation policies remained unchanged through that period.



⁸⁸ This forecast does not include revenues set aside for the Major Mobility Investment Program (MMIP), Local Maintenance & Improvement Grant Program (LMIG), and debt service.

⁸⁹ <https://www.legis.ga.gov/legislation/54469>.

GDOT will use this long-range investment scenario to refine and revise the Statewide Transportation Improvement Program (STIP) in the future. The FY21-FY24 STIP will begin incorporating new priorities of this investment scenario such as the new lump sum programs for freight operations and rural development. Over time, the STIP will more fully reflect the complete list of SSTP strategies and the long-range investment scenario.

Investment Scenario

GDOT will continue to invest in its foundational programs—improving safety for the people of Georgia on the State’s highways and at rail crossings, keeping its assets in good condition, and managing operations of its system to support efficient and reliable travel. Taking care of the basics and sustaining the quality of GDOT’s infrastructure by investing in the right place at the right time will allow GDOT to make catalytic investments to grow the economy and innovation investments to keep pace with emerging technologies and practices.

The investment scenario identifies planned annual investment levels over the next 30 years in major programs; specific annual allocations will be determined as part of STIP development and may vary from this average based on specific opportunities and challenges during that time. Individual program areas will select projects for the STIP based on specific opportunities and challenges in that area at that time.





Safety

GDOT plans to invest an average of \$310 million annually, 13 percent of the total available budget. This includes \$200 million in its Highway Safety Improvement Program (HSIP) and \$110 million in the rail grade crossing program. The increase in investment will enable GDOT to invest more deeply into highway safety in rural Georgia, where the fatalities per capita are disproportionately high, and to address bicycle and pedestrian fatalities based on safety data. GDOT also will invest in safety improvements to rail/highway crossings on State routes, focusing on innovative approaches to reducing vehicle conflicts through non-capacity investments.

Performance Matters.

As a Vision Zero State, GDOT is committed to lowering fatal crashes to zero. When people move safely, it reduces the cost of travel for everyone. There are fewer crashes, travel times are more reliable, and the economy remains productive.

SAFETY

At recommended investment levels

Georgia could

reduce the number of fatal and serious injury crashes by an average of

82
each year
through **2050**

*Performance models do not include the safety impacts of investments on behavioral change.



Bridges

GDOT plans to invest an average of \$412 million annually, 17 percent of the total available budget. This includes \$200 million on National Highway System (NHS) bridges, \$54 million on non-NHS GDOT-owned bridges, and \$158 million on other programs including maintenance, rehabilitation, and preservation for all bridges; the Local Bridge Replacement Program; and the Low Impact Bridge Program.

The investment scenario suggests overall higher priority for NHS bridge programs, including shifting a portion of bridge investment levels over the 30-year period to the NHS from the non-NHS GDOT-owned bridge assets. This shift recognizes the role of the NHS in providing statewide and national connectivity for moving both people and freight. NHS bridges in Georgia are in excellent condition today, but as the system ages, this performance will decline without an increase in annual investment levels.

Performance Matters. Bridge condition, loads, and vertical clearances directly impact access to centers of activity in rural areas and emerging metros.

BRIDGE

At recommended investment levels about **90%** of **GDOT-owned bridges** (measured in deck area) would remain in **good or fair condition** in **2050**

*Performance models only included bridge replacement. GDOT will maintain and preserve its bridges, keeping them in better condition than presented here.



Pavement

GDOT plans to invest an average of \$350 million annually, 15 percent of the total available budget. This includes \$160 million on NHS pavements, \$115 million on non-NHS GDOT-owned pavements, and \$75 million on other programs, including invitation to bid—a routine maintenance program.

Like bridges, the investment scenario suggests higher priority for NHS pavements, including shifting a portion of pavement investment levels over the 30-year period to the NHS from other GDOT-owned corridors to support the statewide role of the NHS corridors. GDOT will tailor investments for non-NHS assets to highlight those that provide important freight mobility, economic development, or emergency evacuation function requiring regional or statewide connectivity.

Performance Matters.

For the public, pavement in good condition translates to a smooth ride, less noise, and lower vehicle operating (repair) costs. This means a lower cost of doing business.

PAVEMENT

At recommended investment levels
about

88%

of

GDOT-owned pavement

(measured in lane-miles)

would remain in

good or fair condition

in **2050**



Operations

GDOT plans to invest an average of \$362 million annually, more than 15 percent of the total available budget. This includes \$40 million on SigOps Metro, \$54 million on SigOps Statewide, and \$268 million on other programs including SigOps maintenance, Highway Emergency Response Operators (HERO), Coordinated Highway Assistance and Maintenance Program (CHAMP), Transportation Management Center (TMC) floor operations, Intelligent Transportation Systems (ITS) device needs, ITS Lump Sum Program, Signal Lump Sum Program, and Operations Improvement Program. These other programs represent the bulk of operations spending.

These operations programs have continued to produce results for Georgia’s taxpayers. Increased investment will enable GDOT to expand its footprint of managed signals inside and outside of Metro Atlanta. It also will allow the program to evolve to keep pace with emerging technologies for connected and automated vehicles.

Performance Matters.

The programs help manage the most congested roadways. Lower delay translates to improved reliability. This also means a lower cost of doing business.

OPERATIONS

At recommended investment levels
average **weekly hours of
delay statewide**
would **decrease
more than** **10%**
compared to
2050
baseline levels



Capacity

GDOT plans to invest an average of \$948 million annually, 40 percent of the total available budget.⁹⁰ This includes \$908 million on the capacity program and \$40 million on two new programs: the **Freight Operations Lump Sum program**, which is intended to strategically address freight-oriented operational problems that are smaller scale yet cannot be readily solved by other existing improvement strategies; and the **Rural Development Lump Sum program**, which is intended to support focused, small-scale rural capital and operations projects related to safety, innovation, and broadband buildout for transportation purposes.

The capacity program is large enough to invest in another MMIP-like program through the 2050 planning horizon year, while still enabling GDOT to address capacity needs of different types throughout the State. As more capacity is added to the system, more infrastructure will require maintenance and operations over the coming decades.

Performance Matters.

One key measure of transportation system performance is “level of service,” which is a measure of traffic flow and the quality of highway service considering factors such as vehicle speed, density, and congestion. GDOT measures level of service on a scale from A (high) to F (low). A higher level of service means improved reliability, decreased delay, and improved overall traffic conditions. This means a lower cost of doing business and more money in customers’ pockets.

CAPACITY

At recommended investment levels the share of **GDOT lane-miles** operating at **acceptable levels of service would remain at today’s levels** even as **travel demand grows**, with a cumulative 30-year savings of **15.2 billion hours of travel time, \$425 billion in travel time costs, and \$28 billion in vehicle operating costs** for Georgia’s residents, businesses, and visitors

⁹⁰ This total does not include previous commitments to the Major Mobility Investment Program.



Benefits of Rural Capacity Investment

The strategies for advancing planning will set the stage for identifying potential investments and making resource allocation decisions in plans and programs based on economic impact, return-on-investment, and quality-of-life improvements.

Rural and emerging metro areas require a different approach to capacity investments than Metro Atlanta. Rural areas often would benefit from targeted investments that support rural industries such as agriculture and forest products and connect rural economic centers to Metro Atlanta, regional markets in the Southeast, and the globe. These centers could be Georgia Ready for Accelerated Development (GRAD) sites, intermodal rail terminals/“inland ports”, or warehouse and distribution centers.

Investments in projects that add significant capacity such as new lanes, managed lane projects, or major freight bottleneck projects often are not necessary to enact meaningful improvements for rural businesses. Rather, quicker and more cost-effective investments in rural areas often include turn lanes, passing lanes, and other more targeted strategic projects.

Traditional capacity models can analyze the impact on congestion, but do not fully tell us the impact on the businesses and communities that need these targeted capacity investments. GDOT will advance the state of the practice and develop analytical methods for measuring the impacts of these non-congestion related capacity investments.

Anticipated Economic Benefits of the SSTP Investment Scenario

These savings will accrue across the State to businesses and residents. Lower travel time and vehicle operating costs reduces the direct cost of travel for businesses and residents. More importantly, more efficient travel times expand the labor pool from which employers can attract workers and the delivery market businesses can easily serve, increasing Georgia's overall economic competitiveness. For Georgians, this means greater access to jobs and services and more time available for work and personal life. For Georgia's small and large businesses, this means lower business costs and better access to domestic and international markets. The direct transportation savings lead to a faster growing economy.

Between

**2021 &
2050,**

Georgia's employment would be on average

94,000
jobs higher per year.



\$11.1

billion in additional gross state product each year.

On average, Georgia's economy would produce an additional

\$8.4
billion in personal income

and

Estimated Benefits to Georgia’s Economy from Recommended Investment Plan (average annual increase, 2021-2050)

	Statewide Freight and Logistics	People Mobility in Metro Atlanta	People Mobility in Emerging Metros and Rural Atlanta
Jobs	24,440	43,240	26,320
Personal Income (2019 dollars in Billions)	\$2.2	\$3.9	\$2.3
Gross State Product (2019 dollars in Billions)	\$2.9	\$5.1	\$3.1

Note: (average annual increase, 2021-2050).





7

PREPARING FOR IMPLEMENTATION

GDOT will begin implementation of the SSTP through two major sets of activities:

1. Short-term next steps to move the investment framework into action.

GDOT will begin executing the 30-year investment framework outlined in the SSTP, focusing initially on the following actions:

- » **Invest in projects and programs in the Statewide Transportation Improvement Program (STIP) to begin carrying out the strategies in the SSTP.** The upcoming FY21-FY24 STIP will reflect project and programmatic investments that are implementable in the near term, to align with the long-term categorical improvements in Georgia's transportation systems. It also will include the new Freight Operations and Rural Development Lump Sum programs and other SSTP investment priorities. Future updates to the STIP will further reflect strategic investments and incorporate additional long-term SSTP investment priorities as applicable for the categorical investments needed in those future periods.
- » **Update other GDOT modal and system plans to align with the SSTP.** GDOT will update the Georgia Statewide Freight and Logistics Action Plan to quantify the projected freight volume growth, as well as the location and types of new or increased freight flows based on projected trends for the global economy and recommended infrastructure management and improvement approaches based on return-on-investment analysis. The updated Freight Plan will align with U.S. DOT's newly-published National Freight Strategic Plan, with an emphasis on agriculture and manufacturing freight movement, intermodal connectivity, and options to solve bottlenecks. The SSTP also will provide a framework for updates of additional modal and system plans over the next few years.
- » **Continue accountability reports as required by 2009's Senate Bill 200.** Georgia Code 32-2-41.2 requires the Director of Planning to submit an annual report to the Governor, Lieutenant Governor, Speaker of the House of Representatives, and Chair of the House and Senate Transportation Committees detailing the status of projects in excess of \$10 million. This requirement is implemented through three specific reports covering projects open to traffic, under construction, or in design. Statute also requires an annual report summarizing savings from value engineering activities. GDOT will continue to formulate these reports to provide accountability for implementing the legislation and the SSTP.

2. Ongoing activities to enhance planning and collaboration processes.

In parallel with these specific planning and resource allocation decisions, GDOT will move forward with enhancements to its planning and collaboration to fully implement the SSTP. These activities will focus on three areas:

- » **Plans, projects, and programs** – including efforts to update and align existing modal and system plans and identify program- and project-level investments for consideration in future updates to the SSTP and STIP.
- » **Partnerships** – including efforts to strengthen existing and new partnerships with Metropolitan Planning Organizations, regional commissions, economic development organizations, modal operators, and the private sector to accomplish the Governor’s goals and implement the SSTP strategies.
- » **Performance** – including efforts to enhance GDOT processes, technical capabilities, and supporting data and tools with emphasis on performance, asset, and risk management; economic impact and return-on-investment analysis; and data management and business intelligence.

GDOT will track progress toward the implementation of the SSTP and prepare for future SSTP updates.





Alignment of SSTP Strategies with the Governor’s Strategic Goals

Invest/Advance	Focus Area	Investment Type	Action Item	Make Georgia #1 For Small Business	Reform State Government	Strengthen Rural Georgia	Put Georgians First	
Invest	Statewide Freight and Logistics	Foundational	Commercial Motor Vehicle and Rail Safety	✓		✓	✓	
			Asset Management for Key Freight Corridors and GDOT Owned Rail	✓	✓	✓		
			Intelligent Transportation System (ITS)/Operational Improvements Including Freight Operations Lump Sum Program	✓	✓	✓	✓	
		Catalytic	Major Mobility Investment Program (MMIP)	✓	✓			
			Freight Bottlenecks	✓		✓		
			Intermodal Connections	✓			✓	
			Connectivity to Georgia Ready for Accelerated Development (GRAD) Sites	✓			✓	
			Rail Capacity Projects	✓			✓	
		Innovation	Real-Time Information Sharing	✓	✓	✓	✓	
			Freight Corridor Technologies	✓	✓	✓	✓	
			Freight Vehicle Technologies	✓	✓	✓	✓	
			Supply Chain Management Technologies	✓	✓	✓	✓	

Invest/Advance	Focus Area	Investment Type	Action Item	Make Georgia #1 For Small Business	Reform State Government	Strengthen Rural Georgia	Put Georgians First
Advance	Statewide Freight and Logistics	Plans, Programs, Projects	Update Georgia Statewide Freight and Logistics Action Plan; Determine Need for Additional Freight Programs and Partnerships	✓	✓	✓	
			Address Freight Corridor Bridge and Pavement Priorities in Update to the Transportation Asset Management Plan	✓	✓	✓	✓
			Evaluate the Future of Georgia's Interstate Highway System, Including Long-term Reconstruction, Modernization, and Adaptation Strategies	✓	✓	✓	✓
			Assess Investment Opportunities on GDOT-owned Rail Corridors Providing Public Benefit	✓		✓	
			Update State Rail Grade Crossing Safety Action Plan	✓		✓	✓
			Identify Strategies for Improving Intermodal Connectivity	✓	✓	✓	
			Continue Evaluating Options to Improve Freight Movement in the Areas of the Ports of Savannah and Brunswick	✓		✓	
			Pursue Discretionary Federal Funding Opportunities (e.g., INFRA)			✓	
			Finalize Multi-agency Assessment Regarding Georgia's Level of Risk and Resiliency		✓	✓	✓
			Enhance Environmental Review Processes and Promote Environmental Stewardship as Part of Future Investment Planning		✓		✓
		Partnerships	Explore Truck Parking Partnerships	✓	✓	✓	✓
			Collaborate with Rural Strike Teams to Pursue Freight and Logistics Projects	✓	✓	✓	
			Collaborate with Atlanta Regional Commission and Other MPOs on Regional Freight Mobility Plans	✓			
			Identify Strategies to Support Broadband Connectivity for Freight Facilities	✓	✓	✓	
			Explore R&D and Pilot Tests for Freight Technologies (Commercial Vehicle/ Rail Safety, First/Last Mile, Platooning, etc.) and Supply Chain Resilience	✓	✓	✓	✓
			Continue or Expand Industry Partnerships	✓	✓	✓	
		Performance	Enhance Economic Impact/Return On Investment Capabilities for Freight Projects	✓	✓	✓	
			Benchmark Georgia's Competitiveness Relative to Other Global Hub States	✓		✓	
			Develop Policy Framework and Performance Measures for Freight Fluidity and Supply Chain Resilience	✓	✓	✓	

Alignment of SSTP Strategies with the Governor’s Strategic Goals (continued)

Invest/Advance	Focus Area	Investment Type	Action Item	Make Georgia #1 For Small Business	Reform State Government	Strengthen Rural Georgia	Put Georgians First	
Invest	People Mobility in Metro Atlanta	Foundational	Highway Safety	✓			✓	
			Asset Management	✓	✓			
			ITS/Operational Improvements	✓	✓		✓	
			Multimodal Connectivity	✓	✓		✓	
		Catalytic	Managed Lanes	✓	✓			
			Other MMIP in metro Atlanta	✓	✓			
			Other Efficiency and Mobility Improvements	✓	✓			
		Innovation	Connected and Automated Vehicles	✓	✓			✓
			Integrated Corridor Management	✓	✓			✓
	People Mobility in Emerging Metros and Rural Georgia	Foundational	Highway and Rail Safety				✓	✓
			Asset Management Including Rural Roads and Bridges	✓	✓	✓	✓	
			ITS/Operational Improvements	✓	✓	✓	✓	
			Rural Development Lump Sum	✓		✓		
			Emergency Response		✓	✓	✓	✓
		Catalytic	Rural Strategic Capital Investments on Governor’s Road Improvement Program (GRIP), Freight, and Other Key Corridors	✓	✓	✓	✓	✓
			Emerging Metro Area Strategic Capacity Investments	✓				
			GRAD Site Connectivity	✓			✓	
		Innovation	Rural Broadband Connectivity for ITS and Other Emerging Technologies	✓	✓	✓	✓	✓
			Connected and Automated Vehicles	✓	✓	✓	✓	✓
Integrated Corridor Management	✓		✓	✓	✓			

Invest/ Advance	Focus Area	Investment Type	Action Item	Make Georgia #1 For Small Business	Reform State Government	Strengthen Rural Georgia	Put Georgians First
Advance	People Mobility in Metro Atlanta	Plans, Programs, Projects	Assess Managed Lane Opportunities Along Limited Access Facilities Throughout Metro Atlanta	✓	✓		
			Continue Planning for Performance	✓	✓		✓
			Pursue Discretionary Federal Funding Opportunities (e.g., INFRA, ATCMTD)		✓		
			Finalize Multi-agency Assessment Regarding Georgia's Level of Risk and Resiliency		✓	✓	✓
			Enhance Environmental Review Processes and Promote Environmental Stewardship as Part of Future Investment Planning		✓		✓
		Partnerships	Strengthen Strategic Coordination with ARC, Economic Development Partners, Community Improvement Districts on Future Capacity Investments	✓	✓		
			Partner with Transit Agencies as Infrastructure is Planned to Enable Transit Access Where Feasible	✓	✓		✓
			Collaborate with Local Partners and the Private Sector to Expand Metro Atlanta as Test Bed for Emerging Transportation Technologies and Mobility Initiatives	✓	✓		✓
			Support Local Efforts to Address Curb, Parking, Delivery Zone, Other Urban Infrastructure Management	✓	✓		✓
		Performance	Assess Performance of Existing Infrastructure Along Key Thoroughfares for Today's Commute and Future Commutes	✓	✓		
			Assess Safety, Mobility, and Economic Impact of Emerging Mobility Initiatives	✓	✓		✓
			Expand Economic Modeling Capabilities		✓		
	People Mobility in Emerging Metros and Rural Georgia	Plans, Programs, Projects	Evaluate GRAD Sites For Ability to Support Targeted Industries; Identify Connectivity Needs to Meet Rural Strike Teams' Timelines	✓	✓	✓	
			Continue Planning for Performance	✓	✓	✓	✓
			Identify High Priority Rural Corridor Projects, Drawing from GRIP, Freight, and Regional Evacuation Networks	✓	✓	✓	✓
			Provide ROUTES-like Support for Rural Infrastructure Investments	✓	✓	✓	✓
			Pursue Discretionary Federal Funding Opportunities (e.g., INFRA, ROUTES)	✓	✓	✓	
			Finalize Multi-agency Assessment Regarding Georgia's Level of Risk and Resiliency		✓	✓	✓
			Enhance Environmental Review Processes and Promote Environmental Stewardship as Part of Future Investment Planning		✓		✓
		Partnerships	Continue Strategic Coordination with MPOs, Regional Commissions on Capacity Investments to Support Economic Development	✓	✓	✓	
			Modernize Right of Way Fee Structure to Support Broadband Buildout to Unserved Areas	✓	✓	✓	
			Explore Potential GDOT Partnerships for Strategic Investments on Regional Transportation Investment Act (TIA) Project Lists	✓	✓	✓	✓
Develop Smaller City/Rural Smart Region Technology Partnerships			✓	✓	✓		
Strengthen Emphasis on Rural Safety Including Support for Local Road Safety Plans and Rail Grade Crossing Action Plans			✓		✓	✓	
Provide Technical Support for Rural Transit Asset Management and Operations		✓	✓	✓			
Performance		Develop Performance Measures Emphasizing Connectivity, Accessibility, and Economic Development	✓	✓	✓	✓	
		Analyze Performance and Economic Benefits of Rural Connectivity and Mobility Projects and Broadband	✓	✓	✓	✓	
		Review TIA Regions' Outcomes in Relation to the Goals of the SSTP	✓	✓	✓		



GDOT

Georgia Department of Transportation