



Georgia Commission on E-Commerce and Freight Infrastructure Funding

August 23rd, 2021

Jannine Miller, MPA, MBA
Director of Planning
Georgia Department of Transportation

Today's Discussion

1. Georgia Freight & Logistics At-a-Glance
2. Trends & Opportunities
3. GDOT's Next Steps



Georgia Freight and Logistics At-a-Glance

Georgia's Economic Development Results in FY2021

316 Companies expanded or located in Georgia, announcing \$11.5 billion in investment
➤ \$6.3 billion (54%) are logistics-enabled

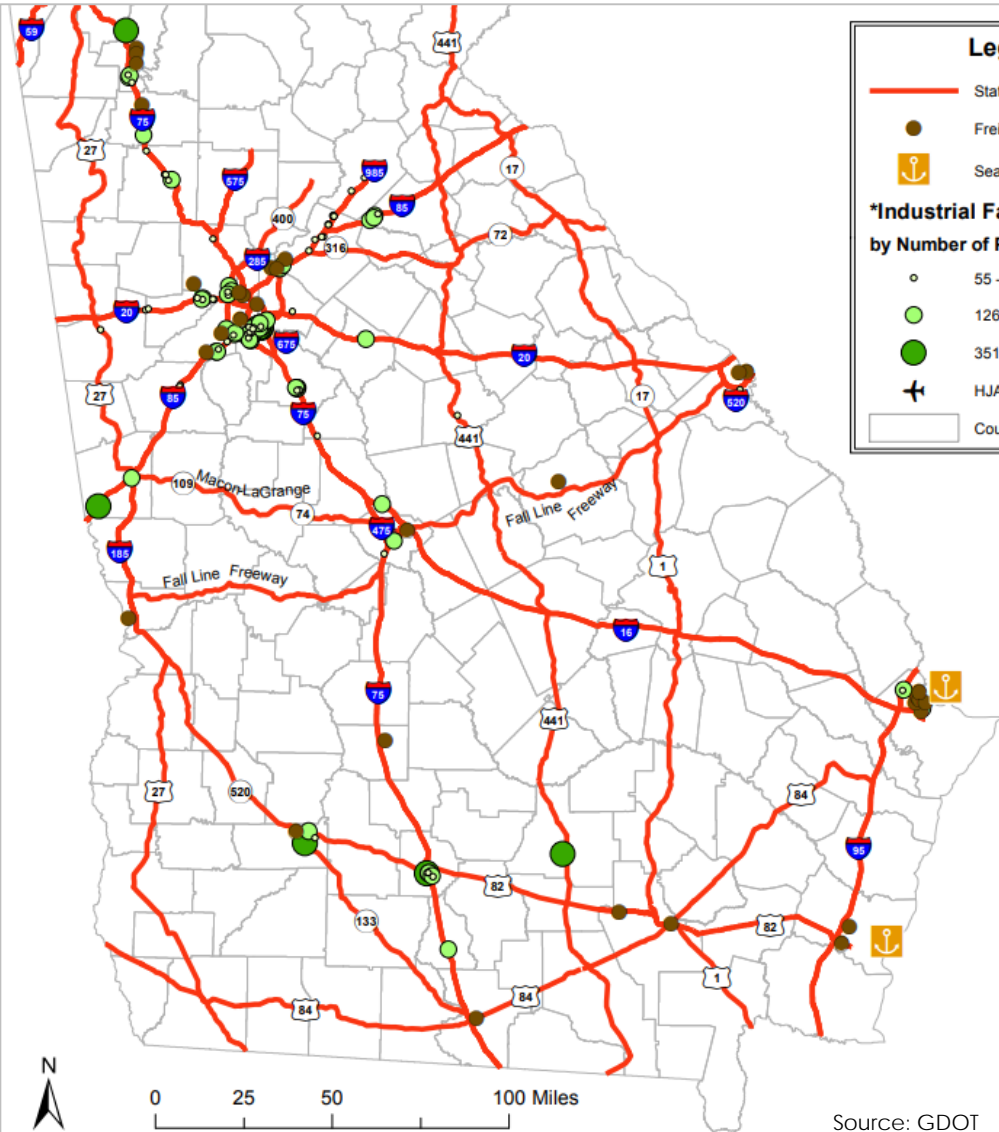
Relevant Industries:

- **Manufacturing and Automotive:** \$2.9 billion by 186 companies, creating more than 10,500 jobs
- **Logistics/Distribution:** \$1.03 billion by 52 companies, creating more than 6,400 jobs
- **Agribusiness and Food Processing:** \$1.76 billion by 53 companies, creating more than 5,800 jobs

Georgia Freight by the Numbers

- **Over 315 million tons** of freight originated and stayed within Georgia in 2017, valued at more than **\$292 billion**
 - Total truck volume on the State Route System: **24.9 million daily**
 - Total truck volume on the State Freight Network (SFN): **18.3 million daily**
 - **73%** of truck traffic on the State Route System travels on the State Freight Network
 - **22%** of the State Route System's centerline miles are on the State Freight Network
 - **63** Georgia Ready for Accelerated Development (GRAD) sites are located **within** a 5-mile radius of a State Freight Network route
-
- **208 of Georgia's 374 (55%) structurally deficient bridges** are on rural local roads
 - Georgia's total active rail mileage: **4,765 miles**
 - **5,044** public rail crossings across Georgia as of January 2020

Georgia's State Freight Network

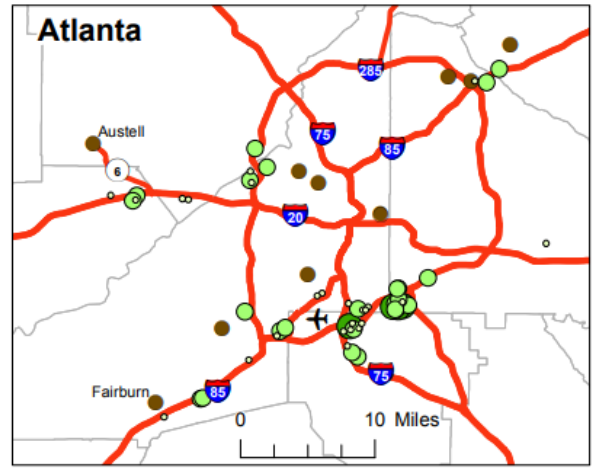
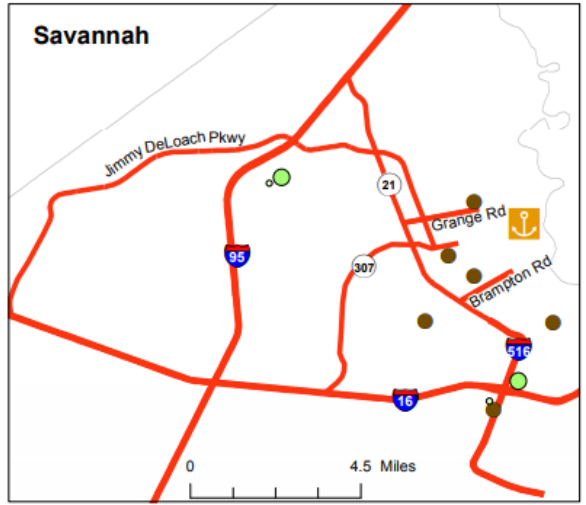


Legend

- Statewide Freight Corridor
- Freight Rail Yards
- ⚓ Sea Port

***Industrial Facilities by Number of Parking Spaces**

- 55 - 125
- 126 - 350
- 351 - 1000
- ✈ HJAIA
- Counties



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

Revised- October, 2016

Source: GDOT

US's Top Micropolitan Areas for Site Selection*

2020 Top States

by Most Top Micropolitan Areas

	State	Count	Projects
1	Ohio	25	99
2	Texas	20	32
3	Georgia	16	46
4	Indiana	15	27
T5	Kentucky	14	40
T5	North Carolina	14	36
T7	Kansas	10	20
T7	Mississippi	10	19
9	Minnesota	9	12
T10	Illinois	8	15
T10	Missouri	8	10

Source: Conway Projects Database

Georgia's towns include:

- Jefferson (2nd)
- Calhoun (tied for 17th)
- Bainbridge & Dublin (tied for 21st)
- Fitzgerald & LaGrange (tied for 32nd)
- Americus, Thomasville & Waycross (tied for 55th)

*<https://siteselection.com/issues/2021/mar/2020-top-micropolitans-the-nations-top-performing-micropolitan-areas-unmask-opportunities-in-tough-times.cfm>

Georgia's Current Freight Vision and Mission

Vision Statement

Georgia will be the global gateway of choice, providing reduced time to market, superior supply-chain efficiency, and reliability from destination to end customer.

Mission Statement

*The State, in partnership with private-sector and local and Federal governments, will identify and promote the implementation of activities that improve the **capacity, capability, and connectivity** of today's supply chains. This will leverage intermodal freight connectors to destinations both inside and outside of Georgia to generate a competitive advantage that benefits Georgians.*

Governor Kemp's Strategic Goals and GDOT's Priorities



Governor Kemp's Vision for Georgia

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

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**

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

2021 GDOT Statewide Strategic Transportation Plan, Page ES-2

2021 Statewide Strategic Transportation Plan (SSTP): Business Case for Investment

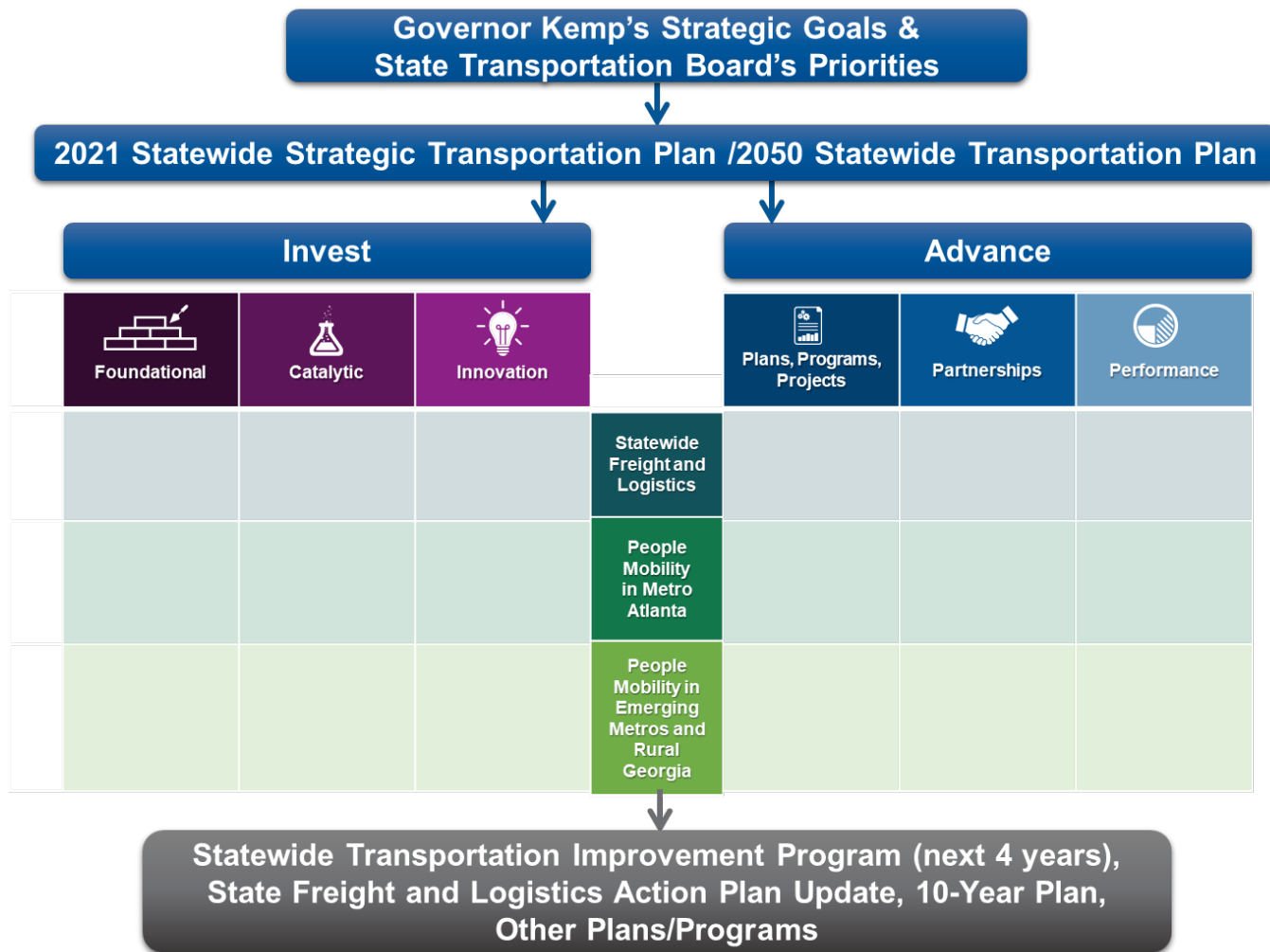
Georgia's SSTP was the first GDOT plan to make a **business case for transportation investment, based on economic outcomes**

- Describes how GDOT plans to invest ~**\$2.4 billion average per year**[†] in Georgia's transportation system through 2050
- Establishes foundational, catalytic, and innovation investment strategies for three portfolios, including **freight and logistics mobility across Georgia**

2021 GDOT Statewide Strategic Transportation Plan, Page ES-6

[†] Including Major Mobility Investment Program (MMIP) projects

2021 Statewide Strategic Transportation Plan (SSTP): Business Case for Investment



SSTP: Statewide Freight and Logistics – *GDOT Commitments*

Plans, Programs, Projects

- Update **Georgia Statewide Freight and Logistics Infrastructure Plan**; determine need for additional freight programs and partnerships, as well as investments and improvements
- Update **State Rail Grade Crossing Safety Action Plan**
- Identify strategies for improving **intermodal connectivity**
- Continue evaluating options to improve freight movement in areas of **Ports of Savannah and Brunswick**
- Explore **discretionary federal funding** opportunities (e.g., INFRA)

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 **metropolitan and regional freight mobility planning**
- 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 and 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**

Trends & Opportunities

National Freight Strategic Plan (NFSP)

Trends & Opportunities



GROWING POPULATION AND ECONOMY

The population and economy of the United States are growing at a steady pace contributing to increased demand for freight. The fastest growing regions of the country are primarily in southern and western States.



DIVERSIFYING GLOBAL SUPPLY CHAINS

International trade is growing and supply chains are becoming increasingly global, increasing congestion at ports, border crossings, and on the infrastructure that connects these trade gateways to the broader transportation system.



CHANGING URBAN-RURAL DYNAMICS

Furthering a long-term trend, the population of the United States is becoming more concentrated in increasingly congested metropolitan areas, creating challenges for delivery of goods. Declining rural populations must support critical freight corridors, while providing essential goods to sustain urban markets.



INCREASING E-COMMERCE

Online shopping is rapidly increasing as a share of retail sales, creating new demands for faster and cheaper delivery of goods straight to consumers. This trend is changing land use patterns and contributing to increased truck traffic and competition for curb space in residential areas.



ADVANCING TECHNOLOGY

Emerging technologies from automation to delivery drones to the Internet of Things have the potential to transform the freight industry, disrupting old business models and changing the nature of freight jobs.

www.transportation.gov/freight



Georgia's Population Growth

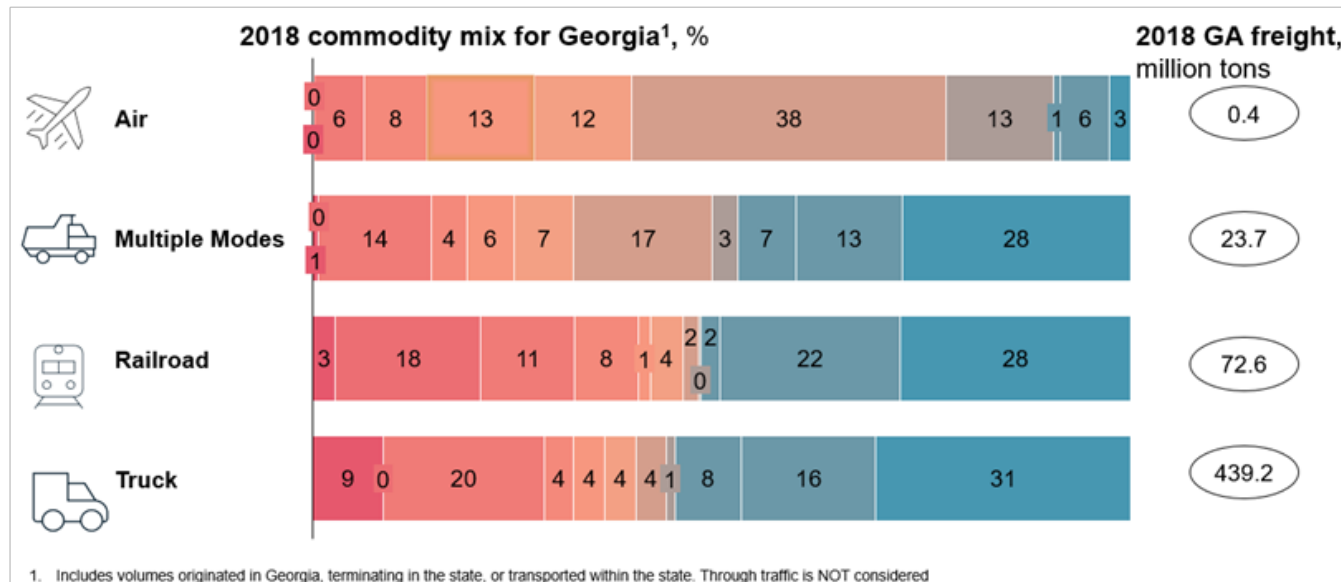
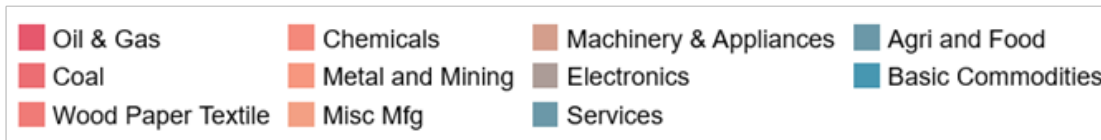
Projected to grow to 12.8M by 2040, lifting ranking from 8th to 5th largest

<i>YEAR</i>	<i>GEORGIA POPULATION</i>
2000	8,186,453
2010	9,687,653
2020	10,711,908
2030	11,835,126
2040	12,820,271

Sources: US Census Bureau; University of Virginia

Freight Tonnage Evolution Scenario in Georgia

Index 2019 average = 100

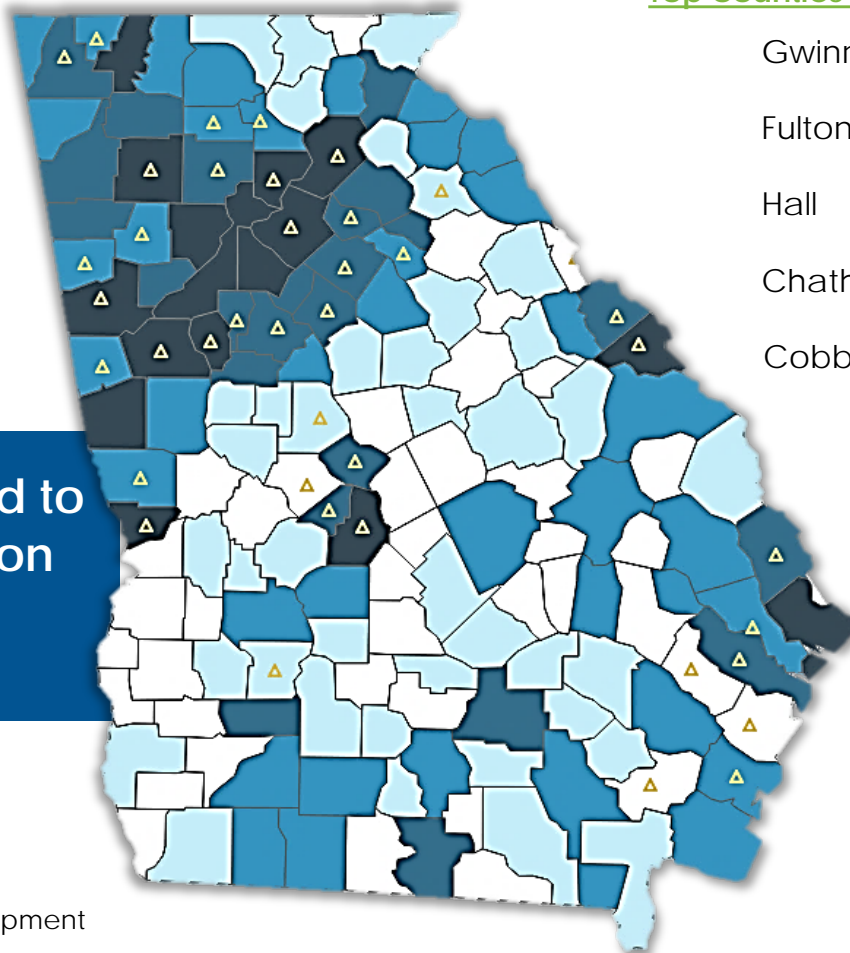


Increased Manufacturing Across Georgia

Real GDP estimates by county for Manufacturing
(NAICS 31-33) Estimated KTONs, 2050¹

Top counties by 2050 projected KTONs

Gwinnett	38,298
Fulton	28,947
Hall	25,097
Chatham	17,478
Cobb	15,864



2050 KTONs²

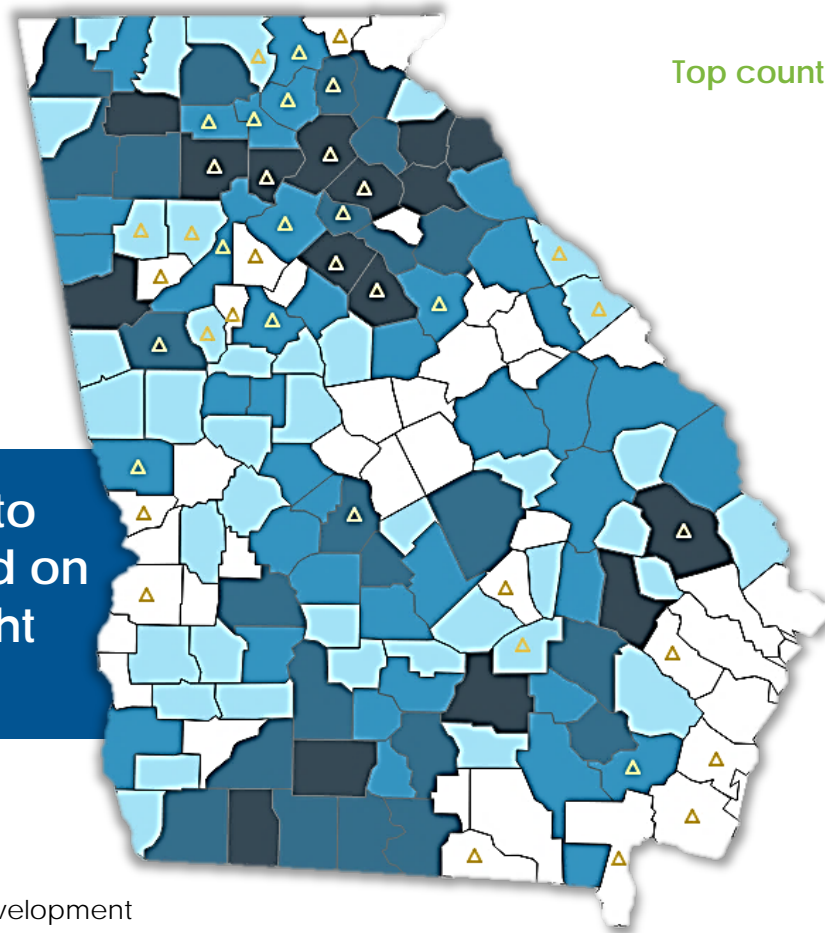
- Less than 129
- 129-591
- 591-2,010
- 2,010-5,797
- Over 5,797
- Counties in top quartile for growth (2020-2050 CAGR)

Manufacturing is expected to grow 77% by 2050 based on projected GSP and freight intensity trends

Source: Georgia Department of Economic Development

Strong Agricultural Growth Statewide

Real GDP estimates by county for Agricultural production industry
(NAICS 111) Estimated KTONs, 2050¹



Top counties by 2050 projected KTONs

Jackson	1,965
Carroll	1,839
Colquitt	1,799
Franklin	1,598
Hall	1,484

2050 KTONs²

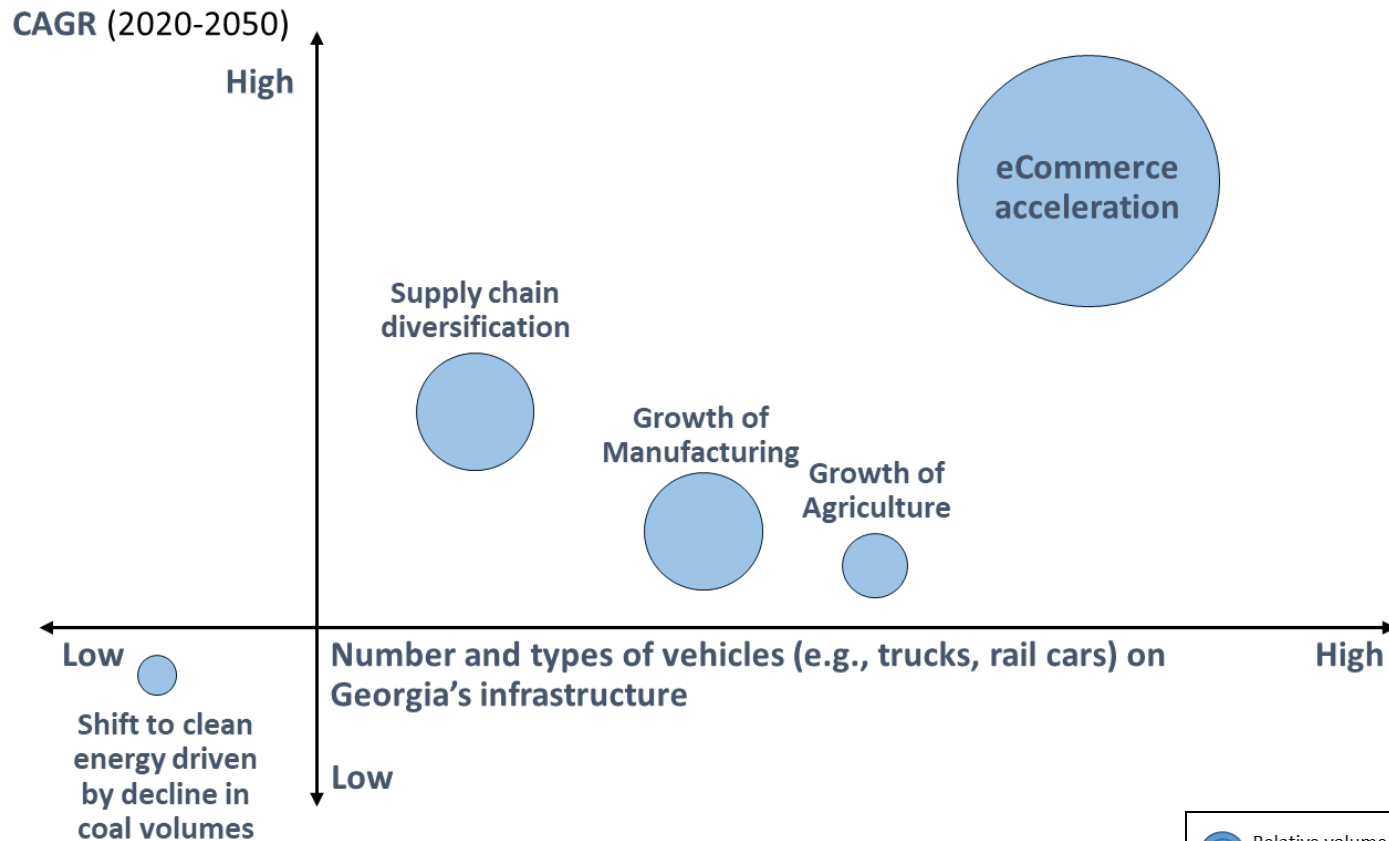
- Less than 273
- 273-444
- 444-659
- 659-974
- Over 974
- Counties in top quartile for growth (2020-2050 CAGR)

Agriculture is expected to grow 43% by 2050 based on projected GSP and freight intensity trends

Source: Georgia Department of Economic Development

E-Commerce: Largest Impact on Freight

Annual growth and infrastructure impact of key freight trends in Georgia¹ (2020-2050)



Source: See backup pages along each freight trend

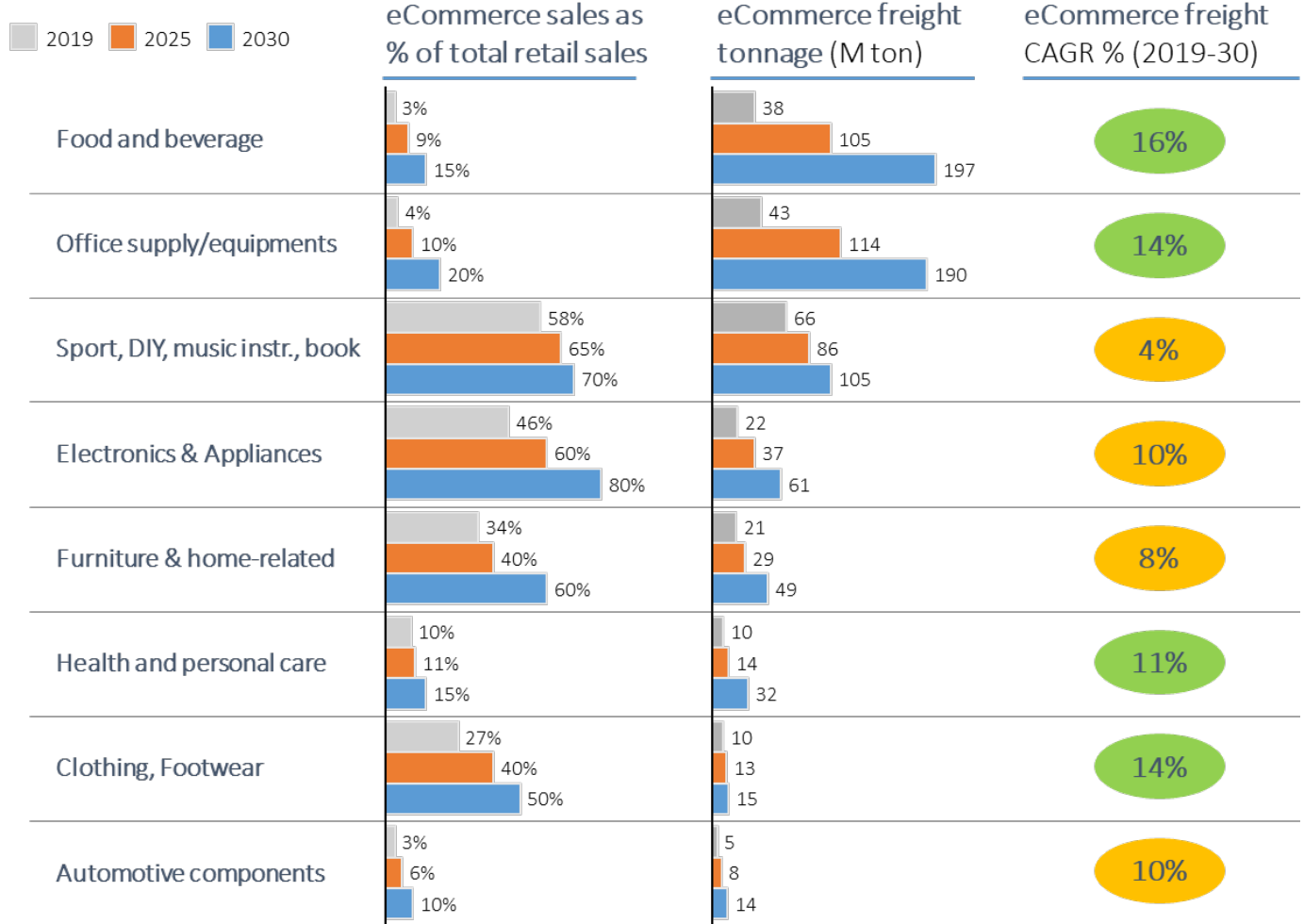
1. Excludes implicit trends (e.g. population growth) and trends only impacting freight modes (technological advancements, move towards decarbonization)

Relative volume impact, tonnage

U.S. E-Commerce Snapshot

- US retail e-commerce sales, Q2 2021: **\$222.5 billion**
 - *Increase of 3.3% from Q1 2021*
 - *9.1% higher YoY*
- E-commerce sales accounted for **13.3%** of total sales in Q2 2021
- US industrial vacancy rate: **4.5%** at end of Q2 2021
 - *Attributable to e-commerce acceleration*
 - *Ties all-time-low vacancy rate registered in Q4 2018*

eCommerce penetration will increase at different rates across categories



GDOT's Next Steps

GDOT's New Programmatic Funding for Key Initiatives

Freight Operations

- ✓ Improve reliability and/or safety of freight operations
- ✓ Reduce community impacts caused by freight vehicle movements

Rural Development

Advance existing and future rural transportation by targeting:

- ✓ Safety and operations improvements
- ✓ Emergency preparedness
- ✓ Broadband infrastructure
- ✓ Innovative transportation solutions

2021 GDOT Statewide Strategic Transportation Plan – business planning framework

- **Foundational Investments – *Run the Business***

Taking care of our existing transportation system, *meeting customer expectations*

- **Catalytic Investments – *Grow the Business***

Strategic expansion to support economic development, *expand the customer base*

- **Innovation Investments – *R&D***

Positioning Georgia's transportation system for the future, *evaluating new options to retain and expand customer base*

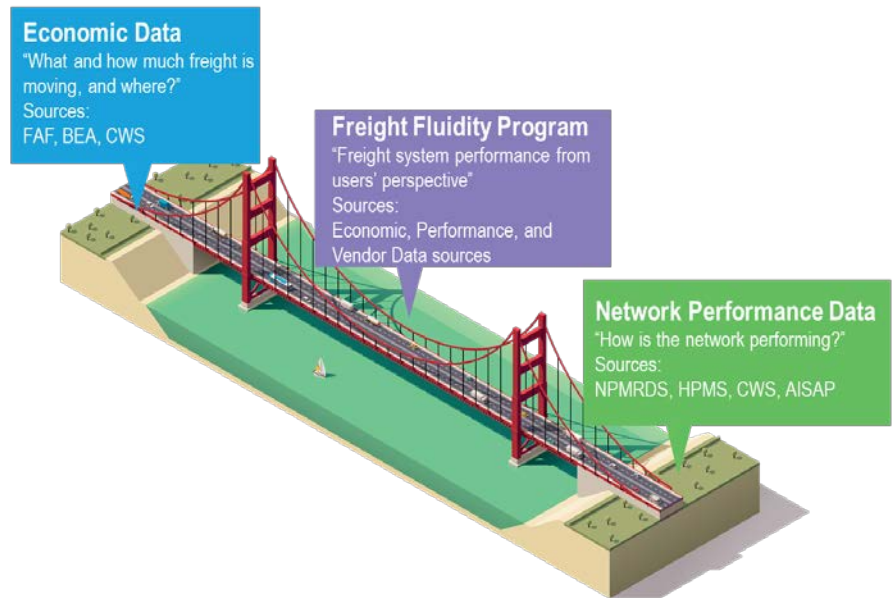
State Freight & Logistics Plan

Selected Analyses and Insights

- ✓ Robust **private sector stakeholder engagement**
- ✓ **Direct collaboration with the Atlanta Regional Commission's** upcoming freight planning activities
- ✓ Review and update of **Georgia's State Freight Network**
- ✓ Expanded investigation of Georgia's **truck parking supply** with **recommended solutions**
- ✓ **Supply chain-focused** assessments of current network performance
- ✓ Identification of the state's **logistics advantages** with **strategic infrastructure opportunities for improving Georgia's competitiveness**
- ✓ **Unprecedented insight into Georgia's freight flows** by using **innovative, business-focused data**
- ✓ Georgia-focused, advanced **freight fluidity analyses**

FHWA's Freight Fluidity Project: Supply Chain-Focused Freight Performance Monitoring

- **Multimodal perspective** on freight performance measurement to support an **economically competitive** and **resilient system** for the movement of goods
- Offers unique **private-sector** and **supply chain perspective** on freight movement
- **Key component** of forthcoming State Freight & Logistics Plan Update

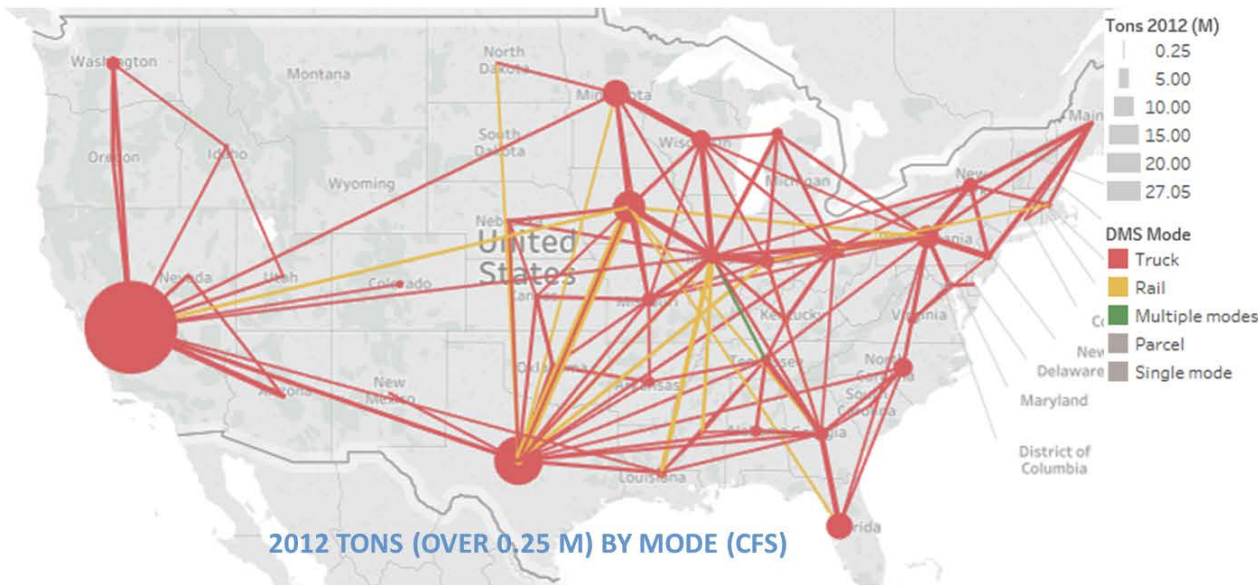


Information and image source: The Eastern Transportation Corridor Coalition

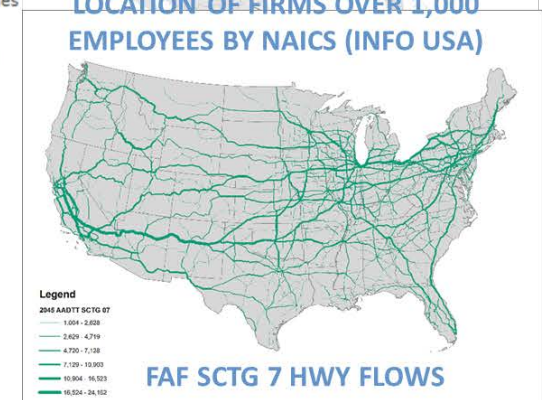
FHWA's Freight Fluidity Project: Example

Industry Sector Example: Food Products Manufacturing

- Definition: NAICS 311-2
- Typical Commodities: **fresh, frozen, or processed meats, poultry, fish, fruits, vegetables; milled grains/oilseeds; sugars; baked goods; beverages**
- Representative Supply Chain (*Examples only*): Anheuser-Busch, Coca-Cola, Perdue, General Mills



NAICS GDP	Trade Share (CFS Value)	D Modes (CFS Ton-Miles)	Tons and Avg Dist (CFS)
\$493 B	4% E, 96% D or I	68% T, 20% R, 12% O	706 M tons, 440 miles





State Freight & Logistics Plan

Key Outcomes and Projected Timeline

- ❖ Multimodal Financial Plan of **catalytic, impactful investments** aligned with the goals of the SSTP/SWTP
- ❖ Federally-Compliant **State Freight Plan with Action Plan**



Thank you!

www.dot.ga.gov/freight