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# 2024 Atlanta Regional Freight Mobility Plan

Freight Advisory Task Force Meeting, November 9, 2023

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Atlanta Regional Commission

# Agenda

- Project Overview (Recap)
- Stakeholder Engagement Update – Industry Interview Takeaways
- Competitive Analysis of the Atlanta Region – National and Peer City Comparison
- Commodity Flow Data
- Truck Volumes and Bottlenecks
- Freight Crash Analysis
- Closing

# Project Overview (Recap)



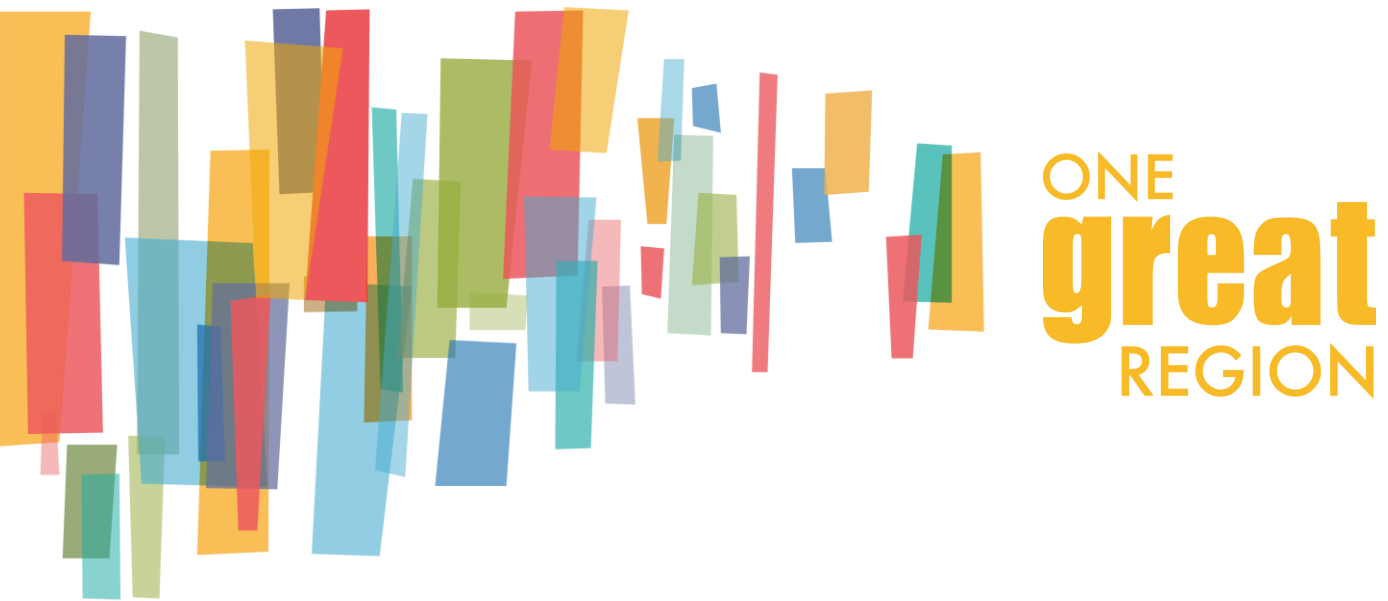
- ▮ Strategic plan to identify intermodal freight needs in the 20-county region
  - Leverage regional freight planning over the last 20 years
  - Align with state freight and logistics efforts
- ▮ Maximize freight funding opportunities associated with Infrastructure Investments and Jobs Act (IIJA)
- ▮ Develop tailored, localized tools and products to support plan implementation

## Key Freight Considerations

- Increasing congestion on Georgia's intermodal freight network
- Community impacts of industrial and freight-oriented development
- Growth in e-commerce and associated freight impacts
- Urban goods delivery and complex curbside management needs
- Deployment of new technologies with associated infrastructure needs
- Ability to connect a trained workforce to freight employment opportunities
- System risk and resiliency

# Project Task Structure





# Stakeholder Engagement Update

Industry Interview Takeaways

# Stakeholder Engagement Overview: Stakeholders

Engagement Activity	Audience	Completed
Local Jurisdiction Sessions	County and municipal staff	19 / 19
Regional Roundtables	Air cargo stakeholders Land use stakeholders	2 / 2
Interviews	Public and Private sector freight industry leadership	18 / 19
Online Surveys	All stakeholder groups	1 / 2
Community Engagement Platform	All stakeholder groups	1 / 1
Advisory Committees	Freight policy and advisory leadership Industry support agencies and organizations	0 / 3

# Completed Industry Interviews



*Industry Partners*



*Railroad Partners*

E-Nest LLC

*Minority-Owned Small Business*



*Freight Focused Corporations*

# Stakeholder Needs & Challenges

## Industry Trends

- Challenges in automation integration
- Rising costs
- E-commerce growth
- Time-sensitive operations

## Truck Parking

- Widespread lack of truck parking
- Inbound carrier parking considerations overlooked
- System inefficiencies further parking problems
- Mixed response on responsibility for creating solutions

## Workforce

- Hiring and retention
- Access to the workplace (transit and roadway congestion)
- Regulatory impact

## Policy

- Curbside management
- Zoning challenges
- Traffic management and regulation
- Truck parking
- Community collaboration

## Infrastructure

- Congestion
- Roadway conditions
- Turning radii
- Vertical clearance of bridges



# Task Force Feedback

- What stands out as significant or surprising with in the feedback collected?
- Can you share some examples of similar needs and challenges that you are familiar with in the Atlanta region?
- Are there any opportunities or challenges that we are not exploring with the stakeholders across the region?

# Survey & Community Engagement Platform

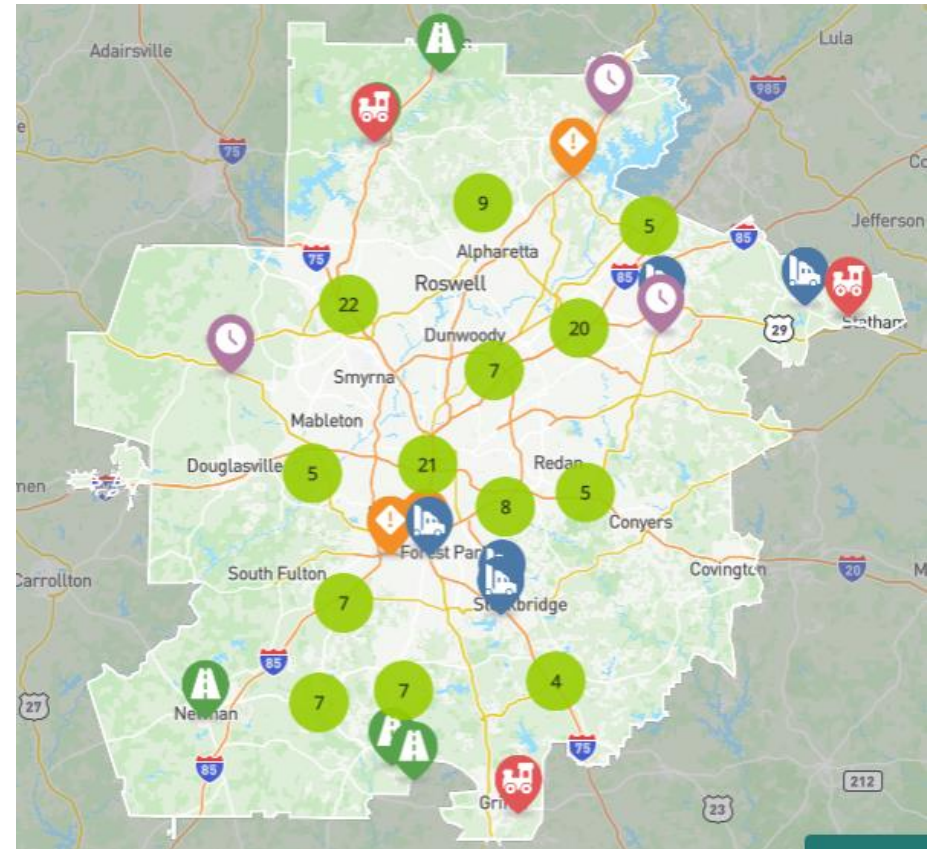
## Survey:

- 283 responses by truck drivers, industry workforce, industry leaders, government representatives, small businesses & the general public

## Engagement Platform (Mapping)

- 147 unique issues or opportunities identified across the region

*Survey closed October 28:  
Analysis coming soon!*



*Engagement Platform feedback from across the region*



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# Competitive Analysis of the Atlanta Region

National and Peer City Comparison

# Metro Atlanta is a major manufacturing center in the Southeast

Top MSA by Manufacturing Employment, 2021

Rank	Metropolitan Statistical Area	Number of Jobs (2021)
1	Los Angeles-Long Beach-Anaheim, CA	499,238
2	Chicago-Naperville-Elgin, IL-IN-WI	414,469
3	Dallas-Fort Worth-Arlington, TX	306,265
4	Detroit-Warren-Dearborn, MI	253,984
5	Houston-The Woodlands-Sugar Land, TX	235,632
6	Minneapolis-St. Paul-Bloomington, MN-WI	203,767
7	<b>Atlanta-Sandy Springs-Alpharetta, GA</b>	<b>183,818*</b>
8	San Jose-Sunnyvale-Santa Clara, CA	176,736
9	Boston-Cambridge-Newton, MA-NH	175,821
10	Seattle-Tacoma-Bellevue, WA	164,144
11	San Francisco-Oakland-Berkeley, CA	158,823
12	Phoenix-Mesa-Chandler, AZ	146,914
13	Portland-Vancouver-Hillsboro, OR-WA	130,304
14	San Diego-Chula Vista-Carlsbad, CA	123,412
15	Cleveland-Elyria, OH	119,824

Top 15 MSA by GDP, 2021

Rank	Metropolitan Statistical Area	GDP (2021) (\$Billion)
1	New York-Newark-Jersey City, NY-NJ-PA	1,992.8
2	Los Angeles-Long Beach-Anaheim, CA	1,124.7
3	Chicago-Naperville-Elgin, IL-IN-WI	764.6
4	San Francisco-Oakland-Berkeley, CA	668.7
5	Washington-Arlington-Alexandria, DC-VA-MD-WV	607.6
6	Dallas-Fort Worth-Arlington, TX	598.3
7	Houston-The Woodlands-Sugar Land, TX	537.1
8	Boston-Cambridge-Newton, MA-NH	531.7
9	Seattle-Tacoma-Bellevue, WA	490.0
10	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	477.6
11	<b>Atlanta-Sandy Springs-Alpharetta, GA</b>	<b>473.8*</b>
12	Miami-Fort Lauderdale-Pompano Beach, FL	417.1
13	San Jose-Sunnyvale-Santa Clara, CA	410.4
14	Phoenix-Mesa-Chandler, AZ	316.1
15	Minneapolis-St. Paul-Bloomington, MN-WI	297.0

Source: Bureau of Economic Analysis, 2023.

\* Note this is MSA level data for the Atlanta region, different from the MPO-level estimates from the ARC REMI model output used in other parts of this analysis.

# Metro Atlanta has a robust and burgeoning industrial real estate market

## Top 10 Fastest-Growing Industrial Real Estate Market, 2021 to 2022

Rank	12-Month Deliveries		
	Market	Square Feet	Percent of Each Metro Market Inventory Delivered in Last 12 Months
1	Dallas-Fort Worth, TX	38,984,000	3.7% of total Dallas market
2	Chicago, IL	25,895,000	1.9% of total Chicago market
3	Phoenix, AZ	25,208,000	6.1% of total Phoenix market
4	Houston, TX	22,481,000	3.0% of total Houston market
5	<b>Atlanta, GA</b>	<b>22,437,000</b>	<b>2.8% of total Atlanta market</b>
6	Inland Empire, CA	18,072,000	4.7% of total Inland Empire market
7	Indianapolis, IN	20,864,000	2.9% of total Indianapolis market
8	Philadelphia, PA	15,116,000	2.6% of total Philadelphia market
9	Kansas City, MO	13,981,000	4.0% of total Kansas City market
10	Columbus, OH	13,211,000	3.9% of total Columbus market

Rank	Under Construction		
	Market	Square Feet	Share of Under Construction Area in Individual Metro Market Inventories
1	Dallas-Fort Worth – TX	90,518,000	8.5% of total Dallas-Fort Worth market
2	Phoenix, AZ	51,965,000	12.6% of total Phoenix market
3	Chicago, IL	41,192,000	3.0% of total Chicago market
4	Inland Empire, CA	41,161,000	5.7% of total Inland Empire market
5	<b>Atlanta, GA</b>	<b>39,438,000</b>	<b>5.0% of total Atlanta market</b>
6	Houston, TX	33,781,000	4.5% of total Houston market
7	Indianapolis, IN	30,240,000	7.9% of total Indianapolis market
8	Philadelphia, PA	25,799,000	4.4% of total Philadelphia market
9	Columbus, OH	23,228,000	6.8% of total Columbus market
10	New York	21,377,000	2.5% of total New York Market

Source: Industrial National Report, United States. CoStar. 2022. The industrial real estate data reflects the inventory and growth in the CoStar Atlanta Industrial Subarea, which includes the ARC MPO area, the portions of Barrow, Dawson, Walton, Newton, Pike, Carroll, and Spalding outside of the ARC MPO area, and 15 surrounding counties, namely, Bartow, Pickens, Hall, Jackson, Jasper, Jones, Twiggs, Butts, Monroe, Bibb, Crawford, Lamar, Meriwether, Heard, and Haralson. See details of the Atlanta Industrial Subarea by following this link: <https://gateway.costar.com/imageviewer/GetImage.aspx?webpdf=2D9AE30F6B3433FD930F65C17657089BCDA9D3DA77CB971BC7C2BCDAA9E8FABE>. Source: CoStar, 2014. Accessed June 2023.

# Metro Atlanta provides over 3% of transportation industry jobs in the US

Top 15 MSA by Transportation Industry Employment Share of Total US Transportation Employment, 2022

Rank	Metropolitan Statistical Area	Transportation Industry Employment (2020)	Transportation Industry Employment Share (2020)
1	New York-Newark-Jersey City, NY-NJ-PA	112,652	5.8%
2	Dallas-Fort Worth-Arlington, TX	107,334	5.5%
3	Chicago-Naperville-Elgin, IL-IN-WI	96,116	4.9%
4	Los Angeles-Long Beach-Anaheim, CA	88,792	4.5%
<b>5</b>	<b><i>Atlanta-Sandy Springs-Alpharetta, GA</i></b>	<b><i>59,853</i></b>	<b><i>3.1%</i></b>
6	Miami-Fort Lauderdale-Pompano Beach, FL	53,904	2.8%
7	Houston-The Woodlands-Sugar Land, TX	39,478	2.0%
8	Phoenix-Mesa-Chandler, AZ	37,875	1.9%
9	San Francisco-Oakland-Berkeley, CA	31,561	1.6%
10	Detroit-Warren-Dearborn, MI	30,381	1.6%
11	Seattle-Tacoma-Bellevue, WA	29,881	1.5%
12	Denver-Aurora-Lakewood, CO	29,154	1.5%
13	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	27,483	1.4%
14	Minneapolis-St. Paul-Bloomington, MN-WI	25,755	1.3%
15	Charlotte-Concord-Gastonia, NC-SC	23,289	1.2%

Source: Harvard Business School US Cluster Mapping Project, 2023. The transportation sector defined in the US Cluster Mapping project includes both freight and passenger transportation industries.

# Metro Atlanta ranks 7th nationally in distribution and e-commerce industry employment

Top MSAs by Distribution & E-Commerce Industry Employment Share of Total US Distribution & E-Commerce Employment, 2020

Rank	Metropolitan Statistical Area	Distribution & E-Commerce Industry Employment (2020)	Distribution & E-Commerce Industry Employment Share (2020)
1	New York-Newark-Jersey City, NY-NJ-PA	454,978	7.2%
2	Los Angeles-Long Beach-Anaheim, CA	335,772	5.3%
3	Chicago-Naperville-Elgin, IL-IN-WI	271,069	4.3%
4	Dallas-Fort Worth-Arlington, TX	201,495	3.2%
5	Houston-The Woodlands-Sugar Land, TX	151,687	2.4%
6	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	150,314	2.4%
<b>7</b>	<b>Atlanta-Sandy Springs-Alpharetta, GA</b>	<b>146,312</b>	<b>2.3%</b>
8	Riverside-San Bernardino-Ontario, CA	127,271	2.0%
9	Miami-Fort Lauderdale-Pompano Beach, FL	127,037	2.0%
10	Boston-Cambridge-Newton, MA-NH	118,050	1.9%
11	San Francisco-Oakland-Berkeley, CA	113,200	1.8%
12	Minneapolis-St. Paul-Bloomington, MN-WI	91,066	1.4%
13	Phoenix-Mesa-Chandler, AZ	89,320	1.4%
14	Seattle-Tacoma-Bellevue, WA	85,663	1.4%
15	San Jose-Sunnyvale-Santa Clara, CA	81,414	1.3%

# Total truck delay in Metro Atlanta is high, but truck delay per road mile is more moderate

Top 15 MPOs by Delay (Truck Hours), 2022

Rank	MPO	Delay (Truck Hours)
1	Southern California Association of Governments, CA	65,252,926
2	New York Metropolitan Transportation Council, NY	28,478,931
3	Metropolitan Transportation Commission, CA	21,743,574
4	Chicago Metropolitan Agency for Planning, IL	21,253,087
5	North Central Texas COG, TX	15,345,463
6	Houston-Galveston Area Council, TX	13,088,771
7	<b>Atlanta Regional Commission, GA</b>	<b>11,832,721</b>
8	North Jersey Transportation Planning Authority, NJ	11,440,158
9	National Capital Region Transportation Planning Board, DC	11,341,277
10	Puget Sound Regional Council, WA	11,052,407
11	Delaware Valley Regional Planning Commission, PA	10,418,376
12	Nashville Area MPO, TN	8,003,408
13	San Diego Association of Governments, CA	7,581,784
14	Wasatch Front Regional Council, UT	7,298,932
15	Southeast Michigan COG, MI	7,211,941

Top 15 MPOs by Truck Delay per Road Mile, 2022

Rank	MPO	Truck Delay per Mile (Hours)
1	Miami-Dade MPO, FL	8,193.56
2	Wasatch Front Regional Council, UT	7,583.22
3	New York Metropolitan Transportation Council, NY	6,711.23
4	Mountainland Association of Governments, UT	6,701.21
5	Baton Rouge MPO, LA	6,474.62
6	Clarksville Urbanized Area MPO, TN	6,284.88
7	Broward MPO, FL	6,172.91
8	Regional Planning Commission of Greater Birmingham, LA	6,049.92
9	Southern California Association of Governments, CA	5,828.92
10	Fredericksburg Area MPO, VA	5,827.22
11	South Western MPO, CT	5,751.06
12	Metropolitan Transportation Commission, CA	5,648.08
13	Cache MPO, UT	5,641.03
14	Lafayette Area MPO, LA	5,576.51
15	Portland Area Comprehensive Transportation System, OR	5,559.62
...	...	...
19	<b>Atlanta Regional Commission, GA</b>	<b>4,641.38</b>



# Truck drivers need to spend 38% more time traveling through Metro Atlanta during peak hours

Top 16 MPOs by Truck Reliability Index, 2022

Truck Reliability Index reflects the consistency or dependability in truck travel time across different times of the day and different days of the week.

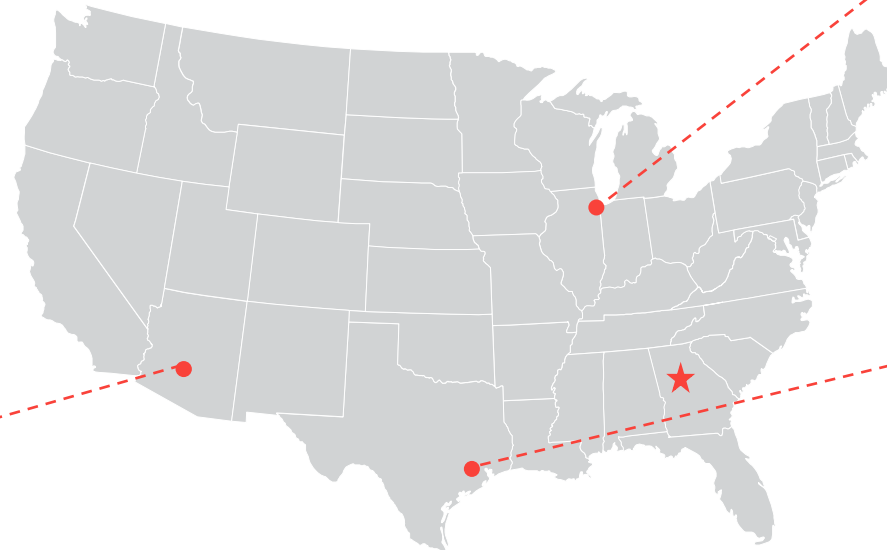
Truck Reliability Index of 1 indicates that truck travel time is the same as free-flow speed travel time.

The higher the index, the less dependable the system is.

The formula used to calculate the Truck Reliability Index is Travel Time Reliability Ratio  $= (95\text{th Percentile Travel Time}) / (50\text{th Percentile Travel Time})$ .

Rank	MPO	Truck Reliability Index
1	South Western MPO, CT	1.64
2	Portland Area Comprehensive Transportation System, OR	1.53
3	Corvallis Area MPO, OR	1.51
4	Fredericksburg Area MPO, VA	1.51
5	Miami-Dade MPO, FL	1.50
6	Housatonic Valley MPO, CT	1.45
7	Boston Region MPO, MA	1.44
8	Tahoe MPO, NV	1.44
9	Greater Bridgeport / Valley MPO, CT	1.43
10	Charleston Area Transportation Study, SC	1.43
11	Chattanooga-Hamilton County/North Georgia Transportation Planning Organization, TN	1.42
12	New York Metropolitan Transportation Council, NY	1.41
13	Puget Sound Regional Council, WA	1.40
14	National Capital Region Transportation Planning Board, DC	1.39
15	Anderson Area Transportation Study, SC	1.39
16	<b>Atlanta Regional Commission, GA</b>	<b>1.38</b>

# Peer Region Comparative Analysis



**Phoenix** and Atlanta regions are both **fast growing Sunbelt regions** with major marine ports within a few hundred miles.

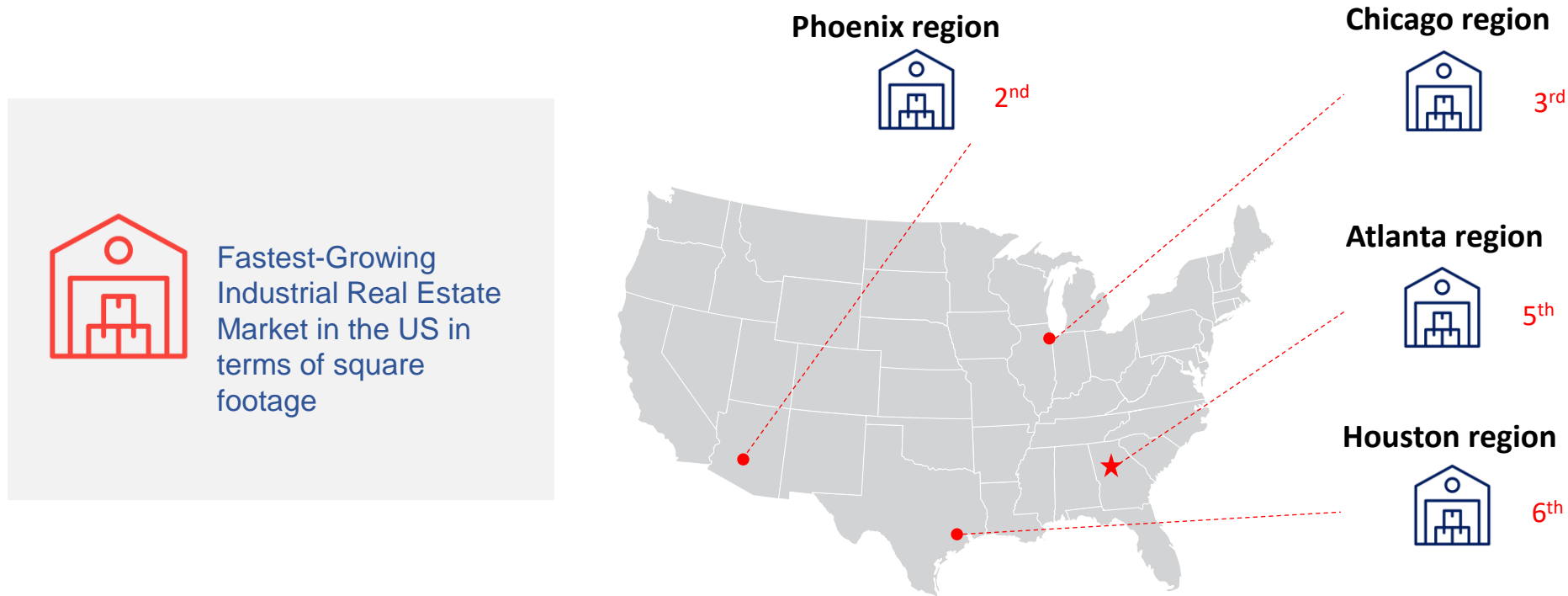
**Chicago** and Atlanta regions are both **commercial and industrial centers** with long histories of **rail service**.

**Houston** and Atlanta regions are **similar in population size** and the two largest freight centers in the southern US.

*The purposes of the peer region comparative analysis are*

- 1) **to identify regions facing similar freight issues to the Atlanta region**
- 2) **to understand Atlanta's unique position among its peers**

# Regional Growth of Industrial Real Estate Markets, 2022

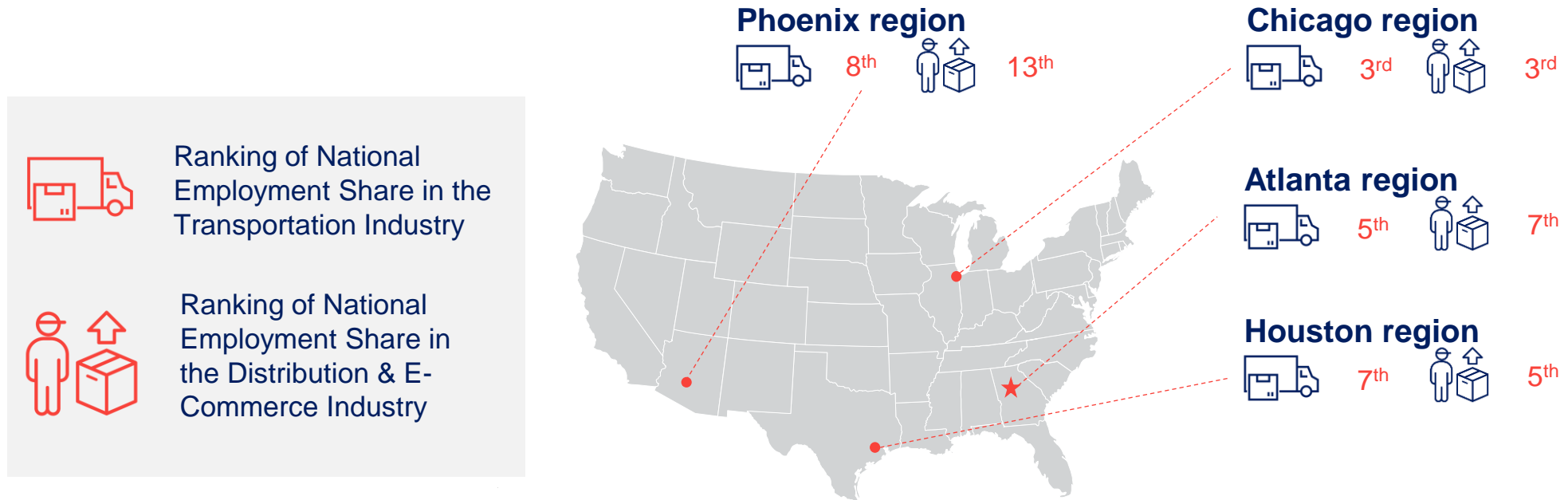


**Metro Atlanta is among the fastest-growing industrial real estate markets in the US.**

\*The industrial real estate ranking reflects the growth in the CoStar Atlanta Industrial Subarea, which includes the ARC MPO area, the portions of Barrow, Dawson, Walton, Newton, Pike, Carroll, and Spalding outside of the ARC MPO area, and 15 surrounding counties, namely, Bartow, Pickens, Hall, Jackson, Jasper, Jones, Twiggs, Butts, Monroe, Bibb, Crawford, Lamar, Meriwether, Heard, and Haralson.

Source: CoStar, 2022.

# Competitive Freight Industry, 2022

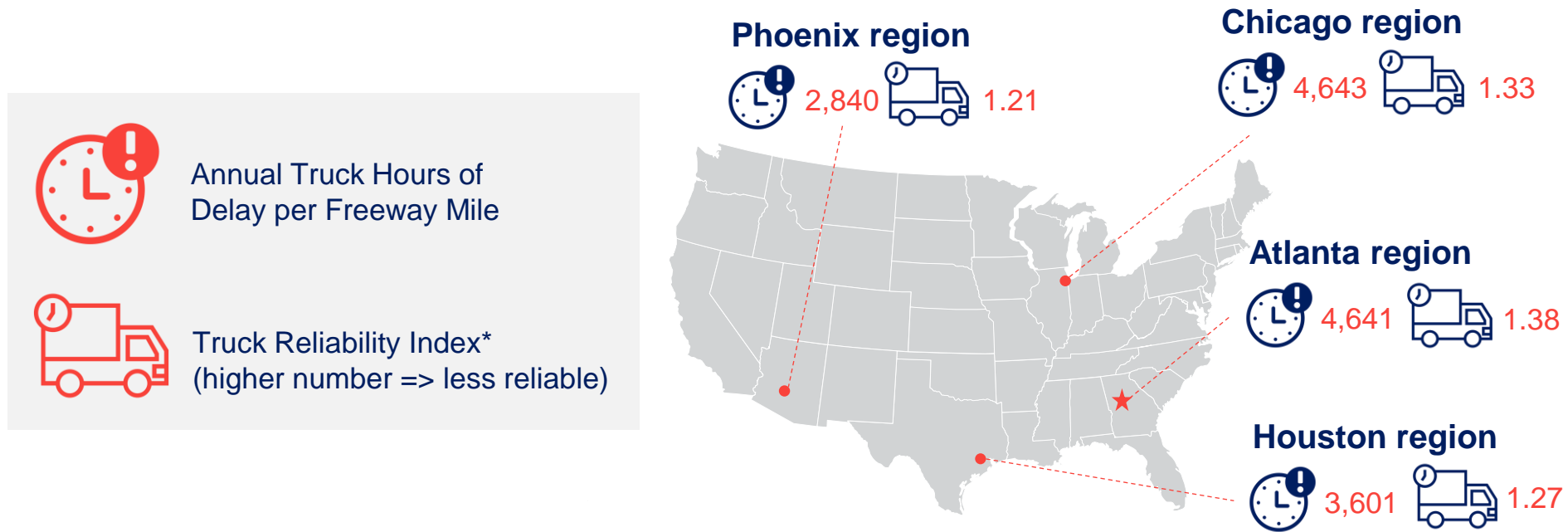


**Metro Atlanta is among the top regions with a high employment share in the transportation industry and the distribution & e-commerce industry.**

\*The Atlanta region used for this analysis is the US Census's Atlanta Metropolitan Statistical Area, which includes 29 counties.

Source: Harvard Business School US Cluster Mapping Project, 2023.

# Highway System Performance

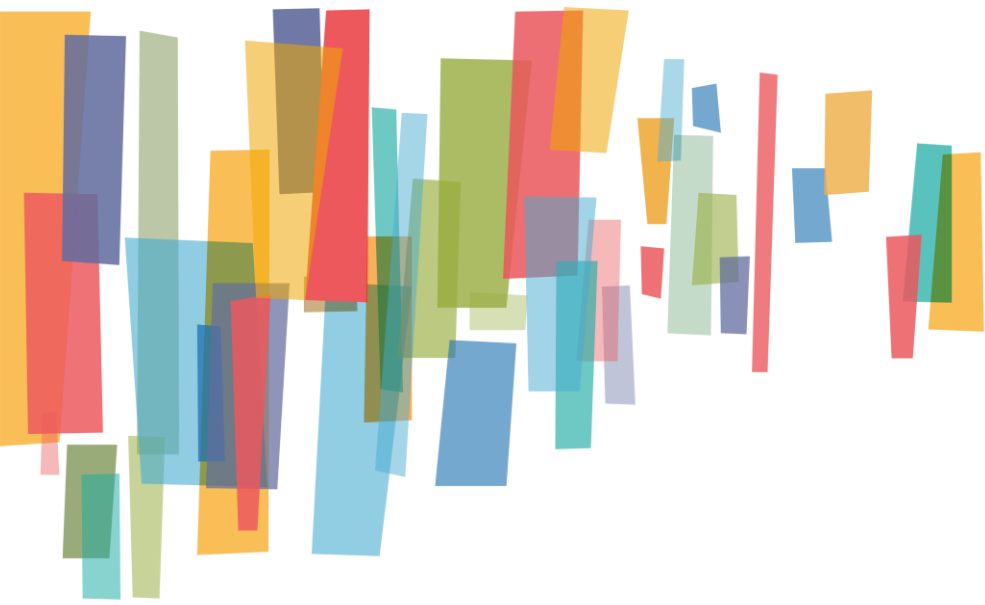


The total truck hours of delay per mile in Metro Atlanta was slightly lower than in Chicago, but 29% and 63% higher than in Houston and Phoenix, respectively.

**Metro Atlanta has the highest Truck Reliability Index among the four areas of interest.**

\* Truck Reliability Index reflects the consistency or dependability in truck travel time across different times of the day and different days of the week. A Truck Reliability Index of 1 indicates that truck travel time is the same as free-flow speed travel time. The higher the index, the less dependable the system is. The formula used to calculate the Truck Reliability Index is  $\text{Travel Time Reliability Ratio} = \frac{\text{95th Percentile Travel Time}}{\text{50th Percentile Travel Time}}$ .

Source: [FHWA Workbook: Urban Area Dashboard](#) (Filters used: MPOs, all NHS roadways, and All Areas, Urban and Rural), 2022



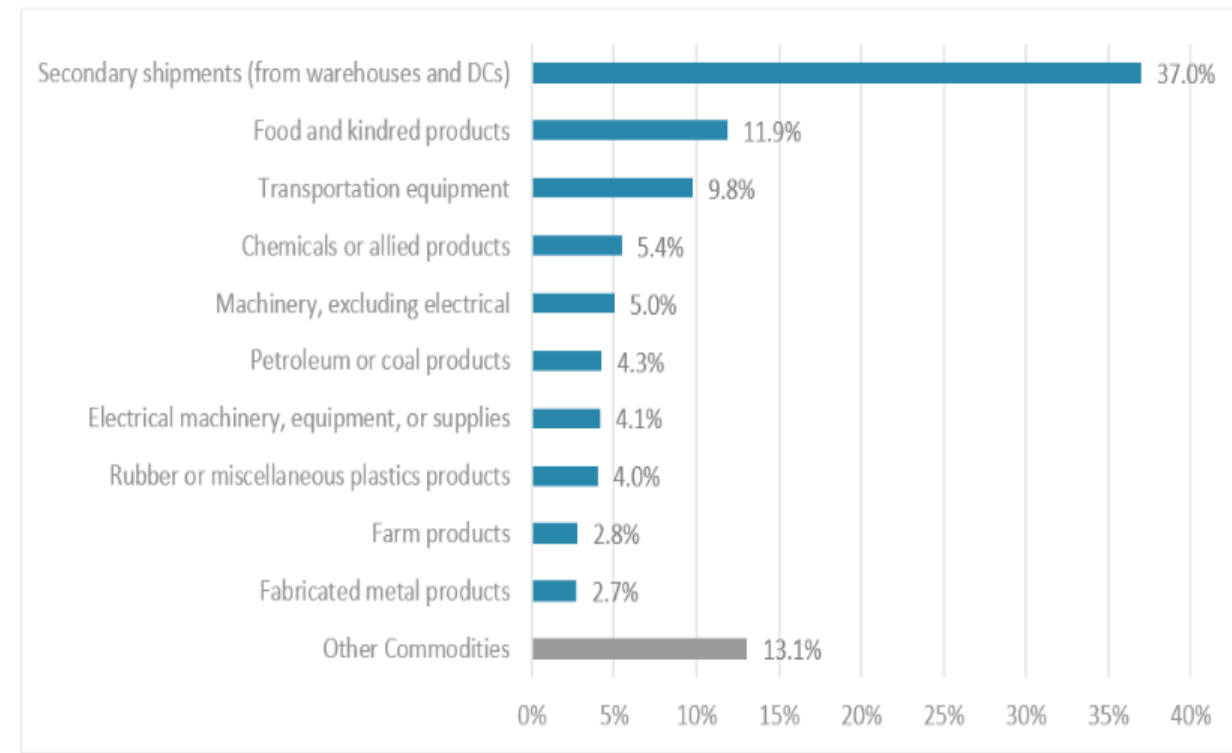
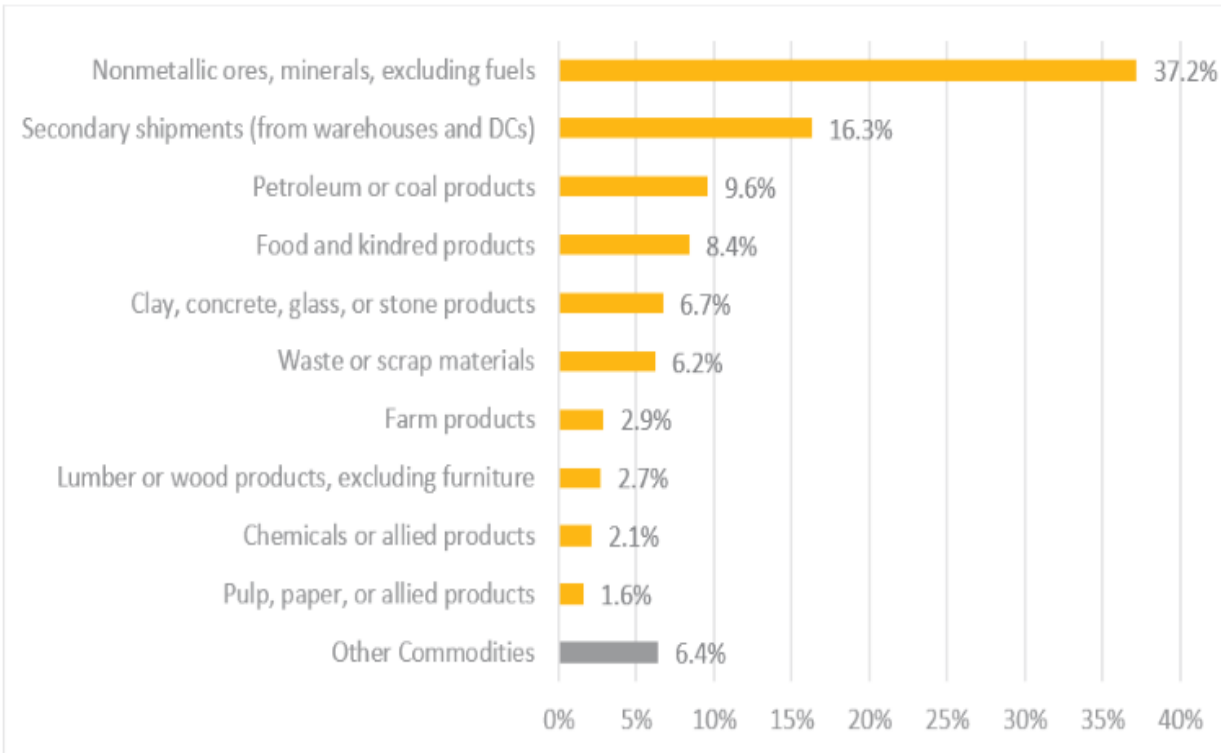
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# Commodity Flow Data

# Top Commodities for Truck

By Tonnage

By Value (\$)

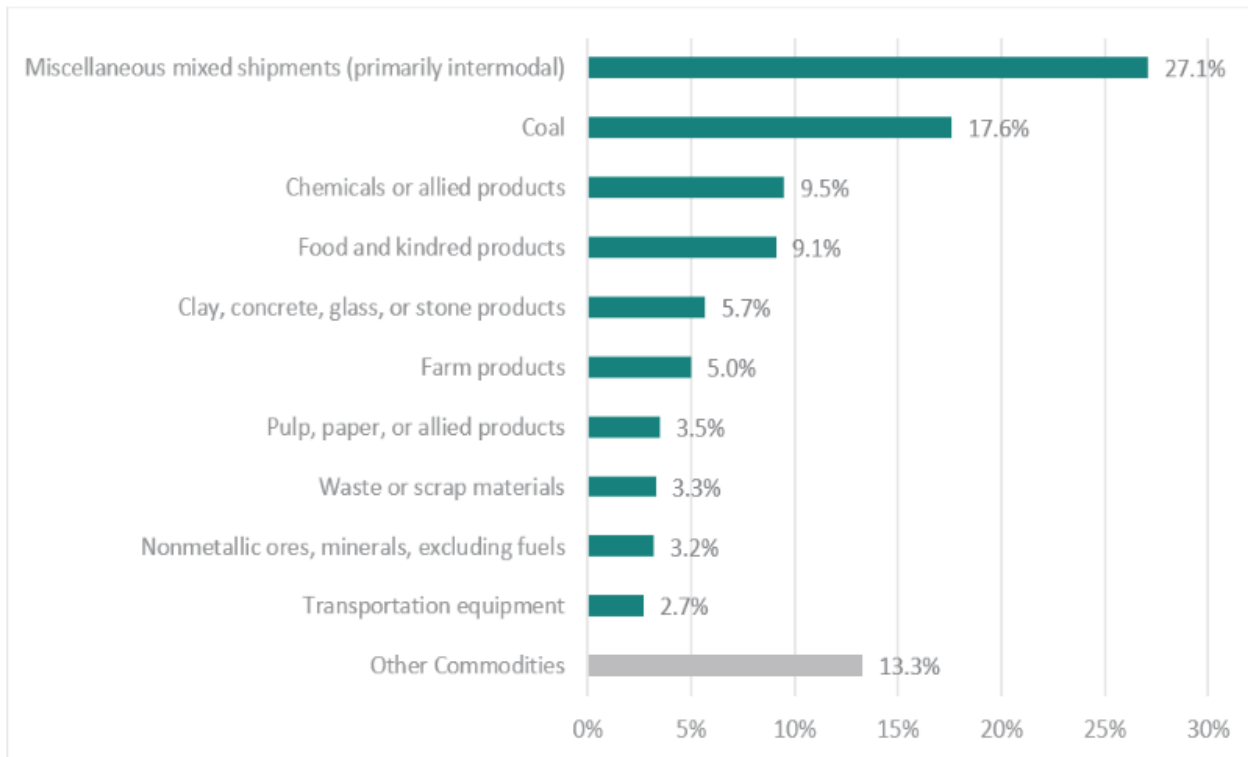


Source: S&P Global Transearch Data, 2019

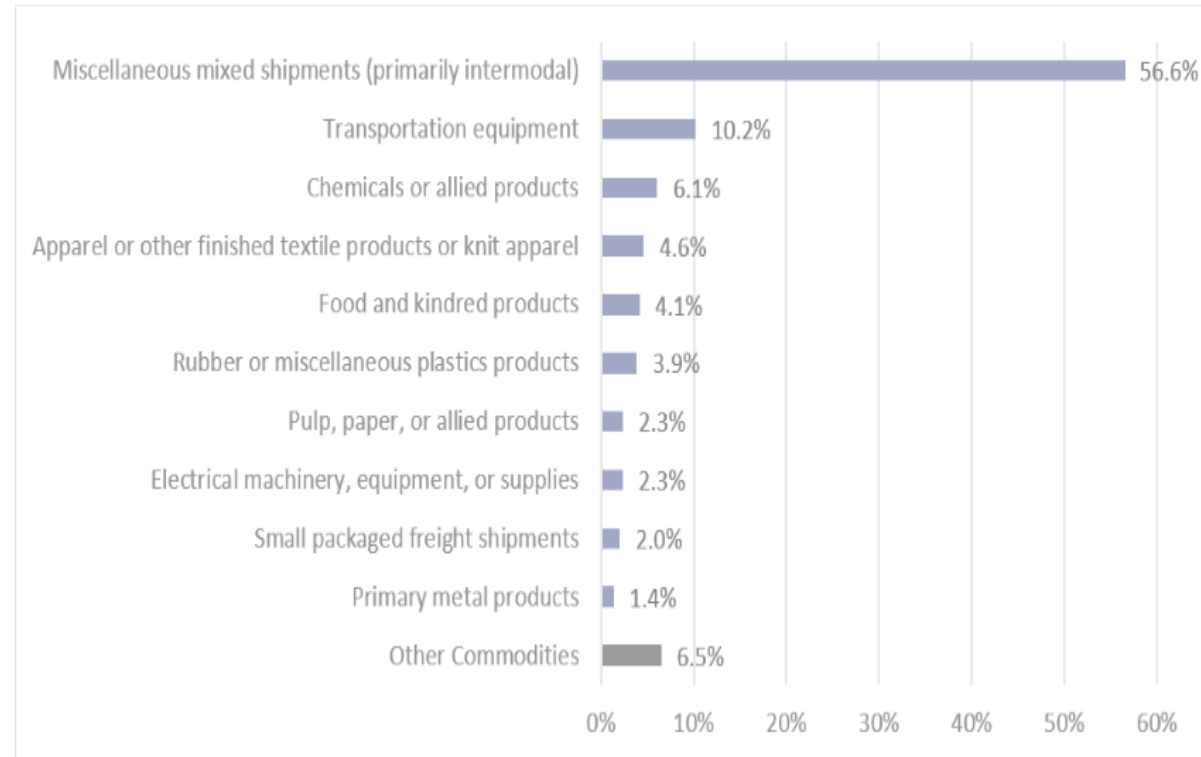
Note: Waste or scrap materials refers to those scrap materials not identified by the production industry. "DC" refers to distribution centers.

# Top Commodities for Rail

By Tonnage



By Value (\$)

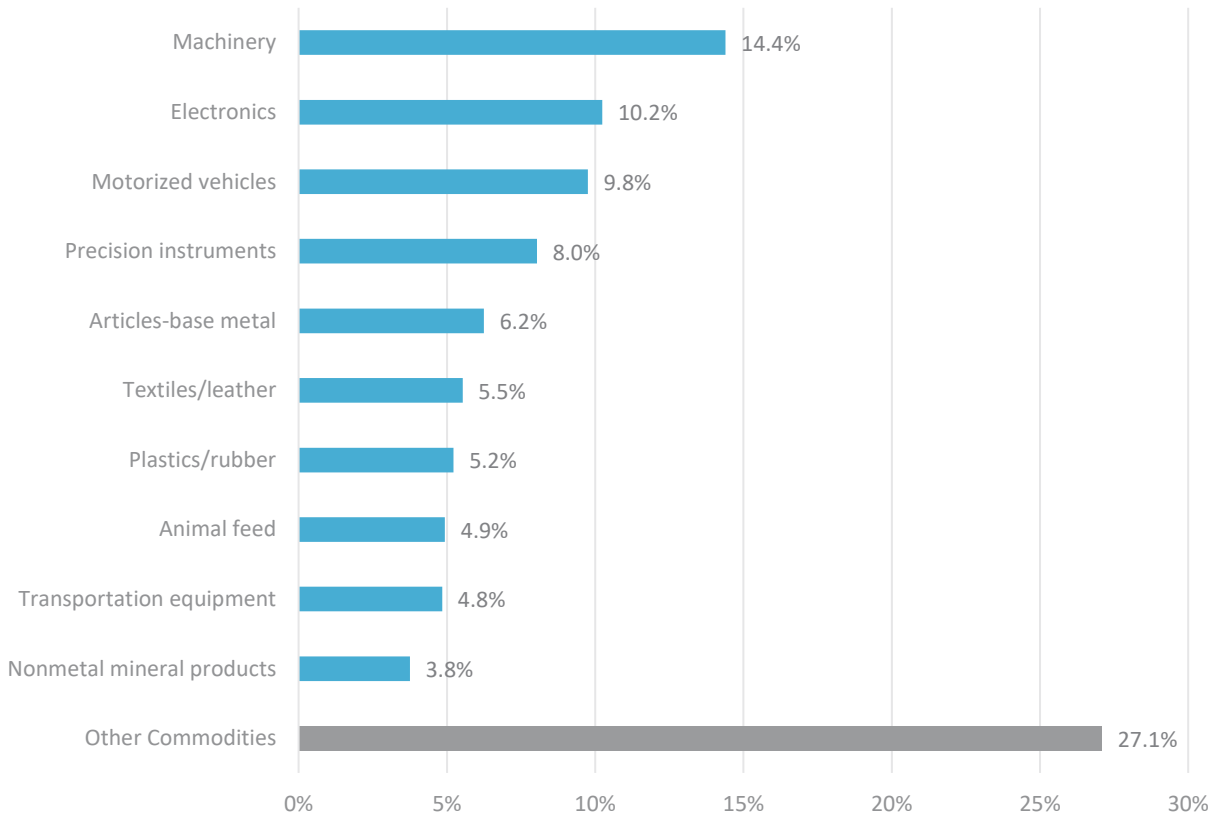


Source: S&P Global Transearch Data, 2019, Surface Transportation Board Carload Waybill Data

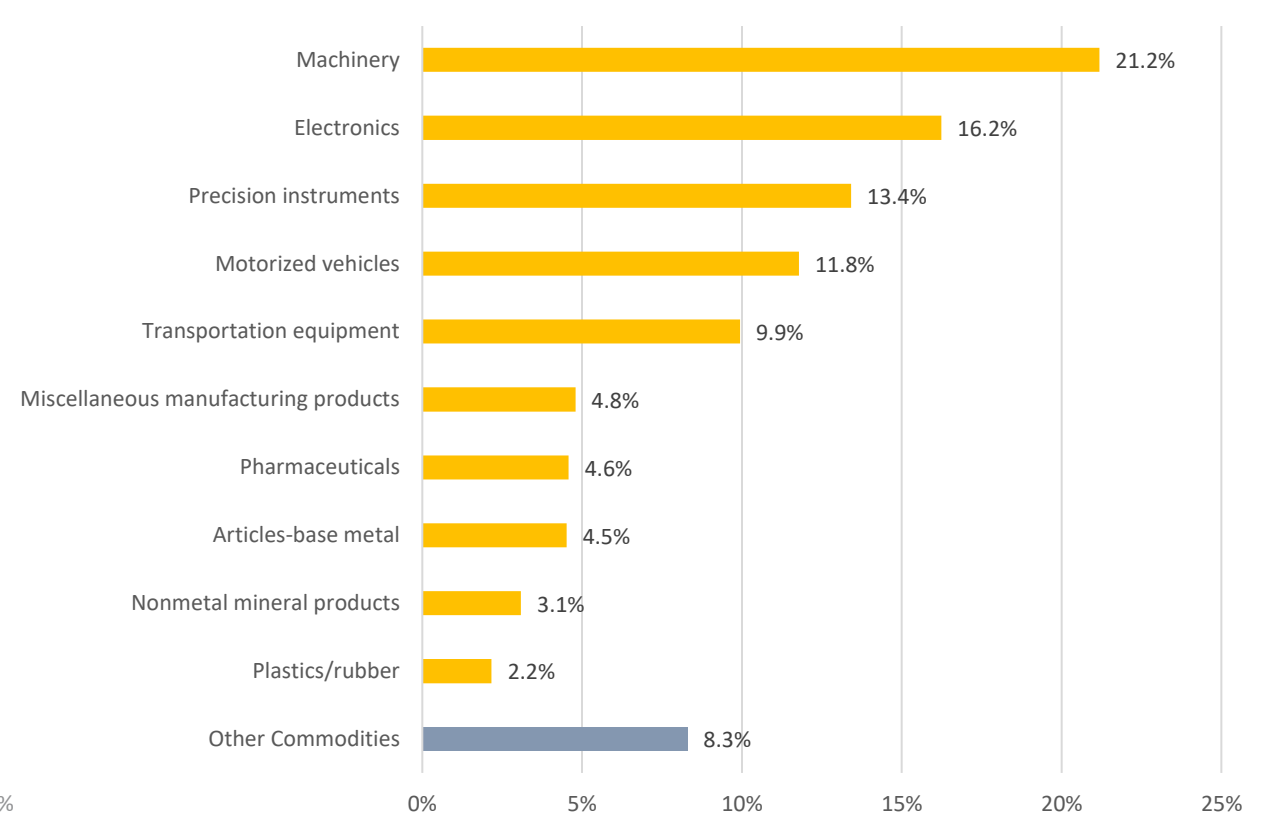


# Top Commodities for Air Cargo

By Tonnage

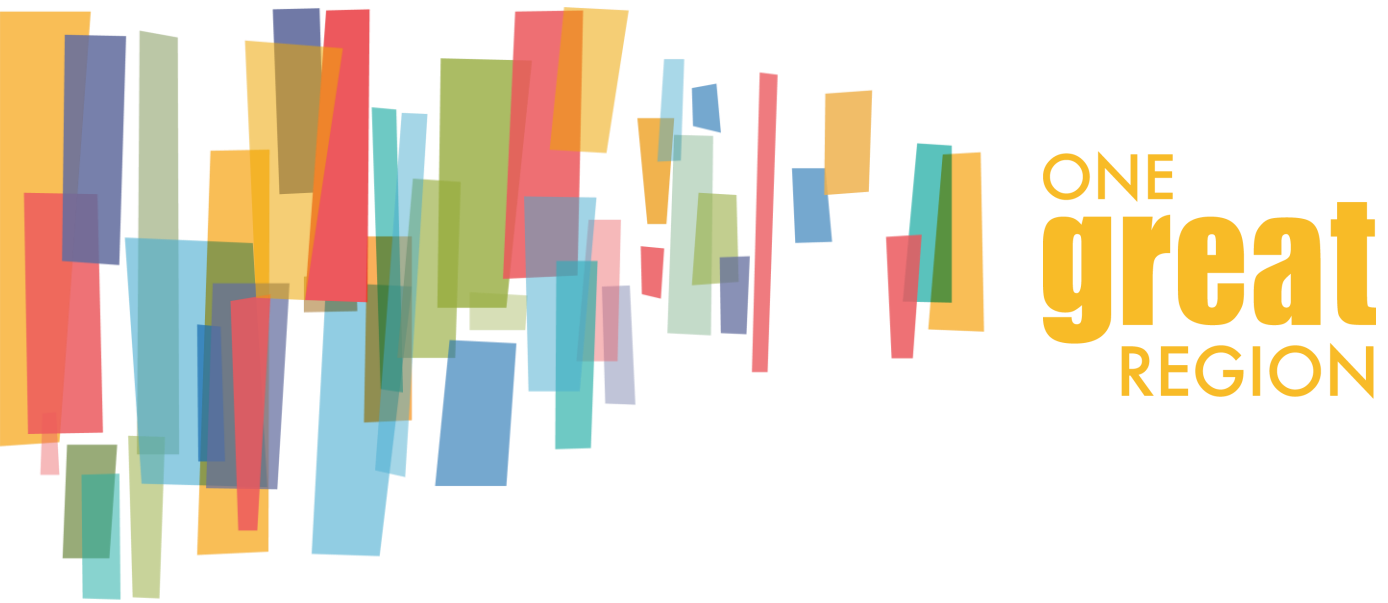


By Value (\$)



Source: FHWA FAF5.5.1, 2019

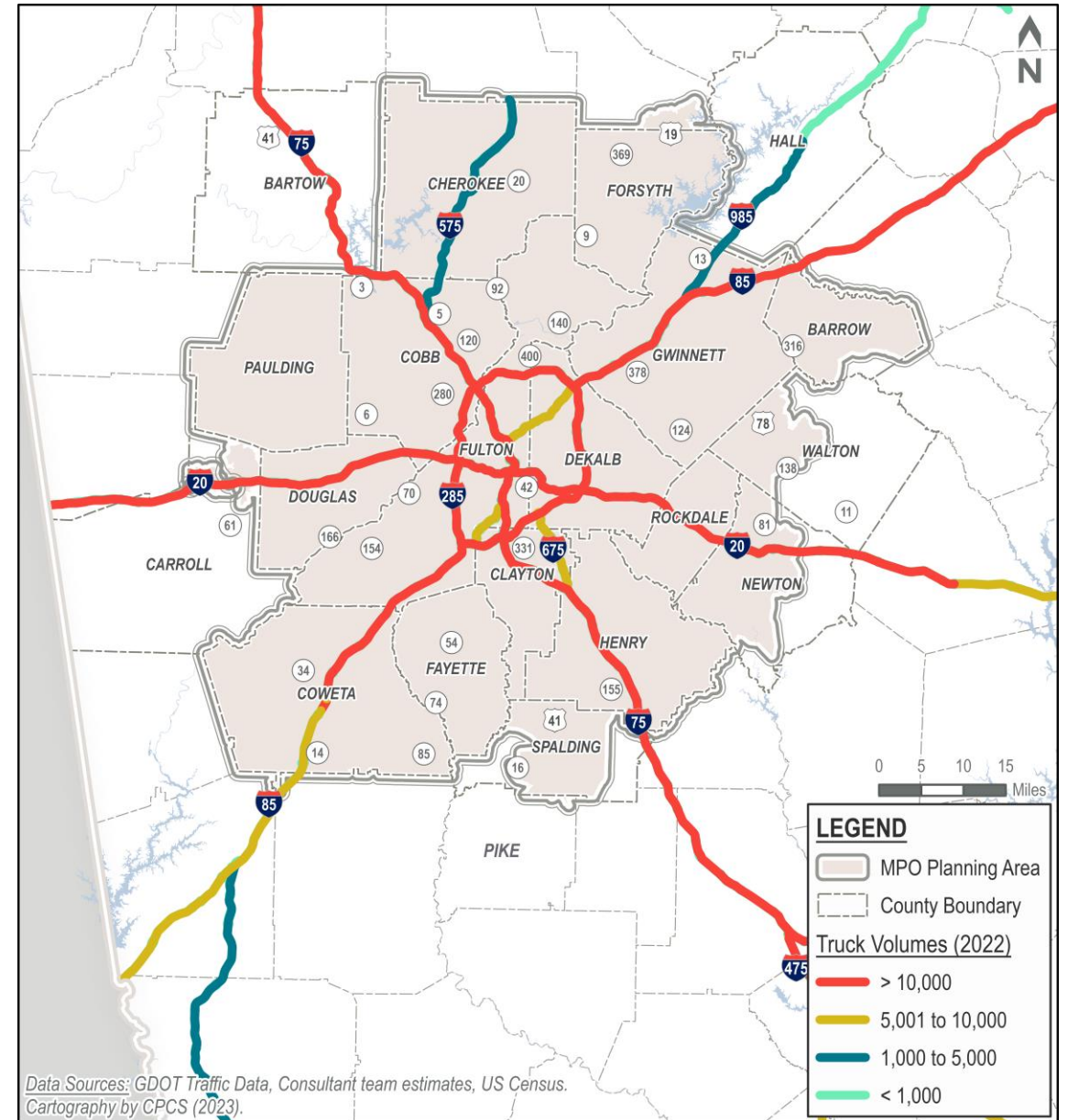
The air commodity flow data is based on FHWA's FAF5.5.1 database (released July 28, 2023), for the Atlanta-Athens-Clarke County-Sandy Springs, GA CFS Area, which is larger than the 20-county Metro Atlanta region used in the Transearch queries for the other modes. The FAF database uses SCTG commodity types. The Transearch data does not have international air cargo flow data and uses STCC commodity types.



# Truck Volumes and Bottlenecks

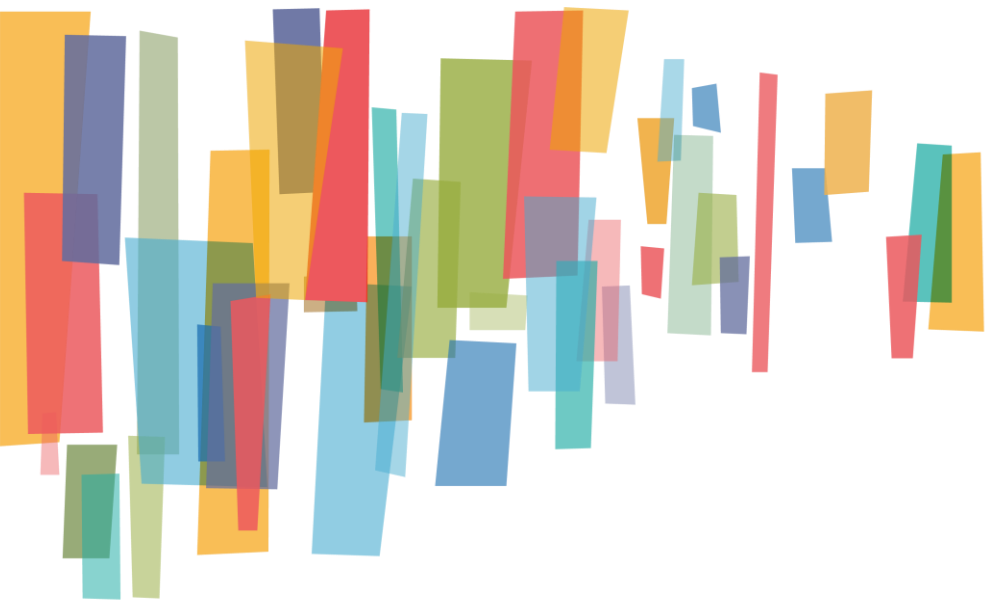
# Daily Truck Volumes

- The interstate system is the workhorse for moving goods by truck
- Segment-level truck volume estimates developed using 2022 point data and historical segment counts
- Top truck segments along the region's interstate highway system are
  - I-75 through and outside of I-285
  - I-285 on the westside (between I-75 and I-85 on the west side of the region)
  - I-85 in the northern part of the Atlanta Region just outside of I-285 connecting the region to East Coast states



Source: GDOT Traffic Analysis & Data Application (TADA), 2022 supplemented by historical data

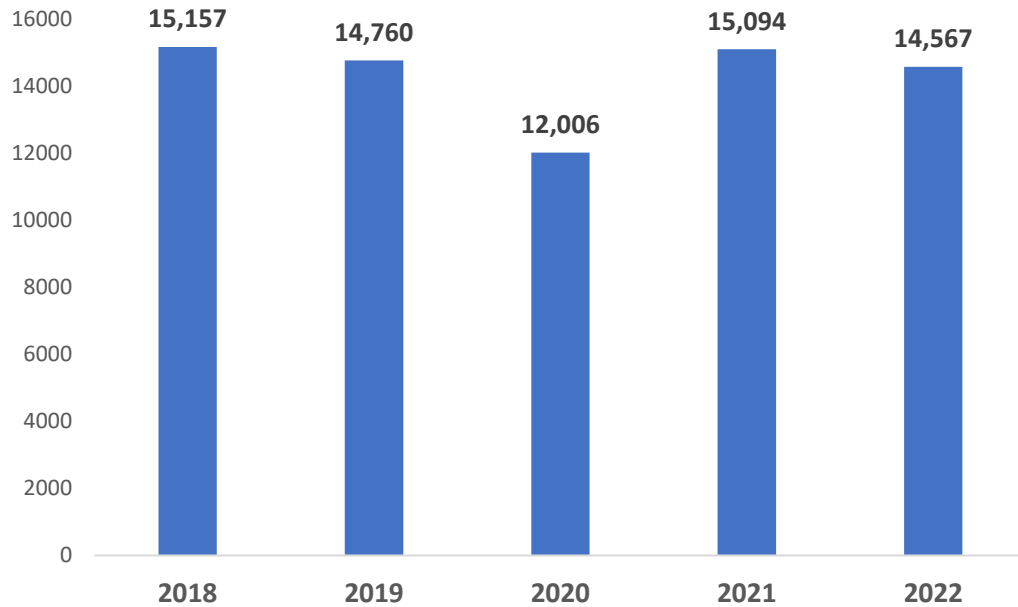




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# Freight Crash Analysis

# 2018-2022 Truck Involved Crashes



**71,584** Truck Crashes in 5 Years

**323** Fatalities

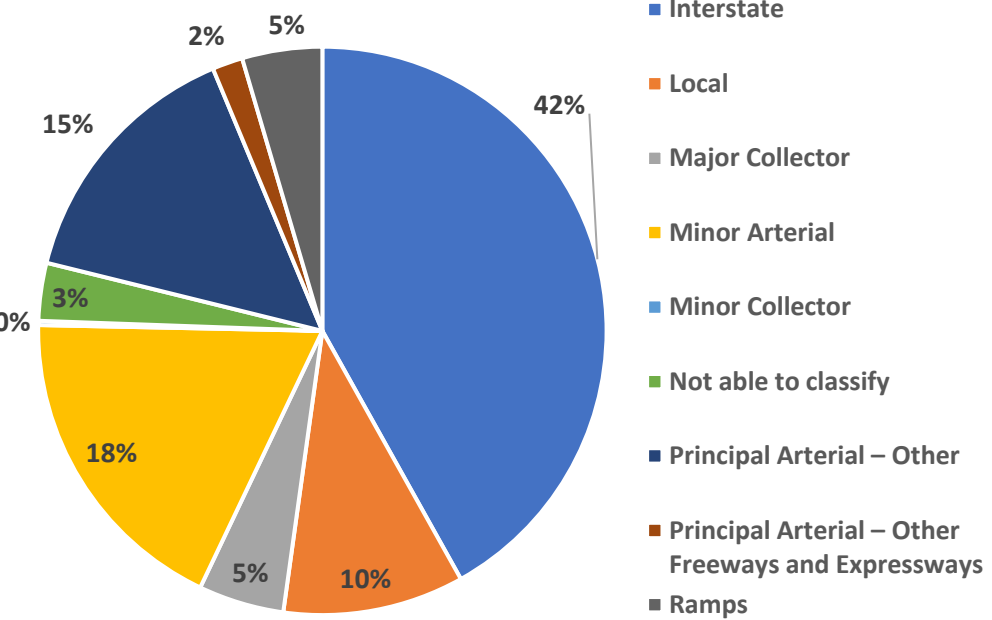
**1,150** Serious Injuries

## Top Contributing Factors For Truck Crashes

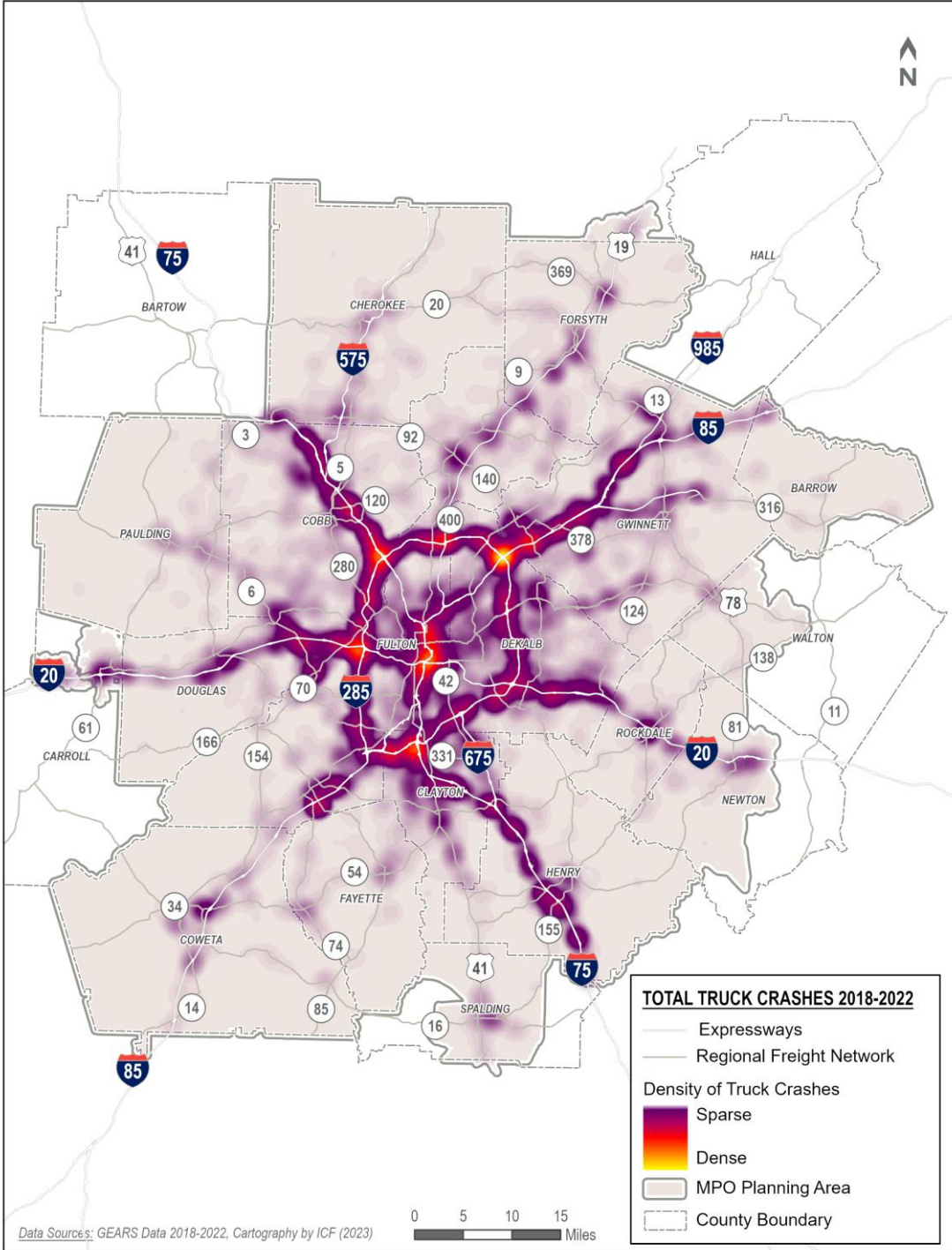
- Roadway Factors
  - Congestion
  - Roadway Surface Conditions
  - Construction
  - Secondary Crash
  - Standing Water
- Driver Factors
  - Improper Lane Change
  - Following Too Close
  - Failure to Yield
  - Misjudged Clearance
  - Improper Backing

Source :Georgia Electronic Accident Reporting System (GEARS) accessed using Numetric Crash Query System

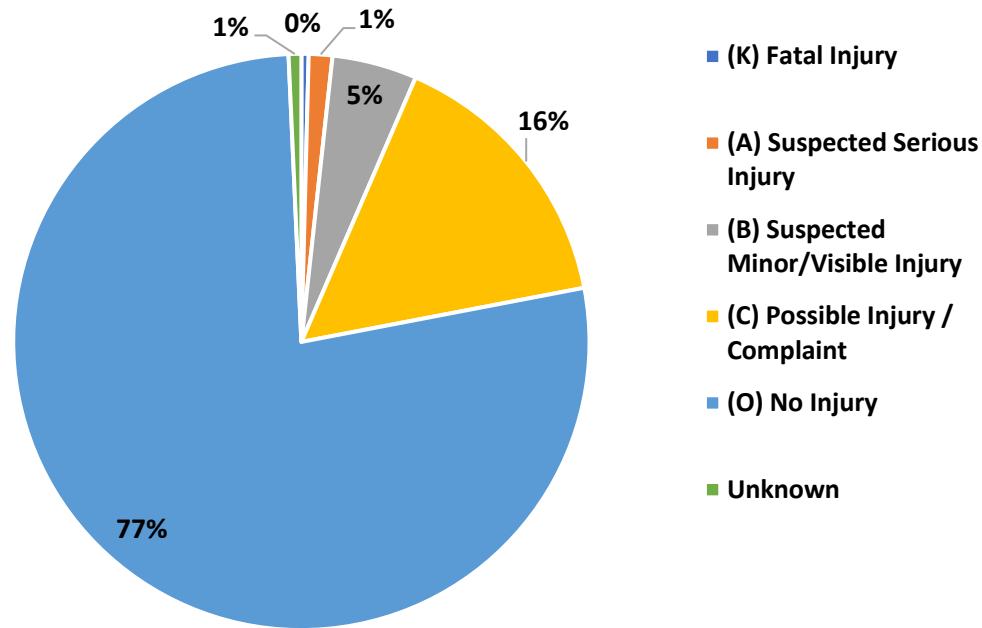
# 2018-2022 Truck Crashes by Functional Classification of Road



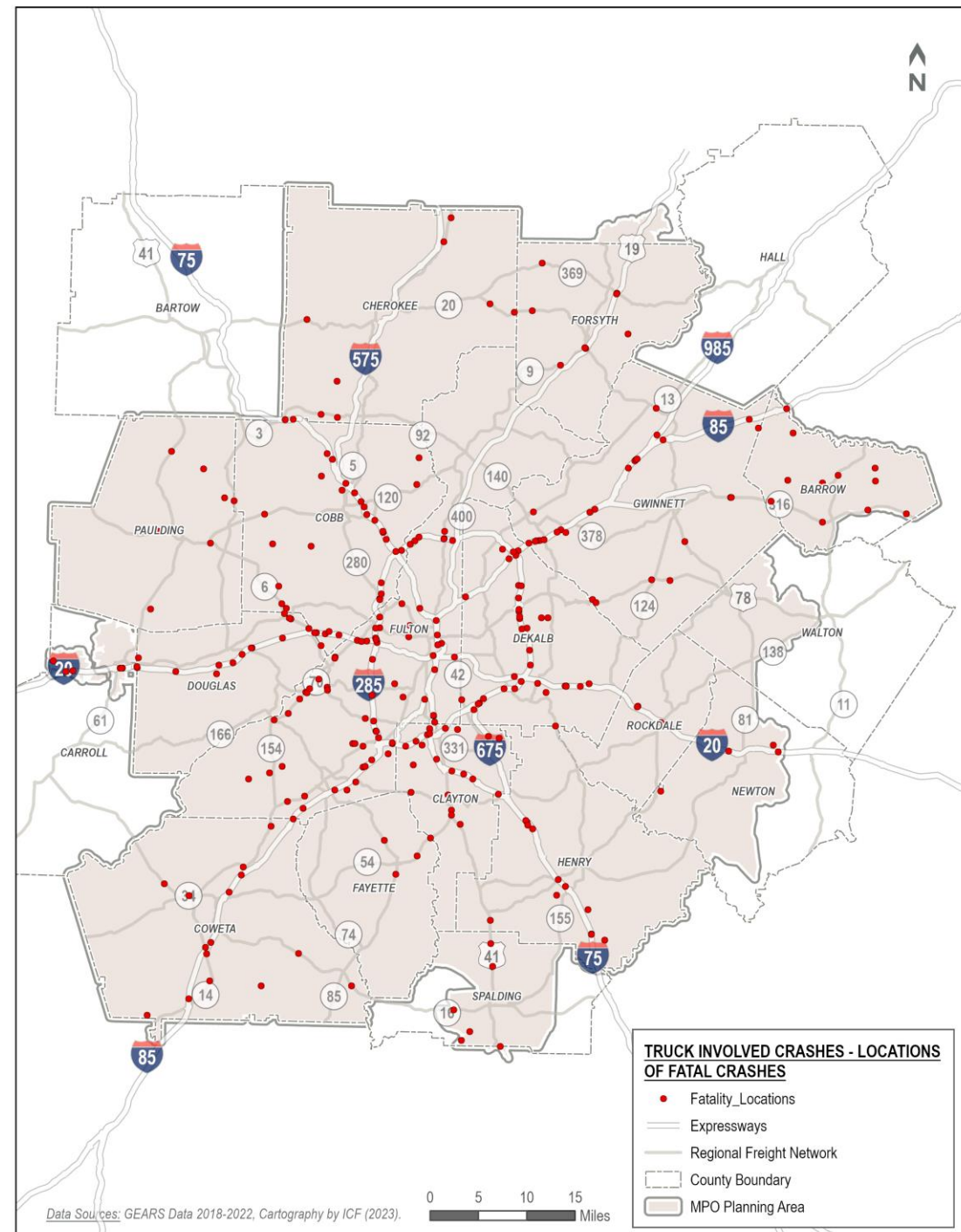
Source :Georgia Electronic Accident Reporting System (GEARS) accessed using Numetric Crash Query System



# 2018-2022 Type of Injuries – Truck Involved Crashes



Source :Georgia Electronic Accident Reporting System (GEARS) accessed using Numeric Crash Query System





# 2018-2022 At-Grade Railroad Crossing Crashes

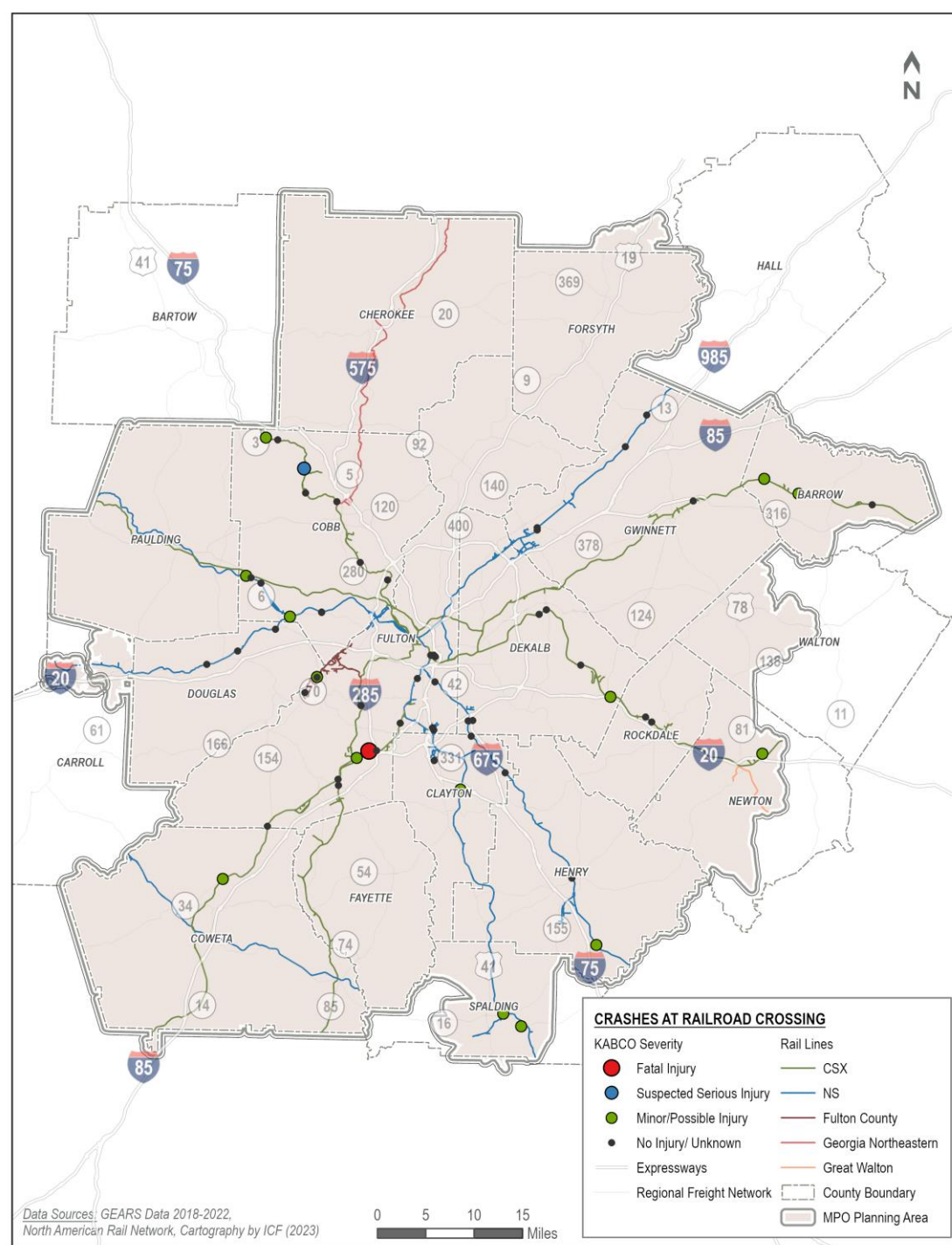
79 Crashes at Railroad Crossings

28 Truck Crashes

Locations of Crashes

- Fatal Crash
  - ▶ Roosevelt Hwy and Buffington Road, South Fulton in 2018
- Serious Injury
  - ▶ E 6<sup>th</sup> Street and Maple St, Cobb County, 2021

Source :Georgia Electronic Accident Reporting System (GEARS) accessed using Numetric Crash Query System





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Dike Ahanotu, CPCS  
[dahanotu@cpcstrans.com](mailto:dahanotu@cpcstrans.com)

A large, stylized letter 'A' composed of several overlapping, semi-transparent, colorful rectangles in shades of blue, green, orange, and red, positioned to the left of the 'ONE great REGION' text.

ONE  
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