

***Georgia Economic History***  
**SOCIETAL & TECHNOLOGICAL GROWTH IN MODERN GEORGIA**

**Lesson 15**

**Planes, Trains, Boats, and Automobiles- Driving Georgia's Economy**

**Enduring Understanding**

The growth and development of a region are influenced by social, economic and political factors.

**Lesson Essential Question**

***How do Georgia highways, Hartsfield-Jackson Atlanta International Airport, deepwater ports, and the railroads help drive the state's economy?***

**Introduction**

Georgia has an extensive transportation system that allows for tremendous amounts of national and international trade. With the growth of highways, deepwater ports, rail service and air travel, Georgia's economy has grown over the years. By examining the systems of highways, airports, deepwater ports, and rail lines in Georgia, students will get a better understanding of the importance these systems have in the lives of all Georgians.

**GPS Standards –**

SS8E1 The student will give examples of the kinds of *goods* and *services* produced in Georgia in different historical periods.

SS8E2 The student will explain the benefits of *free trade*

- a. describe how Georgians have engaged in trade in different historical time periods.
- b. explain Georgia's role in world trade today.

SS8G2 The student will explain how the Interstate Highway System, Hartsfield-Jackson Atlanta International Airport, Georgia's deepwater ports, and the railroads help drive the state's economy.

- a. Explain how the four transportation systems interact to provide domestic and international goods to the people of Georgia.
- b. Explain how the four transportation systems interact to provide producers and service providers in Georgia with national and international markets.
- c. Explain how the four transportation systems provide jobs for Georgia.

**Economic Concepts**

trade, specialization, economic growth

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<p><b>Knowledge</b></p> <p><i>The student will know that:</i></p> <ul style="list-style-type: none"> <li>▪ Hartsfield-Jackson Atlanta International Airport is the world's busiest passenger airport</li> <li>▪ An integrated system of roads, rails, airports, and deepwater ports creates trade opportunities for Georgia businesses.</li> <li>▪ An integrated system of roads, rails, airports, and deepwater ports allow goods and services to enter Georgia from all over the world.</li> <li>▪ An integrated system of roads, rails, airports, and deepwater ports creates jobs within Georgia.</li> </ul>	<p><b>Core Skills</b></p> <p><i>The student will be able to:</i></p> <ul style="list-style-type: none"> <li>▪ read for information</li> <li>▪ draw conclusions</li> <li>▪ explore life experience related to subject area content</li> </ul>
<p><b>Materials Needed</b></p> <ul style="list-style-type: none"> <li>▪ item made in China</li> <li>▪ <i>Who's Driving Georgia's Economy Anyway?</i> Handout, five copies</li> <li>▪ <i>Transportation Interaction Worksheet</i>, one per student</li> <li>▪ <i>Georgia Transportation Stats Worksheet</i>, one per student</li> <li>▪ <i>Hartsfield-Jackson, Then and Now Worksheet</i>, one per student</li> <li>▪ Map 1- <i>Interstate Highway System</i>, one per group</li> <li>▪ Map 2- <i>Hartsfield-Jackson Atlanta International Airport</i>, one per group</li> <li>▪ Map 3- <i>Georgia's Deepwater Ports</i>, one per group</li> <li>▪ Map 4- <i>Georgia Railroads</i>, one per group</li> <li>▪ Map 5- <i>Countries of the World</i>, one transparency</li> <li>▪ Overhead projector</li> <li>▪ computers with Internet access</li> <li>▪ Georgia Stories video <i>The Second Busiest Airport in the World</i></li> </ul>	<p><b>Time Required</b></p> <p>2 class periods</p>

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**Procedures**

1. Begin lesson by displaying *Countries of the World* Transparency. Locate China on the map and show students China's location in relation to Georgia.
2. Show students a personal item that was made in China, for example a pair of running shoes, a toy, or a t-shirt. Ask students how the item arrived in Georgia. Discuss all forms of transportation that were involved with the item going from the factory in China where the item was manufactured to the classroom. Discussion should include talk of boats, airplanes, trucking, and possibly rail.
3. Ask students which of the four modes of transportation was the most important in getting the item to the classroom. Keep this discussion short, as you do not want all of the students to arrive at the conclusion that all four are equally important. Let one or two students make arguments for the mode of transportation they consider the most important and then end the discussion.
4. Tell the students that a few of their classmates will perform a short skit about four transportation "superheroes."
5. Select five students to participate in the skit. Give each skit participant one copy of the *Who's Driving Georgia's Economy Anyway?* Handout. Instruct students to perform the skit.
6. At the completion of the skit ask the students if they agree with the idea that all four transportation systems are equally important to Georgia's economy. Discuss how all four transportation systems interact to provide domestic and international goods to everyone in the classroom. Ask students to give examples of goods they have that came from outside of Georgia and how these goods arrived in their possession.
7. Come to the conclusion with the students that consumers of goods benefit because of the interaction of the four transportation systems. Consumers in Georgia are able to purchase more goods because of trade and Georgia's extensive transportation system.
8. Ask students how producers of goods and services in Georgia benefit from the interaction of the four transportation systems. Students should see that the sellers of goods and services also benefit due to the fact that the four transportation systems open up larger domestic and international markets for Georgia products.
9. Instruct students to get into groups of three or four. Give each group member one copy of the *Transportation Interaction Worksheet*. Also distribute one copy of Map 1, Map 2, Map 3, and Map 4 to each group.

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10. Tell students to complete the *Transportation Interaction Worksheet* by gathering information from the four transportation maps and information discussed in skit.
11. Discuss student findings when all groups have completed the worksheet. Ask students again how all four transportation systems have the potential to benefit all Georgians.
12. Direct students to computers with Internet access. Distribute one copy of *Georgia Transportation Stats Worksheet* to each student. Tell the students to visit the four websites listed to answer the corresponding questions. The answers to the “Conclusion” questions should come from a combination of classroom discussion and Internet research.
13. Give each student one copy of the *Hartsfield-Jackson Then and Now Worksheet*. Tell the students they will be watching a Georgia Stories video *The Second Busiest Airport in the World*. Before watching the video students should fill in the 2007 information using their answers from the *Georgia Transportation Stats worksheet*.
14. Conclude the lesson by discussing student findings and “Conclusion” questions. Ask students to explain the benefits that all Georgian’s potentially receive from Georgia’s integrated transportation system.

**The New Georgia Encyclopedia**

*For more background information to support this lesson, read these entries:*

[Hartsfield-Jackson Atlanta International Airport](#)

[Georgia Department of Transportation](#)

[Central of Georgia Railway](#)

[Interstate Highway System](#)

[Metropolitan Atlanta Rapid Transit Authority \(MARTA\)](#)

[Railroads](#)

[Atlantic Intracoastal Waterway](#)

[Canals](#)

[Georgia Ports Authority](#)

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**EconEdLink Online Lessons**

*For more student activities on economic history in a U.S. context, use these lessons:*

- ✓ no additional activities for this lesson

**Assessment**

1. How does the average Georgia consumer benefit from the extensive system of roads, rail, deepwater ports, and airline service established throughout the state?
  - A. Consumers must travel greater distances to acquire goods.
  - B. Georgia businesses can sell goods and services only in Georgia.
  - C. A greater selection of goods is made available to consumers.\*
  - D. Only products made in Georgia are sold throughout the state.
  
2. How does the average Georgia producer benefit from the extensive system of roads, rail, deepwater ports, and airline service established throughout the state?
  - A. Producers of goods and services can sell more of their products nationally and internationally.\*
  - B. Producers of goods and services have very limited ways in which to transport goods.
  - C. Consumers will be forced to purchase only goods made in Georgia.
  - D. Consumers will be forced to purchase only goods made in other states.
  
3. Which is a positive result of Georgia's extensive system of roads, rail, deepwater ports, and airline service?
  - A. higher taxes
  - B. economic growth\*
  - C. lack of consumer choice
  - D. higher levels of unemployment

## **Who's Driving Georgia's Economy Anyway?**

*Handout, page 1*

Characters:

Narrator  
Air Empress  
Oceanic Girl  
Highway Man  
Captain Rail-O-Tron

**Narrator:** So here we are at the yearly Superhero Interplanetary Transportation Conference. The focus of this year's conference is, "Who is the Best Driver of Georgia's Economy?" I am speaking today with four of the most well-known transportation superheroes that have ever tied on a cape. Welcome superheroes and thanks for coming.

**ALL superheroes:** Thanks! Great to be here.

**Narrator:** Let's get right to this. Heroes, which one of you is best at "driving" the economy of Georgia?

**ALL superheroes:** I AM!

**Narrator:** OK, OK, one at a time. Air Empress let's start with you. Why are you the best mode of transportation out there today?

**Air Empress:** I have a one word answer for you and that word is speed! I can get goods from China to Georgia in a matter of hours. Does 500 miles per hour sound good to you? That's me, fast. Let me see Oceanic Girl do that.

**Oceanic Girl:** Oh please Air Empress. You are so full of yourself. How many cars or trucks can you fit on an airplane? How about oil? Go ahead and ask the Empress how much oil, peanuts or molasses she can carry to and from Georgia.

**Air Empress:** You know that is a cheap shot Oceanic Girl. People want their goods right now! How many overnight packages have you ever delivered in your lifetime?

**Oceanic Girl:** Well, none.

**Air Empress:** Hah! Exactly my point.

**Oceanic Girl:** Maybe I can't get there overnight but I sure can haul huge quantities of just about anything. You can fit 100 times more stuff on a boat than you can a plane. I am all about quantity and I can save companies with lower shipping costs than miss hot-shot Air Empress here.

**Narrator:** Let's not let this get out of hand now. Both of you make good points.

## Who's Driving Georgia's Economy Anyway?      Handout, page 2

**Highway Man:** Good points, maybe. But they still can't hold a candle to me.

**Narrator:** Why do you say that Highway Man?

**Highway Man:** I am the oldest, most experienced, and most popular transportation option on the planet. I go back to the days of the horse and buggy.

**Oceanic Girl:** Uh, excuse me. You are not older than me. I've been around longer than any of you young whippersnappers.

**Highway Man:** As I was saying, I am all over your face because I'm all over the place. I am always right outside your front door and I am in every single community in this state. You can take me from Atlanta to Savannah or Macon to North Dakota and back. Good luck taking a boat from Macon to North Dakota!

**Captain Rail-O-Tron:** Well, chuck the truck! Who has time to drive on a highway from Macon to North Dakota? That would take forever. You are slow and outdated. Traffic jams, traffic lights, speed limits and roads washing out make driving a total drag. And how much stuff can you really fit in a truck or car anyway? Heck, one of the things I haul is trucks.

**Narrator:** You make some valid points there Captain Rail-O-Tron. Now tell us what you have to offer.

**Captain Rail-O-Tron:** Railroads built this country. You can string together 50 or 60 rail cars and pull freight just about anywhere. I don't get stuck in traffic. Traffic stops for me.

**Highway Man:** Tell me Captain Rail-O-Tron, can you transport goods to towns that have no rail lines?

**Oceanic Girl:** Can you transport goods from Georgia to England?

**Air Empress:** Or get a package to China in 22 hours?

**Captain Rail-O-Tron:** Maybe not but there are railroads all over North America that bring a lot of goods to Georgia each and every day. Transporting goods by rail is much less expensive than transporting goods on airplanes and we can take goods to all 50 states unlike Oceanic Girl here.

**Narrator:** Well, all of you bring up very good points. How about this? Can we just say that all four of you play equally important roles in driving the economy of Georgia?

**ALL superheroes:** Agreed.

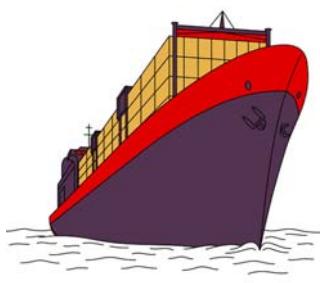
**Narrator:** Good, now let's go find Horse Man and Buggy Boy. They are feeling a bit down because nobody thinks they are cool anymore.

## Transportation Interaction

Worksheet, page 1

Directions: Use information from the “Who’s Driving Georgia’s Economy Anyway?” skit and the provided maps to fill in all appropriate spaces for each of the four transportation systems of Georgia.

### Deepwater Ports



Advantages:

Disadvantages:

How common are these  
in Georgia?

Where are two major deepwater  
ports found in Georgia?

### Interstate Highway System



Advantages:

Disadvantages:

How common is this  
in Georgia?

Where is this found  
in Georgia?

## Transportation Interaction

Worksheet, page 2

### Hartsfield-Jackson Atl. International Airport (air transportation)



Advantages:

### Railroads



Advantages:

Disadvantages:

How common is this  
in Georgia?  
(one location)

Where is this found  
in Georgia?

Disadvantages:

How common is this  
In Georgia?

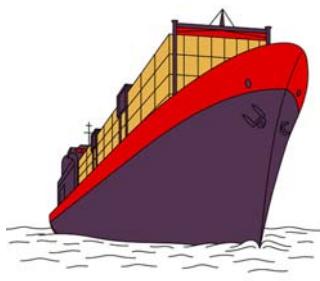
Where is this found  
in Georgia?

## Transportation Interaction

## Worksheet KEY, page 1

Directions: Use information from the “Who’s Driving Georgia’s Economy Anyway?” skit and the provided maps to fill in all appropriate spaces for each of the four transportation systems of Georgia.

### Deepwater Ports



Advantages:

**Large cargo**  
**Can ship liquid**

Disadvantages:

**Cannot go to land locked areas**  
**Need deep water ports**

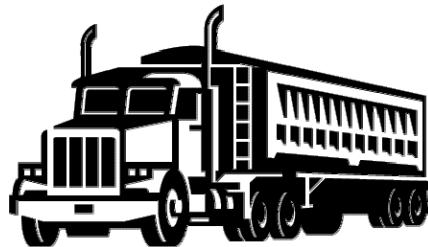
How common are these  
in Georgia?

**2**

Where are two major deepwater  
ports found in Georgia?

**Savannah, Brunswick**

### Interstate Highway System



Advantages:

**Large cargo**  
**Extensive roads**

Disadvantages:

**Traffic jams**  
**Bad weather slows it down**  
**High fuel costs**

How common is this  
in Georgia?  
**Thousands of miles of roads**

Where is this found  
in Georgia?

**All over the state**

## Transportation Interaction

Worksheet KEY, page 2

### Hartsfield-Jackson Atl. International Airport (air transportation)



Advantages:

**Fast**  
**Some large cargo**

### Railroads



Advantages:

**Large cargo**  
**Can ship liquids**  
**Can ship livestock**

Disadvantages:

**Expensive**  
**Cannot ship large quantities of liquid**

Disadvantages:

**Slow**  
**Not all areas have rail**

How common is this  
in Georgia?

(*one location*)

How common is this  
in Georgia?

**4,890 miles of track**

Where is this found  
in Georgia?  
**Atlanta**

Where is this found  
in Georgia?  
**Many parts of Georgia**

## Georgia Transportation Stats

Worksheet, page 1

**Directions: Answer all questions listed below.**

### **Highways**

Georgia DOT

[www.dot.state.ga.us/statistics/RoadData/Documents/437/DPP437\\_2007.pdf](http://www.dot.state.ga.us/statistics/RoadData/Documents/437/DPP437_2007.pdf)



1. How many miles of roads are there in the county you live in?
2. Which Georgia county has the most miles of roads?
3. How many miles of roads are there in Georgia?
4. How does the number of miles of roads help the transportation of goods and services throughout the state and country?

### **Air**



Hartsfield-Jackson Atlanta International Airport

[www.atlanta-airport.com/Default.asp?url=sublevels/airport\\_info/gmpage.htm](http://www.atlanta-airport.com/Default.asp?url=sublevels/airport_info/gmpage.htm)

(click on “Airport Fact Sheet” on the right side of page for information)

1. How many domestic passengers used Hartsfield-Jackson Atlanta International Airport in 2007?
2. How many international passengers used Hartsfield-Jackson Atlanta International Airport in 2007?
3. How many passenger airlines served Hartsfield-Jackson Atlanta International Airport in 2007?
4. How many cargo airlines served Hartsfield-Jackson Atlanta International Airport in 2007?
5. How big was Hartsfield-Jackson’s economic impact for the local and regional economy?
6. Approximately how many people are employed directly or indirectly by Hartsfield-Jackson Atlanta Airport?

## Georgia Transportation Stats

Worksheet, page 2

### Ports



Georgia Ports Authority

[www.gaports.com/TradeDevelopment/MarketingBusinessDevelopment/GPABytheNumbers/tabid/435/Default.aspx](http://www.gaports.com/TradeDevelopment/MarketingBusinessDevelopment/GPABytheNumbers/tabid/435/Default.aspx)

1. (US Ports Ranking report) Where does Savannah rank nationally?
2. ([Top 10 Export Commodity Groups](#)) What were the top three commodity group exports from Savannah in 2007?
3. ([Top 10 Import Commodity Groups](#)) What were the top three commodity group imports into Savannah in 2007?

### Rail



American Association of Railroads

[www.aar.org/PubCommon/Documents/AboutTheIndustry/RRState\\_GA.pdf](http://www.aar.org/PubCommon/Documents/AboutTheIndustry/RRState_GA.pdf)

1. In 2006, how many miles of operational railroad tracks were there in Georgia?
2. In 2006, how many tons of freight was carried by rail in Georgia?
3. In 2006, what was the number one commodity originated from Georgia?
4. In 2006, what was the number one commodity terminated in Georgia?

### Conclusion

1. How does Georgia's integrated system of roads, rails, airports, and deepwater ports create trade opportunities for Georgia businesses?
2. How does Georgia's integrated system of roads, rails, airports, and deepwater ports allow goods and services to enter Georgia from all over the world?
3. How does Georgia's integrated system of roads, rails, airports, and deepwater ports create jobs within Georgia?

## Georgia Transportation Stats

## Worksheet KEY, page 1

Directions: Answer all questions listed below.

### Highways

Georgia DOT

[www.dot.state.ga.us/statistics/RoadData/Documents/437/DPP437\\_2007.pdf](http://www.dot.state.ga.us/statistics/RoadData/Documents/437/DPP437_2007.pdf)



1. How many miles of roads are there in the county you live in? **Answers will vary**
2. Which Georgia county has the most miles of roads? **Gwinnett**
3. How many miles of roads are there in Georgia? **102,589**
4. How does the number of miles of roads help the transportation of goods and services throughout the state and country? **More roads allow for more trade and transportation opportunities**

### Air



Hartsfield-Jackson Atlanta International Airport

[www.atlanta-airport.com/Default.asp?url=sublevels/airport\\_info/gmpage.htm](http://www.atlanta-airport.com/Default.asp?url=sublevels/airport_info/gmpage.htm)

1. How many domestic passengers used Hartsfield-Jackson Atlanta International Airport in 2007? **79,796,551**
2. How many international passengers used Hartsfield-Jackson Atlanta International Airport in 2007? **8,897,291**
3. How many passenger airlines served Hartsfield-Jackson Atlanta International Airport in 2007? **32**
4. How many cargo airlines served Hartsfield-Jackson Atlanta International Airport in 2007? **18**
5. How big was Hartsfield-Jackson's economic impact for the local and regional economy? **\$23.5 billion**
6. Approximately how many people are employed directly or indirectly by Hartsfield-Jackson Atlanta Airport? **56,000**

## Georgia Transportation Stats

## Worksheet KEY, page 2

### Ports



Georgia Ports Authority

[www.gaports.com/TradeDevelopment/MarketingBusinessDevelopment/GPABytheNumbers/tabid/435/Default.aspx](http://www.gaports.com/TradeDevelopment/MarketingBusinessDevelopment/GPABytheNumbers/tabid/435/Default.aspx)

1. (US Ports Ranking report) Where does Savannah rank nationally? **4th**
2. ([Top 10 Export Commodity Groups](#)) What were the top three commodity group exports from Savannah in 2007? **Wood pulp, paper and paper waste, food (poultry-citrus)**
3. ([Top 10 Import Commodity Groups](#)) What were the top three commodity group imports into Savannah in 2007? **Furniture, retail goods, machinery-appliances-electronics**

### Rail



American Association of Railroads

[www.aar.org/PubCommon/Documents/AboutTheIndustry/RRState\\_GA.pdf](http://www.aar.org/PubCommon/Documents/AboutTheIndustry/RRState_GA.pdf)

1. In 2006, how many miles of operational railroad tracks were there in Georgia? **4,890**
2. In 2006, how many tons of freight was carried by rail in Georgia? **221,119,831**
3. In 2006, what was the number one commodity originated from Georgia? **Nonmetallic minerals**
4. In 2006, what was the number one commodity terminated in Georgia? **Coal**

### Conclusion

1. How does Georgia's integrated system of roads, rails, airports, and deepwater ports create trade opportunities for Georgia businesses? **Businesses can ship and receive more goods.**
2. How does Georgia's integrated system of roads, rails, airports, and deepwater ports allow goods and services to enter Georgia from all over the world? **All four connect with other countries.**
3. How does Georgia's integrated system of roads, rails, airports, and deepwater ports create jobs within Georgia? **Tens of thousands of Georgian's are needed to staff positions created from this integrated system.**

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**Hartsfield-Jackson, Then and Now**

**Worksheet, page 1**

Directions: Use information from the “Georgia Stories” video and the *Georgia Transportation Stats Worksheet* to compare Hartsfield-Jackson Atlanta International Airport in 1995 to 2007.



1. Number of people that used the airport?

1995-

2007-

2. How many passenger airlines serve Atlanta at Hartsfield-Jackson?

1995-

2007-

3. How large of an economic impact did Hartsfield-Jackson have on the state of Georgia?

1995-

2007-

4. How many people were employed at Hartsfield-Jackson?

1995-

2007-

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**Hartsfield-Jackson, Then and Now**

**Worksheet, page 1**

Directions: Use information from the “Georgia Stories” video and the *Georgia Transportation Stats Worksheet* to compare Hartsfield-Jackson Atlanta International Airport in 1995 to 2007.

1. Number of people that used the airport?

1995- **60,000,000**

2007- **roughly 88,000,000 (domestic and international)**

2. How many passenger airlines serve Atlanta at Hartsfield-Jackson?

1995- **20**

2007- **32**

3. How large of an economic impact did Hartsfield-Jackson have on the state of Georgia?

1995- **\$15 billion**

2007- **\$23 billion**

4. How many people were employed at Hartsfield-Jackson?

1995- **38,000**

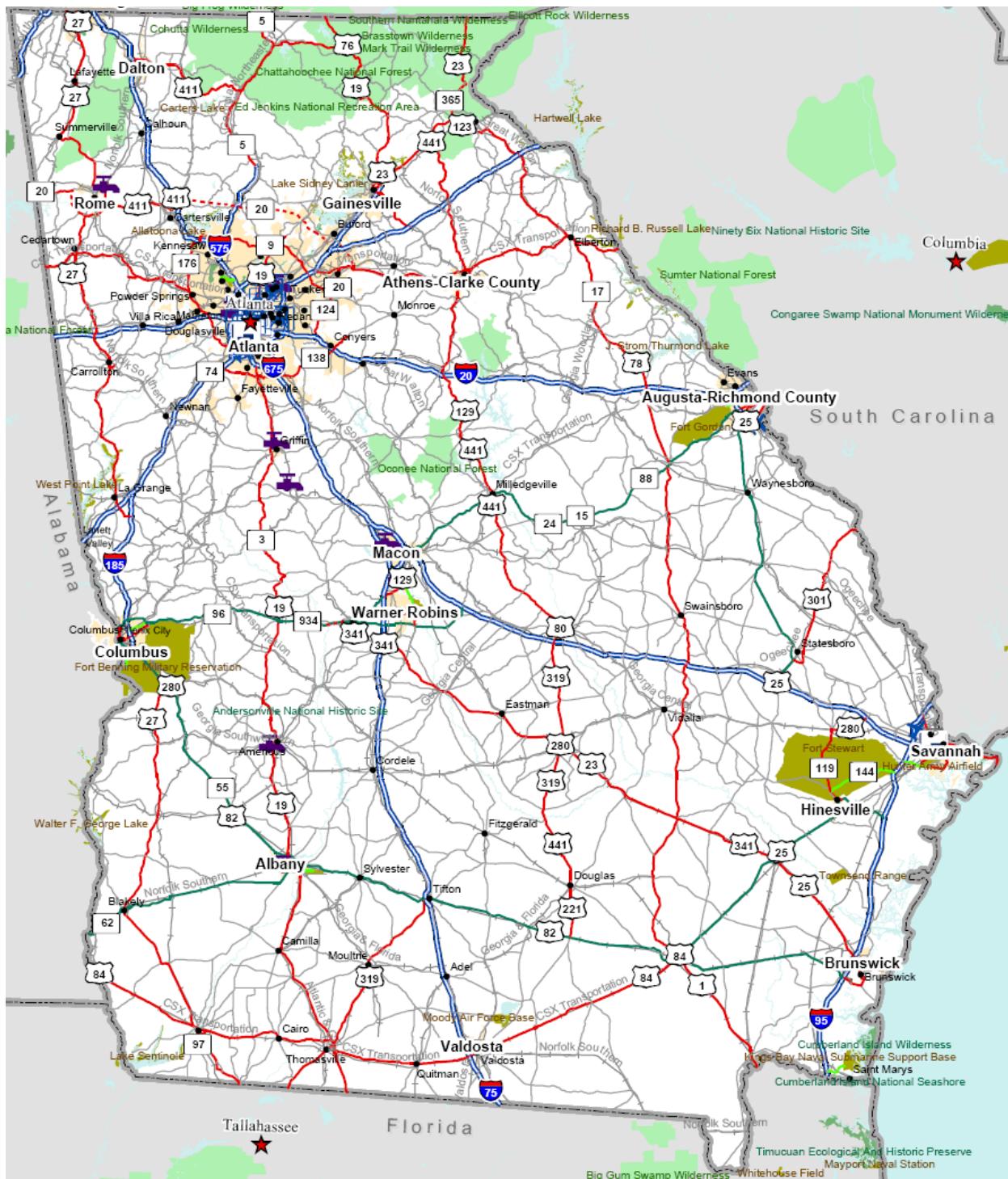
2007- **56,000**

# *Georgia Economic History*

## SOCIETAL & TECHNOLOGICAL GROWTH IN MODERN GEORGIA

## Interstate Highway System

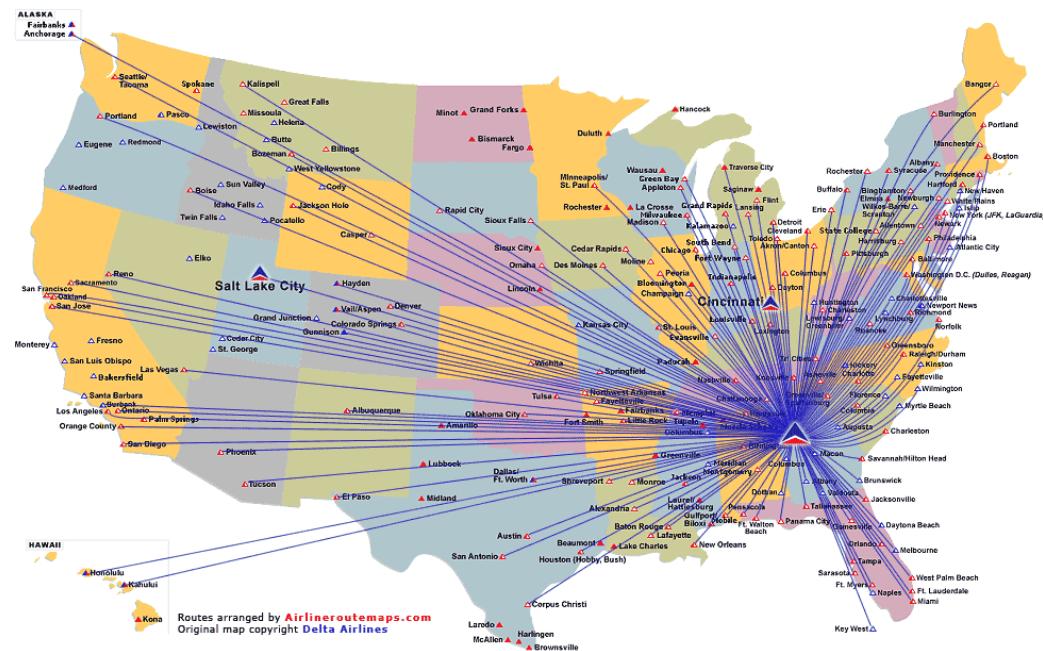
## Map 1



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## Hartsfield-Jackson Atlanta International Airport

Map 2



Daily Delta Airlines passenger flights from Atlanta



Daily Airtran Airways passenger flights from Atlanta

## Georgia's Deepwater Ports

Map 3



Tied to the Railroad System

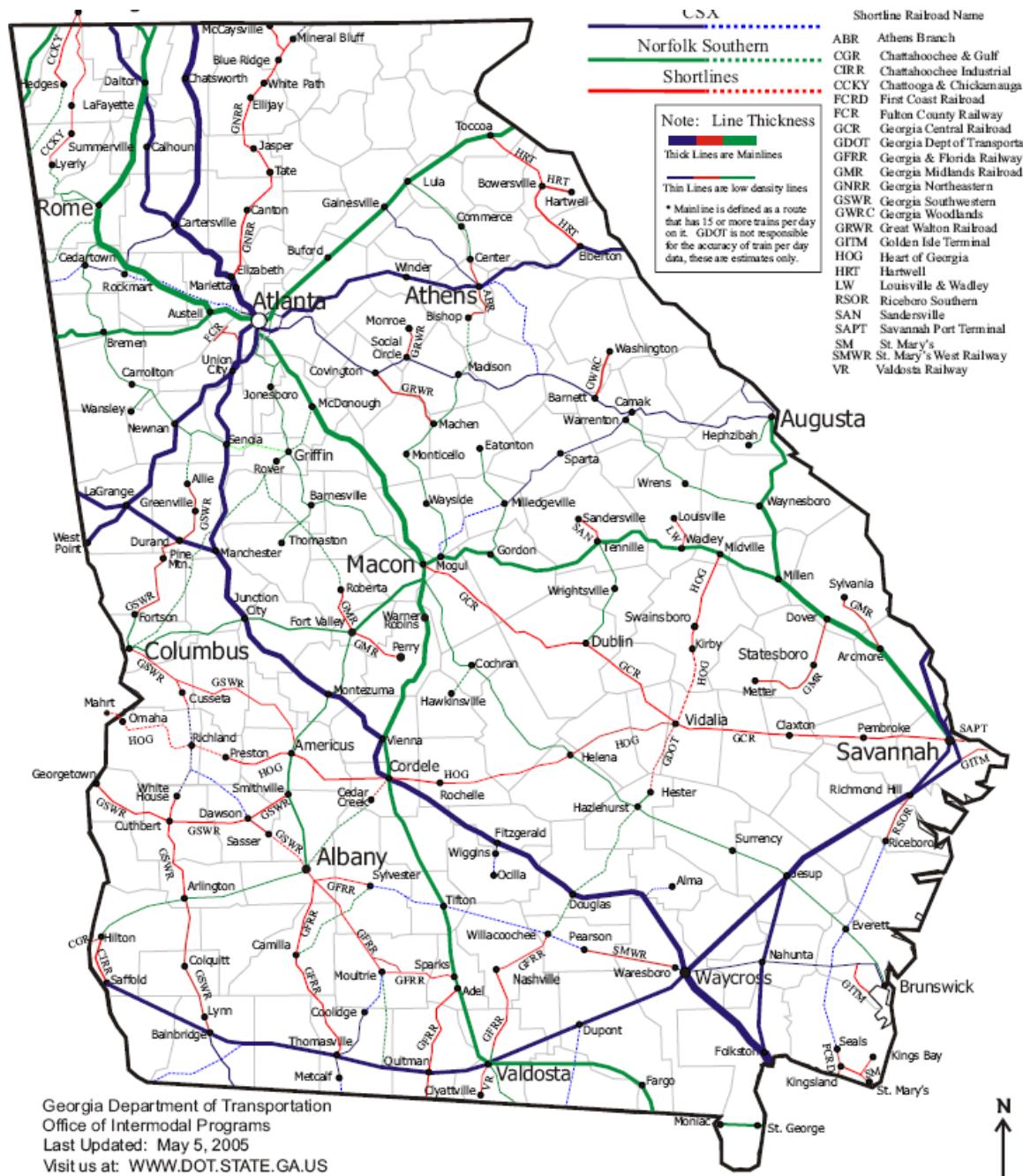


Tied to the Interstate System

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## Georgia Railroads

Map 4



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**Countries of the World (transparency)**

**Map 5**

