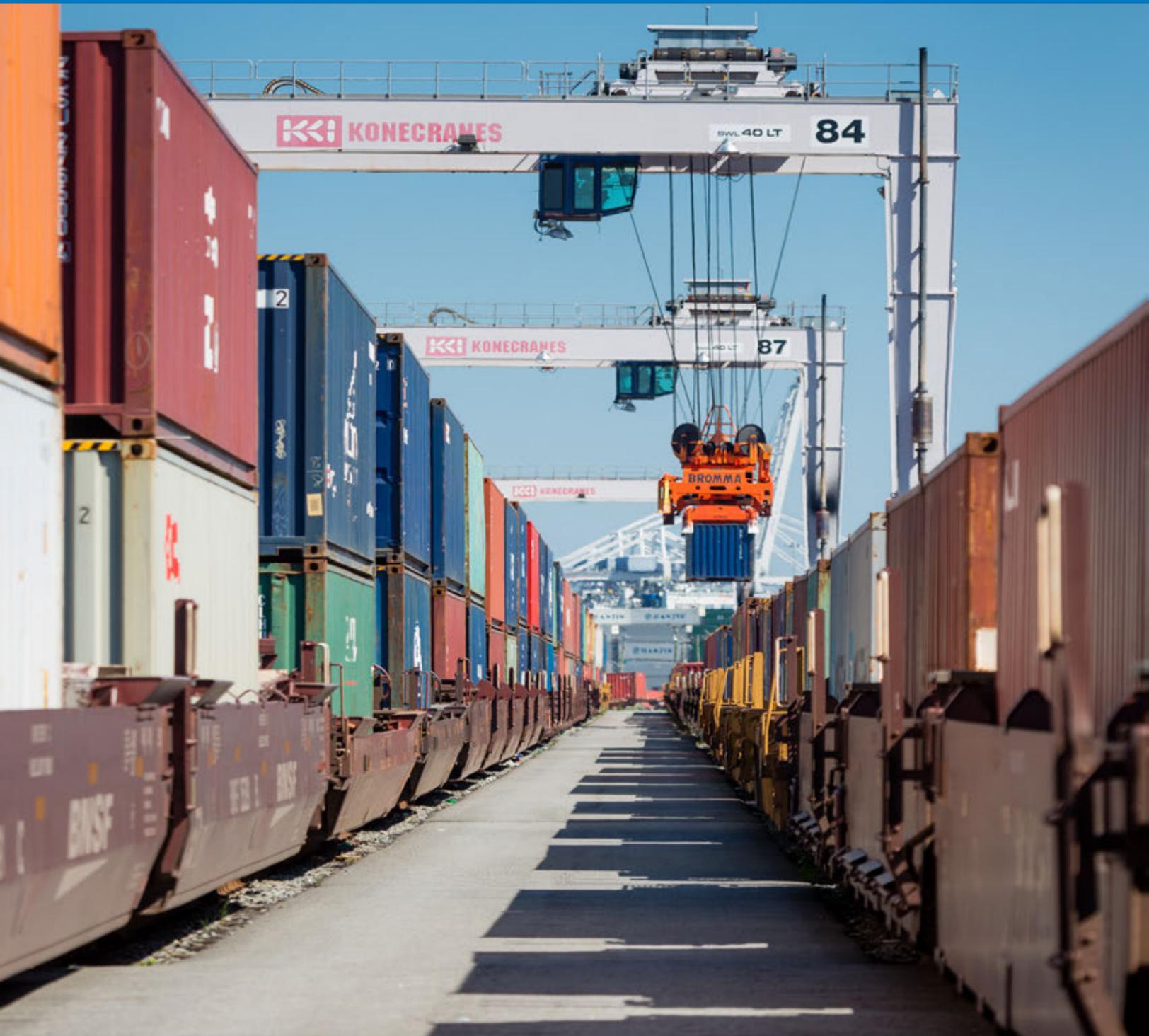


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GEORGIA

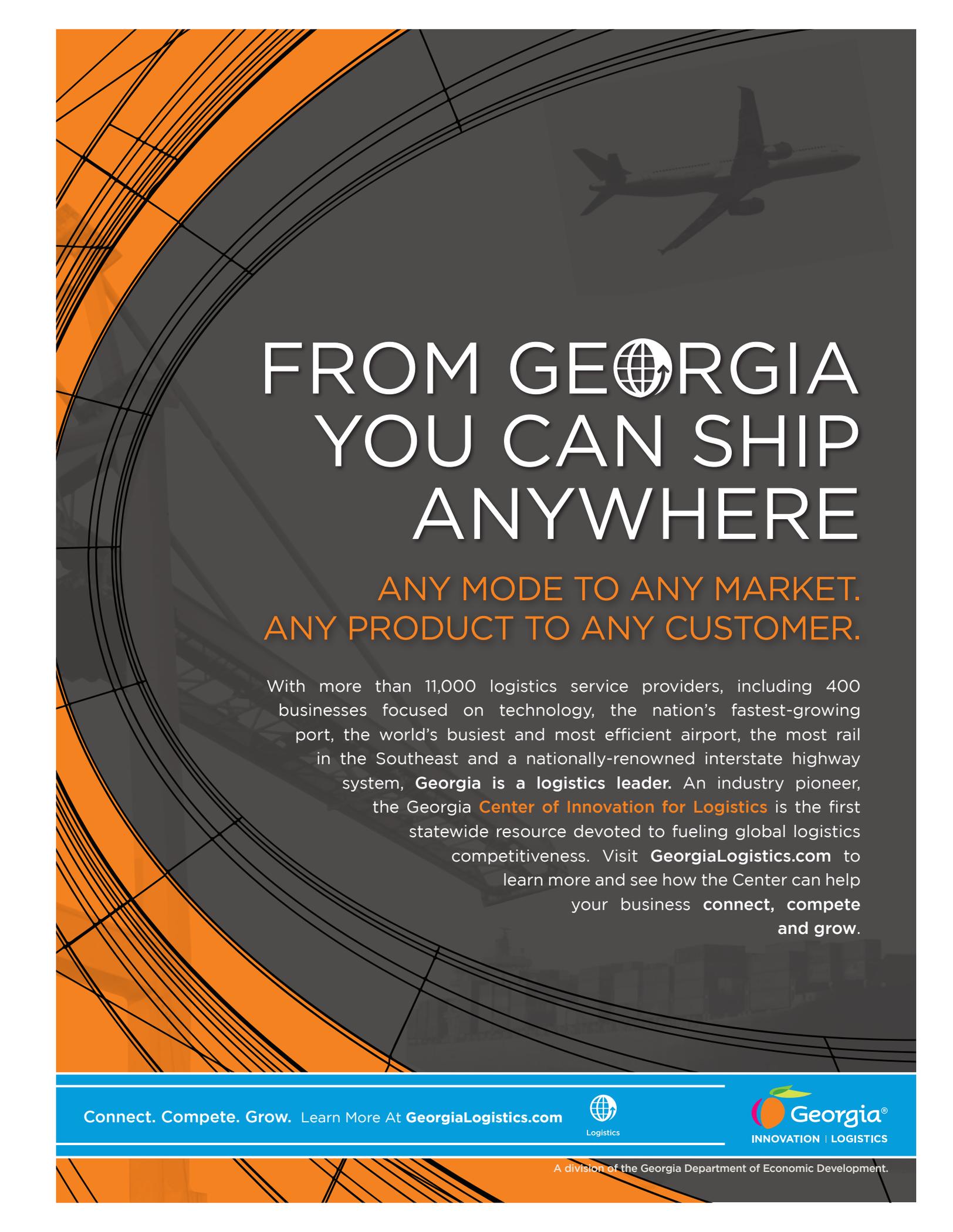
LOGISTICS REPORT

A GLOBAL PERSPECTIVE



Prepared and Presented by:
Georgia Center of Innovation for Logistics

www.GeorgiaLogistics.com



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ANY MODE TO ANY MARKET.
ANY PRODUCT TO ANY CUSTOMER.

With more than 11,000 logistics service providers, including 400 businesses focused on technology, the nation's fastest-growing port, the world's busiest and most efficient airport, the most rail in the Southeast and a nationally-renowned interstate highway system, **Georgia is a logistics leader.** An industry pioneer, the Georgia **Center of Innovation for Logistics** is the first statewide resource devoted to fueling global logistics competitiveness. Visit **GeorgiaLogistics.com** to learn more and see how the Center can help your business **connect, compete and grow.**

Connect. Compete. Grow. Learn More At GeorgiaLogistics.com



Logistics



A division of the Georgia Department of Economic Development.



2013 GEORGIA LOGISTICS REPORT INTRODUCTION

Logistics is one of the world's oldest, largest and most complex of industries. In recent years it has also become exponentially more important and integrated into the strength of a company's bottom line. The wide range of moving parts from transportation, warehousing, to technology and value-added service providers makes it easier to think of logistics as an ecosystem; all relying on one another to achieve a common goal, the efficient and cost-effective movement of products to customers.

In today's economy, and likely even more so in tomorrows, the significance and sophistication of logistics will continue to increase at a rapid pace. This perspective is shared around the globe, across our nation, and certainly here in the state of Georgia.



Part of the mission of the **Georgia Center of Innovation for Logistics** is to provide the resources, expertise, and direct facilitation to help keep Georgia's logistics industry growing, thriving, and globally competitive.



The *2013 Georgia Logistics Report: A Global Perspective* is the most recent installment in this effort. It is a unique and current look across key sectors of the logistics ecosystem including: Trucking, Rail, Air Cargo, Ocean Cargo, Warehousing & Distribution, Retail and Manufacturing.

Specifically, this report explores the changing logistics landscape at a **global, national and state level** for each of these sectors. Each layer considers the unique challenges and opportunities industry leaders must be aware of in order to help their businesses grow and compete.

This 170-page report is not a how-to manual, rather it is a reference-guide filled with data, charts, and information extracted and summarized from over 300+ industry and government resources from around the world. This report is a starting point for industry professionals looking to expand into new markets or just keep up with the current state of the logistics industry around the world.

TABLE OF CONTENTS

LOGISTICS ECOSYSTEM.....	5
Logistics Defined.....	5
Global Logistics Perspective.....	5-6
National Logistics Perspective.....	7-15
Georgia Logistics Perspective.....	15-20
OCEAN CARGO.....	21
Ocean Cargo Defined.....	21
Global Ocean Cargo Perspective.....	21-28
National Ocean Cargo Perspective.....	29-32
Georgia Ocean Cargo Perspective.....	33-45
FREIGHT RAIL.....	47
Freight Rail Defined.....	47-48
Global Freight Rail Perspective.....	49-51
National Freight Rail Perspective.....	52-61
Georgia Freight Rail Perspective.....	62-68
AIR CARGO.....	69
Air Cargo Defined.....	69-70
Global Air Cargo Perspective.....	70-75
National Air Cargo Perspective.....	75-78
Georgia Air Cargo Perspective.....	78-82
TRUCKING.....	83
Trucking Defined.....	83-84
Global Trucking Perspective.....	84-87
National Trucking Perspective.....	87-99
Georgia Trucking Perspective.....	100-106
WAREHOUSING & DISTRIBUTION.....	107
Warehousing & Distribution Defined.....	107-19
Global W&D Perspective.....	109-110
National W&D Perspective.....	110-112
Georgia W&D Perspective.....	114-118
RETAIL.....	119
Retail Defined.....	119
Global Retail Perspective.....	120-124
National Retail Perspective.....	125-127
Georgia Retail Perspective.....	127-129
MANUFACTURING.....	129
Manufacturing Defined.....	129
Global Manufacturing Perspective.....	129-133
National Manufacturing Perspective.....	133-139
Georgia Manufacturing Perspective.....	139-146
SOLUTION PROVIDERS.....	147
REFERENCES & FOOTNOTES.....	159



LOGISTICS ECOSYSTEM

LOGISTICS DEFINED

The movement of international freight among nations relies on a complex array of long-distance transportation services. The process involves many participants, including shippers, commercial for-hire carriers, third-party logistics providers, and consignees. Moreover, global trade depends on seaport and airport services to move large volumes of merchandise over long distances via a variety of transportation modes. The interaction of these services and participants is vital to successful global trade, and this interconnected relationship creates a true *logistics ecosystem*.



GLOBAL LOGISTICS PERSPECTIVE

Global trade involves a complex combination of transportation methods and services. Due to the nature of global trade, many transportation modes are necessary, including sea and air transport. The success of global trade is dependent upon the effect interaction of all the parties, as all global freight will require transportation by multiple modes. Logistics costs are roughly 12% of companies' sales revenues, including warehousing, distribution and transportation ¹⁴.

LOGISTICS PERFORMANCE

Logistics performance significantly impacts economic competitiveness worldwide. The Logistics Performance Index (LPI) published by the World Bank tracks and compares logistics performance and infrastructure for 155 countries. Based on the 2012 LPI the United States is ranked 9th in the world; while Singapore ranked first. Other significant factors of logistics performance are public policy, border clearance effectiveness, shipment pricing and infrastructure quality.

Between 2010 and 2012, global logistics infrastructure improvements stalled due to larger economic concerns including the global recession, the European debt crisis, and the further decline in global trade. This decline particularly affects developing nations, as improved logistics infrastructure helps lead a country to competitiveness, higher levels of investment and economic growth. Despite these economic challenges, many countries have committed considerable resources to logistics infrastructure and system improvement. For example, China has increased transportation infrastructure spending and India is increasing investment in "logistics parks" in an effort to increase transportation and distribution performance.

Transportation demand is derived from the demand for goods which must be

SECTION OUTLINE

- INDUSTRY DEFINED
- GLOBAL PERSPECTIVE
- NATIONAL PERSPECTIVE
- GEORGIA PERSPECTIVE

the 2012 Logistics Performance Index ranks the United States 9th out of 155 countries

The projected global annual growth rate of cargo traffic over the next 20 years is 5.6% ⁵⁶

transported. As such, as demand for goods changes, so does the demand for logistics services. Worldwide merchandise trade has risen from 48% of global GDP in 2010 to 51.8% of global GDP in 2011. Over the next 20 years, the annual projected growth rate of cargo traffic is 5.6%. The forecast of increasing world goods movement indicates the increasing globalization experienced, and expected to continue worldwide.

LOGISTICS PERFORMANCE INDEX (LPI) : 2007-2012

COUNTRY	2012 RANK	2010 RANK	2007 RANK
Singapore	1	2	1
Hong Kong, China	2	13	8
Finland	3	12	15
Germany	4	1	3
Netherlands	5	4	2
Denmark	6	16	13
Belgium	7	9	12
Japan	8	7	6
United States	9	15	14
United Kingdom	10	8	9
Austria	11	19	5
France	12	17	18
Sweden	13	3	4
Canada	14	14	10
Luxembourg	15	5	23

Source: lpiurvey.worldbank.org

Of the high-income countries, the LPI report shows factors of time and cost to largely impede competitiveness. These factors were identified primarily as a result of policy, border clearance, pricing of shipments, and quality of infrastructure.

Improved logistics infrastructure can help lead an economy to competitiveness, higher levels of investment, and faster economic growth ¹³⁰.

From 2010 to 2012, globally logistics infrastructure improvements stalled, most likely due to larger economic concerns including the global recession, the European debt crisis, and the further decline in global trade ¹³⁰.

The quality of logistics infrastructure hampers logistics performance, particularly in less developed nations ¹³⁰. This particularly is reflected in the effectiveness of road and rail transport ¹³⁰.

Worldwide merchandise trade has risen from 48% of global GDP in 2010 to 51.8% of global GDP in 2011 ¹²⁸.

Two of the most significant global logistics trends are near-sourcing and sustainability. Near-sourcing refers to the practice of moving production nearer to the customer market in an effort to reduce the logistics and transportation costs, particularly among small and medium-sized businesses ⁵⁵. This is a reversal of the 1980s and 1990s trend of outsourcing to take advantage of low labor costs in developing nations. Sustainability refers to various corporate social and environmental efforts including sustainable raw material sourcing, greener best practices, responsible use of conflict minerals, and focus on labor rights ⁵⁵.

Globally, logistics costs represent about 12% of a firms total sales and revenue

Global air cargo in million ton-miles: 189,325

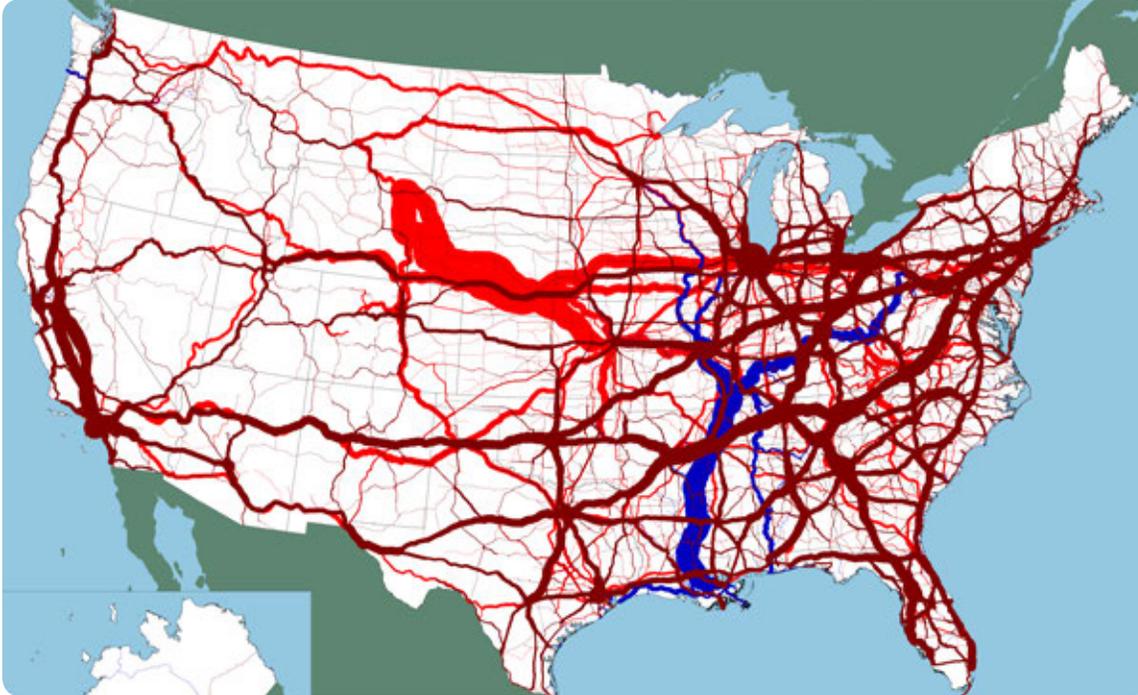
Global container port traffic in TEUs: 538,283,754

NATIONAL LOGISTICS PERSPECTIVE

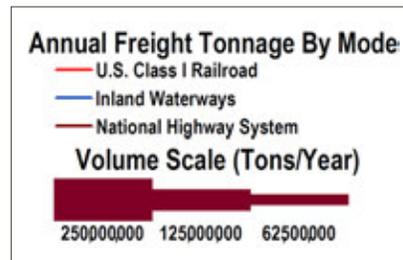
Most of the nation's freight transportation network was developed before 1960 to provide national connectivity, move goods from farm to market and from port to port, and serve industrial and population centers concentrated in the Northeast and the Midwest. New demands have been placed on the freight system by population growth, increased manufacturing in the South and along the West Coast, the departure from a manufacturing industry to a service economy, and the significant increase of global trade. *Source: fhwa.dot.gov/freight*

Accordingly, ports, airports, and border crossings handle huge volumes of traffic. Railroads and steamship companies accommodate an enormous number of containers that would have been a technological novelty five decades ago. Trucks serve new inland distribution centers beyond the urban fringe, and air carriers deliver parcels anywhere in the country overnight. The freight system must serve an economy that is increasingly decentralized and organized around just-in-time delivery.

Today, the United States has the largest freight transportation system in the world: an extensive physical network of infrastructure and logistics service providers including 4



million miles of public roads, 140,000 miles of railroad tracks, 25,000 miles of navigable waterways, 9,800 waterway facilities, and 5,200 public use airports. The U.S. transportation network serves more than 300 million people and 7.5 million business establishments across 3.8 million square miles of land. By moving raw materials and finished goods between production and consumption centers, this freight network is a vital component of commerce in the U.S.



Today, U.S. households can buy fresh fruits and vegetables in mid-winter, expect fast and reliable next-day deliveries of Internet purchases, and use electronic appliances manufactured thousands of miles away, often in other countries. Because economic activities worldwide have become more integrated and globalized, more goods

SECTION OUTLINE

- INDUSTRY DEFINED
- GLOBAL PERSPECTIVE
- **NATIONAL PERSPECTIVE**
- GEORGIA PERSPECTIVE

U.S. transportation network serves more than 300 million people and 7.5 million business establishments

World exports was an estimated 29.3% of world GDP or about \$20.2 trillion and world imports represented 18.2% of world GDP or about \$12.5 trillion.

produced by U.S. factories and farms are bound for export, and imports originate from more than 200 countries. This pace of trade Americans have become accustomed to is made possible by the complex intermodal transportation network that blankets the country and links the United States with world markets.

The U.S. is the world's largest economy, accounting for 21.7% of global GDP in 2011. In 2008, U.S. freight carriers received \$22 billion for commercial freight services provided to business in other countries. U.S. seaports and airports received \$36 billion for port services, while U.S. firms paid \$45 billion to foreign carriers for freight services and \$27 billion to foreign ports for port services.

Despite global economic setbacks in 2009, the movement of freight is showing a long-term upward trend. In 2011, the world GDP was \$68.9 trillion, and the United States GDP was nearly \$15 trillion. World exports was an estimated 29.3% of world GDP or about \$20.2 trillion and world imports represented 18.2% of world GDP or about \$12.5 trillion. U.S. merchandise exports were approximately \$1.48 trillion, and U.S. merchandise imports represented about \$2.27 trillion. This demand drove logistics costs in the U.S. to \$1.28 trillion, or 8.5% of national GDP. Despite the steep decline in economic conditions and transportation demand experienced in 2009, data from 2012 shows levels of for-hire transportation volume in the U.S. as nearly as high as the pre-2009 high. By 2011, the for-hire transportation and warehousing segments employed 4.3 million in the United States. *Source: www.rita.dot.gov/bts*

U.S. FREIGHT NETWORK & VOLUMES

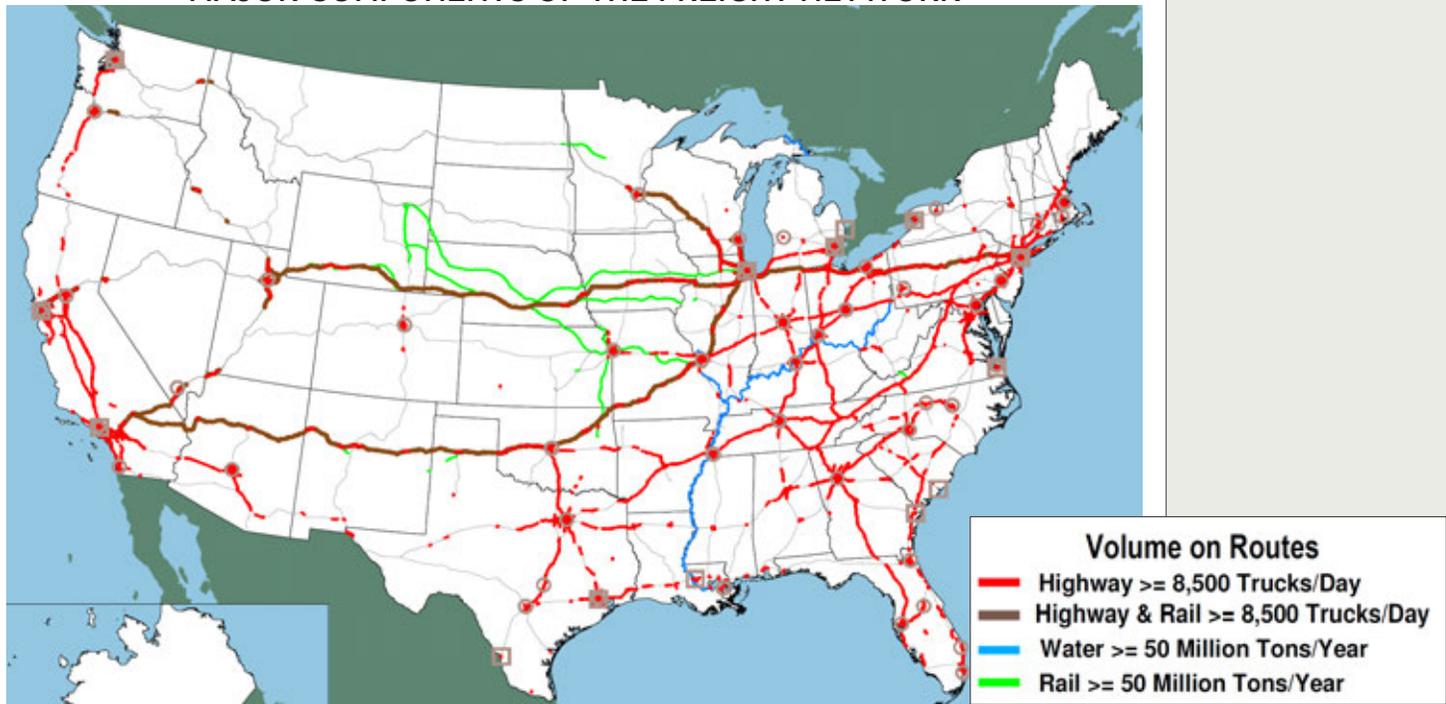
The largest freight flows in the U.S. are concentrated on a relatively small number of corridors. The map below highlights segments of the freight transportation network that carry more than 50 million tons per year.

These include highway segments that carry at least 8,500 trucks per day (*the number needed to move 50 million tons per year at 16 tons per truck*); additional highway segments and parallel rail lines that together carry at least 8,500 truck, trailer-on-flatcar, and container-on-flatcar payloads at 16 tons per payload; and rail lines and waterways that carry 50 million tons in bulk cargo per year.



The largest freight flows in the U.S. are concentrated on a relatively small number of corridors.

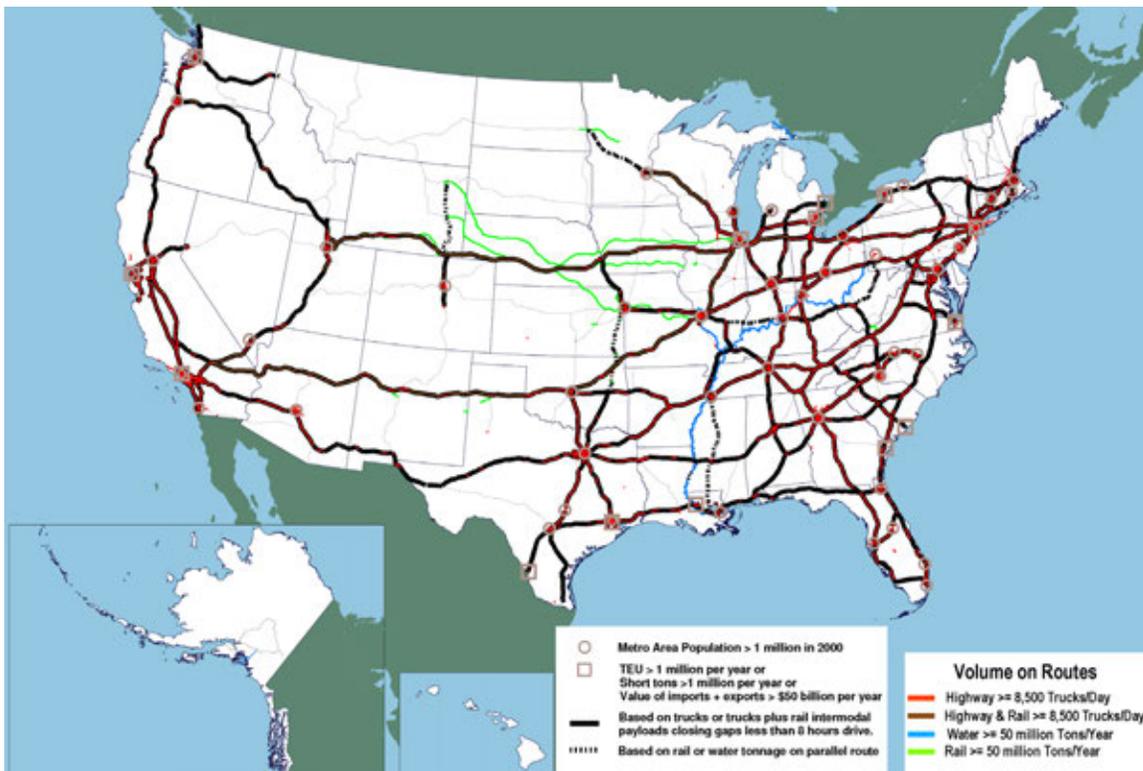
MAJOR COMPONENTS OF THE FREIGHT NETWORK



Source: fhwa.dot.gov/freight

By connecting the gaps in segments shown in the map above which are less than 440 miles apart (*the distance a truck can travel in 8 hours at 55 miles per hour*) and adding routes that parallel bulk cargo rail lines and waterways a more “complete” network corridor map can be created. This can be seen in map below.

U.S. MAJOR FREIGHT CORRIDORS



Source: fhwa.dot.gov/freight

By 2011, the for-hire transportation and warehousing segments employed 4.3 million in the United States.

The resulting corridors shown in this map include an additional 26,000 miles of highways plus an additional 1,500 miles of bulk cargo rail and waterway routes measured along the nearest parallel highway. Interstate highways account for over 95% of the total 27,500 miles.

The total mileage is about 60% of the length of the Interstate System and less than 17% of the National Network designated for conventional combination trucks.

LOGISTICS PERFORMANCE INDEX

The Logistics Performance Index (LPI) is a global benchmarking tool created to help countries identify the challenges and opportunities they face in logistics performance. The 2012 LPI, published by the World Bank, is a global survey of freight forwarders and express carriers who rate countries on three key logistics issues: cargo tracking, infrastructure quality, and customs efficiency.

The Index combines in-depth knowledge of the survey respondents with quantitative data on the performance of key components of the logistics chain in the country of work. The LPI helps build profiles of logistics friendliness. There is both the LPI and the Domestic LPI. LPI measures the logistics performance in exporting and importing foreign goods, while the domestic LPI focuses on logistics performance within a country. Both the LPI and Domestic LPI focus on similar factors including the clearance process, quality of transportation and logistics infrastructure, ease of

LPI measures the logistics performance in exporting and importing foreign goods, while the domestic LPI focuses on logistics performance within a country.



arranging competitively priced shipments (time, cost and reliability of supply chains), quality and competence of logistics services, and the transparency of the supply chain.

The survey respondents were asked to rate the countries on different aspects of logistics performance and responded with very low, low, neutral, high, or very high. The following table shows

the Domestic LPI (Environment and Institutions) of the United States and its factors which were rated as high or very high by survey respondents. Some of the most interesting results of the domestic LPI for the United States is that port, airport and road transport rates are considered high or very high by about 40% of respondents, while quality of infrastructure receives a rating of low across the board: ports, airports, roads, rail, warehouse, and information technology (IT). Survey respondents do report satisfaction with the quality of many logistics services in the U.S. however, with over 50% rating high or very high road services, air transport, maritime transport, warehousing, transloading, distribution, freight forwarding, customs brokers and customs agencies.

Logistics processes are considered highly efficient by many of the respondents; while reports of delay frequency reported as low, except for maritime transshipment which is hovering at about 27%. The most improved logistics services in the U.S. were customs clearance procedures, private logistics services, and IT infrastructure.

2012 DOMESTIC LPI: ENVIRONMENT AND INSTITUTIONS - UNITED STATES

LEVEL OF FEES AND CHARGES	% ANSWERING HIGH/VERY HIGH
Port charges are	39%
Airport charges are	41%
Road transport rates are	41%
Rail transport rates are	28%
Warehousing/trans-loading charges are	22%
Agent fees are	22%
QUALITY OF INFRASTRUCTURE	% ANSWERING HIGH/VERY HIGH
Ports	6%
Airports	6%
Roads	6%
Rail	11%
Warehousing/transloading facilities	0%
Telecommunications and IT	0%
QUALITY OF SERVICES	% ANSWERING HIGH/VERY HIGH
Road	53%
Rail	35%
Air transport	75%
Maritime transport	59%
Warehousing/transloading and distribution	71%
Freight forwarders	65%
Customs agencies	53%
Quality/standards inspection agencies	35%
Health/SPS agencies	41%
Customs brokers	65%
Trade and transport associations	24%
Consignees or shippers	12%

Source: lpiurvey.worldbank.org

The 2012 LPI, published by the World Bank, is a global survey of freight forwarders and express carriers who rate countries on three key logistics issues: cargo tracking, infrastructure quality, and customs efficiency.

2012 DOMESTIC LPI: ENVIRONMENT AND INSTITUTIONS - UNITED STATES

EFFICIENCY OF PROCESSES	% ANSWERING OFTEN OR NEARLY ALWAYS
Clearance and delivery of imports	82%
Clearance and delivery of exports	100%
Transparency of customs clearance	53%
Transparency of other border agencies	38%
Provision of adequate and timely information on regulatory changes	47%
Expedited customs clearance for traders with high compliance levels	48%
SOURCES OF MAJOR DELAYS	% ANSWERING OFTEN OR NEARLY ALWAYS
Compulsory warehousing/transloading	13%
Pre-shipment inspection	21%
Maritime transshipment	27%
Criminal activities (e.g., stolen cargo)	7%
Solicitation of informal payments	7%
CHANGES IN THE LOGISTICS ENVIRONMENT SINCE 2009	% ANSWERING IMPROVED OR MUCH IMPROVED
Customs clearance procedures	47%
Other official clearance procedures	40%
Trade and transport infrastructure	27%
Telecommunications and IT infrastructure	33%
Private logistics services	47%
Regulation related to logistics	7%
Solicitation of informal payments	7%

Source: ipisurvey.worldbank.org

the Domestic LPI rates the effectiveness and efficiency of the logistics system within a country and does not address specifically the export or import of goods.

The following table is the Domestic LPI (Performance) of the U.S. in 2012. The “port or airport supply chain” represents logistics services which occur from the point of origin to the port of loading or its equivalent, including ports or airports. This excludes international shipping and will fall under EXW to FOB incoterms.

The “land supply chain” represents logistics services which take place from the point of origin within the country to the buyer’s warehouse, and falls under the EXW to DDP incoterms. In essence, the Domestic LPI rates the effectiveness and efficiency of the logistics system within a country and does not address specifically the export or import of goods.

There are some very interesting results in the comparison presented here of the U.S., high income countries, China and India. The export time and cost for ports or airports supply chain is cheaper and shorter for China, even more so than the high income segment of countries, with the U.S. at 128 miles and \$680, high income countries at 157 miles and \$708, China at 101 miles and \$454, and India at a whopping 389 miles and \$918.

The import time and cost for the port or airport supply chain are more similar in mileage, but the cost of importing in India is nearly double that of both the U.S. and China. China has a significantly shorter export land supply chain and is significantly cheaper than any of the other countries; while import cost for the land supply chain is much more expensive for the high income countries.

2012 DOMESTIC LPI: PERFORMANCE - UNITED STATES

	UNITED STATES	HIGH INCOME OECD NATIONS	CHINA	INDIA
EXPORT TIME AND COST / PORT OR AIRPORT SUPPLY CHAIN				
Distance (miles)	128 miles	157 miles	101 miles	389 miles
Lead time (days)	2 days	2 days	3 days	3 days
Cost (US\$)	\$680	\$708	\$454	\$918
IMPORT TIME AND COST / PORT OR AIRPORT SUPPLY CHAIN				
Distance (miles)	78 miles	152 miles	134 miles	122 miles
Lead time (days)	2 days	2 days	3 days	3 days
Cost (US\$)	\$603	\$873	\$645	\$1,043
EXPORT TIME AND COST / LAND SUPPLY CHAIN				
Distance (miles)	215 miles	267 miles	83 miles	233 miles
Lead time (days)	3 days	2 days	4 days	3 days
Cost (US\$)	\$745	\$931	\$453	\$1,097
IMPORT TIME AND COST / LAND SUPPLY CHAIN				
Distance (miles)	169 miles	179 miles	106 miles	150 miles
Lead time (days)	3 days	3 days	3 days	4 days
Cost (US\$)	\$729	\$1125	\$637	\$921

Source: lpiurvey.worldbank.org

The U.S. has the most quality efficient shipping services, with over 93% of shipments meeting quality criteria while other high income nations have about 86% meeting quality criteria, China at 69% and India at 59%. The high income countries have 0 days clearance time for shipments which do not require physical inspection, and 1 day delay for clearance time with physical inspection.

The U.S. takes 1 day and 3 days, respectively. While only about 7% of shipments are physically inspected in the U.S. that number rises sharply to 17% for China, and 35% for India. The important comparison is the benchmark of the U.S. against other high income nations. In relation to that group, the U.S. has shorter supply chain distances, provides logistics services cheaper, and preserves a higher quality criterion.

The U.S. has the most quality efficient shipping services, with over 93% of shipments meeting quality criteria while other high income nations have about 86% meeting quality criteria, China at 69% and India at 59%.

2012 DOMESTIC LPI: PERFORMANCE - UNITED STATES

SHIPMENTS MEETING QUALITY CRITERIA (%)	93.29%	86.36%	69.46%	58.90%
NUMBER OF AGENCIES - EXPORTS	3	2	3	3
NUMBER OF AGENCIES - IMPORTS	2	2	3	3
NUMBER OF DOCUMENTS - EXPORTS	4	2	6	6
NUMBER OF DOCUMENTS - IMPORTS	2	2	5	5
CLEARANCE TIME WITHOUT PHYSICAL INSPECTION (DAYS)	1 days	0 days	2 days	2 days
CLEARANCE TIME WITH PHYSICAL INSPECTION (DAYS)	3 days	1 days	4 days	4 days
PHYSICAL INSPECTION (%)	6.84%	6.39%	17.11%	35.23%
MULTIPLE INSPECTION (%)	3.12%	4.17%	4.63%	15.76%

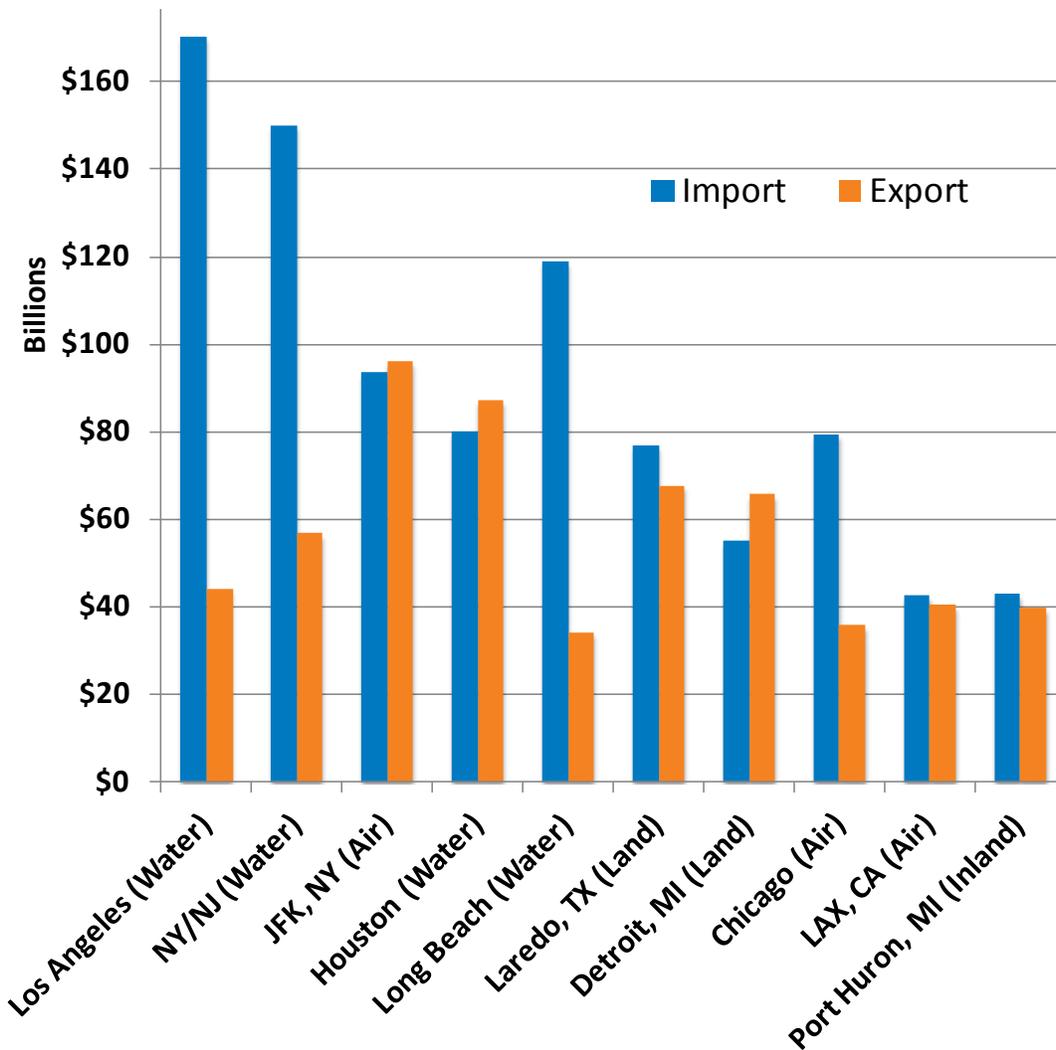
Source: lpiurvey.worldbank.org

In summary, the following two tables represent the U.S International Merchandise Weight and Value by Mode, and the Top 10 U.S. International Trade Freight Gateways by value.

2011 U.S. INTERNATIONAL BY MODE ¹⁹⁴

	WEIGHT (SHORT TONS)	% OF TOTAL	\$ VALUE	% OF TOTAL
Water	1.48 billion	75%	\$1.73 trillion	46.9%
Air	8.23 million	0.4%	\$917.30 billion	24.9%
Truck	207.88 million	10.5%	\$625.86 billion	17%
Rail	142.05 million	7.2%	\$151.85 billion	4.1%
Pipeline	122.98 million	6.2%	\$80.73 billion	2.2%
Other/Unknown	13.22 million	0.7%	\$182.50 billion	4.9%
TOTAL	1.97 BILLION		\$3.69 TRILLION	

2011 TOP U.S. INTERNATIONAL TRADE GATEWAYS (\$BILLION) ¹⁹⁴



GEORGIA LOGISTICS PERSPECTIVE

Equally complex and dynamic as the functions of logistics are the businesses that perform them. The **Center of Innovation for Logistics** has created a set of base categories and sub-categories by which to classify these businesses and organizations.

To begin, the logistics industry has two main categories: logistics providers (companies rendering logistics services) and logistics users (companies consuming logistics services).

Georgia is home to nearly 11,000 providers of logistics services, from core transportation and facilities, to third party logistics and software providers, and ranks as the 5th largest overall logistics employer in the nation. Companies like Delta Airlines, UPS, SAIA, and Manhattan Associates are headquartered here along with major players in logistics such as Home Depot, Carters, Coca-Cola and Gulfstream.

In total, close to 33,000 logistics consuming companies critically rely on the efficient flow of freight to operate their business. Additionally, every sector of logistics is supported by active trade associations and Georgia is a popular location for many major logistics industry events.

SECTION OUTLINE

- INDUSTRY DEFINED
- GLOBAL PERSPECTIVE
- NATIONAL PERSPECTIVE
- **GEORGIA PERSPECTIVE**

GEORGIA'S TRANSPORTATION NETWORK



GEORGIA'S LOGISTICS ECOSYSTEM

This brief set of definitions provided here is a partial summary of a larger effort performed in 2009. To learn more detail about the background and rationale of these categories, please look through the 2009 report entitled: "2009 Georgia Logistics Report - A Focus on Providers". Here, Logistics Users and Providers are defined and explored in greater detail and their impact as a part of Georgia's overall economy are also shown. To read the 2009 report visit the link provided below:

Of the top 25 global 3PLs, 90% have operations in Georgia ¹⁸¹

Of the top 50 worldwide cargo carriers, 6 have operations in Georgia, including the top worldwide carrier, UPS ¹⁸¹.

40% of North American manufacturing facilities are within a 500 miles radius of Atlanta ¹⁸¹.

86 public educational institutions offer logistics related courses, certificates, and/or degrees ¹⁸¹.

Georgia offers the 'Quickstart' program, to educate employees for firm-specific needs in the state, at no cost to the firm. Ranked as the #1 workforce development program in the Nation. ¹⁸¹

LOGISTICS PROVIDER DEFINITIONS

The logistics providers are divided into three sub-categories: core, related and support. These categories are used multiple times throughout this report, so the table below is provided to better illustrate the industries represented in each category.

CORE INDUSTRIES

Organizations involved with the direct movement of cargo and freight and whose primary business creates and/or connects major nodes in the global supply chain. Core industries are broken into two sub-groups:

Facilities (warehouses, ports...)

Transportation (truck, rail, air...)

RELATED INDUSTRIES

Consists of two categories: enabling, which helps move goods faster and more efficiently through the supply chain typically through technology improvements or offerings; and traditional, which provides goods and services directly to the infrastructure (core industry) of the supply chain.

Enabling (logistic software, engineers...)

Traditional (cargo container manufacturers, third-party providers...)

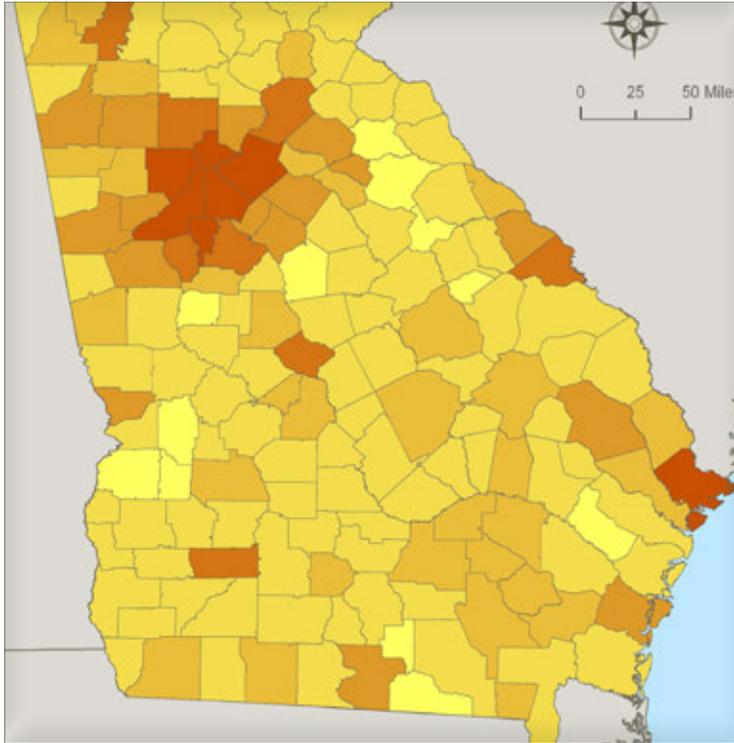
SUPPORT INDUSTRIES

This group of companies provides services to both the core and related industries but does not physically touch the cargo. Support industries include labor organizations such as associations and unions, as well as professional services such as accounting, legal and consulting.

Georgia is home to nearly 11,000 providers of logistics services, from core transportation and facilities, to third party logistics and software providers

The ecosystem is comprised of two primary groups: LOGISTICS CONSUMERS and LOGISTICS PROVIDERS

LOGISTICS PROVIDER DISTRIBUTION (BY COUNTY)



LEGEND
ESTABLISHMENT COUNT

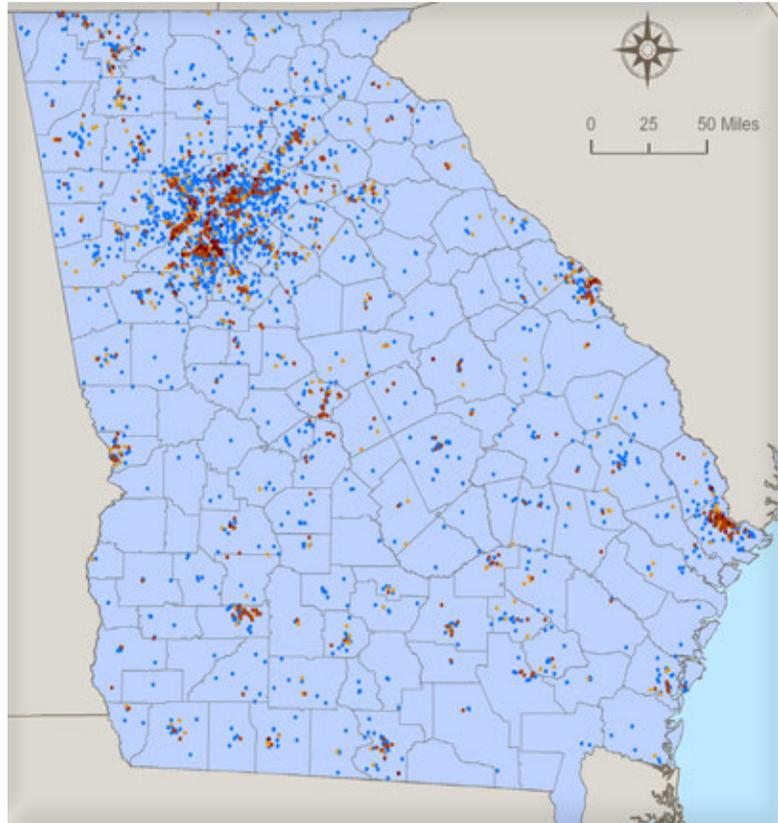
- 1 - 10
- 11 - 25
- 26 - 50
- 51 - 100
- 101 - 393

SOURCE:
INFO USA, NETS,
CENTER ANALYSIS

LOCATION OF PROVIDERS (BY EMPLOYMENT SIZE)

- LEGEND**
EMPLOYMENT SIZE
- LARGE
> 250
 - MEDIUM
20-249
 - SMALL
10-19
 - MICRO
1-9

SOURCE:
INFO USA, NETS,
CENTER ANALYSIS



LOGISTICS CONSUMER DEFINITION

Logistics consumers are best described as the customers of the logistics providers. In total, close to 33,000 logistics consuming companies critically rely on the efficient flow of freight to operate their business. This group is logically much larger than the providers and is roughly and broadly divided into three sub-categories:

RAW MATERIALS PRODUCTION

Establishments engaged in producing unprocessed natural products that will be used in manufacturing. These include both durable and non-durable materials.

MANUFACTURING

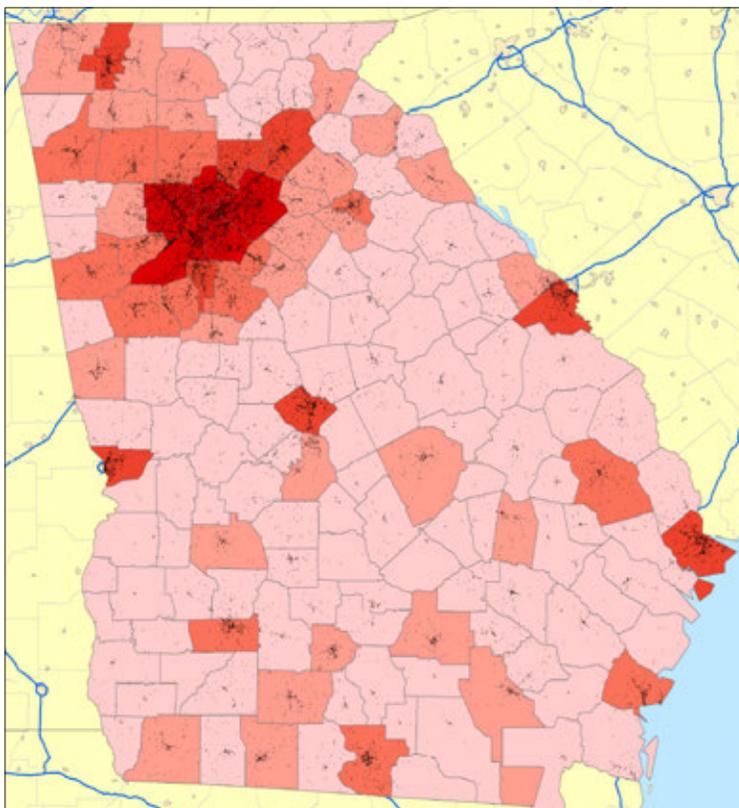
Establishments engaged in the mechanical or chemical transformation of materials or substances into new products, which may be finished in the sense that they are ready for utilization or consumption, or may be semi-finished to become a raw material for an establishment engaged in further manufacturing.

WHOLESALE/RETAIL DISTRIBUTION

Establishments engaged in selling merchandise to retailers; to industrial, commercial, institutional, farm, construction contractors; to professional business users or to other wholesalers.

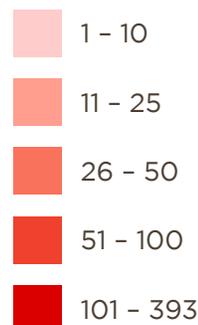
The location of these establishments are shown in the map below where both the concentration is shown by shaded county as well as the “dot location” of each company. It is clear to see that while, like the providers, there are some clusters of users located primarily around infrastructure assets, consumers of logistics are everywhere.

LOGISTICS CONSUMER DISTRIBUTION (BY COUNTY)



LEGEND

ESTABLISHMENT COUNT



SOURCE:
INFO USA, NETS,
CENTER ANALYSIS

There are some clusters of users located primarily around infrastructure assets, however the users of logistics are everywhere in Georgia

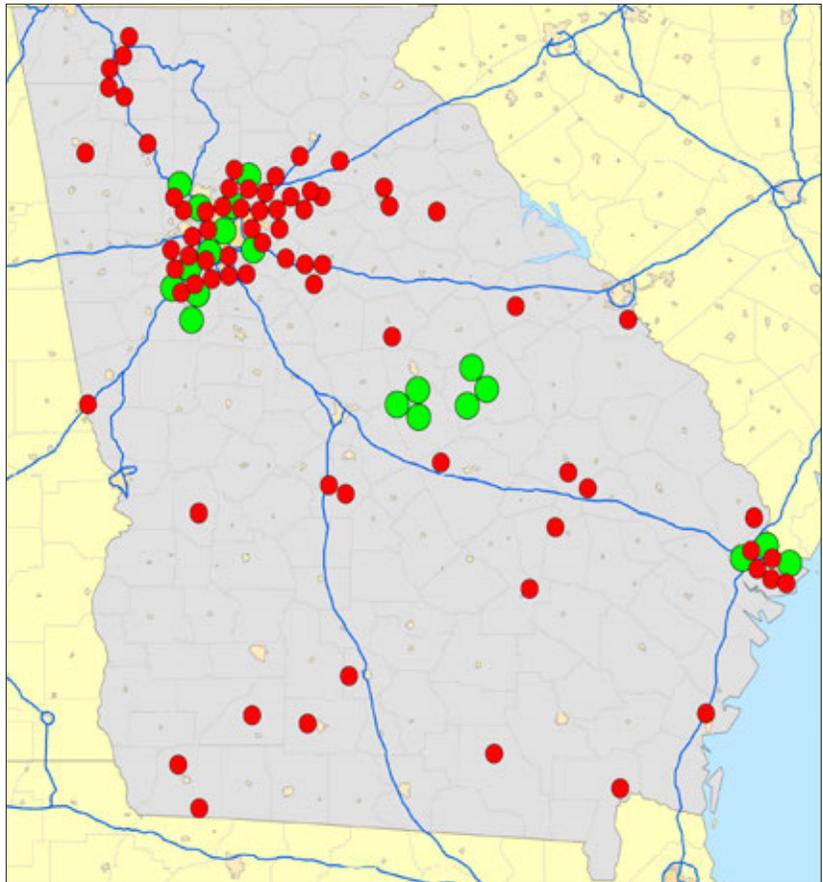
TOP FREIGHT GENERATORS

If a closer look is given to these consumers, some stand out more than others - specifically with regards to amount of freight moved. These can be thought of as Georgia's "top freight generators". Below is a mapping of many of these freight-generators that ship and/or receive through their Georgia facilities more than 500,000 tons of cargo per year.

LEGEND

- INBOUND FREIGHT
- OUTBOUND FREIGHT

SOURCE:
INFO USA, NETS,
CENTER ANALYSIS



mapping of many of these freight-generators that ship and/or receive through their Georgia facilities more than 500,000 tons of cargo per year



OCEAN CARGO

OCEAN CARGO DEFINED

Sea transport has been the largest carrier of freight throughout recorded history as virtually any material can be moved by ocean freight. Ocean freight is essential to international trade and enables globalization. In fact, roughly 80% of international trade by volume and about 70% of trade value is transported by sea and moved through ports ¹³¹.

More specifically, ocean freight shipping is the service of transporting goods by means of high-capacity, ocean-going ships that transit regular routes on fixed schedules. There are approximately 400 liner services in operation today, most providing weekly departures from all the ports that each service calls. Liner vessels, primarily in the form of containerships and roll-on/roll-off ships, carry about 60 % of the goods by value moved internationally by sea each year. Ocean freight transport takes the form of various types of cargo transported by ship over the sea. Cargo types include bulk, liquid bulk, roll-on/roll-off, project cargo, break bulk, and containers.



SECTION OUTLINE

- INDUSTRY DEFINED
- GLOBAL PERSPECTIVE
- NATIONAL PERSPECTIVE
- GEORGIA PERSPECTIVE

GLOBAL OCEAN CARGO PERSPECTIVE



Seaports in developing countries continue to be plagued by inadequate productivity, high user prices, long delays and high operational inefficiency, ineffective services, and underinvestment ².

China leap-frogged the United States in terms of investment in port infrastructure and now other emerging markets are doing the same.³¹ There is an intense competitive environment and the continued global investment in ports is laying the foundation for the continued boom in global trade. ⁵⁶

The Panama Canal expansion opens in 2014, and companies and transportation decisions are being made in anticipation of changes to come from this opening. ⁵⁵

Seaborne trade capacity has increased about 10% from 2010 to 2011, with current capacity at 8.7 billion tons ¹³¹.

GLOBAL CONTAINER FLEET SIZE AND CAPACITY

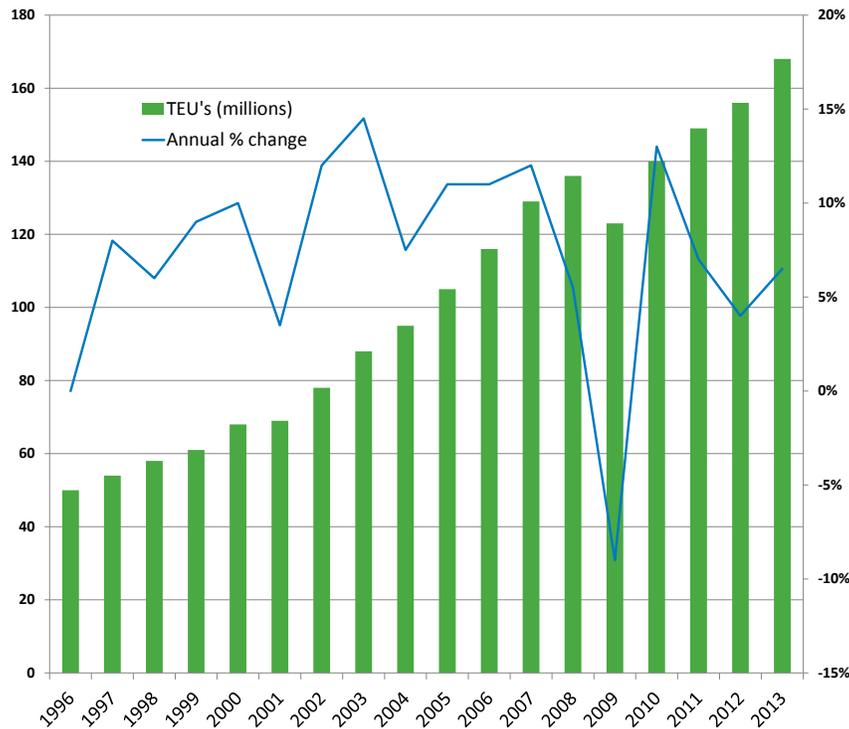
BEGINNING OF YEAR	NUMBER OF VESSELS	TOTAL TEU CAPACITY	AVG. VESSEL SIZE (TEU)
1987	1,052	1,215,215	1,155
1997	1,954	3,089,682	1,581
2007	3,904	9,436,377	2,417
2008	4,276	10,760,173	2,516
2009	4,638	12,142,444	2,618
2010	4,677	12,824,648	2,742
2011	4,868	14,081,957	2,893
2012	5,012	15,406,610	3,074
Growth 2012/2011	3.0%	9.4%	6.3%

Source: unctad.org

Following the annual growth of almost 10%, in January 2012 the world fleet reached a total tonnage of 1,534 million dwt. At the beginning of the year, there were 104,305 seagoing commercial ships in service. The largest growth of tonnage was in dry bulk carriers (+17%) bringing the category to over 40% of the total world capacity; the world dry bulk fleet has surged 60% in just 4 years. Containerships, after an increase of 7.7%, make up 12.9% of the world tonnage.

Deadweight tonnage (DWT) is a measure of how much weight a ship is carrying or can safely carry. It is the sum of the weights of cargo, fuel, fresh water, ballast water, provisions, passengers, and crew.

GLOBAL CONTAINER TRADE 1996-2013



Source: unctad.org

World container trade, expressed in TEUs, grew by 7.1% in 2011 and 5% in 2012, down from growth of 12.8% in 2010. According to Clarkson Research Services, total container trade volumes amounted to 151 million TEUs in 2011, equivalent to about 1.4 billion tons.

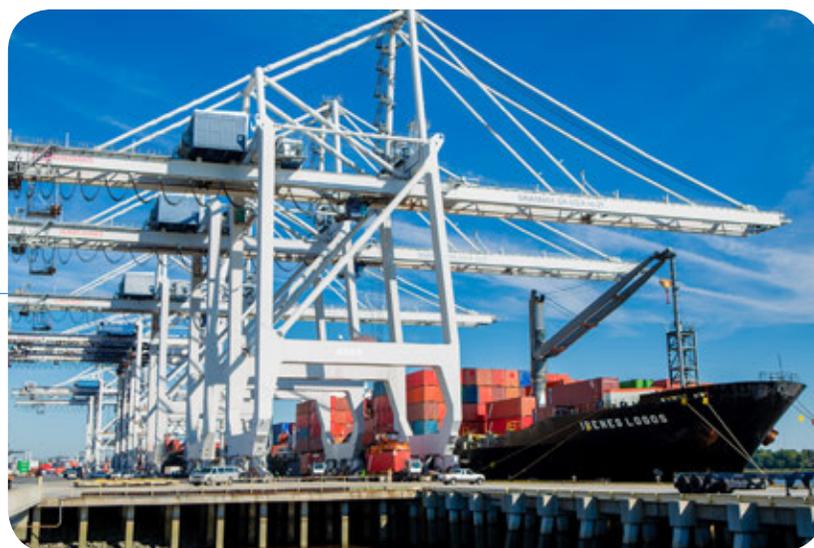
TOP OCEAN FREIGHT CONTAINER CARRIERS

RANK	OPERATOR	COUNTRY/TERRITORY	NUMBER OF VESSELS	AVG. VESSEL SIZE (# OF TEUS)	TEU	SHARE OF WORLD TOTAL, TEU (%)	CUMULATED SHARE, TEU (%)	GROWTH IN TEU OVER 2011 (%)
1	Maersk Line	Denmark	453	4646	2,104,825	11.8	11.8	15.6
2	MSC	Switzerland	432	4688	2,025,179	11.3	23.1	14.9
3	CMA CGM	France	290	4004	1,161,141	6.5	29.5	8.5
4	APL	Singapore	144	4168	600,168	3.4	32.9	1.4
5	COSCO	China	145	4304	624,055	3.5	36.4	10.3
6	Evergreen Line	China, Taiwan Province	159	3590	570,843	3.2	39.6	-3.9
7	Hapag-Lloyd	Germany	145	4476	648,976	3.6	43.2	15.8
8	CSCL	China	124	4493	557,168	3.1	46.3	20.9
9	Hanjin	Korea, Republic of	101	4927	497,641	2.8	49.1	11.2
10	MOL	Japan	107	4194	448,727	2.5	51.6	23.6
11	OOCL	China, Hong Kong	88	4516	397,433	2.2	53.8	6.1
12	Zim	Israel	82	3708	304,074	1.7	55.5	8
13	HMM	Korea, Republic of	70	4497	314,770	1.8	57.3	10.4
14	NYK	Japan	93	4129	383,964	2.1	59.4	8.8
15	Yang Ming	China, Taiwan Province	84	4089	343,476	1.9	61.3	6.4
16	Hamburg Sud	Germany	99	3728	369,057	2.1	63.4	10
17	K Line	Japan	79	4336	342,572	1.9	65.3	-1.6
18	CSAV	Chile	85	4095	348,035	1.9	67.2	-9.1
19	PIL	Singapore	104	2279	236,978	1.3	68.6	-0.5
20	Wan Hai Lines Ltd.	China, Taiwan Province	89	2080	185,146	1	69.6	8.8
TOTAL TOP 20 CARRIERS			2,973	3,979	12,464,228	69.6	69.6	10
OTHERS			7,993	768	5,445,054	30.3	30.4	10.7
WORLD CONTAINER SHIP FLEET			10,966	1,678	17,909,282	100	100	10.2

Source: unctad.org

The largest container ship operators in January 2012 continued to be Maersk Line (Denmark), MSC (Switzerland) and CMA CGM (France). Together, these 3 companies operate almost 30% of the total global container carrying capacity.

Compared with January 2011, the largest growth was recorded by MOL (Japan) with a 24% increase in TEUs, followed by CSCL (China) with 21% and Hapag-Lloyd (Germany) with a 16% increase respectively.



TOP GLOBAL CONTAINER TERMINALS (2011) ¹³¹



RANK	PORT NAME	TEUS IN 2011
1	Shanghai	31,700,000
2	Singapore	29,937,700
3	Hong Kong	24,404,000
4	Shenzhen	22,569,800
5	Busan	16,184,706
6	Ningbo	14,686,200
7	Guangzhou	14,400,000
8	Qingdao	13,020,000
9	Dubai	13,000,000
10	Rotterdam	11,900,000
11	Tianjin	11,500,000
12	Kaohsiung	9,636,289
13	Port Klang	9,377,434
14	Hamburg	9,021,800
15	Antwerp	8,664,243
16	Los Angeles	7,940,511
17	Tanjung-Pelepas	7,500,000
18	Siamen	6,460,700
19	Dalian	6,400,000
20	Long Beach	6,061,085
44	Savannah	2,944,678

Source: unctad.org

In 2011, global container port throughput had increased to 572.8 million TEUs

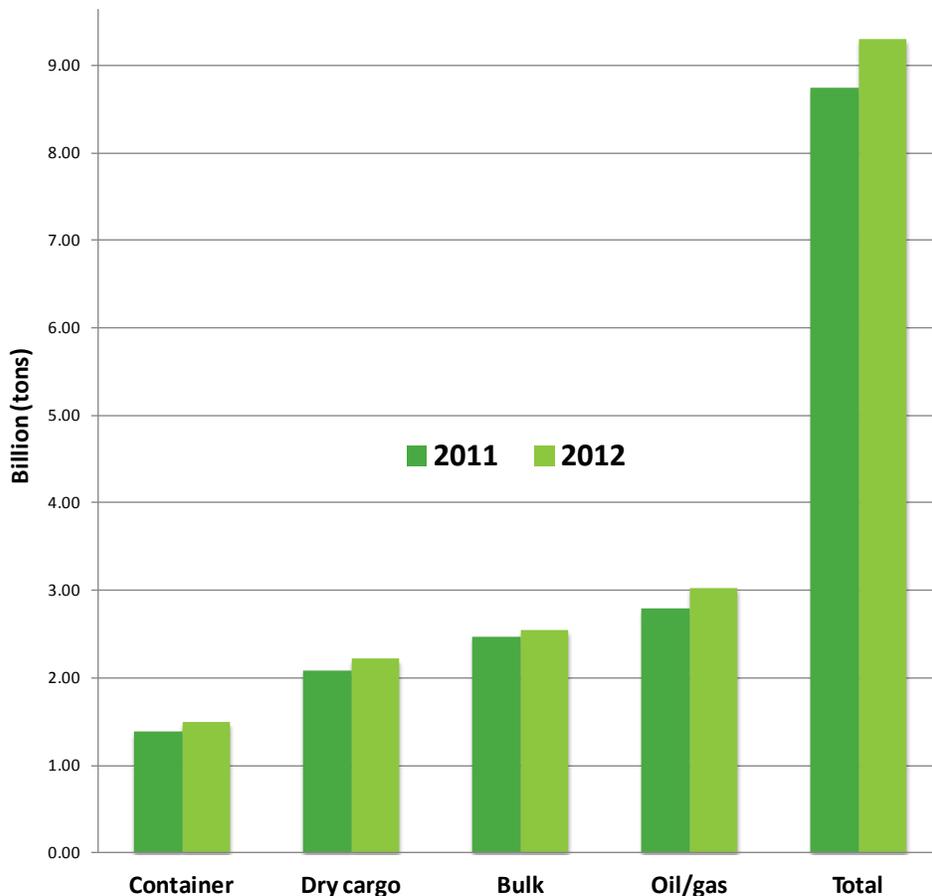
In 2011, global container port throughput had increased to 572.8 million TEUs from 538 million in 2010 ¹³¹. 2012 saw only about 3% of existing global ocean freight container vessels “sitting idle”. ³³

The ocean freight industry suffered somewhat in 2011, due to the combination of depressed freight rates, overcapacity and increasing bunker fuel prices ⁴⁹. In 2012, sea freight markets showed growth in all geographic regions except Europe ¹⁴². The most elevated level of growth in container transportation by sea was in the Far East and the Middle East ¹⁴².

WORLD SEABORNE TRADE IN CARGO TON-MILES ¹³¹

2011	2012	% CHANGE
42.794 Trillion	44.540 Trillion	4%

INTERNATIONAL SEABORNE TRADE IN TONS ¹³¹.



Source: unctad.org

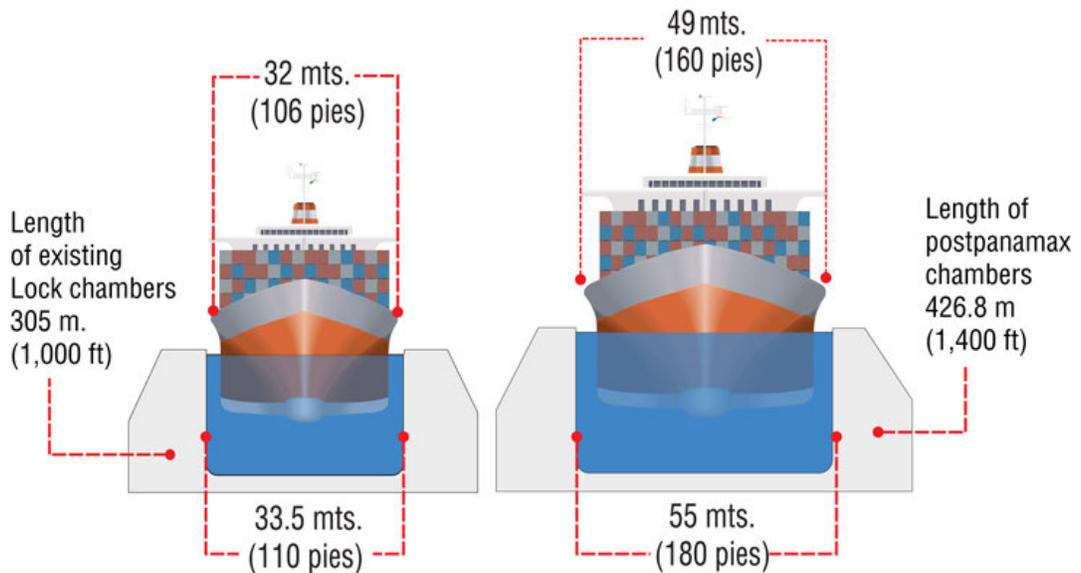
PANAMA CANAL EXPANSION UPDATE

The capacity of the Panama Canal is determined by a number of factors, of which the most important is the size of the locks that raise and lower ships as they pass through the canal. The smallest dimensions of the locks are 110 ft wide, 1,050 ft long and 85 ft deep. Because of clearance issues, the usable sizes are somewhat smaller. The maximum size of ships that can pass through the canal are known as Panamax size vessels.

According to the ACP, the canal will reach its maximum sustainable capacity between the years 2009 and 2012. When it reaches this capacity it will not be able to continue to handle demand growth, resulting in a reduction in the competitiveness of the Panama maritime route.



CURRENT AND FUTURE VESSEL DIMENSIONS



Source: www.pan canal.com

COMPONENTS OF THE EXPANSION



- 1) Deepening and widening the Atlantic entrance channel
- 2) New approach channel for the Atlantic Post-Panamax locks
- 3) Atlantic Post-Panamax locks with three water saving basins per chamber
- 4) Raise maximum Gatun lake operating water level
- 5) Widening and deepening of the navigational channel of the Gatun lake and the Culebra Cut
- 6) New approach channel for the Pacific Post-Panamax locks
- 7) Pacific Post-Panamax locks with three water saving basins per chamber
- 8) Deepening and widening the Pacific entrance channel

Source: www.pan canal.com

Commercial transits are expected to commence in mid-2015. Initially this was to commence on Aug 15, 2014 so they are behind schedule 9 months or so at this point but certainly could change. The canal originally opened on Aug 15, 1914.

To date, the program is 50% complete. *"The program continues to progress and reach milestones while we focus the next phases on building the locks,"* said Panama Canal Administrator Jorge L. Quijano.

Beginning 2013, the Expansion Program has completed several projects. Dredging of the navigational channels has been completed. This included both Canal entrances, on the Pacific and Atlantic sides, as well as Gaillard Cut. The remaining dredging work to be done in Gatun Lake is expected to be completed this year.

The excavations of the Pacific lock access channel are 70% complete. This project calls

for the excavation of more than 50 million cubic meters of materials along a 6.1 km span and is executed in four phases. Three of the four phases have been completed and the fourth phase is 69% complete.

In addition, the first shipment of 47 valves, to be used for the operation of the third set of locks, arrived during the last couple of weeks. These valves are part of the Post-Panamax locks electromechanical system that will regulate water flow between the chambers, the culverts and water-saving basin conduit. A second shipment is scheduled to arrive at the end of January. By the end of 2013, a total of 158 valves (culvert, equalization and conduit), 84 bulkheads and 328 trash racks will have arrived for the project. The valves were built in South Korea by Hyundai Samho Heavy Industries

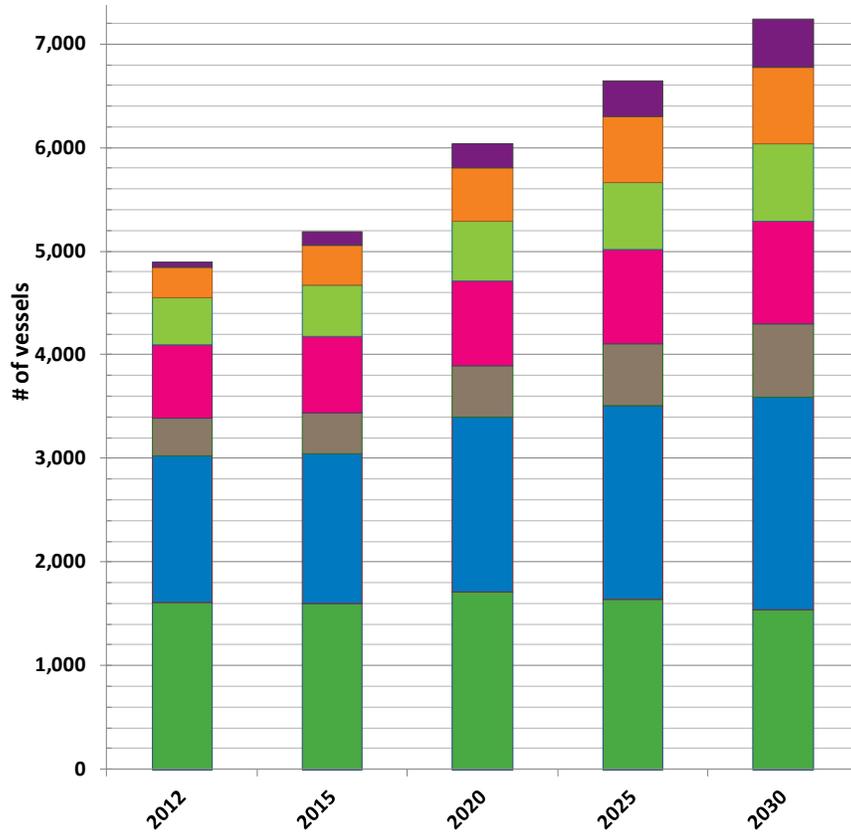


Construction of the new locks has a 37% progress. The new lock complexes in the Pacific and Atlantic sides will feature three chambers, three water-saving basins per chamber, a lateral filling and emptying system and rolling gates.

The Panama Canal Authority is closely monitoring progress on every component of the Expansion Program to guarantee that contractors comply with the quality required by each contract. The Panama Canal Expansion Program will be the largest project at the Canal since its original construction and will double its capacity to allow more traffic.

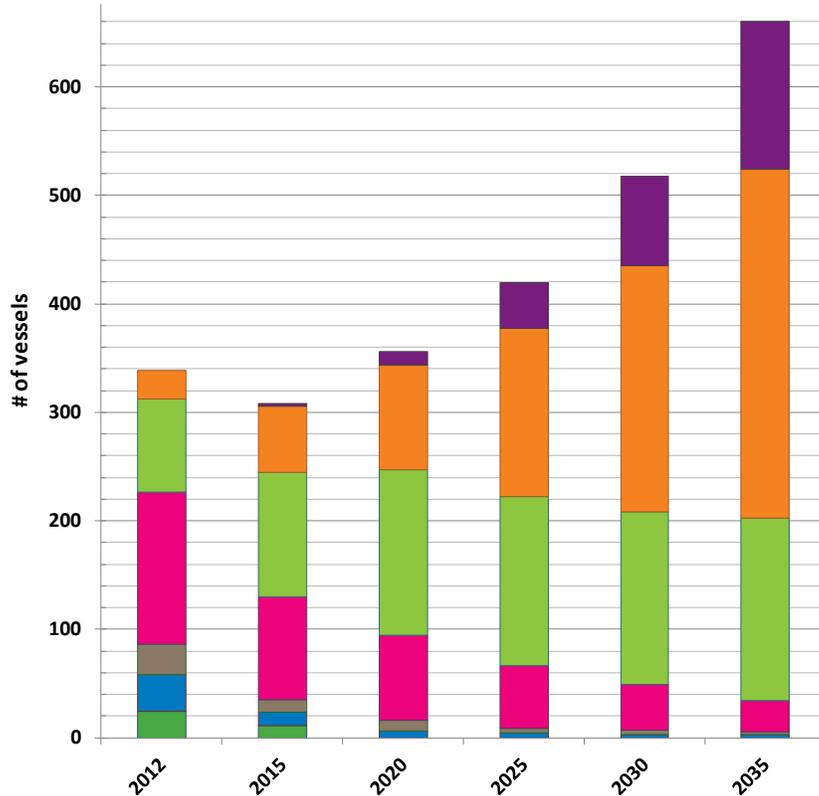
VESSELS OVER 5.2K TEU'S ARE CURRENTLY CLASSIFIED AS POST-PANAMAX UNTIL THE PANAMA CANAL IS WIDENED AND EXPANDED IN 2015.

PROJECTED TOTAL GLOBAL OCEAN CARGO FLEET SIZE



- 12.0K TEU +
- 7.6 - 12.0K TEU
- 5.2 - 7.6K TEU
- 3.9 - 5.2K TEU
- 2.9 - 3.9K TEU
- 1.3 - 2.9K TEU
- .1 - 1.3K TEU

PROJECTED U.S. EAST COAST OCEAN CARGO FLEET SIZE



Source: unctad.org, MSI

NATIONAL OCEAN CARGO PERSPECTIVE

North America’s history has been shaped by its ports on the seacoasts, rivers and the Great Lakes. From the late 1400s, the sheltered harbors provided safe refuge for early explorers and settlers. Cities depended on docks and shipping terminals as their communications and commerce lifeline to the rest of the world. As port cities prospered and grew, the bustling wharfs and big ships became less visible, but no less important, as major highways and tall buildings dominated the waterfront.

Today, the U.S. is served by publicly- and privately-owned marine facilities located in approximately 360 commercial sea and river ports. These ports are home to approximately 3,200 cargo and passenger handling facilities, according to the U.S. Coast Guard. These are found along the Atlantic, Pacific, Gulf and Great Lakes coasts, as well as in Alaska, Hawaii, Puerto Rico, Guam, and the U.S. Virgin Islands. In total the United States has 9,800 coastal and inland waterway facilities ⁵ and some 150 state, local and county seaport agencies, navigation districts and port authorities make up the public sector port industry today.

Ports play a major role in industrial plant location. Many manufacturing and processing industries locate their plants at or near waterfront sites to take advantage of low-cost inbound transportation of raw materials for production and outbound shipments of finished products to both export and domestic markets. Foreign Trade Zones, located on port property, also provide incentives for value-added manufacturing services and trade.

U.S. seaports are responsible for moving nearly all of the country’s overseas cargo volume...99.4% by weight and 65% by value.

Each of our 50 states relies on at least 15 seaports to handle its imports and exports, which total some \$3.8 billion worth of goods moving in and out of U.S. seaports each day.

Seaports also support the employment of more than 13 million people in the U.S., which account for \$650 billion in personal income. Additionally, according to the U.S. Chamber of Commerce, for every \$1 billion in manufactured exports shipped through seaports, 15,000 U.S. jobs are created.

U.S. SEAPORT VOLUMES

U.S. ports and waterways handle more than 2 billion tons of domestic and import/export cargo annually. By 2020, the total volume of cargo shipped by water is expected to be double that of 2001 volumes.

2010 U.S. CONTAINER PORT TRAFFIC:	42,189,521 TEU’S
2011 U.S. CONTAINER PORT TRAFFIC:	51,596,175 TEU’S

Source: [AAPA and World Bank](#)

About two-thirds of all U.S. wheat and wheat flour, one-third of soybean and rice production and almost two-fifths of U.S. cotton production is exported via U.S. ports. U.S.- produced coal, grain and forest products also compete well in international markets because of our efficient transportation system.

SECTION OUTLINE

- INDUSTRY DEFINED
- GLOBAL PERSPECTIVE
- **NATIONAL PERSPECTIVE**
- GEORGIA PERSPECTIVE

Today, the U.S. is served by publicly- and privately-owned marine facilities located in approximately 360 commercial sea and river ports.

The automobile industry is also highly dependent on deep-draft seaports. For example, reports from the individual ports that handle autos show that a little over 4 million passenger cars, vans, SUVs and light trucks were imported and exported through North American seaports in 2008.



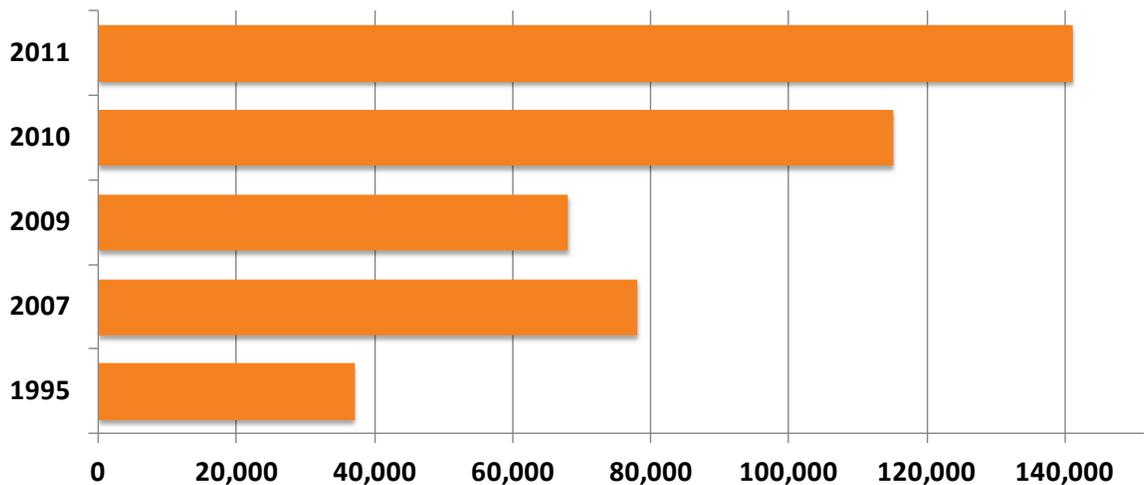
International trade accounts for more than a quarter of GDP. About \$3.8 billion worth of goods move in and out of U.S. seaports each day.

During the first half of 2010, America's container ports handled over \$256 billion worth of containerized cargo imports weighing more than 62 million metric tons. They also handled exports worth

over \$100 billion and weighing 48 million metric tons. The top 10 U.S. container ports account for 85% of U.S. containerized TEU imports and exports

U.S. container ports handle more TEUs of imports than exports, although the percentage of exports has increased during the most recent 3 years. In 2009, maritime container imports passing through U.S. seaports accounted for 58% of total container traffic, down from its peak of 67% in 2006.

DAILY TEU VOLUME HANDLED AT U.S. PORTS

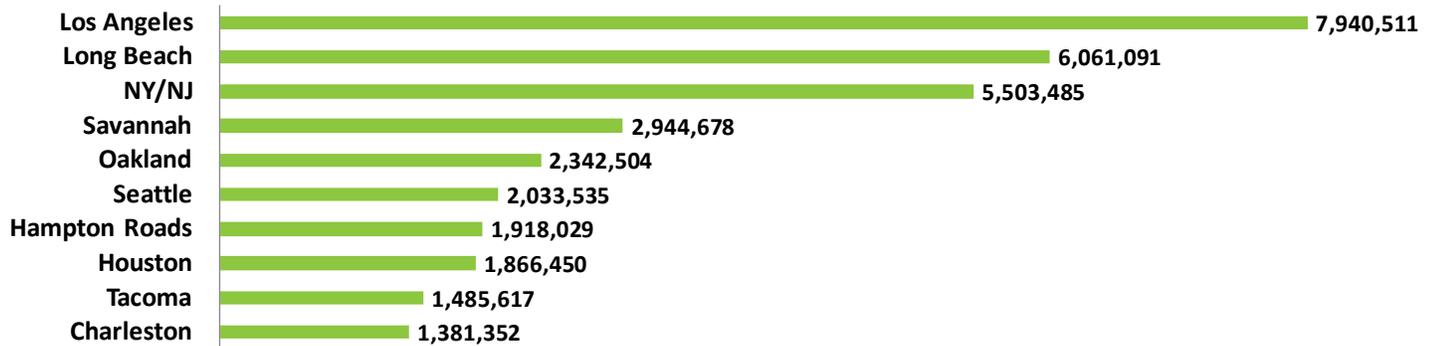


Source: [U.S. Army Corps of Engineers Report](#)

The Commerce Department reports that U.S. exports of goods and services reached a record \$2.2 trillion in 2012. Export records were seen across the board, including among capital goods, automotive vehicles, parts, and engines; consumer goods; and travel and tourism, the department said. Furthermore, exports as a share of U.S. GDP were 13.9% in 2012, matching the record set in 2011.

The U.S. inland waterway system consists of 12,000 miles of navigable waterways in four systems—the Mississippi River, the Ohio River Basin, the Gulf Intercoastal Waterway, and the Pacific Coast systems

TOP U.S. CONTAINER PORTS MEASURED IN TEUS (2011)¹³³



Source: www.bts.gov

As measured in TEUs, over half of U.S. containerized merchandise trade passes through west coast ports.

In 2009, 51% of U.S. containerized imports and exports passed through these ports, down slightly from 56% in 2006.

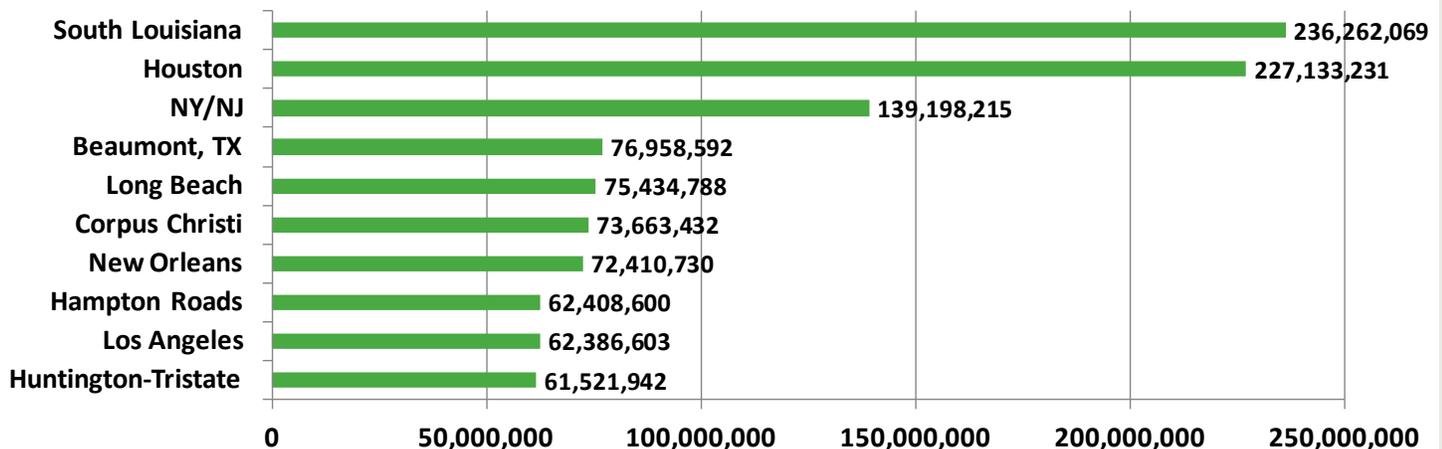
West coast ports as a region grew the fastest beginning in the mid-1980s, but they suffered the sharpest decline in container traffic since 2007.

Between 2007 and 2009, total TEUs handled by west coast ports declined 22%, compared with 13% decline for east coast ports and less than 1% increase for gulf coast ports.

West coast ports handle the most container trade today, but they have also had a larger share of the oceanborne containerized trade deficit since 2007 than ports in other regions.

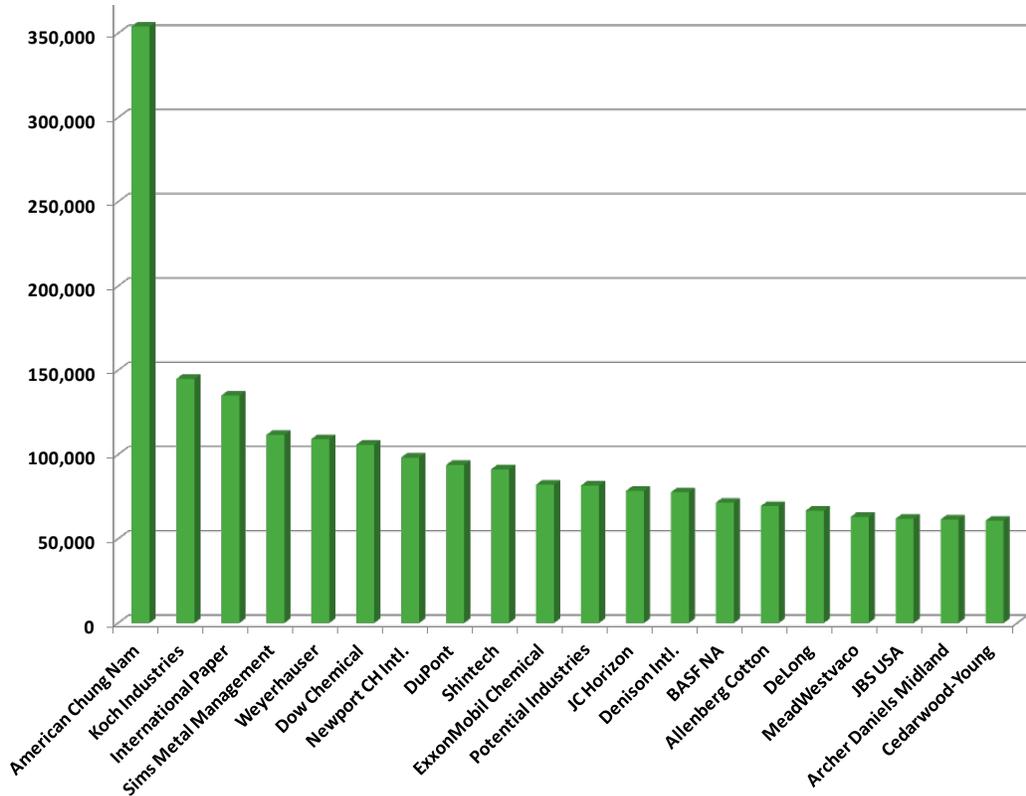
Forty-one states, including all states east of the Mississippi River and 16 state capitals, are served by commercially navigable waterways.

TOP U.S. PORTS BY TONS (2011) (includes non-containerized cargo)¹³²



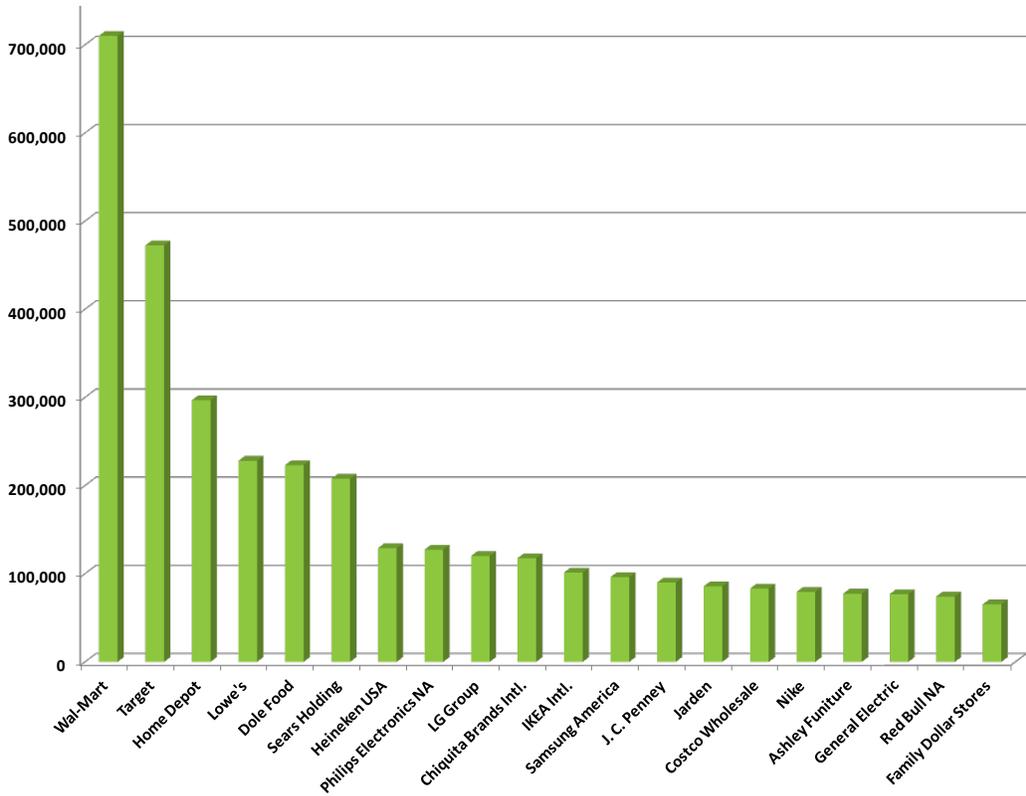
Source: www.bts.gov

2011 TOP U.S. CONTAINER EXPORTERS (BY TEU)



Source: Journal of Commerce, www.joc.com

2011 TOP U.S. CONTAINER IMPORTERS (BY TEU)



Source: Journal of Commerce, www.joc.com

GEORGIA OCEAN CARGO PERSPECTIVE

Georgia's deep-water ports and inland barge terminals support more than 352,000 jobs throughout the state annually and contribute \$18.5 billion in income, \$66.9 billion in revenue and \$2.5 billion in state and local taxes to Georgia's economy. The Port of Savannah was the second busiest U.S. container port for the export of American goods by tonnage in FY2011. It also handled 8.7% of the U.S. containerized cargo volume and 12.5% of all U.S. containerized exports in FY2011. ¹⁷¹

GEORGIA IS HOME TO TWO PRIMARY DEEP WATER PORTS: THE PORT OF SAVANNAH & THE PORT OF BRUNSWICK

OVERALL CARGO VOLUMES, FY 2012 ¹⁷³

CARGO TYPE	FY 2012	CHANGE FROM 2011
Breakbulk	342,446 Tons	+15.3%
Autos and Machinery (Ro/Ro)	569,984 Units	+19%
Containers	2,982,467 TEU's	+1.9%
Total Vessel Calls	2,916 Vessels	+2.2%
Overall Tonnage	26,500,000 Tons	+2.1%

PORT OF SAVANNAH BUSINESS COMMUNITY

In addition to containerized cargo handled at Garden City terminal, there are a host of other companies that make up the greater "Port of Savannah", more than 30 in all. These companies range from manufacturers to service providers to bulk cargo terminal operators, many of which are designed for multiple purposes, while others are specialized breakbulk or bulk cargo facilities such as sugar, fuel, gypsum, kaolin, and timber products.

PORT OF SAVANNAH INDUSTRY CLUSTER (TERMINAL OPERATORS)

Colonial Group	Vopak
Conoco Philips	Metro Ports
GAF	Liberty Terminal
Georgia Kaolin	Southeastern Ship Terminal
GPA - Garden City Terminal	Savannah Marine Terminal
GPA - Ocean Terminal	Savannah Bulk Terminal
Hercules	East Coast Terminal
Imperial Sugar	Dulany Industries / Seagate
International Paper	Georgia Pacific
NuStar Refinery	National Gypsum
Epic Midstream	Newport Terminal / Schilli
Southern LNG	Valero
Standard Concrete	Atlantic Wood (vacant)
Weyerhaeuser	Tronox (vacant)
Wood Chip Exporting Corp.	Hutchinson Island (vacant)

SECTION OUTLINE

- INDUSTRY DEFINED
- GLOBAL PERSPECTIVE
- NATIONAL PERSPECTIVE
- **GEORGIA PERSPECTIVE**

The facility's single-terminal design allows the port to operate in an environment of maximum efficiency and flexibility

Two Class-I rail providers serve the Garden City Terminal location, which also offers immediate interstate access to the more than 100 trucking companies that service the Savannah area.

In addition to these listed, there are many other companies and supporting businesses that are closely connected to the maritime and port industry in and around the Savannah area. For example Savannah area distribution centers total approximately 14 million square feet ¹⁶⁶

The seaports in Georgia include the Georgia Ports Authority's Savannah based container terminal. Garden City Terminal is the largest single-operator container facility in North America, and also holds the title of fastest growing and fourth largest in total volumes. It serves over 40 steamship lines, has convenient intermodal connections, state-of-the-art cargo handling equipment and value-added services. Savannah is also responsible for moving 20% of the East Coast's overseas container cargo and is one of the few ports in the U.S. with two class-1 intermodal railroad facilities on-terminal.

PORT OF SAVANNAH INFRASTRUCTURE: ¹⁶⁴

Channel mean-low-water (MLW) depth: 42ft <i>(Increasing to 47' due to Savannah Harbor Expansion Project - SHEP)</i>
Channel depth at high-tide: 50ft
Berth depth range at MLW: 42-48ft
Turning Basins: 1) King Island Turning Basin; 2) Marsh Island Turning Basin
Inland rail connections: 1) Norfolk Southern Railroad 2) CSX Transportation
Inland Highway connections: I-95, I-16, I-516

GEORGIA'S CONTAINER PORT - GARDEN CITY TERMINAL



A secured, dedicated container terminal owned and operated by the Georgia Ports Authority (GPA) and supported by the port industry's only Client Relations Center, Garden City Terminal is the fourth-largest container port in the United States and the largest single-terminal operation in North America.

The facility's single-terminal design allows the port to operate in an environment of maximum efficiency and flexibility, as well as increased security, due to the concentration of

all manpower, technology and equipment in one massive container operation. Add to this a pro-business, pro-port state versed in the unique requirements of international trade and investment, as well as an experienced labor force from one of the top-six fastest growing populations in the nation, and the opportunities offered by Garden City Terminal are unequalled among U.S. ports.

Two Class-I rail providers serve the Garden City Terminal location, which also offers immediate interstate access to the more than 100 trucking companies that service the Savannah area. And with land available for future development, the facility has

strategic plans in place for its expansion.

Immediate interstate access is available via Interstates 95 (North/ South) within 5.6 miles and 16 (East/ West) within 6.3 miles. Combine this with the rail efficiencies noted above and Savannah's ports puts more than 70% of U.S. consumer within fast, easy reach.

Garden City Terminal is a strategic gateway to rail and road distribution networks that offer the most efficient and reliable intermodal access to markets across the U.S. Southeast and Midwest including those with the fastest-growing populations and capital investments. Served by Class I rail service -- Norfolk Southern Railroad and CSX Transportation -- the facility's on-terminal ICTF provides unrestricted double-stack service offering two- to three-day transit times to major hubs throughout the Midwest, Gulf Coast and Southeast, including overnight service to Atlanta, the fastest of any North American port.



With Savannah's earned recognition as "the retail port" 17 high-volume retail import distribution centers in the Savannah area are taking advantage of the port's intermodal strength, as well as depth in ocean carrier services, to satisfy just-in-time inventory requirements. Together, Savannah-area distribution centers combine to cover over 14 million square feet and generate in excess of 500,000 TEUs annually.

Source: [Georgia Ports Authority](#)

Also owned and operated by the GPA in Savannah is Ocean Terminal, a multi-purpose breakbulk and RoRo facility that handles a range of shipments including forest and solid wood products, steel, industrial and farm equipment, automobiles, project shipments and heavy-lift cargoes. This facility totals 200-acres, has 9-berths with 5,768 linear feet of deepwater berthing, 1.4 million square feet of covered storage, and 73 acres of open storage.



GPA's Garden City container terminal is:

- The fastest growing (since 2001)
- The 4th largest by TEU volume in the US
- One of the most efficient in the country
- The largest single owner facility in the US

Savannah's earned the recognition as "the retail port" 17 high-volume retail import distribution centers in the Savannah area are taking advantage of the port's intermodal strength, as well as depth in ocean carrier services, to satisfy just-in-time inventory requirements

In addition to containerized cargo handled at Garden City terminal, there are a host of other companies that make up the greater "Port of Savannah", more than 30 in all.

SAVANNAH HARBOR EXPANSION PROJECT (SHEP)

Savannah has the fastest growing container port in the nation but has the shallowest depth of its major worldwide trading partners. The harbor's current 42-foot depth limits efficiencies and increases transportation costs. Deepening the Savannah harbor to 47 feet will lower transportation costs, according to the report. Lower transportation costs can translate into lower consumer product costs.

A deeper shipping channel allows larger and fewer ships to move the same amount of goods at a lower transportation cost. Unloading and reloading fewer ships would be faster allowing goods to move in and out of the port more quickly. Fewer, larger ships



also lessen congestion in the harbor, according to the report. A deeper channel also means larger ships can enter and leave with less delay waiting for high tides.

Deepening to 47 feet provides the greatest net benefits to the nation. Projections in the report indicate that the number of 20-foot equivalent units (the standard measure for cargo containers) passing through Savannah Harbor will rise from 2.9 million in 2011 to 6.5 million by 2030. The

estimated annual transportation cost savings are \$213 million per year. For every \$1 invested in the project, the nation will see nearly \$6 in return.

Georgia's deep-water ports and inland barge terminals support more than 352,000 jobs throughout the state annually and contribute \$18.5 billion in income, \$66.9 billion in revenue and \$2.5 billion in state and local taxes to Georgia's economy.

Since FY2002, the Port of Savannah has marked a 10% compound annual growth rate, more than twice that of any other East Coast port

Corps of Engineers studies show that Post-Panamax vessels more efficiently served by a deeper harbor will lower shipping costs for containerized trade by \$174 million a year over the next 50 years, for a total economic benefit of \$8.7 billion during that span.

Decreased costs per container will lower the bottom line for the more than 21,000 U.S. businesses shipping via the Port of Savannah.

In FY2012 alone, 5,300 new port-related jobs and more than \$1.8 billion in investment were announced statewide, according to the Georgia Department of Economic Development.

One major FY2012 announcement was Caterpillar's new plant near Athens. Total investment for the new facility will be about \$200 million, expected to employ 1,400 people and Caterpillar estimates another 2,800 full-time jobs will be created among suppliers and other companies that will support the plant. Caterpillar said the site was chosen, in part, because of its proximity to the ports of Savannah and Brunswick.

The new Panama Canal locks will allow send ships to Savannah that are as much as three times the capacity and greatly more efficient of the ships currently able to transit the Canal.

These ships and the jobs created will only come if Savannah's harbor is also deepened.

SHEP's benefit to cost ratio is one of the best ever seen... \$5.50 of economic benefit for every \$1 invested. The Federal Office of Management and Budget has a process of handling these resources - ranking them based on Cost to benefit ratio puts SHEP near the top of the list.

President's "We Can't Wait Initiative" included SHEP as well as other port related projects around nation because of the impacts ports have on the economy and specifically the impact Savannah's port.

LINK TO SHEP FAQ'S: WWW.SAS.USACE.ARMY.MIL

PORT OF BRUNSWICK

About seventy-five miles south of the Port of Savannah, the coast of Georgia is an inward curve with the Port of Brunswick located in the apex of this "Georgia Bight." (A bight is a bend in a coast forming an open bay). The Port of Brunswick was recognized as an official port of entry in 1789, by the Fifth Act of Congress. Signed by President George Washington, this act authorized New York, Boston, Philadelphia, Charleston, Savannah, and Brunswick among others as seaports.

PORT OF BRUNSWICK INDUSTRY CLUSTER

Much like the Port of Savannah, the Port of Brunswick is home to significant operations and terminals of the Georgia Ports Authority (GPA) as well as a variety of other maritime industry businesses. Many of these businesses are located on Colonel's Island:

Brunswick handles approximately 10% of all U.S. roll-on/roll-off trade, and 12 % of U.S. Ro/Ro imports. The port ranks 3rd in the nation for auto and machinery trade, serving nearly two dozen domestic and foreign carmakers, as well as heavy equipment producers."

The Port of Brunswick is the 5th largest automobile processing port in the nation - and growing - and is the second largest grain facility on the East Coast.

Brunswick handles approximately 10% of all U.S. roll-on/roll-off trade, and 12 % of U.S. Ro/Ro imports.

COLONEL'S ISLAND INDUSTRIAL NEIGHBORS

Allied Universal
 Atlantic Vehicle Processors
 GPA Grain Facility
 Amports
 Intl. Auto Processing
 BMW of N. America
 Mercedes Benz USA

AUTOMOBILE MANUFACTURERS ON COLONEL'S ISLAND

Glovis America
 Jaguar Cars
 Land Rover N. America
 Porsche Cars of N. America
 SAAB Cars USA, Inc.
 Volkswagen of America
 BMW North America
 Volvo Cars of N. America
 Mercedes Benz USA

AUTOMOBILE TRUCKING OFFICES ON COLONEL'S ISLAND

ATC Logistics
 Blue Thunder Auto
 Fleet Car Carriers
 Hansen & Atkins
 Waggoners Trucking

In addition to these listed, there are many other companies and supporting businesses that are closely connected to the maritime and port industry in and around the Brunswick area.

In Brunswick, the GPA owns and operates two facilities (RoRo and Agri-bulk) on Colonel's Island, the Mayors Point Terminal, and leases Marine Point terminal to Logistec. Each of these facilities is briefly highlighted here (descriptions courtesy of the GPA).

COLONEL'S ISLAND TERMINAL: RO/RO FACILITY



Operated by the Georgia Ports Authority, Colonel's Island Terminal ranks not only among the nation's largest auto facilities, it's also one of the most environmentally clean and pristine operations in the country. As a dedicated RoRo facility, the terminal offers three modern RoRo berths and three on-terminal auto processors.

Colonel's Island Terminal at the Port of Brunswick handled a record 612,489 auto and machinery units in CY2012, up from 497,404 in the previous year.

This focus has resulted in a customer base of more than a dozen automotive manufacturers, as well as a number of industrial and agricultural equipment manufacturers. The Colonel's Island Terminal location is served by two Class-I rail providers and offers nearby interstate access, putting several auto plants, many major commerce centers, and their dealerships within easy reach.

COLONEL'S ISLAND TERMINAL: AGRI-BULK FACILITY

Colonel's Island Terminal is among the largest deepwater agri-bulk operations in the U.S. South Atlantic. Offering a turnkey service for U.S. Midwest and Southeastern agribusiness, the facility features a dedicated agri-bulk berth and is capable of accommodating a diverse group of agri-product in combined flat and vertical storage. Operating in a temperate climate, the Port of Brunswick is afforded the numerous advantages of year-round accessibility. The terminal is served by two Class-I rail providers and offers access to nearby Interstate 95.



MAYOR'S POINT TERMINAL

Mayor's Point Terminal specializes as a distribution center for a variety of forest and solid wood products such as wood-pulp, linerboard, plywood and paper products.



With 22 acres, 1,750 linear feet of berthing, 355,000 square feet of transit shed space and 7.9 acres of open storage, the facility has the capacity to handle the largest cargo shipments quickly and efficiently. The Mayor's Point Terminal location is served by two Class-I rail providers,

with 2,000 feet of track available for cross-dock operation, and offers nearby interstate access, putting all major commerce centers within easy reach. And with room to grow and projections bright for the port's future, construction is under way to deepen the Brunswick Harbor to a depth of 36 feet MLW.

The Port of Brunswick is the 5th largest automobile port in the US.

In Brunswick, the GPA owns and operates two facilities (RoRo and Agri-bulk) on Colonel's Island, the Mayors Point Terminal, and leases Marine Point terminal to Logistec.

MARINE PORT TERMINALS



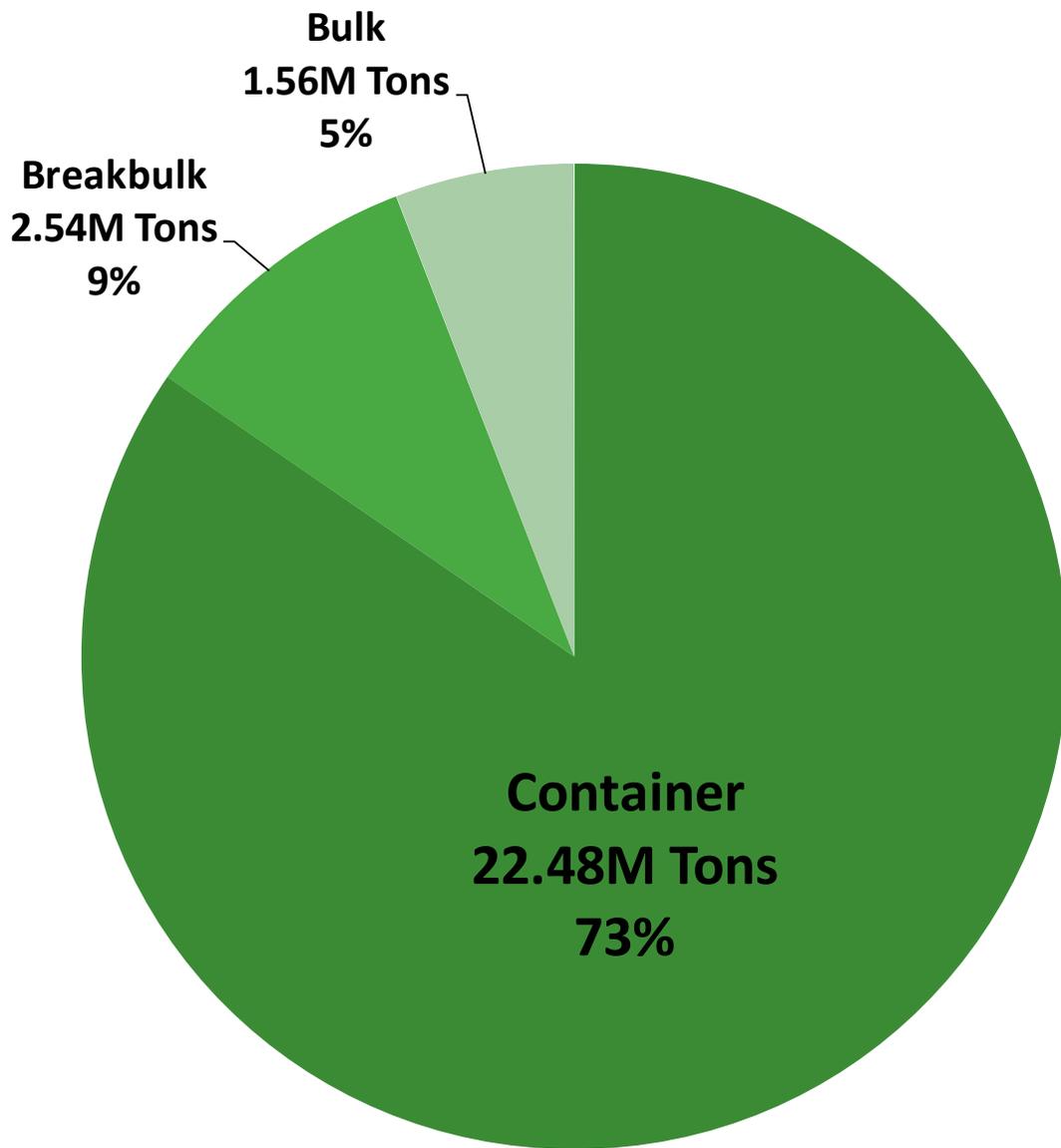
Owned by the Georgia Ports Authority and leased to Logistec U.S.A., Marine Port Terminals is a secured, deepwater facility specializing in the handling of a diverse mix of break-bulk and bulk commodities. The 145-acre facility features 2,415 linear feet of berthing and 491,000 square feet of covered storage.

Marine Port Terminals is ideally situated with easy access to Interstate 95 (North/South). On-terminal interchange and line-haul services are provided by two Class-I rail providers, CSX Transportation and Norfolk Southern Railroad.

The Panama canal will reach its maximum sustainable capacity between the years 2009 and 2012.

When it reaches this capacity it will not be able to continue to handle demand growth, resulting in a reduction in the competitiveness of the Panama maritime route.

TOTAL 2012 TONNAGE FOR GEORGIA PORTS AUTHORITY ¹⁶⁷



Source: Georgia Ports Authority

The Port of Brunswick is afforded the numerous advantages of year-round accessibility. The terminal is served by two Class-I rail providers and offers access to nearby Interstate 95.

SAVANNAH'S REGIONAL "PORT RANGE" EXTENDS FROM NORFOLK THROUGH MIAMI AND INCLUDES THE PORTS OF MOBILE, TAMPA, AND MANATEE.

SAVANNAH'S RANKING VS. PORT RANGE (CY10):

#1 RETAIL GOODS – Savannah is the number one port in the port range for Asian Services (China), the major source for retail commodities.

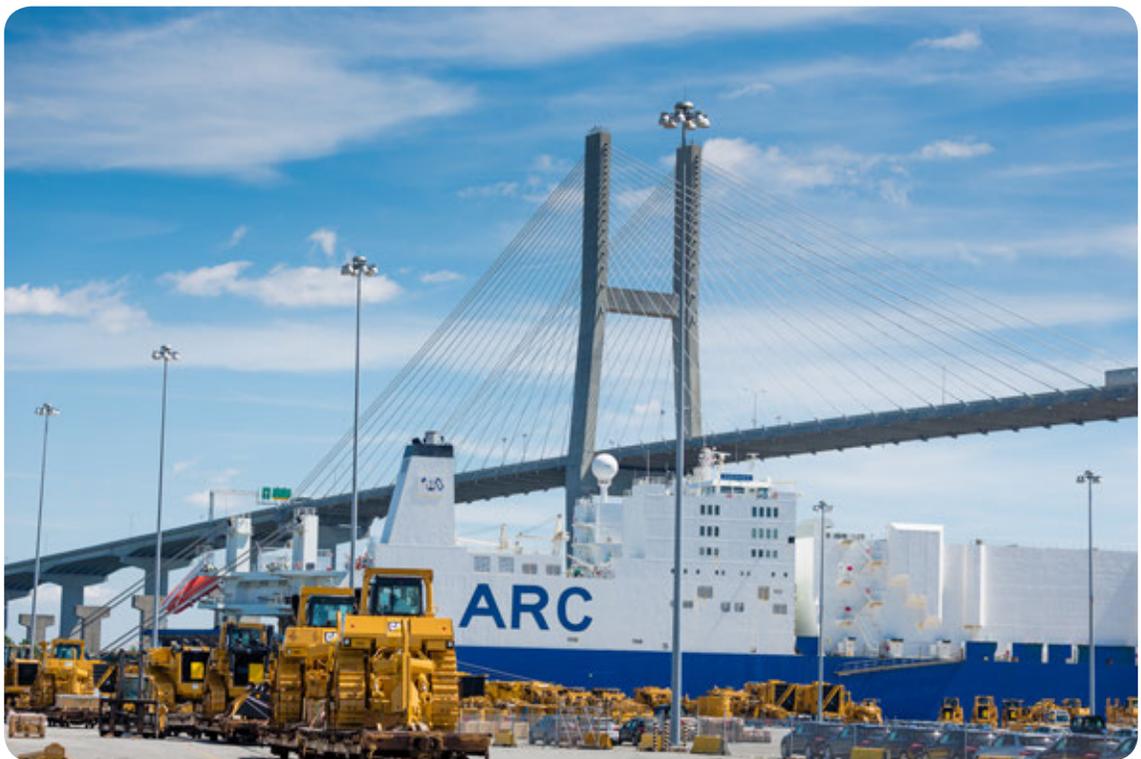
#1 FURNITURE – Savannah proximity to major markets and distribution centers have contributed to Savannah's success with Furniture.

#1 APPAREL – Savannah's high connectivity with Southern Asia (via Suez Canal), Ne Asia, and Central America has ensured Savannah's success with this commodity.

#1 MACHINERY, APPLIANCES, AND ELECTRONICS – Even though this commodity has took a hit because of the housing market, Savannah benefitted from its proximity to major U.S. Southeast demand centers like Atlanta and Nashville and further established itself as a gateway for Appliances and Electronics.

#1 COFFEE – Coffee sourced in SE Asia via Savannah has increased 80% (vs. CY06)

#4 FOOD & BEVERAGES – Savannah increased 241% (vs. CY06) with canned foodstuffs (mostly from SE Asia) and is the number one port in the port range for this commodity. Also, beer volumes have increased 397% over the last five years, especially from North Europe.



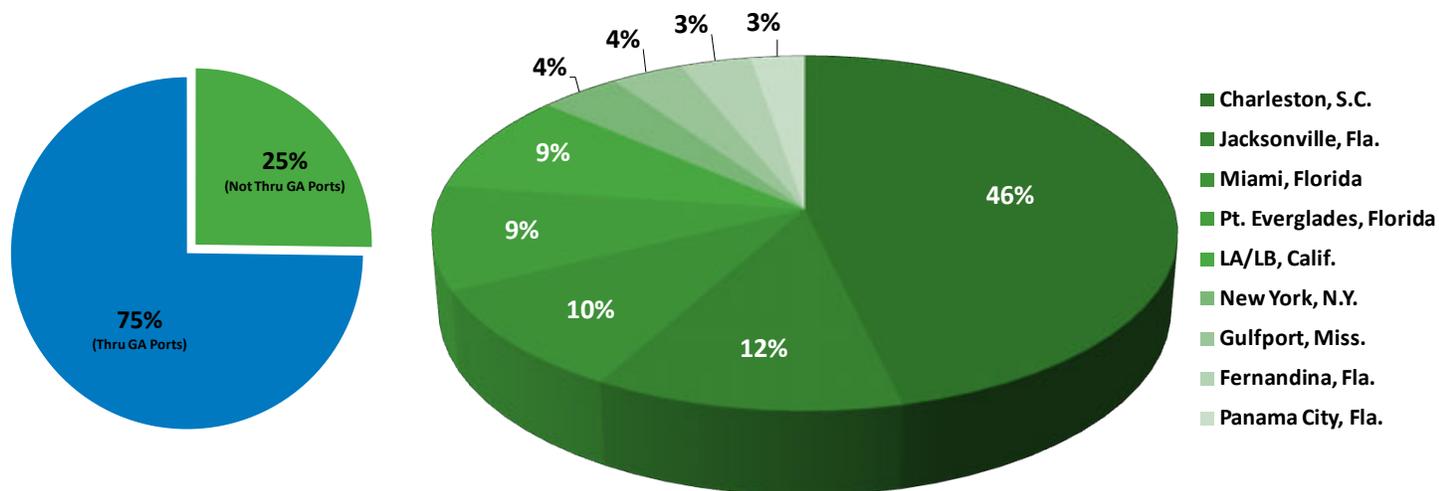
TOP EXPORT & IMPORT COMMODITIES - SAVANNAH ^{168, 169}

EXPORTS			IMPORTS	
RANK	COMMODITY	# OF TEUS	COMMODITY	# OF TEUS
1	Wood pulp	178,654	Furniture	143,412
2	Food	157,531	Retail and consumer goods	132,244
3	Paper and paperboard	144,710	Machinery, appliances and electronics	121,482
4	Clay	97,054	Hardware and housewares	98,877
5	Automotive	87,778	Automotive	96,576
6	Machinery, electronics, and appliances	80,760	Food	80,078
7	Fabrics/raw cotton	74,877	Apparel	55,800
8	Chemicals	73,871	Toys	49,666
9	Retail consumer goods	63,299	Mineral	49,373
10	Resins and rubber	61,021	Chemical	36,436
	OTHER	214,324	OTHER	220,900
	TOTAL	1,233,877	TOTAL	1,084,844

PORT OF CHOICE FOR GEORGIA'S EXPORT OCEAN FREIGHT

75% of Georgia's international bound ocean freight (exports) moves across the ports in Georgia. The remaining 25% of the freight are split amongst a range of other port facilities, some as far away as the Ports in Los Angeles and Long Beach.

The breakdown of this 25 percent is shown in the chart below.



Source: WiserTrade, US Census Bureau, Foreign Trade Division

GEORGIA'S TOP OCEAN FREIGHT IMPORTERS & EXPORTERS (2012)

TOP EXPORTERS	TOP IMPORTERS
Rayonier	Arauco Wood Products
AJC International	CMPC USA
Kamin	Pirelli Tire
Graphic Packaging Intl.	IKEA North America
Georgia-Pacific	The Coca-Cola Company
Intervision	Pro Brand International
Thiele Kaolin Company	Cheng Shin Rubber USA
Southeast Paper Manufacturing	P&F USA
S.P. Newsprint	Mitsubishi Electric & Electronics
Sams West Inc.	Yanmar Manufacturing America
	Hitachi Koki USA
	United Parcel Service
	Carlisle Engineered Transportation

Source: PIERS, Georgia Ports Authority

GEORGIA'S CONTAINERIZED COLD CHAIN

In the past five years, refrigerated container volume has increased 54% at the Port of Savannah. Savannah's refrigerated containerized cargo was dominated by exports in 2011 with 76% exports to 24% imports.

FY12 TOP SOUTHERN PORTS FOR REFRIGERATED CONTAINERS:	FY12 TOP REGIONS FOR REFRIGERATED IMPORTS INTO SAVANNAH:	FY12 TOP REGIONS FOR REFRIGERATED EXPORTS FROM SAVANNAH:
<ol style="list-style-type: none"> 1. Pt. Everglades: 128,066 TEUs 2. Savannah: 125,187 TEUs 3. Norfolk: 67,239 TEUs 4. Miami: 66,824 TEUs 5. Jacksonville: 65,715 TEUs 	<ol style="list-style-type: none"> 1. West Coast South America 2. Southeast Asia 3. Northeast Asia 4. Mediterranean 5. North Europe 	<ol style="list-style-type: none"> 1. Northeast Asia 2. Eastern Europe 3. Africa 4. Southeast Asia 5. Mediterranean

This growth in refrigerated containerized cargo volume through the Port was the result of a series of strategic investments by GPA in response to the growing need for sustainable refrigerated cargo infrastructure.

Twenty new refrigerated container racks were added in 2012, for a total of 64 racks used to support poultry and other chilled produce exports. Powering more than 1,500 containers at a time, the electrified racks avoid the use of 3.4 million gallons of diesel each year.

While the Port of Savannah is the nation's largest exporter of containerized poultry, Georgia is also focused on meeting the demand for cold storage that currently outstrips the supply. Two of the top 10 cold storage warehousing companies in North America are headquartered in Georgia -Americold Logistics and Nordic Cold Storage.



Nordic is currently at work on a new 400,000-square-foot cold storage facility in Savannah to help handle the increasing volume through the Port. Georgia Cold Storage is another company recently responding to the demand in Savannah and will open the company's seventh and largest facility creating an additional 176,000-square-foot refrigerated warehouse.

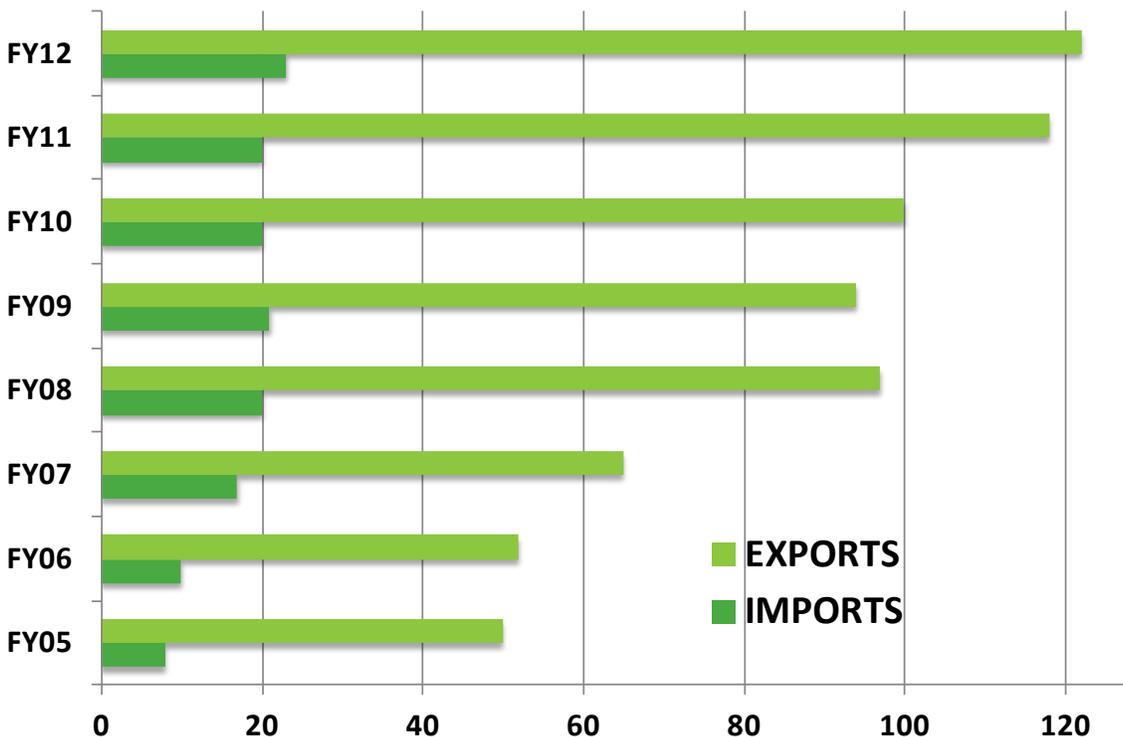
**IN SAVANNAH,
BETWEEN FY05
AND FY12...**

Total refrigerated imports grew 155%

The fastest growing refrigerated import commodities for Savannah were: Vegetables +340%, Shellfish +400%, and Frozen Fish +75%.

Total refrigerated exports grew 130%.

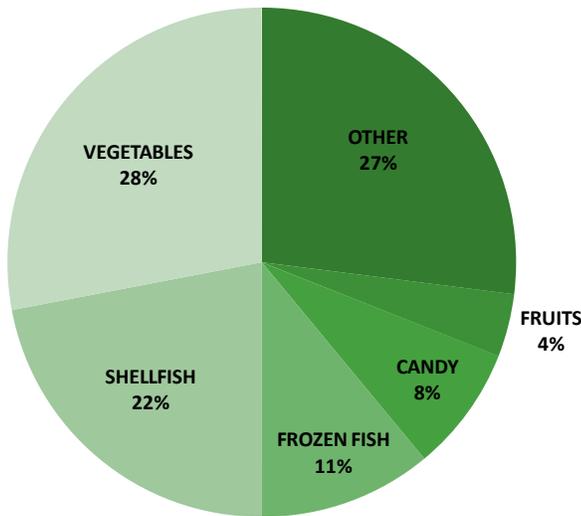
The fastest growing refrigerated export commodities for Savannah were: Poultry +171%, Meat +197%, and Shellfish +565%.



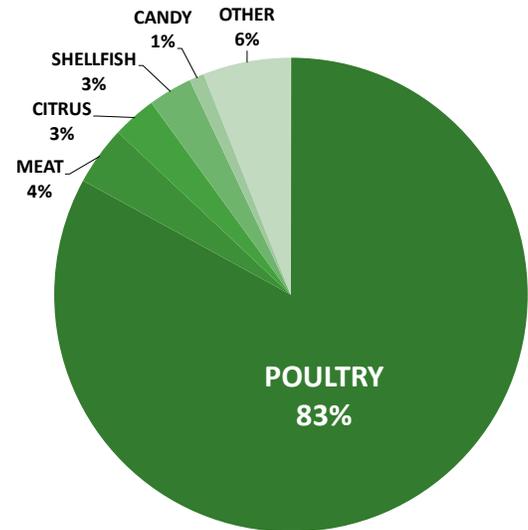
Source: PIERS, Georgia Ports Authority

the Port of Savannah has seen exports of Poultry soar 74% from 36,662 TEUs in 2006 to 63,663 TEUs in 2010.

TOP SAVANNAH REFRIGERATED OCEAN EXPORTS



TOP SAVANNAH REFRIGERATED OCEAN IMPORTS



Source: Georgia Ports Authority, PIERS

POULTRY EXPORTS

Drawing on its vast supply of Poultry producers in the Southeast and particularly the state of Georgia, the Port of Savannah has seen exports of Poultry soar 74% from 36,662 TEUs in 2006 to 63,663 TEUs in 2010. Savannah added further to its dominance over the Port Range, increasing from 48% market share in 2006 to 59% market share in 2010. Slightly less than half of these exports go to Northeast Asia, led by Hong Kong. However, Eastern Europe with explosive growth to Georgia, Albania, and Lithuania, Southeast Asia particularly Vietnam, Philippines, Singapore, and Africa, predominantly Angola and other West African nations, have quickly become large markets for Savannah's Poultry exports.

As the nation's leading poultry producing state, Georgia knows a thing or two about moving poultry from farm to fork around the globe. And it's no coincidence that Savannah is America's single largest gateway for poultry exports.



With more than 5,000 chicken farms in the state, Georgia is well aware that exporting poultry to overseas markets is a complex operation, requiring the services of many diverse groups in the distribution system. Broilers are Georgia's largest single agricultural commodity, and poultry is the largest agricultural segment; more than 45% of the state's agriculture and agribusiness economy. For more than a quarter century, Georgia has been the leader in broiler production with 1.41 billion birds and 7.47 billion pounds produced in a given year.

If Georgia were a country, it would be the sixth largest in broiler production. To maintain and grow capacity for Georgia’s poultry production requires a sophisticated supply chain infrastructure. The effort and complications of exporting to overseas markets however, are not a deterrent to Georgia poultry shippers due to the diversity of industry presence in the state as well as coordinated strategic investments in both landside and maritime infrastructure.

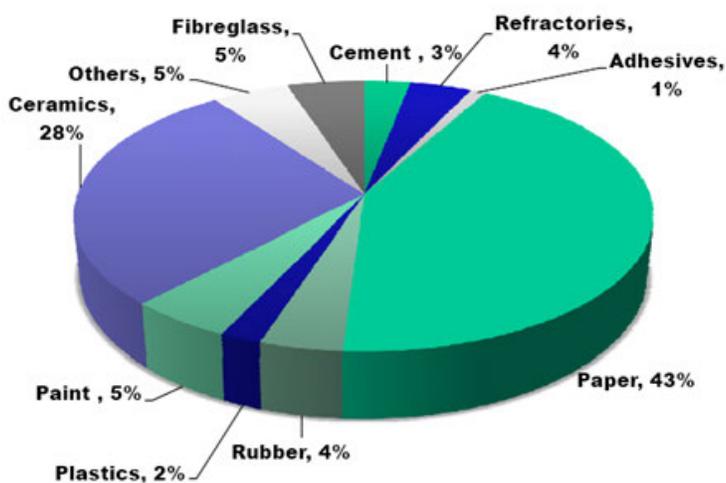
The Port of Savannah moves more than 40% of U.S. containerized poultry or 3 billion pounds annually. This volume equates to more than 55,000 truckloads to move poultry from growers, to processing plants to the port. Poultry was Georgia Ports Authority’s (GPA) fourth largest export commodity behind wood pulp, paper and paperboard including paper waste, and fabrics including raw cotton. Savannah also exported more than \$804.5 million of containerized poultry during 2011, with the bulk of it going to Hong Kong.

The long-term outlook for Georgia’s poultry producers is also good according to Mike Giles, President of the Georgia Poultry Federation. Mexico has replaced China and Russia as the top market for Georgia poultry, and because chicken is not a common food in many countries, there is room for growth overseas, he said. This growth combined with the anticipated growth in post panama vessels transiting the Panama Canal beginning in 2015 has the Port of Savannah focused on completion of the Savannah harbor deepening project to ensure its premier status in moving U.S. exports to the global marketplace.

KAOLIN CLAY EXPORTS

Savannah exports of Clay decreased -14% from 108,848 TEUs in 2006 to 93,375 TEUs in 2010. At the same time, Clay exports via Savannah’s Port Range from Norfolk through Miami and Mobile, Tampa, and Manatee decreased 17%, resulting in a 3% increase in Savannah’s market share from 90% to 93%. The vast majority (66%) of Savannah’s Clay exports go to Northeast Asia, followed by North Europe, Southeast Asia, the Mediterranean, and East Coast of South America.

Kaolin, which is also known as “china clay,” is a white, alumina-silicate used in making paper, plastics, rubber, paints and many other products. Kaolin deposits in middle Georgia resulted from the erosion of deeply weathered crystalline rocks in the Piedmont Plateau, which were deposited along Georgia’s Fall Line. This occurred between 50 and 100 million years ago during the Cretaceous and Tertiary geological time periods, a time when the waters of the Atlantic Ocean covered much of Georgia’s Coastal Plain.



Source: www.georgiamining.org

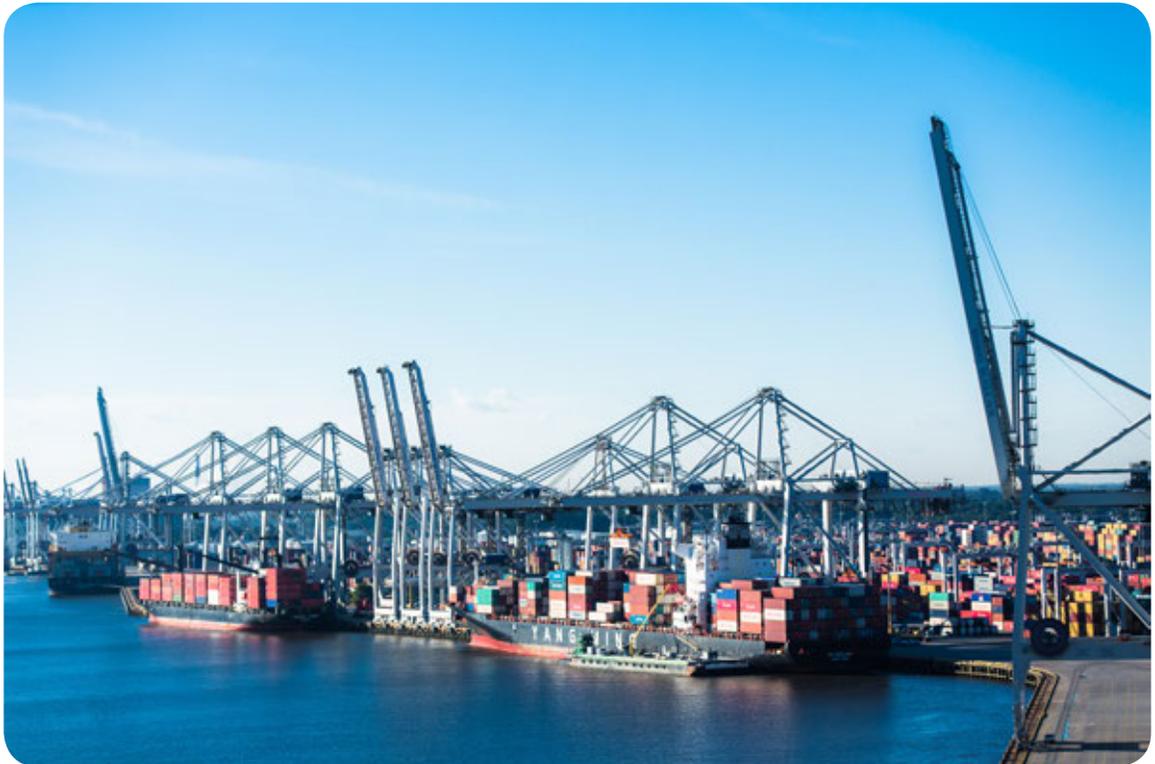
In the late 2000s, almost all kaolin was produced in Georgia.

Kaolin is used for paper coating and filling (62%) as well as other uses (38%). Ball clay, which makes up a much smaller segment of the industry, is used for floor and wall tile (38%), sanitaryware (24%), and other applications (38%).

In the late 2000s, almost all kaolin was produced in Georgia. Known as kaolin because it is primarily found near Kao-Ling, Jianxi, China, this type of clay is Georgia's largest mineral resource. The deposits run across the middle of Georgia, left there as the result of erosion of crystalline rocks in the Piedmont Plateau, which were deposited along Georgia's Fall Line.

Among the top kaolin and ball clay producers in the late 2000s were BASF, who purchased Engelhard Corp. (bentonite, fuller's earth, and kaolin) in 2006 for \$5 billion in a hostile takeover; Imerys Minerals LTD (ball clay and kaolin); KaMin LLC (formerly J.M. Huber Corp., kaolin); Thiele Kaolin Co. (kaolin); and Unimin Corp. (ball clay and kaolin).

Kaolin is used for paper coating and filling (62%) as well as other uses (38%). Ball clay, which makes up a much smaller segment of the industry, is used for floor and wall tile (38%), sanitaryware (24%), and other applications (38%).





FREIGHT RAIL

FREIGHT RAIL DEFINED

A freight train is a group of freight cars (U.S.) hauled by one or more locomotives on a railway, ultimately transporting cargo between two points as part of the logistics chain. Trains may haul bulk material, intermodal containers, general freight or specialized freight in purpose-designed cars.

The operation is carried out by a railway company, providing transport between train stations or freight customer facilities. Power is provided by locomotives which either draw electrical power from a railway electrification system or produce their own power, usually by diesel engines. Most tracks are accompanied by a signaling system.

Railway transport is capable of high levels of cargo utilization and energy efficiency, but is often less flexible and more capital-intensive than highway transport. Freight rail is a lower cost, high capacity method of transportation. Railroad tracks crisscross most nations and enable a stable, secure, lower cost alternative for lower value, higher bulk, or heavy weight cargos. Rail has become popular recently as the more environmentally friendly transportation alternative to trucks, due to the considerably less fuel used to move large numbers of heavy cargo.



SECTION OUTLINE

- **INDUSTRY DEFINED**
- GLOBAL PERSPECTIVE
- NATIONAL PERSPECTIVE
- GEORGIA PERSPECTIVE

TYPICAL RAILROAD EQUIPMENT

AUTOMOTIVE RACKS

Designed to ship domestic and imported automobiles, trucks, SUVs and mini-vans.



GONDOLAS

Designed to ship heavy bulk commodities that includes scrap metal, aggregates, logs, lumber, etc.

BOXCARS

Designed to transport crated or palletized freight of all kinds. Boxcars are the most common type of rail cars with a variety of sizes and features.



INTERMODAL

Containers and trailers that transport freight of all kinds.

CENTERBEAMS

Designed to transport bundled building supplies, a center partition secures the product in place.



REFRIGERATED BOXCAR

Designed to control the temperature of perishable freight such as fresh fruits

COVERED HOPPERS

Designed to handle shipments of free flowing dry bulk commodities.



OPEN TOP HOPPERS

Designed to handle heavy dry bulk commodities

FLATCARS

Designs come in a variety of lengths, tonnage and capacities for specialized commodities



TANK CARS

Used to ship compressed or liquid commodities

TYPICAL RAILROAD TERMINOLOGY

SEGMENT	DESCRIPTION	COMMODITIES
SINGLE CAR	The client wants to transport a smaller amount of bulk freight	Chemicals, Vehicles and Machinery
UNIT TRAIN	The client has enough goods to fill a train (600 meter or 24 4-axle cars)	Coal and Steel, Construction materials
INTERMODAL	Transportation by container: the container or trailer is lifted onto the car	Finished goods, Containerized goods

Source: www.railfreightportal.com

GLOBAL RAIL PERSPECTIVE

As of 2008, there were 708,123 miles of railroad track in the world:

EUROPEAN UNION:	142,113 MILES
UNITED STATES:	139,679 MILES
RUSSIA:	54,156 MILES
CHINA:	53,437 MILES
INDIA:	39,751 MILES
CANADA:	28,926 MILES
BRAZIL:	17,732 MILES

Source: [CIA World Factbook](#)

In 2010, the global rail freight sector grew by 7.2% to reach 9,843 billion FTK, or \$161,797 million in value terms, a 7.7% increase over the previous year”⁶.

Even through global rail freight saw a decline during the worldwide economic recession, railroad industry leaders predict global rail freight to be back on track by 2015. Rail freight volumes in the UK, for example, are projected to double by 2030.

India will also see a boom in its railroad industry, as the World Bank approved a \$975 million loan to help the Indian government set up an Eastern Dedicated Freight Corridor to ease bottlenecks on India’s rail freight network.

The global rail freight sector expected to generate total revenue of \$194 billion in 2011, representing a compound annual growth rate (CAGR) of 6.3% between 2007 and 2011.



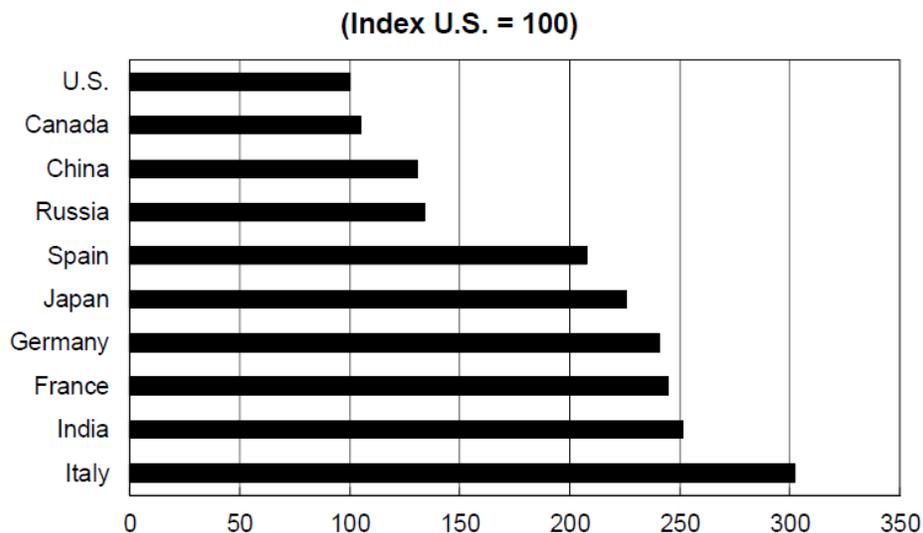
Rail consumption volumes were forecasted to increase with a CAGR of 3.5% in 2011, to reach a total of 10.94 Trillion FTK.

The performance of the sector is forecast to accelerate, with an anticipated CAGR of 8% for the five-year period 2011 - 2016, which is expected to drive the sector to a revenue level of \$285.6 billion by the end of 2016.

SECTION OUTLINE

- INDUSTRY DEFINED
- **GLOBAL PERSPECTIVE**
- NATIONAL PERSPECTIVE
- GEORGIA PERSPECTIVE

U.S. Freight rates are currently the lowest in the world



Source: www.worldbank.org

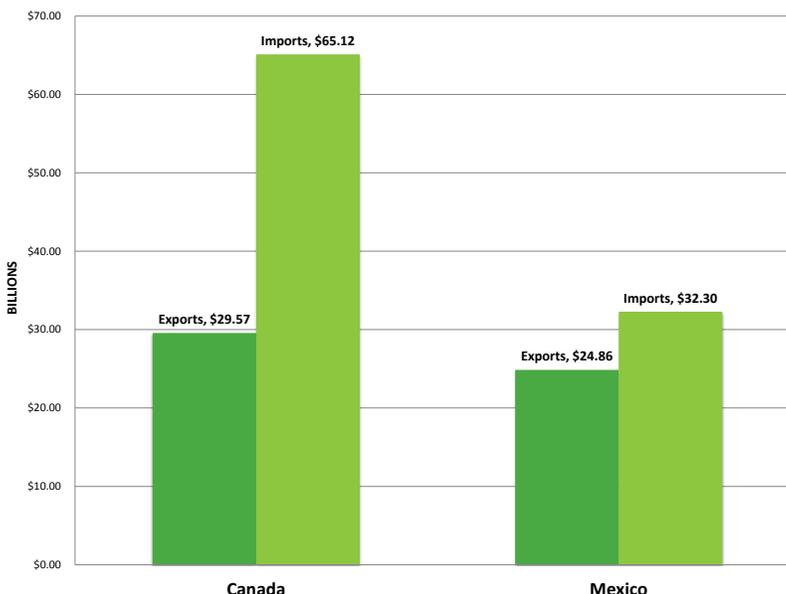
Adjusted for inflation, average U.S. rail rates (based on revenue per ton-mile) fell 45% from 1981 through 2011. That means the average rail customer today can ship nearly twice as much freight for the same price it paid 30 years ago. Improvements in freight rail affordability over the years are due largely to huge rail productivity gains that have been passed through to shippers in the form of lower rates, and to a reasonable regulatory structure that protects shippers and consumers against unreasonable railroad pricing and allows railroads to compete fairly in the transportation marketplace. Source: [AAR](#)

NAFTA RAIL VOLUMES

2011 FREIGHT-RAIL CROSSINGS ⁷

	US-CANADA	US-MEXICO
CONTAINER	1.9 million	771,000
NON-CONTAINER	27,000	8,366

U.S. RAIL TRADE VALUE - CANADA AND MEXICO (2011) ^{145.}



FREIGHT RAIL LEADERS BY TONS

COUNTRY	TONS	YEAR
People's Republic of China	3.92 billion	2011
United States	1.89 billion	2011
Russian Federation	1.12 billion	2009
India	833 million	2009
Brazil	460 million	2008
Ukraine	433 million	2010
Germany	415 million	2010
Canada	289 million	2010
Australia	261 million	2010
Kazakhstan	248 million	2009
South Africa	176 million	2007
Belarus	134 million	2009
Poland	128 million	2010
Austria	110 million	2009
United Kingdom	104 million	2007

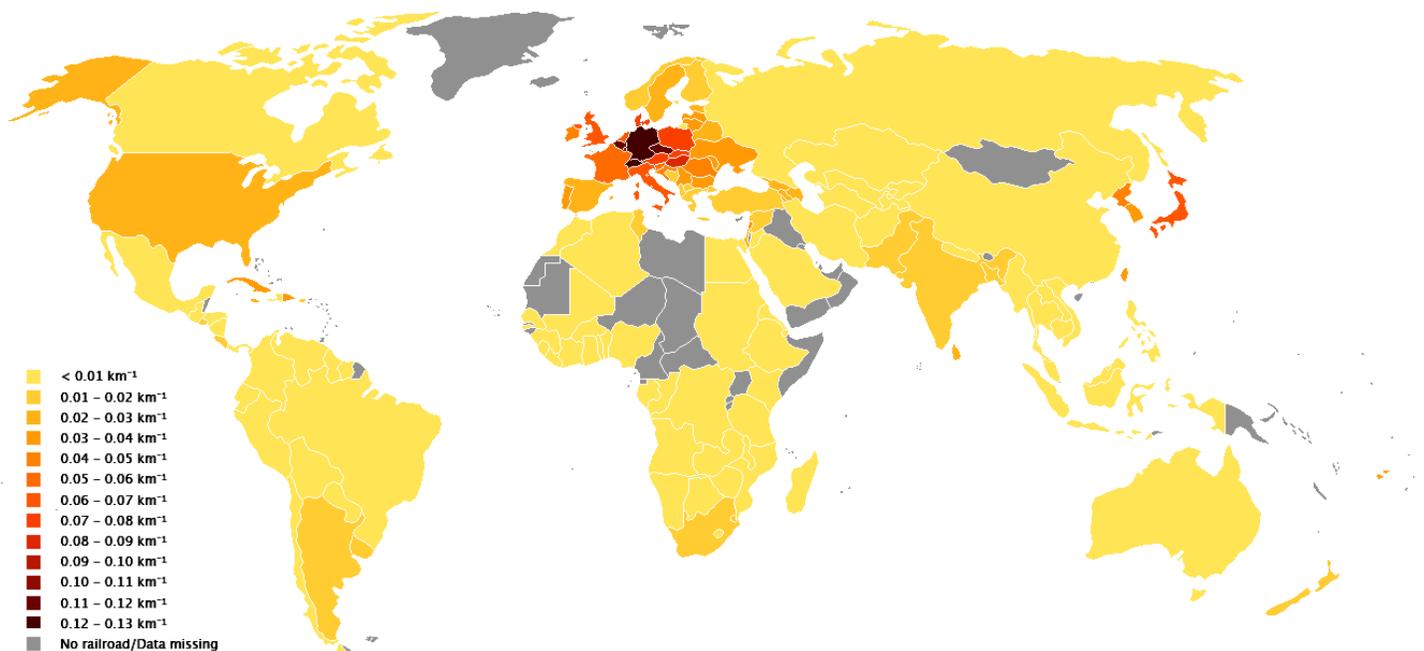
As of 2008, there were 708,123 miles of railroad track in the world

Rail freight volumes in the UK, are projected to double by 2030.

A Freight-Ton-Kilometer (FTK) is a unit of actual rail volume moved. One FTK is a ton of revenue cargo moved one kilometer.

Source: UIC database

Freight rail services high density population areas of developed countries with the goal to support massive shipments of freight. Regions with the highest rail density are Western Europe, the Northeastern part of North America and Japan.



Source: wikimedia.org

The Global rail industry is expected to reach a revenue level of \$285.6 billion by the end of 2016.

SECTION OUTLINE

- INDUSTRY DEFINED
- GLOBAL PERSPECTIVE
- **NATIONAL PERSPECTIVE**
- GEORGIA PERSPECTIVE

The U.S. freight-rail system carries 16% of the nation's freight by tonnage, accounting for 28% of total ton-miles, 40% of intercity ton-miles, and 6% of freight value.

NATIONAL RAIL PERSPECTIVE

A freight train can be three times as fuel efficient as a truck, and traveling by passenger rail uses 20% less energy per mile than traveling by car. However, growth and changes in demand create bottlenecks that constrain traffic in critical areas. Freight and passenger rail generally share the same network, and a significant potential increase in passenger rail demand will add to freight railroad capacity challenges. More than \$200 billion is needed through 2035 to accommodate anticipated growth in the U.S.

Approximately 42% of all intercity freight in the United States travels via rail, including 70% of domestically manufactured automobiles and 70% of coal delivered to power plants. Class I railroads owned and operated over 139,000 miles of track. However, most traffic travels on approximately one-third of the total network, which totals 52,340 miles.

Demand for freight transportation is projected to nearly double by 2035 - from 19.3 billion tons in 2007 to 37.2 billion tons in 2035. If current market shares are maintained, railroads will be expected to handle an 88% increase in tonnage by 2035.⁴ An estimated \$148 billion in improvements will be needed to accommodate the projected rail freight demand in 2035. Class I freight railroads' share of this cost is estimated at \$135 billion.

Source: [Plunkett Research](#)

AVERAGE VOLUMES MOVED BY RAIL PER YEAR (2007-2011)



Figures are 2007-2011 averages.

Source: rail.transportation.org

In 2011, railroads moved a ton of freight an average of 469 miles per gallon of fuel.¹⁹²

The U.S. freight-rail system carries 16% of the nation's freight by tonnage, accounting for 28% of total ton-miles, 40% of intercity ton-miles, and 6% of freight value. If all freight-rail were shifted to trucks tomorrow, it would add 92 billion truck vehicle-miles-of-travel (VMT) to the highway system and cost federal, state, and local transportation agencies an additional \$64 billion for highway improvements over the next 20 years.¹⁹² In addition, America's freight railroads sustain 1.2 million jobs, including more than 175,000 well-paying jobs in the freight rail industry itself. Nationwide, each freight rail job supports 4.5 jobs elsewhere in the economy.

More than 560 freight railroads operate in the United States. The seven “Class I” railroads account for approximately 69% of U.S. freight rail mileage, 90% of employees, and 94% of revenue. ¹⁹²

Each year, railroads haul 1.6 million to 1.7 million carloads of wheat, corn, soybeans, and other agricultural products,

Adjusted for inflation, average U.S. freight rail rates (measured by revenue per ton-mile) were 45% lower in 2011 than in 1980.¹⁹²

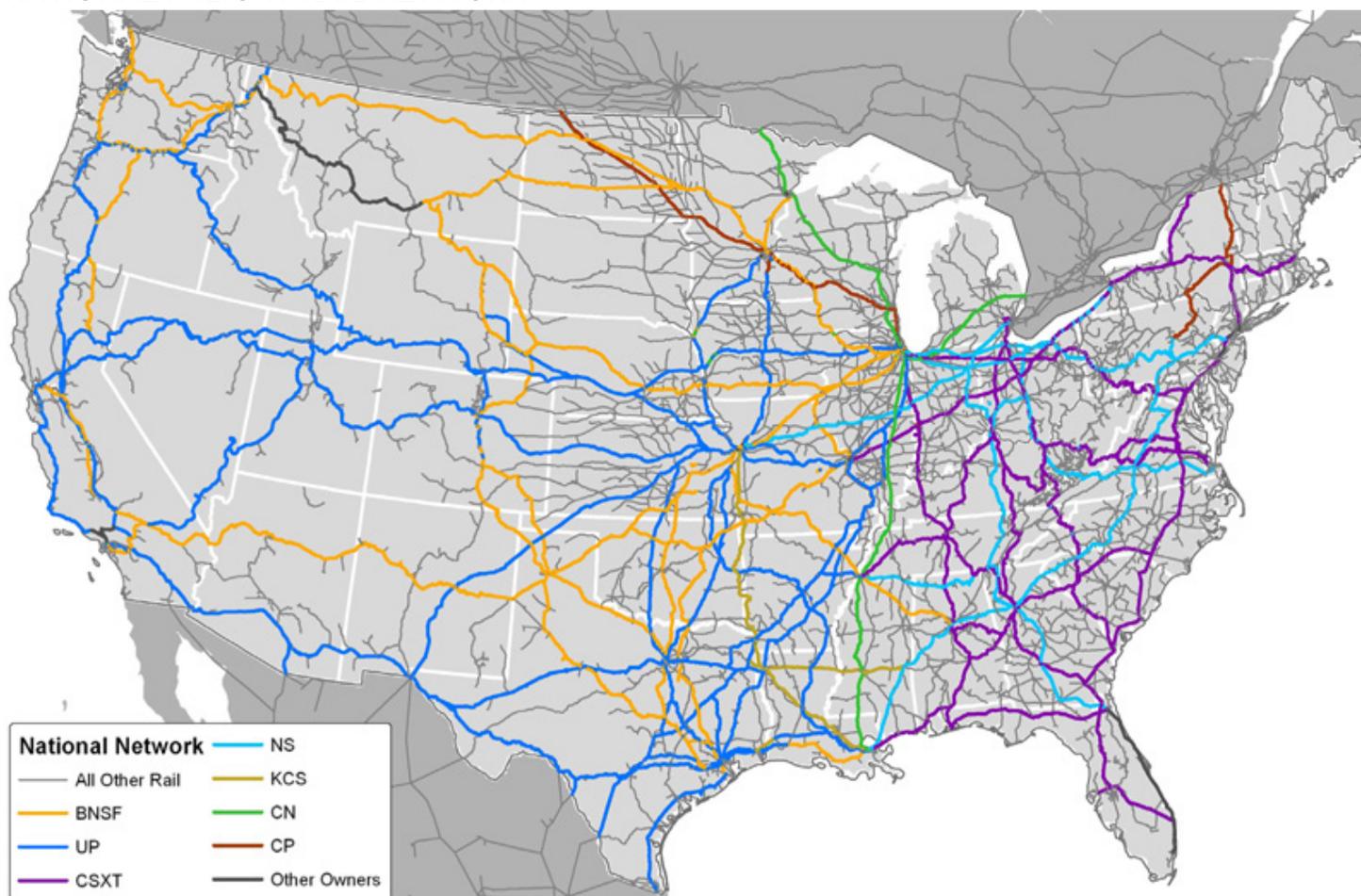
Freight railroads expect to spend a record \$13 billion on capital expenditures and hire more than 15,000 employees in 2012. ⁴⁴ Each \$1 billion in new rail investment supports more than 17,000 jobs.

Each year, railroads haul 1.6 million to 1.7 million carloads of wheat, corn, soybeans, and other agricultural products, plus another 1.5 million carloads of animal feed, beer, birdseed, canned produce, corn syrup, flour, French fries, frozen chickens, sugar, wine, and countless other food products.

More than 560 freight railroads operate in the United States.

Rail hauls 1/3 of all U.S. exports, and Intermodal rail made year over year gains for the past 37 months straight ¹⁹² Railroads also account for more than 70% of coal deliveries. ¹⁹²

NATIONAL FREIGHT RAIL NETWORK



Source: www.vanalen.org

MAJOR NORTH AMERICAN FREIGHT RAILROADS

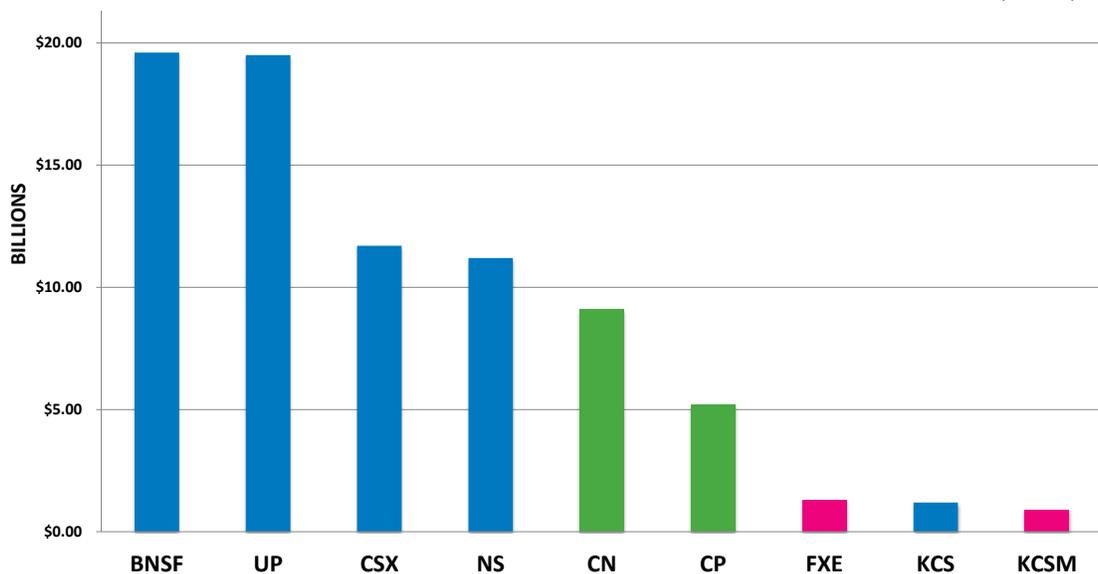
U.S. Class I Railroads are line haul freight railroads with 2011 operating revenue of \$433.2 billion or more. Two Canadian railroads, CN and Canadian Pacific, generate revenue equivalent to the U.S. Class I railroads. Two Mexican railroads, Ferrocarril Mexicano and Kansas City Southern de México, would also be Class I scale if they were U.S. railroads.



The rail industry employed 175,940 in 2011

- BNSF:** BNSF Railway
- CN:** Canadian National Railway
- CP:** Canadian Pacific
- CSX:** CSX Transportation
- FXE:** Ferrocarril Mexicano (Ferromex)
- KCS:** Kansas City Southern Railway
- NS:** Norfolk Southern
- KCSM:** Kansas City Southern de México
- UP:** Union Pacific Railroad

OPERATING REVENUE: NORTH AMERICAN CLASS-1 RAILROADS (2011)



Freight rail revenue in the United States reached \$68.9 billion in 2011

In the US, the rail industry employed 175,940 in 2011 ¹⁹¹.

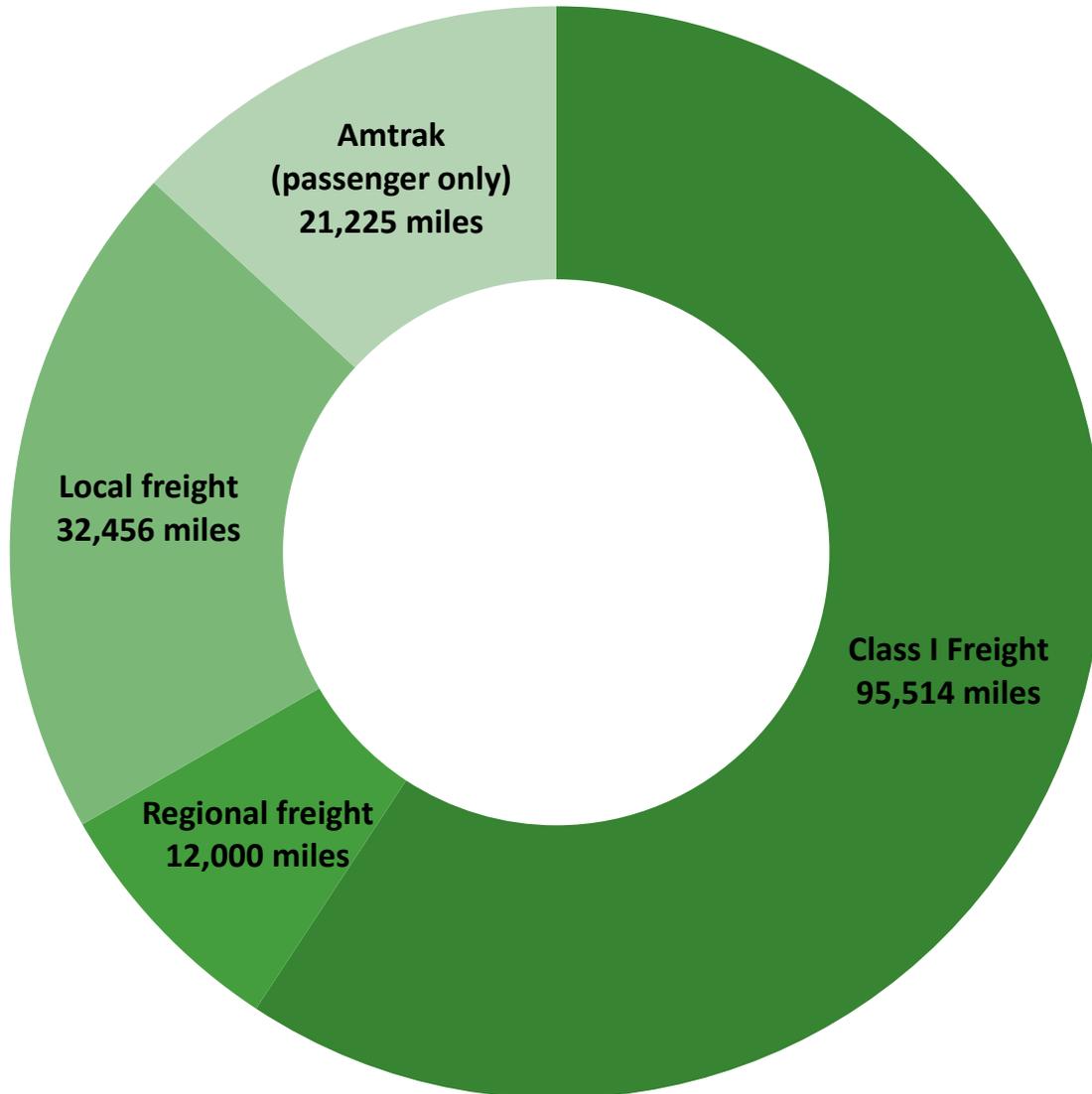
Freight rail revenue in the United States reached \$68.9 billion in 2011 ¹⁹¹.

In 2012, 33.94 million carloads originated in the U.S. (including intermodal) ¹⁹¹. Intermodal container volume reached a record high with 12.27 million containers, up 3.2% from 2011 ¹⁴³. In total, 87% of all rail cargo was containerized in 2012 ¹⁴³.

NUMBER OF RAIL CARS OPERATED IN THE UNITED STATES IN 2010 ¹⁹⁴

CLASS I FREIGHT CARS:	397,730
CLASS I LOCOMOTIVES:	23,893
OTHER:	911,299

MILES OF U.S. RAIL OPERATED (2011) ¹⁹⁴



“An Inland Port is a physical site located away from traditional land, air and coastal borders with the vision to facilitate and process international trade through strategic investment in multi-modal transportation assets and by promoting value-added services as goods move through the supply chain”

The phrase Inland Port could also be equally used to describe a similar model of a site linked to an airport or land border crossing rather than a seaport.

TYPE OF FREIGHT CARRIED (2011)

COMMODITY GROUP	TONS ORIGINATED	% OF TOTAL	GROSS REVENUE	% OF TOTAL
Coal	815.9 million	43.3%	\$16.11 billion	24.7 %
Chemicals & allied prod.	193.7 million	10.3%	\$8.98 billion	13.8
Farm products	156.5 million	8.3%	\$5.56 billion	8.5
Non-metallic minerals	127.8 million	6.8%	\$2.34 billion	3.6
Misc. mixed shipments	116.6 million	6.2%	\$8.25 billion	12.6
Food & kindred products	107.3 million	5.7%	\$5.13 billion	7.9
Metallic ores	76.1 million	4.0%	\$699 million	1.1
Metals & products	50.3 million	2.7%	\$2.52 billion	3.9
Petroleum & coke	43.8 million	2.3%	\$2.03 billion	3.1
Waste & scrap materials	42.8 million	2.3%	\$1.29 billion	2.0
Stone, clay & glass prod.	41.8 million	2.2%	\$1.60 billion	2.4
Pulp, paper & allied prod.	31.6 million	1.7%	\$2.09 billion	3.2
Lumber & wood products	25.5 million	1.3%	\$1.37 billion	2.1
Motor vehicles & equip.	23.4 million	1.2%	\$4.05 billion	6.2
All other commodities	32.4 million	1.7%	\$3.22 billion	4.9
TOTAL	1.89 BILLION	100.0 %	\$65.26 BILLION	100.0 %

Source: www.aar.org

INTERMODAL HUBS & INLAND PORTS



The term Inland Port is also becoming more widely used in the logistics industry to describe facilities that provide a consolidated point for truck and rail based cargo transfer, but are also not fed by any water transported cargo. Often the origin or destination of the cargo would be a seaport, but this is not always the case. This exchange is

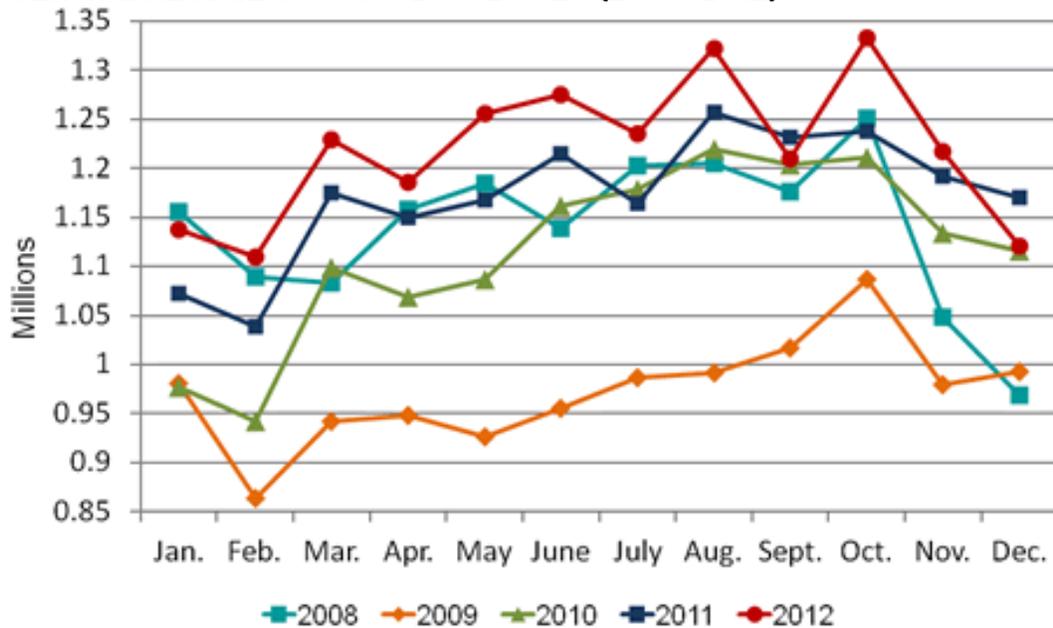
currently referred to as intermodal; giving these types of facilities yet another name - “intermodal hubs”.

The term intermodal hub encompasses containerized freight loaded and unloaded at the seaport and transferred directly between ship and road vehicle or ship and train. The container would then be transported to the Inland Port where it is transferred again between road and rail to travel to its final destination.

The Center for Transportation Research at the University of Texas provides a definition of Inland Ports that also includes value-added services, a very important component,

and one that should be a foundational element for successful creation of these types of Inland Ports

INTERMODAL RAIL TONNAGE VOLUMES (2008-2012)



Source: IANA - www.intermodal.org

The mobility of shipping containers allows some functions traditionally carried out at a seaport to be moved elsewhere. Examples are the functions of receiving, processing through customs, inspecting, sorting, and consolidating containers going to the same overseas port. Container transfer at the seaport can be accelerated and container handling space reduced by transferring functions to an inland site away from the port and coast.

Value-added services that are very commodity specific can also be explored and offered at an Inland Port site. Examples include sub-manufacturing, re-packaging, and other finish work for a wide range of products. Without adding any extra-value into the supply chain, an inland port basically serves as another transfer point.

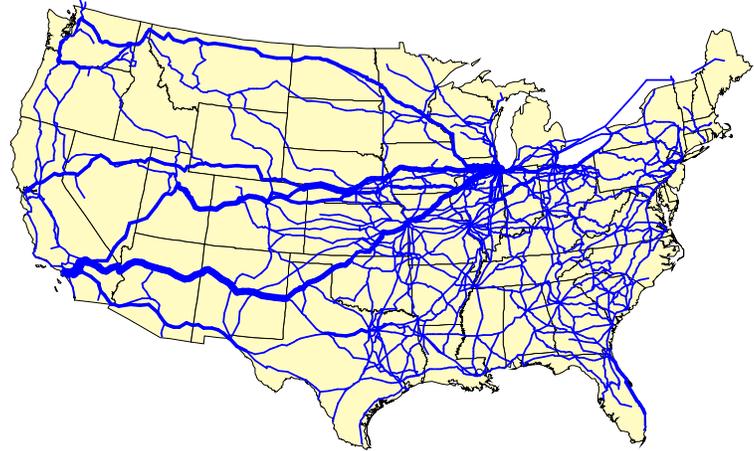


While transfer may be necessary at certain points, it limits the opportunity and cost effectiveness of using such a facility, and certainly does not take full advantage of all the possibilities. This definition of an Inland Port could also be equally used to describe a similar model of a site linked to an airport or land border crossing rather than a seaport.

A Freight-Ton-Kilometer (FTK) is a unit of actual rail volume moved. One FTK is a ton of revenue cargo moved one kilometer.

THE NORTH AMERICAN INTERMODAL RAIL SYSTEM

The United States has about 2,270 rail facilities performing some form of intermodalism by being able to move freight from rail to trucks. Although this appears to be a large number, only about 20% of these facilities handle a significant intermodal volume and less than 10% of them are true intermodal container terminals.



Chicago is the largest in North America, handling around 10 million TEUs per year, a location at the junction of the Eastern, Western and Canadian rail systems. The rest are local facilities fulfilling specific industrial, resources or manufacturing needs for bulk and break-bulk shipments.

The North American system of operational intermodal rail terminals is closer to about 204 facilities covering major inland markets. The majority are intermodal terminals accessible only by truck, 20 of them are on-dock or near-dock rail facilities allowing containers to move directly from the port to the hinterland.

Intermodal transportation involves the use of more than one mode of transport for a journey without any handling of the freight itself when changing modes. The method reduces cargo handling, improves security, reduces damage and loss, and allows freight to be transported faster.

U.S. INTERMODAL FACILITIES/SYSTEM MAP



Freight Ton Miles (FTM) measure actual freight traffic. One FTM is one metric ton of revenue load carried one mile.

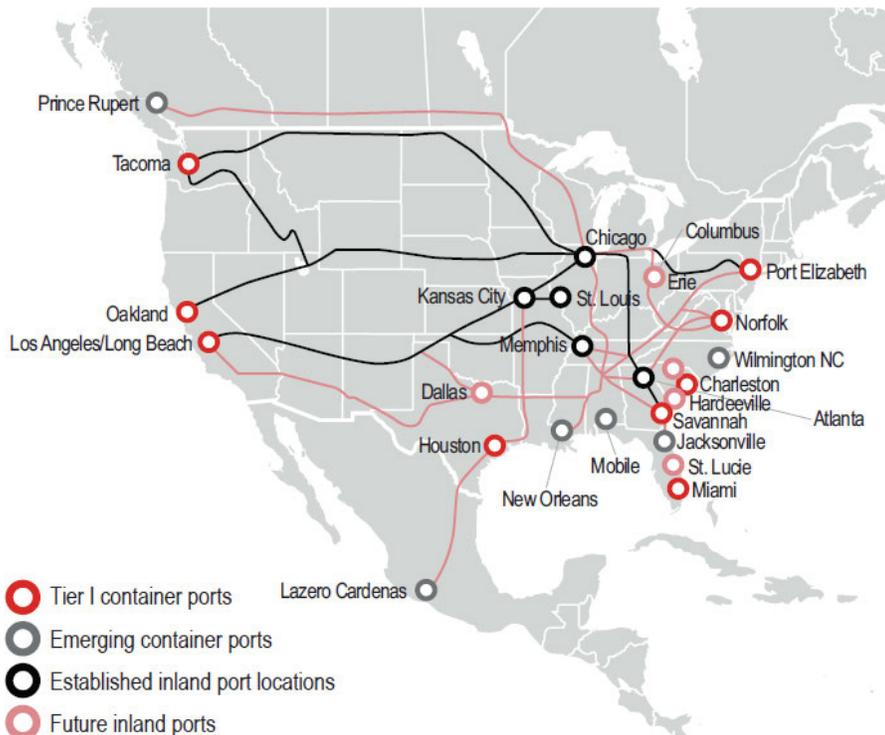
Source: www.intermodal.org

MORE ON INLAND PORTS

Inland ports are designed to move international shipments more efficiently and effectively from maritime ports inland for distribution. As rail infrastructure and service improves and ship-to-truck logistics are challenged by everything from escalating fuel prices to driver shortages, the relatively few present-day inland hub options are expected to grow in number and capacity. A successful inland port must contain three key elements: scale, rail and proximity to a large population base.

When are inland ports an advantage? Well-connected and strategically located inland ports are most advantageous for businesses to use when:

1. Throughput and transportation at your major import entry points are slowed by heavy port congestion.
2. The economics of rail shipping can exceed that of trucking.
3. There is a need to consolidate import and distribution functions in one location.
4. Space for necessary warehousing and distribution facilities, as well as labor, is cheaper than around a coastal port, or public-sector tax climates and other incentives make an inland location more desirable.
5. An inland location permits you to consolidate real estate and other resources and still satisfy your logistics needs.
6. You are a producer in the interior United States seeking a quick channel to coastal or export markets.
7. Your company has a strong sustainability initiative that can benefit from rail shipping's lower fuel costs or terminals that operate in a "greener" fashion.



EVALUATION AND LIFECYCLE OF INLAND PORTS



There are many questions to be answered and much information to be gathered and explored before considering an Inland Port project. The University of Texas Center for Transportation Research (TX-CTR) and the Texas DOT have put together a widely referenced “evaluation guide”, that while primarily focuses on the interaction and role of TXDOT in the project process, also provides valuable insight into the business side of the process.

It describes a logical phased approach they refer to as the “life-cycle” of an Inland Port type project. As the site naturally progresses from the exploratory “preparation stage” into the more development stages, there are different activities

to consider and explore. The TX-CTR describes this life-cycle using the five stages shown in the graphic to the left.

ONLINE RESOURCE: [Inland Port Lifecycle & Evaluation Guide](#)

STAGES OF INLAND PORT EVALUATION & DEVELOPMENT

STAGE #1: PREPARATION

- Marketing and Implementation Plan
- Market analysis (demand forecasts, commodity-origin-destinations)
- Location advantage (identify anchor tenants, access to markets)
- International trade facilitation (Free Trade Zone, tax incentives)
- Funding (capital, marketing operations, mechanisms: public/private partnerships)
- Multimodal transportation (identify transport facilities needed)
- Community outreach
- Planning horizons (modes, investors)
- Identify future constraints

STAGE #2: ESTABLISHMENT

- Foreign Trade Zone classification
- Economic incentives
- Anchor tenants arrive
- Modal analysis
- Attract multimodal investments (specify needs, traffic forecasted)
- Telecommunications and Infrastructure (information technologies)

STAGE #3: EXPANSION

- Revised business and implementation plan
- Planned modal investment materializes
- Preferential relationships
- Diversify tenants
- Cluster theory materializes

STAGE #4: STABILIZATION

- Companies invest in expansion of current facilities
- Slow down in new arrivals (sectors)
- Federal inspection agencies (e.g. U.S. Customs)
- Evaluate modal investments (given traffic needs and forecasts)

STAGE #5: DECLINE/INNOVATION

- New private-sector trends force change in operations
- Revised business plan
- Non-trade services (housing established)
- Companies begin to leave for better options elsewhere

An Inland Port is a physical site located away from traditional land, air and coastal borders with the vision to facilitate and process international trade through strategic investment in multi-modal transportation assets and by promoting value-added-services as goods move through the supply chain

U.S. RAIL VOLUMES

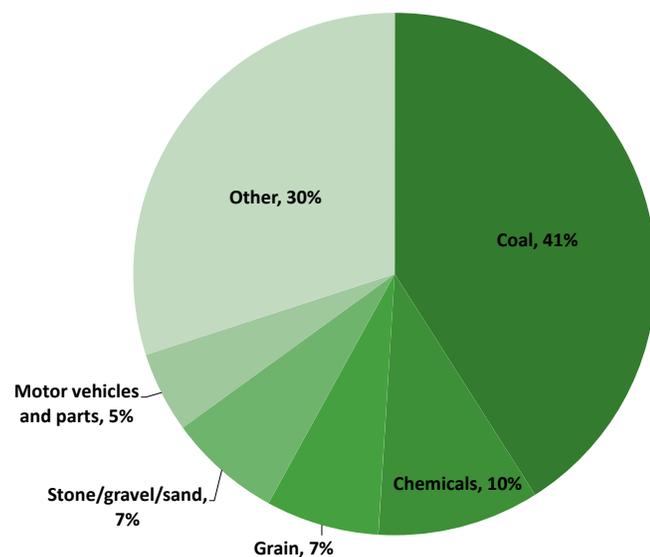
Intermodal shipments in 2012 climbed 4% to 14.6 million units compared to the 2011 level, and intermodal container volume set a record high, growing 5.9% from the 2011 volume, according to IANA.

Forty-eight-foot and 53-foot domestic boxes accounted for 38% of all container movements for the 2012

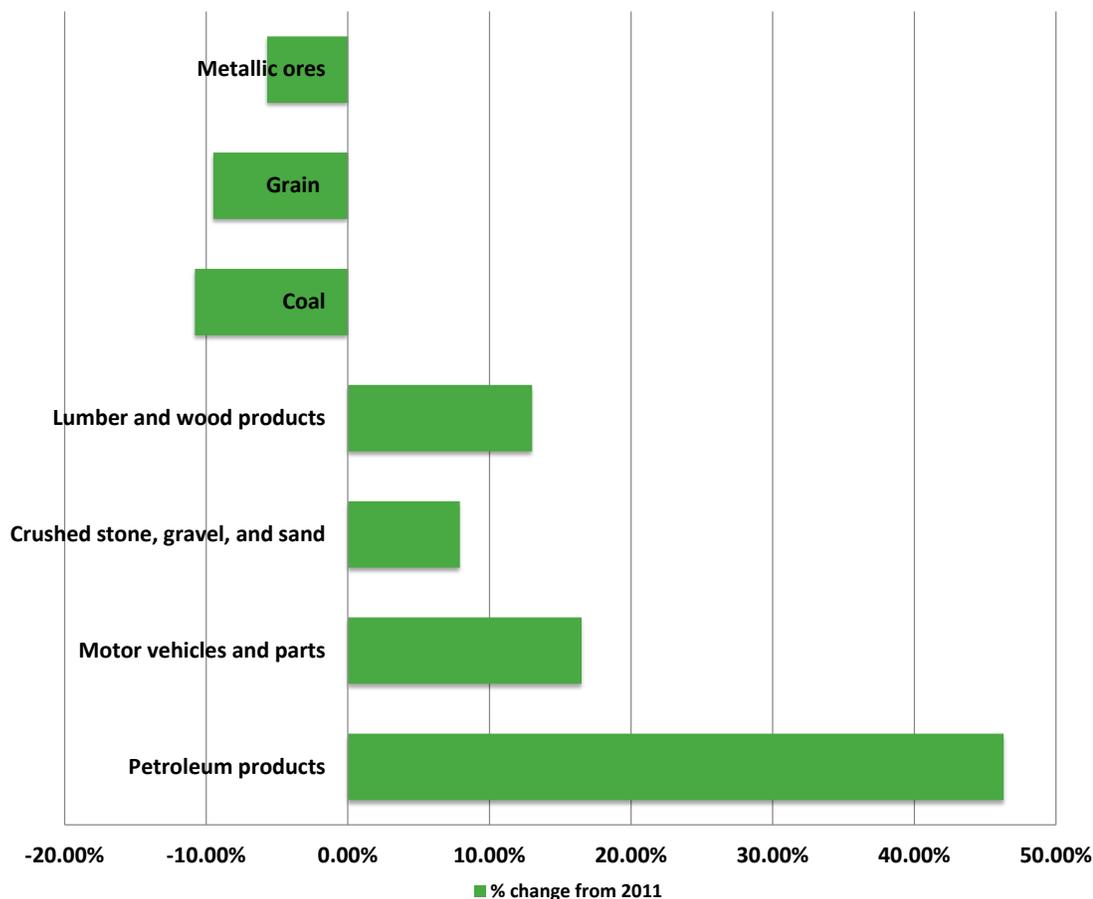
Source: [IANA](#)

U.S. RAIL TRAFFIC (2012) ¹⁴³

COMMODITY	# CARLOADS
Agriculture/ food	1,898,153
Chemicals/ petroleum	2,076,757
Coal	6,025,619
Forest products	552,176
Metallic ores/ metal	1,326,765
Motor vehicles/ parts	806,835
Nonmetal minerals and products	1,603,020
Other	393,494
TOTAL	14,682,819



12 out of 20 commodity categories increased from 2011 to 2012. The commodities with the largest shifts in volume - both positive and negative - were: ¹⁴³



SECTION OUTLINE

- INDUSTRY DEFINED
- GLOBAL PERSPECTIVE
- NATIONAL PERSPECTIVE
- **GEORGIA PERSPECTIVE**

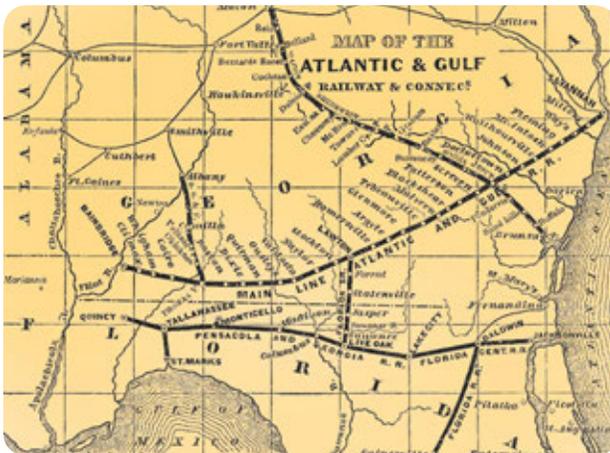
Today, Atlanta is the rail center of the South and has become one of the five most important distribution centers in North America.

GEORGIA RAIL PERSPECTIVE

With nearly 5,000 miles of railroad track and the largest intermodal facility on the east coast, Georgia originates 24 million and terminates over 75 million rail-tons of cargo every year. Georgia has the seventh most total rail miles; fifth most rail tons terminating in a state, and is ranked thirteenth for the number of railroads in a state.

- Georgia has the largest rail network in the southeast ¹⁸¹.
- Georgia ranks the 7th highest in the nation for total mileage ¹⁸¹.
- Georgia ranks 5th in the nation of rail tons terminating in state ¹⁸¹.
- There are 6,753 direct rail employees in Georgia

“BORN OF A RAILROAD” – ATLANTA & RAIL



Railroads have been central to the development of Atlanta, as Margaret Mitchell wrote in *Gone with the Wind* – “Born of a railroad, Atlanta grew as its railroads grew.” Atlanta was the birthplace in 1836 of the Western and Atlantic line. The W&A is now one of the most important and busiest lines on CSX, carrying freight between Atlanta and Chattanooga and serving as one of CSX seven mainlines that converge in Atlanta.

Today, Atlanta is the rail center of the South and has become one of the five most important distribution centers in North America. It possesses a critical combination of transportation infrastructure and geography that makes this city highly attractive for business and commerce. When combined with the powerful transportation elements of interstate highways and unequalled air service at Hartsfield-Jackson Atlanta International Airport, the metro Atlanta region undoubtedly lives up to its reputation as one of America’s greatest inland ports.

According to the Association of American Railroads, Georgia has two Class 1 railroads, 16 local and 1 switching and terminal railroad. The 4,900-mile network of main and branch lines running throughout the state connect in Atlanta. In addition to the intermodal hubs described earlier, Atlanta is also home to CSX’s Tilford and Howells Yard, and Norfolk Southern’s Doraville Yard & Industry Yard which are all significant nodes in the rail network for the nation.

Source: LogisticsAtlanta.com

GEORGIA SHORT-LINE RAILROADS

In addition to the two Class-I railroads servicing Georgia, the state is also connected with 25 short-line railroad operators. A short line is an independent railroad company that operates over a relatively short distance. Short lines generally exist for one of three primary reasons: 1) to link two industries requiring rail freight together; 2) to interchange traffic with another, usually larger railroads; or 3) to operate a tourist passenger train service. Often, short lines exist for all three of these reasons.

In addition to the two Class-I railroads servicing Georgia, the state is also connected with 25 short-line railroad operators.

The US Surface Transportation Board defines a short-line as a railroad with annual revenue of less than \$20 million. Many short-line railroads were once branch lines of Class-I railroads that were spun off.

It was reported in late 2009 that short-line railroads employ about 20,000 people in the country, own more than 30% of nation's railroad tracks, and touch (even if for a brief time) 25% of all US freight. *Source: wikipedia.org*

“Georgia’s rail history began in the 1830’s as America was just beginning to build a network of tracks. By 1850 Georgia had the most rail miles of any southern state. More than a century and a half later, it continues to be a railroad leader.” The website of www.railga.com is a great resource to learn more about the history and status of rail infrastructure in the State.

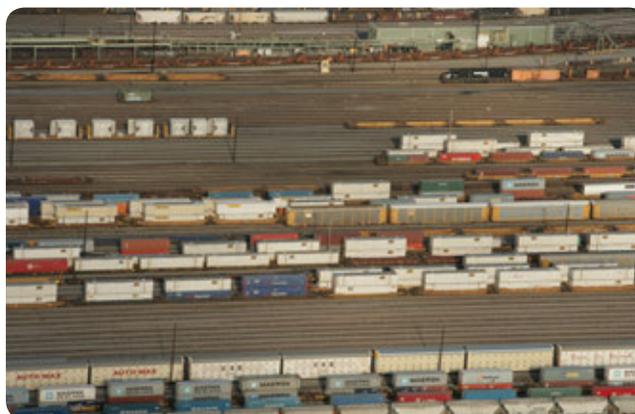
GEORGIA’S SHORT-LINE RAILROADS

1) Athens Line, LLC (ABR)	2) Georgia Southwestern Railroad (GSWR)
3) Augusta and Summerville Railroad (AUS)	4) Georgia Woodlands Railroad (GWRC)
5) Chattahoochee Bay Railroad (CHAT)	6) Golden Isles Terminal Railroad (GITM)
7) Chattahoochee Industrial Railroad (CIRR)	8) Great Walton Railroad (GRWR)
9) Chattooga and Chickamauga Railway (CCKY)	10) Hartwell Railroad (HRT)
11) First Coast Railroad (FCRD)	12) Heart of Georgia Railroad (HOG)
13) Fulton County Railway (FCR)	14) Louisville and Wadley Railway (LW)
15) Georgia and Florida Railway (GFRR)	16) Riceboro Southern Railway (RSOR)
17) Georgia Central Railway (GC)	18) Sandersville Railroad (SAN)
19) Georgia Midland Railroad (GMR)	20) Savannah Port Terminal Railroad (SAPT)
21) Georgia Northeastern Railroad (GNRR)	22) St. Mary’s Railroad (SM)
23) Georgia Southern and Florida Railway (GSF)	24) St. Mary’s Railway West (SMW)
	25) Valdosta Railway (VR)

ONLINE RESOURCE: [2012 State Rail Map](#)

CLASS-I INTERMODAL FREIGHT RAIL HUBS

Atlanta has a long history as a trade crossroads and its growth has been linked to its role as a transportation and distribution center. As a hub for container and bulk distribution, Atlanta has doubled its intermodal capabilities over the last several years. CSX and Norfolk Southern are the Class 1 railroad freight carriers serving Georgia. With the 1988 federal designation of the General Purpose Foreign Trade Zone #26 in Atlanta, containers can travel inbound from the coast to the U.S.



Customs office in Atlanta. Each line operates significant intermodal facilities in Atlanta.

Source: LogisticsAtlanta.com

CSX: From the Atlanta metro area, CSX Intermodal provides transportation service access to the entire United States via the CSX rail network.

HULSEY INTERMODAL TERMINAL: Atlanta’s Hulsey Yard ranks 7th in terms of freight volume for CSX. Hulsey handles more than 500 trucks and 16 trains per day while accommodating 180 flatcars at a time.

FAIRBURN INTERMODAL TERMINAL: Opened in 1999, Fairburn is a 24-hour terminal located in Atlanta that ranks as CSX’s 9th largest terminal in terms of lift volume.

CHATHAM INTERMODAL CONTAINER TERMINAL FACILITY (ICTF): The Chatham ICTF is located on-terminal in the Garden City Container Terminal in Savannah, and includes 3 working tracks totaling over 6,400 feet, and an additional 12,500 feet of storage track. This facility provides unrestricted double-stack service and two- to three-day transit times to major hubs throughout the Midwest, Gulf Coast and Southeast, including overnight service to Atlanta.

NORFOLK SOUTHERN: Years ago Southern Railway selected Atlanta as its operations center and since the 1982 creation of Norfolk Southern (NS), the city has continued in that role. Today, Atlanta is a regional headquarters for NS where key operating departments perform a variety of critical functions.

INMAN INTERMODAL YARD: Located in Atlanta, Inman Yard is the largest of the company’s 33 intermodal yards and was the nation’s first intermodal facility.

WHITAKER INTERMODAL TERMINAL: The Whitaker Terminal holds the rank of the largest intermodal facility east of the Mississippi River, serves as the southeastern hub of the Norfolk Southern hub-and-spoke intermodal network

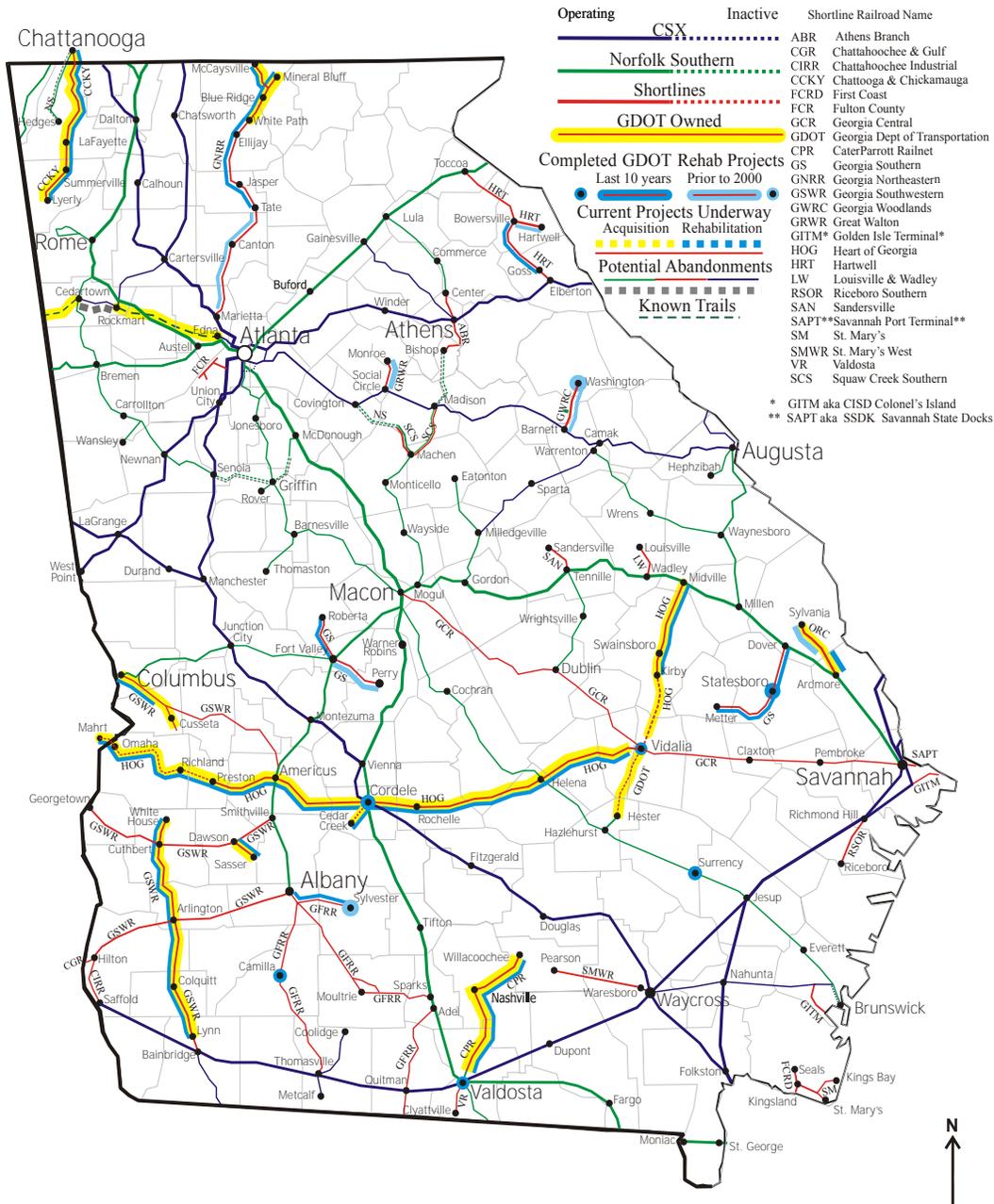
MASON INTERMODAL CONTAINER TERMINAL FACILITY (ICTF): The Mason ICTF is a 25 acre yard located on-terminal at the Garden City Container Terminal in Savannah, and includes 5 working tracks totaling over 12,500 feet, and an additional 3 storage tracks of 7,500 feet. This facility also provides unrestricted double-stack service and two- to three-day transit times to major hubs throughout the Midwest, Gulf Coast and Southeast, including overnight service to Atlanta.

INTERMODAL FACILITIES IN GEORGIA

CSX - Hulsey	173 Boulevard SE	Atlanta
NS - Inman	1600 Marietta Road	Atlanta
NS - Austell	6000 Dr. Luke Glenn Garrett, Jr.	Austell
Cordele Intermodal Services	2902 East 13th Ave	Cordele
BNSF - Atlanta	6700 McLarin Road	Fairburn
CSX - Fairburn	6954 McLarin Road	Fairburn
CSX - Tremont Avenue	2351 Tremont Street	Savannah
NS - Savannah	3 North Main Street	Savannah

Source: www.loadmatch.com

STATE RAIL SYSTEM IN GEORGIA



Georgia was 4th nationally in 2010 in originated rail tons of crushed stone, sand, and gravel and 3rd in originated rail tons of lumber and wood.

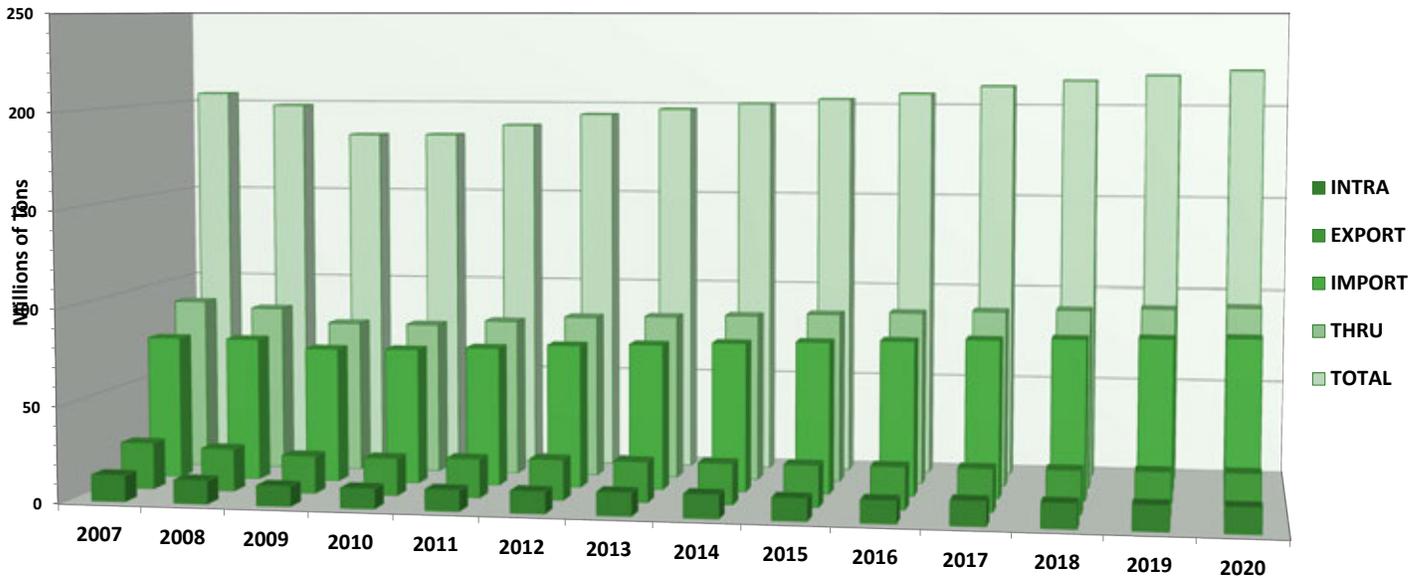
Ground earths is primarily kaolin, a clay used in ceramics, papermaking, and other applications.

GEORGIA RAIL TONNAGE OVERVIEW

2012	TOTAL TONS	TOTAL VALUE	TOTAL UNITS
INBOUND TO GEORGIA	75,543,203	\$49.95 billion	1,234,896
OUTBOUND FROM GEORGIA	21,076,575	\$24.35 billion	566,594
MOVED INSIDE GEORGIA	11,404,937	\$5.85 billion	212,307
PASSED THROUGH GEORGIA	86,185,054	\$117.94 billion	1,617,468
TOTAL	194.21 MILLION TONS	\$198.10 BILLION	3.63 MILLION UNITS

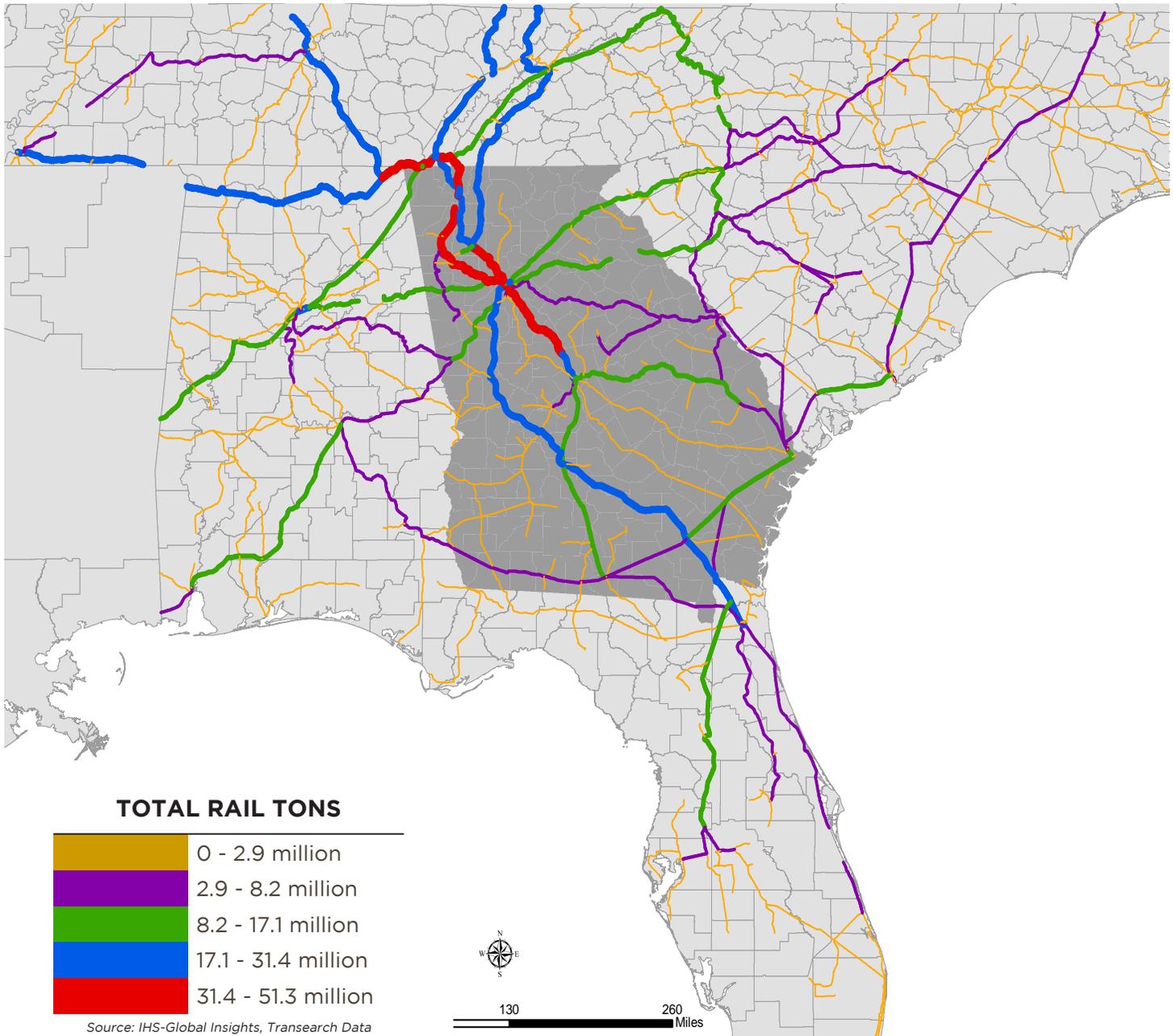
The data reflects the same current downturn as found in other modes of transport and other sectors of the nation's economy felt from 2007-2009 where tonnage is shown to have declined roughly 11% from 2007 through 2009, and then began a slight recovery in 2010.

Following the recovery, tonnage is projected to grow by 30% through 2020 totalling 220 million tons per year.



ONLINE RESOURCE: www.GeorgiaLogistics.com

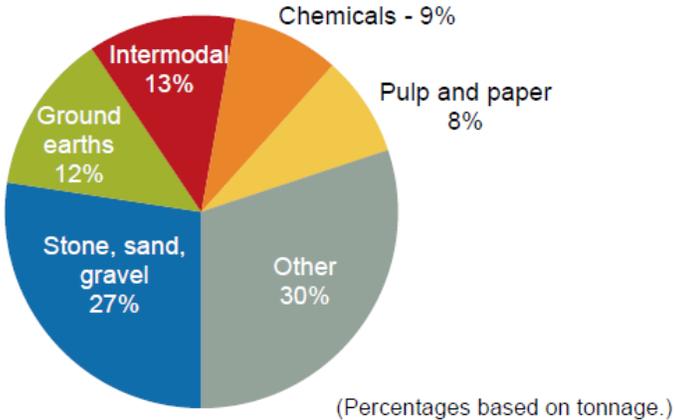
GEORGIA RAIL FREIGHT FLOW - 2012



Similar to truck flow, the combination of import and export flow tonnages roughly compare to the total of cargo flowing through our State. It is also apparent that only approximately 7% of the rail tonnage is solely an internal Georgia move, and thus, a majority of the tonnage is either coming, going or passing through our State.

GEORGIA RAIL FREIGHT FLOW - 2012

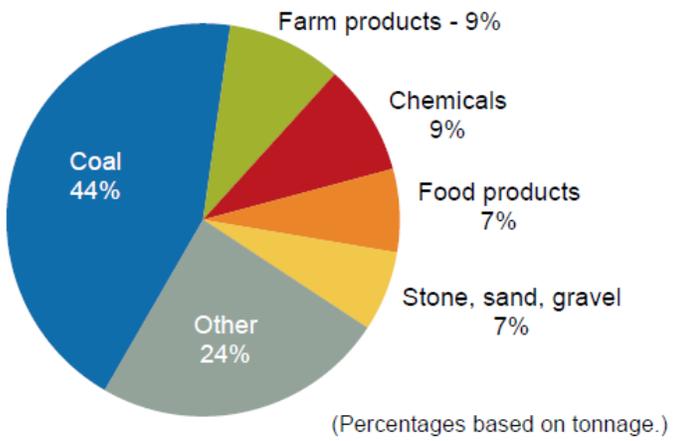
Rail Traffic Originated in 2010 **Total Tons: 28.3 million** **Total Carloads: 769,000**



Commodity	Tons	Carloads
Stone, sand, gravel	7,754,000	73,500
Intermodal	3,732,000	310,200
Ground earths	3,452,000	37,000
Chemicals	2,498,000	31,700
Pulp and paper	2,347,000	50,500
Other	8,512,000	266,000

Georgia was 4th nationally in 2010 in originated rail tons of crushed stone, sand, and gravel and 3rd in originated rail tons of lumber and wood. Ground earths is primarily kaolin, a clay used in ceramics, papermaking, and other applications.

Rail Traffic Terminated in 2010 **Total Tons: 73.3 million** **Total Carloads: 1,283,900**



Commodity	Tons	Carloads
Coal	32,166,000	278,100
Farm products	6,941,000	68,700
Chemicals	6,675,000	77,100
Food products	5,026,000	81,600
Stone, sand, gravel	4,835,000	45,700
Other	17,635,000	732,800

Georgia was 9th nationally in 2010 in the amount of electricity generated from coal and 7th in terminated rail tons of coal. Farm products consists overwhelmingly of corn and soybeans, much of which is used in Georgia as animal feed.

Source: www.aar.org





AIR CARGO

AIR CARGO DEFINED:

Air Cargo refers to the use of an air carrier as a transport vessel for shipment purposes. It is growing in popularity as the medium of choice when it comes to shipping goods that are high value, time-sensitive and perishable from one destination to another. Air Cargo can get shipment to its overseas destination within a day and it has become an integral part of the global logistics network chain. This mode of freight transportation greatly supports international supply chains, encourages innovation, competition, economic and social development, and wide market access.¹¹



Commodities shipped by air normally have high values or are very time-sensitive, such as documents, pharmaceuticals, fashion garments, production samples, electronics consumer goods, and perishable agricultural and seafood products. They also include some inputs to meet just-in-time production and emergency shipments of spare parts. Source: www.iata.org

THE THREE AIR CARGO NETWORKS

The world's air cargo delivery system is comprised of two networks. The first is essentially the same as the passenger network. In this system, passengers are carried above and cargo is carried below in the belly of the aircraft, utilizing space not needed by baggage. This form of air-cargo transport is named **"belly cargo"**. These flights are routed and scheduled for the convenience of the passengers (not the cargo). While the passenger airlines are generally willing to sell this otherwise unused space, they have not always wanted to bother with the ground operations of pick-up and delivery and loading the belly containers.

To address this service are indirect carriers called "forwarders" who fulfil this function. Until the Air Cargo Deregulation Act of 1977 these forwarders could not operate their own aircraft.

SECTION OUTLINE

- INDUSTRY DEFINED
- GLOBAL PERSPECTIVE
- NATIONAL PERSPECTIVE
- GEORGIA PERSPECTIVE

3 AIR CARGO NETWORKS:

- 1) Belly-Cargo
(i.e. Delta Airlines)
- 2) Freighters
(all-cargo planes)
- 3) Integrators
(i.e. UPS)

The second (more traditional) network in the air cargo delivery system utilizes aircraft that carry purely cargo. These dedicated cargo aircraft sometimes referred to as the “**freighters**” or **all-cargo aircraft** come in all sizes from a small, propeller-driven aircraft to a giant Boeing 747s configured to carry only cargo.

This network is less extensive than the passenger network, but has over the years carried a growing proportion of total air cargo. The belly cargo was said to cover 90% of the total cargo and 10% is contributed by the all-cargo network. These all-cargo aircrafts generally fly at night and are scheduled for the convenience of shippers.

In addition to belly-cargo and pure air-cargo freighters, there is also a third kind of carrier, called **integrators**. These integrators oversee the entire process and act as the forwarder and the carrier. Throughout the history of air cargo, the primary integrators remain the big three: FedEx, DHL, and UPS.



The demand for air freight is limited by cost, typically priced 4-5 times that of road transport and 12-16 times that of sea transport. Air freight rates generally range from \$1.50-\$4.50 per kilogram, while the value of air cargo typically exceeds \$4.00 per kilogram.

2013 is the 100th year of commercial aviation. Over that century, through an ever-expanding network, air transport has transformed the way we live, work and play, providing jobs for some 57 million people

and supporting \$2.2 trillion in economic activity by connecting people and goods on 35,000 routes. But continued connectivity growth is not guaranteed. The industries expected margin in 2013 of 1.3% is very weak. Furthermore, current returns on investment are less than half the industry’s cost of capital, which continues to erode shareholder value.

GLOBAL AIR CARGO PERSPECTIVE

Globally, air cargo consists of approximately 2% of freight by weight, and approximately 40% by cargo value ¹¹. Increasing fuel costs have contributed to modal shift, away from air freight and to cheaper options like ocean ⁹². Approximately \$5.3 trillion worth of goods were moved by air transport in 2012, which represents about 35% of all world trade by value ¹⁴⁴.

Air freight is currently a small proportion of overall international freight tonnage in developing nations due to its expense ³. In 2011, there was approximately 51.4 million tons of air freight carried ⁵⁷.

The volume of global air cargo is nearly back up to 2007 levels and the air cargo industry is forecasted to be in a growth phase again ⁵⁶. Total cargo for 2011 was 47.6 million metric tons, a very slight decrease from 2010. Global cargo volumes predicted to increase by 1.4% in 2013 ¹⁴⁴ followed by an expected 2 to 3% growth in 2014 ¹¹.

Russian airlines are growing faster than any other geographic market ⁶⁹. In 2011, airfreight in Russia increased by over 11%, while in Asia, air freight decreased by approximately 5% during the same time period ⁶⁹. Russia’s entry into the WTO will decrease customs duties paid by freight owners moving through Russia and will have an expected additional increase in air cargo volume ⁶⁹.

SECTION OUTLINE

- INDUSTRY DEFINED
- **GLOBAL PERSPECTIVE**
- NATIONAL PERSPECTIVE
- GEORGIA PERSPECTIVE



world air cargo traffic is expected to triple by 2029 ⁵⁶

Middle Eastern airlines are booming in air cargo. There was a 14.5% increase in demand year over year for April 2011/2012 ⁵¹. China and Asia, are expected to be the principal drivers of air cargo growth over the next two decades, projected to grow at 9.2% and 7.9% respectively ⁵⁶. Overall, world air cargo traffic is expected to triple by 2029 ⁵⁶.

According to the International Air Traffic Association (IATA), aviation plans to improve fuel efficiency by about 1.5% per year by 2020, and then cap the emissions at that level ³⁰. Fuel is by far the #1 expense for air cargo providers, representing 30% of their expense total. *Source: www.iata.org*

Airlines' profits are predicted to fall from \$7.9 billion in 2011 to \$3 billion in 2012 assuming oil remains approximately \$115 per barrel ⁶⁸. In 2012 Air freight generated more than \$60 billion in total annual revenue, up from about \$40 billion in 2000 ¹¹.

Further globalization will increase the need and demand for air freight ¹¹. Many analysts are predicting increased air cargo movement mainly due to higher use of Just-in-Time (JIT) and increased global sourcing ³⁰



REVENUE TON MILE (RTM):

A single ton of goods that is transported for one mile.

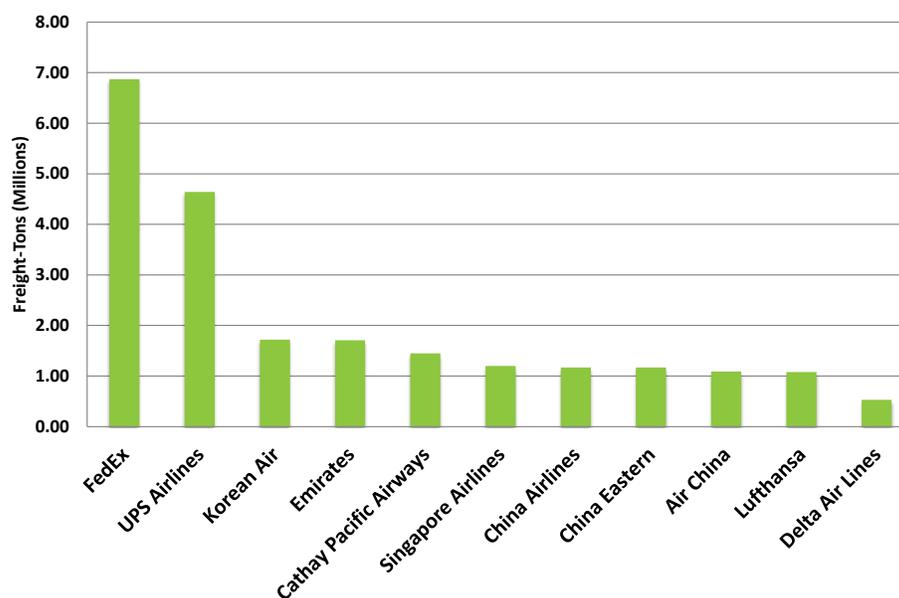
Revenue ton miles are used to determine the total amount of freight that is shipped by a transportation company.

GLOBAL AIR CARGO CARRIERS (NON-U.S. BASED)

ABSA-Aerolinhas Brasileiras (M3)	Global Supply System (GSQ)	Swiss International Airlines (LX)	Arrow Panama (WAP)
ANA & JP Express Co. Ltd. (9N)	Globespan Airways Limited (Y2)	Taca International Airlines (TA)	Asiana Airlines Inc. (OZ)
Aer Lingus Plc (EI)	Great Wall Airlines (IJ)	Tap-Portuguese Airlines (TP)	Austrian Airlines (OS)
Aero Continente (N6)	Hainan Airlines (HU)	Thai Airways (TG)	Britannia Airways Ltd. (BY)
AeroLogic GmbH (3S)	Hong Kong Dragonair (KA)	Thomas Cook Airlines Uk Ltd. (MT)	British Airways Plc (BA)
Aeroflot Russian Airlines (SU)	Iberia Air Lines Of Spain (IB)	Transaero Airlines (UN)	British Midland Airways (BD)
Aerolineas Argentinas (AR)	Icelandair (FI)	Transmile Air Service (TH)	C.A.L Cargo Airlines (5C)
Aerolineas Galapagos (2K)	Jalways Co. Ltd. (JO)	Transportes Aereos (QT)	Cargojet Airways Ltd. (WB)
Aeromexpress (QO)	Japan Air Lines Co. Ltd. (JL)	Transportes Aereos (JJ)	Cargolux Airlines (CV)
Aerosvit Ukrainian Airlines (VV)	Jet Airways (India) Limited (9W)	Turk Hava Yollari A.O. (TK)	Cathay Pacific Airways Ltd. (CX)
Aerotransportes Mas De Crga (M7)	Jetstar Airways Pty Limited (JQ)	Varig Logistica S/A (LC)	China Airlines Ltd. (CI)
Aerounion de Carga (6R)	Klm Royal Dutch Airlines (KL)	Varig S. A. (RG)	China Cargo Airline (CK)
Aerovias Nac'l De Colombia (AV)	Korean Air Lines Co. Ltd. (KE)	Vensecar International (V4)	Air India (AI)
Air Atlanta Europe (EUQ)	Kuwait Airways Corp. (KU)	Virgin Atlantic Airways (VS)	Nippon Cargo Airlines (KZ)
Air Atlanta Icelandic (CC)	LAN Argentina (4M)	Virgin Blue International (VA)	Olympic Airways (OA)
Air Berlin PLC and CO (AB)	Lan Colombia (L7)	Volga-Dnepr Airlines (VIQ)	Pakistan International (PK)
Air Canada (AC)	Lan Ecuador (XL)	Yangtze River Express Airlines (Y8)	Philippine Airlines Inc. (PR)
Air China (CA)	Lan Peru Airlines (LP)	China Eastern Airlines (MU)	Polskie Linie Lotnicze (LO)
Air Europa (UX)	Lan-Chile Airlines (LA)	China Southern Airlines (CZ)	Polyot Airlines (POQ)
Air Jamaica Limited (JM)	Lloyd Aereo Boliviano S. A. (LB)	Cielos De Peru (A2)	Qantas Airways Ltd. (QF)
Air Japan Co (NQ)	Lufthansa German Airlines (LH)	Compagnia Aerea Italiana (AZ)	Qatar Airways (Q.C.S.C) (QR)
Air New Zealand (NZ)	Luftransport-Unternehmen (LT)	Compagnie Nat'l Air France (AF)	Saudi Arabian Airlines (SV)
Air Pacific Ltd. (FJ)	MK Airlines Ltd. (7G)	Compania Mexicana De Aviaci (MX)	Scandinavian Airlines (SK)
Air Tahiti Nui (TN)	Malaysian Airline System (MH)	Compania Panamena (Copa) (CM)	Singapore Airlines (SQ)
AirBridgeCargo (RU)	Malev Hungarian Airlines (MA)	Condor Flugdienst (DE)	South African Airways (SA)
Alia-(The) Royal Jordanian (RJ)	Martinair Holland N.V. (MP)	DHL Aero Expresso (DHQ)	Emirates (EK)
All Canada Express (CEQ)	Master Top Linhas Aereas (Q4)	Egyptair (MS)	Ethiopian Airlines (ET)
All Nippon Airways Co. (NH)	Mytravel Airways (RNQ)	El Al Israel Airlines Ltd. (LY)	Etihad Airways (EY)
Antonov Company (ADB)	Eva Airways Corporation (BR)	Excel Airways (JN)	Finnair Oy (AY)

Source: www.transtats.bts.gov

TOP GLOBAL AIR CARGO CARRIERS



Source: www.iata.org, ACW

Over the next 20 years, world air cargo traffic will grow 5.2% per year. Air freight, including express traffic, will average 5.3% annual growth, measured in RTKs. Air mail traffic will grow much more slowly, averaging only 0.9% annual growth through 2031. Overall, world air cargo traffic will increase from 202.4 billion RTKs in 2011 (down from its 2010 record of 204.2 billion RTKs) to more than 558.3 billion RTKs in 2031.

WORLD'S TOP CARGO AIRPORTS - 2011

RANK	AIRPORT	TOTAL CARGO (METRIC TONS)	RANK CHANGE	% CHANGE
1	 Hong Kong International	4,168,394	▲ 1	▲ 23.2%
2	 Memphis International	3,916,937	▼ 1	▲ 5.9%
3	 Shanghai Pudong International	3,227,914	—	▲ 27.1%
4	 Incheon International	2,684,500	—	▲ 16.1%
5	 Ted Stevens Anchorage International	2,578,396	▲ 1	▲ 33.1%
6	 Paris-Charles de Gaulle	2,399,067	▼ 1	▲ 16.8%
7	 Frankfurt	2,275,106	▲ 2	▲ 20.5%
8	 Dubai International	2,270,498	—	▲ 17.8%
9	 Narita International	2,167,843	▲ 1	▲ 17.1%
10	 Louisville International	2,166,226	▼ 3	▲ 11.1%
11	 Singapore Changi	1,841,004	—	▲ 10.9%
12	 Miami International	1,835,793	—	▲ 17.9%
13	 Los Angeles International	1,810,345	—	▲ 15.5%
14	 Taiwan Taoyuan International	1,767,075	▲ 1	▲ 30.1%
15	 London Heathrow	1,551,405	▲ 1	▲ 15.0%
16	 Beijing Capital International	1,549,126	▼ 2	▲ 5.0%
17	 Amsterdam Schiphol	1,538,135	—	▲ 16.8%
18	 O'Hare International	1,424,077	▲ 1	▲ 30.0%
19	 John F. Kennedy International	1,343,114	▼ 1	▲ 17.4%
20	 Suvarnabhumi	1,310,146	—	▲ 25.3%
21	 Guangzhou International	1,144,458	—	▲ 19.8%
22	 Indianapolis International	947,279	—	▲ 5.2%
23	 Newark Liberty International	854,750	▲ 1	▲ 9.6%
24	 Shenzhen Bao'an International	809,363	▲ 3	▲ 33.6%
25	 Tokyo International	804,995	▼ 1	▲ 1.9%
26	 Osaka Kansai International	759,278	—	▲ 24.7%
27	 Doha International	707,831	▲ ??	▲ 33.8%
28	 Luxembourg-Findel	705,371	▼ 3	▲ 12.2%
29	 Kuala Lumpur International	697,015	▼ 1	▲ 15.6%
30	 Mumbai International	671,238	—	▲ 18.5%
31	 Hartsfield-Jackson Atlanta International	659,129	▼ 1	▲ 17.0%

Source: [Airports Council International](#)

GLOBAL AIR CARGO VOLUMES

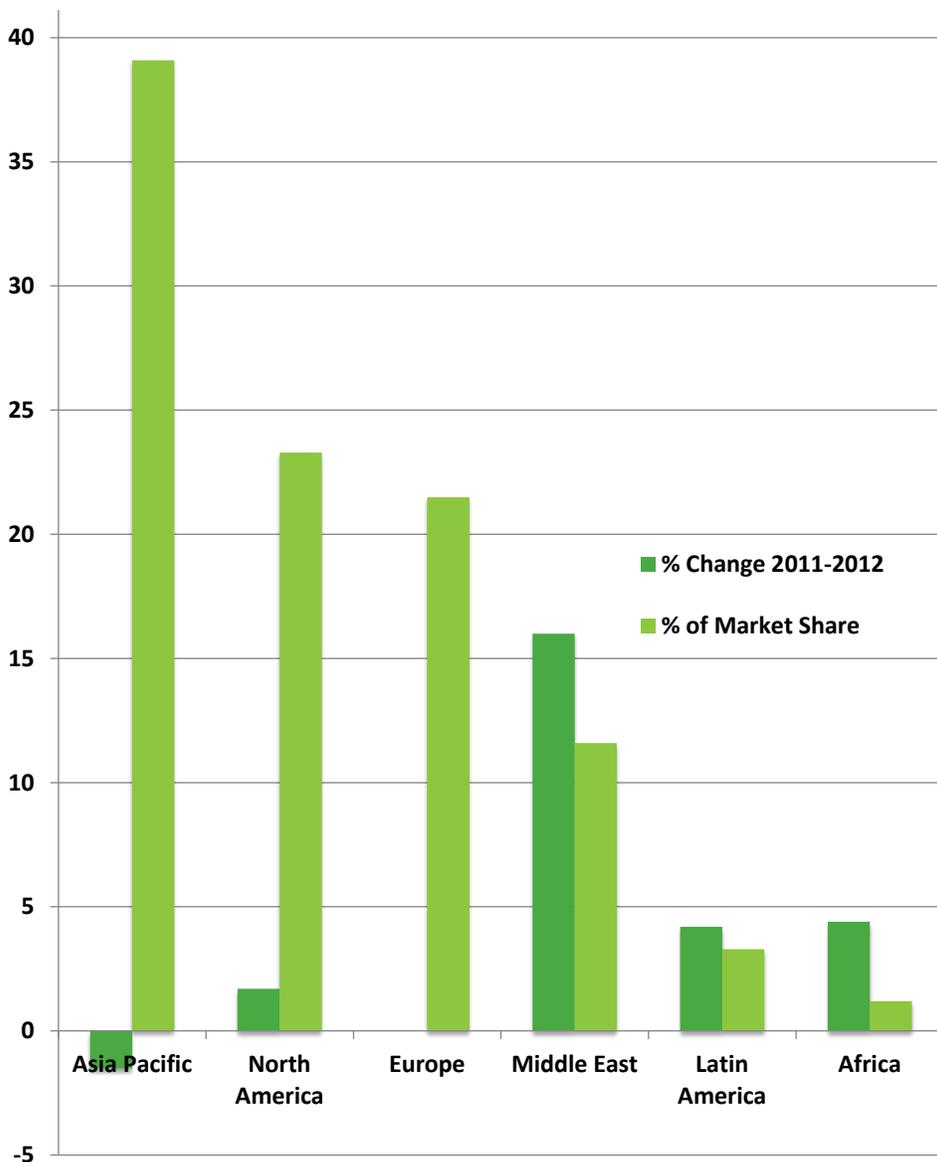
Overall, air cargo markets declined for a second straight year, falling a further 1.5% in 2012 after a 0.6% decline in 2011. Air cargo has come under pressure from a slowdown in world trade growth, and shifts in the freight commodity mix. Expanding emerging economies have driven demand for bulk items carried by sea, while economic weakness in the West dampened demand for high-value consumer goods transported by air. Freight capacity grew just 0.2% over the year, and the freight load factor was 45.2%.

Asia will continue to lead the world air cargo industry in average annual growth rates, with domestic China and intra-Asia markets expanding 8.0% and 6.9% per year, respectively. Latin America markets with North America and with Europe will grow at approximately the world average growth rate, as will Middle East markets with Europe. The more mature North America and Europe markets reflect slower and thus lower-than-average traffic growth rates.

Asia-Pacific airlines (the largest players in the air cargo market) reported a 5.5% decline in demand and cut capacity by 2.4%.

African and Middle Eastern carriers were beneficiaries of new trade lanes and developing trade links between the two regions. Freight demand grew 7.1% and 14.7% respectively,

GROWTH RATE & MARKET SHARE BY INTERNATIONAL REGION ¹⁴⁴



Source: www.iata.org

Asia-Pacific airlines (the largest players in the air cargo market) reported a 5.5% decline in demand and cut capacity by 2.4%. As the world's major manufacturing center, the region suffered from the slowdown in demand from Western markets. The freight load factor, although remaining the highest of all regions at 56.1%, fell more sharply than anywhere else, hurting cargo profitability.

European and North American carriers also saw falls in freight demand, of 2.9% and 0.5% respectively. European carriers increased its capacity by 0.3% which led to the load factor falling to 47.2%. North American carriers managed to reduce capacity by 2.0%, ahead of the fall in demand, but it still left the region's freight load factor at 35.0%, the second weakest of any region.

Latin American airlines saw freight demand decline by 1.2%, but capacity grew 4.9% over the year, leaving the load factor to fall to 38.3%.

African and Middle Eastern carriers were beneficiaries of new trade lanes and developing trade links between the two regions. Freight demand grew 7.1% and 14.7% respectively, both improvements on 2011 when the Middle East expanded 8.2% and Africa declined by 2.1%. The Middle East had the fastest capacity expansion of any freight region (11.4%) but the load factor still improved to 44.8%. Africa's freight capacity grew 9.2%, outstripping demand. The freight load factor fell to just 24.7%, the lowest of any region by a significant margin. *Source: www.iata.org*

Asia will continue to lead the world air cargo industry in average annual growth rates, with domestic China and intra-Asia markets expanding 8.0% and 6.9% per year, respectively.

Latin America markets with North America and with Europe will grow at approximately the world average growth rate, as will Middle East markets with Europe. The more mature North America and Europe markets reflect slower and thus lower-than-average traffic growth rates. *Source: www.boeing.com*

NATIONAL AIR CARGO PERSPECTIVE

The United States has roughly 5,200 public-use airports, capable of handling freight ⁵. U.S. air freight volumes are unlikely to expand any faster than GDP growth ⁹³.

New FAA regulations regarding pilot rest hours is not slated to affect cargo pilots. Airlines for America says that it would cost about \$2 billion per year for cargo airlines to comply with these rest rules, which is unlikely given today's economic climate ⁵⁵.

Air freight accounts for only 0.4% (8.2 million tons) of total U.S.-International Trade when measured by tons. Ocean freight by comparison accounts for 75% of total trade moving 1.48 billion tons.



European and North American carriers also saw falls in freight demand, of 2.9% and 0.5% respectively.

Latin American airlines saw freight demand decline by 1.2%

SECTION OUTLINE

- INDUSTRY DEFINED
- GLOBAL PERSPECTIVE
- **NATIONAL PERSPECTIVE**
- GEORGIA PERSPECTIVE

A cargo revenue ton-mile (RTM) is one ton of revenue cargo (freight or mail) carried for one mile.

U.S. CARGO-ONLY AIR CARRIERS

ABX Air, Inc. (ABX)	Gemini Air Cargo Airways (GR)
Air Transport International (8C)	Gulf And Caribbean Cargo (GFQ)
Amerijet International (M6)	Kalitta Air LLC (KAQ)
Arrow Air Inc. (JW)	Kalitta Charters II (KLQ)
Asia Pacific (PFQ)	Kitty Hawk Aircargo (KR)
Astar USA, LLC (ER)	Lynden Air Cargo Airlines (L2)
Capital Cargo International (PT)	Northern Air Cargo Inc. (NC)
Cargo 360, Inc. (GG)	Omega Air Holdings d/b/a Focus Air (F2)
Centurion Cargo Inc. (WE)	Polar Air Cargo Airways (PO)
Custom Air Transport (CTQ)	Southern Air Inc. (9S)
Evergreen International Inc. (EZ)	Tradewinds Airlines (WI)
Express.Net Airlines (TCQ)	United Parcel Service (5X)
Federal Express Corporation (FX)	Zantop International (ZKQ)
Florida West Airlines Inc. (PRQ)	

Source: www.transtats.bts.gov

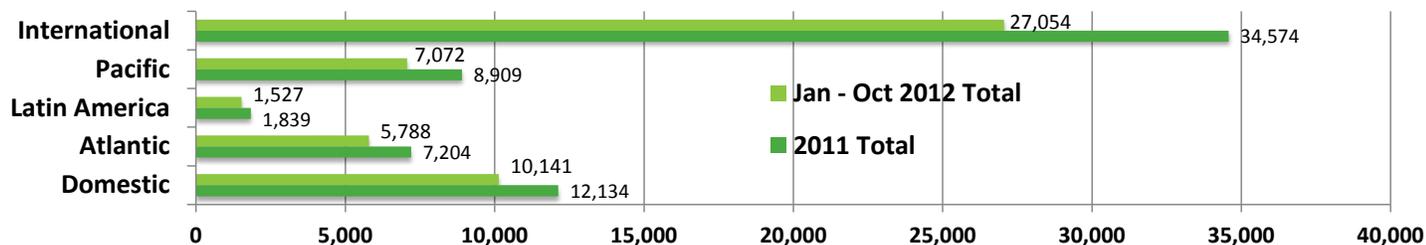
TOP U.S. AIR CARGO AIRPORTS (2011) ⁵⁶

RANK	IATA CODE	AIRPORT	CITY	TOTAL CARGO 2011 (TONS)	TOTAL CARGO 2010 (TONS)	% CHANGE
1	MEM	Memphis International	Memphis TN	3,916,410	3,916,811	0.0%
2	ANC	Ted Stevens Anchorage International	Anchorage AK	2,543,105	2,646,695	-3.9%
3	SDF	Louisville International	Louisville KY	2,188,422	2,166,656	1.0%
4	MIA	Miami International	Miami FL	1,841,929	1,835,797	0.3%
5	LAX	Los Angeles International	Los Angeles CA	1,681,611	1,747,629	-3.8%
6	JFK	John F. Kennedy International	New York NY	1,348,992	1,356,404	-0.5%
7	ORD	Chicago O'Hare International	Chicago IL	1,311,622	1,376,552	-4.7%
8	IND	Indianapolis International	Indianapolis IN	971,664	1,012,589	-4.0%
9	EWR	Newark Liberty International	Newark NJ	813,209	855,708	-5.0%
10	ATL	Hartsfield-Jackson Atlanta International	Atlanta GA	663,162	659,129	0.6%

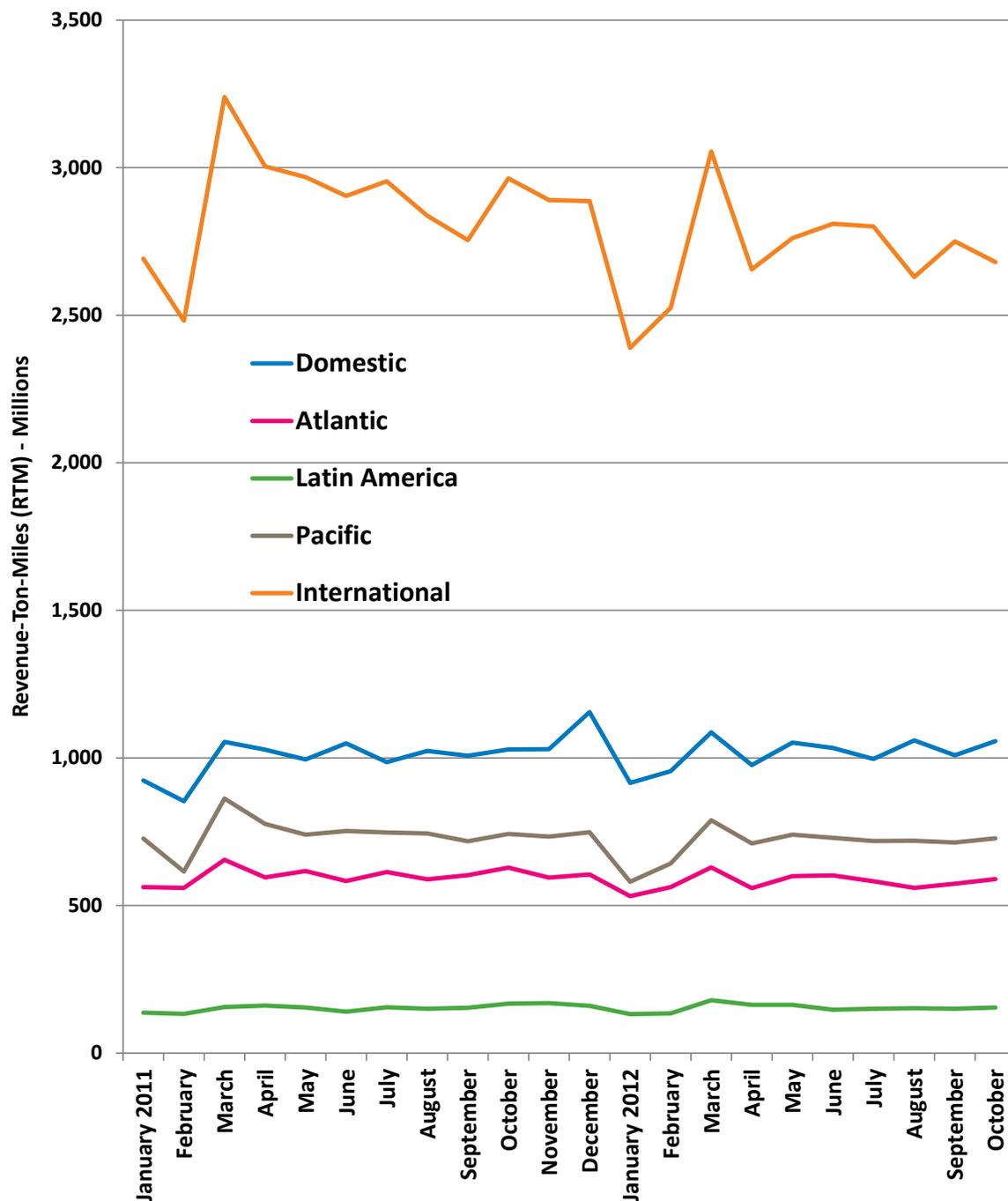
Source: www.aci-na.org



U.S. AIR CARGO VOLUME TOTALS: REVENUE-TON-MILES (RTM)



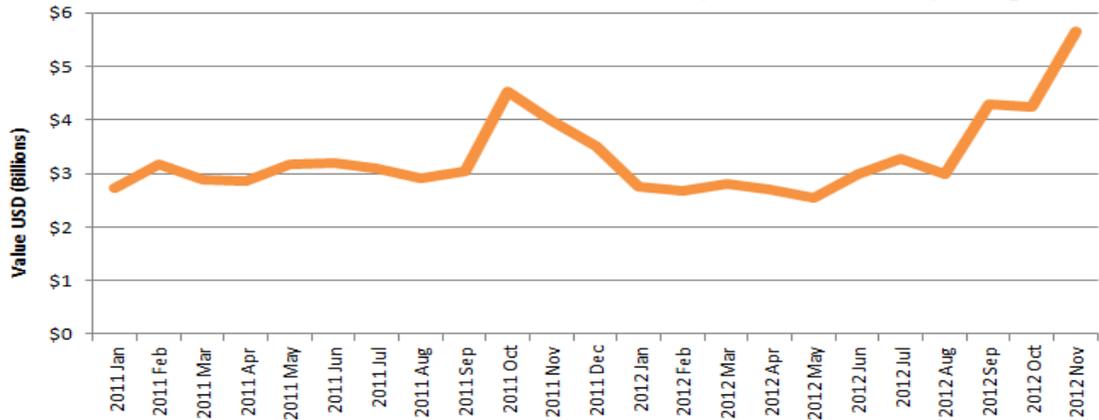
U.S. AIR CARGO VOLUMES (2011 - OCT 2012)



11% of all U.S. air imports in November were cell phones. In 2012, the majority of imported phones, nearly 80%, were made in China.

U.S. air imports of phones have reached over \$5 billion in just one month making cell phone imports the top import by air for the United States. The combination of the newest iPhone release as well as the Windows Phone caused November 2012 air imports of phones to skyrocket. In fact, 11% of all U.S. air imports in November were cell phones. In 2012, the majority of imported phones, nearly 80%, were made in China. About 10% of the phones were made in South Korea, and 6% were manufactured in Taiwan. *Source: www.zepol.com*

U.S. AIR IMPORT OF CELL PHONES (JAN-NOV 2012)



Source: www.zepol.com

**SECTION
OUTLINE**

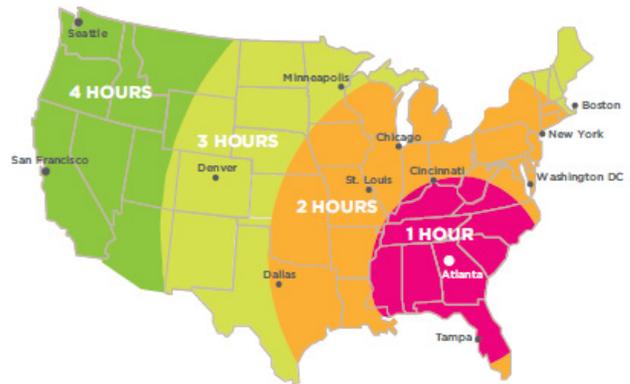
- INDUSTRY DEFINED
- GLOBAL PERSPECTIVE
- NATIONAL PERSPECTIVE
- **GEORGIA PERSPECTIVE**

GEORGIA AIR CARGO PERSPECTIVE

Whether freight is moving on the roads, rail, air or sea - Georgia has the infrastructure to make sure it gets to its final destination efficiently and reliably.

This reliance on infrastructure has been noted by Site Selection Magazine as one of the top considerations companies explore when looking relocate or expand their business. This section will outline many of these assets, and some factors impacting their current and future role in freight movement.

AIR TRANSIT TIMES



Airport access is among the top-ten site location criteria of most firms ¹⁸⁷

The FAA identified several metropolitan airports which would require capacity expansions in the United States over the next 20 years: included Atlanta Hartsfield International Airport ⁹⁵. Preliminary studies have been performed to assess the feasibility of building a second Atlanta airport to complement capacity ⁹⁵. The study concluded that none of the studied sites presented the appropriate cost/benefit tradeoffs, however this should be frequently revisited in the future as per the FAA recommendations for capacity expansion in Atlanta ⁹⁵.

Statewide, the aviation industry (which includes air cargo) contributes: \$62.6B state/federal economy; 471,000 employees; \$17.8 billion payroll. ¹⁸⁷

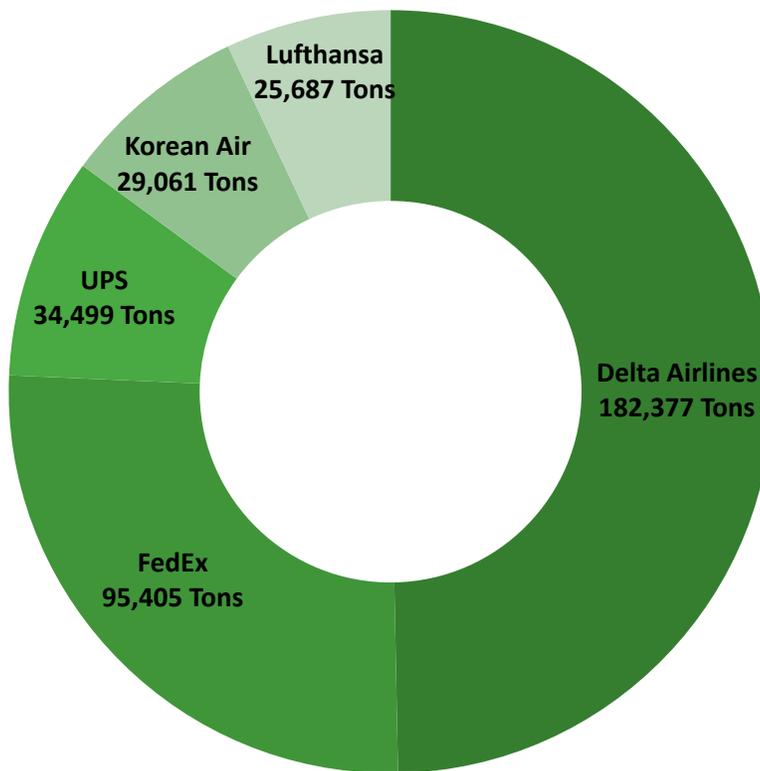
144 public and private airports ¹⁸¹. 10 of which have notable air cargo operations ¹⁸¹.

GEORGIA AIRPORT HIGHLIGHTS

ATLANTA HARTSFIELD-JACKSON INTERNATIONAL AIRPORT

- World's busiest passenger airport ¹⁸¹.
- 10th largest in the U.S. for cargo, and 31st in the world ¹⁸¹
- Handles 98% of the State's annual air freight volume ¹⁸¹.
- Has a perishables cargo complex, the only such complex in the SE U.S. ¹⁸³.
- Over 80% of US consumers are within 2 hour flight time from Atlanta ¹⁸³.
- 1.5 million square feet of on-terminal cargo handling/warehousing space ¹⁸³.
- Foreign Trade Zone #26 is directly adjoined to the airport ¹⁸³.
- Is a U.S. Fish and Wildlife port of entry ¹⁸³.
- Has a direct impact of more than \$32.5 billion for metro Atlanta ⁹⁶.
- Averages 2,500 arrivals and departures and 250,000 passengers per day ⁹⁶.

TOP CARGO CARRIERS USING ATLANTA'S AIRPORT ¹⁸⁴



SOUTHWEST GEORGIA REGIONAL AIRPORT (ALBANY):

- Primarily used by UPS ¹⁸⁵ to move their freight to the main UPS world hub in Louisville, Kentucky ¹⁸⁵.
- In 2011, UPS moved 9.7 million pounds of cargo into Southwest Georgia Regional Airport, and 5.7 million pounds of cargo out of the same facility ¹⁸⁶.
- In 2012 the Southwest Georgia Regional Airport contributed ¹⁸⁷: \$54.5 million in local economic impact, 548 jobs and \$17.1 million in payroll.
- Currently undergoing a \$15 million investment in new terminal facility, airport apron and parking improvements ¹⁸⁷.

Over 80% of US consumers are within 2 hour flight time from Atlanta ¹⁸³.

SAVANNAH HILTON-HEAD INTERNATIONAL AIRPORT:

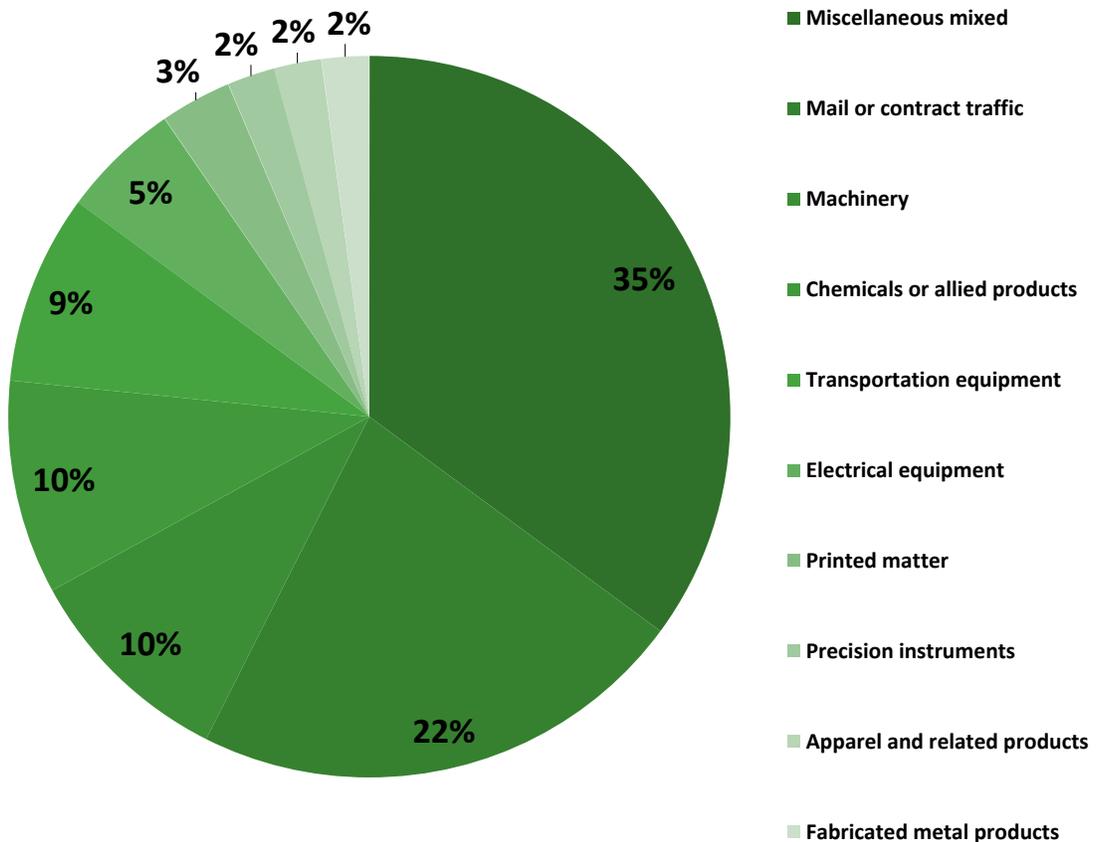
- Has many cargo tenants including Fedex, DHL, Northrup Grumman, Delta, Airtran Airways, and more ¹⁸⁵.

- In 2009, the top five freight carriers in SAV ranked in US tons moved are: Fedex, ABX, Delta, Antonov Design Bureau, Tradewinds Airlines, and Atlantic Southeast Airlines ¹⁸⁵.

TOP ORIGIN & DESTINATION FOR GEORGIA'S DOMESTIC AIR CARGO ¹⁸⁵

STATE ORIGIN	% TOTAL	STATE DESTINATION	% TOTAL
California	13%	Tennessee	18%
Texas	7%	Texas	16%
Indiana	7%	Florida	14%
New York	7%	California	6%
Tennessee	6%	Ohio	5%
Other	58%	Other	42%

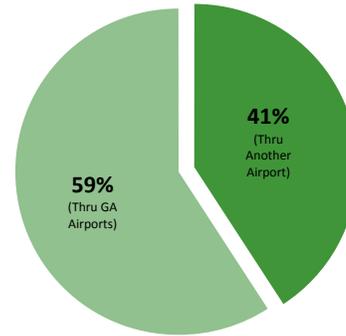
GEORGIA'S TOP AIR CARGO COMMODITIES ⁸⁵



PORT OF CHOICE FOR GEORGIA'S EXPORT AIR CARGO

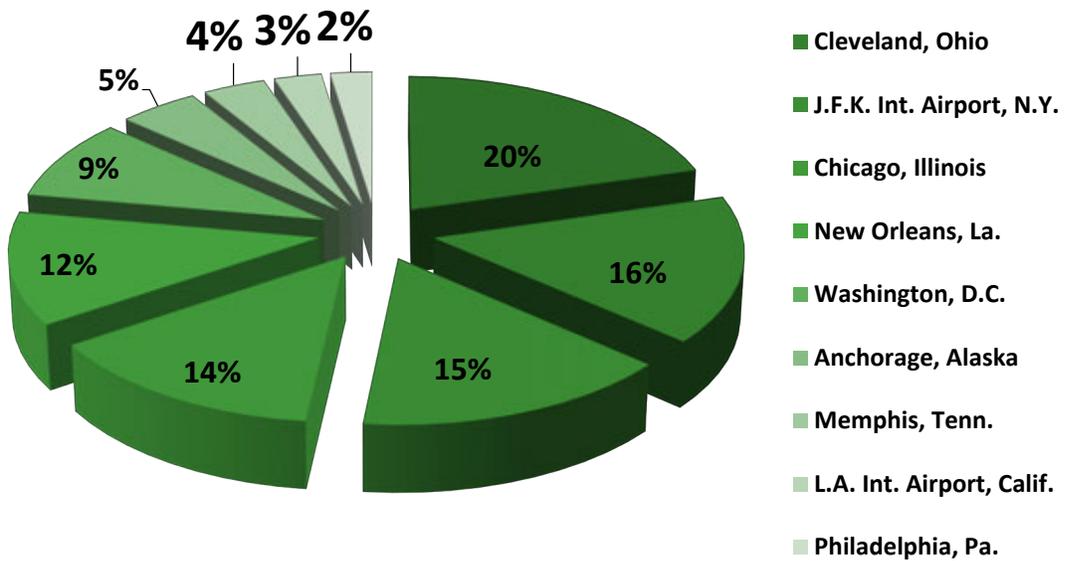
The following charts show in a bit more detail that cargo is indeed flowing through a wide range of hubs, ports and depots to reach the end customer. Shippers and manufacturers alike have at times very complex decisions to make with regards to how to manage their supply chains. One of these decisions, even for companies located in Georgia is to determine the path their goods need to flow.

59% of Georgia's international bound air cargo (exports) moves across the airports in Georgia. The remaining 41% of the freight is split amongst a range of other port facilities, some as far away as Los Angeles and New York. This breakdown is shown below:



This data represents cargo leaving Georgia (exports) heading to another Country but whose final US destination included an airport outside the State

DEPARTING AIRPORTS FOR GEORGIA ORIGINATING CARGO



Source: ITTS, WiserTrade Data, U.S. Bureau of Transportation Statistics

GEORGIA AIR CARGO VOLUMES

In addition to Atlanta's Hartsfield Jackson International Airport, Georgia has 15 other cargo airports moving varying amounts of cargo all over the US and the World. These freight tonnages shown do not include postal cargo which is often counted, and represent only a the first 10 months of 2012.

SELECT OUTGOING AIR CARGO (ENPLANEMENT), 2007-2012

AIRPORT			2007	2008	JAN-OCT 2012
ATL	Atlanta	Hartsfield-Jackson	749,688,823	684,407,903	231,336,623
ABY	Albany	Albany-Dougherty	29,722,808	27,745,431	15,687,692
SAV	Savannah	Savannah - Hilton Head Intl.	6,768,617	2,624,720	4,554,202
SVN	Savannah	Hunter Army Air Field	1,106,208	504,496	451,073
LSF	Columbus	Lawson Army Air Field	533,123	--	1,045,950
CSG	Columbus	Columbus Metropolitan	288,796	243,833	182,616
WRB	Macon	Robins Air Force Base	226,966	142,904	74,018
AGS	Augusta	Bush Field	2,704	18,260	32,880

SELECT INCOMING AIR CARGO (DEPLANEMENT), 2007-2012

AIRPORT			2007	2008	JAN.-OCT. 2012
ATL	Atlanta	Hartsfield-Jackson	918,985,148	797,919,151	213,544,730
ABY	Albany	Albany-Dougherty	35,200,425	32,474,020	18,142,902
SAV	Savannah	Savannah - Hilton Head Intl.	9,664,801	8,735,997	6,973,823
CSG	Columbus	Columbus Metropolitan	289,507	80,694	110,628
AGS	Augusta	Bush Field	68,195	51,175	26,332
SVN	Savannah	Hunter Army Air Field	--	195,704	856,016
WRB	Macon	Robins Air Force Base	--	147,141	34,736

Source: transtats.bts.gov



TRUCKING INDUSTRY

TRUCKING DEFINED

The trucking industry is comprised of three key segments:

1. **TRUCKLOAD (TL)**
2. **LESS-THAN-TRUCKLOAD (LTL)**
3. **AND PRIVATELY OWNED/OPERATED FLEETS**

Truckload and LTL companies are both considered “for-hire carriers,” because they both haul freight that is owned by other businesses. As the names suggest, truckload carriers ship only a single customer’s goods in a single truck, while LTL carriers ship multiple customer’s goods in a single truck. Private truck fleets are owned by companies, such as manufacturers, retailers, and other businesses, that operate a fleet of trucks to support their primary business.

Truck transportation is the primary mode of transportation for all freight, including domestic and international, and trucking moves over 70% of the freight bill worldwide and an even higher percentage of cargo value ⁴.

Less than truckload (LTL) cargo represents the majority of freight shipments and the majority of business-to-business (B2B) shipments. LTL shipments are also often referred to as motor freight and the carriers involved are referred to as motor carriers. LTL shipments range from 110 to 15,000 lbs, being less than about 8 ft. to 28 ft. the majority of times.



The average single piece of LTL freight is 1,323 lbs. and the size of a standard pallet. Long freight and/or large freight are subject to extreme length and cubic capacity surcharges. Trailers used in LTL can range from 28 to 53 ft. The standard for city deliveries is usually 48 ft. In tight and residential environments the 28 ft trailer is used the most.

SECTION OUTLINE

- **INDUSTRY DEFINED**
- GLOBAL PERSPECTIVE
- NATIONAL PERSPECTIVE
- GEORGIA PERSPECTIVE

Trucking moves over 70% of the freight bill worldwide and an even higher percentage of cargo value. ⁴

A Freight -Ton-Mille (FTM) is a common unit of measure in the logistics industry and measures actual freight traffic. One FTM is one ton of revenue freight carried one mile.

SECTION OUTLINE

- INDUSTRY DEFINED
- **GLOBAL PERSPECTIVE**
- NATIONAL PERSPECTIVE
- GEORGIA PERSPECTIVE

There are 68.94 million km of roads globally of which only approximately 65% are paved

In 2010, the global road freight sector grew by 7.8 % over 2009

The shipments are usually palletized, stretch-wrapped and packaged for a mixed-freight environment. Unlike express or parcel, LTL shippers must provide their own packaging, as carriers do not provide any packaging supplies or assistance. However, circumstances may require crating or other substantial packaging.

In the United States, shipments larger than about 15,000 lbs are typically classified as truckload (TL) freight. This is because it is more efficient and economical for a large shipment to have exclusive use of one larger trailer rather than share space on a smaller LTL trailer.

The total weight of a loaded truck (tractor and trailer, 5-axle rig) cannot exceed 79,366 lb in the United States without a special permit. In ordinary circumstances, long-haul equipment will weigh about 33,000 lbs, leaving about 44,000 lbs of freight capacity. Similarly a load is limited to the space available in the trailer, normally 48 ft or 53 ft long.⁴

GLOBAL TRUCKING PERSPECTIVE

As of 2008, there were 68.94 million km of roads globally of which only approximately 65% are paved vs. unpaved.

Source: www.cia.gov

In 2010, the global road freight sector grew by 7.8 % over 2009, with volumes reaching 6 trillion freight-ton-miles (FTM).

Most of freight traffic in developing nations is moved by truck^{3,4}. The low rates of these carriers typically often indicate low quality of service, often with excessive time in transit, little cargo safety and security, and massive unsafe overloading of the trucks^{3,4}.

In the insufficiently regulated trucking market in the developing world, there are usually a large number of very small carriers, owning one or two trucks only^{3,4} though some market concentration has been seen in developing nations⁴.



GLOBAL ROAD NETWORK RANKING

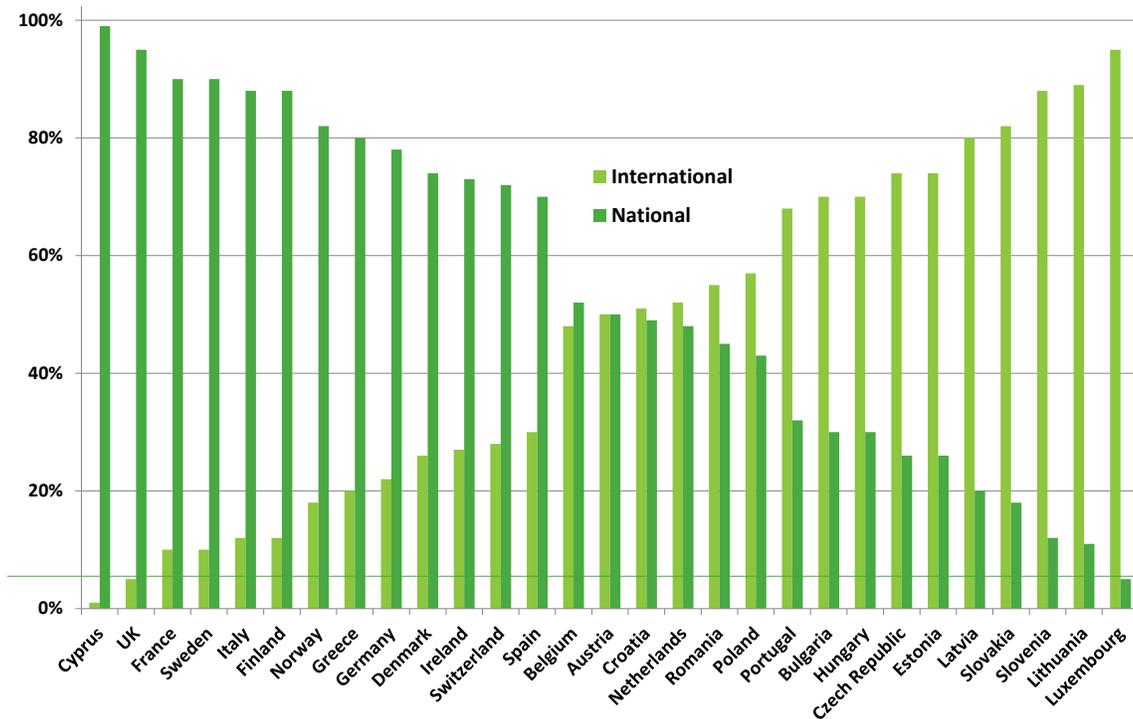
RANK	COUNTRY	ROAD LENGTH (KM)	DATE
1	United States	7,044,453	2010
2	India	4,320,000	2011
3	China	3,860,800	2007
4	Brazil	1,751,868	2004
5	Japan	1,210,251	2011
6	Canada	1,042,300	2009
7	Russia	982,000	2009
8	France	951,200	2008
9	Australia	818,356	2008
10	Spain	681,298	2008
11	Germany	644,480	2010
12	Sweden	572,900	2009
13	Italy	487,700	2007
14	Indonesia	437,759	2008
15	Poland	423,997	2008

Source: www.cia.gov

The USA has the world's largest road network

EUROPEAN-UNION TRUCKING

Intermodal transportation in Europe grew 6% from 2010 to 2011, reaching 3.2 million consignments, or the equivalent of 6.4 million TEUs¹³⁹. Inland transportation volume weakened in the EU with road freight decreasing in volume by 11% during 2012¹³⁴.



Source: epp.eurostat.ec.europa.eu

Intermodal transportation in Europe grew 6% from 2010 to 2011, reaching the equivalent of 6.4 million TEUs

Slightly more than 66% of the goods transported on the EU-27's roads in 2011 were goods moved on the national road network (i.e. intra-country). However, this proportion varied considerably between the EU Member States.

The highest proportions of national road freight transport were in Cyprus (98.1%) and the United Kingdom (93.9%), while the relative importance of national freight was much lower in Slovakia (16.8%), Slovenia (13.2%), Lithuania (10.8%) and Luxembourg (7.4%). For most freight haulers registered in the EU, international road freight transport mostly relates to exchanges with other EU Member States (intra-EU partners).

NAFTA TRUCKING



The Americas (United States, Canada, and Mexico) account for the largest share of the global road freight sector value, about 56%.⁶ In 2010, trucks hauled nearly 57% of the goods (in terms of value) between the U.S. and Canada, and over 66% between the U.S. and Mexico.

Over the last decade container trucks crossing the border between the United States and Canada have decreased by roughly 1.6 million crossings per year, to 5.2 million in 2011.⁷ The trend was similar in non-container freight truck border crossings, decreasing by roughly 1.5 million crossings annually, from 6.9 million in 2002 to roughly 5.5 million in 2011.⁷

However, there were increases in both container and non-container truck freight crossings between the United States and Mexico: 4.4 million containers in 2002 to 4.8 million in 2011, and 4.4 million non-container freight trucks in 2002 to 4.9 million in 2011. Canada and Mexico now rank one and three, respectively, in terms of the top U.S. trading partners, since China surpassed Mexico as the nation's second largest trading partner in 2006.⁷

Canada and Mexico rank #1 and #3, respectively in terms of the top U.S. trading partners. China is #2

U.S. TRUCK TRADE WITH CANADA/MEXICO (2011)¹⁴⁵

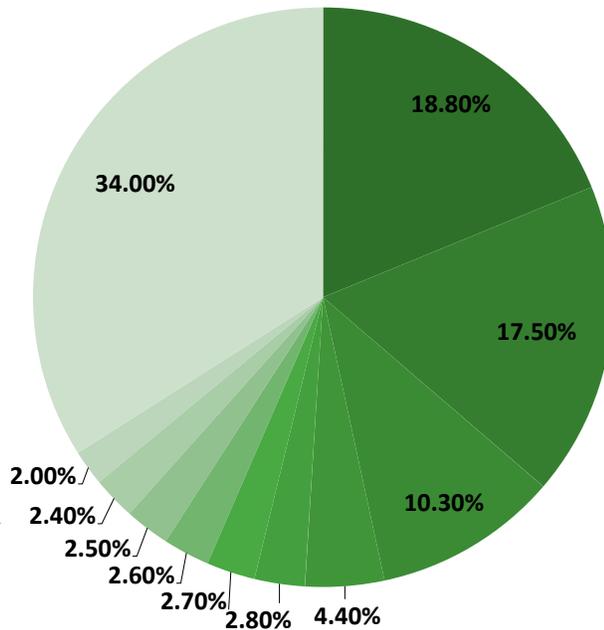
	CANADA	MEXICO
EXPORTS	\$195 Billion	\$128 Billion
IMPORTS	\$136 Billion	\$168 Billion

In all respects, trucking is a vital part of cross-border activity between the United States, Mexico and Canada. With commodities ranging from electrical machinery to furniture, clothing and food, trucks transport 81% of the value of trade between the United States and Mexico.

Between the U.S. and Canada, trucks hauled 69.9% of the shipment value into Canada and 44.7% out of Canada in 2010. Meanwhile, trucks transported 68% of the surface trade into Mexico and 64.9% out of it, in terms of shipment value. In terms of value, the largest commodity group transported by truck from the U.S. to Mexico in 2010 was electrical machinery and equipment, which represented about of the total. From the Mexico to U.S., electrical machinery and equipment accounted for about 1/3 of the total.

TOP TEN TRUCKED COMMODITIES: U.S. TO CANADA (2010)

- Nuclear reactors, boilers & mechanical appliances: \$32.67 billion
- Vehicles, other than railway or tramway: \$30.42 billion
- Electrical machinery, equipment, and parts: \$17.88 billion
- Articles of Plastic: \$7.72 billion
- Optical, photographic, medical instruments: \$4.85 billion
- Articles of iron and steel: \$4.63 billion
- Iron and steel: \$4.46 billion
- Paper and paperboard; articles of paper pulp: \$4.34 billion
- Pharmaceutical products: \$4.09 billion
- Furniture, bedding, cushions and similar stuffed furnishings: \$3.44 billion
- Top Ten Total by Truck \$114.53 billion

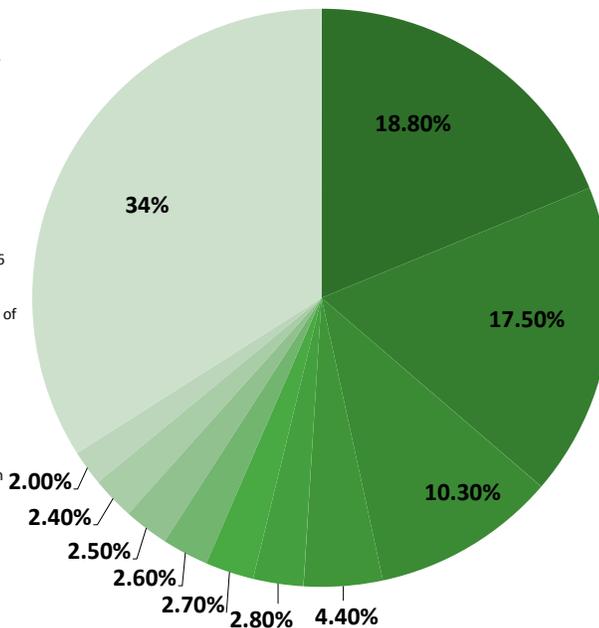


Source: U.S. Bureau of Transportation Statistics, U.S. Department of Transportation

Few states play as key a role in cross-border trade than Texas and California, which move the majority of truck-transported trade between the United States and Mexico. Texas and California represent 49% of the total truck-transported imports from Mexico and 62% of the exports to Mexico. Michigan, a key auto-manufacturing state, represents a significant portion of truck-transportation trade between the United States and Canada.

TOP TEN TRUCKED COMMODITIES: U.S. TO MEXICO (2010)

- Electrical machinery, equipment, and parts: \$28.37 billion
- Nuclear reactors, boilers & mechanical appliances: \$21.67 billion
- Articles of plastic: \$9.27 billion
- Vehicles, other than railway or tramway: \$9.21 billion
- Optical, photographic, medical instruments: \$3.64 billion
- Articles of iron and steel: \$2.86 billion
- Paper and paperboard; articles of paper pulp: \$2.64 billion
- Meat: \$2.31 billion
- Articles of aluminum: \$2.20 billion
- Articles of rubber: \$1.99 billion
- Other



Source: U.S. Bureau of Transportation Statistics, U.S. Department of Transportation

The trucking industry hauled 67% of all the tons of freight transported in the United States in 2011 equating to 9.2 billion tons.

The trucking industry was a \$604 billion industry in 2011

SECTION OUTLINE

- INDUSTRY DEFINED
- GLOBAL PERSPECTIVE
- **NATIONAL PERSPECTIVE**
- GEORGIA PERSPECTIVE

The trucking industry is estimated to have reached a total volume of 1.81 trillion FTMs in 2010.

Intermodal transportation involves the use of more than one mode of transport for a journey without any handling of the freight itself when changing modes. The method reduces cargo handling, improves security, reduces damage and loss, and allows freight to be transported faster.

NATIONAL TRUCKING PERSPECTIVE

Even in tough times, trucking has remained a critical component of the national economy. In fact, nearly every good consumed in the U.S. is put on a truck at some point. As a result, the trucking industry hauled 67% of total freight tons transported in the United States in 2011 equating to 9.2 billion tons.

The trucking industry was a \$604 billion industry in 2011, representing 80.9% of the nation's freight bill. Put another way, on average, trucking collected 80.9 cents of every dollar spent on freight transportation.

According to the ATA, truck freight tonnage is forecasted to grow in the United States by 21% in volume, and by 59% in total revenue ⁴⁵.

The United States road freight sector is estimated to have reached a total volume of 1.81 trillion FTMs and total revenues of \$787 billion in 2010.⁶

As of the Q3 in 2012, the LTL market is relatively stable at \$30.6 billion revenue, which is still about 10% below pre-recession level ³⁴. In the past two to three years, truckload and intermodal rates have been going up, but LTL rates remained relatively unchanged. ³⁴

ONLINE RESOURCES:

- [2012 USDOT National Freight Story](#)
- [2013 USDOT Transportation Pocket Guide](#)

VALUE OF SHIPMENTS BY MODE: 2011 & 2040 (BILLIONS OF \$)

	2011				2040			
	Total	Domestic	Exports ²	Imports ²	Total	Domestic	Exports ²	Imports ²
Total	16,804	13,200	1,285	2,319	39,265	27,131	5,303	6,831
Truck	10,573	9,921	266	386	21,465	19,315	985	1,166
Rail	515	380	47	88	898	555	148	195
Other	341	239	55	47	821	482	199	139

Source: U.S. Department of Transportation, Federal Highway Administration, Office of Freight Management and Operations, Freight Analysis Framework, version 3.4, 2012.

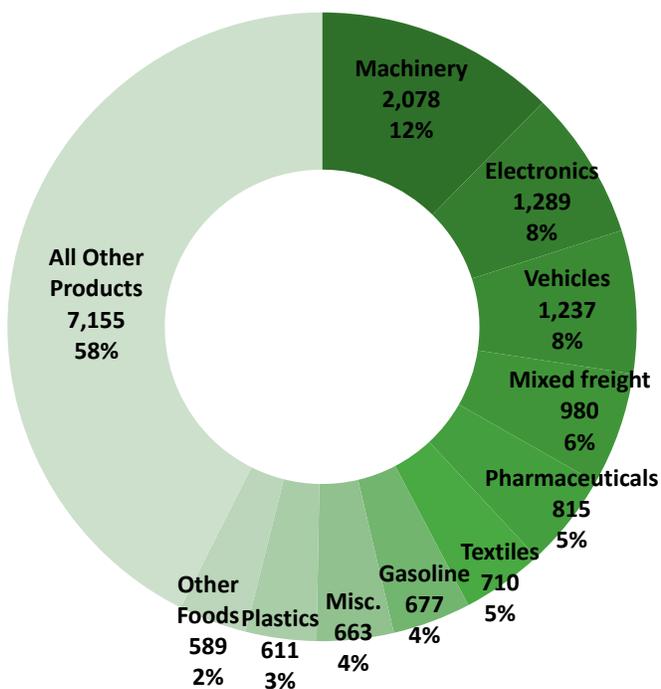
WEIGHT OF SHIPMENTS BY MODE (MILLIONS OF TONS)

	2011				2040			
	Total	Domestic	Exports ²	Imports ²	Total	Domestic	Exports ²	Imports ²
Total	17,622	15,336	895	1,390	28,520	23,095	2,632	2,794
Truck	11,301	11,065	107	130	18,786	18,083	368	335
Rail	1,895	1,695	108	92	2,770	2,182	388	201
Other	313	251	48	14	526	362	130	34

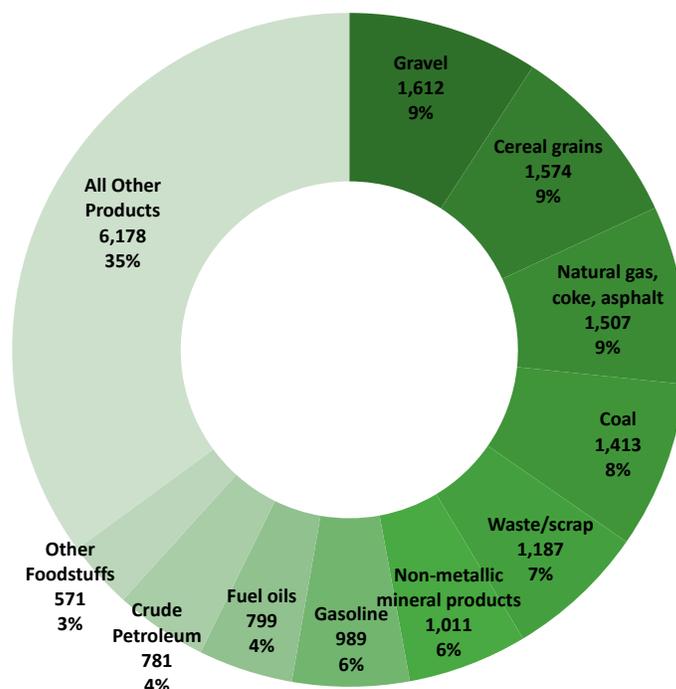
Source: U.S. Department of Transportation, Federal Highway Administration, Office of Freight Management and Operations, Freight Analysis Framework, version 3.4, 2012.

TOP U.S. COMMODITIES MOVED BY TRUCK: 2011

BILLIONS OF DOLLARS



MILLIONS OF TONS



Source: U.S. Department of Transportation, Federal Highway Administration, Office of Freight Management and Operations, Freight Analysis Framework, version 3.4, 2012.

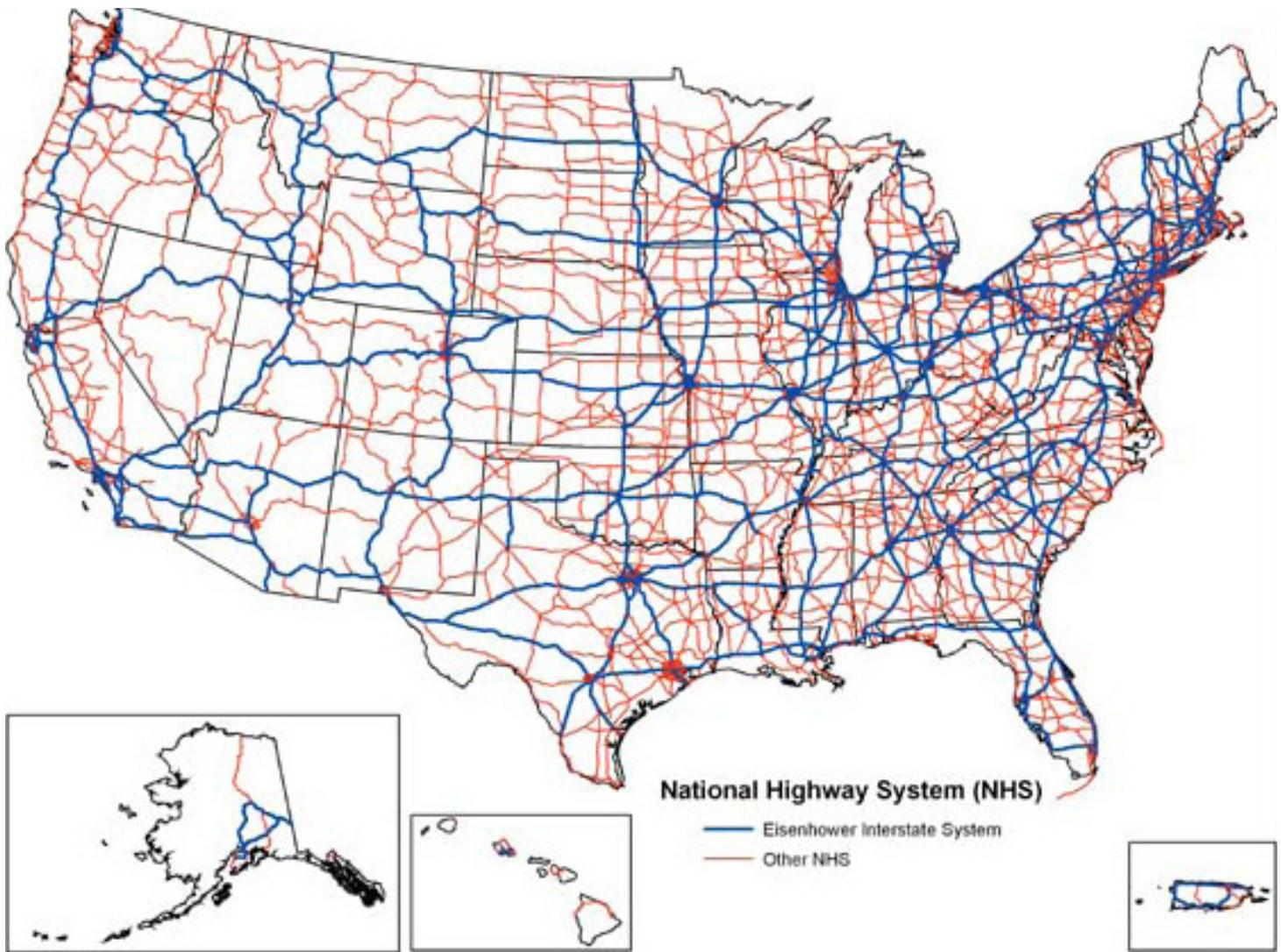
RANKING OF NATIONAL ROAD INFRASTRUCTURE NETWORKS

RANK	STATE	MILES OF ROAD	RANK	STATE	MILES OF ROAD
1	Texas	311,249	11	Pennsylvania	119,685
2	California	172,139	12	Wisconsin	114,963
3	Kansas	140,653	13	New York	114,574
4	Illinois	139,519	14	Iowa	114,383
5	Minnesota	138,164	15	Oklahoma	112,873
6	Missouri	130,360	16	North Carolina	105,653
7	Ohio	123,192	17	Alabama	101,575
8	Georgia	122,917	18	Arkansas	100,068
9	Michigan	121,969	19	Indiana	96,988
10	Florida	121,702	20	Tennessee	94,207

Source: www.fhwa.dot.gov

The Freight Analysis Framework (FAF) integrates data from a variety of sources to create a comprehensive picture of freight movement among states and major metropolitan areas by all modes of transportation.

The U.S. hosts the largest road infrastructure in the World with 4,377,220 total miles of roadway of which 2,718,364 miles are paved. The road network includes all roads in the country: motorways, highways, main or national roads, secondary or regional roads, and other urban and rural roads.



Source: U.S. Department of Transportation

The U.S. has over 164,000 miles of highways in the National Highway System, forming the backbone of a National Highway System that helps move 16.1 billion tons of freight worth a total of \$14.9 trillion.

Approximately 1% of all public roads are part of the U.S. Interstate Highway System. Of these 47,000 miles of Interstates, 65% are in rural areas and 35% are in urban areas. 74% of the remaining public roads are located in rural areas, with 26% in urban areas.

Source: USDOT

TRUCK CARRIER FLEET

According to the U.S. Department of Transportation (DOT), as of December 2011 there were more than 1.24 million interstate motor carriers, including:

408,782 FOR-HIRE CARRIERS
662,544 PRIVATE CARRIERS
168,680 OTHER INTER-STATE CARRIERS

90.2% of these total carriers operate less than 6 trucks; 97.2% operate less than 20 trucks.

5.6 million Commercial Motor Vehicle (CMV) drivers were accounted for in 2010 by the USDOT. About half of these drivers - 2.8 million - have a CDL for interstate driving. There were over 6.8 million people employed across the nation in jobs relating to trucking activity in 2010, not counting the self-employed.

Over 41% of people working in trucking-related jobs are employed in the transportation and public utilities industries, followed by 28% in wholesale and retail industries. Overall, in 2010, about 1 out of every 16 people working in the private sector in the U.S. was employed in a trucking-related job.

The United States has an aging fleet of trucks, currently 6.7 years on average, with an estimated cost of around \$53 billion to refresh the fleet ³². The cost of tires has risen roughly 70% in the last 18 months alone ³² and many fleet operators say that fuel is over 25% of operating costs ⁶¹. Overall, trucking costs increased 6.2% in 2011 while volumes remained stable ³⁶.



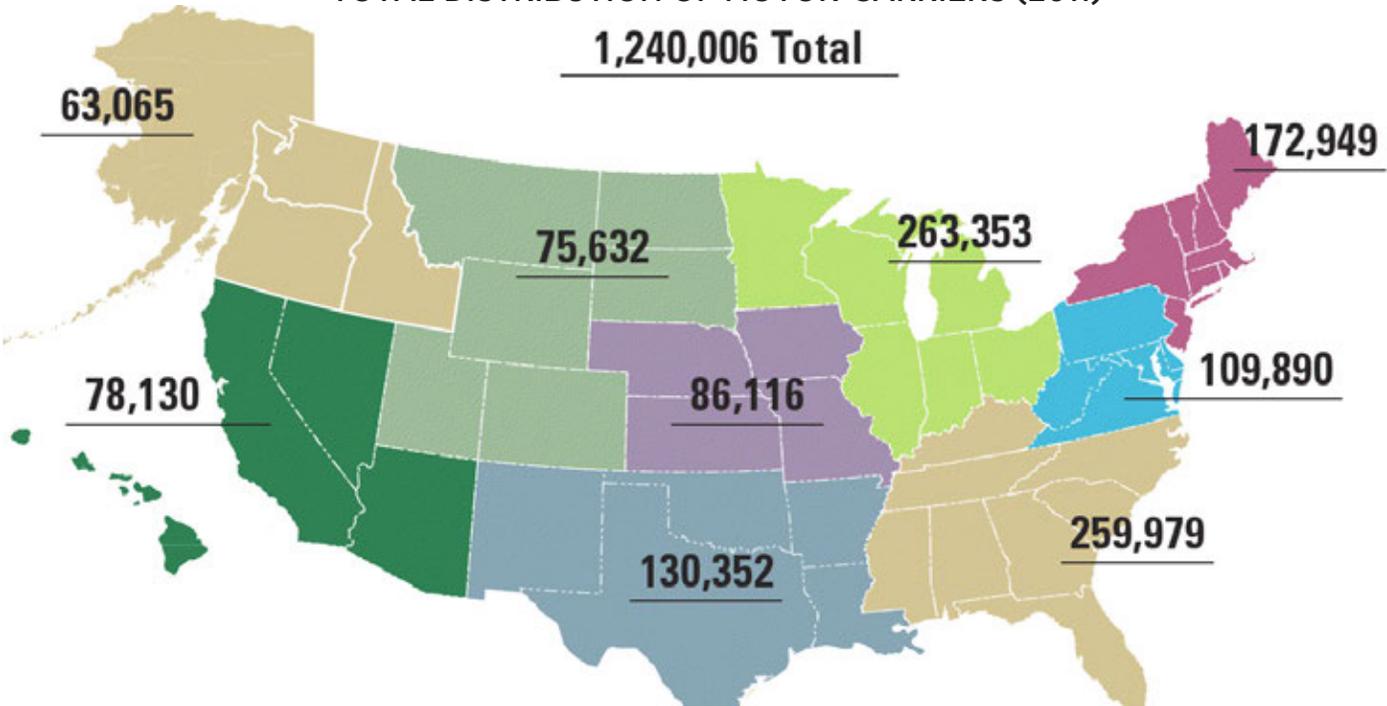
1 out of 16 people in the USA private sector work in a trucking related job.

90.2% of total carriers operate less than 6 trucks.

97.2% operate less than 20 trucks.

TOTAL DISTRIBUTION OF MOTOR-CARRIERS (2011)

1,240,006 Total

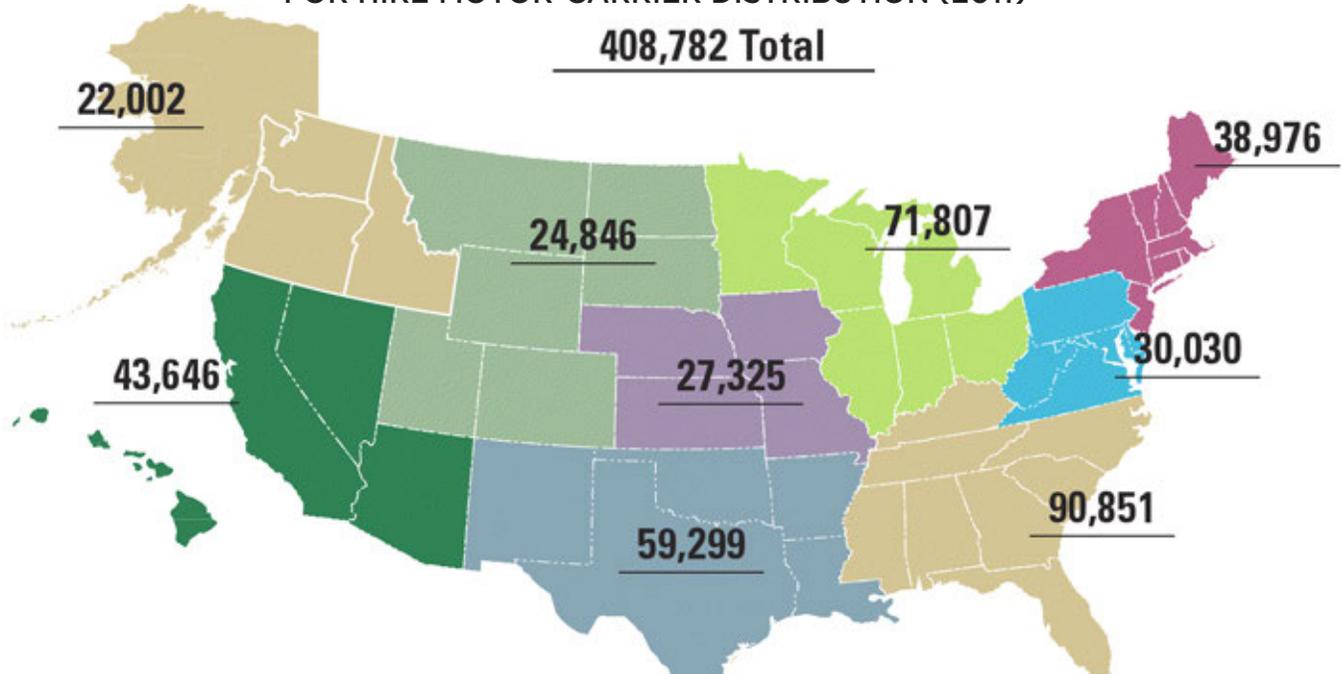


Source: Federal Motor Carrier Safety Administration, U.S. Department of Transportation

The Southeast dominates the U.S. landscape in terms of registered motor carriers. In particular, the Southeast-Midwest corridor represents the most traveled interstate grouping given that 80% of the population lives east of the Mississippi River.

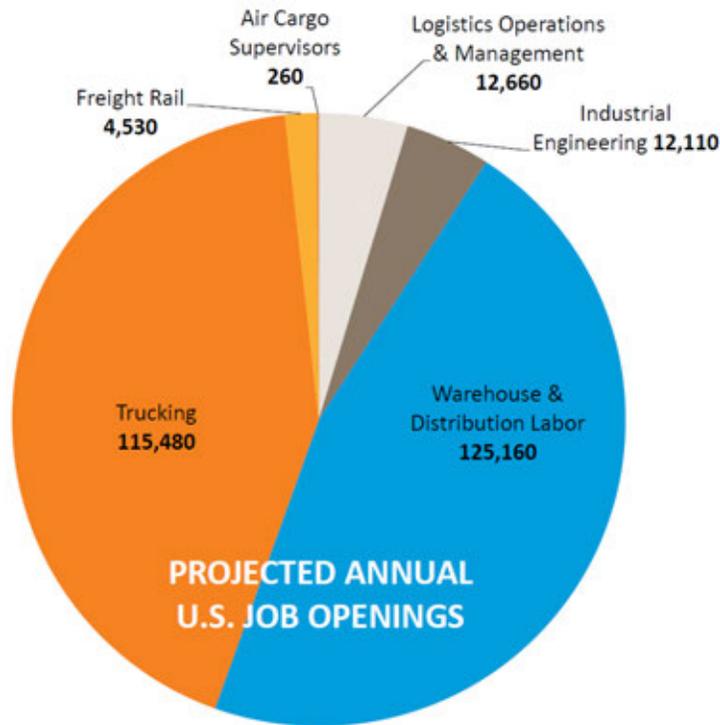
FOR HIRE MOTOR-CARRIER DISTRIBUTION (2011)

408,782 Total



Source: Federal Motor Carrier Safety Administration, U.S. Department of Transportation

PROJECTED ANNUAL U.S. LOGISTICS JOB OPENINGS



Source: Georgia Center of Innovation for Logistics, U.S. Department of Labor

Based on 2010 figures, the USDOL projects the U.S. to have approximately 270,200 total job openings that will need to be filled every year to keep up with the demand of projected industry growth. Almost half of these job openings will come from the trucking industry. Recently the Center of Innovation for Logistics published a detailed report on this supply-and-demand of logistics workforce.

DOWNLOAD THE FULL REPORT HERE:

2012 REPORT: "LOGISTICS OF EDUCATION & EDUCATION OF LOGISTICS"



Revenue and profits for the nation's largest trucking companies grew strongly in the past year, reflecting an increase in demand for freight hauling and higher rates.

And while many executives are understandably happy about their company's financial results, the new business is also testing the industry's ability to contain costs and provide additional capacity.

The key to success on both counts, it turns out, may depend on how well companies can attract and retain truck drivers going forward.

Nationally, there will be over 115,000 trucking related job openings every year

The Southeast U.S. has more motor-carriers than any other region, 350,000 in total.

TOP U.S. LESS-THAN-TRUCKLOAD (LTL) MOTOR CARRIERS

COMPANY	2011 REVENUE (000)	2010 REVENUE (000)	% CHANGE
FedEx Freight	\$5,196,000	\$4,833,000	7.5
YRC Worldwide	4,757,200	4,238,700	12.2
Con-way Freight	3,247,107	3,075,064	5.6
UPS Freight	2,563,000	2,208,000	16.1
ABF Freight System	1,730,773	1,514,108	14.3
Old Dominion Freight Line	1,671,000	1,318,088	26.8
Estes Express Lines	1,636,000	1,419,000	15.3
R+L Carriers	1,207,000	1,077,000	12.1
Saia Inc.	1,030,224	902,660	14.1
Lynden Transport	850,000	720,000	18.1

TOP U.S. TRUCKLOAD (TL) MOTOR CARRIERS

COMPANY	2011 REVENUE (000)	2010 REVENUE (000)	% CHANGE
Schneider National	\$2,600,000	\$2,350,000	10.6
Swift Transportation	2,167,040	1,962,014	10.4
U.S. Xpress Enterprises	1,695,548	1,585,283	7.0
Werner Enterprises	1,694,965	1,550,601	9.3
Landstar System	1,496,514	1,248,088	19.9
Knight Transportation	866,199	730,709	18.5
Crete Carrier Corp.	731,000	655,558	11.5
Con-way Truckload	615,014	569,741	7.9
TransForce Inc.	589,365	623,969	-5.5
Celadon Trucking	556,695	541,841	2.7

TOP U.S. REFRIGERATED MOTOR CARRIERS

COMPANY	2011 REVENUE (000)	2010 REVENUE (000)	% CHANGE
C.R. England Inc.	\$1,079,716	\$934,669	15.5
Prime Inc.	712,237	652,251	9.2
Stevens Transport	569,901	508,930	12.0
Marten Transport	455,847	392,764	16.1
Central Refrigerated Service	419,138	346,472	21.0
Frozen Food Express Industries	388,461	368,822	5.3
KLLM Inc.	351,000	252,376	39.1
Transam Trucking	305,000	269,660	13.1
John Christner Trucking	254,000	217,000	17.1
Southern Refrigerated Transport	195,788	162,437	20.5
Shaffer Trucking	178,000	167,409	6.3
National Carriers	172,185	152,500	12.9
Comcar Refrigerated	161,002	188,000	-14.4
Canxpress	152,244	136,245	11.7

Source: Transport Topics - www.ttnews.com/tt100

TRUCK TRIP RELIABILITY: JANUARY-MARCH 2012

Intercity travel-time reliability is a key freight performance measure. It influences logistics, operational strategies, and load optimization. FHWA analyzed the truck trip reliability of 22 top freight origins and destinations. Travel time between San Diego and Los Angeles showed the greatest change, increasing nearly 55 minutes in the northbound direction and more than 88 minutes in the southbound direction. Other city pairs also showed large differences in travel-time reliability.

In short, the lower the % change the more reliable the route for freight...

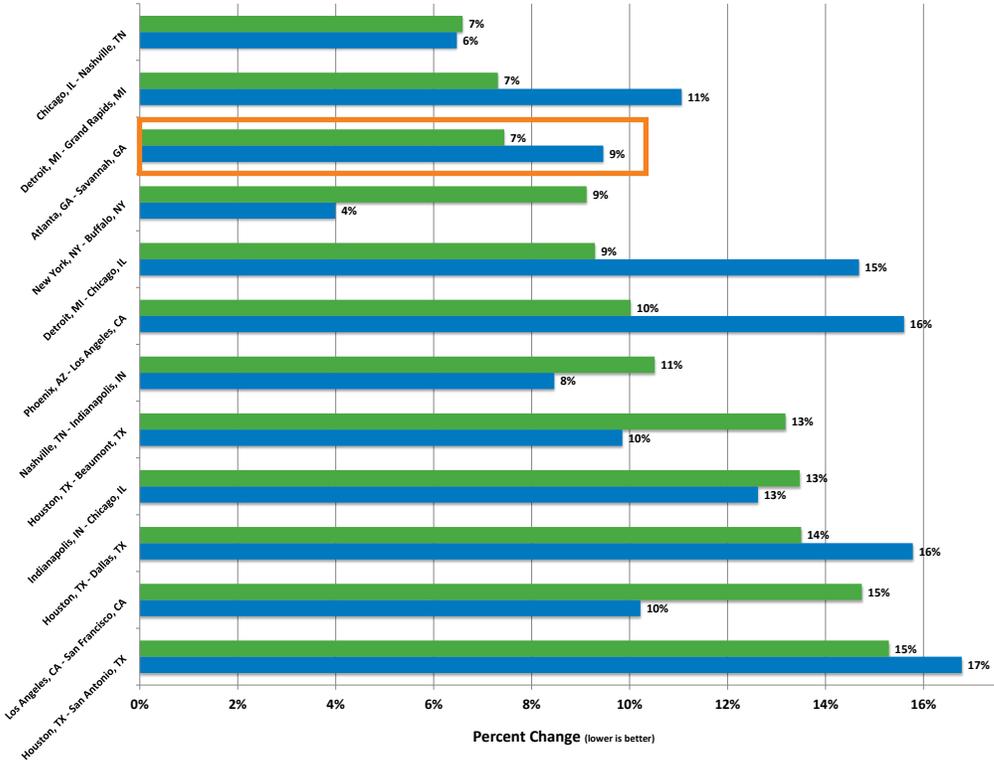
TRUCK TRAVEL CITY PAIRS	NORTH/ EAST TRAVEL TIME MAXIMUM	% CHANGE	SOUTH/ WEST TRAVEL TIME MAXIMUM	% CHANGE
New York, NY - Buffalo, NY	7 hrs 24 mins	3.99	7 hrs 47 mins	9.12
Chicago, IL - Nashville, TN	8 hrs 07 mins	6.47	8 hrs 09 mins	6.59
Nashville, TN - Indianapolis, IN	4 hrs 59 mins	8.46	5 hrs 06 mins	10.51
Atlanta, GA - Savannah, GA	4 hrs 17 mins	9.46	4 hrs 13 mins	7.44
Houston, TX - Beaumont, TX	1 hrs 31 mins	9.85	1 hrs 35 mins	13.18
Los Angeles - San Francisco, CA	7 hrs 36 mins	10.22	7 hrs 54 mins	14.74
Detroit, MI - Grand Rapids, MI	2 hrs 48 mins	11.06	2 hrs 44 mins	7.31
Indianapolis, IN - Chicago, IL	3 hrs 23 mins	12.62	3 hrs 25 mins	13.47
Detroit, MI - Chicago, IL	5 hrs 28 mins	14.68	5 hrs 12 mins	9.29
Phoenix, AZ - Los Angeles, CA	7 hrs 11 mins	15.60	6 hrs 56 mins	10.02
Houston, TX - Dallas, TX	4 hrs 17 mins	15.78	4 hrs 13 mins	13.50
Houston, TX - San Antonio, TX	3 hrs 37 mins	16.78	3 hrs 34 mins	15.29
Phoenix, AZ - Tucson, AZ	2 hrs 07 mins	16.79	2 hrs 15 mins	24.48
Seattle, WA - Portland, OR	3 hrs 30 mins	20.73	3 hrs 30 mins	21.43
New York, NY - Albany, NY	3 hrs 09 mins	22.38	2 hrs 49 mins	9.38
Miami, FL - Tampa, FL	5 hrs 36 mins	24.25	5 hrs 08 mins	12.69
Tampa, FL - Orlando, FL	1 hrs 41 mins	24.95	1 hrs 51 mins	37.39
Chicago, IL - Milwaukee, WI	1 hrs 54 mins	25.38	2 hrs 22 mins	56.43
Las Vegas, NV - Los Angeles, CA	5 hrs 18 mins	25.50	4 hrs 46 mins	13.02
Washington, DC - Baltimore, MD	1 hrs 10 mins	34.21	1 hrs 13 mins	36.66
New York, NY - Hartford, CT	2 hrs 35 mins	37.93	2 hrs 29 mins	34.81
Philadelphia, PA - New York, NY	2 hrs 30 mins	38.53	2 hrs 38 mins	42.95
San Antonio, TX - Austin, TX	2 hrs 08 mins	49.61	1 hrs 38 mins	21.10
San Diego, CA - Los Angeles, CA	2 hrs 21 mins	54.57	2 hrs 50 mins	88.35
San Francisco - Sacramento, CA	2 hrs 32 mins	60.85	2 hrs 04 mins	34.05

Source: ops.fhwa.dot.gov

What is travel time reliability? Few people will dispute the fact that traffic congestion is common in many cities in the United States. In these cities, drivers are used to congestion and they expect and plan for some delay, particularly during peak driving times. Many drivers either adjust their schedules or budget extra time to allow for traffic delays. But what happens when traffic delays are much worse than expected? Most travelers are less tolerant of unexpected delays because they cause travelers to be late for work or important meetings, miss appointments, or incur extra childcare fees. Shippers that face unexpected delay may lose money and disrupt just-in-time delivery and manufacturing processes.

Travel time reliability measures the extent of unexpected delay. A formal definition for travel time reliability is: the consistency or dependability in travel times, as measured from day-to-day and/or across different times of the day.

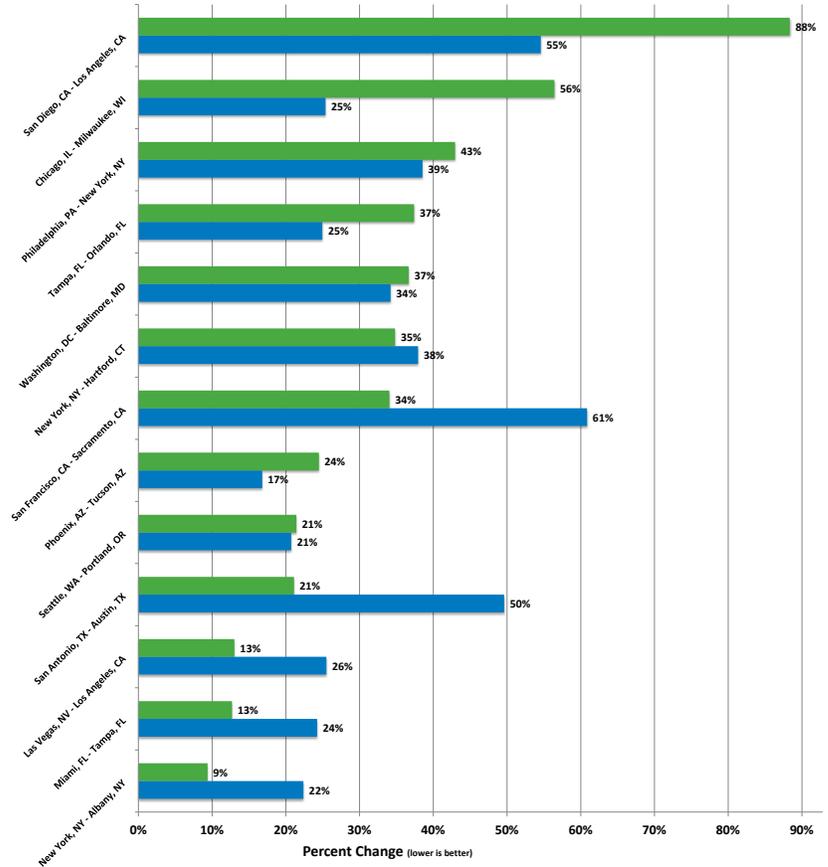
RELIABILITY LEADERS



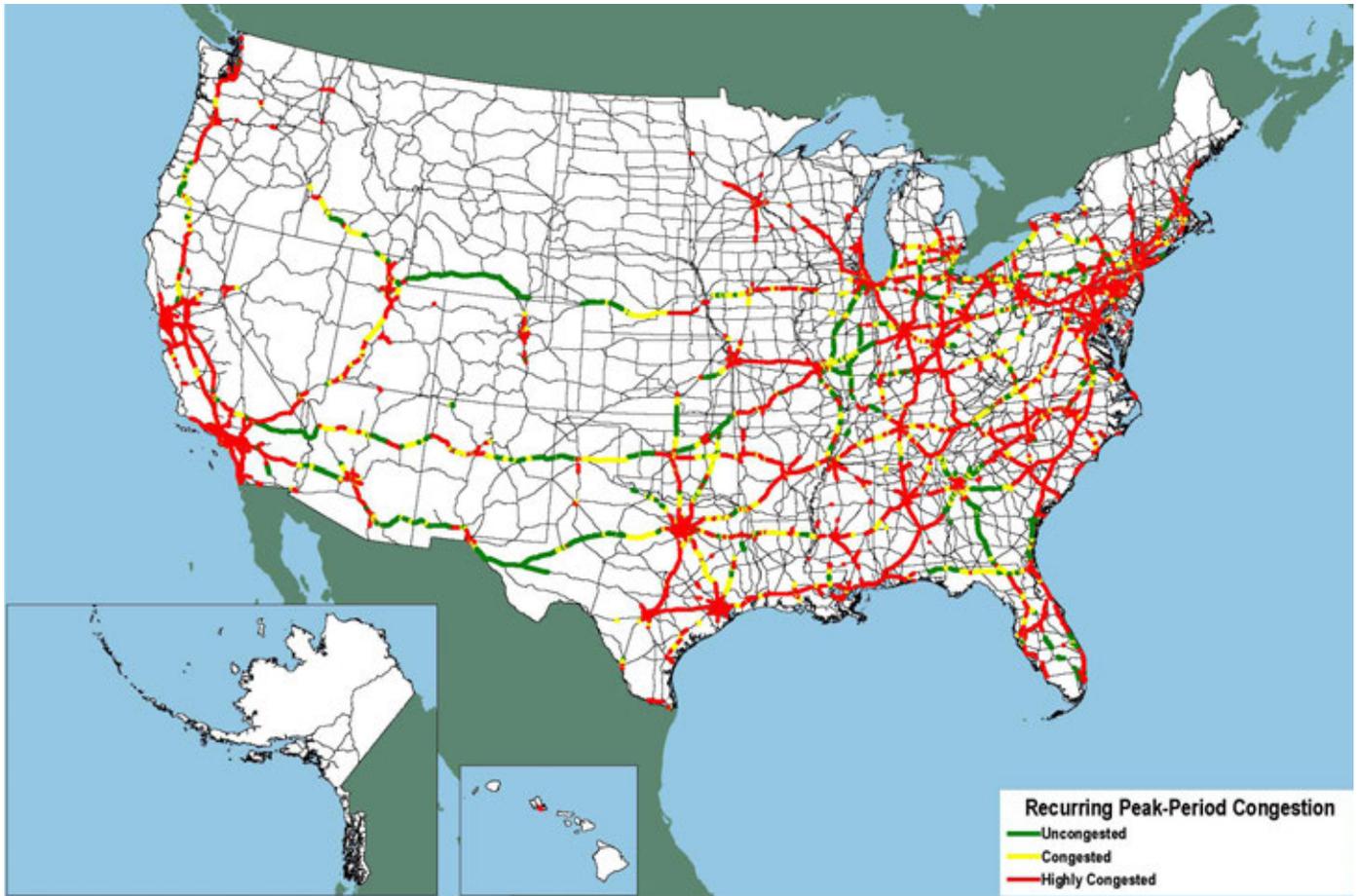
RELIABILITY CHART KEY

	NORTH - EAST ROUTES
	SOUTH - WEST ROUTES

RELIABILITY LAGGARDS



PEAK-PERIOD CONGESTION ON HIGH VOLUME ROUTES: 2035 FORECAST



Source: ops.fhwa.dot.gov



Intermodal transportation involves the use of more than one mode of transport for a journey without any handling of the freight itself when changing modes. The method reduces cargo handling, improves security, reduces damage and loss, and allows freight to be transported faster.

REGULATORY CONCERNS

Government mandates on emissions are increasing the cost of trucking as a mode of freight transportation. The cost of compliance with the rules alone equates to a 25% surcharge on the industry's rig bill. ³²

The Federal Motor Carrier Safety Administration (FMCSA) issued the final Hours of Service (HOS) rules, and trucking industry say the rules are unnecessary due to its good safety record under the previous rules and the new rules will “reduce efficiency and add costs throughout the supply chain” ⁵⁵.

Compliance, Safety, Accountability (CSA) is a Federal Motor Carrier Safety Administration (FMCSA) initiative to improve large truck and bus safety and ultimately reduce crashes, injuries, and fatalities that are related to commercial motor vehicles. It introduces a new enforcement and compliance model that allows FMCSA and its State Partners to contact a larger number of carriers earlier in order to address safety problems before crashes occur. Rolled out in December 2010, the program establishes a new nationwide system for making the roads safer for motor carriers and the public alike.

U.S. weight limits and size overview: OPS.FHWA.DOT.GOV

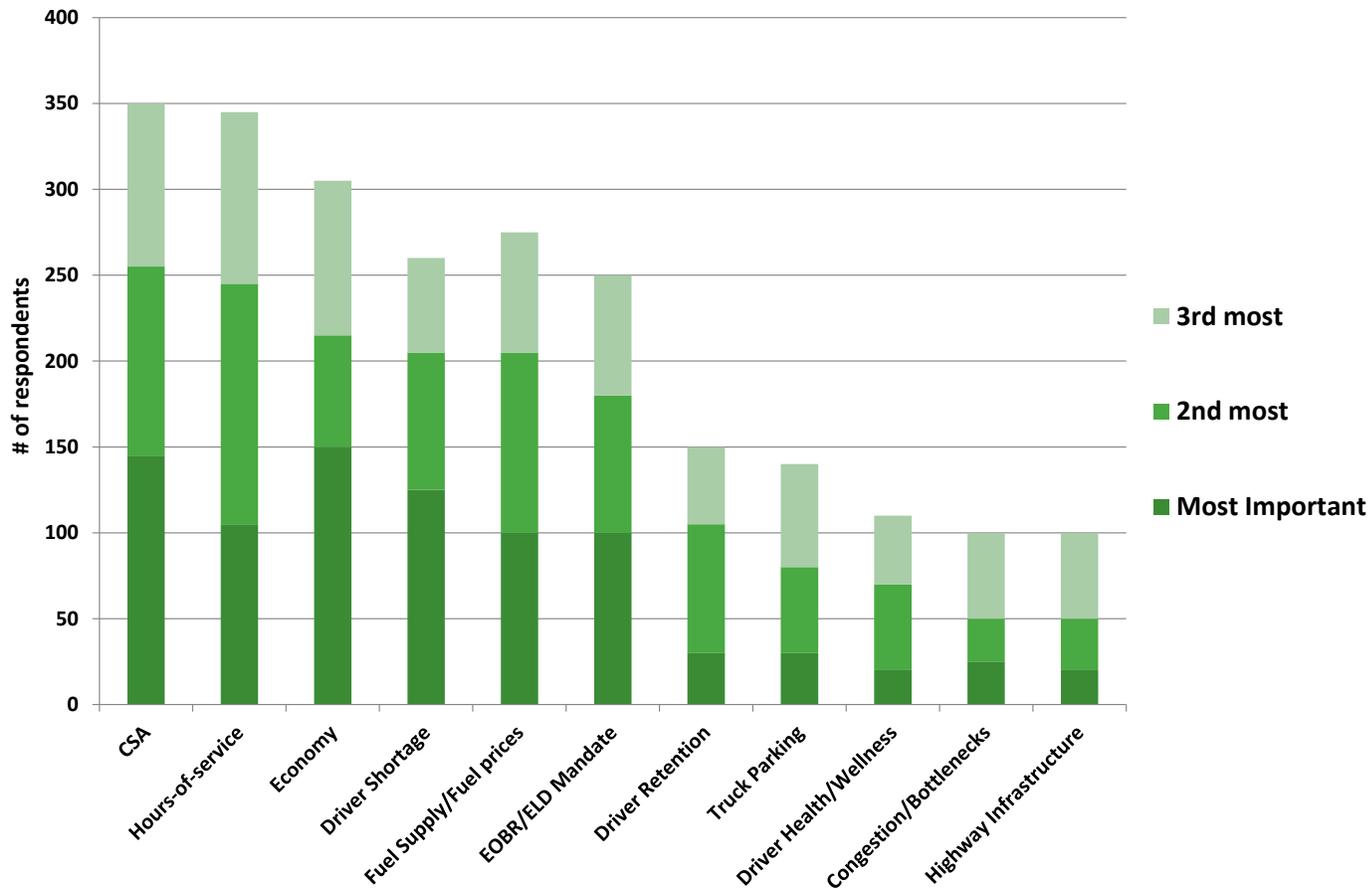
An industry-wide mandate on Electronic Onboard Recorder/Electronic Logging Device (EOBR/ELD) usage is expected in 2013 after a requirement was put in place by Congress in the highway authorization bill, MAP-21.

NATIONAL INDUSTRY CHALLENGES (2005-2012 TRENDS)

ISSUE RANK										
YEAR	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
2012	CSA	Hours-of-Service	Economy	Driver Shortage	Fuel Supply Fuel Prices	Electronic Logging Mandate	Driver Retention	Truck Parking	Driver Health/Wellness	Congestion / Truck Bottlenecks
2011	Economy	Hours-of-Service	Driver Shortage	CSA	Fuel Issues	Congestion	Transportation Funding	Tort Reform	Onboard Truck Technology	Truck Size and Weight
2010	Economy	CSA 2010	Government Regulation	Hours-of-Service	Driver Shortage	Fuel Issues	Transportation Funding/Infrastructure	Onboard Truck Technology	Environmental Issues	Truck Size and Weight
2009	Economy	Government Regulation	Fuel Issues	Congestion	Hours-of-Service	Commercial Driver Issues	Environmental Issues	Tolls / Highway Funding	Truck Size and Weight	Onboard Truck Technology
2008	Fuel Costs	Economy	Driver Shortage	Government Regulation	Hours-of-Service	Congestion	Tolls/Highway Funding	Environmental Issues	Tort Reform	Onboard Truck Technology
2007	Hours-of-Service	Driver Shortage	Fuel Issues	Congestion	Government Regulation	Tolls/Highway Funding	Tort Reform / Legal Issues	Truck Driver Training	Environmental Issues	Onboard Truck Technology
2006	Driver Shortage	Fuel Issues	Driver Retention	Hours-of-Service	Congestion	Government Regulation	Highway Infrastructure	Tort Reform	Tolls / Highway Funding	Environmental Issues
2005	Fuel Costs	Driver Shortage	Insurance Costs	Hours-of-Service	Tolls/Highway Funding	Tort Reform/Legal Issues	Government Regulation	Congestion	Environmental Issues	Truck Security

Source: American Transportation Research Institute (ATRI) www.atri-online.org

NATIONAL INDUSTRY CHALLENGES (TOP 3 CHOICES)



Source: American Transportation Research Institute (ATRI) www.atri-online.org



SECTION OUTLINE

- INDUSTRY DEFINED
- GLOBAL PERSPECTIVE
- NATIONAL PERSPECTIVE
- **GEORGIA PERSPECTIVE**

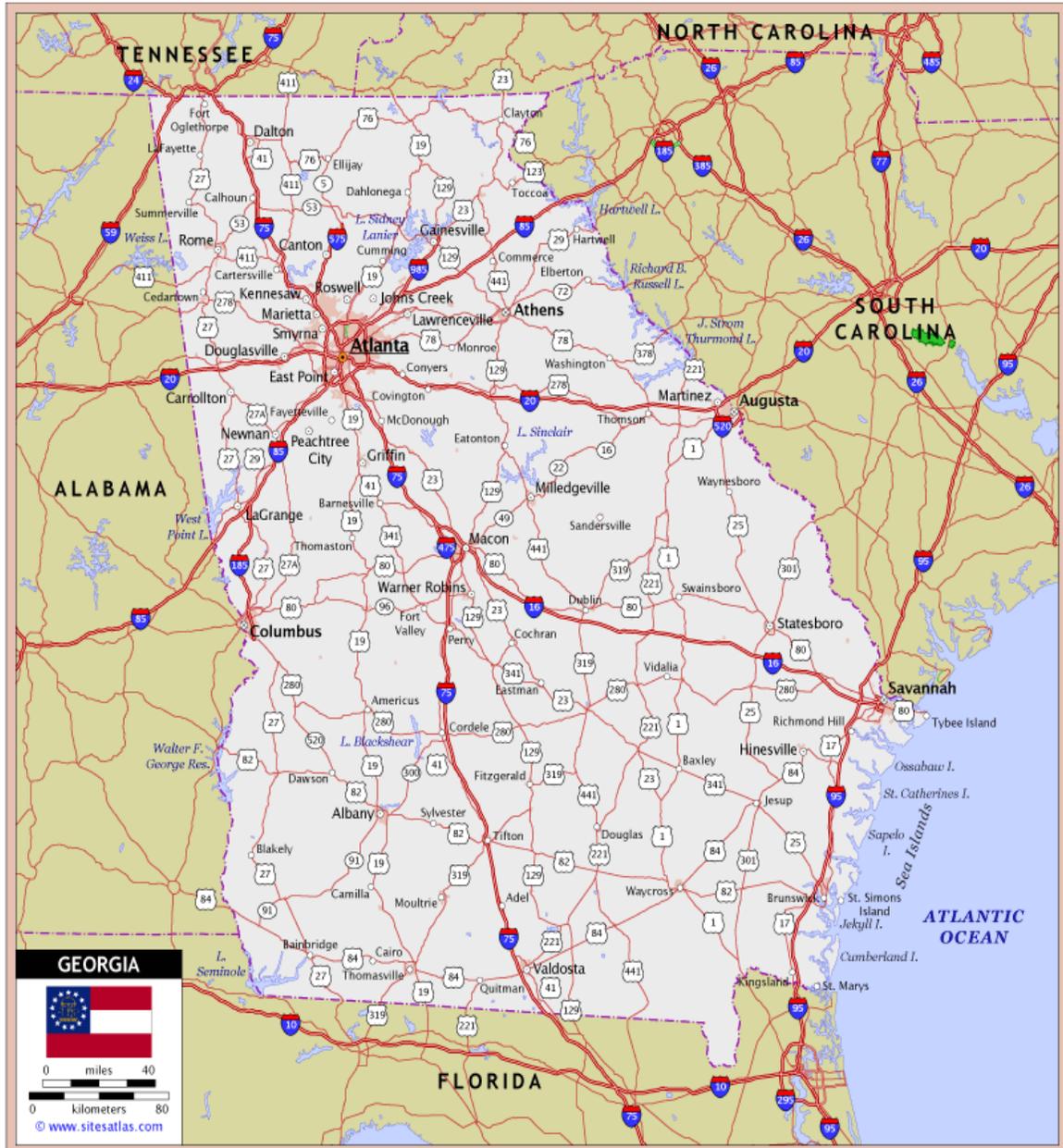
**80% of US
consumer market
is under 2 days by
truck from Georgia.**

GEORGIA TRUCKING PERSPECTIVE

80% of US consumer market is under 2 days by truck from Georgia. ¹⁸¹

Georgia has approximately 450,000 commercially licensed truck drivers. ¹⁸¹

There are about 1,200 miles of interstate highways in Georgia. ¹⁸¹ and 20,000 of federal and state highway miles. ¹⁸¹



Source: www.sitesatlas.com

TRUCK TRANSIT TIMES



AREA DEVELOPMENT MAGAZINE

“TOP STATES FOR DOING BUSINESS”

Rail & Highway Accessibility:

#2 - GEORGIA

Distribution Hub Access:

#3 - GEORGIA

Infrastructure & Global Access:

#2 - GEORGIA

Source: Area Development Magazine, 10/2012

CNBC

“AMERICA’S TOP STATES FOR BUSINESS 2012”

INFRASTRUCTURE & TRANSPORTATION:

#3 - GEORGIA

Source: CNBC, 7/2012

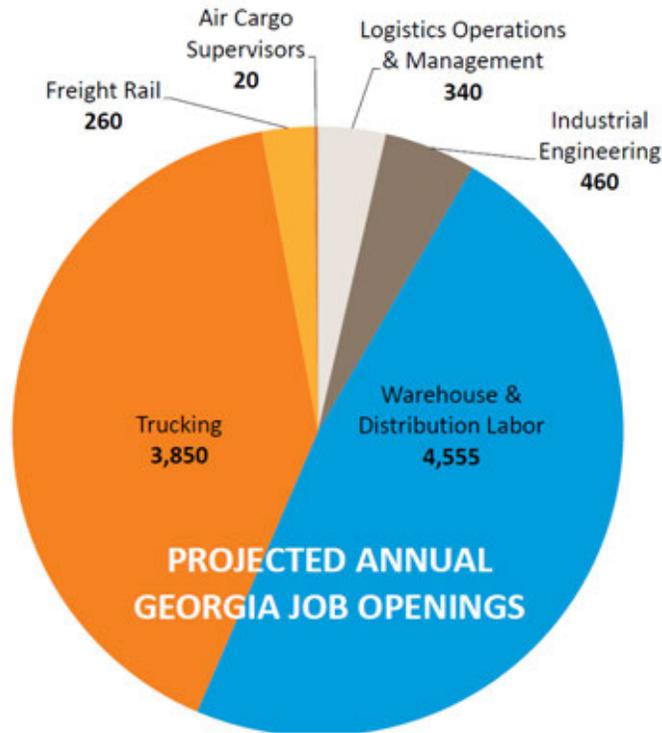
BUSINESS FACILITIES MAGAZINE

“BEST TRANSPORTATION INFRASTRUCTURE”:

#3 - GEORGIA

Source: Business Facilities, 10/2012

PROJECTED ANNUAL GEORGIA LOGISTICS JOB OPENINGS

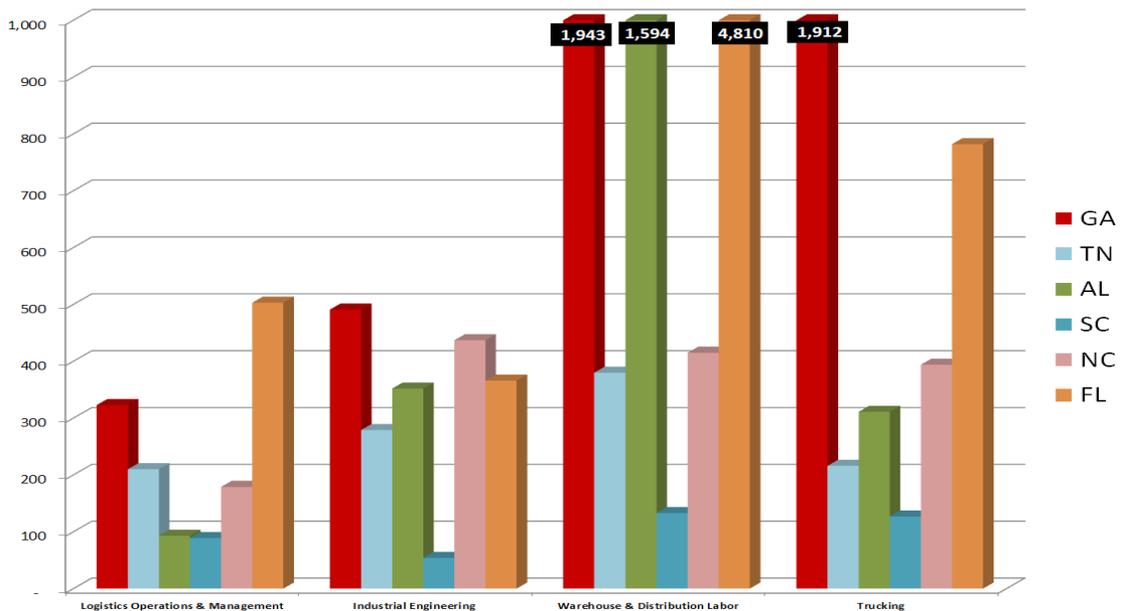


Source: Center of Innovation for Logistics, USDOL

Georgia issues over 51% of all the truck driving certificates in the southeast;

This equates to 1 out of every 8 in the entire nation.

Every year, Georgia issues over 51% of all the truck driving certificates in the southeast; this equates to 1 out of every 8 for the entire nation. Georgia also provides 27% of the total sub-category supply, and 46% of the industrial engineers in the Southeast every year.



Source: Center of Innovation for Logistics, USDOL

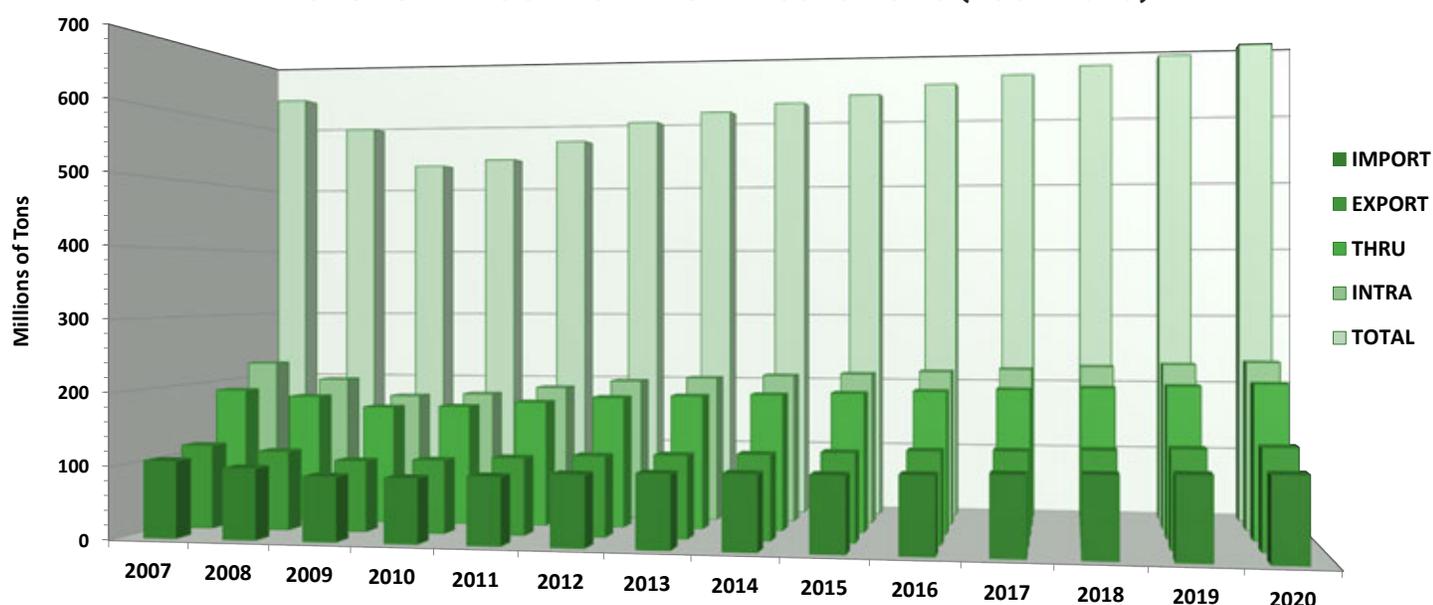
GEORGIA DOMESTIC TRUCK VOLUMES

2012	TRUCK TONS	CARGO VALUE	TRUCK LOADS
Inbound to Georgia	97,490,043	\$363.82 billion	8,213,232
Outbound from Georgia	111,713,106	\$338.12 billion	8,687,179
Moved Inside Georgia	203,312,198	\$325.90 billion	21,340,695
Passed Through Georgia	185,345,836	\$765.50 billion	10,403,516
TOTAL	597,861,184	\$1.79 TRILLION	48,644,621

Source: Center of innovation for logistics, IHS-GLOBAL INSIGHT INC.

As seen above, there were nearly twice as many movements from origins and destination pairs inside Georgia than any other scenario, followed closely by cargo that was flowing directly through Georgia and destined for another location. It is also interesting to note the almost double value difference between intrastate flow and that flowing through the state. This is primarily due to commodity type and their declared value.

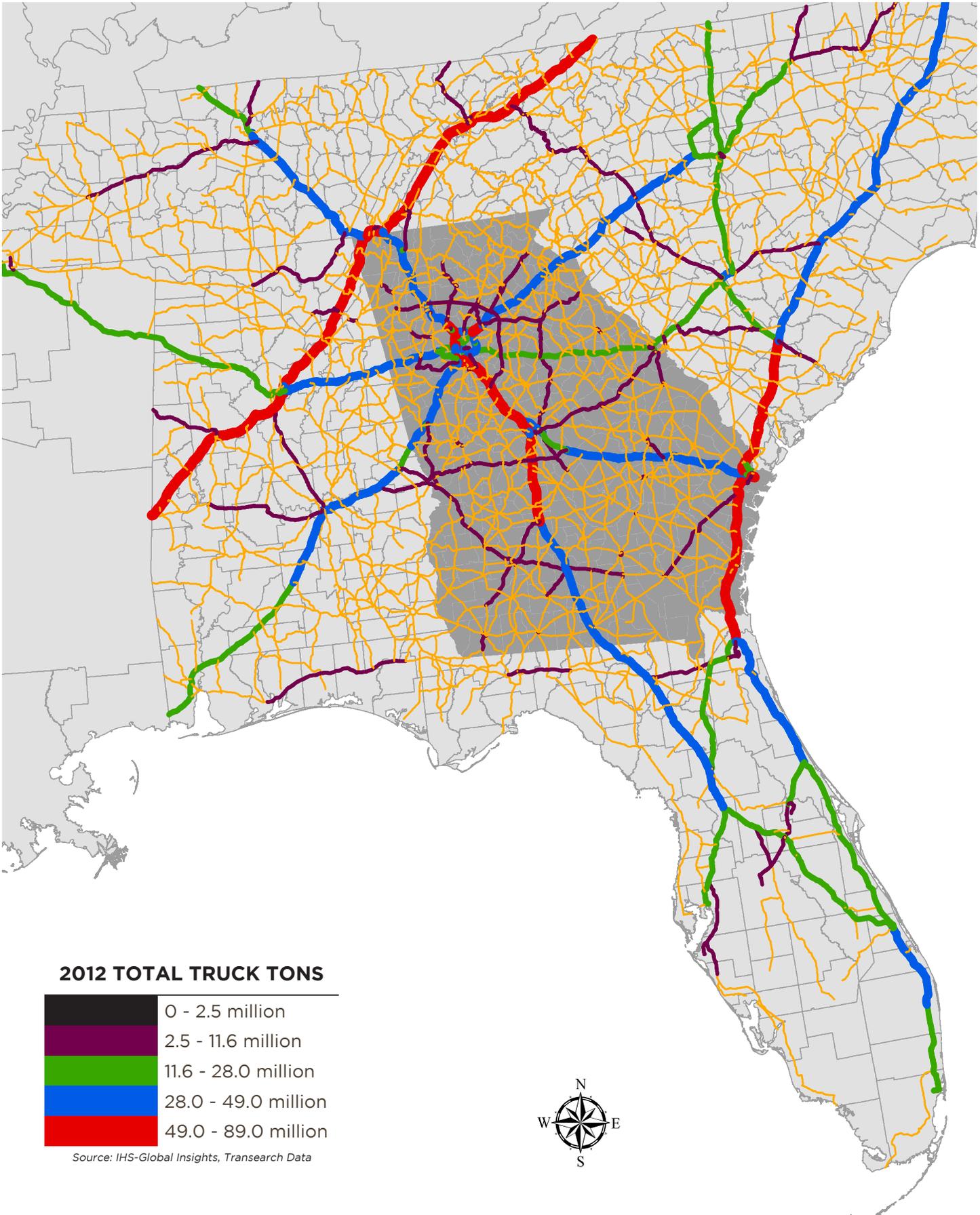
GEORGIA TRUCK TONNAGE PROJECTIONS (2007-2020)

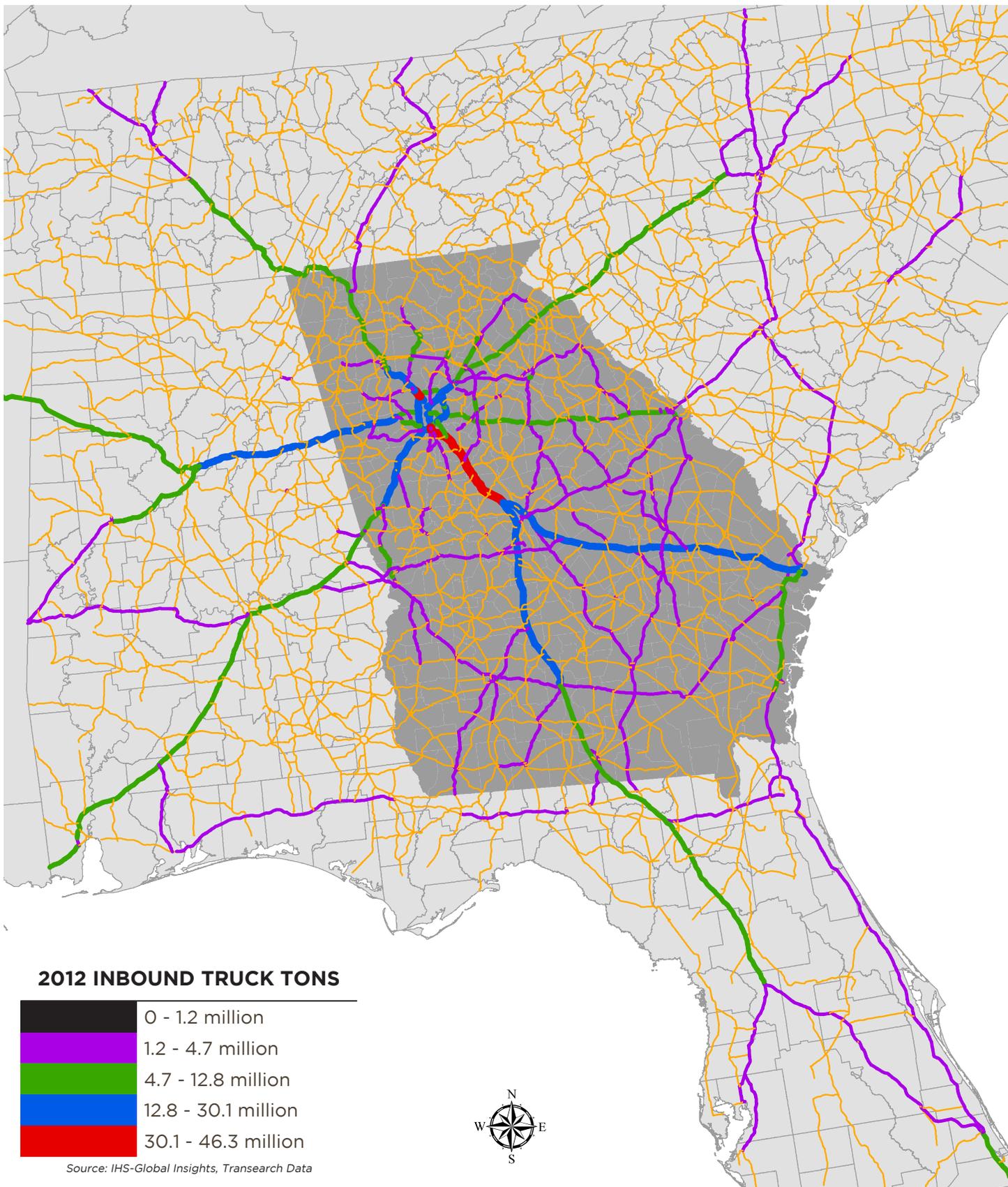


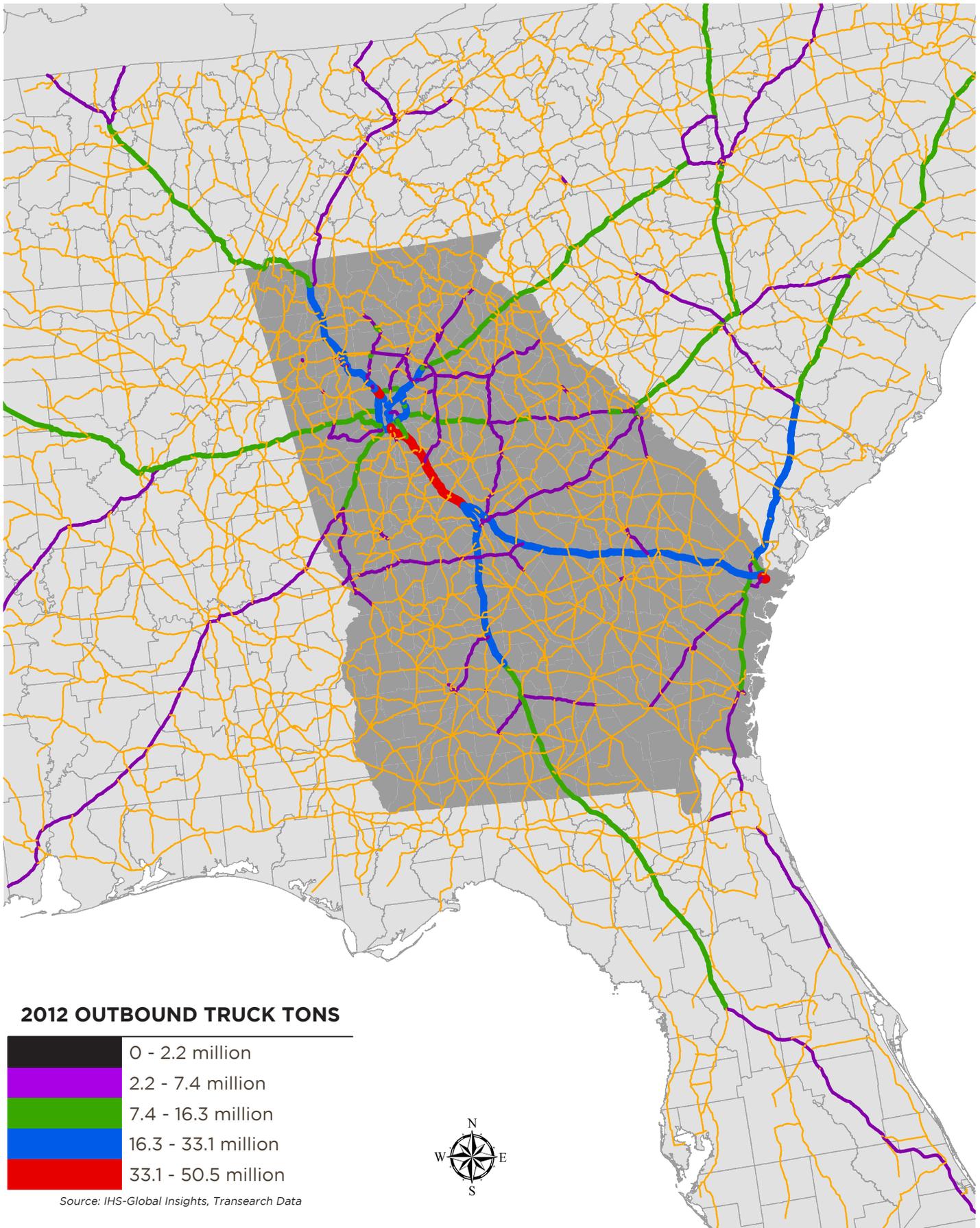
Source: Center of innovation for logistics, IHS-GLOBAL INSIGHT INC.

This data reflects a nearly 18.2% drop in tonnage between 2007 and 2009, when the volumes will begin to slowly rebound. Overall, between 2012 and 2020 these current projections also show a 160 million ton increase, yielding the flow of nearly 700 million tons per year by 2020.

These projections suggest a nearly 18.2 percent drop in truck tonnage between 2007 and 2009







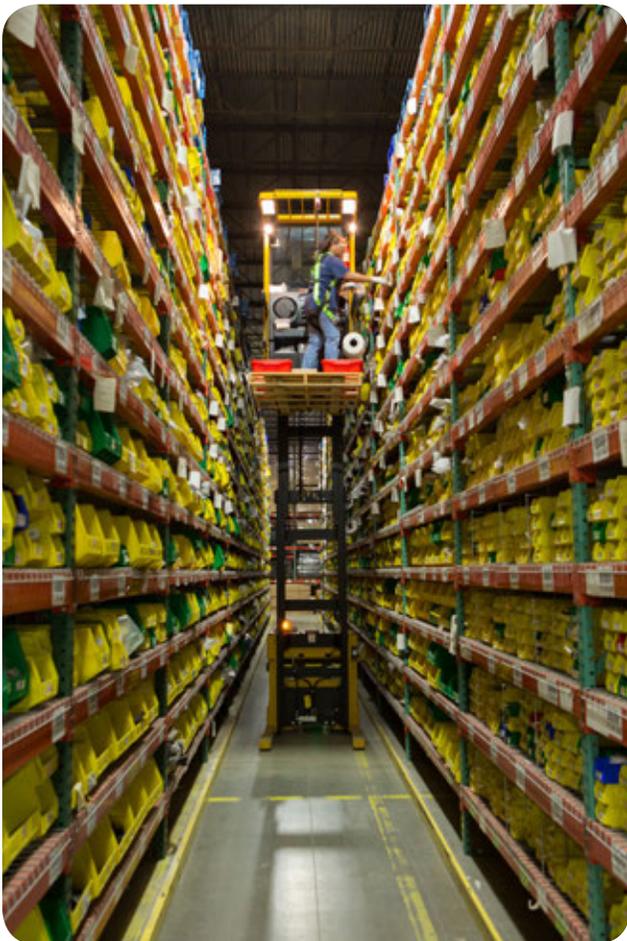


WAREHOUSING & DISTRIBUTION

W&D DEFINED

A warehouse is a commercial building for storage of goods. Warehouses are used by manufacturers, importers, exporters, wholesalers, transport businesses, customs, etc. Stored goods can include any raw materials, packing materials, spare parts, components, or finished goods associated with agriculture, manufacturing and production.

A distribution center for a set of products is a warehouse or other specialized building, often with refrigeration or air conditioning, which is stocked with products (goods) to be redistributed to retailers, to wholesalers, or directly to consumers. A



distribution center is a principal part of the entire order fulfillment process. Distribution centers are usually thought of as being demand driven. A distribution center can also be called a warehouse, a DC, a fulfillment center, a cross-dock facility, a bulk break center, and a package handling center. The name by which the distribution center is known is commonly based on the purpose of the operation. For example a “retail distribution center” normally distributes goods to retail stores, an “order fulfillment center” commonly distributes goods directly to consumers, and a cross-dock facility stores little or no product but distributes goods to other destinations, sometimes to other often regional DC’s.

Distribution centers are the foundation of a supply network, as they allow a single location to stock a vast number of products. Some organizations operate both retail distribution and direct-to-consumer out of a single facility, sharing space, equipment, labor resources, and inventory as applicable.

A typical retail distribution network operates with centers set up throughout a commercial market, with each center serving a number of stores. Large distribution centers for companies such as Wal-Mart serve 50-125 stores. Suppliers ship truckloads of products to the distribution center, which stores the product until needed by the retail location and ships the proper quantity.

SECTION OUTLINE

- INDUSTRY DEFINED
- GLOBAL PERSPECTIVE
- NATIONAL PERSPECTIVE
- GEORGIA PERSPECTIVE

A warehouse is a commercial building for storage of goods. Warehouses are used by manufacturers, importers, exporters, wholesalers, transport businesses, customs, etc.

Distribution centers are the foundation of a supply network, as they allow a single location to stock a vast number of products.

3PL providers provide strategic and operational value to many shippers across the globe

Since a large retailer might sell tens of thousands of products from thousands of vendors, it would be inefficient to ship each product directly from each vendor to each store. Many retailers own and run their own distribution networks, while smaller retailers may outsource this function to dedicated logistics firms that coordinate the distribution of products for a number of companies.

THIRD PARTY LOGISTICS (3PL)

Closely related to traditional warehousing is the Third Party Logistics (3PL) provider which will perform any part of a firm's transportation or storage needs. 3PL providers provide strategic and operational value to many shippers across the globe¹⁴.

Shippers report significant and measurable benefits from outsourcing logistics to 3PL's including improved order fill rate, order accuracy, and costs reduction from logistics costs, inventory costs, and fixed assets reductions ¹⁴.

3PL's provide many valuable logistics services including international and domestic transportation, warehousing, freight forwarding, customs brokerage, reverse logistics, and more ¹⁴. 75% of 3PL companies have less than 10 employees ¹²⁹.



SECTION OUTLINE

- INDUSTRY DEFINED
- **GLOBAL PERSPECTIVE**
- NATIONAL PERSPECTIVE
- GEORGIA PERSPECTIVE

GLOBAL W&D PERSPECTIVE

Globally, the overall revenue of 3PL's topped \$550 billion in 2010 ¹³. The percentage of transportation outsourced to 3PL's reached 56% in 2011, and warehousing outsourced to 3PL's globally was 39% ¹⁴.

The global trend of increased use of **warehouse management system (WMS)** continues, with particularly sharp increases in developing nations ²⁵.

- 2012 has been dubbed the "year of the WMS upgrade" ²⁵.
- Four key players in WMS software are Oracle, SAP, JDA/Red Prairie, and Manhattan Associates ²⁵
- Global Trade Management systems (GTM) may be a valuable new trend regarding compliance issues like product traceability ²⁵.
- **There is a very strong trend of subscription SaaS for WMS systems, as the initial and possibly ongoing cost is lower than purchasing or designing a custom or in-house system ²⁵.**

In China, the firm Alibaba.com is planning to build 32 million feet of warehousing and distribution facilities in the next five years, with a 10 year goal of 8 hour home delivery on any order ⁴⁸.

The continued sharp increase in **online shopping** is driving many changes in the way global supply chains operate, including: ¹⁴¹

- Increase in LTL delivery
 - Decrease in truck delivery distances
 - Increase in the number of air and ground hubs
 - Increase in the number of warehouses and DCs
 - Increased proximity of warehouses and DCs to consumers
 - Increases in productivity driven by improved technology in warehousing and DCs
- Increased volume for regional parcel carriers

2011 TOP 10 GLOBAL 3PLS (by revenue) ²

RANK	COMPANY	REVENUE
1	DHL Supply Chain	\$32.16 Billion
2	Kuehne and Nagel	\$22.18 Billion
3	DB Schenker Logistics	\$20.70 Billion
4	Nippon Express	\$20.31 Billion
5	CH Robinson Worldwide	\$10.34 Billion
6	CEVA Logistics	\$9.60 Billion
7	UPS Supply Chain Solutions	\$8.92 Billion
8	Hyundai-GLOVIS	\$8.59 Billion
9	DSV	\$8.17 Billion
10	Panalpina	\$7.36 Billion

Source: Armstrong & Associates

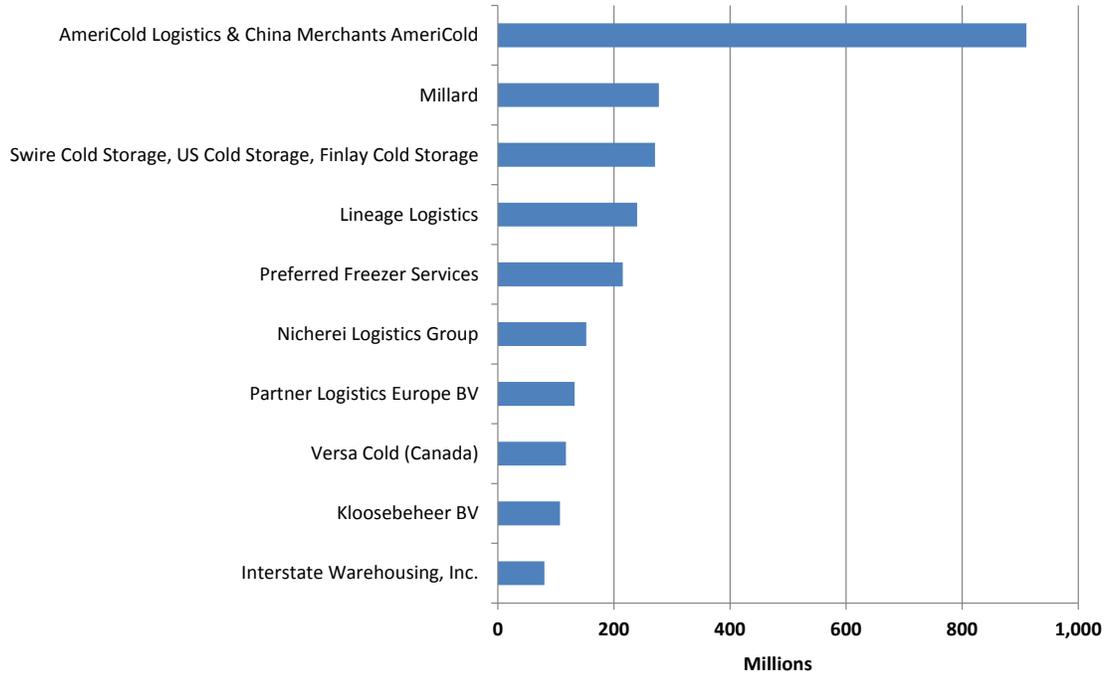
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The Global Top 25 cold storage providers currently operates 3.15 billion cubic feet (89.28 million cubic meters) – an impressive 7% increase from 2011

TOP 10 GLOBAL COLD STORAGE WAREHOUSES ¹⁴⁶



Source: IARW

The Global Top 25 cold storage providers currently operates 3.15 billion cubic feet (89.28 million cubic meters) – an impressive 7% increase from 2011. IARW has members in 65 countries around the world. The Global Top 25 list includes PRW companies with facilities in Argentina, Australia, Canada, China, Denmark, Finland, France, Germany, Italy, Japan, Mexico, the Netherlands, New Zealand, Norway, Poland, Sweden, Vietnam, and the United States of America.

A complete listing of all IARW Members can be found in the 2012-2013 Global Cold Chain Directory, which is available online at: WWW.GCCA.ORG/DIRECTORY.

SECTION OUTLINE

- INDUSTRY DEFINED
- GLOBAL PERSPECTIVE
- **NATIONAL PERSPECTIVE**
- GEORGIA PERSPECTIVE

NATIONAL W&D PERSPECTIVE



Warehousing and distribution assets surrounding seaports and airports continue to distinguish themselves in terms of investment value, leasing volumes and rental rate premiums, outperforming the overall sector⁵⁶. At the end of Q3 2012, about 32 million square feet of warehouse construction was ongoing in the United States¹⁹².

Third largest warehouse company in the United States, Lineage Logistics is aggressively expanding its refrigerated warehouse capacity to become the third largest refrigerated warehouse company in the US, with over 240 million cubic feet of warehouse space²⁰.

Walmart's 158 distribution centers (includes 42 Regional DC's) as of 2013 is one of the largest distribution operation networks in the world. Walmart logistics has a fleet of 6,500 tractors, 55,000 trailers and more than 7,000 drivers. A regional distribution center can have up to 12 miles of conveyor belts, which can move hundreds of thousands of cases through the facility each day.

Each Walmart distribution center is more than 1 million square feet in size, and uses more than 5 miles of conveyor belts to keep products moving to our stores 24 hours a day. Every distribution center supports 90 to 100 stores in a 200-mile radius.
 Source: walmart.com

THE TOP THREE BUDGETED-FOR ITEMS FOR WAREHOUSE/DC MANAGEMENT ARE ²⁹:

- 1) Equipment upgrades; 2) Information technology; and 3) Labor

U.S. W&D INDUSTRY SIZE AND GROWTH

The average warehousing operation in the United States is operating at about 60% capacity, with a continuing decline since 2008 of above 70% capacity ²⁹. The increasing demand for freight around airports and seaports has consequently increased the demand for warehouses around those ports ⁵⁵.

U.S. WAREHOUSING & STORAGE ESTABLISHMENTS (NAICS 493) ¹²⁹

	2002	2007	CHANGE
# of companies	12,671	13,938	+10%
Revenue (\$M)	16,548	21,921	+32.5%
Employment	565,533	720,451	+27.4%

Bureau of Labor Statistics estimates total warehousing/storage jobs to increase by about 2.35% per year between 2010 and 2020, and materials handling jobs to increase by about 2.25% annually during the same time period ²⁶.

THIRD PARTY LOGISTICS PROVIDER ESTABLISHMENTS (3PL'S) ¹²⁹

	2002	2007	CHANGE
# of companies	16,504	21,809	+32.1%
Revenue (\$M)	27,656	45,094	+63.1%
Employment	168,641	248,260	+47.2%
Employment per firm	10.2	11.4	+11.8%

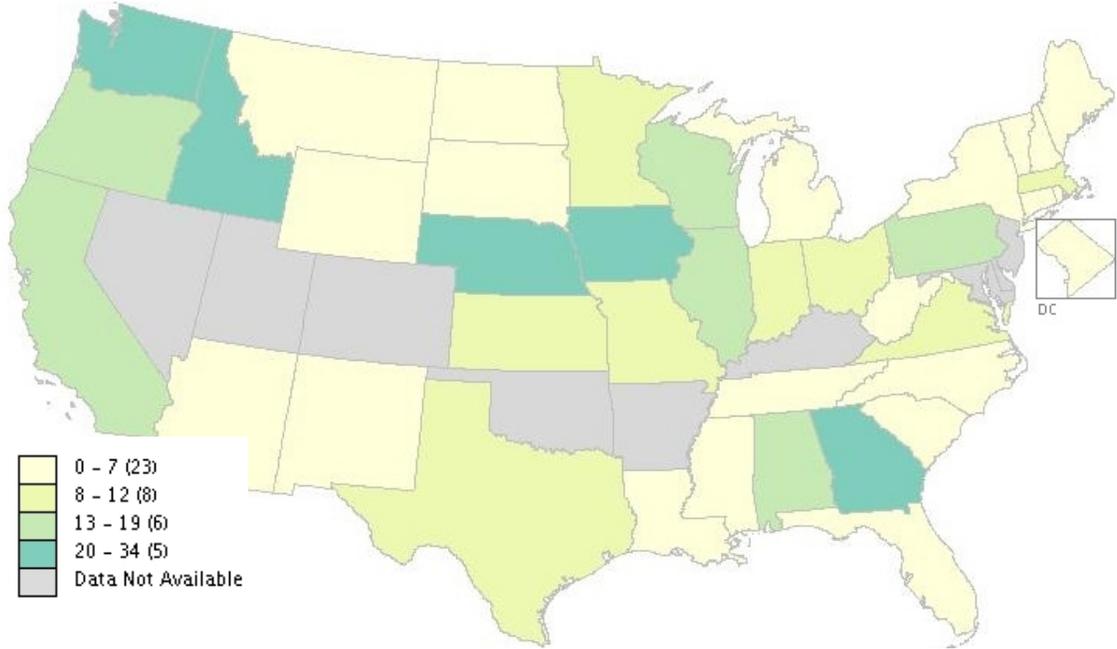
From 2009 to 2010, the increase in 3PL net revenue was 4.7 times the rate of U.S. Gross Domestic Product growth ¹². Gross revenue for 3PLs in the U.S. increased from \$56.6 billion in 2000 to just over \$141 billion in 2011 ¹².

REFRIGERATED WAREHOUSING ESTABLISHMENTS ¹²⁹

	2002	2007	CHANGE
# of companies	1,231	1,114	-9.5%
Revenue (\$M)	2,908	3,391	+16.6%
Employment	45,234	41,561	-8.1%
Employees per firm	36.7	37.3	+1.5%

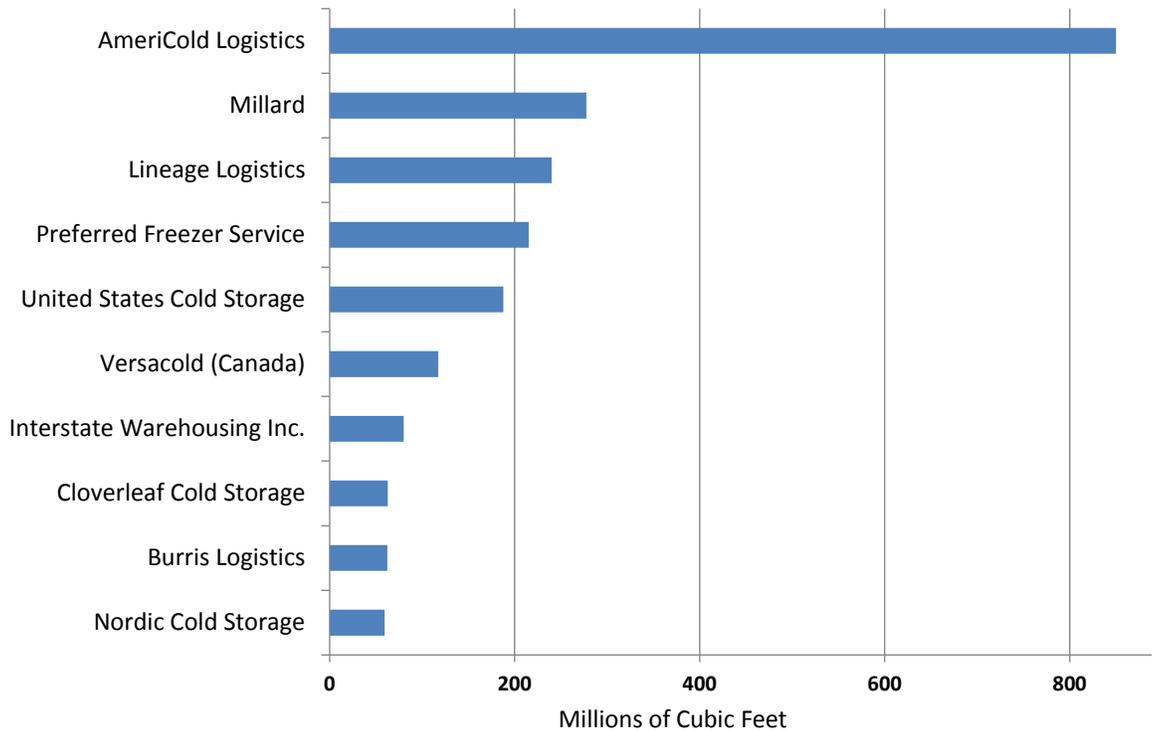
The average warehousing operation in the United States is operating at about 60% capacity, with a continuing decline since 2008 of above 70% capacity ²⁹.

REFRIGERATED WAREHOUSE LOCATION DENSITY (2007)



Source: 2007 U.S Census

TOP NORTH AMERICAN COLD STORAGE WAREHOUSES ¹⁴⁷



Source: IARW

The North American Top 25 currently operates 2.57 billion cubic feet (72.82 million cubic meters) – a 2% increase from 2011.

TEN KEY TRENDS IMPACTING THE NORTH AMERICAN W&D MARKET

Global and regional trends such as the rise of ecommerce and the growth of intermodal hubs are affecting the placement and location of facilities:

1. **OIL PRICES.** Rising oil prices have resulted in some companies re-evaluating supply chains and distribution networks in an attempt to offset cost increases. Companies are expected to expand the number of cross dock facilities in order to reduce the overall distances to customer destinations, hence reducing fuel costs, as well as reducing delivery times.
2. **INCREASE IN INVENTORY LEVELS** – As oil prices and supply chain risk increases, inventory holding levels are expected to rise. As a result of higher transportation costs, many shippers are likely to move away from quick and frequent deliveries to slow and less frequent shipments, thus driving up inventory.
3. **E-COMMERCE.** To support online sales, many brick and mortar retailers are expanding their distribution facilities. While many retailers, such as Adidas, utilize mega-distribution facilities to support both online and in-store inventory, other retailers are building separate, more specialized facilities to support their e-commerce division.
4. **INTERMODAL** transportation, that is, the transport of freight via several modes of transportation – ship, rail and truck, has increased over the past few years and this has led to the construction of intermodal hubs.
5. **LARGER SPACE.** Companies are taking advantage of lower vacancy rates and are “trading up” to larger warehousing and distribution facilities. Many markets are experiencing a shortage of large, quality blocks of space and this is the area which developers will focus.
6. **NEAR-SHORING.** A shift towards regional supply chains, or near-shoring, is resulting in manufacturing moving closer to customer-bases. Rising costs such as oil prices and labor costs are being attributed to this shift, also, risk management, a shorter supply chain, i.e. lower transportation costs and quicker time-to-market are other reasons for the move towards regional supply chains.
7. **CONTAINERIZED IMPORTS.** Over the past ten years, containerized imports have become one of the most important drivers of demand for warehousing and distribution centers in the US.
8. **PANAMA CANAL.** The expansion of the Panama Canal, scheduled for completion in 2014, is a driving force for port infrastructure activities across the region. With two-thirds of the US population located east of the Mississippi River, many of the products that had previously been transported across the country from the West Coast after delivery from Asian markets may now remain on vessels all the way to Eastern ports.
9. **SUSTAINABILITY.** Sustainability measures have been on the rise for many businesses for a variety of reasons such as lowering costs, to customer pressures and to simply “it’s the right thing to do”.
10. **TRADE WITH SOUTH AMERICA** Trade has steadily increased between the US and South America and Brazil is one of the largest trade partners of the US. Miami’s warehousing and distribution market has improved over the past couple of years. Demand in locations such as Miami and Houston is being driven from existing tenants already in the market: renewals, relocation and expansions

Source: WWW.LOGISTICSMGMT.COM

SECTION OUTLINE

- INDUSTRY DEFINED
- GLOBAL PERSPECTIVE
- NATIONAL PERSPECTIVE
- **GEORGIA PERSPECTIVE**

Georgia is home to over 850 warehouse and distribution facilities

GEORGIA W&D PERSPECTIVE

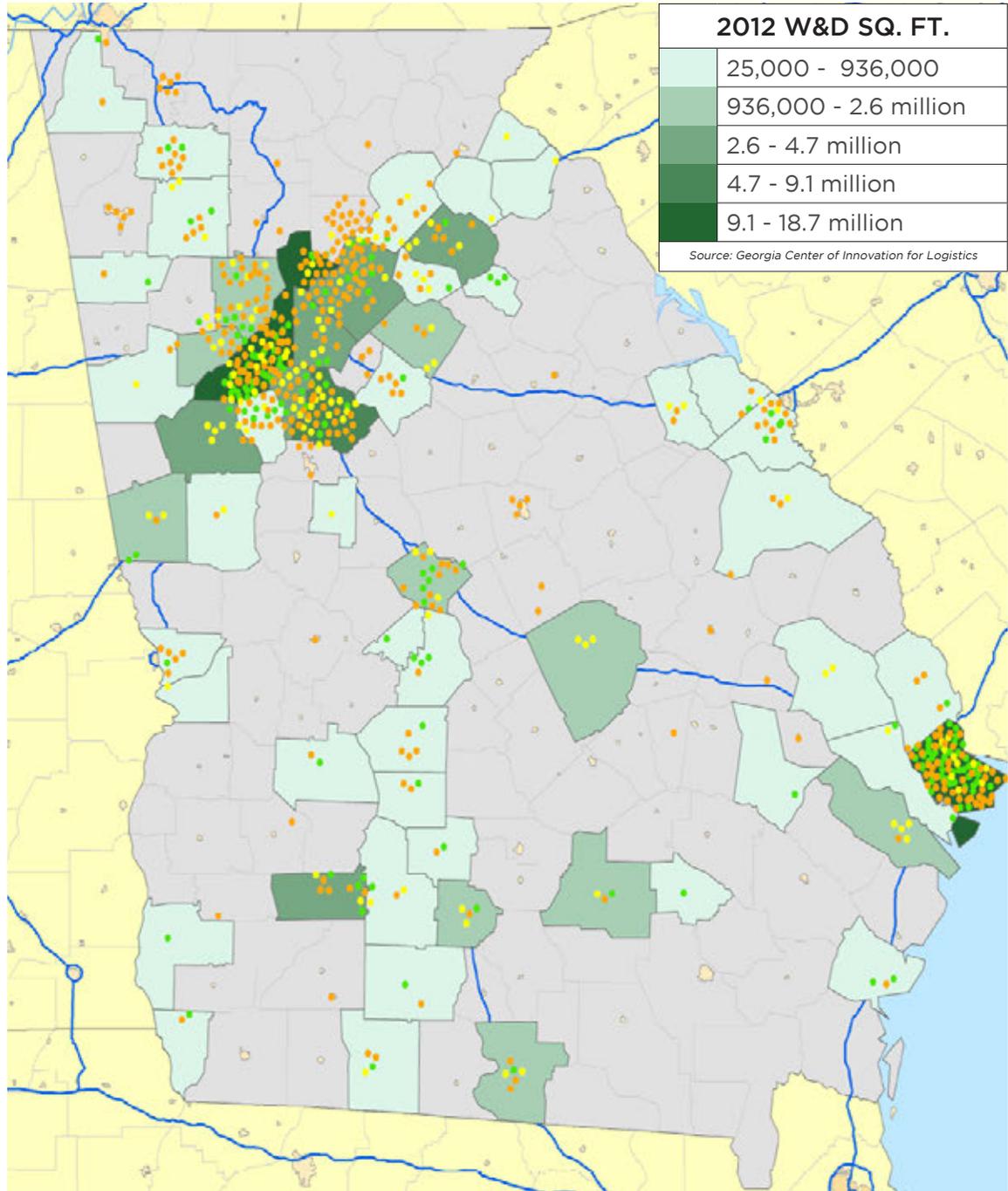
Georgia is home to a total of **864 warehousing and distribution facilities**.¹⁸²

Total storage count of square footage in Georgia: **195 million square feet**.¹⁸²

Approximate number of **W&D employees in 2012: 71,000**

In Georgia, about 3.4 million square feet of warehouse space was under construction at the close of Q3 2012. This was the highest in the nation at the time, and was twice as much as the second ranked in the nation, Tennessee¹⁹².

GEORGIA W&D FACILITY LOCATIONS



FACILITY TYPE	
3PL FACILITY	●
DISTRIBUTION CENTER	●
USER WAREHOUSE	●

70 facilities have cold and/or frozen storage capabilities.

Logistics Users are best described as the customers of the Logistics Providers.

LARGEST GEORGIA DISTRIBUTION CENTERS

Wal-Mart DC	2,200,000	Bulloch	Newell Rubbermaid	755,000	Fulton
K-Mart Corp. DC	2,100,000	Coweta	Lowe's	750,000	Lowndes
Target Import Warehouse	2,000,000	Chatham	Best Buy	748,000	Laurens
JC Penney Co.	2,000,000	Clayton	Colgate-Palmolive	744,331	Douglas
Procter & Gamble Distribution	1,700,000	Dougherty	GE Appliances	725,000	Fulton
Whirlpool	1,500,000	Henry	Kelly Tires (Goodyear)	710,451	Henry
Target Regional DC	1,500,000	Liberty	Chico's Distribution Center	700,000	Barrow
Target	1,500,000	Tift	Mohawk Home	700,000	Gordon
General Mills	1,500,000	Walton	Bluelinx Corp	700,000	Gwinnett
Home Depot	1,400,000	Chatham	JLA Home Furnishings	689,400	Chatham
Lowe's	1,400,000	Floyd	Carlisle Tire & Wheel Co.	676,000	Henry
Solo Cup	1,300,716	Walton	SONY	661,100	Carroll
Lowe's	1,300,000	Fulton	Dick's Sporting Goods	657,200	Fulton
Academy Sports & Outdoors	1,298,646	Twiggs	Tractor Supply Company	650,000	Bibb
Wal-Mart Stores, Inc.	1,200,000	Coffee	Fred's Inc	650,000	Laurens
Publix Super Market	1,200,000	Gwinnett	Wal-Mart	640,000	Carroll
Wal-Mart	1,200,000	Troup	Sugar Food Corp	612,178	Carroll
Carter's	1,100,000	Jackson	Covidien	609,912	Fulton
Wal-Mart Food Distribution Center	1,100,000	Walton	United Stationers Supply	600,674	Gwinnett
Home Depot	1,008,000	Henry	Shaw Industries Inc	600,000	Catoosa
Dollar Tree Stores	1,000,000	Chatham	ICON Health & Fitness	600,000	Chatham
Toys "R" Us	999,900	Henry	Advanced Distribution System	600,000	Clayton
Kraft Foods	973,000	Fulton	Cooper Tire and Rubber Co.	600,000	Dougherty
Macy's	966,640	Dekalb	Electrolux	600,000	Fulton
Gatorade/Pepsico	913,000	Douglas	Walgreens	600,000	Jackson
Kellogg's	903,000	Fulton	Medline Industries	593,404	Douglas
Yamaha Distribution Center	900,000	Coweta	Kohl's Corp	588,000	Bibb
PetsMart	877,500	Coweta	Exel Inc./ Scott's Lawn care	585,489	Fulton
Phillips-Van Heusen Corp	851,349	Henry	Glovis America, Inc.	581,131	Troup
IKEA	850,000	Chatham	Phillips-Van Heusen Corp	561,600	Cobb
Bed, Bath & Beyond	810,000	Jackson	Office Depot	550,000	Gwinnett
Haverty's Furniture	808,000	Jackson	Home Depot	550,000	Lowndes
John Deere Company	800,000	Columbia	Acuity Lighting Group	550,000	Rockdale
Kroger	795,900	Fulton	International Greetings	546,011	Liberty
Nestle USA	789,000	Henry	Home Depot	544,838	Jackson
Pier 1 Imports DC	783,000	Chatham	M & W Distribution Services, Inc.	530,000	Fulton
Aldi	780,849	Jackson	Maytag Co.	527,000	Douglas
K-Mart Distribution Center	780,000	Clayton	Costco	525,000	Fulton
Marshalls	780,000	Dekalb	Walgreens	518,400	Jackson
Del Monte Fresh Produce	780,000	Fulton	Petco	506,240	Jackson
Sears Logistics	772,000	Jackson	Carter Holdings Inc	505,000	Henry
Continental Tire	758,488	Hall			

NOTE: This list represents the best efforts and research to showcase Georgia's largest retail focused DC's. However, it is possible the information has changed and thus some facilities are inadvertently omitted.

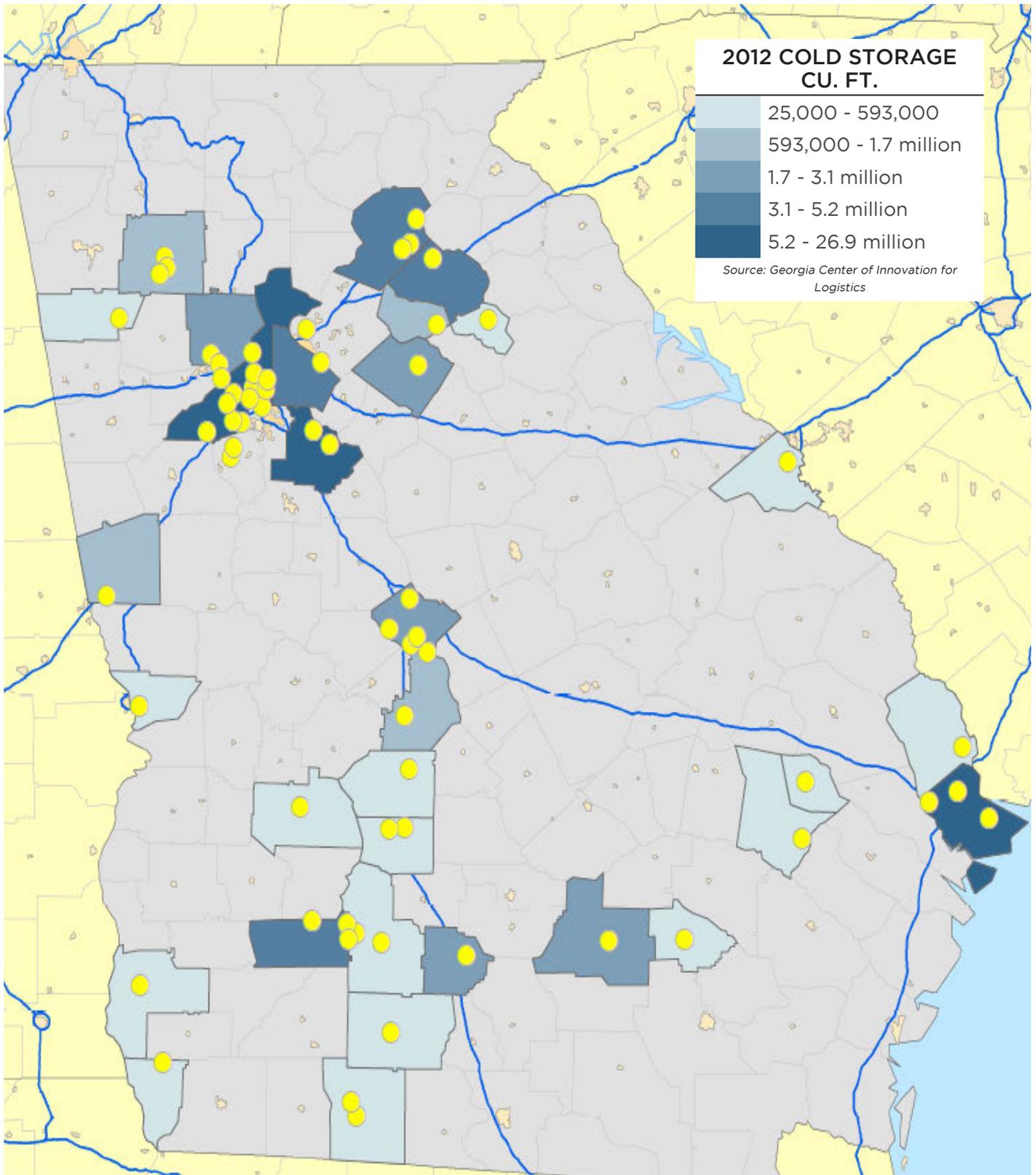
LARGEST GEORGIA 3PL FACILITIES



Saddle Creek	1,750,000	Fulton
Port City Logistics	1,700,000	Chatham
APL Logistics	1,275,000	Douglas
RBW Logistics Corp	1,200,000	Richmond
Schneider Logistics	1,200,000	Chatham
DSL Logistics	897,000	Bibb
Saddle Creek Corp	897,000	Bibb
Matson Logistics	850,000	Chatham
Distribution Services Intl.	830,000	Chatham
Supply Chain Management	800,000	Chatham
Essex Group	700,000	Henry
Ocean Link	700,000	Chatham
JIT Warehousing and Logistics	675,000	Chatham
Gilmer Warehouse & Logistics	621,000	Houston
Coastal Logistics Group	600,000	Chatham
Exel Logistics Inc	585,000	Douglas
Anderson Merchandisers	500,000	Barrow
Outsource Logistics	500,000	Lowndes
D&H Distribution Services	476,000	Coweta
All Southeast Distribution	464,000	Fulton
TNT Logistics	463,000	Fulton
Kuehne + Nagel	425,000	Fulton
Exel Logistics/Unilever Best foods	422,304	Fulton
Exel Logistics/SC Johnson	410,000	Fulton
Ups Supply Chain Solutions	406,989	Dekalb
Exel/Procter & Gamble	400,314	Fulton
Shippers Warehouse	400,000	Clayton
Distribution Services International	400,000	Chatham
NFI	400,000	Chatham
Carrier Management	400,000	Gwinnett
Distribution Services of Atlanta	376,531	Fulton
Gateway Warehouse of Georgia	350,000	Bartow
Amware Logistics	322,560	Fulton
Ozburn-Hessey Logistics	320,000	Henry
HWC Logistics	305,000	Clayton
DFDS Transport Air and Sea	305,000	Fulton

NOTE: The numbers shown above include both single facility sizes and a combined total when a single company has multiple facilities in one county. This list is not intended to be complete, and some companies' footprints may have changed and thus been unintentionally omitted.

GEORGIA COLD STORAGE LOCATIONS (2011)



LARGEST GEORGIA COLD-STORAGE FACILITIES



Wal-Mart Food DC	1,100,000	Walton
Service First Logistics	950,000	Fulton
Lineage Logistics	840,700	Dougherty
Kroger	795,900	Fulton
Del Monte Fresh Produce	780,000	Fulton
Nordic Cold Storage	750,000	Dekalb
Millard Refrigerated Services	681,436	Henry
Americold	650,000	Fulton
Americold	606,000	Fulton
Sysco Food Services	500,000	Fulton
Cagle's Farms	500,000	Polk
Nordic Cold Storage	400,000	Chatham
Signature Packing	400,000	Jackson
Americold	335,000	Fulton
Americold	301,654	Henry
McLane Food Service	300,000	Athens-Clarke
Americold	290,000	Bartow
Burriss Logistics Inc	264,000	Fulton
Americold	263,000	Fulton
Lineage Logistics	255,600	Effingham
Nordic Cold Storage	250,000	Fulton
Preferred Freezer Services	250,000	Fulton
Lineage Logistics	241,400	Dooly
Reinhart FoodService	227,000	Cobb
Lanier Cold Storage	225,000	Hall
Eskimo Cold Storage	225,000	Hall
APL Ltd.	216,000	Cobb
Sara Lee	214,000	Bibb
Dot Foods	204,640	Toombs
Georgia Cold Storage	185,000	Sumter
Americold	181,000	Fulton
Perdue Farms	177,100	Houston
Dole Foods	166,720	Chatham
Georgia Cold Storage	160,000	Muscogee
Americold	159,000	Fulton
Americold	135,000	Thomas
Saddle Creek Cold Storage	130,000	Bibb
MBM Corporation	107,100	Crisp



RETAIL INDUSTRY

THE RETAIL INDUSTRY DEFINED

Retailers are online and offline businesses that sell and re-sell goods to consumers. Retailers are at the end of the supply chain and distribute through a shop or website to end users for a profit. Retail is usually classified by type of products as follows:

- **Food Products**
- **Durable Goods** - Goods that do not quickly wear out and provide utility over time. (*i.e. appliances, electronics, furniture, sporting goods, etc.*)
- **Consumables** - Goods that are consumed after one use or have a limited period - typically under three years - in which you may use them (*i.e. clothing, household products, and other fast moving consumer goods*)

THE 7 MAIN TYPES OF RETAILERS:

Department Store: This type of retailer is often the most complex offering a wide range of products and can appear as a collection of smaller retail stores managed by one company.

Supermarkets: Generally this type of retailer concentrates in supplying a range of food and beverage products.

Warehouse retailers: This type of retailer is usually situated in retail or Business Park and where premises rents are lower.

Specialty Retailers: Specializing in specific industries or products, this type of retailer is able to offer the customer expert knowledge and a high level of service. Often called a “category killer” in the industry.

eCommerce: This type of retailer enables customers to shop on-line via the internet and buy products which are then delivered.

Convenience Retailer: Usually located in residential areas this type of retailer offers a limited range of products at premium prices due to the added value of convenience.

Discount Retailer: This type of retailer offers a variety of discounted products, offering low prices on less fashionable branded products from a range of suppliers.



SECTION OUTLINE

- INDUSTRY DEFINED
- GLOBAL PERSPECTIVE
- NATIONAL PERSPECTIVE
- GEORGIA PERSPECTIVE

Retailers are online and offline businesses that sell and re-sell goods to consumers.

Retailers are at the end of the supply chain and distribute through a shop or website to end users for a profit.

SECTION OUTLINE

- INDUSTRY DEFINED
- **GLOBAL PERSPECTIVE**
- NATIONAL PERSPECTIVE
- GEORGIA PERSPECTIVE

The Americas represent more than 40% of the global online retail industry.

GLOBAL RETAIL PERSPECTIVE

The global retail market generated more than \$10.5 trillion in 2010 and \$10.9 trillion in 2011, representing a compound annual growth rate (CAGR) of 4.3% between 2007 and 2011 according to research from MarketLine. Market expansion is expected to record yearly growth of close to 5% through 2015 to exceed \$13.2 trillion and estimated to reach \$20 trillion in 2017. Food and groceries represent the leading market segment, generating more than \$6.7 trillion in 2011, or close to 61% of the overall market.



2012 TOP 20 GLOBAL RETAILERS

GLOBAL RETAIL SALES RANK	COMPANY	COUNTRY OF ORIGIN	2011 RETAIL REVENUE (\$BILLION)	NUMBER OF COUNTRIES W/ OPERATIONS
1	Wal-Mart Stores, Inc.	U.S.	\$447.9	28
2	Carrefour S.A.	France	\$113.2	33
3	Tesco PLC	U.K.	\$101.6	13
4	Metro AG	Germany	\$92.9	33
5	The Kroger Co.	U.S.	\$90.4	1
6	Costco Wholesale Corporation	U.S.	\$88.9	9
7	Schwarz Unternehmens Treuhand KG	Germany	\$87.8	26
8	Aldi Einkauf GmbH & Co. oHG	Germany	\$73.4	17
9	Walgreen Co.	U.S.	\$72.2	2
10	The Home Depot, Inc.	U.S.	\$70.4	5
11	Target Corporation	U.S.	\$68.5	1
12	Groupe Auchan SA	France	\$60.5	12
13	Aeon Co., Ltd.	Japan	\$60.2	9
14	CVS Caremark Corp.	U.S.	\$59.6	2
15	Edeka Zentrale AG & Co. KG	Germany	\$59.5	1
16	Seven & i Holdings Co., Ltd.	Japan	\$57.9	18
17	Woolworths Limited	Australia	\$54.6	2
18	Wesfarmers Limited	Australia	\$52.2	2
19	Rewe Combine	Germany	\$51.3	11
20	Best Buy Co., Inc.	U.S.	\$50.7	13

Source: National Retail Federation - 2012 Annual Global Top 250 Retailers Report

Total revenue of global top 250 retailers: \$4.27 trillion

The average size of each of the top 250 retailers: \$17.1 billion (minimum size was \$3.72 billion) Also, on average the top 250 operate in 9 countries, generate about 24% of their revenue from foreign operations and have a yearly growth rate of 5%.

The global online retail industry is expected to reach almost \$830 billion in 2015, reports MarketLine. This represents 90% market expansion in just five years. Electronics are the leading market segment, with close to 34% of the overall market. The Americas represent more than 40% of the global online retail industry.

2012 GLOBAL RETAIL DEVELOPMENT INDEX

The Global Retail Development Index™ (GRDI) is an annual study that ranks the top 30 developing countries for retail expansion worldwide. The Index analyzes 25 macroeconomic and retail-specific variables to help retailers devise successful global strategies and to identify emerging market investment opportunities. The GRDI is unique because it identifies today's most successful markets and those that offer the most potential for the future.

■ On the radar screen ■ To consider ■ Lower

2012 rank	Country	Region	Market attractiveness (25%)	Country risk (25%)	Market saturation (25%)	Time pressure (25%)	GRDI score	Change in rank comp. to 2011
1	Brazil	Latin America	100.0	85.4	48.2	61.6	73.8	0
2	Chile	Latin America	86.6	100.0	17.4	57.1	65.3	0
3	China	Asia	53.4	72.6	29.3	100.0	63.8	+3
4	Uruguay	Latin America	84.1	56.1	60.0	52.3	63.1	-1
5	India	Asia	31.0	66.7	57.6	87.9	60.8	-1
6	Georgia	Central Asia	27.0	68.7	92.6	54.0	60.6	N/A
7	United Arab Emirates	MENA	86.1	93.9	9.4	52.9	60.6	+1
8	Oman	MENA	69.3	98.3	17.4	50.4	58.9	N/A
9	Mongolia	Asia	6.4	54.4	98.2	75.1	58.5	N/A
10	Peru	Latin America	43.8	55.5	62.9	67.2	57.4	-3
11	Malaysia	Asia	56.7	98.1	18.9	54.8	57.1	+8
12	Kuwait	MENA	81.1	88.7	36.4	20.3	56.6	-7
13	Turkey	Eastern Europe	78.8	69.3	32.3	33.1	53.4	-4
14	Saudi Arabia	MENA	63.1	81.8	35.4	33.0	53.3	-4
15	Sri Lanka	Asia	12.7	68.3	79.0	51.3	52.8	+6
16	Indonesia	Asia	39.6	61.6	47.0	62.4	52.7	-1
17	Azerbaijan	Central Asia	19.2	41.5	93.6	53.2	51.9	N/A
18	Jordan	MENA	45.8	65.3	69.5	23.8	51.1	N/A
19	Kazakhstan	Central Asia	31.5	47.5	75.5	47.5	50.5	-5
20	Botswana	Sub-Saharan Africa	44.4	88.1	42.7	23.7	49.7	N/A
21	Macedonia	Eastern Europe	34.6	46.5	55.9	56.6	48.4	+8
22	Lebanon	MENA	60.2	30.2	48.9	54.2	48.4	-10
23	Colombia	Latin America	47.8	70.1	36.7	36.6	47.8	+1
24	Panama	Latin America	53.4	68.8	42.0	25.2	47.4	+2
25	Albania	Eastern Europe	24.6	47.6	74.8	39.9	46.7	-12
26	Russia	Eastern Europe	80.2	53.6	19.6	32.2	46.4	-15
27	Morocco	MENA	23.5	58.2	48.2	49.2	44.8	-7
28	Mexico	Latin America	71.9	70.0	15.1	20.3	44.3	-6
29	Philippines	Asia	28.3	54.6	52.5	38.3	43.4	-13
30	Tunisia	MENA	35.7	55.4	65.0	14.4	42.6	-12

Source: [AT&Kearney's 2012 Global Retail Development Index](#)

over 2 billion people used the internet in 2011

Global department store sales will reach almost \$425 billion by 2015

There are an estimated 3.184 billion people making up the world's labor force

E-commerce will grow to \$1.4 trillion in total sales by 2015 and \$2.7 trillion by 2025

GLOBAL RETAIL SUB-INDUSTRIES

The global e-commerce industry is boosted by wider internet penetration, with over 2 billion people using the internet in 2011, reports yStats.com. Business- to-consumer e-commerce showed strong growth in the US in 2011 but is forecasted to slow over the years to come. Growth in other regions will gain momentum, including Brazil, where e-commerce sales rose 30% year-on-year in 2011. Growth potential is particularly strong in Eastern Europe; between 2009 and 2010 market growth entered the double-digits in Russia, Poland and Czech Republic.



The world specialty retail market reached almost \$7.16 trillion in 2010, according to MarketLine. The industry is expected to record yearly growth of almost 4.5% through 2015 to reach almost \$8.87 trillion. Automotive retail represents the leading market segment, reaching almost \$4 trillion in 2010 or 55% of the overall market. Products encompassed in the specialty retail industry include computer and electronics, automotive retail, home furnishing retail, apparel retail and specialty stores.

The multi-line retail industry generated almost \$1.64 trillion in 2010, reports MarketLine. The market is expected to record yearly growth of over 3.5% through 2015 to exceed \$1.96 trillion. Apparel and footwear represent the leading market segments, generating almost \$473 billion, or close to 30% of the overall market.

The global retail technology industry to be worth almost \$7 billion, set to increase to \$9.5 billion in 2015, representing yearly growth of almost 6.5%, according to BCC Research estimates. The market refers to retail technologies at mobile self-scanners, electronic fund transfer point-of-sale terminals, point-of-sale terminals and self-checkout terminals. The latter is expected to record the strongest growth through 2015, growing from under \$485 million in 2010 to over \$1 billion in 2015, marking yearly growth of 18%.



Global department store sales will reach almost \$425 billion by 2015, global industry analysts estimate. Strong growth is forecast in emerging markets such as Latin America, Middle East and Asia. There will be a simultaneous falling off in the EU, Japan and the US, where other players are encroaching on the market, including discount stores, supermarkets and specialized retailers.

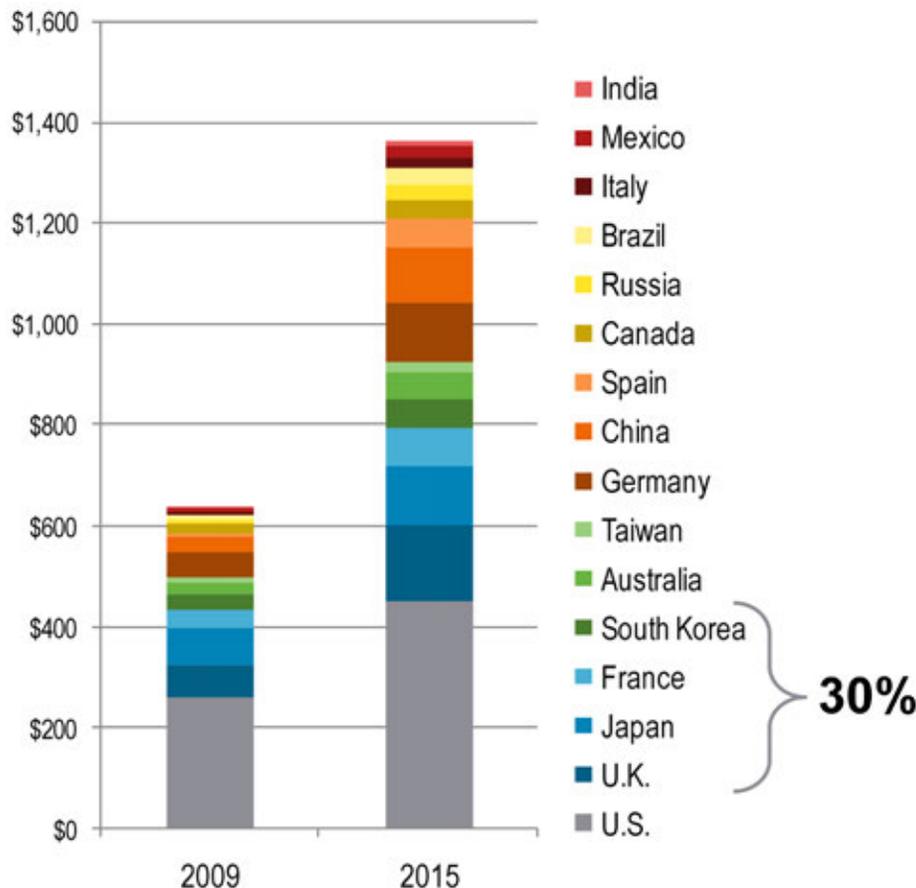
The convenience store industry is recording strong growth in Asia, even through the economic recession, reports RNCOS. The US and the UK are well-established regional markets, where convenience store saturation limits growth potential. The South Korean convenience store market exceeded \$225 billion in 2010. Convenience stores represent less than 1% of grocery outlets in countries such as Vietnam, China and Indonesia, representing huge market growth potential. *Source: selectusa.commerce.gov*

E-COMMERCE AND THE MULTICHANNEL RETAILER

It is the age-old problem of having the right product at the right place at the right time, but now the right place is not just within the store and now the right time is much sooner than before.

As the technological revolution accelerates, consumers have completely changed how they shop, how they make purchasing decisions and what they expect from retailers. Differentiation between purchasing channels - from mobile to online to in a store - is quickly fading. Coupled with this phenomenon are the innovations being made within the logistics and distribution sector, which provide new opportunities for retailers and suppliers to bring product "to the table" in an increasingly competitive global environment.

GLOBAL DISTRIBUTION OF E-COMMERCE SALES IN \$BILLIONS



Source: CISCO, IBSG 2010

The global online retail industry is expected to reach almost \$830 billion in 2015,

Convenience stores represent less than 1% of grocery outlets in countries such as Vietnam, China and Indonesia,

The influx of e-commerce has completely changed the state of retail. Technological advancement has led to shifts in information availability, and the access to and utilization of this data has given consumers around the world the ability to shop



regardless of location. The result is that the store is everywhere: in the consumer's pocket, at their home and office and at the mall. The global economic downturn, with its destruction of household wealth and crunch on retail credit, undoubtedly influenced consumer buying trends.

Today, 91% of all purchases are made at a physical store, but expected to fade to only 76% over the next 5 years.

E-commerce will grow to \$1.4 trillion in total sales by 2015 and \$2.7 trillion by 2025 representing a full 30% of all retail sales, and 13.5% CAGR rate over the next 6-years.

30% of growth was attributed to the 5.5 million consumers who shopped online for the first time in 2010.

On average, the online retailers surveyed in Forrester and Shop.org's annual The State of Retailing Online study saw growth of 28% in 2012 over 2011.

Forrester's mobile commerce forecast figures show a minority of eCommerce sales (less than 5%) coming from phones, however retailers said that, on average, they experienced a 129% lift in year-over-year sales from smart phones and a 178% lift from tablets.





NATIONAL RETAIL PERSPECTIVE

Numerous opportunities for growth exist in the U.S. retail market for retail providers of all sizes, including individual direct marketers or direct sellers, small- to medium-sized franchise unit owners, and large “big-box” store operators. New distribution companies are opening stores and units daily to serve a large, affluent consumer base.

U.S. RETAIL INDUSTRY (NON-FOOD & BEVERAGE)

ANNUAL SALES	ANNUAL SALES (NON-STORE RETAILERS)	RETAILERS	EMPLOYEES	PAYROLL
\$3.9 trillion	\$306.9 billion	1.1 million	15.6 million	\$369.3 billion

According to the National Retail Federation, retailers operate more than 3.6 million U.S. establishments (*Including Food and Beverage retailers*) that support one in four U.S. jobs – 42 million working Americans, and contribute \$2.5 trillion to annual GDP.

The latest annual report from the U.S. Commerce Department showed total retail sales reached \$4.7 trillion in 2011, which represents an 8% increase over 2010 total retail sales (including food service and automotive).

SECTION OUTLINE

- INDUSTRY DEFINED
- GLOBAL PERSPECTIVE
- **NATIONAL PERSPECTIVE**
- GEORGIA PERSPECTIVE

Retail sales reached \$4.7 trillion in 2011

2011 TOP 30 U.S. RETAILERS

RANK	COMPANY	HEADQUARTERS	U.S. RETAIL SALES (BILLIONS)	SALES GROWTH ('11 V '10)	WORLDWIDE RETAIL SALES (BILLIONS)	U.S. % OF WORLDWIDE SALES	# OF STORES
1	Wal-Mart	Bentonville, Ark.	\$316.1	2.60%	\$453.9	69.60%	4,423
2	Kroger	Cincinnati	\$85.5	9.10%	\$85.5	100.00%	3,574
3	Target	Minneapolis	\$68.5	4.10%	\$68.5	100.00%	1,763
4	Walgreen	Deerfield, Ill.	\$66.3	8.30%	\$68.2	97.20%	7,651
5	Costco	Issaquah, Wash.	\$64.2	8.90%	\$89.1	72.10%	425
6	The Home Depot	Atlanta, GA	\$62.1	3.10%	\$70.3	88.20%	1,963
7	CVS Caremark	Woonsocket, R.I.	\$59.7	3.90%	\$59.8	99.80%	7,345
8	Lowe's	Mooresville, N.C.	\$49.3	2.30%	\$50.2	98.20%	1,712
9	Best Buy	Richfield, Minn.	\$37.6	1.20%	\$50.7	74.10%	1,443
10	Safeway	Pleasanton, Calif.	\$36.9	5.60%	\$41.9	88.20%	1,453
11	McDonald's	Oak Brook, Ill.	\$34.2	5.50%	\$85.9	39.80%	14,087
12	Sears Holdings	Hoffman Estates, Ill.	\$33.8	-4.30%	\$39.4	86.00%	3,489
13	SUPERVALU	Eden Prairie, Minn.	\$29.3	-3.60%	\$29.3	100.00%	2,466
14	Publix	Lakeland, Fla.	\$26.9	7.60%	\$26.9	100.00%	1,198
15	Amazon.com	Seattle	\$26.4	42.50%	\$47.7	55.30%	0
16	Macy's	Cincinnati	\$26.3	5.70%	\$26.4	99.80%	840
17	Rite Aid	Camp Hill, Pa.	\$25.3	0.60%	\$25.3	100.00%	4,664
18	Ahold USA	Washington, D.C.	\$25.1	6.60%	\$63.1	39.80%	756
19	Delhaize America	Salisbury, N.C.	\$19.2	2.20%	\$29.4	65.40%	1,650
20	Kohl's	Menomonee Falls, WI	\$18.8	2.20%	\$18.8	100.00%	1,127
21	Apple Stores	Cupertino, Calif.	\$17.8	36.90%	\$18.4	96.80%	245
22	TJX	Framingham, Mass.	\$17.4	3.80%	\$23.3	74.70%	2,212
23	J.C. Penney	Plano, Texas	\$17.1	-2.90%	\$17.2	99.50%	1,105
24	True Value	Chicago	\$17.1	2.40%	\$17.1	100.00%	4,650
25	YUM! Brands	Louisville, Ky.	\$17.1	0.60%	\$32.4	52.80%	18,050
26	H-E-B	San Antonio	\$16.8	11.90%	\$17.9	93.60%	308
27	Meijer	Grand Rapids, Mich.	\$16.6	7.10%	\$16.6	100.00%	197
28	Dollar General	Goodlettsville, Tenn.	\$14.8	13.60%	\$14.8	100.00%	9,937
29	ShopRite	Keasbey, N.J.	\$12.8	8.60%	\$12.8	100.00%	291
30	BJ's Wholesale	Westborough, Mass.	\$11.8	8.50%	\$11.8	100.00%	196

Source: www.stores.org

COMPARISON OF TOTAL QUARTERLY RETAIL & E-COMMERCE SALES

QUARTER	RETAIL SALES		E-COMMERCE AS A % OF TOTAL	% CHANGE FROM PRIOR QUARTER		% CHANGE YOY	
	TOTAL	E-COMMERCE		TOTAL	E-COMMERCE	TOTAL	E-COMMERCE
Q3-2012	\$1.09 trillion	\$56.98 billion	5.2%	1.4%	3.7%	4.6%	17.3%
Q2-2012	\$1.08 trillion	\$54.94 billion	5.1%	-0.4%	3.5%	4.3%	15.5%
Q1-2012	\$1.08 trillion	\$53.09 billion	4.9%	1.5%	2.9%	6.4%	15.3%
Q4-2011	\$1.07 trillion	\$51.58 billion	4.8%	2.0%	6.2%	7.5%	15.1%
Q3-2011	\$1.05 trillion	\$48.59 billion	4.7%	1.2%	2.1%	8.9%	12.9%

Source: US Department of Commerce, US Department of Labor

GEORGIA RETAIL PERSPECTIVE

SECTION OUTLINE



- INDUSTRY DEFINED
- GLOBAL PERSPECTIVE
- NATIONAL PERSPECTIVE
- **GEORGIA PERSPECTIVE**

GEORGIA RETAIL INDUSTRY (NON-FOOD & BEVERAGE)

	ANNUAL SALES	ANNUAL SALES (NON-STORE RETAILERS)	RETAILERS	EMPLOYEES	PAYROLL
UNITED STATES	\$3.9 trillion	\$306.9 billion	1.1 million	15.6 million	\$369.3 billion
GEORGIA	\$115.5 billion	\$4.5 billion	35,371	476,000	\$10.6 billion
GA % OF U.S. TOTAL	3%	1.5%	3.2%	3.1%	3%

Source: US Department of Commerce, US Department of Labor

LARGEST GEORGIA DISTRIBUTION CENTERS

Wal-Mart	2,200,000	Bulloch	Del Monte Fresh Produce	780,000	Fulton
K-Mart Corp.	2,100,000	Coweta	Sears Logistics	772,000	Jackson
Target Import DC	2,000,000	Chatham	Continental Tire	758,488	Hall
JC Penney Co.	2,000,000	Clayton	Newell Rubbermaid	755,000	Fulton
Procter & Gamble	1,700,000	Dougherty	Lowe's	750,000	Lowndes
Whirlpool	1,500,000	Henry	Best Buy	748,000	Laurens
Target Regional DC	1,500,000	Liberty	Colgate-Palmolive	744,331	Douglas
Target	1,500,000	Tift	GE Appliances	725,000	Fulton
General Mills	1,500,000	Walton	Kelly Tires (Goodyear)	710,451	Henry
Home Depot	1,400,000	Chatham	Chico's DC	700,000	Barrow
Lowe's	1,400,000	Floyd	Mohawk Home	700,000	Gordon
Solo Cup	1,300,716	Walton	Bluelinx Corp	700,000	Gwinnett
Lowe's	1,300,000	Fulton	JLA Home Furnishings	689,400	Chatham
Academy Sports	1,298,646	Twiggs	Carlisle Tire & Wheel Co.	676,000	Henry
Wal-Mart Stores, Inc.	1,200,000	Coffee	SONY	661,100	Carroll
Publix Super Market	1,200,000	Gwinnett	Dick's Sporting Goods	657,200	Fulton
Wal-Mart	1,200,000	Troup	Tractor Supply Company	650,000	Bibb
Carter's	1,100,000	Jackson	Fred's Inc	650,000	Laurens
Wal-Mart Food DC	1,100,000	Walton	Wal-Mart	640,000	Carroll
Home Depot	1,008,000	Henry	Sugar Food Corp	612,178	Carroll
Dollar Tree Stores	1,000,000	Chatham	Covidien	609,912	Fulton
Toys "R" Us	999,900	Henry	United Stationers Supply	600,674	Gwinnett
Kraft Foods	973,000	Fulton	Shaw Industries Inc	600,000	Catoosa
Macy's	966,640	Dekalb	ICON Health & Fitness	600,000	Chatham
Gatorade/Pepsico	913,000	Douglas	Advanced Distribution	600,000	Clayton
Kellogg's	903,000	Fulton	Cooper Tire	600,000	Dougherty
Yamaha DC	900,000	Coweta	Electrolux	600,000	Fulton
PetsMart	877,500	Coweta	Walgreens	600,000	Jackson
Phillips-Van Heusen	851,349	Henry	Medline Industries	593,404	Douglas
IKEA	850,000	Chatham	Kohl's Corp	588,000	Bibb
Bed, Bath & Beyond	810,000	Jackson	Scott's Lawn care	585,489	Fulton
Haverty's Furniture	808,000	Jackson	Glovis America, Inc.	581,131	Troup
John Deere	800,000	Columbia	Phillips-Van Heusen	561,600	Cobb
Kroger	795,900	Fulton	Office Depot	550,000	Gwinnett
Nestle USA	789,000	Henry	Home Depot	550,000	Lowndes
Pier-1 Imports	783,000	Chatham	Acuity Lighting Group	550,000	Rockdale
Aldi	780,849	Jackson	International Greetings	546,011	Liberty
K-Mart DC	780,000	Clayton	Home Depot	544,838	Jackson
Marshalls	780,000	Dekalb	M & W Distribution	530,000	Fulton
			Maytag Co.	527,000	Douglas

Source: Georgia Center of Innovation for Logistics



MANUFACTURING

MANUFACTURING DEFINED



Manufacturing is the production of goods for use or sale using labor and machines, tools, chemical and biological processing, or formulation. The term may refer to a range of human activity, from handicraft to high tech, but is most commonly applied to industrial production, in which raw materials are transformed into finished goods on a large scale. Such finished goods may be used for manufacturing other,

more complex products, such as aircraft, household appliances or automobiles, or sold to wholesalers, who in turn sell them to retailers, who then sell them to end users – the “consumers”.

GLOBAL PERSPECTIVE

The global manufacturing industry has lost ten million jobs in the last two years ¹⁰²

China and India are the world’s first and second most competitive countries in terms of advanced manufacturing in the world.

The drivers of competitiveness in advanced manufacturing are ¹⁰²:

- Talent driven innovation
- Cost of labor and material
- Energy costs
- Trade and tax policies
- Quality of infrastructure

Global manufacturing has increased the number of jobs created which are high value

Global manufacturing has increased the standard of living for middle class groups in developing countries ¹⁰³

Enablers of global manufacturing include ¹⁰³:

- Changing geopolitical relations between the east and west
- Expansion of digital access to information
- Improved physical and financial infrastructure globally
- Computerized manufacturing technology
- Increasing number of trade agreements

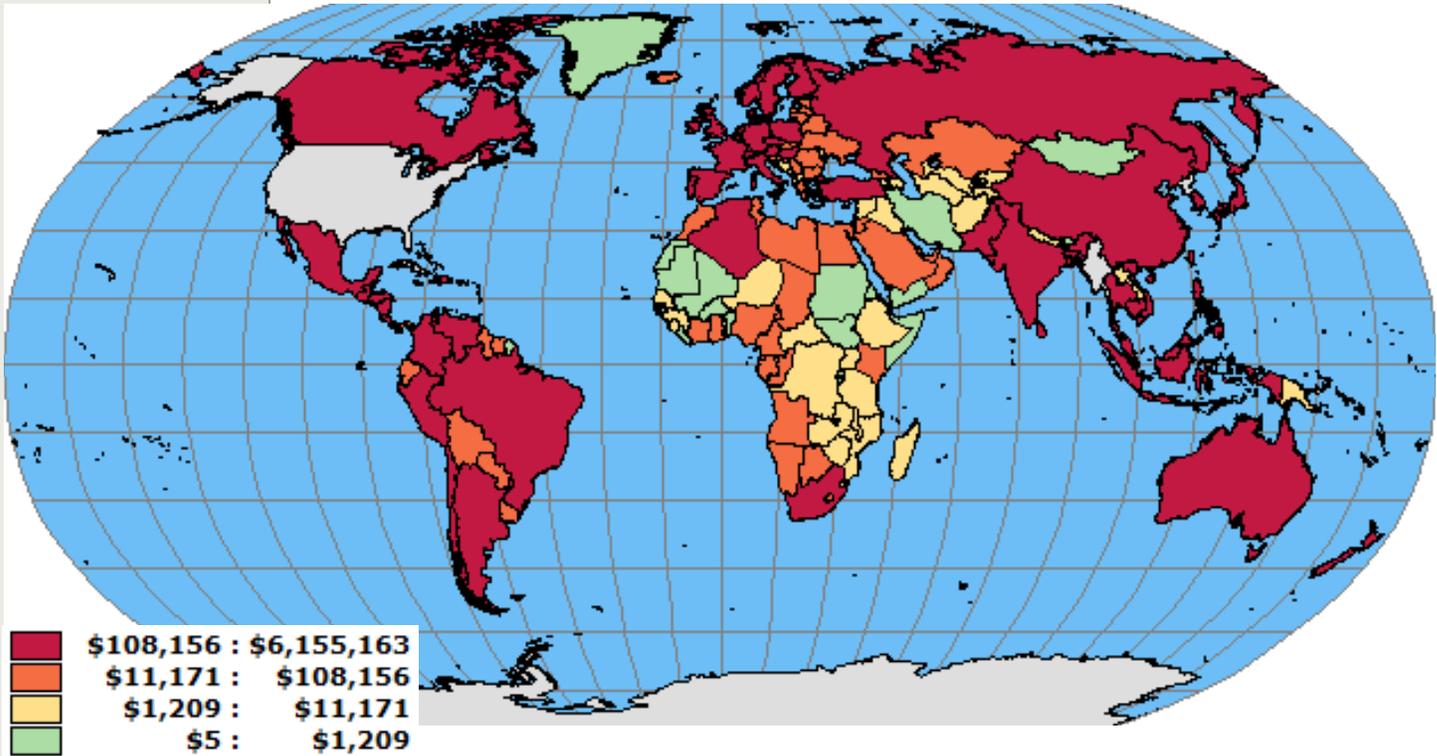
SECTION OUTLINE

- INDUSTRY DEFINED
- GLOBAL PERSPECTIVE
- NATIONAL PERSPECTIVE
- GEORGIA PERSPECTIVE

Manufacturing is the production of goods for use or sale using labor and machines, tools, chemical and biological processing, or formulation.

GLOBAL TRADE: U.S. MANUFACTURED IMPORTS

TOP NATIONS SENDING MANUFACTURED GOODS TO U.S. (IMPORTS)

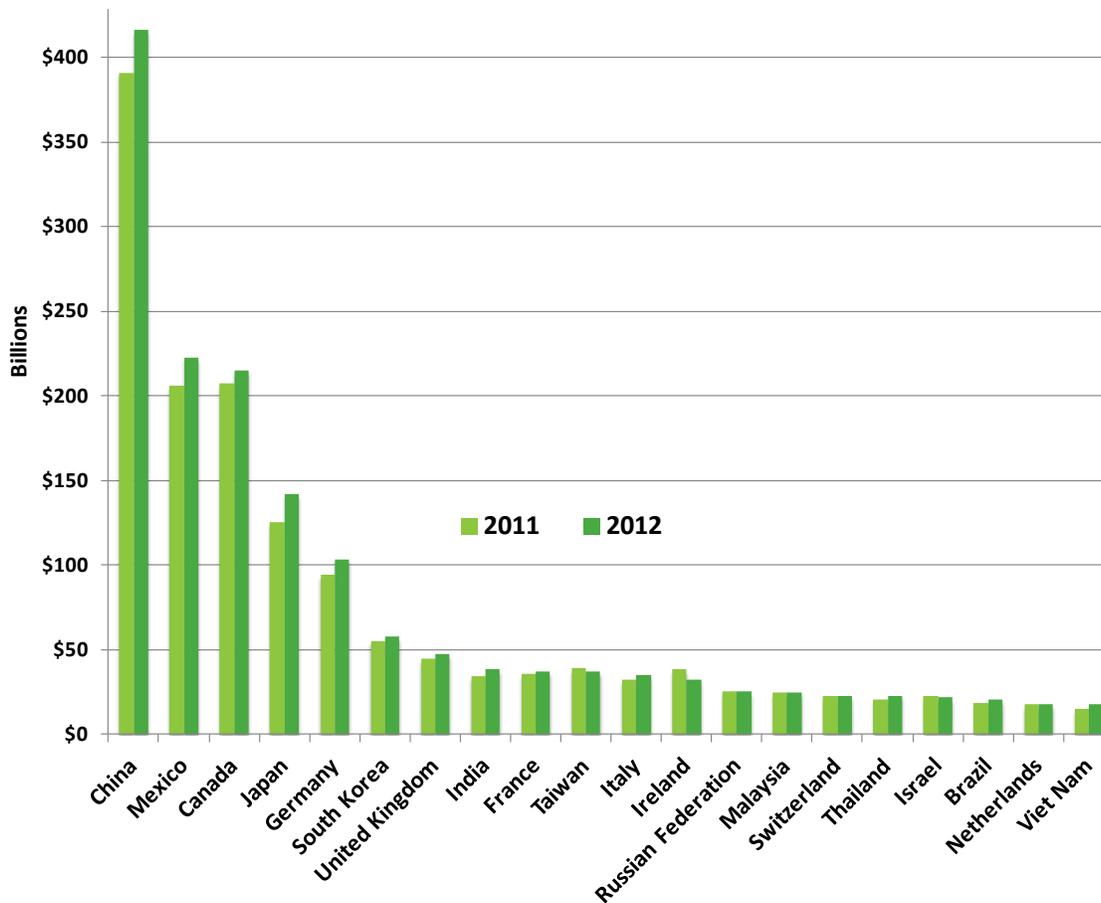


TOP NATIONS SENDING MANUFACTURED GOODS TO U.S. (IMPORTS)

PARTNER	2011	2012	'11 TO '12 \$ CHANGE
World	\$1,717,359,837,140	\$1,805,158,920,823	\$87,799,083,683
China	\$390,617,834,673	\$415,961,857,469	\$25,344,022,796
Mexico	\$206,224,861,727	\$222,643,660,939	\$16,418,799,212
Canada	\$207,309,964,407	\$215,053,870,691	\$7,743,906,284
Japan	\$125,153,019,827	\$141,922,320,435	\$16,769,300,608
Germany	\$94,291,607,564	\$103,451,778,521	\$9,160,170,957
South Korea	\$55,160,529,860	\$57,361,435,632	\$2,200,905,772
United Kingdom	\$44,461,333,568	\$47,445,464,280	\$2,984,130,712
India	\$34,302,667,237	\$38,374,292,083	\$4,071,624,846
France	\$35,749,379,128	\$37,094,258,210	\$1,344,879,082
Taiwan	\$38,853,349,827	\$36,844,174,187	-\$2,009,175,640

Source: [U.S. INTERNATIONAL TRADE ADMINISTRATION](#)

TOP NATIONS SHIPPING MANUFACTURED GOODS TO U.S. (IMPORTS)



The pharmaceutical industry represents 19.1% of the total worldwide business R&D expenditures

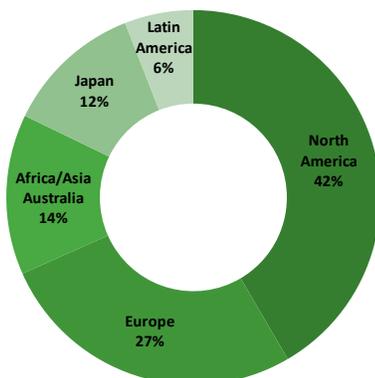
GLOBAL LIFE SCIENCES MANUFACTURING

The life sciences industry includes firms which research, develop and distribute pharmaceuticals, biomedical technologies and devices and other biotechnology.

Global value of pharmaceutical industry in 2011 was \$855.5 Billion ¹⁵⁷.

The pharmaceutical industry represents 19.1% of the total worldwide business R&D expenditures ¹⁵⁷

2011 GLOBAL PHARMACEUTICAL MARKET BY REGION ¹⁵⁷



Drug sales in China have shown a stable annual growth rate of approximately 20% over the past years ⁸⁹.

Most pharmaceutical supply chains are overly complex, inefficient, sub-optimized, inflexible, and too expensive ⁷⁹.

Patents on products with current sales of \$267 B will expire over next 6 years leaving gap open for generics competition ⁷⁹.

Manufacturing jobs globally grew by 100% in the second quarter of 2012 due to a trend in geographic shift in pharmaceutical production

LIFE SCIENCE SUPPLY-CHAIN TECHNOLOGY INVESTMENT (3-5 YEARS)^{70,76}

- Order management systems
- Web ordering
- Track and trace programs
- Security related technology
- Temperature sensitive technological solutions
- Serialization capabilities
- Improving supply chain visibility

LOGISTICS RELATED LIFE SCIENCE INDUSTRY CONCERNS ⁷⁰

- Increasing global competition
- Product security
- Product spoilage and damage
- Increasing supply chain costs
- Outsourcing logistics and supply chain functions
- Improved forecasting as priority
- Increasing direct-to-customer deliveries
- Limited infrastructure
- Increasing counterfeits, diversions and theft
- Cold chain ⁷⁶:
 - Transportation quality
 - Regulation compliance
 - Costs
 - Security of supply chain

GLOBAL AEROSPACE MANUFACTURING

The aerospace industry, for this report, excludes defense spending and focuses on airplane and airplane parts manufacturing. Worldwide economic activity is the most powerful driver of commercial air transport growth and the resulting demand for airplanes. Large freighter aircraft will lead fleet additions growing to over 1/3 of the overall share as long haul, international trade lanes increase ⁹⁰.

**STATE OF THE INDUSTRY:
TOP AIRPLANE MANUFACTURERS**

MANUFACTURER	HEADQUARTERS
Gulfstream	Savannah, GA
Airbus	Toulouse, France
Boeing	Chicago, IL
Bombardier	Montreal, Canada
Embraer	Sao Jose dos Campos, Brazil

Twin aisle passenger plane segment predicted to increase from 19% of today’s fleet to 23% in 2031. ⁹¹ Over 900 airlines are in operation worldwide ⁹¹. Boeing has 50% market share of the in-service worldwide jet fleet ⁹¹.

At the end of 2011, Boeing’s share of the worldwide commercial fleet was 30% in the US, 9% in China, and Russia, UK and Germany were 4% each on average ⁹¹. Asia Pacific, Europe and the Middle East account for more than 90% of large airplane demand in the next 20 years. The forecast is for 790 deliveries valued at \$280 billion US. ⁹¹

Global large commercial airplane fleet will double by the year 2031 predicts Boeing 91.

Asia Pacific, Europe and the Middle East account for more than 90% of large airplane demand in the next 20 years.

The forecast is for 790 deliveries valued at \$280 billion US. ⁹¹

The order books of Boeing and Airbus contain 6 to 7 years of commercial aircraft production at current production levels ¹⁰⁰. Airbus' overall backlog alone reached 4,388 planes in June 2012 ⁹⁸.

China is a growing market, expected to account for 20% of global business jet deliveries by 2020 ¹⁰⁰.

Demand for the global air freighter is predicted to grow by over 60% from 2010 to 2030 ⁹⁰. Boeing's long term forecast is for 34,000 new airplanes worldwide, valued at \$4.5 trillion ⁹¹. Asian Pacific airlines will take delivery of more than 9,370 new aircraft over the next 20 years and will become the world's largest air transport market. ³⁰

NATIONAL PERSPECTIVE

U.S. Manufacturers Spend \$1.28 Trillion Annually on Logistics, which is up 6.6% From 2011. This includes inventory carrying (includes costs of warehousing): \$417.3 Billion; Transportation (road, rail, air and water): \$803.8 Billion; and administrative functions (mostly logistics IT spending): \$58.9 Billion. U.S. Manufacturers also transport 13.9

Billion tons of goods annually. This includes: Road: 9.69 Billion; Rail: 2.65 Billion; Air: 13.1 Million (Source: American Trucking Association)



Manufacturing as an industry represents over 11% of the value added to the US GDP, and has been relatively stable from 2008 to 2011 ¹⁰⁵.

Output of US Manufacturing industry was \$5.42 Trillion in 2011 ¹⁰⁵.

Manufacturing jobs are growing for the first time since the 1990s ¹⁰⁶.

The US Manufacturing industry added \$1.84 trillion of value in 2011 ¹⁵⁸.

Manufacturing productivity in the US is increasing at 2.5 times the rate of the service sector ¹⁵⁸.

U.S. Manufacturing currently employs 12 million workers and contributes \$1.6 trillion to the US economy annually ¹⁰⁷.

MANUFACTURING EXPORTS

Manufacturing is responsible for 47% of US exports ¹⁵⁸ and draws more foreign direct investment (FDI) to the nation than any other nation ¹⁵⁸.

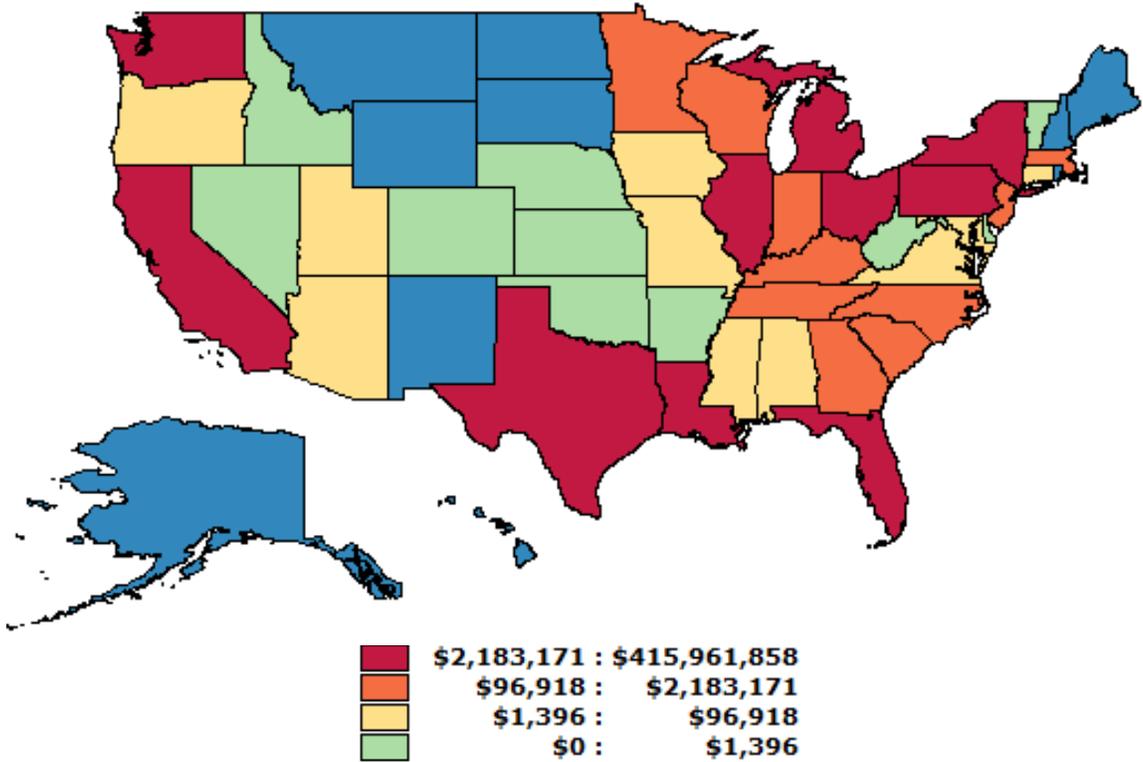
Currently, the United States produces 22% of the world's manufactured products ¹⁰⁷.



SECTION OUTLINE

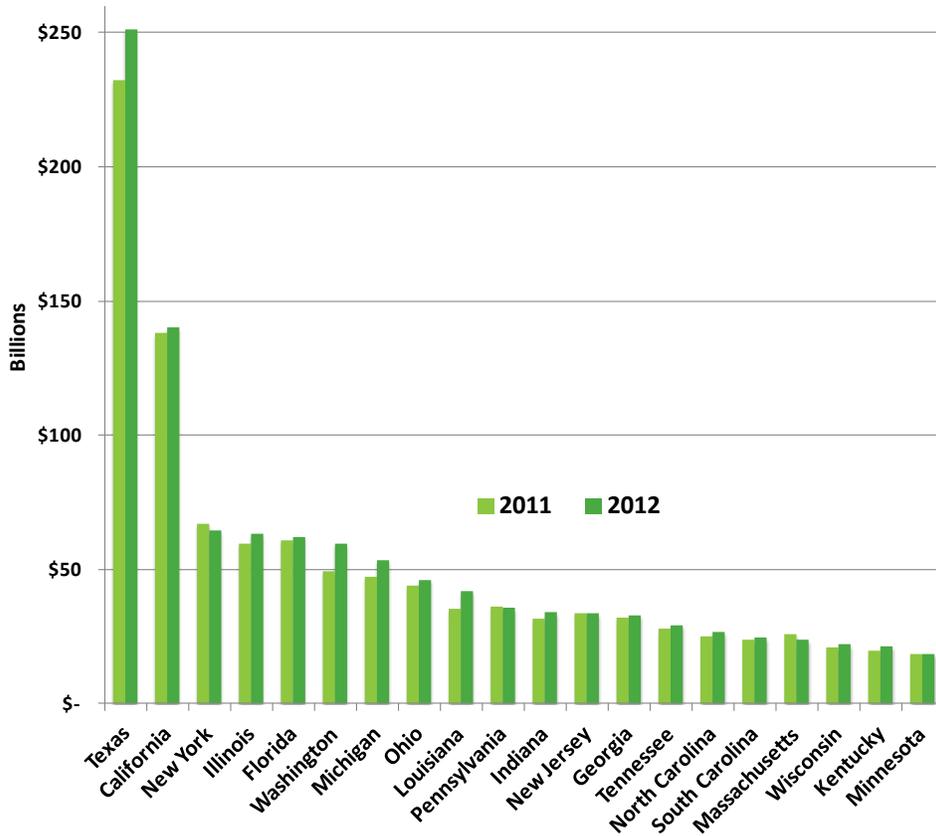
- INDUSTRY DEFINED
- GLOBAL PERSPECTIVE
- NATIONAL PERSPECTIVE
- GEORGIA PERSPECTIVE

TOP U.S. STATES EXPORTING MANUFACTURED GOODS



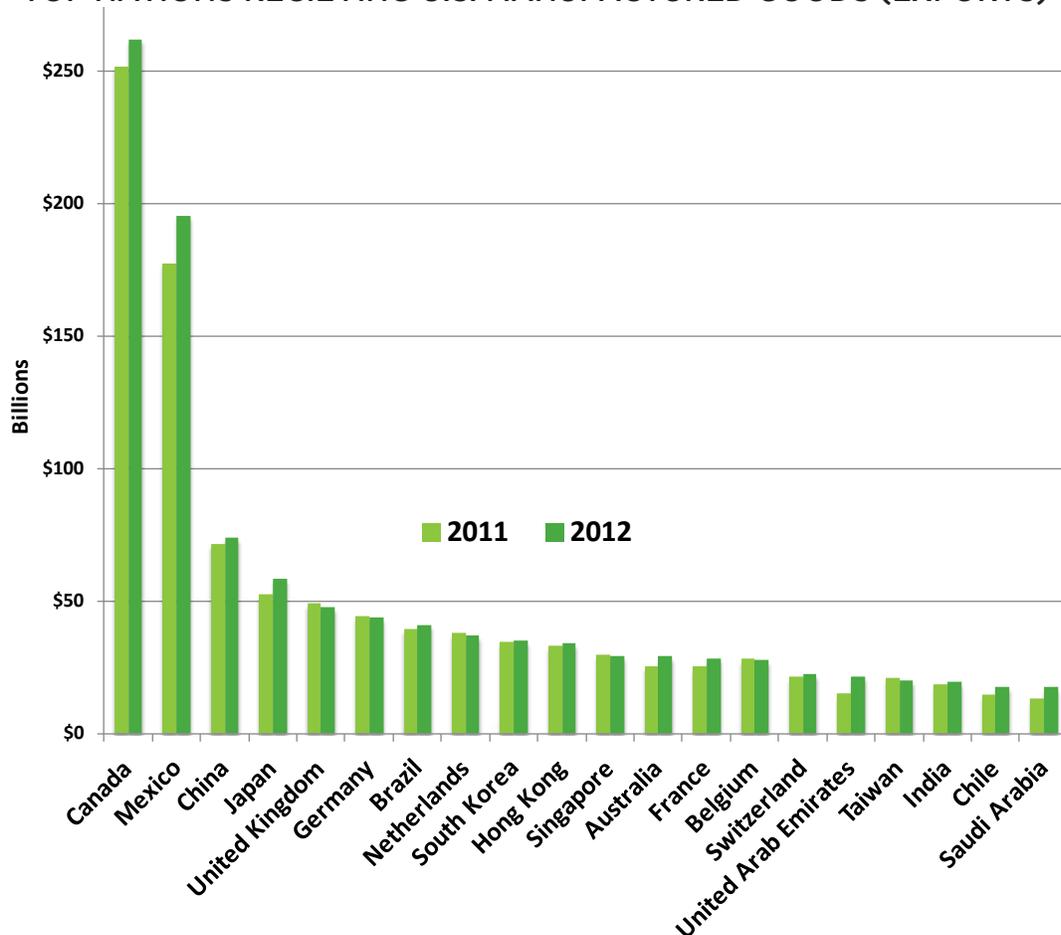
Manufacturing productivity in the US is increasing at 2.5 times the rate of the service sector ¹⁵⁸.

TOP U.S. STATES EXPORTING MANUFACTURED GOODS



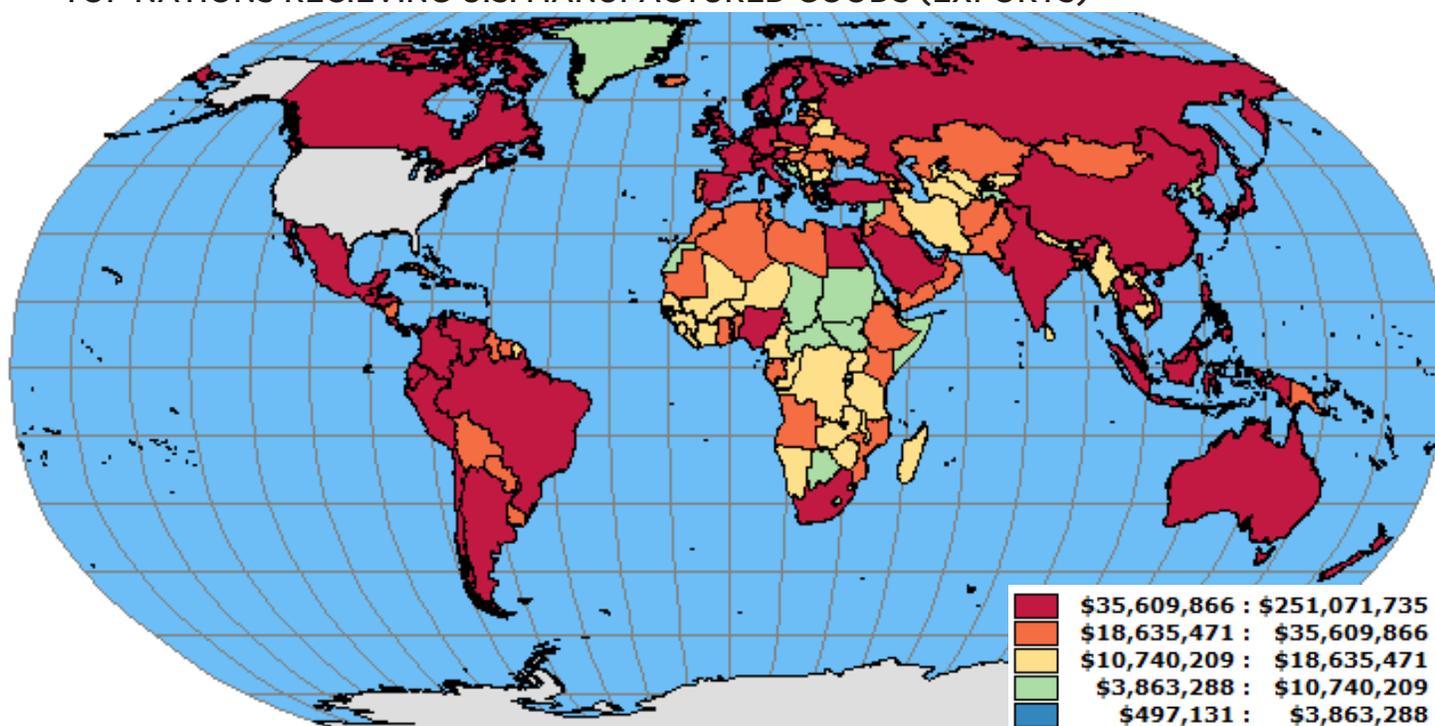
Source: U.S. INTERNATIONAL TRADE ADMINISTRATION

TOP NATIONS RECEIVING U.S. MANUFACTURED GOODS (EXPORTS)



Source: U.S. INTERNATIONAL TRADE ADMINISTRATION

TOP NATIONS RECEIVING U.S. MANUFACTURED GOODS (EXPORTS)



TOP NATIONS RECEIVING U.S. MANUFACTURED GOODS (EXPORTS)

PARTNER	2011	2012	'11 TO '12 \$ CHANGE
World	\$1,276,289,156,515	\$1,346,968,418,364	+ \$70,679,261,849
Canada	\$251,307,682,761	\$261,502,024,002	+ \$10,194,341,241
Mexico	\$177,195,038,287	\$195,059,137,895	+ \$17,864,099,608
China	\$71,334,091,340	\$73,667,919,374	+ \$2,333,828,034
Japan	\$52,313,033,772	\$58,281,006,631	+ \$5,967,972,859
United Kingdom	\$48,888,608,535	\$47,500,270,096	- \$1,388,338,439
Germany	\$44,093,619,044	\$43,329,834,441	- \$763,784,603
Brazil	\$39,265,221,179	\$40,873,799,028	+ \$1,608,577,849
Netherlands	\$37,685,584,801	\$36,667,227,835	- \$1,018,356,966
South Korea	\$34,347,185,540	\$34,792,982,218	+ \$445,796,678
Hong Kong	\$33,062,191,268	\$33,809,377,793	+ \$747,186,525

Source: **U.S. INTERNATIONAL TRADE ADMINISTRATION**

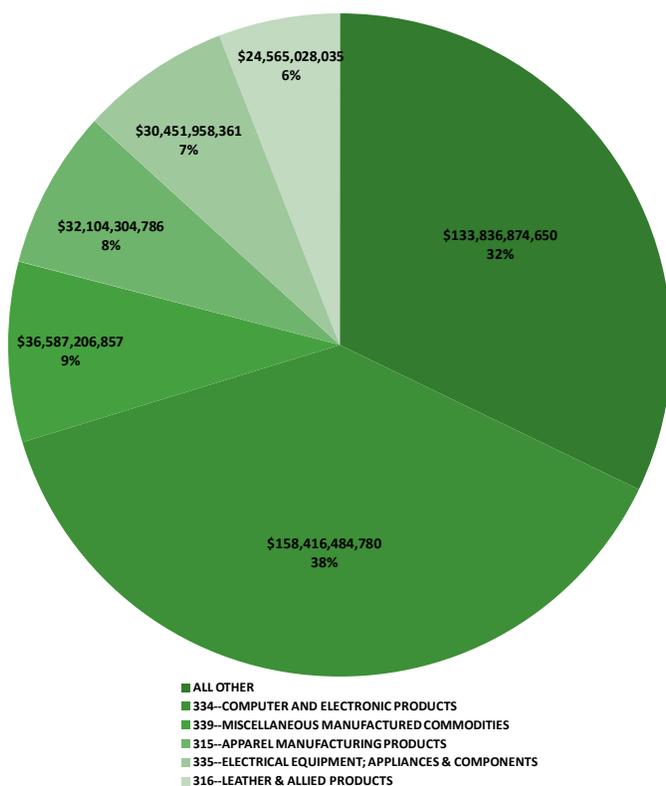


SPOTLIGHT ON CHINA

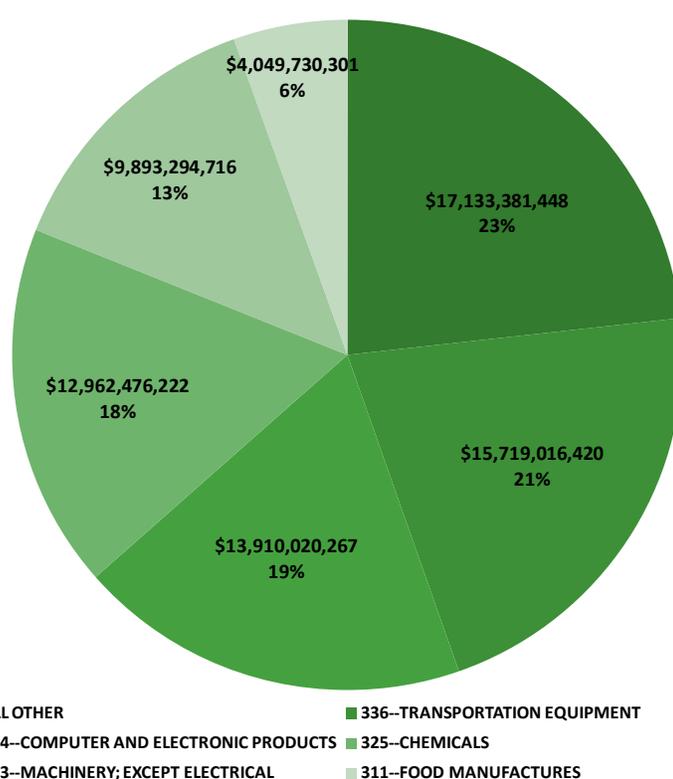
2012 U.S. TRADE OF MANUFACTURED GOODS WITH CHINA

	2011	2012	'11 TO '12 CHANGE
IMPORTS FROM CHINA	\$390.62 BILLION	\$415.96 BILLION	+\$25.34 BILLION
EXPORTS TO CHINA	\$71.33 BILLION	\$73.67 BILLION	+\$2.33 BILLION

IMPORTS FROM CHINA TO U.S.



EXPORTS FROM U.S. TO CHINA



Source: U.S. INTERNATIONAL TRADE ADMINISTRATION

U.S. AEROSPACE MANUFACTURING

Aerospace industry trade represents the largest positive trade balance of any US manufacturing industry, at \$57.4 billion. The aerospace industry supports more jobs via exports than any other industry ¹⁰⁰.

The US aerospace industry contributes significantly to the US economy with employees in every state in the nation. In 2011, the aerospace industry employed 6,244,000 in the USA.¹⁰⁰

Annual aerospace manufacturing sales were expected to top \$218 billion in 2011 ¹⁰⁰.

NATIONAL MANUFACTURING PERFORMANCE & ACTIVITY

The Purchasing Manager's Index (PMI) is an economic index derived from monthly surveys of purchasing and supply executives from private sector firms in several manufacturing industries including wood products, paper products, chemical products, and many more. In the United States, PMI has been compiled and published by the Institute for Supply Management (ISM) since 1948.

The PMI is based on multiple factors: new orders, production, inventory, supplier delivery, and employment, customers' inventories, prices, backlogs of orders, exports, imports, the overall economy, and the health of the manufacturing sector. The PMI is a composite index based on the following five equally-weighted, seasonally-adjusted indexes: new orders, production, employment, supplier deliveries and inventories.

PMI measures what percentage of respondents reported improved or better conditions for that factor from the previous month and is considered a leading economic indicator. PMI above 50% shows that manufacturing is, in general terms, expanding; while PMI below 50% suggests that the manufacturing economy is slowing. A PMI exceeding

42.2% for a period of time suggests that the overall economy is expanding, while below 42.2% indicates an overall economic decline.

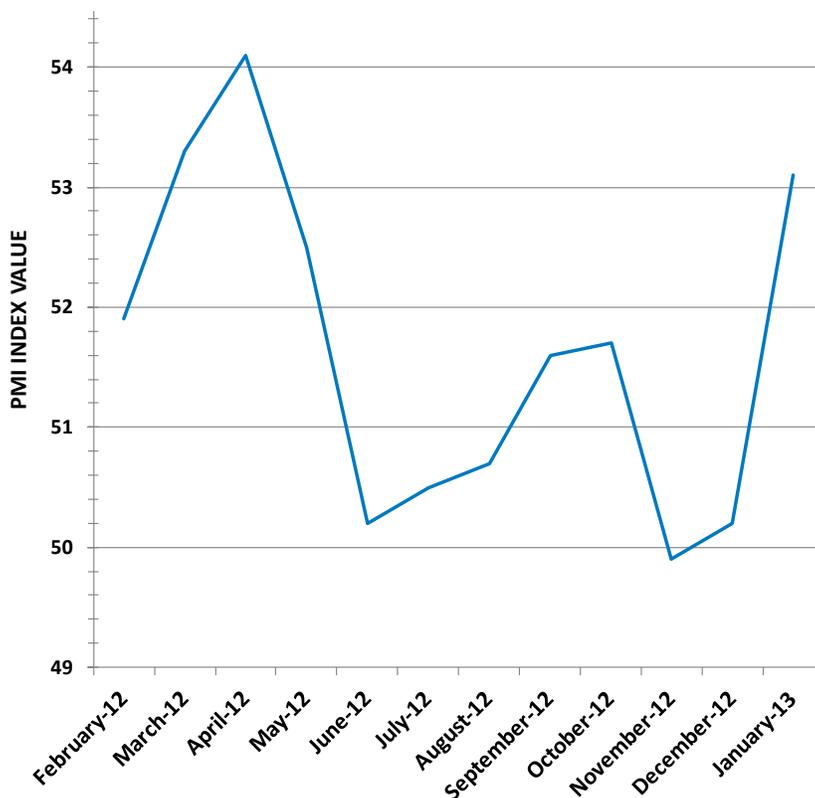
In January, 2013, PMI was 53.1%, indicating overall expansion in manufacturing for the month. ISM's evaluation of PMI is indicating a 44 month trend in overall economic growth for the United States.



Source: [Manufacturing ISM Report On Business](#)

INDEX COMPONENT	JANUARY 2013	DIRECTION	RATE OF CHANGE	TREND (IN MONTHS)
PMI	53.1	Growing	Faster	2
New orders	53.3	Growing	From contracting	1
Production	53.6	Growing	Faster	5
Employment	54.0	Growing	Faster	40
Supplier deliveries	53.6	Slowing	Slower	3
Inventories	51.0	Growing	From contracting	1
Customers' inventories	48.5	Too low	Slower	14
Prices	56.5	Increasing	Faster	6
Order backlog	47.5	Contracting	Faster	10
Exports	50.5	Growing	Slower	2
Imports	50.0	Unchanged	From growing	1
Overall economy	-	Growing	Faster	44
Manufacturing sector	-	Growing	Faster	2

12-MONTH SNAPSHOT OF THE NATIONAL PMI



Source: ISM Report On Business

The PMI has surpassed the 50% mark every month except a close miss in November, 2012 (at which time PMI was 49.9%).

GEORGIA MANUFACTURING PERSPECTIVE

Manufacturing companies in Georgia can lower their costs, take leaps in innovation and secure their business advantage with Georgia’s advanced transportation and logistics network. And by using Quick Start, the nation’s #1 workforce training program, manufacturing companies get cost-free training whenever and wherever they want—in classrooms, in mobile labs, or right in their manufacturing facility.

With an average manufacturing wage well below the national average, and a “Single Factor Gross Receipts” apportionment formula that treats a manufacturing company’s gross receipts—or sales in Georgia—as the only relevant factor in determining the company’s income subject to tax, manufacturing companies are able to control costs and reduce their tax burden.

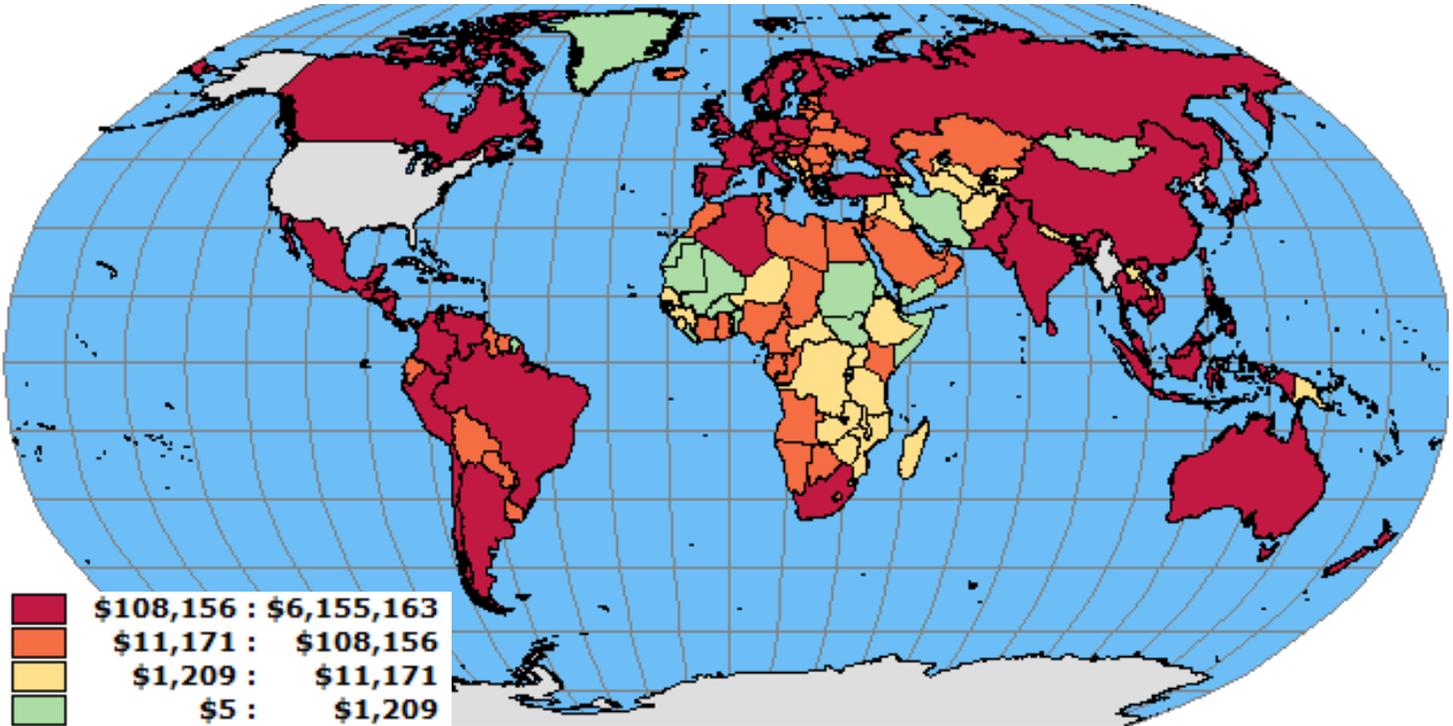
Plus, the Georgia Department of Economic Development’s extensive market knowledge and supplier connections help manufacturing companies streamline their processes, maximize productivity and accelerate revenue growth.



SECTION OUTLINE

- INDUSTRY DEFINED
- GLOBAL PERSPECTIVE
- NATIONAL PERSPECTIVE
- **GEORGIA PERSPECTIVE**

TOP EXPORT DESTINATIONS FOR GEORGIA MANUFACTURED GOODS

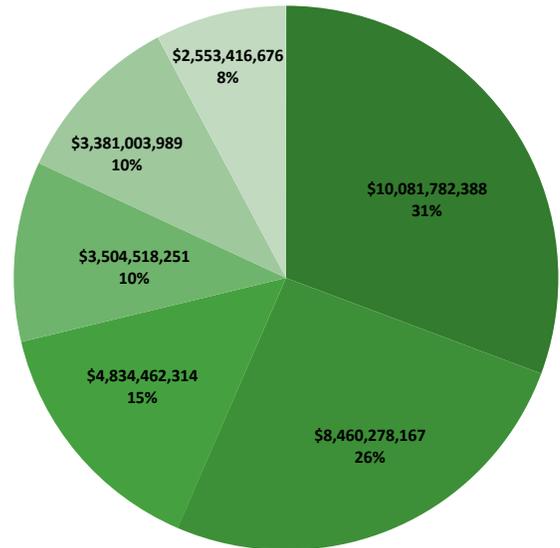


Source: [U.S. INTERNATIONAL TRADE ADMINISTRATION](#)

**GEORGIA MANUFACTURED EXPORTS:
VOLUMES & COMMODITIES**

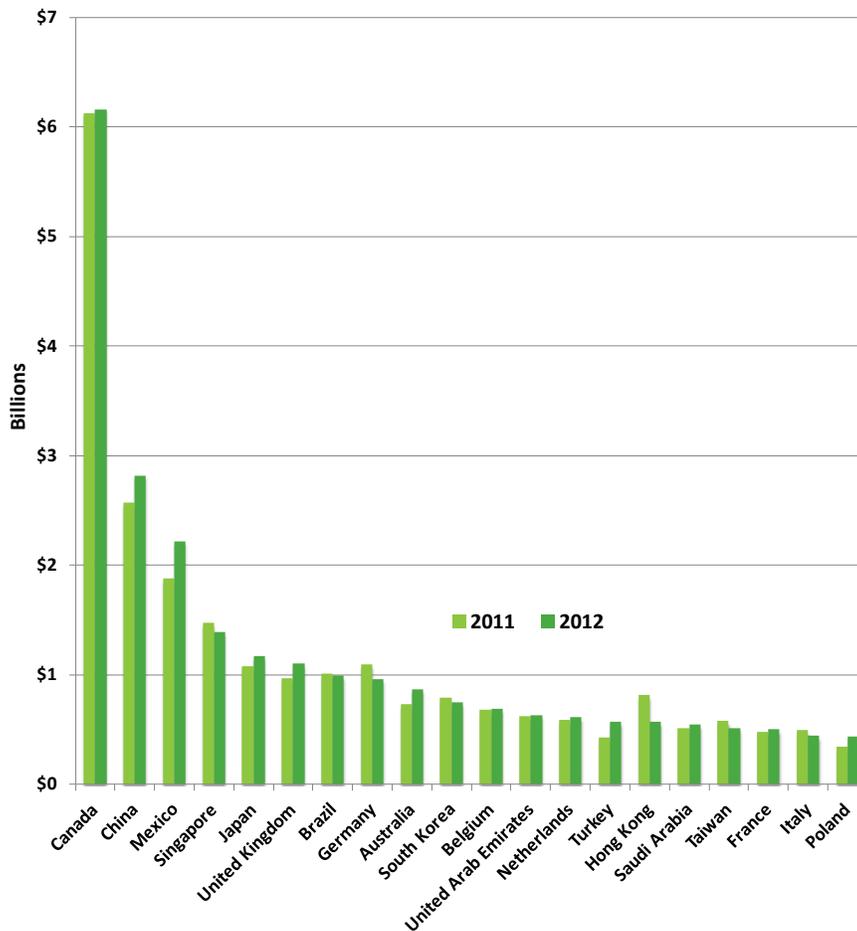
- ALL OTHER
- 333--MACHINERY; EXCEPT ELECTRICAL
- 322--PAPER
- 336--TRANSPORTATION EQUIPMENT
- 325--CHEMICALS
- 311--FOOD MANUFACTURES

GEORGIA TO...	2011	2012	'11 TO '12 CHANGE
WORLD	\$31,827,717,197	\$32,815,461,785	\$987,744,588
CANADA	\$6,118,844,675	\$6,155,162,465	\$36,317,790
CHINA	\$2,565,170,151	\$2,814,930,525	\$249,760,374
MEXICO	\$1,874,367,852	\$2,218,610,866	\$344,243,014



Source: [U.S. INTERNATIONAL TRADE ADMINISTRATION](#)

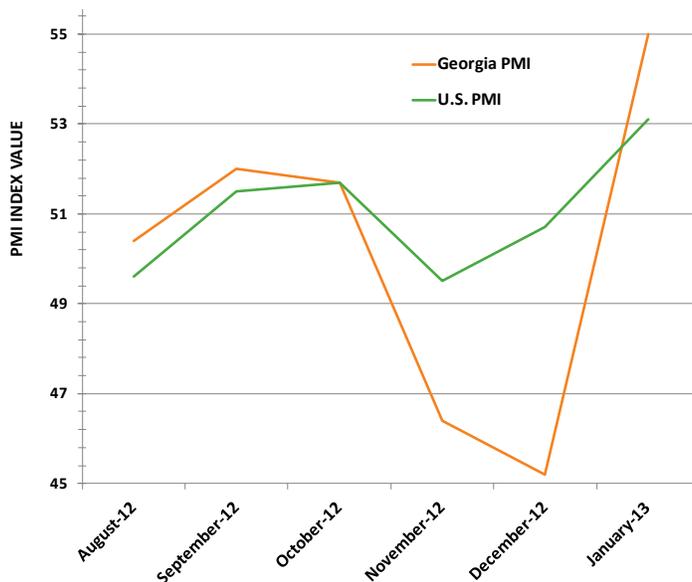
TOP EXPORT DESTINATIONS FOR GEORGIA MANUFACTURED GOODS



Source: [U.S. INTERNATIONAL TRADE ADMINISTRATION](#)

GEORGIA MANUFACTURING PERFORMANCE & ACTIVITY

The PMI for Georgia also indicates growth in January of 2013, with a statewide PMI of 55.0%, which is higher than the national PMI of 53.1%. The following table compares



Georgia's PMI to the U.S. PMI since August of 2012. The average Georgia PMI (50.1%) over the last six months is less than the average U.S. PMI (51.0%), however, both indicate growth in the manufacturing sector.

Source: [Kennesaw State University](#)

The PMI range for Georgia was 9.8 percentage points, while for the U.S. was 3.6 percentage points, indicating higher volatility in manufacturing industry for the state of Georgia than for the nation as a whole over the past six months.

The following table shows the factors of PMI for Georgia:

FACTORS	INDEX, JANUARY 2013
New orders	59.6
Production	55.8
Employment	51.9
Supplier deliveries	55.8
Inventory	51.9
Prices	65.4

Source: [Kennesaw State University](#)

GEORGIA LIFE SCIENCES MANUFACTURING

The life sciences industry includes firms which research, develop and distribute pharmaceuticals, biomedical technologies and devices and other biotechnology.

In 2011 The life sciences industry paid \$5.6 billion in salaries and \$557 million in state and local taxes. The industry's average salary is \$63,000, which is 50% higher than the average for all other industry sectors.

Average salaries are higher for pharmaceutical manufacturing (\$90,000) and research and development (\$70,000).



Georgia is home to 433 bioscience companies that employ 19,902, primarily located in Atlanta, Augusta and Athens (*Georgia Power Biosciences database, 2012*)

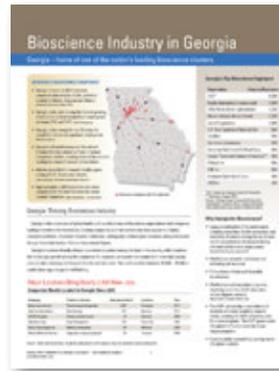
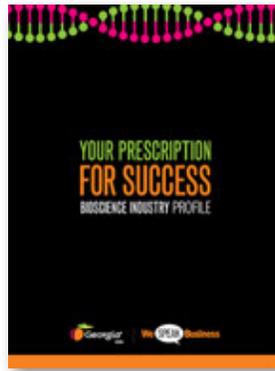
Georgia ranks among the top 15 states for overall bio-related occupational employment, and sixth among the fastest-growing states in bio-related occupational employment between 2012 and 2017. (*EMSI 2012 projection*)

The Georgia Research Alliance's (GRA) 44 world-renowned, bio-related Eminent Scholars attract millions in federal and private dollars, creating some of the nation's leading bio research centers of excellence.

Atlanta ranks third in research facility space among all U.S. bioscience clusters, and the top "emerging cluster" overall. (*Jones Lang LaSalle, "Life Sciences Cluster Report" 2011*)

Approximately 2,400 bioscience jobs were created within the last five years by newly located companies. Baxter International (vaccine manufacturer) has broken ground on a new manufacturing facility for plasma products in Stanton Springs Business Park⁸⁵. In total this means 1,000 new job additions and investment is \$1 billion in Georgia.

GEORGIA INDUSTRY RESOURCES (CLICK IMAGE TO DOWNLOAD)



GEORGIA AEROSPACE MANUFACTURING

Georgia is home to 238 companies employing more than 157,000 people in aerospace related occupations, making Georgia the 2nd largest in high tech employment in the Southeast.

25,000 workers are in aerospace product manufacturing and in air transportation support activities. The industry's top three employers are Lockheed Martin, Gulfstream Aerospace, and Engineered Fabrics.

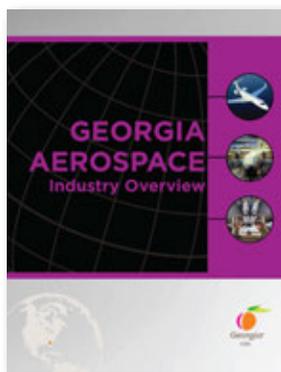
Georgia also ranks 2nd in military and civilian net gains from projected military base closings with 15,000 aerospace workers employed at Georgia's four airforce bases.

In 2010, Georgia aerospace exported over \$4.3 billion, ranking Georgia the fourth highest aerospace exporter in the US ¹⁰¹.



Georgia is among the highest producers of aerospace graduates in the nation. Georgia ranks 6th nationally in aircraft manufacturing, according to the Harvard Cluster Mapping Project.

GEORGIA INDUSTRY RESOURCES (CLICK IMAGE TO DOWNLOAD)



GEORGIA AUTOMOTIVE MANUFACTURING

Georgia is home to 190 automotive-related manufacturing companies that employ nearly 34,000 workers. Georgia sits at the heart of the Southeast's 301,000 automotive-related workforce. (Source: Georgia Power Industry Database, 2011)



Over the last five years, 21 automotive manufacturing companies have announced plans to locate or expand in Georgia. These new companies are

creating 7,400 jobs, and are supplying to customers all over the Southeast and the world.

Access to state-of-the-art technology and innovation at the state's leading engineering schools and access to the nation's fastest-growing port in Savannah drive productivity and expansion in the industry.

A robust automotive-related workforce with 24,800 engineers and 124,500 production workers offers world-class skills attractive to the auto industry.

Southeastern automotive assemblers currently have the capacity to produce more than 2.2 million units (2010). They are projected to increase that capacity by at least another 500,000 units over the next several years with new suppliers coming on line in Mississippi and Tennessee and with the transfer of new lines to productive facilities in Georgia and Tennessee.

The category of "transportation equipment" is closely connected to the automotive industry. It's contribution to Georgia's gross state product was estimated at \$5 billion in 2010. By 2020, Moody's predicts transportation equipment will reach nearly \$7 billion in GSP, accounting for 14.5% of the state's manufacturing output.

Transportation equipment accounted for 14.4%, or \$33.5 billion, of the Southeastern region's total manufacturing gross product in 2010. Automotive companies locating in the Southeast thrive, many expanding within a year of opening a new facility.

Georgia's transportation equipment export market grew 8.2% annually since 1997, reaching \$5.9 billion in 2010, accounting for 17.8% of the Southeast's total.

Georgia is at the heart of the rapidly-expanding Southeastern Automotive Corridor. This region is the new epicenter of automotive manufacturing growth.

GEORGIA INDUSTRY RESOURCES (CLICK IMAGE TO DOWNLOAD)



Food processing accounts for \$9.3 billion of Georgia's State Product (GSP).

GEORGIA FOOD MANUFACTURING/PROCESSING



Food processing accounts for \$9.3 billion of Georgia's State Product (GSP), the single largest contributor to the state's manufacturing GSP (one quarter of the total).

Over the past five years, 33 new and expanding companies have created more than 4,800 new jobs in the state. The proximity to growing consumer markets and an abundance of raw materials make Georgia ideal for food processors.

Source: Georgia Power

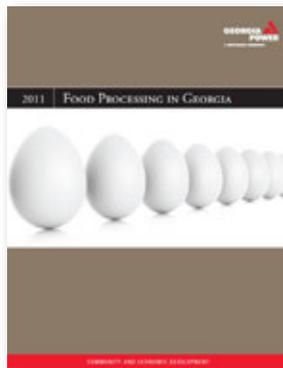
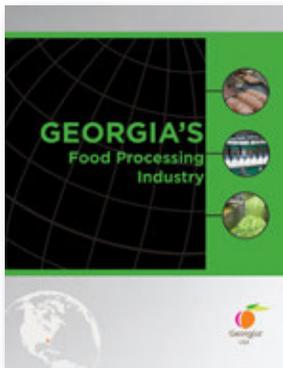
Estimated food processing wage disbursements of nearly \$3.3 billion in 2011 have a profound impact on the state's economic health.

Georgia is home to 624 companies employing 61,000 Source: BLS, 2010 QCEW

Access to state-of-the-art technology and innovation keeps productivity high in spite of industry wide decline in employment

Wage distributions and food processing output are only part of the equation, as new food processing locations contribute to growth in other segments. Models estimate that for every 100 jobs created in food processing, an additional 100 to 400 jobs in supporting industry may be created depending on the type of operation (EMSI, 1Q 2011).

GEORGIA INDUSTRY RESOURCES (CLICK IMAGE TO DOWNLOAD)



Models estimate that for every 100 jobs created in food processing, an additional 100 to 400 jobs in supporting industry



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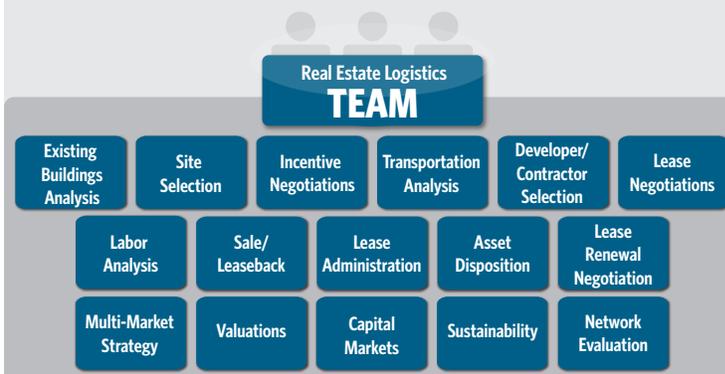
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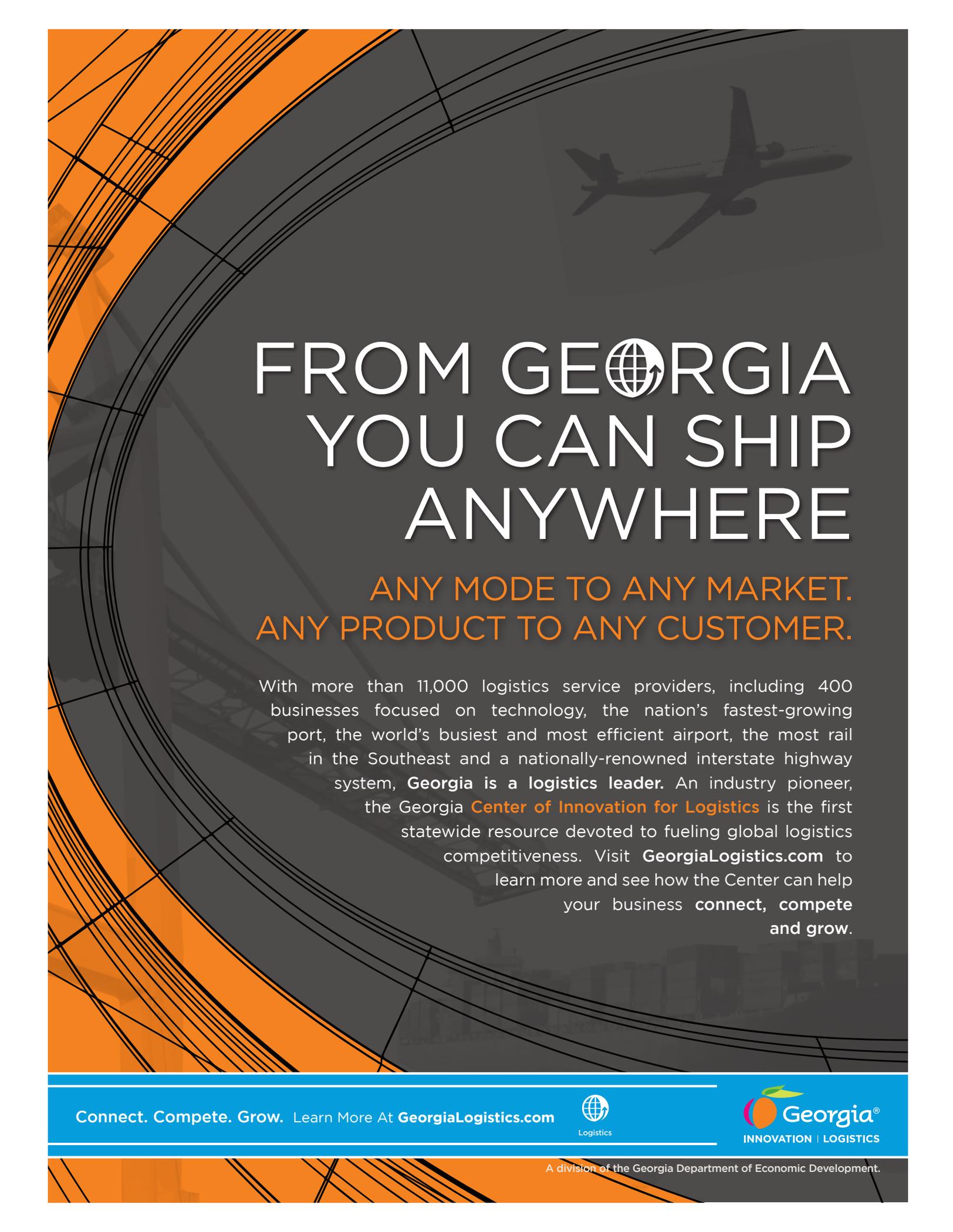
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