



Attracting Distribution Center and Related Logistics Investment to Florida to Anchor Traffic through Florida Ports

FINAL REPORT

Prepared for:

Florida Seaport Transportation and Economic Development Council

Prepared by:

CPCS

In association with sub-contractors:

Investment Consulting Associates

Maritime Transport & Logistics Advisors

Project Objectives

The Florida Seaport Transportation and Economic Development Council retained a team led by CPCS to identify opportunities to increase investment in the logistics and distribution center sector in Florida, with the objective of increasing and anchoring traffic handled through Florida's ports. To this end, this project is focused on identifying a strategy and supporting resources to attract more distribution, warehousing and other logistics investment and operations to Florida.

Key Questions

The study sought to answer the following key questions:

- What do Florida's Distribution Center (DC) and logistics clusters look like, and what are their structural strengths and weaknesses?
- With whom does Florida compete for DC and logistics-related investment, and for what key commodities and market segments?
- How do the enabling investment conditions in Florida compare to competing markets?
- What is the value proposition for Florida and its regions to draw investors and anchor traffic to Florida and Florida's seaports?

Limitations

Some of the findings in this report are based on the analysis of third party data. While the study team made efforts to validate data, the study team cannot warrant the accuracy of third party data.

Acknowledgments

CPCS acknowledges and is thankful for input provided by members of the Florida Seaport Transportation and Economic Development Council, as well as other stakeholders consulted in the development of this report.

Unless otherwise noted, the opinions herein are those of CPCS and do not necessarily reflect the views of the Florida Ports Council or its members.

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Acronyms / Abbreviations

B2B	Business to Business
DC	Distribution Center
DEO	Department of Economic Opportunity
EDO	Economic Development Organization
EFI	Enterprise Florida, Inc.
FAF	Freight Analysis Framework
FDOT	Florida Department of Transportation
FECR	Florida East Coast Railway
FSTED	Florida Seaport Transportation and Economic Development
FTZ	Foreign Trade Zone
GIS	Geographic Information System
GPA	Georgia Ports Authority
HOS	Hours of Service (trucking regulations)
KT	Kilotons (1,000 short tons)
LQs	Locations Quotients
MSA	Metropolitan Statistical Area
NAICS	North American Industry Classification System
NOLA	Port of New Orleans
RORO	Roll-On Roll-Off
TEU	Twenty Foot Equivalent Unit
US	United States

Executive Summary

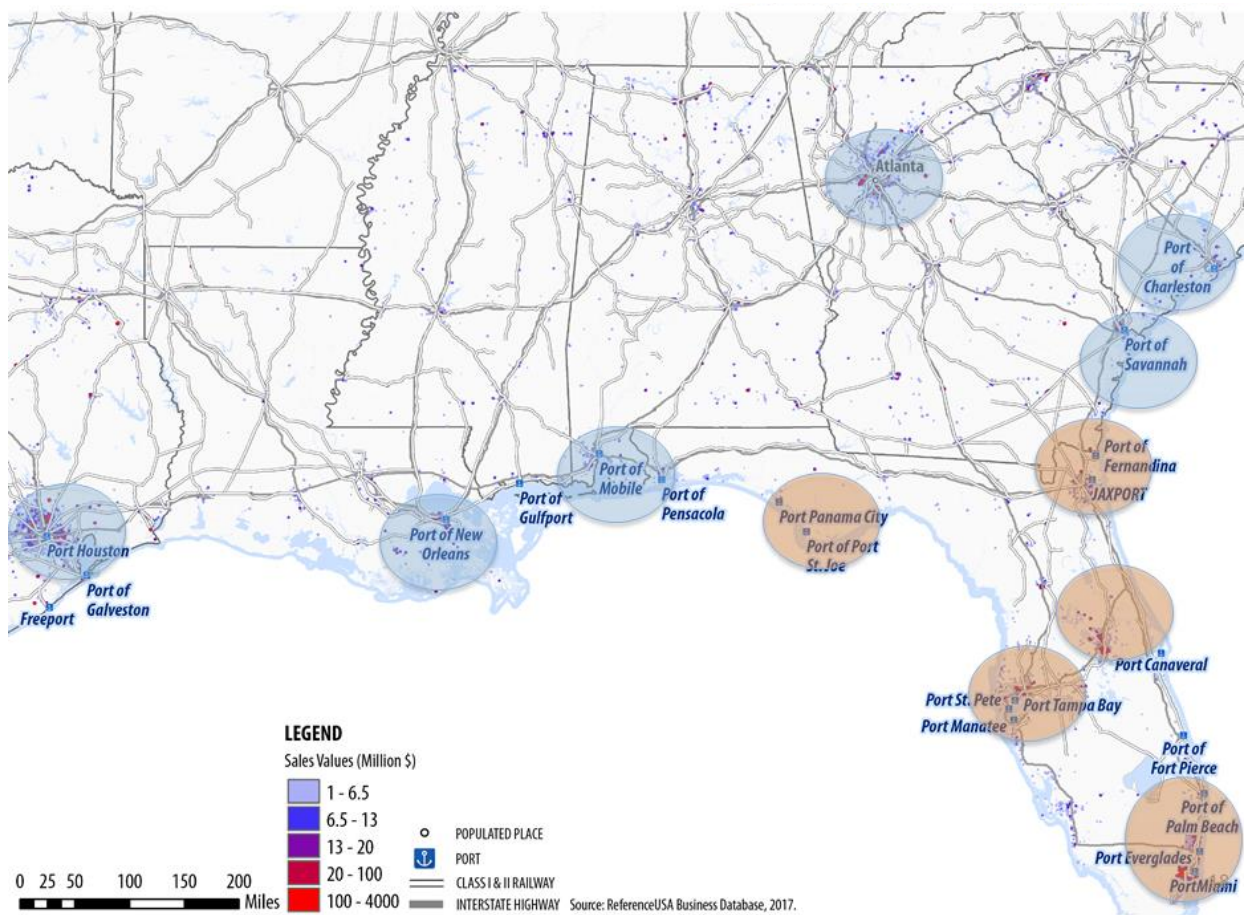
Study Objective

The Florida Seaport Transportation and Economic Development (FSTED) Council seeks to identify opportunities to increase investment in the logistics and distribution center (DC) sector in Florida, with the objective of increasing and anchoring traffic handled through Florida’s ports. To this end, this study identifies a strategy and supporting resources to attract more distribution, warehousing and other logistics investment and operations to Florida.

Approach

This study reviewed the state of the logistics and DC sector in Florida, with a focus on five regions across the state: Northeast Region, Central East Region, Southeast Region, Central West Region, and Northwest Region. Characteristics for attracting investment in the sector were compared with six regions outside of Florida – as illustrated in the figure below – Charleston SC, Savannah GA, Atlanta GA, Mobile AL, New Orleans LA, and Houston TX.

Figure ES-1: Southeastern US Transportation & Logistics Cluster – Sales Values



Florida's Logistics Sector

Reflecting nation-wide trends, the warehousing and distribution sector has grown significantly in Florida over the past 20 years. The number of employees in the sector increased from close to 5,000 employees in 1995 to more than 32,000 in 2015.¹ This represents a more than six-fold increase in employment in the sector (slightly under the national average), while the population in the state increased by 40%² over the same period, and tourism by 162%.³

Lost Traffic to Competing Regions

In 2015, 10.6 million tons of waterborne consumer, business to business (B2B), and wholesale-type goods worth \$30.9 billion were imported into Florida over Florida and non-Florida ports. Florida's seaports handled 61% (6.6 million tons) of this import tonnage and 73% (\$22.5 billion) of this import value.

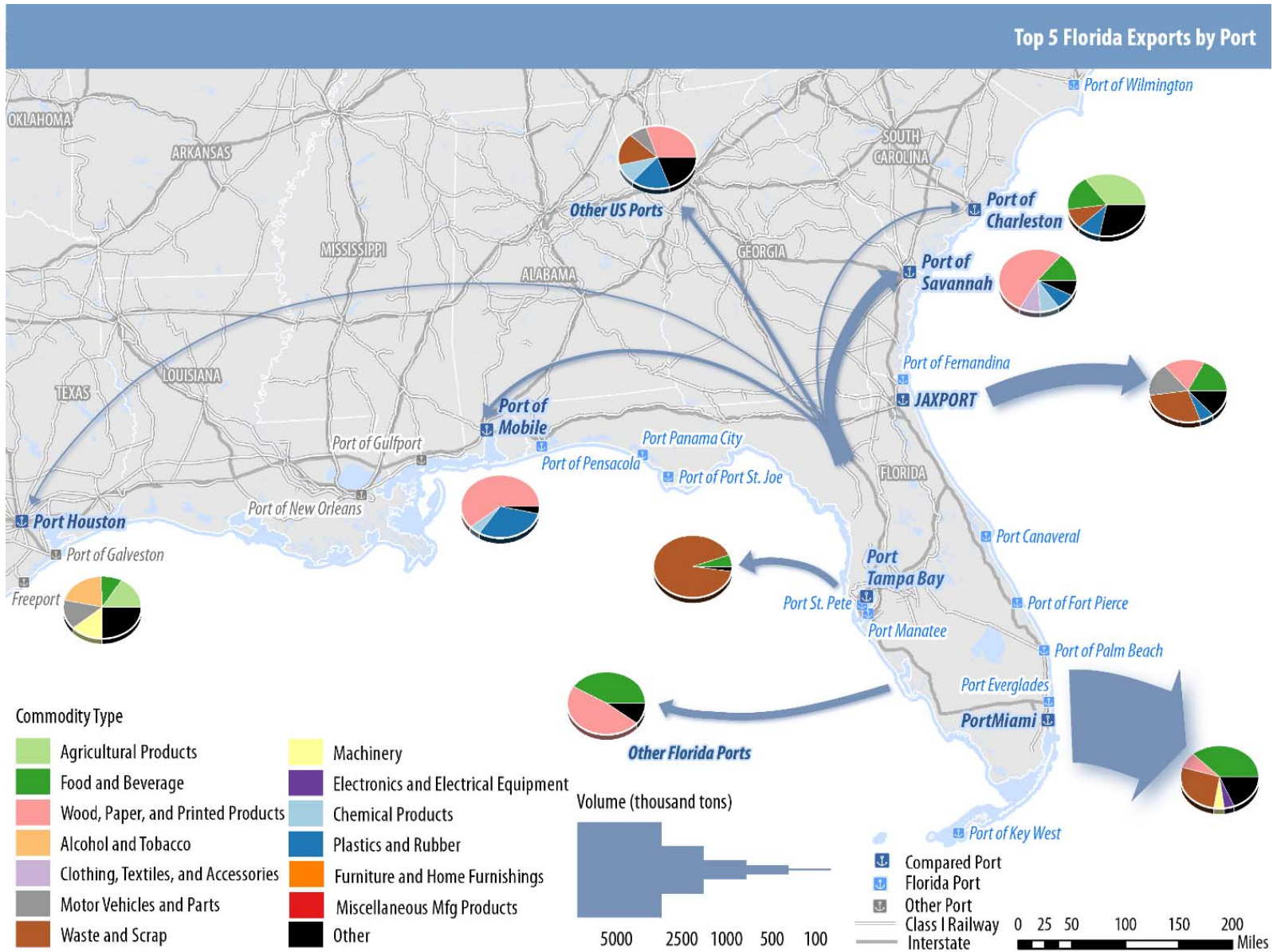
The maps below illustrate volumes of commodities being imported to, or exported from, Florida which are handled by Florida and out-of-state ports (with a focus on products that are containerized and/or typically handled through a DC). On the import side, they are both disproportionately received by out-of-state ports *and* show a low import-population ratio of Clothing and Textiles, Electronics and Electrical Equipment (low volume, but high value), Furniture and Home Furnishings, Chemicals (low volume, but high value), and Plastics. On the export side, Florida's seaports already handle the majority of exports from the state; 85% by volume and 87% by value. This suggests there is less of an opportunity to capture Florida exports moving through ports outside of Florida.

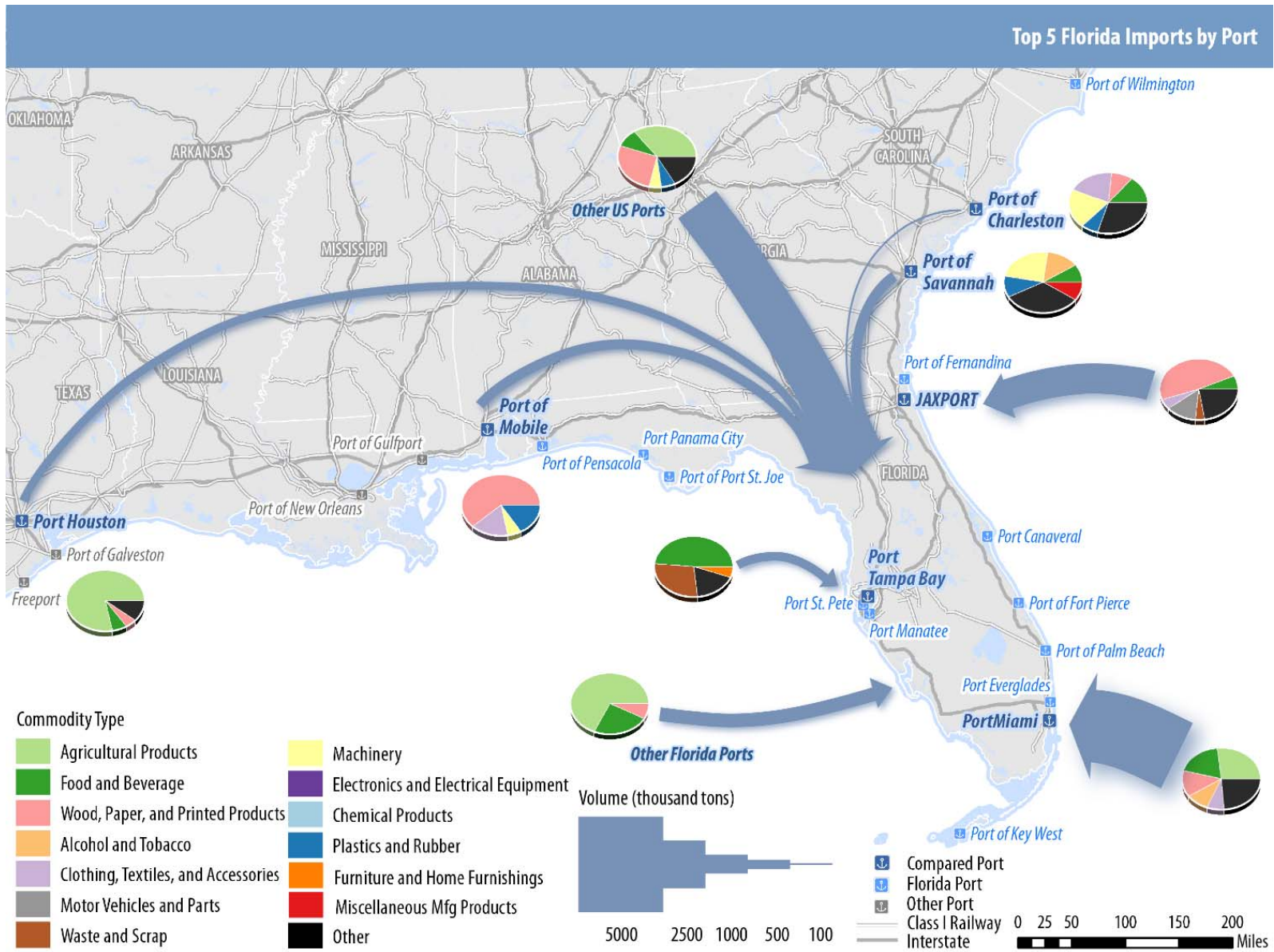
¹ US Census Bureau, County Business Patterns <https://www2.census.gov/programs-surveys/cbp/tables/1995/cbp-9511.pdf> and interactive Census Factfinder application for 2015.

² US Census Bureau.

³ <http://www.fdot.gov/planning/trends/tc-report/tourism.pdf> and <http://www.flgov.com/2016/02/18/gov-scott-florida-welcomed-a-record-105-million-tourists-in-2015/>.

Figures ES-2: Florida Export and Import Flows (from US and Non-US Ports)





Source: CPCS Analysis of Freight Analysis Framework Data. 201

Comparison with Competing Regions

Florida’s investment climate was compared with regional competitors. Freight-dependant businesses consider a number of factors when assessing alternative regions for investment in a new warehouse, DC or fulfillment center. Though these factors differ by sector and supply chain, they typically include:

- Consumer market access, including the size and demographics of the regional population
- Existing retail store footprint in that catchment area
- Labor access, availability and related labor market conditions
- Real estate/land availability and prices
- Operating costs for a typical warehouse or DC, including purchase/lease costs, utilities, labor costs and taxes
- Transportation access, including to uncongested highways, competitive rail service, and shipping line call frequency, and
- Business incentives available from local or state agencies.

As a peninsula, Florida is not particularly well placed to serve as a national distribution hub, as is Chicago, Memphis or Atlanta, for example. Yet it is home to a large population base which provides a clear opportunity to attract warehouses, DCs and fulfillment centers focused on serving the Florida market. Consumer market access is typically the top consideration when businesses look to invest in new warehouses, DCs and particularly e-commerce fulfillment centers to serve regional market demand and to quickly replenish inventories in a regional retail footprint or consumer market. Serving the Florida market from a Florida logistics footprint can also help reduce total transportation costs, which is one of the largest cost components for DC and fulfillment center operations. For example, based on a theoretical analysis of replenishing Florida’s 44 Gap retail stores from a DC located in Florida compared to DCs in Savannah and Atlanta,⁴ the truck transportation cost from Florida would be roughly a third of those from Savannah and a quarter of those from Atlanta. Proximity to Florida’s large retail market and the associated potential truck transportation savings are a big part of Florida’s value proposition for investment attraction in warehouses, DCs and fulfillment centers.

The comparative analysis identified a number of other strengths and some weaknesses for Florida’s regions relative to competing regions in its competitive battleground for investment attraction relating to a typical warehouse, DC or fulfillment center.

Strengths	Weaknesses
<ul style="list-style-type: none"> • Market access: Third most populous state in the country, and one of the fastest growing populations. Large tourism and visitor base. Florida has a strong stand-alone market base to attract investment, particularly for e-commerce fulfillment centers which require market proximity. 	<ul style="list-style-type: none"> • Higher operating costs for a typical 500,000 square-foot DC across Florida relative to all peer regions analyzed. • Relatively limited Class I rail service compared to most regional competitors. • Fewer state and local business incentives targeted to attracting investment in the logistics sector, relative to other states/regions.

⁴ GAP was selected as an illustration of a well-known mid-size retailer in the US.

Strengths	Weaknesses
<ul style="list-style-type: none"> • Transportation access to Latin America/Caribbean: Including well established and frequent container liner services. • Labor supply: Labor costs that are lower or comparable to Houston, Atlanta, and New Orleans. • Low taxes: Favorable corporate and personal income tax regimes, and property tax rates that are lower relative to Houston, Atlanta, and Charleston. 	<ul style="list-style-type: none"> • Lower density of industry/clusters: In most areas, lower Location Quotients (an indicator of an area’s employment base) in transportation and logistics relative to peers. • Fewer transportation connections to Asia, Middle East, and Northern Europe: Relatively few container services to/from these markets. • Limited trucking backhaul market: Trade imbalance that creates unfavorable inbound trucking rates.

Florida Incentive Programs are Not Geared to Transportation and Logistics Sector, Unlike Competing Jurisdictions

Incentive programs are a reality of the US competitive environment. States offer various types of incentives to achieve certain objectives, the most common of which are job creation and capital investment support.

Florida’s state-level incentives are not targeted specifically at the Transportation and Logistics Sector, and the structure of state-level incentive programs (focused on target industries) makes it difficult for DC projects to qualify for tax refunds or credits. In general, Florida’s state-level incentives target higher paid jobs, and higher-tech industries, which means that lower paying and lower-tech transportation and distribution operations do not typically qualify, even though they may employ many people.

Florida’s local incentives such as county tax exemptions may be more directly applicable to transportation and distribution firms, but these programs can be less lucrative by virtue of their smaller, local nature. Also, Florida’s local incentives do not give the state a competitive advantage, as all competing regions have similar local incentive programs.

By way of comparison, Georgia and South Carolina offer incentives that are directly tied to the utilization of the state’s ports. Georgia offers additional tax credits to companies that generate a 10% or greater increase in shipments through Georgia ports. South Carolina offers up to an \$8 million state income tax credit for companies that generate at least a 5% increase in the state’s port cargo volumes. South Carolina also offers direct subsidies for containers imported via the Port of Charleston. Florida lacks a similar incentive program, which particularly disadvantages ports located in the northern areas of the state, and which are in closer competition with ports in competing regions.

Focusing on Florida’s Competitive Opportunities

A Reverse Site Selection model was used to compare the investment climate for key commodities where Florida is potentially losing business to competing regions (or where Florida may be underserved by local DCs, relative to its population). The results suggested that Houston and Atlanta are a more advantageous destination for investment in a logistics facility relative to Florida across almost all product categories. Yet, these competing jurisdictions are less well placed to serve the large Florida market than Florida, given the higher transportation cost to serve the Florida market. Based

on the results of the Reverse Site Selection model, we identified the relative competitive position of each Florida region as follows:

- **Northeast Florida** presents a competitive case for attracting Wood, Paper, and Printed Products. It also has excellent transportation access (the only region in Florida with access to two Class I railways) and a relatively large number of households within a 4-hour drive.
- **Central East Florida** is competitive in both the Clothing, Textiles, and Accessories and Furniture and Home Furnishings categories. Since these categories relate to consumer goods, demographics would drive investment location decision. Central East Florida ranks 3rd in market access because of its strong household population size and growth, as well as moderate household income growth within a 4-hour radius. Furthermore, the rapid pace of housing unit growth is advantageous for furniture commodities.
- **Central West Florida** is competitive across five commodity categories, including Electronics and Electrical Equipment, Chemicals, Plastics, Machinery, and Agricultural Products. Apart from perhaps Electronics and Electrical Equipment and partly Agricultural Products, these commodities serve as inputs for manufacturers.
- **Southeast Florida** demonstrates average competitiveness for consumer goods categories but does not present a competitive case for attracting manufacturing inputs. In terms of scale, Southeast Florida has the advantage of a large population size, though its market reach within 4-hours is less than that of other locations in Florida due to its position at the tip of the peninsula. Its regional population growth is also not as strong as some of its peers. It has a robust density of retail stores related to Clothing, Textiles, and Accessories, Electronics and Electrical Equipment, and Furniture and Home Furnishings, but the density of manufacturing is low.
- **Northwest Florida** is not shown to be competitive for the product categories considered, beyond local warehousing and distribution activity in large part due to its relatively low population base. That said, its ranking for Clothing, Textiles, and Accessories is better than those of its nearest neighbors, Mobile and New Orleans, mostly due to high location quotients for clothing retail stores.

Opportunities for Growth

Florida is home to a large and rapidly growing population (21 million), with high and growing numbers of annual visitors (117 million in 2017). This base provides a clear opportunity to attract warehouses, DCs and fulfillment centers focused on serving the Florida market. This is particularly the case where total transportation costs from a DC in a competing region are higher on the whole than would be the case if the Florida market was served directly from a DC based in Florida.

Given its growing population, Florida is likely also a good venue for supply chain “near-sourcing”, the practice of producing products nearest to where they are sold, which can also generate demand for warehousing and logistics more generally.

The regional competitive position noted above provides specific areas of strength on which to focus on investment attraction activities. A potential opportunity is to focus investment attraction on those companies that are currently serving the Florida market from warehouses, DCs and fulfillment centers

outside of Florida but that are sufficiently evolved in their supply chain strategies where they are looking to expand their logistics facility footprint to be closer to large markets, such as Florida.

The “Pitch”: Florida’s Value Proposition

Given Florida’s geography as a peninsula, the state is not particularly well suited to be a national or continental logistics hub (e.g. such as Chicago or Atlanta), for reasons discussed in this report. Nevertheless, Florida is an important market in its own right and a strategic location for any company looking to serve the large Florida market (particularly with respect to the retail and consumer goods sector). For this reason, messaging should target a company’s “Next” distribution center, rather than pitch Florida as the location of a company’s primary US distribution hub.

With a focus on the retail and consumer goods sector, the initial “pitch” should focus on the following Florida advantages which underpin its value proposition.

THE PORT OF PENSACOLA

5 REASONS TO LOCATE YOUR NEXT DISTRIBUTION CENTER TO FLORIDA

- Access a Growing Market**
Florida is the third most populous U.S. state, home to over 21 million consumers. And by 2030, its population is expected to grow by 35%, more than almost every other state in the country. This growth is coupled with more than 117 million annual visitors.
- Save Millions in Trucking Costs**
Florida-based distribution centers result in shorter truck trips to reach Florida’s consumers, translating to lower trucking costs. Reach between 4 and 5 million consumers within 50 miles of central Florida locations, and close to 20 million consumers within 250 miles.
- Pay Less in Taxes**
Corporate tax rates in Florida are lower than most competing U.S. states and there is no personal income tax in Florida. Also, property and sales tax rates are lower than average.
- Discover More Available Space**
Most Florida regions have a larger inventory of warehousing and distribution buildings compared to other states in the Southeast. There is also more square footage of warehousing space available.
- Connect to the World**
Florida has a well established port system with particularly strong maritime connections to the Caribbean and Latin America.

Florida’s economy ranks 5th best in the nation, and in terms of projected growth, the state’s economy ranks 2nd. Source: McKinsey & Company, 2018

Outstanding Questions and Next Steps

This study identified Florida’s value proposition for DC, warehouse and other logistics facility investment attraction and includes a potential marketing plan. It is nevertheless not entirely clear who will champion and advance investment attraction activities.

In our opinion, this would be best led by state economic development agencies. In addition, the material developed as part of this study could also support and inform existing transportation and logistics sector investment attraction activities at all levels of government in Florida.

In the short/medium term, the Florida Ports Council would be well placed to promote this work and the related resources with economic development agencies that would ultimately run with the downstream investment attraction activities.

In any case, the analysis, presentation materials, and brochures developed as part of this study should be considered “open source” such that any entity looking to market Florida as a destination for DC, warehouse and logistics investment can leverage and tailor these resources to their specific needs and investment attraction activities.

1 Logistics and Distribution in Florida

1.1 Trends in the US Warehousing and Distribution Center Sector

A DC is a type of warehouse, or specialized building, handling products that require some form of storage and/or re-distribution. Inbound products typically include wholesale shipments that are split and re-directed in smaller or consolidated batches of products moving outbound to wholesale locations, retail locations (retail distribution center) or direct-to-consumer (order fulfillment center – e.g., Amazon). In some cases, products are stored at a DC much like a warehouse until they are demanded (pulled) by a retail location or consumer directly. In other cases, products pass immediately through a DC for onward shipment; as soon as a product is unloaded from an inbound truck, it is immediately re-loaded onto a truck for shipment to the customer. This is also known as cross-docking.

DCs may also serve as a final assembly staging point where various product parts are stored and then assembled or tailored into a customized final product, which is then sent directly to a retailer or customer per their requirements.

1.1.1 Key Nation-Wide Trends

The logistics industry in the US has experienced rapid growth and change since the 1990s. The number of warehousing and storage establishments in the US increased by 43% between 1995 and 2015, while the number of employees in the sector increased more than seven-fold, from 114,912 to 809,359 over the same period.⁵

A number of factors have contributed to growth and change in the sector over the past decade.

- **The rise of Distribution Centers vs. Warehousing.** The warehousing industry has changed to become more of a distribution industry, based on more globalized networks of goods distribution, just-in-time operations, and hub and spoke networks. As noted above, rather than simply warehousing (storing) products until they are needed, DCs are increasingly used as points to transfer goods between vehicles, with goods often held for short periods of time.
- **Outsourcing to 3PLs.** Warehousing activities which were previously performed “in-house” as part of a manufacturing or distribution activity (on the same premises) are being outsourced to specialized logistics providers (third party logistics providers – 3PLs). These companies

⁵ US Census Bureau, County Business Patterns, Warehousing Firms; 1995 data is from SIC 422 – Public Warehousing and Storage; 2015 data is NAICS code 493, warehousing and storage.

move, store or manage products without assuming any ownership of the products, including providing value-added warehousing and distribution in some cases. In the US, the 3PL industry has grown by approximately 7% per year over the past ten years.⁶ The advantages of outsourcing include a reduction in staff associated with transport, reduction or elimination of assets such as trucks and warehouse space, and low liabilities.⁷ It also allows greater flexibility of the manufacturer in directing its focus and resources on the growth of its core business. Industries with the greatest proportion of outsourced logistics include high tech, retail and food, and groceries, though the fastest growing sectors are in e-commerce and healthcare.

- **Mega-Distribution Centers.** The physical size of DCs is growing. In recent years “mega DCs” are being established, employing more than 100 workers in facilities greater than 500,000 square feet.⁸ These large DCs typically serve mega-markets, where multiple regional markets can be accessed from one site (as opposed to optimizing access to any single market with one or more DCs). The trend has been driven in part by the growth of big-box retail companies, industry mergers and consolidation, and increasingly sophisticated information technologies that facilitate more efficient supply chain and stock management.⁹
- **Growth in e-commerce (Business to Consumer- B2C):** Growth in online shopping in the US has been huge over the past fifteen years. In late 1999, e-commerce sales of \$4.4 billion accounted for 0.6% of total retail sales in the US; by mid-2017, this figure had increased to \$111.5 billion, equivalent to 8.9% of retail sales.¹⁰ From a DC/warehouse location perspective, major e-commerce retailers are adding more, smaller warehouses in dense urban areas as they face increasing pressure to offer one-day or even same day shipping services to consumers. This is something of a parallel trend to the establishment of mega-DCs outside urban areas as noted above. These urban DC sites are often located in industrial corridors that were once dedicated to manufacturing facilities.¹¹

1.1.2 The Logistics and DC Market in Florida

Reflecting nation-wide trends, the warehousing and distribution sector has grown significantly in Florida over the past twenty years. The number of employees in the sector increased from close to

⁶ AT Kearney, “CSCMP’s Annual State of Logistics Report – Logistics in Transition: New Drivers at the Wheel”, 2016. <https://www.lee-associates.com/logistics/wp-content/uploads/sites/11/2017/05/cscmp-sofl-report-2016.pdf>.

⁷ 2016 Florida Air Cargo Study, <http://www.florida-aviation-database.com/library/filedownload.aspx?guid=90cff320-313d-4c9f-a639-d63d538b467a>.

⁸ Andreoli, D, A. Goodchild and K. Vitasek, “The risk of mega distribution centers and the impact on logistical uncertainty”, International Journal of Transportation Research (2010) 2: (pp. 75-88). https://depts.washington.edu/pcls/documents/research/Goodchild_RiseOfMegaDCs.pdf.

⁹ https://depts.washington.edu/pcls/documents/research/Goodchild_RiseOfMegaDCs.pdf.

¹⁰ US Census Bureau, Estimated Quarterly US Retail Sales.

¹¹ Erica Philips for the Wall Street Journal, “The new Shipping Hubs for Cities: Warehousing Distribution Centers”, April 16, 2017. <https://www.wsj.com/articles/the-new-shopping-hubs-for-cities-warehouse-distribution-centers-1492394640>.

5,000 employees in 1995 to more than 32,000 in 2015.¹² This represents a more than six-fold increase in employment in the sector (slightly under the national average), while population in the state increased by 40%¹³ over the same period, and tourism by 162%.¹⁴

1.2 Regional Variations in Logistics Activity Across Florida

At the start of this study, it was agreed that the CPCS team should focus its efforts on identifying opportunities for investment for a limited number of areas within Florida. This was to ensure that we identified opportunities which illustrated the strongest potential, while also reflecting the needs and interests of the stated purpose of the study.

The report therefore focused primarily on five regions across the state: Northeast Florida (Jacksonville area); Central East Florida (Orlando area, east); Southeast Florida (Miami/Fort Lauderdale/Palm Beach area); Central West Florida (Tampa Bay area); and Northwest Florida (Panama City area, west).¹⁵ These regions, along with a selection of existing logistics DC locations, are illustrated in the map in Figure 1-1.

1.2.1 Number and Size of Transportation and Warehousing Entities

Figure 1-2 illustrates the number of transportation and warehousing entities across the five Florida regions by size (number of employees). The Southeast region has more entities in this sector (5,392) than all of the other regions combined (4,033). The total number of companies in this sector is similar in the Northeast (1,105), Central East (1,413) and Central West (1,400). There are far fewer firms involved in the sector in the Northwest (101).

Across all regions of Florida, smaller firms (< 20 employees) account for the vast majority of businesses in the warehousing and distribution sector. These small businesses account for more than three-quarters of the business establishments across all regions of Florida. The proportion of small firms is highest in Southeast Florida (87%). Interestingly, there are more large firms (> 500 employees) than medium-sized firms (20 – 499 employees) across all regions with the exception of the Southeast.

¹² US Census Bureau, County Business Patterns <https://www2.census.gov/programs-surveys/cbp/tables/1995/cbp-9511.pdf> and interactive Census Factfinder application for 2015.

¹³ US Census Bureau.

¹⁴ <http://www.fdot.gov/planning/trends/tc-report/tourism.pdf> and <http://www.flgov.com/2016/02/18/gov-scott-florida-welcomed-a-record-105-million-tourists-in-2015/>.

¹⁵ Unless otherwise noted, data analysis for each region uses the Metropolitan Statistical Area (MSA) geographical boundary. The details are included in Appendix B.

Figure 1-1: Map of Florida DC Locations (Non-Exhaustive)

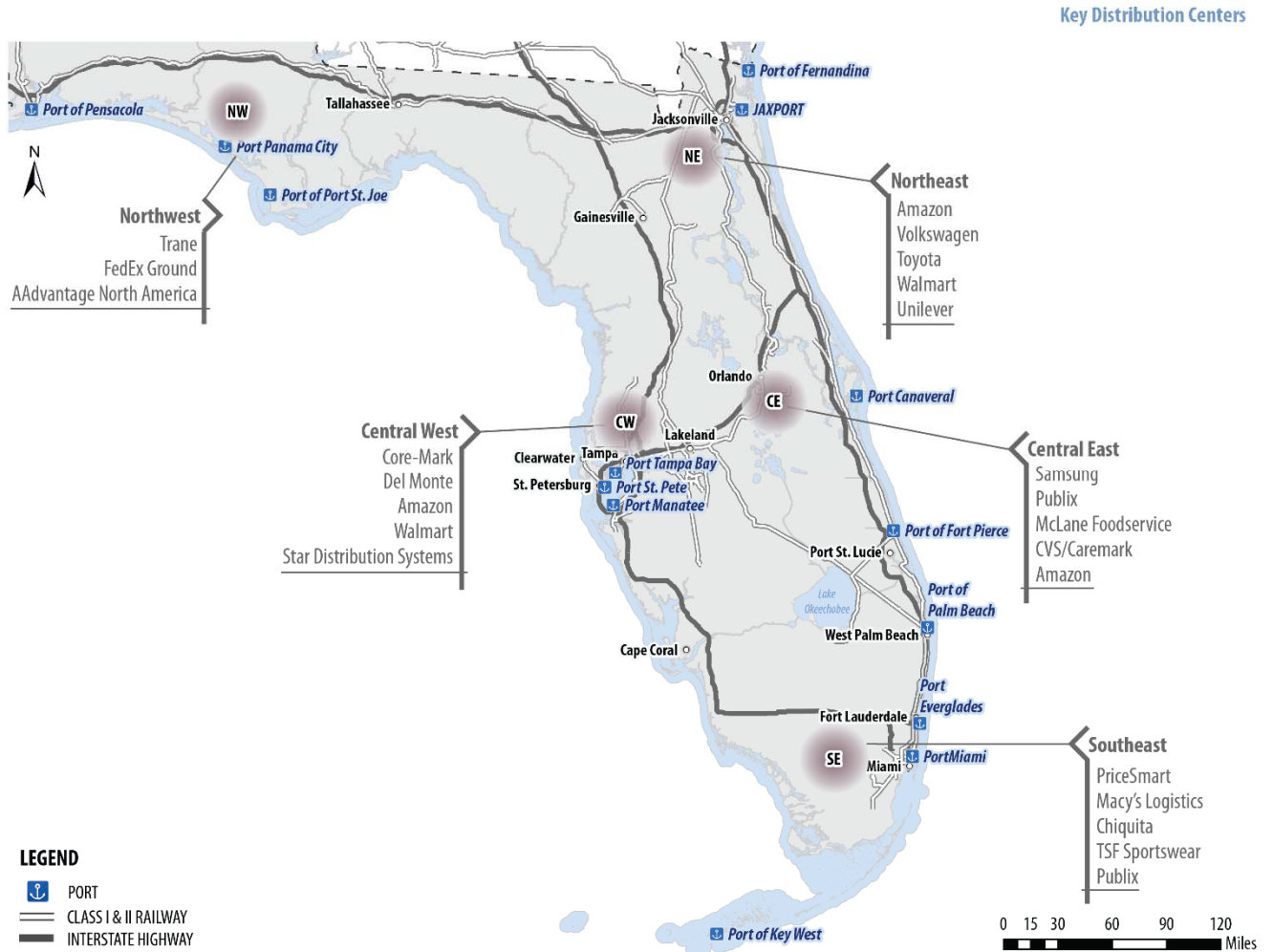
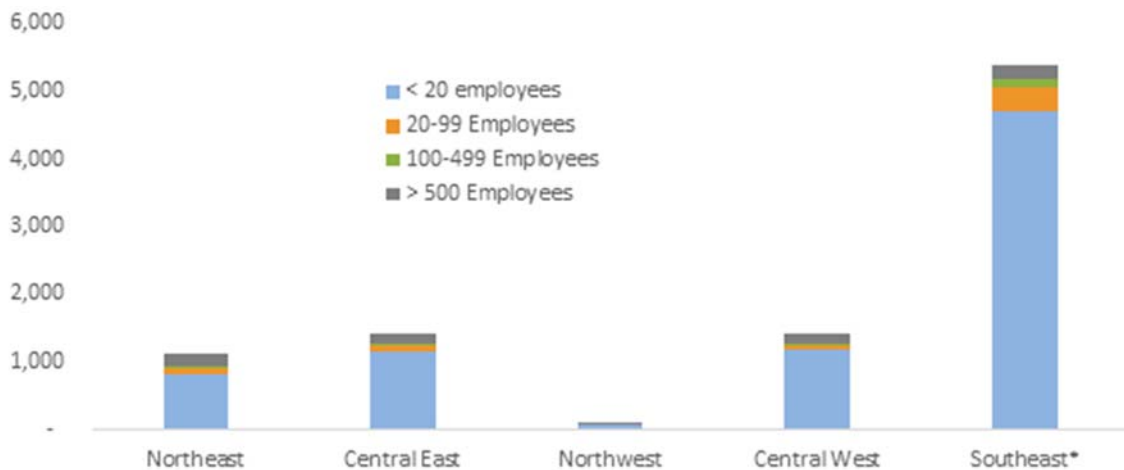


Figure 1-2: Number of Transportation and Warehousing Entities by Employment Size



* Southeast constitutes the full Miami-Fort Lauderdale-Port St. Lucie Metropolitan Statistical Area (e.g. including Miami-Dade, Broward, and Palm Beach Counties).

Source: ICA and CPCS analysis of US Census Bureau County Business Patterns.

1.2.2 Northeast Region

The Northeast region includes major transportation assets such as Interstates I-10 and I-95, the CSX, Norfolk Southern, and Florida East Coast railroads. The region's airport, Jacksonville International, is the fifth busiest airport in Florida in terms of air cargo tonnage, handling 71,308 tons¹⁶ in 2014 (2.6% of the state total).¹⁷

In 2016, the region had \$2.09 billion in sales associated with transportation and logistics operations.¹⁸ As illustrated in the map on the following page, the major clusters of activity are located immediately east and north of downtown Jacksonville, as well as along southern I-295, and US-90.

One of the Northeast's unique specialties is multiple distribution centers for automotive companies. Toyota, Volkswagen, Volvo, and Mercedes-Benz have finished vehicle, and/or parts distribution facilities in the region. These companies import a large number of their vehicles and parts through local ports, especially JAXPORT. Between August 2016 and August 2017, Toyota imported \$990 million, Volkswagen imported \$715 million, Volvo imported \$32 million, and Mercedes-Benz imported \$20 million worth of goods through JAXPORT or Port of Fernandina.¹⁹ JAXPORT is the primary port of entry for these vehicles and parts, as it handled more than 636,000 vehicles in 2016.²⁰

Other key consignees receiving goods (imports) through Florida ports for the Northeast region include consumer product companies with local DCs such as Samsonite luggage, Coach purses, and Michael's craft stores. Samsonite imported 9,100, Coach imported 6,100, and Michael's imported 4,800 twenty-foot equivalent units (TEUs) through local ports in the past year.²¹ Food and beverage companies with local distribution centers such as Bacardi, Coca-Cola, and Goya also received goods through local ports, but with lower volumes than other commodity types. For example, Bacardi received 1,500, Coca-Cola received 2,400, and Goya received 2,400 TEUs from local ports.²² Other major consignees with DCs in the region include Unilever, Walmart, Winn-Dixie, and Bridgestone Americas.

Northeast ports also serve as a key port of entry for goods bound for other regions. For example, in the past year, the Northeast region's ports received 25,500 TEUs for the Rooms To Go furniture company, which has a DC further inland in Florida, as well as 3,000 TEUs for Disney, whose theme parks are located in the Central East region. Samsung Electronics, which imported 5,100 TEUs through local ports, recently chose to move its DC from the Northeast to Central East region.

¹⁶ Throughout the report, "tons" refers to US short tons.

¹⁷ Florida Department of Transportation, "2016 Florida Air Cargo Study", Exhibit 7-7, Historic Air Cargo Tonnage at Florida Commercial Service Airports.

¹⁸ CPCS Analysis of ReferenceUSA Data.

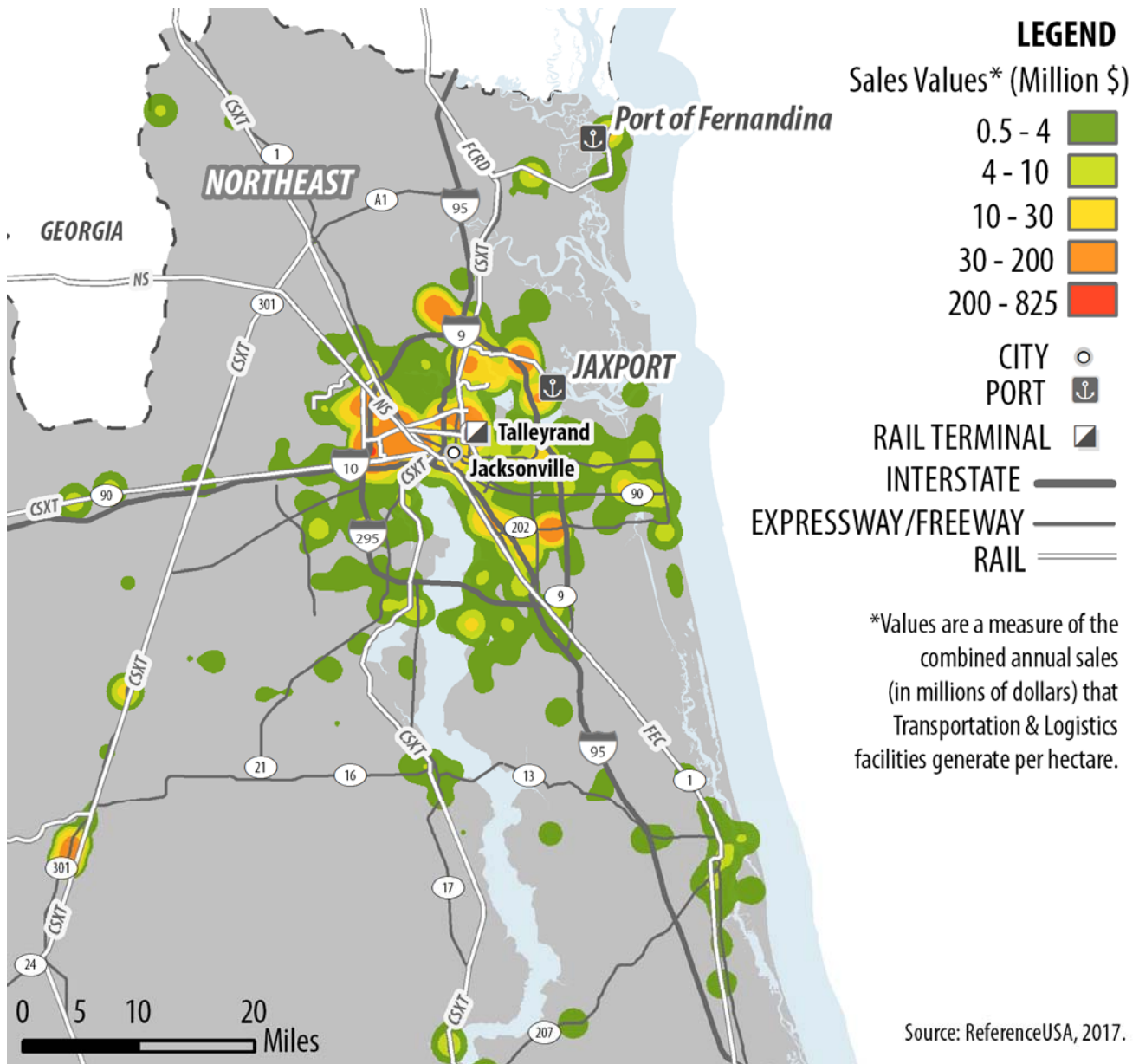
¹⁹ CPCS Analysis of PIERS Data.

²⁰ Finished Vehicles Magazine, July-Sept 2017 "North American Vehicles Ports Survey"; and www.jaxport.com/cargo/autos.

²¹ CPCS Analysis of PIERS data.

²² CPCS Analysis of PIERS data.

Figure 1-3: Northeast Transportation and Logistics Clusters, 2016



Source: CPCS Analysis of ReferenceUSA data.

Key exporters for the Northeast region’s ports included many retailers with local DCs such as Walmart, Sam’s Club, Costco, Sears, and Walgreens, which were exporting consumer products to their stores in Puerto Rico. In the past year, Walmart and Sam’s Club exported over 20,000 TEUs through local ports, while Sears exported 6,300 TEUs, and Walgreens exported 5,500 TEUs.²³ Another major exporter group was consumer goods companies with local DCs such as Procter and Gamble, which exported 7,300 TEUs through local ports to Puerto Rico and Central and South American destinations.²⁴

²³ CPCS Analysis of PIERS data.

²⁴ CPCS Analysis of PIERS data

Looking toward the future, an emerging key consignee and shipper for the Northeast region of Florida will likely be Amazon. The online retailer opened its first Jacksonville fulfillment center in August 2017 and has plans to construct three additional facilities in the area. Amazon expects to employ over 4,000 people at these four facilities, and the high concentration and employment of Amazon facilities means the company will likely become a major consignee for the Northeast Florida region.²⁵

1.2.3 Central East Region

The Central East region has extensive highway connections (via I-4, the Florida Turnpike, and Florida Route 528) that link it to the ports on the East Coast and West Coast, notably nearby Port Canaveral to the east, and Port Manatee and Port Tampa Bay to the west. The region also receives goods from Florida ports further afield, including JAXPORT, Port Everglades, and PortMiami. The Central East is served by the CSX and Florida Central railroads. Its airport, Orlando International, is the second busiest airport in Florida in terms of air cargo tonnage, handling 172,869 tons in 2014 (6.4% of the state total).²⁶

Total sales related to transportation and logistics in the region were \$1.99 billion in 2016. As illustrated in Figure 1-4, the major clusters of activity are located northwest and south of central Orlando, along rail corridors.

The Central East is home to major DCs for Publix, Samsung, CVS Caremark, Walgreens, and McLane foodservice, among others. Additionally, the region is home to many shared distribution facilities operated by dedicated distribution companies such as Prologistics, Capstone Logistics, and Geodis Logistics. Other companies with DCs in the Central East region include Office Max/Office Depot, Lowes Hardware, and Electrolux appliances.

Recent major DC “wins” for the Central East region include a new Amazon warehouse which is expected to open in 2018 and employ 1,500 people. In early 2017, Samsung Electronics announced that it will relocate a consumer appliance distribution facility from Jacksonville to Orlando to serve Southeast Florida.²⁷

E-commerce also has a growing cluster in the Polk County (located between the Central East and Central West regions on the I-4 corridor), and in particular the Lakeland and Davenport areas. This trend is a result in part of the central location and proximity to major consumer markets across the state. Examples of recent e-commerce activity across this central corridor include FedEx’s recent establishment of their Florida 3 million square foot hub in Davenport, as well as Walmart choosing Davenport for their newest e-commerce fulfillment center.²⁸ CSX opened a 318-acre intermodal

²⁵ Moyer, Crystal. “Amazon Expected to Hire 4,000 People for New Jacksonville Centers.” October 22, 2016. WJXT Channel 4.

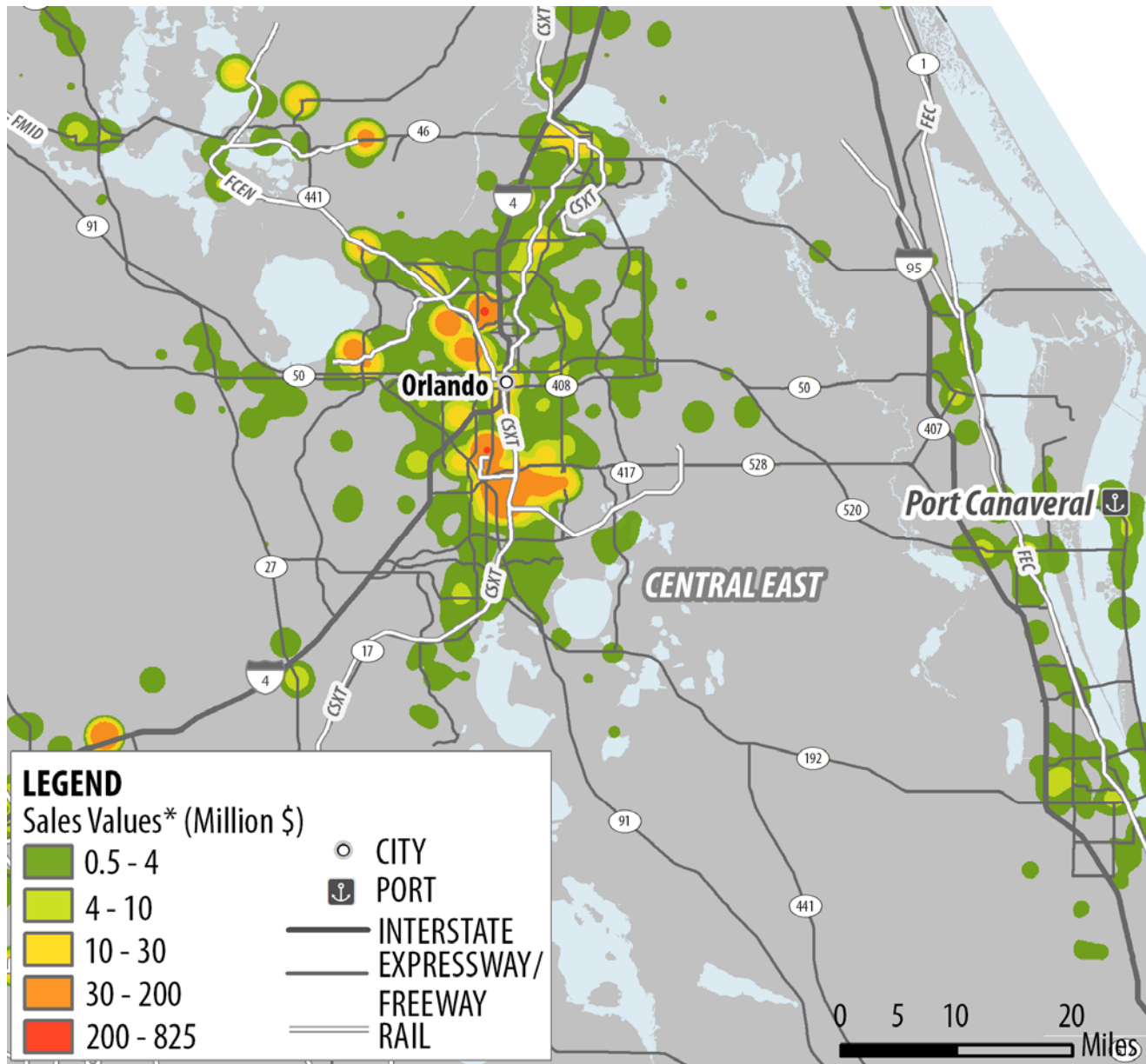
²⁶ Florida Department of Transportation, “2016 Florida Air Cargo Study”, Exhibit 7-7, Historic Air Cargo Tonnage at Florida Commercial Service Airports.

²⁷ Orlando Economic Development Corporation, “Samsung signs lease for large distribution HQ”, February 22, 2017. <http://blog.orlandoedc.com/blog/samsung-signs-lease-for-large-distribution-hq>.

²⁸ 2016 Florida Air Cargo Study. <http://www.florida-aviation-database.com/library/filedownload.aspx?guid=90cff320-313d-4c9f-a639-d63d538b467a>.

terminal in Winter Haven which has the capacity to process up to 300,000 containers a year and is designed for scalable expansion as freight volumes continue to grow. The terminal is surrounded by 930 acres that are being developed in phases to build up to 7.9 million square feet of warehouse distribution centers and light industrial facilities.²⁹

Figure 1-4: Central East Transportation and Logistics Clusters (by sales), 2016



Source: CPCS Analysis of ReferenceUSA data.

²⁹ <https://www.csx.com/index.cfm/about-us/media/press-releases/csx-celebrates-future-of-intermodal-transportation-at-central-florida-ilc-grand-opening/?mobileFormat=true>.

1.2.4 Southeast Region

Interstates I-95 and I-75 and the Florida Turnpike pass through the Southeast region, which is also served by the Florida East Coast Railway and CSX railroads. Miami International Airport and Fort Lauderdale/Hollywood International Airport are the first and fourth busiest cargo-handling commercial airports, respectively, in Florida. Of note, Miami handled 81% of the air tonnage through Florida's commercial airports in 2014 (2.1 million tons), while Fort Lauderdale/Hollywood International Airport handled 85,945 tons in 2014 (3.2% of the state total).³⁰

Total sales related to transportation and logistics in the region were \$5.98 billion in 2016. As illustrated in the map on the following page, the entire region is quite active, with major clusters of activity located near Miami International Airport.

The Southeast region is the most densely-populated area in Florida. It is notable for its high concentration of food-related consignees, particularly for fruit from Central and South America. This group of consignees includes Dole and Chiquita who operate DCs in the region, and who imported a combined 27,000 TEUs through the region's ports between June 2016 and May 2017. In addition to fruit, the region supports a large number of firms specializing in the import and export of perishable goods like seafood and flowers, such as National Cold Storage. Other food-related distribution centers and wholesale outlets include Chefs Supply, KeHE grocery distributors, and Goya Foods. The Southeast also hosts a variety of consumer and B2B goods DCs, including clothing supplier TSF Sportswear, Pet Food Supermarket, Macy's Logistics, City Furniture, and Baer's Furniture.

As evidenced by its thriving fresh fruit trade, the Southeast region of Florida has close transportation ties to Latin and South America. These ties make it an ideal regional home to offices and logistics facilities operated by import/export 3PLs such as Schenker, Hellman, and DHL Logistics, and Sealand.

Major exporters with distribution centers in the region include PriceSmart (27,400 TEUs/year), a warehouse club chain similar to Costco or Sam's Club which operates in Latin America, and Sysco International foods, which ships food to the Caribbean.³¹ In the past year, PriceSmart exported 27,400 TEUs through the region's ports. Export flows are also supported by a variety of logistics firms responsible for shipping to the Caribbean, Central, and South America. These firms include Crowley Logistics, Kuehne and Nagel, Transoceanic Express Services, Krystal Logistics, and Double Ace Cargo.³² All of these companies maintain warehouses, cross-docking, and other logistics facilities in the Southeast Region.

As in other Florida Regions, Amazon is in the process of constructing a large fulfillment center in the Southeast region. This 850,000 square-foot facility at the Opa-locka airport is expected to hire over 1,000 workers.³³

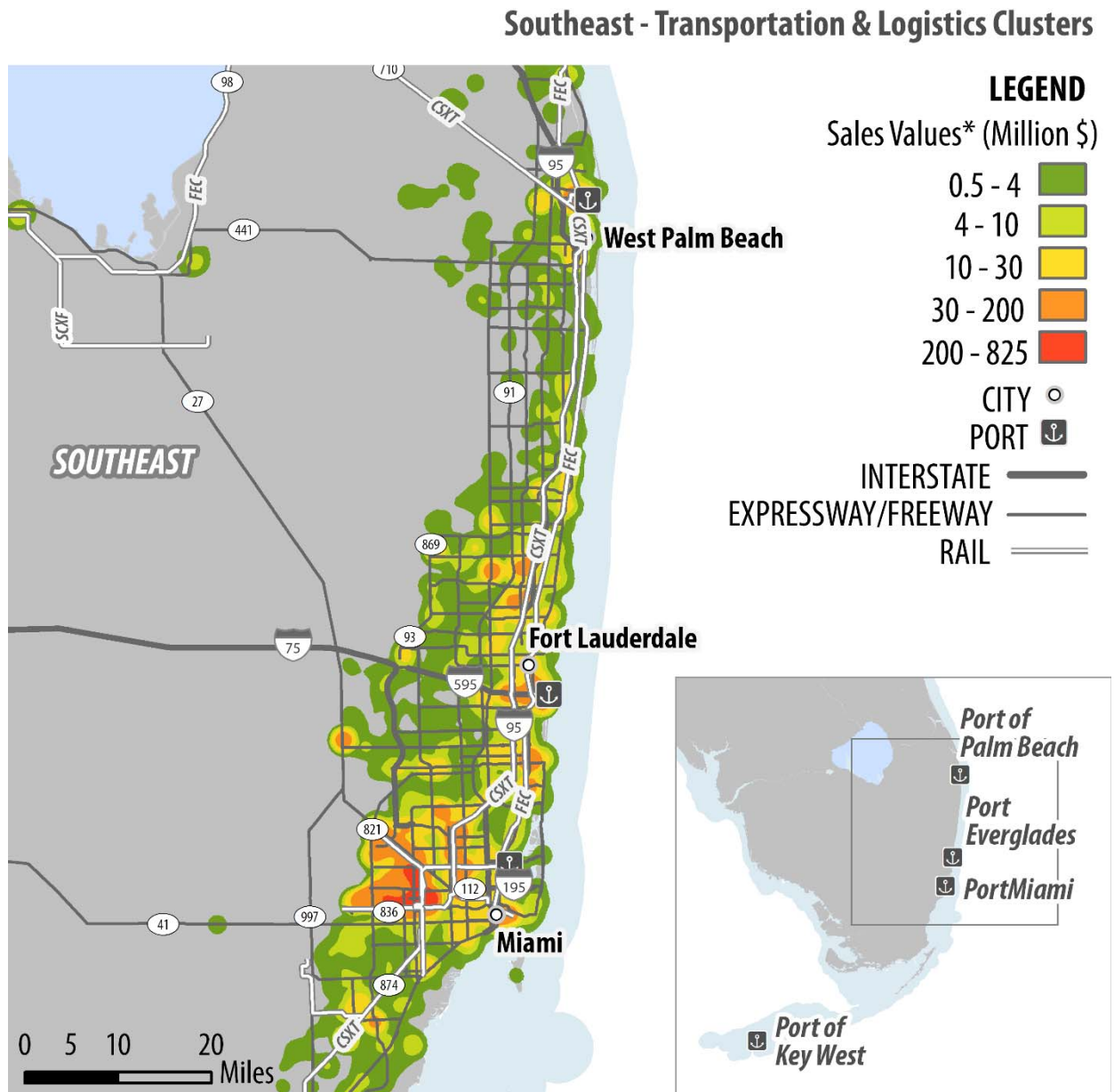
³⁰ Florida Department of Transportation, "2016 Florida Air Cargo Study", Exhibit 7-7, Historic Air Cargo Tonnage at Florida Commercial Service Airports.

³¹ CPCS Analysis of PIERS data.

³² CPCS Analysis of PIERS data.

³³ "Amazon Plans Mega Warehouse in Opa-locka, Will Hire 1,000." Douglas Hanks. Miami Herald. June 29, 2017.

Figure 1-5: Southeast Transportation and Logistics Cluster (by volume), 2016



Source: CPCS Analysis of ReferenceUSA data.

1.2.5 Central West Region

Interstates I-4 and I-75, and the CSX and Seminole Gulf railroads provide links to the rest of the state. Tampa International Airport is the third busiest cargo airport in Florida; in 2014 it handled 3.5% of the state’s total air freight.³⁴

³⁴ Florida Department of Transportation, “2016 Florida Air Cargo Study”, Exhibit 7-7, Historic Air Cargo Tonnage at Florida Commercial Service Airports.

Total sales related to transportation and logistics in the region were \$2.07 billion in 2016. As illustrated in the map below, the major clusters of activity are located closer to central Tampa and along US-301 and I-4.

Figure 1-6: Central West Transportation and Logistics Clusters (by sales), 2016

LEGEND

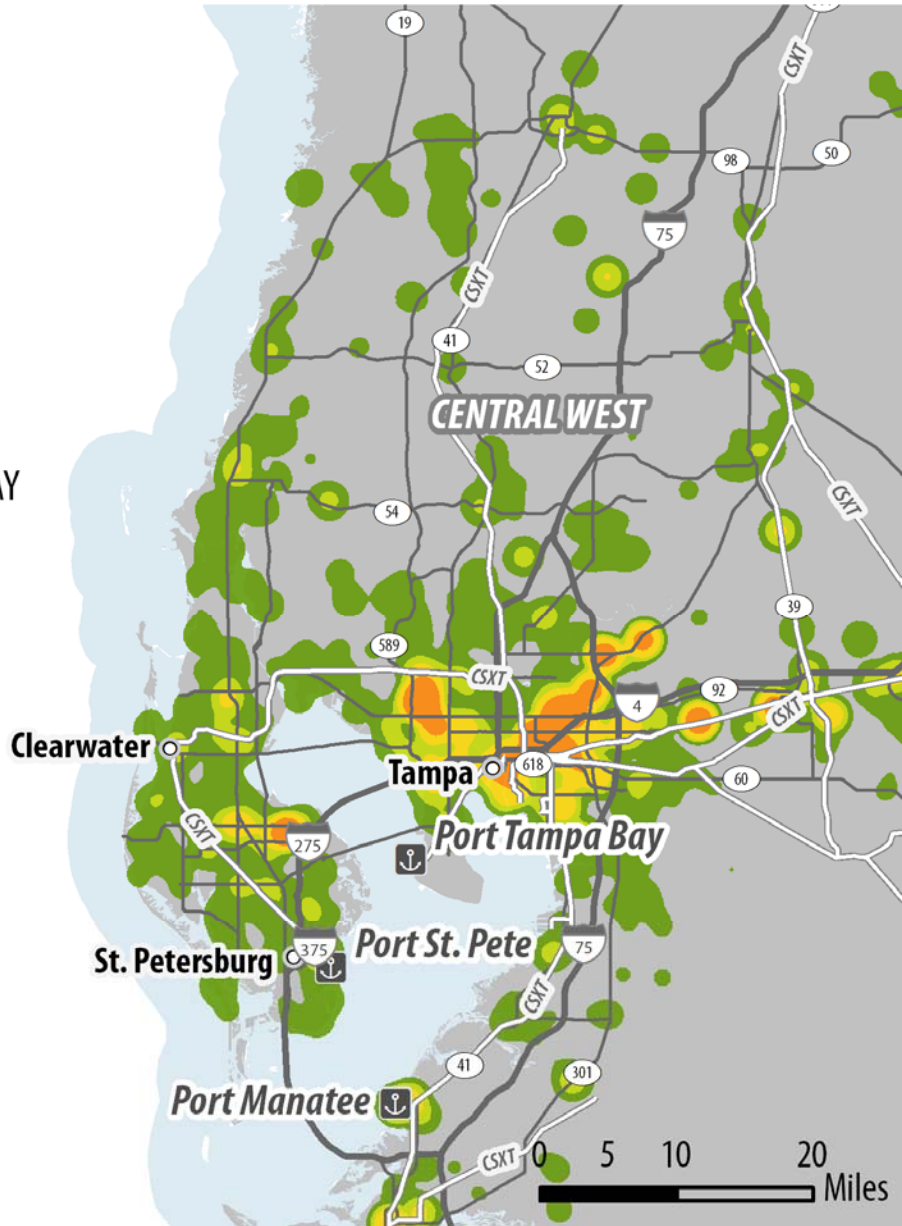
Sales Values* (Million \$)

- 0.5 - 4
- 4 - 10
- 10 - 30
- 30 - 200

- CITY
- PORT

- INTERSTATE
- EXPRESSWAY/FREEWAY
- RAIL

*Values are a measure of the combined annual sales (in millions of dollars) that Transportation & Logistics facilities generate per hectare.



Source: ReferenceUSA, 2017.

Source: CPCS Analysis of ReferenceUSA data.

The Central West region encompasses the cargo ports of Port Tampa Bay and Port Manatee. In the area of consumer, wholesale, and B2B goods, major consignees include Del Monte fruit, Coremark (a wholesale supplier for convenience stores), and a Walmart DC in Hernando County. Other major logistics companies include Quality Distribution, which handles bulk chemicals, and Star Distribution Systems, whose 1.5 million square foot Plant City warehouse and DC handles a wide range of consumer and B2B products, including foodstuffs, appliances, and paper. The Central West region is

also home to its own Amazon fulfillment center, located in Ruskin. This 1.1 million square foot facility opened in 2014.

Major shippers from or to Central West's ports include Del Monte, Tampa Juice, and World Direct Shipping, which sends empty containers back to Central and South America. Petroleum and related products continue to represent the largest volume commodity sector at Port Tampa Bay, with over 17 million tons of oil, gas and jet fuel moving through the port in a typical year.³⁵ The port also handles significantly more waste and scrap than other ports in Florida, as illustrated in Chapter 2.

Like other regions, the Central West serves as a gateway to central inland areas of Florida. Ports in the region receive shipments for Rooms to Go and Publix, both of which have DCs located farther inland.

In 2015, Ashley Furniture – the world's largest furniture manufacturer – announced it would locate its global e-commerce headquarters in Centro Ybor, in Hillsborough County.³⁶ The associated facility is 70,000 square feet. Ashley Furniture already has a nearby DC in Brandon.

1.2.6 Northwest Region

The Northwest region does not directly access interstate highways, but US-231, FL-77, FL-79, and FL-71 provide links to the nearby I-10. The region is also served by the Bay Line Railroad, which interchanges with both CSX and Norfolk Southern farther north. There is no significant air cargo shipped through airports in the Northwest region.

Total sales related to transportation and logistics in the region were \$86.5 million in 2016. As illustrated in the map on the following page, the clusters of activity are located directly around the Port of Panama City, as well as US-98 and FL-79.

The Northwest has a relatively small logistics and DC sector compared to other areas of this study. The port receives consumer items like apparel, but these products are largely shipped to DCs in the rest of Florida, Georgia, and other states.³⁷ Exports from the port, such as paper, wood pellets, and foodstuffs, also originate from outside the region. Looking towards the future, the Region could attract more DCs, as the port operates its own intermodal distribution center.

Since 2005, Family Dollar has operated a 907,000 square-foot DC in Marianna, located 60 miles northeast of Panama City, on Interstate I-10 (one of eleven DCs across the country). This facility supports four states including Florida, Georgia, Alabama, and Mississippi.³⁸ Serving DCs in neighboring regions could improve import flows through the Port of Panama City.

³⁵ <https://www.porttb.com/bulk-cargo>.

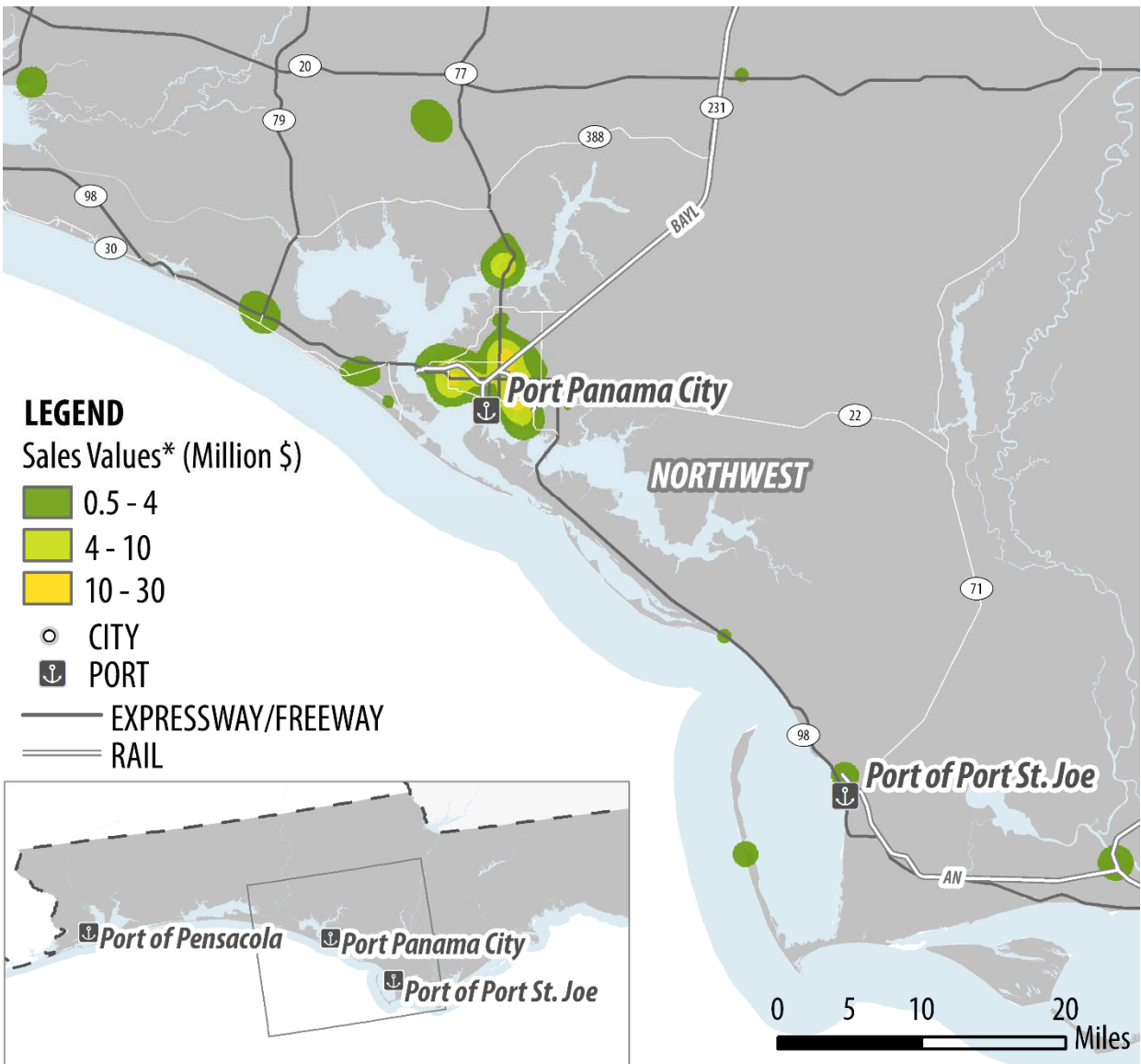
³⁶ <http://www.tbo.com/news/business/ashley-furnitures-e-commerce-headquarters-moving-to-ybor-20150521/>.

³⁷ CPCS Analysis of PIERS data.

³⁸ Family Dollar <https://www.familydollar.com/corporate/our-company/businesspartners/distribution/marianna>.

Figure 1-7: Northwest Transportation and Logistics Clusters (by sales), 2016

Northwest - Transportation & Logistics Clusters



Source: CPCS Analysis of ReferenceUSA data.

2 Florida's DC Market Profile

2.1 Approach

In this chapter, information is presented to help identify future potential markets for attracting DC investment to the five regions of Florida. We consider the key market segments (major product groupings) that typically use DCs and associated opportunities for Florida, and identify key freight generators for DC activity, with a focus on Florida's retail sales/imports for inbound freight and Florida's export production for outbound freight. We then use Freight Analysis Framework (FAF) freight flow data, as well as import to population ratios as a proxy for market segments that may show potential for attracting a DC to Florida.

As relevant, and where data permits, information is analyzed at the regional level (five focus regions) to identify specific market segments of relevance for each of Florida's focus regions.

2.2 Inbound Market Segments

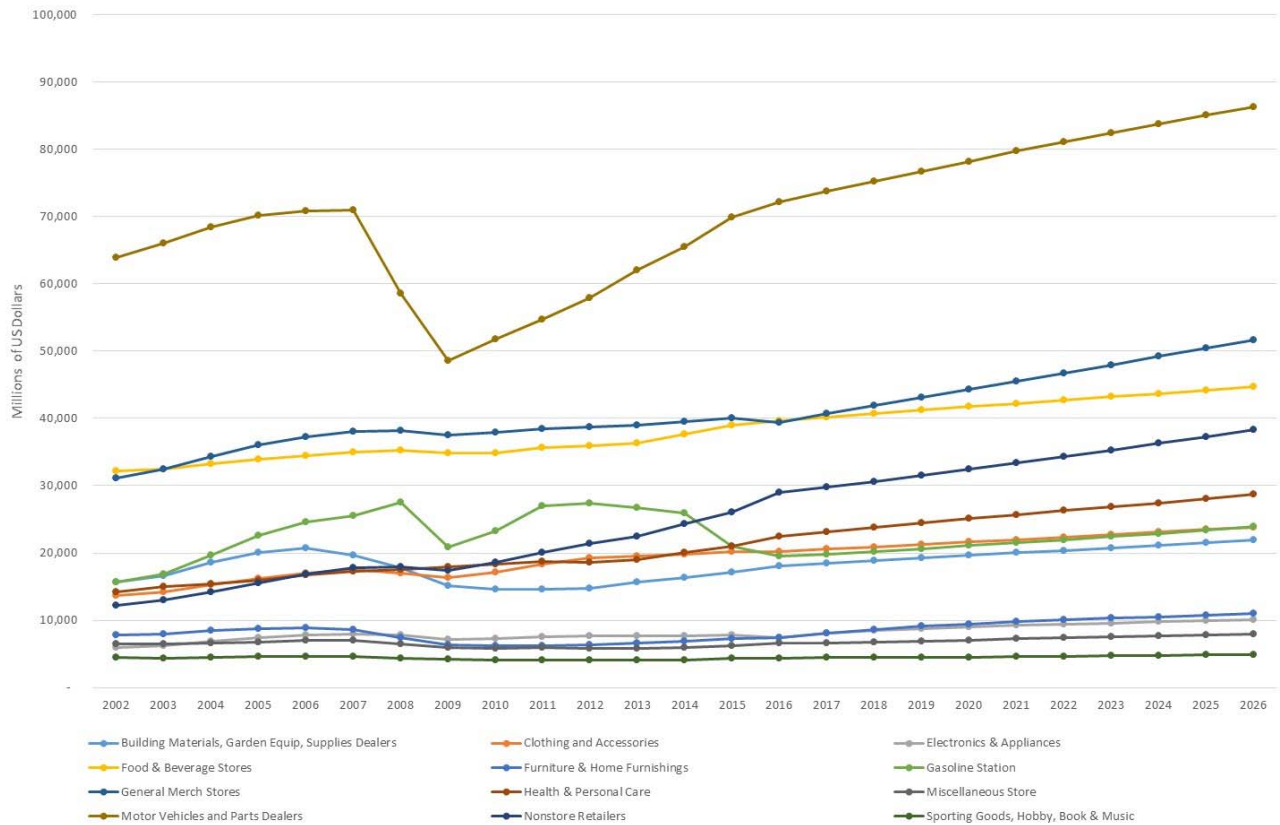
2.2.1 Key Retail Sales Patterns

Retail sales across Florida provide an illustration of key market segments that require the use of a DC. The figure on the following page shows historical and forecast retail sales in Florida from 2002 to 2026. In 2016, retail sales in Florida were an estimated \$286.4 billion (excluding eating and drinking establishments).

The largest retail sales market segment – in value terms – is the motor vehicles and parts retail sector. This sector has more or less recovered from the 2008 downturn, with sales expected to surpass the 2007 peak and continue growing. Between 2016 and 2026, retail sales in this sector are expected to grow by close to 20%, equivalent to 1.8% annually (compound annual growth rate). This continued growth, combined with the large overall size of this retail sector, suggest continued opportunities for establishment of retail facilities and associated warehousing and distribution facilities, particularly on the motor vehicle parts side (the supply chain for finished vehicles is well established and defined in large part by Original Equipment Manufacturers (OEMs), the large global car manufacturing companies).³⁹

³⁹ While there is a lot of movement in *parts* to and from various regions across the US and internationally during the vehicle manufacturing process, finished vehicles go straight to a dealer from the manufacturing plant with minimal inland handling by anyone other than processors near / in the manufacturing plant (domestic production) or at the port (international imports). The entire supply chain is based on limiting all unnecessary handling to protect the integrity of the vehicle.

Figure 2-1: Retail Sales by Store Type in Florida, 2002-2012 (Actual), 2013-2060 Forecast



Source: CPCS analysis of Woods & Poole Economic Data. Excludes retail sales from eating and drinking establishments.

Food and beverage stores also illustrate high sales volumes over the last decade. Between 2002 and 2016, sales grew by 23%, an annual growth rate of 1.5% (this is consistent with population growth over the same period).⁴⁰ This growth is expected to temper in the future, possibly because general merchandise stores that also stock packaged food and beverage items may be capturing market share for these goods classes, away from both big food retailers as well as gasoline stations. Annual growth between 2016 and 2026 is only forecast to be 1.2%.

Retail sales in the health and personal care sector increased by approximately 59% between 2002 and 2016, or 3.3% a year (more than double population growth over the same period). Growth will slow somewhat in the coming decade, to 2.7% per year, or 31% in total between 2016 and 2026.

Retail sales from clothing and accessories stores showed strong sales growth between 2002 and 2016, increasing by 48% (or 2.8%) per year. This growth is expected to slow to approximately 1.7% per year between 2016 and 2026. This is likely an indication of the increased role of e-commerce and online shopping which is taking market share from retail storefronts.

The most significant market segment in terms of growth is the non-store retail market – including e-commerce and mail order establishments. Sales in the sector in Florida more than doubled between

⁴⁰ Population growth in this period was 23% (from 16.7 million in 2002 to 20.6 million in 2016).

2002 and 2016, from \$12 billion to \$29 billion, with an average annual growth rate of 6.4%. Growth into the next decade is forecast to slow down, but still be strong (2.8% per year).

2.2.2 Regional Variations in Sales (Five Focus Regions)

In 2016, retail sales in the five focus regions were estimated at \$197 billion, representing 69% of all retail sales in Florida. The figure below illustrates total retail sales for 2016 across the five regions.⁴¹

Figure 2-2: Retail Sales for Five Focus Regions, Relative to Total Florida Sales, 2016

	Northeast	Southeast	Central East	Northwest	Central West	All Florida
Total Retail Sales (all products, \$M)	19,126	93,560	39,725	2,920	41,615	286,431
% of Retail Sales (relative to all Florida)	7%	33%	14%	1.0%	15%	-
% Population relative to all of Florida⁴²	7.1%	22.8%	11.6%	1.0%	14.6%	-
Retail Sales By Commodity Group (Relative to all Florida Sales)						
Building Materials, Garden Equip, Supplies Dealers	8%	27%	12%	2%	13%	6%
Clothing and Accessories	5%	43%	18%	1%	9%	7%
Electronics and Appliances	6%	44%	16%	1%	11%	3%
Food and Beverage Stores	7%	32%	11%	1%	15%	14%
Furniture and Home Furnishings	6%	37%	11%	1%	14%	3%
Gasoline Stations	10%	21%	13%	1%	13%	7%
General Merchandise Stores	8%	25%	14%	2%	14%	14%
Health and Personal Care	6%	36%	12%	1%	14%	8%
Miscellaneous Store	7%	32%	12%	2%	13%	2%
Motor Vehicles and Parts Dealers	7%	35%	11%	1%	14%	25%
Non-store Retailers	3%	34%	25%	0.1%	24%	10%
Sporting Goods, Hobby, Book and Music	8%	33%	14%	1%	11%	2%

Source: CPCS analysis of Woods & Poole Data.

⁴¹ 2016 data is a forecast.

⁴² ACS Demographic and Housing Estimates. US Census Bureau. 2015.

The information in the table illustrates overall and regional consumption patterns in Florida, which in turn may influence the types of DCs attracted to Florida, and the specific site location for the same. In summary:

- Across the entire state, as noted previously, Motor Vehicles Parts and Sales and Food and Beverage Retail are the two largest market segments in Florida, accounting for 25% and 14%, respectively, of all retail sales in value terms.
- Southeast Region: The Southeast region accounts for 23% of Florida’s population, but one third (33%) of Florida’s retail sales. Of note, there is a particularly high percentage of Florida’s clothing and accessories sales made in the region (43%), as well as electronics and appliances (44%). The region also accounts for 35% of motor vehicle sales. With such a large consumer market, the region is naturally able to attract warehousing and DC facilities due to the local market size, in spite of any comparative disadvantages relative to other regions (e.g. higher land costs and lower land availability).
- The Central East region accounts for 12% of Florida’s population and 14% of retail sales in the state. Relative to population, consumers in the region buy more clothing and accessories (18%), electronics and appliances (16%) and make more non-store retail purchases (25%) than might otherwise be expected. However, this may be related in part to extensive tourism in the Orlando area – numbers might not be captured in total population.
- The Central West region accounts for 15% of Florida’s retail sales and population. Sales levels reflect or are below comparable population size for most products, with the exception of sales for non-store retail, which are particularly high (24%).
- The Northeast region accounts for 7% of all retail sales in the state. The region is particularly well-known for the import and export of automobiles. Though not illustrated in the figure below, retail sales of Motor Vehicles and Parts in the region account for 27% of all retail sales within the region, a higher proportion than any other region of Florida.
- Retail sales in the Northwest region (1% of all Florida sales) reflect the relatively low population of the area (1% of Florida’s residents). While the region does not have the local population to attract significant DC activity, the region is close (within two days drive) of a number of large population centers.

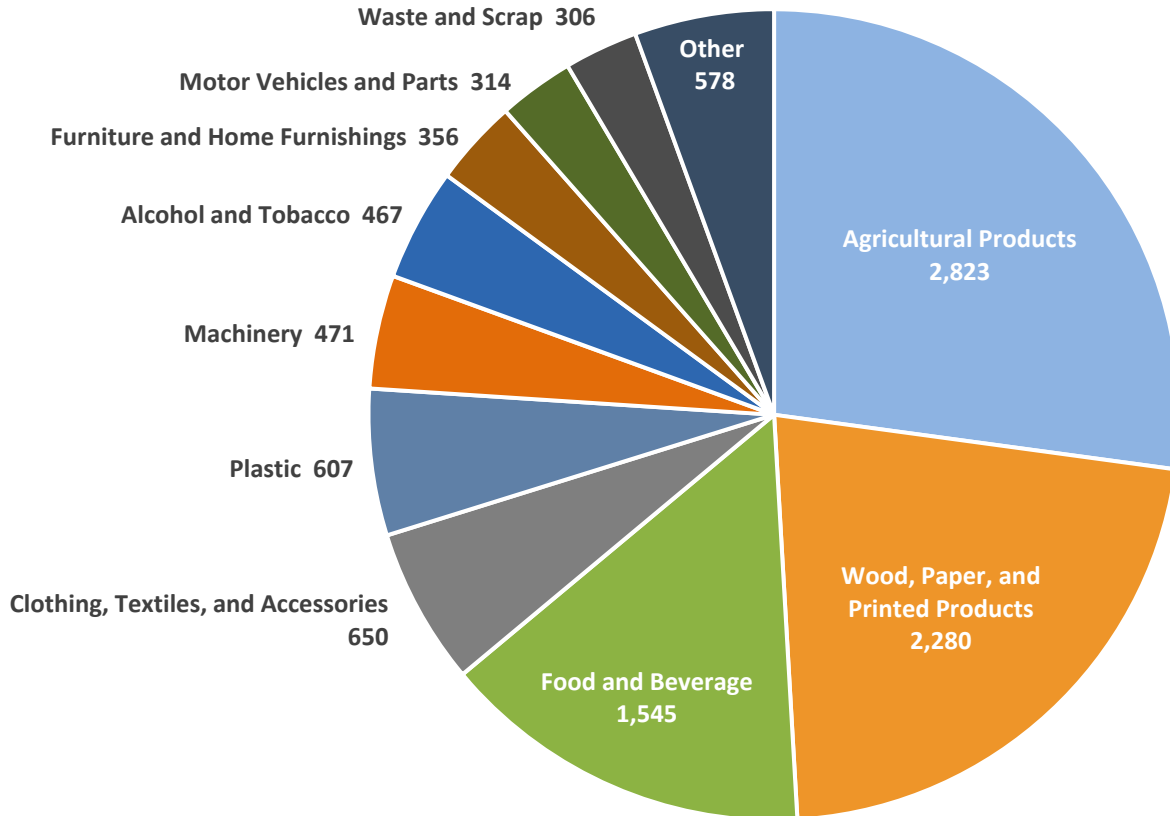
2.3 Imports to Florida vs. Non-Florida Ports as an Indicator of DC Potential

In this section, we present an analysis of the breakdown of imports to Florida from Florida versus non-Florida ports. This provides an indication of commodities where Florida may be “losing out” to other ports. The data for this analysis was provided by FDOT’s Freight Analysis Framework, version 4.

In 2015, 10.6 million tons of waterborne consumer, B2B, and wholesale-type goods worth \$30.9 billion were imported into Florida, from Florida and non-Florida ports of origin. Florida’s seaports handled 61% (6.6 million tons) of this import tonnage and 73% (\$22.5 billion) of this import value. Key commodities from all ports of entry included agricultural products such as fruits and vegetables,

paper, and textiles. Figure 2-3 show’s Florida’s top ten waterborne imports arriving in Florida from all ports in the United States.

Figure 2-3: Top 10 Import Volumes Arriving Through Florida and Non-Florida Ports, Thousands of Tons



Source: Freight Analysis Framework. Bureau of Transportation Statistics. 2016.

Figure 2-4 provides a breakdown of the major commodities imported into Florida by volume, illustrating which commodities are imported to Florida directly versus imported through non-Florida ports. One quarter or more of the following commodity imports arrive in Florida via *out-of-state ports*: Agricultural products (44%), Wood, Paper and Printed products (44%), Clothing, Textiles and Accessories (37%), Plastic (51%), Machinery (71%), and Furniture and Home Furnishings (25%). For such commodities, there may be potential to draw such imports through Florida ports with the establishment of the required DC facilities in Florida, though this will depend to some extent on where the products are produced and where they arrive in the US.

Figure 2-4: Proportion of Import Volume Arriving Through Florida and Non-Florida Ports, By Volume, 2015

	Volume (Thousands of Tons)	% Arriving Through Florida Ports Direct	% Arriving Through Out-Of-State Ports
Agricultural Products	2,823	55.8%	44.2%
Wood, Paper and Printed Products	2,280	56.0%	44.0%
Food and Beverage	1,545	80.4%	19.6%
Clothing, Textiles and Accessories	650	62.6%	37.4%
Plastic	607	49.0%	51.0%
Machinery	471	28.9%	71.1%
Alcohol and Tobacco	467	77.5%	22.5%
Furniture and Home Furnishings	356	75.5%	24.5%
Motor Vehicles and Parts	314	94.5%	5.5%
Waste and Scrap	306	88.7%	11.3%
Other	578	52.9%	47.1%
Electronics and Electrical Appliances	294	58.5%	41.5%
Chemical Products	219	58.3%	41.7%
Pharmaceutical Products	65	9.4%	90.6%

Source: CPCS analysis of Freight Analysis Framework Data, 2015.

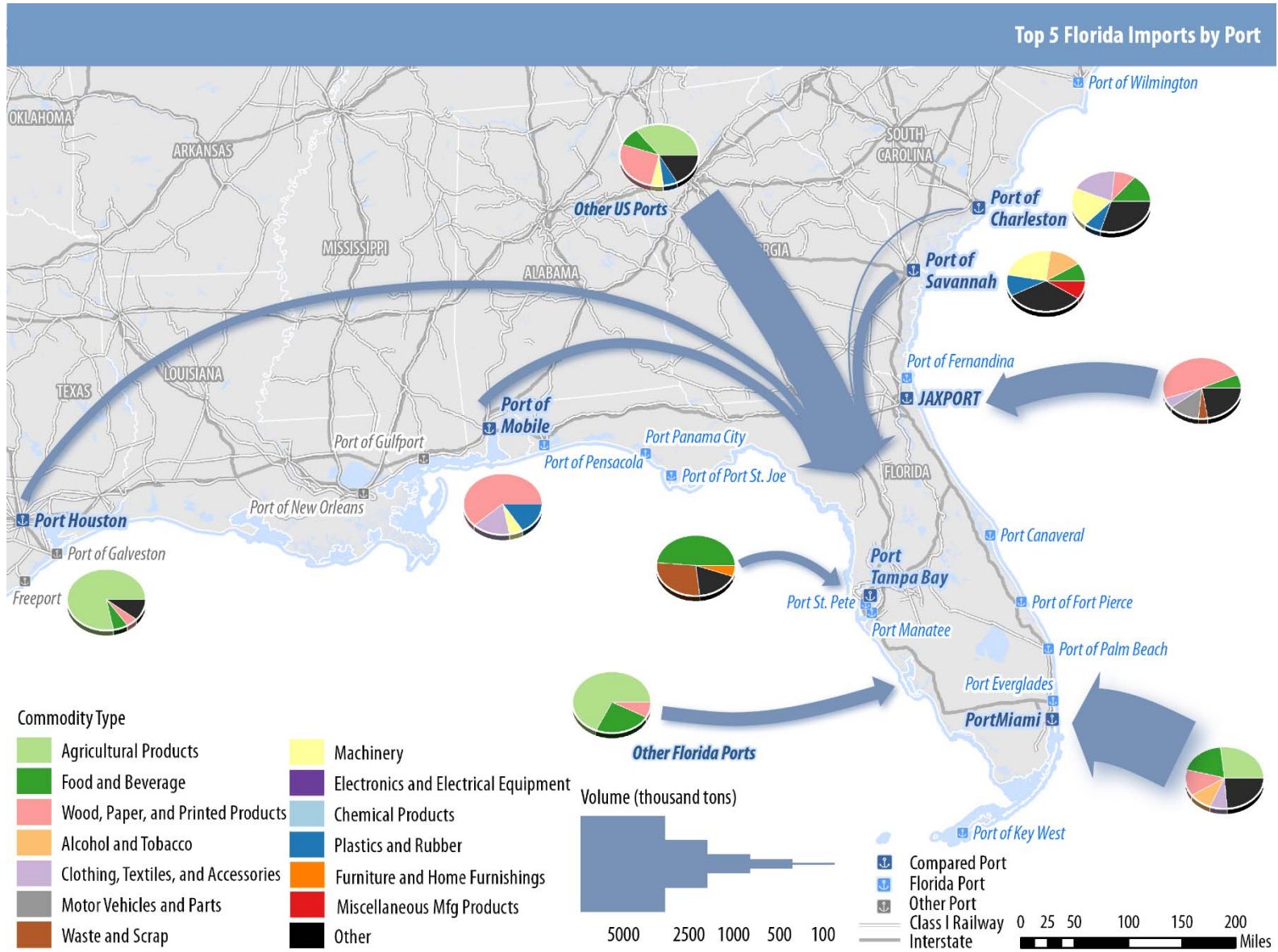
The map in Figure 2-5 illustrates volumes of commodities being moved into Florida from in-state and out-of-state ports.⁴³ The following general observations are noteworthy:

- The top port of entry area for Florida imports is Miami, with 35% of all import tonnage to the state. The next largest port of entry area is Jacksonville, which handles almost 15% of Florida-bound import tonnage. Overall, 39% of Florida imports arrive from other US states, with four nearby out-of-state ports accounting for 15% of Florida’s imports: Houston, Mobile, Savannah, and Charleston.
- Agricultural imports and food and beverage imports make up over one-third of import tonnage for all of Florida’s ports regions, except for Jacksonville. It is expected that Agricultural products from South America directly to Florida ports will continue to increase with recent changes in federal law that had previously banned such shipments.⁴⁴ These products also make up over one-third of flows from ports in Houston and the rest of the US.
- Ports in and near northern Florida, including Jacksonville and Mobile, have the highest percentage share of wood, paper, and printed product imports.
- Machinery imports make up a relatively large (~25%) share of Florida-bound imports routed through Savannah and Charleston. No other ports have a higher share of Florida-bound machinery imports.

⁴³ Greater detail for all of Florida’s ports is not available, as the Freight Analysis Framework only provides geographic analysis zones for Jacksonville, Miami, Orlando, Tampa, and a unified zone for the rest of Florida.

⁴⁴ https://www.joc.com/port-news/us-ports/port-tampa/tampa-joins-reefer-pilot-program_20150923.html

Figure 2-5: Florida Import Flows (from US ports)



Source: CPCS Analysis of Freight Analysis Framework Data. 2015.

2.4 Import-Population Ratio as an Indicator of Inbound Freight DC Potential

One further indicator that can be used to identify commodities where there may be potential for warehousing and DC investment in Florida is an import to population ratio. Using US Census Bureau import data, we compared the volume of imports of key products into Florida's ports relative to imports of the same products to the US as a whole (with a focus on containerized products). We then compared this to Florida's percentage of the total US population (6.4%) to develop an import-population ratio.⁴⁵

An import-population ratio much larger than 1 suggests that Florida already imports proportionally more of a given product than its population warrants and the demand for additional warehousing / DCs may not particularly high. This could suggest a saturated market for DCs. A ratio much smaller than 1 suggests that Florida imports less of a given product directly through its own ports, relative to its population size, compared to the rest of the US. This would suggest that imports are arriving through other ports, and there may be opportunities to attract this traffic to Florida's ports through the establishment of warehousing / DC facilities. This type of analysis can be helpful but has the downfall of not taking into consideration tourism numbers.

Figure 2-6 below shows, for each commodity, the total volume of containerized imports to Florida, and Florida's share of US imports of the same. The import ratio is calculated on the basis of adding up the weighted average ratio of import % / Florida's population % for all of the categories within each market segment.

A number of market segments have import-population ratios significantly below 1, illustrating that the share of imports through Florida ports is low relative to Florida's population: Chemicals (0.61), Clothing and Textiles (0.63), Electronics and Electrical Equipment (0.45), Furniture and Home Furnishings (0.61), Motor Vehicles and Parts (0.26), and Plastic (0.5). For these commodities, establishing warehousing and logistics facilities in Florida may attract additional traffic through Florida's ports to supply high demand to Florida's population.⁴⁶ Pharmaceutical Products also have a low ratio (0.3), but the volumes handled are also relatively low, suggesting this is not a huge opportunity for DCs to be established.

⁴⁵ For example, if the US imports \$100 million of widgets each year, and Florida imports \$20m of widgets each year, then 20% of all widgets imports to the US are destined to Florida. Florida's population is 6.4% of US population. In this case, the import-population ratio would therefore be $20\% / 6.4\% = 3.125$.

⁴⁶ Miscellaneous Manufactured products has a low ratio (0.39) but is not discussed further as it is not possible to further define this market.

Figure 2-6: Florida’s Share of Imports for Key Market Segments, 2016

Market Segment ⁴⁷	Containerized Florida Import Volumes (tons)	Florida’s Share of US Imports (%)	Weighted Import-Population ratio
Agricultural Products	2,470,856	21%	4.91
Alcohol and Tobacco	797,915	9.2%	1.96
Chemicals	185,409	2.5%	0.61
Clothing and Textiles	361,010	2.7%	0.63
Electronics and Electrical Equipment	331,171	2.8%	0.45
Food and Beverage	1,071,415	6.2%	1.29
Furniture and Home Furnishings	396,473	3.8%	0.61
Machinery	296,440	3.4%	0.99
Miscellaneous Manufactured Products	151,019	2.4%	0.39
Motor Vehicles and Parts	126,323	1.6%	0.26
Pharmaceutical Products	7,058	1.9%	0.3
Plastic	290,195	3.2%	0.5
Waste and Scrap	112,752	21%	3.37
Wood, Paper and Printed Products	1,329,632	10%	2.09

Source: US Census Bureau.

2.5 Inbound Market Segments / Commodities of Interest

The sections above highlight a number of commodities imported to Florida where there may be potential for additional logistics and handling facilities in order to draw traffic through Florida ports. In Chapter 4, we use a reverse site selection model to analyze opportunities based on eight specific market segments, discussed below.

Specific commodities that are both disproportionally received by out-of-state ports and show a low import-population ratio (and thus present a strong potential for further analysis) include the following:

1. Clothing and Textiles
2. Electronics and Electrical Equipment (low volume, but high value)
3. Furniture and Home Furnishings
4. Chemicals (low volume, but high value)
5. Plastic Commodities that do not display a high import-population ratio, but are either high volume and/or illustrate a very high proportion of products arriving through out of state ports

⁴⁷ The commodities included within the Market Segment groups are defined in Appendix A.

6. Agricultural products (high volume of bulk *and* containerized, and high proportion from out of state)
7. Wood, Paper and Printed products (high volume and high proportion from out of state)
8. Machinery (moderate volume with a high proportion from out of state)

Some of these commodities lend themselves to the establishment of DCs (Clothing and Textiles, Electronics and Electrical Equipment, Furniture and Home Furnishings), while other commodities are primarily linked to the wholesale market (Chemicals, Plastics, Agricultural Products, Wood and Paper Products, and Machinery). For the commodities that lend themselves to use of a DC, we used the reverse site selection model to identify key factors that are valued by these industries.

In the case of wholesale products, we considered where there are opportunities to increase the manufacturing of such products within Florida. While analysis of manufacturing opportunities is not strictly within the scope of this study, if Florida is able to attract additional manufacturers to the region then this could also drive additional traffic through Florida's ports – a critical objective of this study. We used the reverse site selection model to identify factors that would attract manufacturers of these commodities to Florida.⁴⁸

The following inbound market segments were not considered in further detail:

- **Food and beverage:** There is relatively little food and beverage product arriving from out of state (19.6%) to Florida. Also, the import-population ratio is above 1 (1.29). Furthermore, based on our consultations and previous work in this sector, retail grocery and food distribution centers typically have a relatively small geographic coverage. That is, there will already be a relatively high number of DCs to serve the existing food and beverage market, as these facilities need to be very close to market anyway, given freshness and perishability concerns.
- **Motor vehicles and parts:** As illustrated in the retail sales data, motor vehicles and parts are a high-value market in Florida. However, the state is already very well-placed to handle these products and there does not seem to be a major scope to attract additional investment in the sector from a DC perspective. In particular, 95% of imports to Florida in this market segment already arrive through Florida ports (notably JAXPORT). It should be noted that the Ports of Tampa, Manatee, and Canaveral have also been actively pursuing this market, especially on vehicles produced in Mexico.⁴⁹
- **Waste and scrap:** Very little waste and scrap is imported into Florida from other regions and the import-population ratio is high.

⁴⁸ Bearing in mind that for some commodities, manufacturing is linked to availability of a resource which may not be present in Florida to begin with.

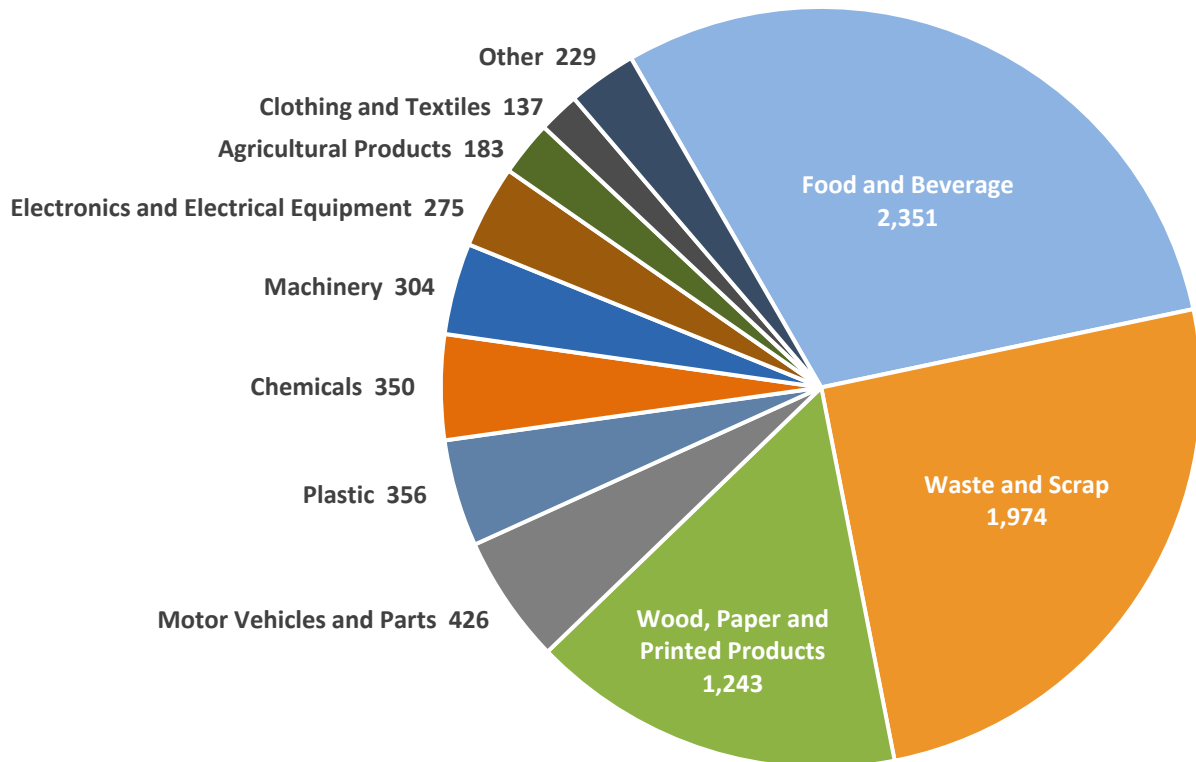
⁴⁹ <http://www.floridatoday.com/story/news/local/2016/08/24/auto-import-deal-port-canaveral-could-expand/89229870/>.

2.6 Export DC Opportunities

In 2015, Florida exported 7.8 million tons of consumer, B2B, and wholesale goods by sea. These goods had a combined value of almost \$20.5 billion. Florida's ports carried 85% of this export tonnage (6.7 million tons), and 87% (\$17.9 billion) of its value. Top exports included: Food and Beverages; Wood, Paper, and Printed products; Motor Vehicles and Parts; and Plastics. Figure 2-7 provides a breakdown of the top exports and the tonnage associated with each commodity.

Figure 2-8 shows the proportion of each commodity being shipped through Florida or out-of-state ports.

Figure 2-7: Top 10 Florida Exports Shipped Through Florida and Non-Florida Ports, Thousands of Tons, 2015



Source: Freight Analysis Framework. Bureau of Transportation Statistics and Federal Highway Administration. 2016.

Figure 2-8: Proportion of Export Tonnage Departing from Non-Florida Ports

	Total Export Volume (Thousands of tons)	% Depart Directly Through Florida Ports	% Depart Through Out- Of-State Ports
Agricultural Products	183	59.5%	40.5%
Wood, Paper and Printed Products	1,243	61.5%	38.5%
Food and Beverage	2,351	94.9%	5.1%
Clothing, Textiles, and Accessories	137	51.1%	48.9%
Plastic	356	57.0%	43.0%
Machinery	304	93.9%	6.1%
Alcohol and Tobacco	90	66.0%	34.0%
Furniture and Home Furnishings	52	98.6%	1.4%
Motor Vehicles and Parts	426	93.4%	6.6%
Waste and Scrap	1974	97.4%	2.6%
Rest			
Electronics and Electrical Appliances	275	95.1%	4.9%
Pharmaceutical Products	10	67.4%	32.6%
Chemical Products	350	72.2%	27.8%

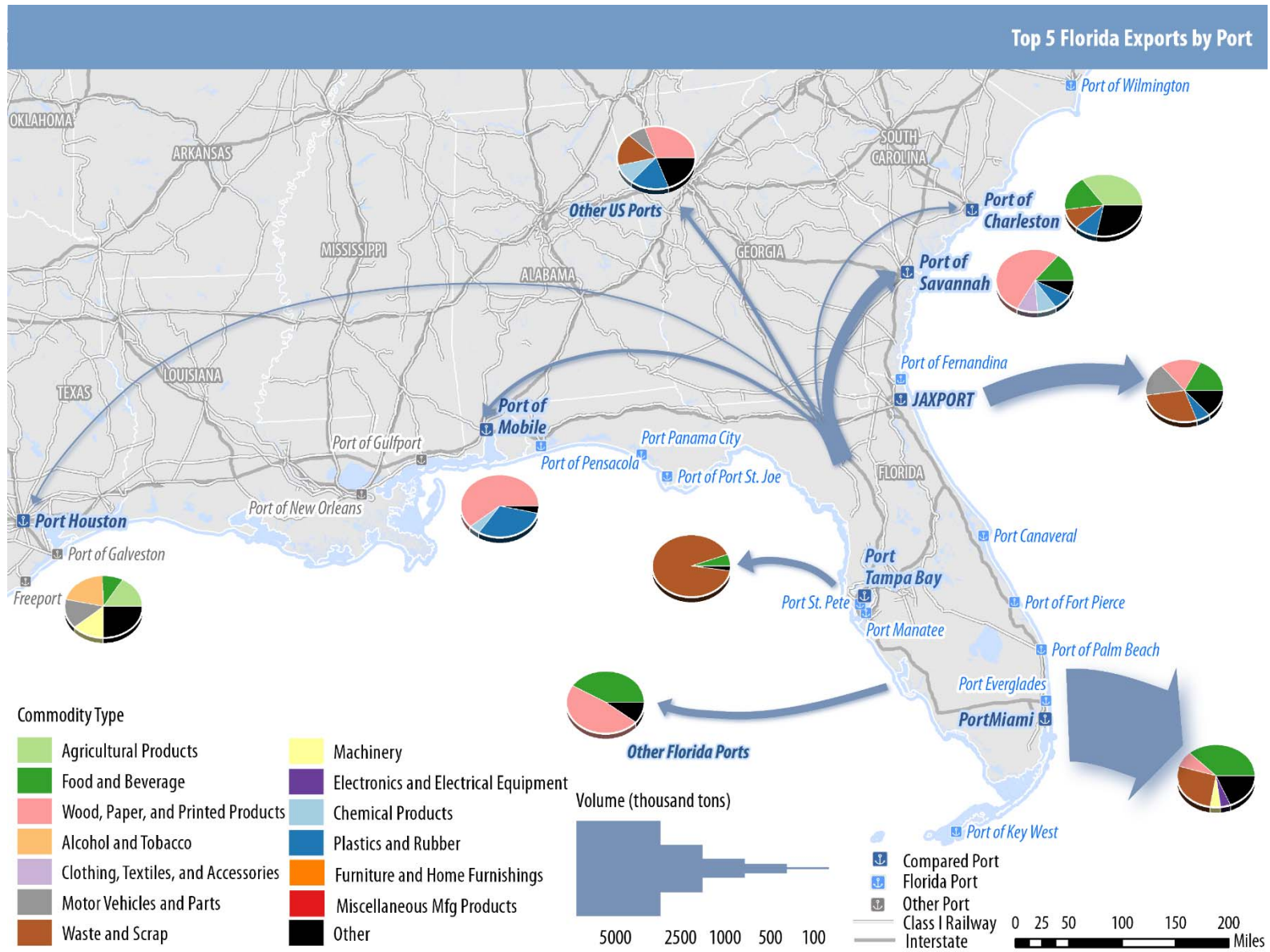
Source: CPCS analysis for Freight Analysis Framework Data, 2015.

Figure 2-9 on the following page illustrates Florida exports movements from Florida and out-of-state ports. Noteworthy facts include:

- PortMiami handles 62% of Florida’s seaborne exports. Major exports from the area include food and beverages, waste, wood products, machinery, and electronics.
- JAXPORT, the second largest export port area by tonnage, handles 14% of the state’s exports, and ships food, wood, waste, and plastics.
- Considering the products analyzed, Port Tampa Bay exports significant waste and scrap.
- The remainder of Florida’s ports export two major commodities: food and beverages, and wood products.

As noted above, Florida’s seaports already handle the majority of exports from the state; 85% by volume and 87% by value. This suggests there overall opportunity to capture Florida exports moving through out of state ports is smaller than on the import side. In Chapter 4, we use a reverse site selection model to illustrate the attractiveness of Florida for facilities that serve the high volume exports currently moving in high proportion through ports outside of Florida, in particular, “Wood, Paper and Printed products” which appear to be a low-hanging fruit (and 39% of which move through non-Florida ports).

Figure 2-9: Florida Export Flows



3 Comparison of Investment Landscape for Florida and Competing Regions

3.1 Regional Competitors

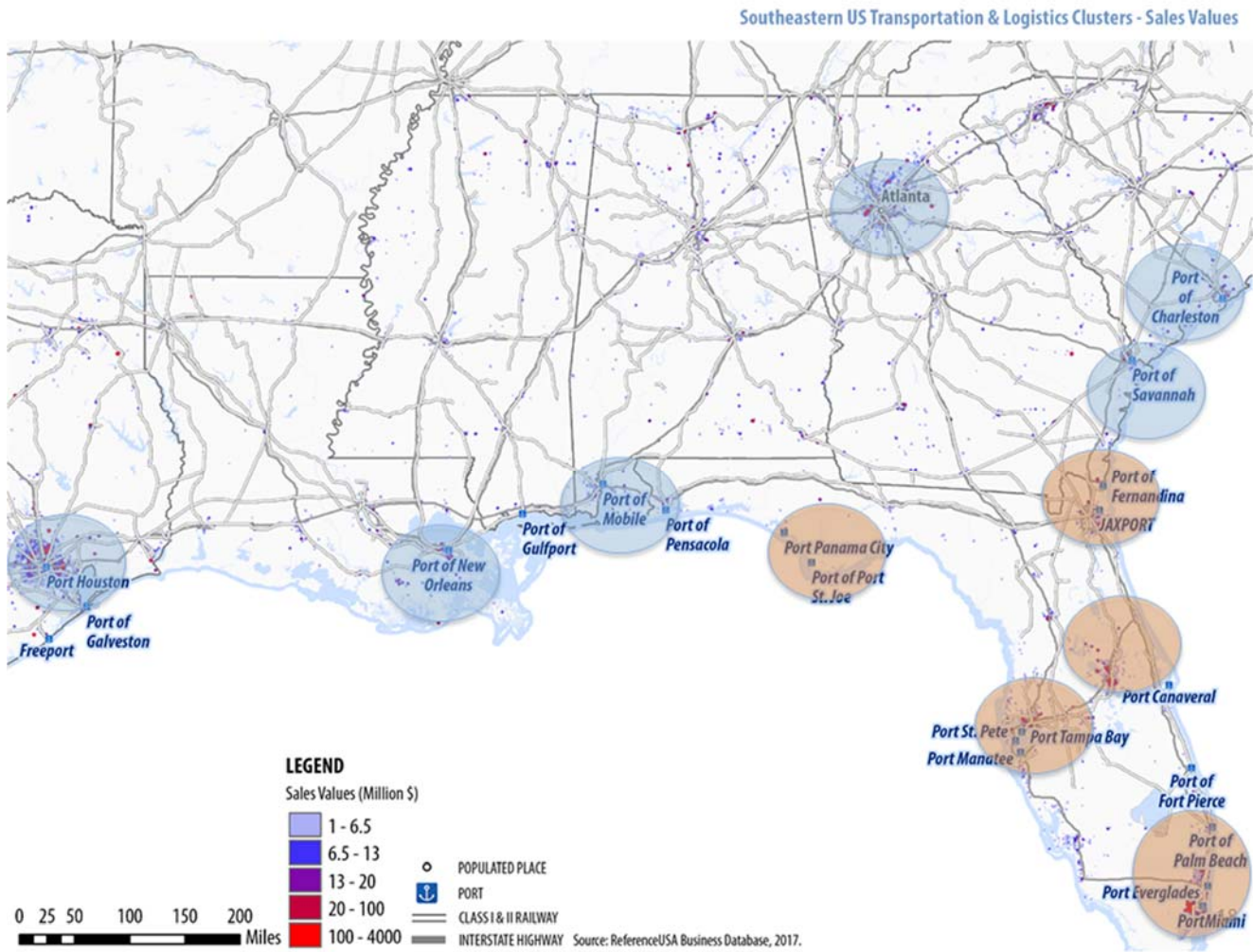
Six regions outside of Florida were selected for comparison to Florida's five regions: Mobile, AL; Savannah, GA; Atlanta, GA; New Orleans, LA; Charleston, SC; and Houston, TX. These regions, and the five Florida regions, are illustrated in Figure 3-1.

The competing regions in the battleground represent consumer markets which in some cases compete directly with Florida to attract both logistics investment and port traffic. The rationale for selection of these six competing areas included the following:

- The regions are served by / located near seaports that handle a high share of freight that is ultimately bound for or originating from, Florida.
- Geographic proximity to Florida, which is a consideration for attracting firms that are looking for a warehousing footprint in the US Southeast, to serve the Florida and/or regional market, and may be considering a number of regions close to Florida.
- Review of previous research reports, particularly the Florida Seaport Transportation and Economic Development (FSTED) Council's *Analysis of Global Opportunities and Challenges for Florida Seaports*, which highlighted the importance of certain competing ports that were not immediately apparent in existing data CPCS reviewed (notably, PIERS and the Federal Highway Administration's Freight Analysis Framework (FAF)).

Five of the regions are located near seaports, while one (Atlanta) is located inland but is included given its prominence as a logistics hub for the US southeast. Profiles of the six competing regions are included in Appendix D.

Figure 3-1: Florida and Competing Regions



3.2 Investment Decision Factors

Among the most important factors influencing investor decisions regarding location for investment in warehouses, DC and fulfillment centers is market access – i.e., proximity to a large consumer market. Beyond market access, when making site location decisions, businesses consider several factors including transportation costs to those markets, labor cost, labor availability, energy costs, land acquisition and capital costs, property and sales taxes, among others. The extent to which one factor will be more important than others depends on the sources, destinations and physical attributes of the specific markets and associated products.

Each of these factors is compared in Section 3.3 for the five regions in Florida and the six competing regions.

3.3 Demographics and Market Catchment

3.3.1 Immediate Market vs. Broader Market

The size of the local and regional population influences the attractiveness of a given area for a warehouse, DC or fulfillment center.

A large immediate local population provides a consumer base for retail stores (which influences DC location), as well as providing access to labor for employment in the facility. A large local population can also result in high asset utilization for delivery trucks, as multiple trips per day can be made with a single vehicle.

Beyond local population, many businesses strive to limit the geographic reach of their nearest DCs to an area that can be reached within a single day by a return-to-base truck trip, given hours of service (HOS) regulations. Doing so has the dual purpose of allowing locations to be served by those DCs to be replenished on a daily basis while also allowing their drivers (or their for-hire carrier's drivers) to be home on a daily basis – a consideration of increasing importance given the growing shortage of truck drivers across the US. Roughly-speaking, the catchment area of these DCs would then be within a 250-mile radius of the DC given HOS rules. Proximity to a company's retail footprint also reduces total truck miles traveled to replenish store inventory, which consequently has an important transportation cost implication.

Other businesses may extend the catchment area served by their DCs to an area that can be reached within a one-way truck trip (approximately 500 miles given HOS regulations). While this distance does not allow drivers to return home on a daily basis, it still allows locations served by those DCs to be replenished with a day's lead time if necessary. In these cases, the catchment area is roughly within a 500-mile radius of the DC.

The Strong link between e-Commerce Fulfillment Centers and Population

The primary driver for the location of retail and consumer good distribution centers is the retail store footprint for a given company. That is, how many stores can be replenished from a given DC and how can transportation costs from the DC to existing retail stores be minimized overall. While population dictates store location to some extent, there are still many retail stores in areas with a low population.

In contrast, e-commerce fulfillment centers locations are far more closely linked to population, and specifically, the population within a 1 to 2 day drive time. This is because consumers are demanding receipt of their products within the shortest time possible, and the costs to use ground transportation for many small shipments from a fulfillment center to an individual are higher than the cost to fill up a domestic trailer to move to a single retail store.

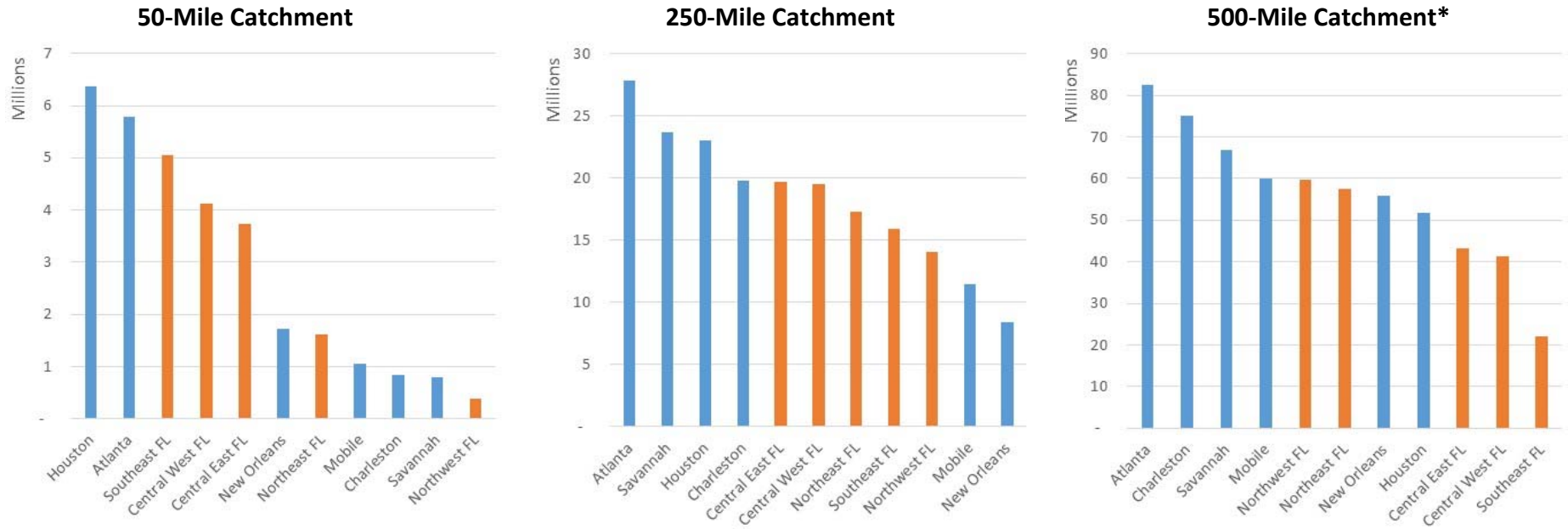
In this respect, Florida's large population will continue to be a driver to attract both additional retail stores, but even more fulfillment centers given the growth of e-commerce.

Figure 3-2 illustrates the population within these three catchment boundaries: 50 miles, 250 miles and 500 miles for the regions under comparison.

Key points to note from Figure 3-2 are as follows:

- Within the 50-mile catchment area, three of Florida's regions (Southeast, Central West, and Central East) fall within the top five regions in terms of population.
- Within a 250-mile catchment area, Florida's central regions provide access to comparable population numbers relative to most regional competitors, including the powerhouses of Savannah, Houston, and Charleston.
- Within a 500-mile catchment area, Florida's northern regions provide access to a larger population within a two-day return trip than other regions in Florida, while Southeast Florida is accessible to the smallest number of people within this distance range of all eleven regions considered.
- Atlanta has a large local population as well as regional populations. It ranks first or second place in all three distance categories, providing a strong indication of why it is such an attractive location for DC investment. Houston also has a very large local population and a larger population within 250 miles relative to all of Florida's regions.
- Though Charleston and Savannah have relatively small local populations (under one million), once the population within the 250-mile catchment area is taken into consideration, they rank third and fourth among the regions, higher than any of Florida's five regions.

Figure 3-2: Population within 50-mile, 250-mile, and 500-mile catchment areas



*Mexican population included, only effect is on Houston.

Source: CPCS analysis of Estimated US population from the 2015 American Community Survey Census Tract data. Estimated Mexico population from worldpop.org (2015).

3.4 Labor Access and Availability

Even with increased automation in many logistics functions, access to qualified workers remains a key consideration in location investment decisions for warehouses, DCs and fulfillment centers. In a recent survey of supply chain professionals, the inability to attract and retain qualified hourly workers was noted as a major issue by over 40% of respondents.⁵⁰

3.4.1 Employment Location Quotient

Locations Quotients (LQs) measure an area's employment base in a particular North American Industry Classification System (NAICS) code against the national average. An LQ above one (1) indicates there is a relatively strong economic base in that sector as a result of greater employment activity.

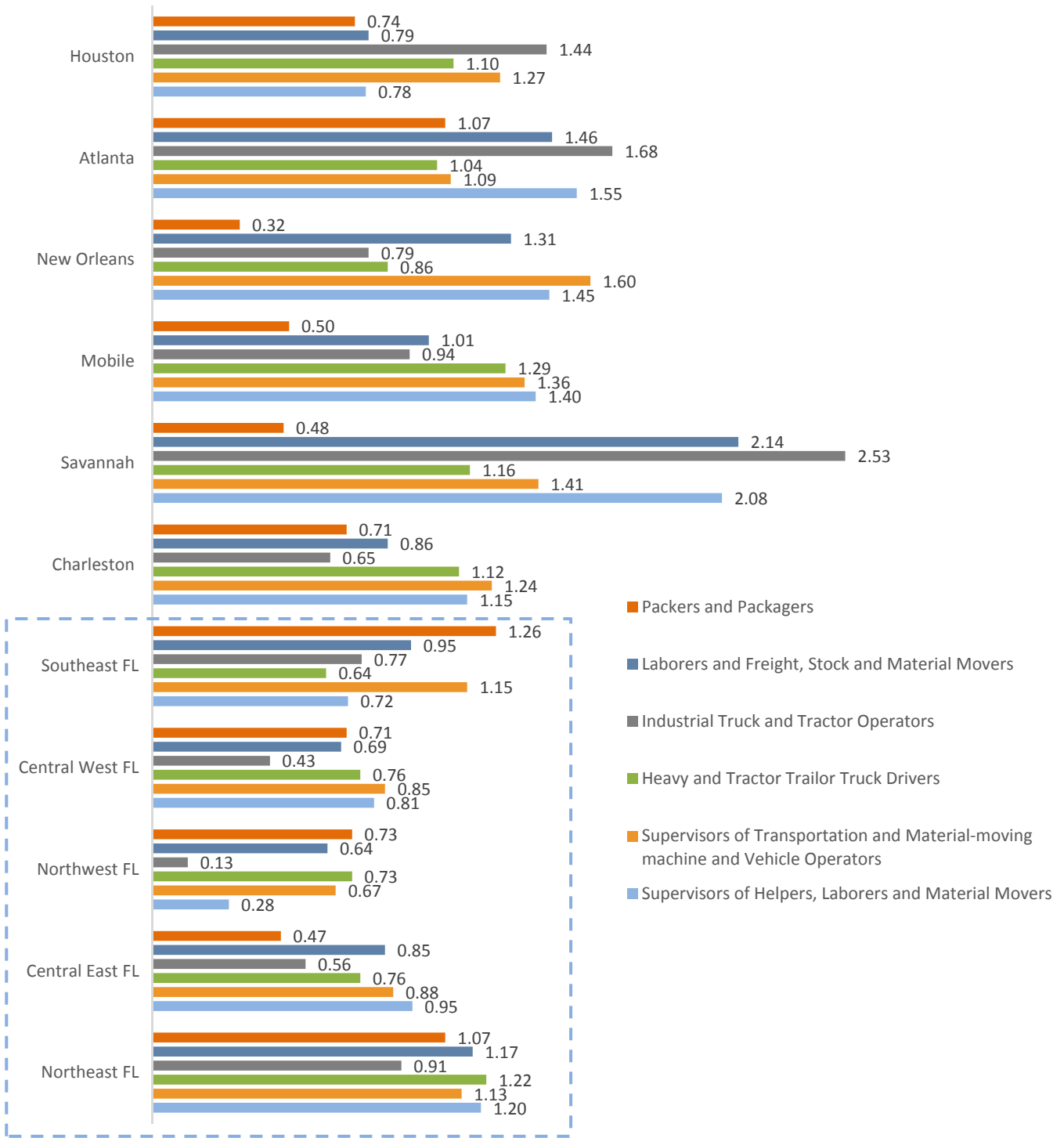
The LQs for each Florida's five regions and the six competing regions are illustrated in Figure 3-3. Generally speaking, the LQs are higher across regions outside of Florida. In particular, LQs are above 1 for almost all categories of worker in Savannah and Atlanta, suggesting a very strong labor base for the DC and logistics sector. In Florida, the Northeast region also has LQs above 1 in all but one of the six employment categories.⁵¹

⁵⁰ Roberto Michel, Contributing Editor, Supply Chain Management Review, "2016 Warehouse/DC Operations Survey: Ready to Confront Complexity", November 2016.

http://www.scmr.com/plus/SCMR1611_SUP_Warehouse_DCBenchmarkStudy.pdf (Page 58).

⁵¹ It is worth noting that a high LQ in a specific employment category does not necessarily imply a lack of economic diversity in other areas. It depends on how LQs interact with one another. For the purpose of this study (with an interest in logistics), higher intensity of employment (LQ) in relevant employment categories is a good thing because it shows existing workforce with relevant experience.

Figure 3-3: Location Quotients Across Regions



Source: CPCS and ICA analysis of US Bureau of Labor Statistics.

3.4.2 Labor Pool Availability

While the population size may indicate a certain level of labor availability, it does not tell the whole story. Overall population does not describe how many people are of age and in the labor force. Additional considerations need to be made. How much of this labor is tied up in relevant and non-relevant industry sectors and occupations? How much of this labor is already employed, making it more competitive to access?

Figure 3-4 below provides an indication of labor pool availability, calculated by multiplying the labor force size by the employment share in the Transportation/Material Moving employment category. Considering the proportion of the labor force in the transportation/material moving sector, Savannah (7.7%), Mobile (7.5%) and Northeast Florida (6.4%) show a quite high number of people in the sector. In terms of absolute numbers, given the higher populations in these areas, Atlanta (203,839), Houston (185,133) and Southeast Florida (141,911) have the largest estimated relevant workforce for DC and warehousing related employment – much higher than any other region. Overall, most of Florida’s regions make up for having a lower employment percentage in transportation/logistics by having a larger overall labor pool to draw from, so in absolute terms, the smaller average share is offset.

Figure 3-4: Labor Force and Estimate of Relevant Labor Force

	Labor Force (2016)	Employment Share of Transportation/ Material Moving	Estimated Relevant Workforce
Northeast Florida	734,243	6.40%	46,992
Central East Florida	1,254,827	5.90%	74,035
Southeast Florida	2,345,633	6.05%	141,911
Central West Florida	1,475,813	5.00%	73,791
Northwest Florida	93,991	5.60%	5,263
Charleston	373,518	5.70%	21,291
Savannah	180,794	7.70%	13,921
Mobile	185,092	7.50%	13,882
New Orleans	598,798	6.00%	35,928
Houston	2,938,612	6.30%	185,133
Atlanta	3,287,726	6.20%	203,839

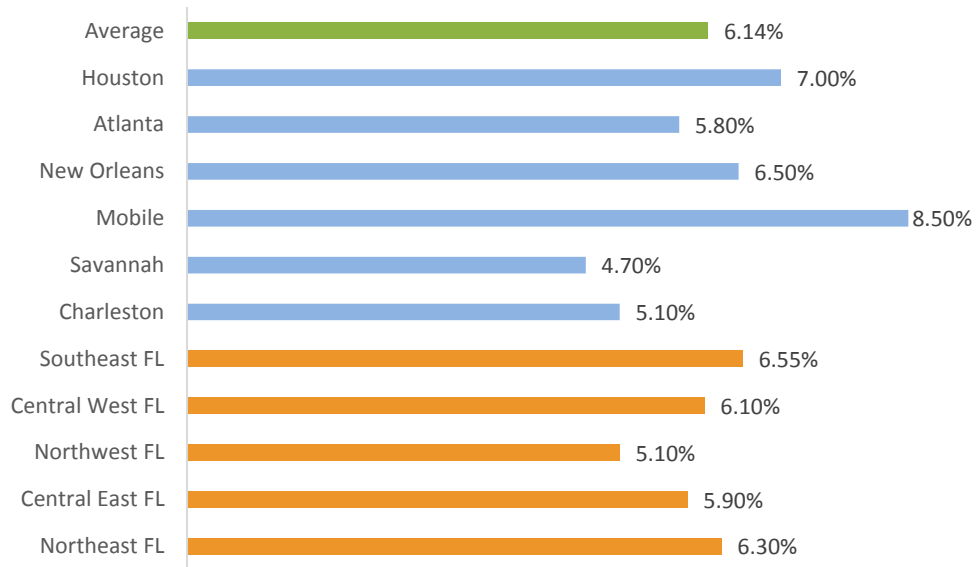
Source: ICA, Business Analyst Online, and Bureau of Labor Statistics.

3.4.3 Unemployment Levels

Unemployment levels are also relevant to investors. While unemployment is seen as a negative by the public, it has a silver lining: it means that labor is able to be soaked up by new business expansion in the area and often at more competitive rates. Therefore, an area’s unemployment rate should also be considered when assessing potential access to the labor force. It should be noted, however, that while the unemployment rate does provide a valuable indicator, further breakdowns would be required based on a business’s needs, e.g. trained/untrained, safety/security requirements, etc.

Unemployment rates range from 4.7% in Savannah to 8.5% in Mobile. The unemployment rates in Florida’s five regions are close to the average rates across all regions (6.14%) in most cases. Only the Northwest has an employment rate which is more than 1% lower than this average.

Figure 3-5: Labor Force – Unemployment Rate (Population, Age 16+)



Source: ICA, Esri Business Analyst.

3.5 Operating Costs for a Warehouse or DC

This section presents a comparison of operating costs for a hypothetical warehousing DC occupying 500,000 sq. ft. and employing 175 hourly workers. Unless otherwise noted, the estimates are based on CPCS analysis of 2017 Boyd Company which relies on Boyd BizCosts® data and other third-party sources.⁵²

3.5.1 Land and Capital Costs

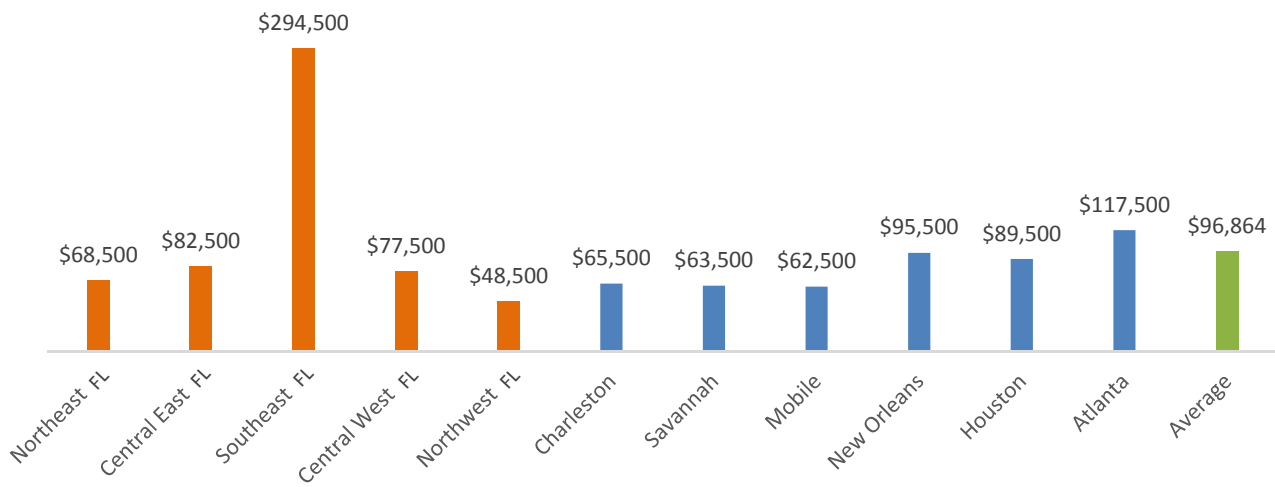
Land and capital costs include land acquisition costs, construction costs, and machinery and equipment costs. DC lease rates are also important indicators. Land acquisition costs and lease rates vary based on local land prices and availability (i.e. supply and demand). Construction costs may vary based on location due to local contractor prices and other local factors. Machinery and equipment costs are typically assumed to be held constant, although in practice there may be some variation based on the costs of transporting equipment to the site. After estimating the upfront land and capital

⁵² Boyd Company was selected for data purchase as this company specializes in research on costs associated with establishing facilities across the US, including warehousing and distribution centers. This hypothetical size is an approximate average size for distribution centers in the US.

costs, the costs are annualized by assuming an asset life for the DC and a cost of capital (interest rate).⁵³

The figure below illustrates land costs per acre in the five Florida regions and six competing regions. The average land cost across all regions is \$96,864 per acre. South East Florida is something of an outlier, with much higher land costs per acre (\$294,500) than any other region within or outside of Florida. This likely reflects the dense population in the area and limited land availability. If this region is excluded, the average land cost per acre is \$77,100 across all regions. Land costs in the region around Atlanta are considerably higher than this average, at \$117,500 per acre. Land costs in Northwest Florida are considerably lower than all other regions.

Figure 3-6: Land Costs per Acre (US\$, 2017)



Source: CPCS analysis of Boyd Company Data. Land costs based on prevailing average asking price for industrially-zoned land suitable for new warehouse construction in the MSA under review.

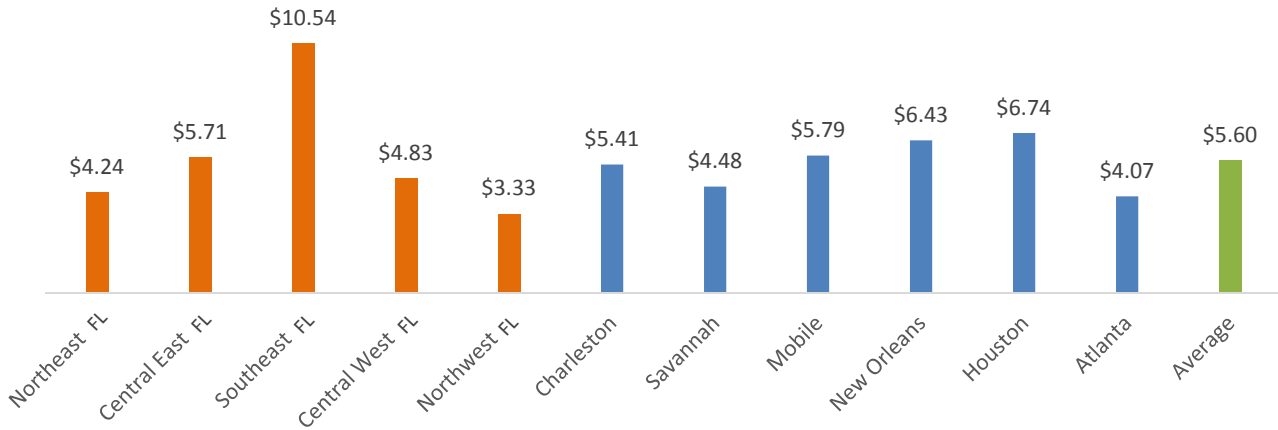
The figure below shows lease rates per square foot in the eleven regions, which range from a low of \$3.33/square foot in Northwest Florida to \$10.54/square-foot in Southeast Florida. This data – illustrating higher land purchase and leasing costs in Southeast Florida – was supported by findings from interviews with shippers and logistics companies, a number of whom indicated there are challenges with expansion in that area.

For the most part, the different lease rates reflect the different land costs across the areas, with two notable exceptions. In Florida, though the Southeast region has higher lease rates than other areas, the rates are higher by a much smaller multiple than the higher land costs. Whereas land costs in Southeast Florida are about three times the average, lease costs are just under twice the average. Outside of Florida, Atlanta is another outlier. Its land costs were second highest (after Southeast

⁵³ The Boyd methodology assumes a 20-year asset life and a 3 per cent interest rate for the cost of capital. It appears as though land costs are amortized in the same way, whereas they should be treated separately (by only applying the interest rate and not amortizing the land value itself).

Florida), but it has among the lowest lease rates across all regions (only Northwest Florida is less expensive).

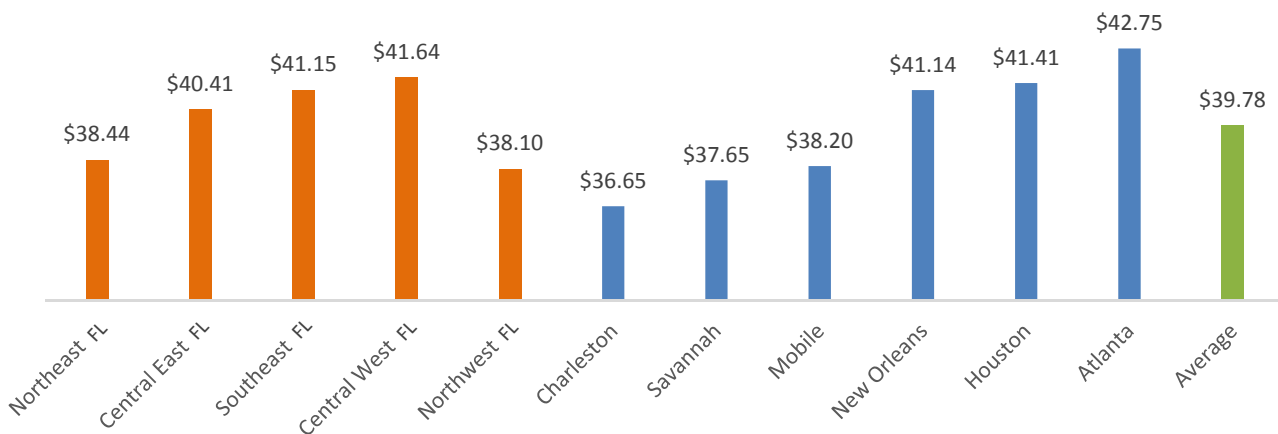
Figure 3-7: Lease Rates per Square Foot (US\$, 2017)



Source: CPCS analysis of Boyd Company Data. Estimates based on latest (second quarter 2017) BizCosts® data for prevailing asking lease rates for available distribution warehousing space.

The figure below shows construction costs per square foot across the comparator regions. These costs provide an indication of the additional costs associated with establishing a warehouse or DC once land has been leased or purchased. The average cost is \$39.78 per square foot. Construction costs are much more comparable across all regions than land costs. The difference between the lowest cost (Charleston) and the highest cost (Atlanta), is \$6.10 per square foot. To put this in perspective, the difference would be approximately \$3,000,000 for constructing a 500,000 square foot warehouse in Atlanta compared to in Charleston.

Figure 3-8: Construction Costs per Square Foot (US\$, 2017)



Source: CPCS analysis of Boyd Company data. Based on an assumed warehouse construction cost of \$53.50 per sq. ft. in Chicago and varied by the latest (second quarter 2017) BizCosts® data for the alternate locations.

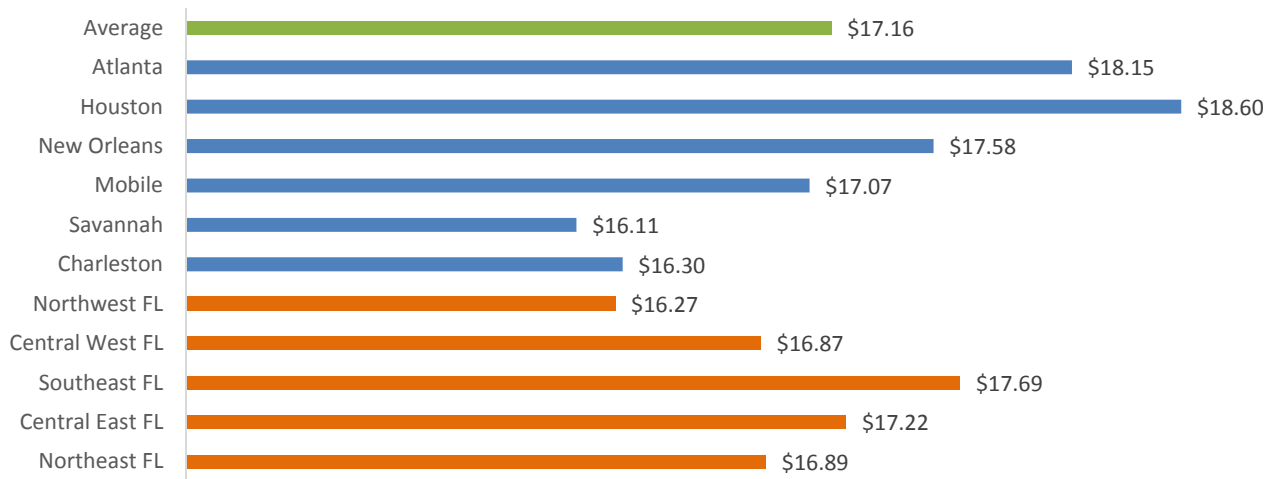
3.5.2 Labor Costs

Labor costs vary both by location and the mix of occupations required by a DC, including general warehouse worker, cold storage warehouse worker, packer, light assembly worker, shipping and

receiving clerk and truck driver, among others. In addition to considering direct wages, annual base payroll costs and fringe benefits must be considered.⁵⁴ The extent to which DCs use automation is also a direct influence over labor cost.

Figure 3-9 illustrates labor costs in the eleven comparator regions. Average wage rates are similar across regions, varying by only \$2.49/hour between the highest average wage (Houston) and the lowest average wage (Savannah). Wage rates are important to investors but not as important as access/proximity to markets.

Figure 3-9: Comparative Wage Rates – Average Hourly Wage Rate, US\$



Source: CPCS analysis of Boyd Company data. Estimates reflect an average hourly rate for a typical staff of warehouse personnel performing various material handling, pick and pack, inventory and light assembly functions.

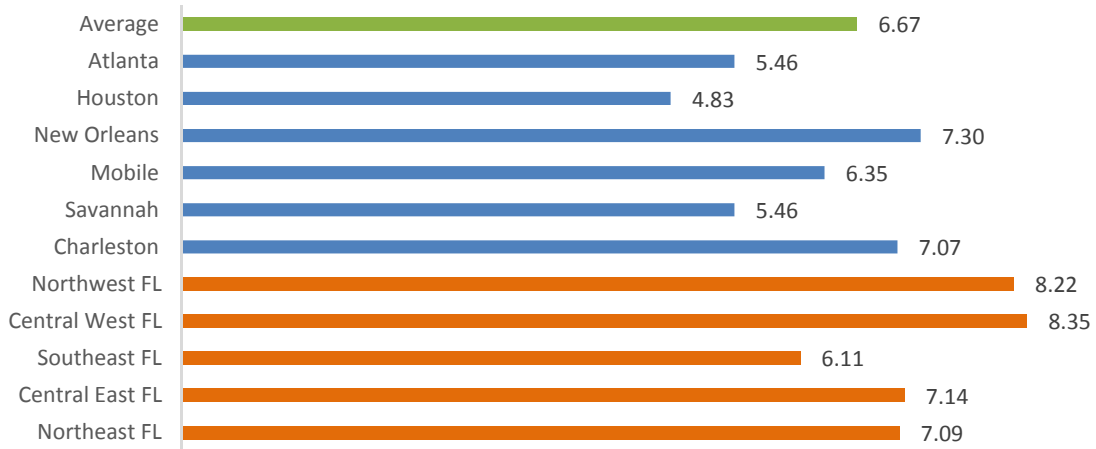
Another labor factor to consider is that Florida and all of the comparator states are Right to Work states, meaning workers can decide whether or not to join or financially support a union. All else being equal, labor costs will be lower for these states compared to states that have forced unionism, including California and the states located northeast of Virginia.

3.5.3 Energy Costs

Electricity rates affect the types of distribution and logistics activity that can be attracted to a given region. For example, cold chain warehousing and logistics will require more electricity usage than retail dry goods, and thus could be more price sensitive to higher or lower electricity rates. A comparison of rates across the regions is illustrated in the figure below. Generally speaking, electricity rates are lower across the comparator regions, relative to Florida. The average electricity rate in regions outside of Florida is \$5.88 cents/Kilowatt Hour (KwH), compared to Florida’s average of \$7.38 cents/KwH. Within Florida, electricity rates are lowest in Southeast Florida. Outside of Florida, the areas around Savannah, Houston, and Atlanta have notably low electricity rates (below average).

⁵⁴ The Boyd methodology estimates payroll costs and fringe benefits as a fraction of base wages, meaning that it is the difference in base wages that drives the geographic differences in their analysis.

Figure 3-10: Electricity Rates (cents/KwH)



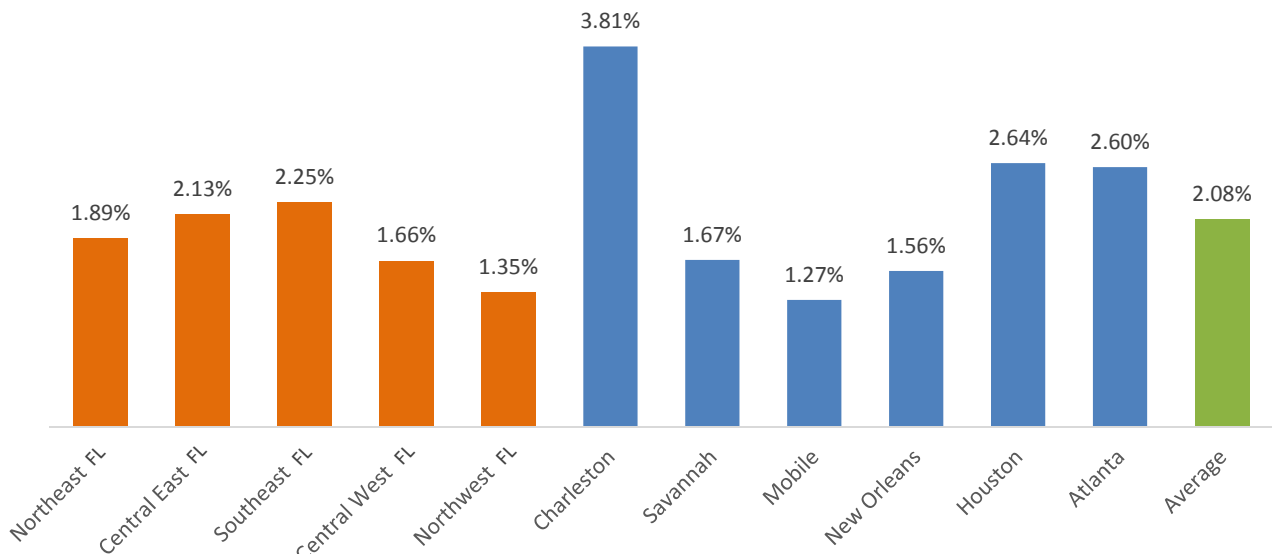
Source: CPCS analysis of Boyd Company data. Costs are based on general service industrial rate structures of local utilities serving each location: **Northeast** (Jacksonville Electric Authority); **Central East** (Orlando Utilities Commission); **Northwest** (Gulf Power); **Central West** (Tampa Electric Company); **Southeast** (Florida Power & Light); **Savannah** (Georgia Power); **Charleston** (South Carolina Electric & Gas); **Mobile** (Alabama Power); **New Orleans** (Entergy New Orleans); **Houston** (CenterPoint Energy); **Atlanta** (Georgia Power). No special rate incentives or rebates are assumed.

3.5.4 State and Local Taxes

Local taxes consist primarily of property taxes that vary as a percentage of the property value (including land and building values) and sales taxes on the purchase of supplies and equipment.

Property taxes are levied by the governing authority of the jurisdiction in which the property is located – typically a County or Municipal government. Figure 3-11 below illustrates effective property tax rates for the eleven comparator regions.

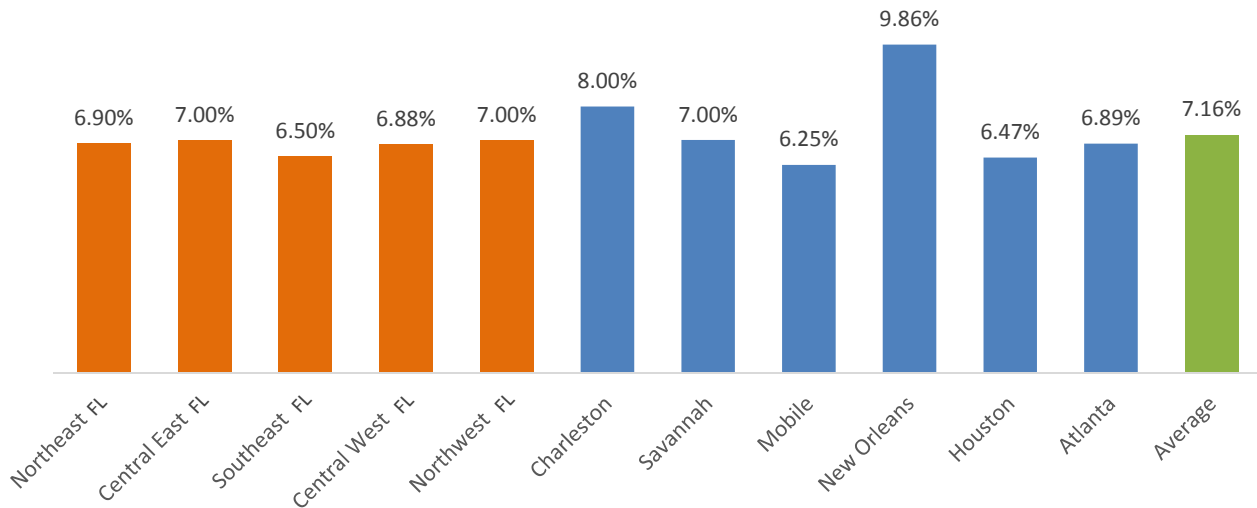
Figure 3-11: Property Tax Rates, 2017



Source: CPCS analysis of Boyd Company Data. CPCS analysis of Boyd Company Data. Property tax rate estimated based on building cost and land value assumptions at each of the surveyed warehouse locations and latest available property tax levies. Actual rates may vary based on alternate municipal, school, fire and special assessment districts within each region. No special exemptions for rebates are assumed.

Figure 3-12 below illustrates effective sales tax rates for the comparator regions. The state sales tax in Florida is 6%. Local counties then have the authority to add local sales tax to this base. Total sales tax thus varies across Florida, from a minimum of 6.5% to 7%.

Figure 3-12: Sales Tax Rates, 2017



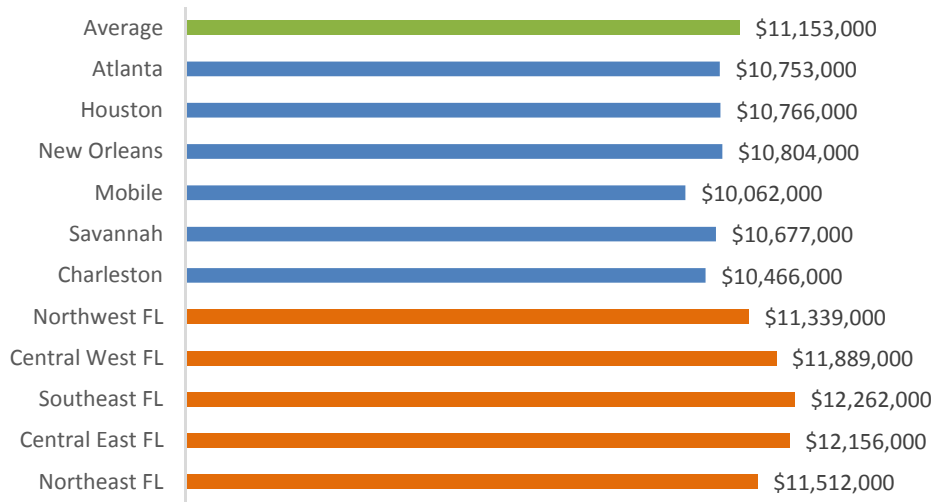
Source: Sales tax for each region is based on an average of the sales tax across the counties within the region. Southeast: Miami-Dade (7.0%) and Broward County (6.0%); Northeast: Duval County (7.0%), St. Johns County (6.5%), Nassau County (7.0%), Clay County (7.0%) and Baker County, (7.0%); Central East: Orange County (6.5%), Osceola County (7.5%), Seminole County (7.0%), and Lake County (7.0%); Northwest: Bay County (7.0%) and Gulf County (7.0%); Central West: Hillsborough County (7.0%), Pinellas County (7.0%), Pasco County (7.0%), and Hernando County (6.5%). Data from Avalara: <https://www1.avalara.com/taxrates/en/state-rates/florida/counties/?sessionId=1523968507150&referrer=&lastReferrer=www1.avalara.com>

3.5.5 Annual Operating Costs

Figure 3-13 presents a roll-up of the operating costs described in section 3.5.4 – labor, property taxes, sales taxes, electricity and land and building costs – for a hypothetical distribution warehouse facility occupying 500,000 sq. ft. and employing 175 hourly workers.

Operating costs for a warehousing facility in any region of Florida is higher than any regional competitor, though it bears noting that this assessment does not consider the inward and outward logistics costs which can vary considerably depending on product and market sources and destinations. Access and proximity markets are still an extremely important factor. The nature of the goods being moved (e.g. value, weight, density) can affect the tolerance for greater distances between a DC and destination.

Figure 3-13: Annual Operating Costs, 500,000 square foot Warehousing Facility

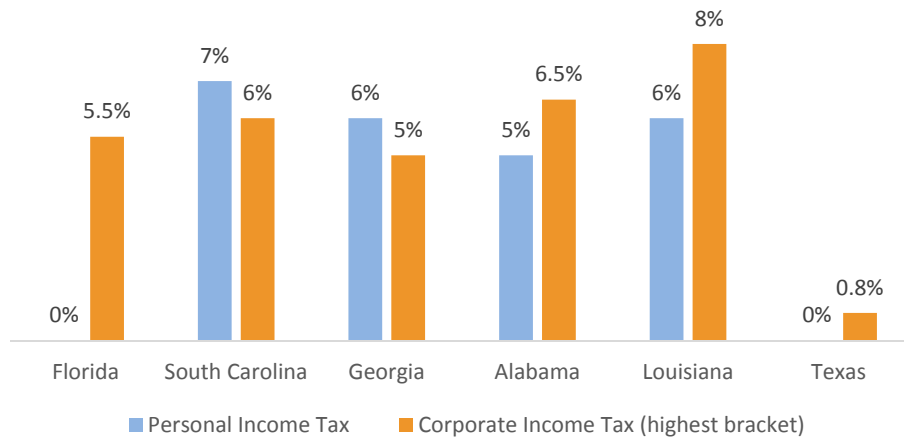


Source: CPCS analysis of Boyd Company data. Estimates based on annual operating cost totals for hourly labor, electric power, property taxes, sales taxes, and the amortization of the land and building costs over 25 years at a fixed 3% rate of interest. Labor cost totals assume a premium of 40% for mandated and company-sponsored benefits. Annual labor costs are based on an assumed 1,904 hours worked per year per employee based on 12 paid holidays and a two-week vacation for the mature warehouse.

3.5.6 Income Tax

Florida has a highly favorable income tax regime relative to most of its competitors (other than Texas), considering both personal and corporate income tax. Florida is ranked 4th in the nation in terms of state business tax climate by the Tax Foundation. Comparative rankings for regional competitors are Texas – 13th; Alabama – 35th; Georgia – 36th; South Carolina – 37th; and Louisiana – 42nd. Figure 3-14 compares personal and corporate income tax between the states under study (there is no state income tax in Florida). Within the competitive analysis regions, only Florida and Texas have no state personal income tax. The absence of this type of tax was noted in interviews as a positive strength for Florida in terms of being able to attract labor to work in the state, particularly for executive level (higher wage) positions.

Figure 3-14: Income Tax Comparisons



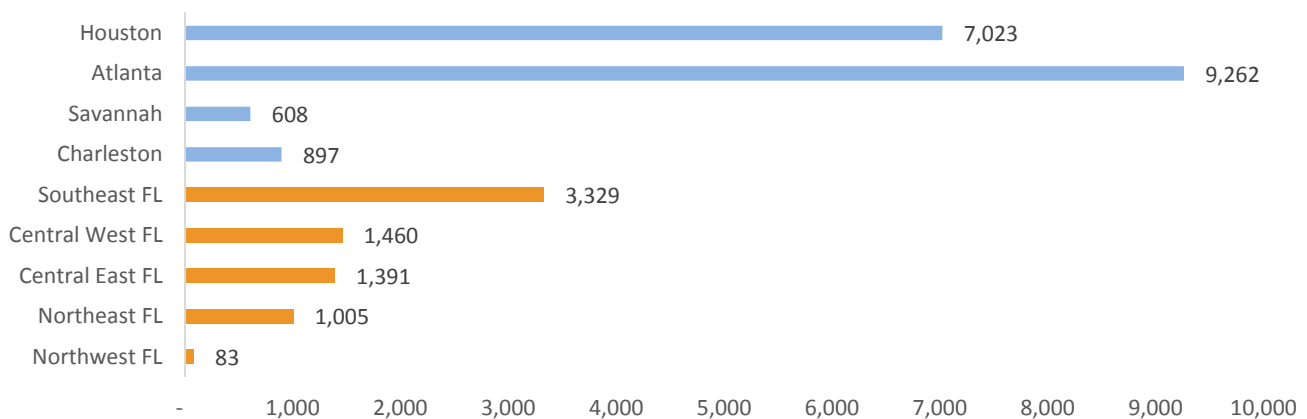
Source: ICA analysis of data from US Census Bureau and Tax Foundation 2018 State Business Tax Climate Index

3.6 Real Estate and Land Availability

Real estate and land availability usually become a greater concern when a company has narrowed its location choices to a short-list of appropriate markets. A lack of viable stock or land can discourage a company from locating in an area, particularly if it needs to move fast. If build-to-suit is on the table, the company will prefer land that is already serviced and properly zoned for its type of use. The greater the abundance, the more options a company has to find the right fit.

Figure 3-15 shows the number of warehousing and distribution industrial buildings across the comparator regions (excluding Mobile and New Orleans, where consistent data is not available). Houston and Atlanta clearly have significantly more properties dedicated to this industry than any other region. However, Florida’s regions (with the exception of the Northwest) have more warehousing and distribution buildings than Savannah and Charleston.⁵⁵

Figure 3-15: Number of Warehousing and Distribution Industrial Buildings



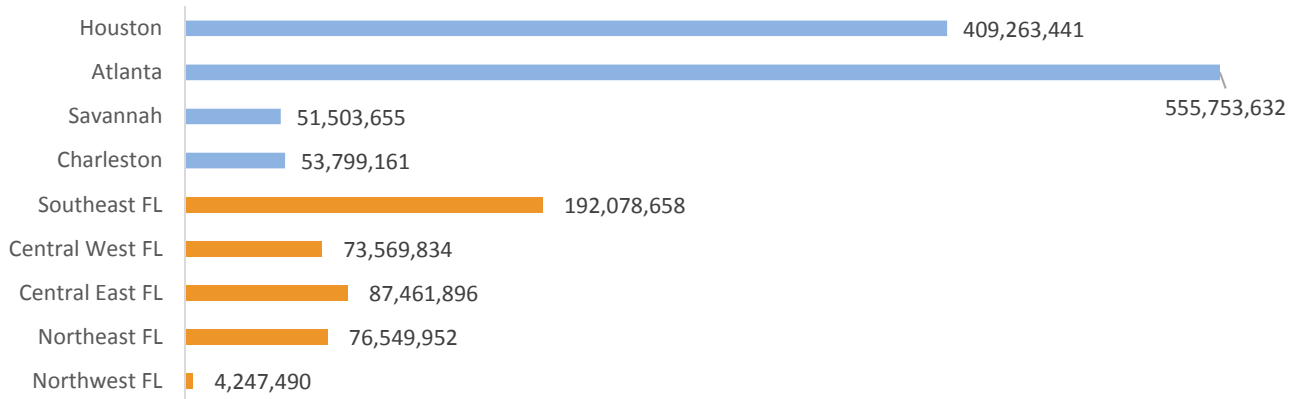
Source: ICA and CPCS analysis of Cushman & Wakefield Data and Request for Information (RFI) responses from regional economic development organizations.

Figure 3-16 illustrates the inventory of warehousing and distribution buildings in each region (excluding Mobile and New Orleans, where consistent data is not available).

As expected, Houston and Atlanta have the highest inventory of industrial buildings in terms of square footage. Beyond these two regions, Southeast Florida has the largest inventory of Warehousing and Distribution buildings in terms of square footage.

⁵⁵ Please note – an RFI was used to obtain information on real estate availability in Northwest Florida, while reports from Cushman & Wakefield were used for the larger regions. The numbers presented on Northwest Florida may be less comprehensive as a result.

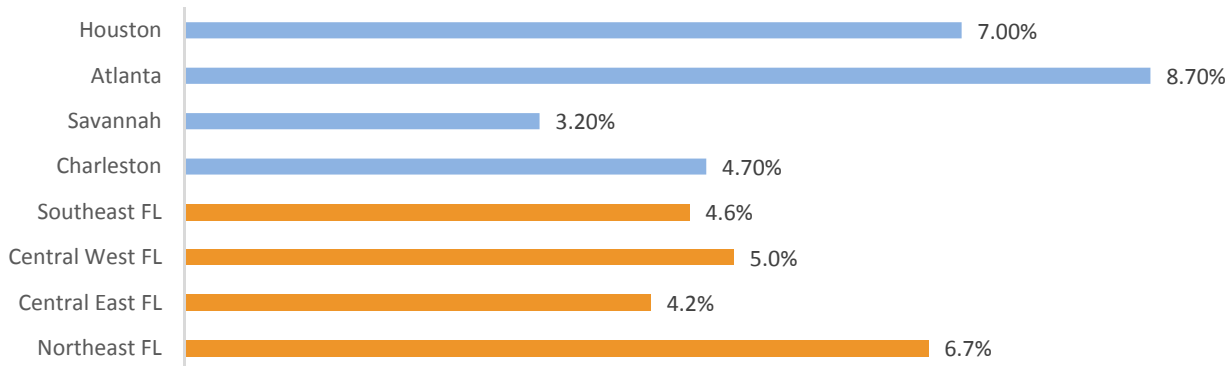
Figure 3-16: Total Inventory of Warehousing and Distribution Industrial Buildings (Square Footage)



Source: ICA and CPCS analysis of Cushman & Wakefield Data and Request for Information (RFI) responses from regional economic development organizations.

Figure 3-17 demonstrates the vacancy rates for Warehousing and Distribution buildings (excluding Northwest Florida, Mobile, and New Orleans, where consistent data is not available). While real estate owners may prefer lower vacancy rates, the viewpoint is inverted from the site selector perspective. Low vacancy rates mean fewer immediately available options and can indicate a risk of price overheating. From this perspective, the Northeast region presents the most attractive environment for businesses in Florida, though not as attractive as Houston and Atlanta.

Figure 3-17: Vacancy Rates of Warehousing and Distribution Industrial Buildings



Source: ICA and CPCS analysis of Cushman & Wakefield Data and Request for Information (RFI) responses from regional economic development organizations.

3.7 Transportation Access and Costs

Transportation access is very important in the logistics and DC investment decision-making process. There are certain minimum transportation requirements that often need to be met for an area to be considered for a potential site location. For example, the area usually must be directly accessible by major highways, be connected by rail to a major container port, be reasonably proximate to a major rail intermodal terminal, and/or have access to air logistics facilities.

The extent to which transportation access matters, the form of that access (e.g. road, rail, air) and the resulting implications for competition for DCs between metro areas depends on the attributes of the products that are being shipped, supplier locations and customer expectations, among others. When making DC location decisions, a business may take into consideration all of these specific factors. Ultimately, there is virtually no limit to the number of potential permutations of these factors and the resulting level of competition between different metro areas.

3.7.1 Transportation Access Comparators

Figure 3-18 provides a comparison of the distance to a major interstate and container terminals for the regions under analysis. To identify a single reference point for comparison within each region, CPCS chose a visual “hot spot” to serve as a proxy for the area using GIS maps of sales values for transportation and logistics businesses (see maps for each region at section 1.2). These “hot spot” locations are not all located directly adjacent to seaports.

Figure 3-18: Port and Highway Access

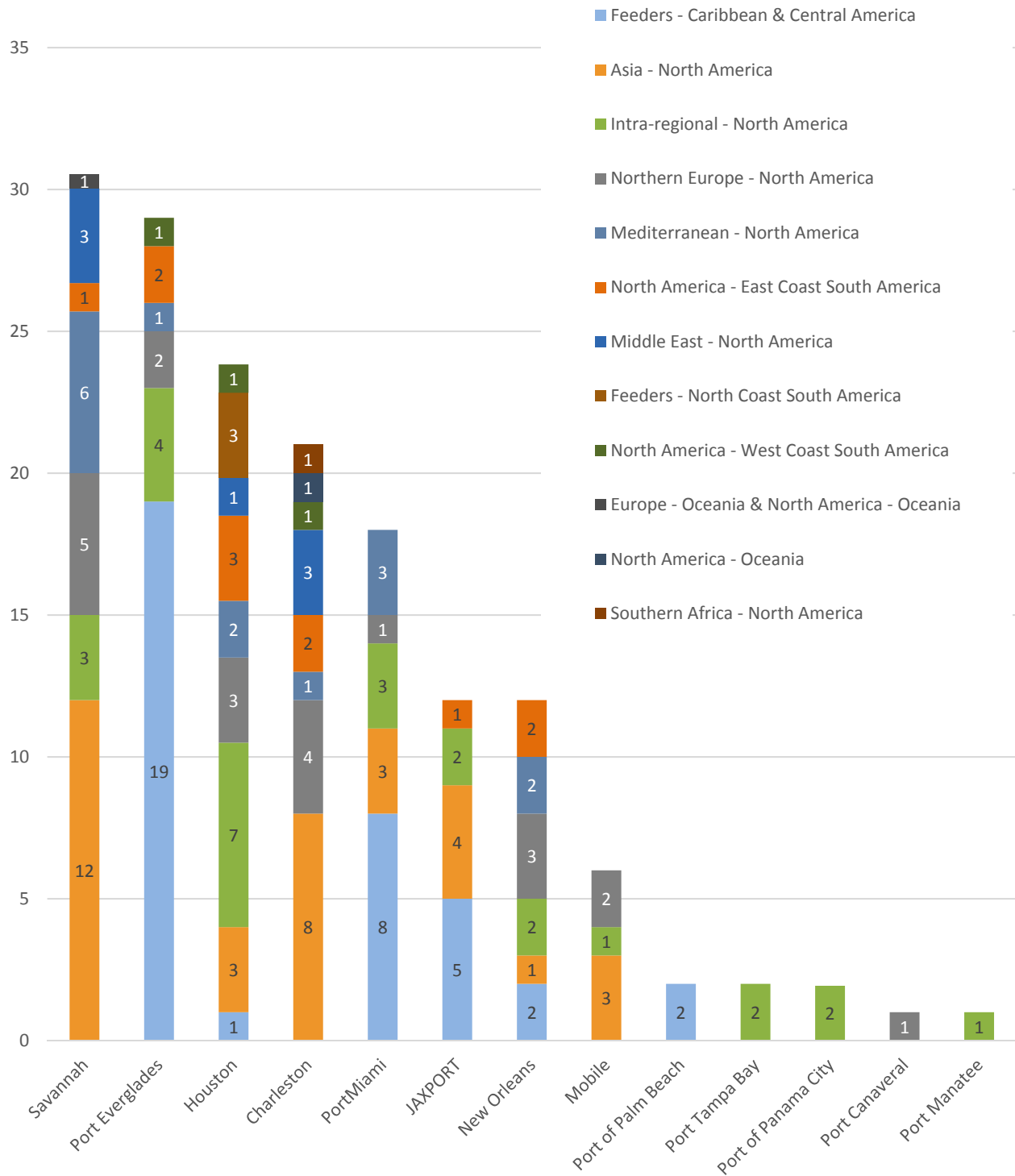
Region	Miles to nearest Marine Terminal from Logistics Center Hot Spot	Miles to Interstate from Logistics Center Hot Spot
Northeast Florida	6 (JAXPORT)	3
Central East Florida	50 (Port Canaveral)	6
Southeast Florida	40 (Port Everglades), 15 (PortMiami)	13
Central West Florida	5 (Port Tampa Bay)	0.1
Northwest Florida	9 (Port Panama City)	54
Savannah	9.3 (Port of Savannah)	2
Charleston	2.7 (Port of Charleston)	1.6
Mobile	1 (Port of Mobile)	2.1
New Orleans	4.7 (Port of New Orleans)	1.5
Atlanta	254 (Port of Savannah)	0.5
Houston	13 (Port Houston)	0.8

Source: ICA, CPCS estimates using Google Maps.

3.7.2 Container Shipping Line Services

Considering maritime transportation specifically, the frequency of container shipping line services is also an important factor in attracting DCs. Figure 3-19 shows the number of weekly calls from container shipping lines at ports across the comparator regions.

Figure 3-19: Number of Weekly Services from Container Lines at Florida and Regional Ports



Source: CPCS analysis of data from www.eesea.com.

Key points from the above figure to note:

- Port Everglades, PortMiami, and JAXPORT are the most active container terminals in Florida, with 29, 18, and 12 weekly container services, respectively. These ports, as well as the other ports in Florida, primarily specialize in feeder and intra-regional services between the Caribbean, Central American, and other North American ports. Only Jacksonville and Miami currently receive calls from liner services to Asia.
- The nearby competing ports of Savannah, Houston, and Charleston offer more weekly services than any of Florida’s ports (other than Port Everglades), and generally speaking, serve a broader number of regional and international markets. For example, Savannah has 31 weekly services, covering seven different markets, while the 24 weekly services from Houston cover nine different markets.

3.7.3 Service from Class I Rail Provider

Figure 3-20 shows Class I rail service providers calling at Florida’s five regions and competing regions. Service provision by more than one Class I railway can facilitate more competitive rates for direct access to large markets across the US – bearing in mind that the level of service is a major factor (frequency of service, transit times, availability of railcars, etc.).

With the exception of the Northeast region, the rest of Florida has access to only one Class I railway service provider. Florida East Coast Railway (FEC) is a Class II railway that provides service along the Atlantic coastline, including to the Northeast, Central East, and Southeast region. In the Northwest region, CSX provides service to Pensacola, while Panama City connects to CSX via a Class III railway. In contrast, all of the competing ports and regions are served by at least two Class I railways, and Mobile and New Orleans by four and six, respectively.

Figure 3-20: Class I Rail Service⁵⁶

Region	CSX	NS	UP	KCS	BNSF	CN	# Class I providers
Northeast FL	X	X					2
Central East FL	X						1
South East FL	X						1
Central West FL	X						1
Northwest FL ⁵⁷							0
Charleston	X	X					2
Savannah	X	X					2
Mobile	X	X		X		X	4
New Orleans	X	X	X	X	X	X	6
Houston			X		X		2
Atlanta	X	X					2

⁵⁶ Rail acronyms are as follows: CSX: CSX Transportation, NS: Norfolk Southern, UP: Union Pacific, KCS: Kansas City Southern, BNSF: Burlington Northern Santa Fe, CN: Canadian National.

⁵⁷ In the Northwest region, CSX provides service to Pensacola, while Panama City connects to CSX via a Class III railway (50 miles away).

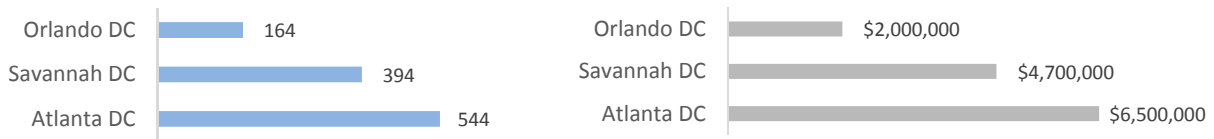
3.7.4 Transportation (Trucking) Costs (and the Importance of Retail Network Proximity)

Outbound transportation costs represent a significant share of overall distribution activity costs. The proximity of a DC to a business’s retail footprint can significantly reduce transportation costs by reducing the distance, time and cost of truck trips to replenish retail stores. This is particularly the case for businesses with a large retail footprint (i.e. many stores), but this also applies to big box type retail.

Florida has a large consumer base and significant retail market. But it can be costly to serve this market from DCs outside the state, particularly given Florida’s geography as a peninsula, which necessitates longer truck trips. Locating a DC in Florida to serve a Florida retail market can lead to significant cost savings by shortening average and total truck distances to replenish retail outlets.

To illustrate the cost savings that could be associated with locating a DC in Florida relative to serving DCs from outside Florida, we undertook a theoretical analysis using a geographic information system (GIS) based model. We estimated costs to deliver two truckloads of clothing per week to each of the 44 GAP clothing retail stores located in Florida.⁵⁸ We assumed three different hypothetical DC locations as the origin: Orlando, Atlanta, and Savannah. Relative to a DC location in Orlando, annual trucking costs would be 2.4 times higher from a Savannah DC and 3.3 times higher from an Atlanta DC. Results are presented in the figure below.

Figure 3-21: Average Distance to Florida Stores (Left) from Alternative DCs and Related Annual Trucking Costs (Right)



Source: CPCS estimates based on replenishing 44 Florida GAP stores with two weekly truck trips/store/year at \$1.75/mile for the fore haul and half this rate for the backhaul.

In simple terms, the extent to which locating a DC in Florida to serve the Florida market makes sense financially is largely a function of the extent to which the lower truck transportation costs of being in close proximity to a business’s retail network in Florida is greater than the incremental cost of establishing and operating a new DC.

A similar analysis to that above could be used to crystallize the value proposition of locating in Florida for specific retail businesses, particularly those with a large retail network.

3.8 Business Incentive Programs

Incentive programs are a reality of the US competitive environment. States offer various types of incentives to achieve certain objectives, the most common of which are job creation and capital investment support. A state can offer hard (monetary) and soft (in-kind) incentives to encourage the lead to locate in one location over the other.

⁵⁸ GAP was selected as an illustration of a well-known mid-size retailer in the US.

The incentive environment in any state has multiple tiers – federal, state, and local. Often state incentives target certain industry sectors and business activities, deeming them important in supporting the economic growth and diversity of the state, as well as increasing overall wages and tax revenues.

Appendix E includes details on the range of incentives programs available at the state and local level in Florida and the regional competing battlegrounds. Key points to note include the following:

- Florida’s state-level incentives are not targeted specifically at the Transportation and Logistics Sector, and the structure of state-level incentive programs (focused on target industries) makes it difficult for DC projects to qualify for tax refunds or credits. In general, Florida’s state-level incentives target higher paid jobs, and higher-tech industries, which means that lower paying and lower-tech transportation and distribution operations do not typically qualify, even though they may employ many people.
- Florida’s local incentives such as county tax exemptions may be more directly applicable to transportation and distribution firms, but these programs may be less lucrative by virtue of their smaller, local nature. Also, Florida’s local incentives do not give the state a competitive advantage, as all competing regions have similar local incentive programs.
- Georgia and South Carolina offer incentives that are directly tied to the utilization of the state’s ports. Georgia offers additional tax credits to companies who generate a 10% or greater increase in shipments through Georgia ports. South Carolina offers up to an \$8 million state income tax credit for companies that generate at least a 5% increase in the state’s port cargo volumes. South Carolina also offers direct subsidies for containers imported via the Port of Charleston. Florida lacks a similar incentive program, which particularly disadvantages ports located in the northern areas of the state, and which are in closer competition with ports in competing regions.
- South Carolina offers a 5-year abatement on operating taxes for the creation of 75 new full-time jobs and \$50,000 investment in distribution facilities.
- Like Florida, Texas, Louisiana, and Alabama did not offer state-level incentives that directly targeted transportation and warehousing firms.

One means to attract additional investment in the logistics and DC sector in Florida would be for the state to consider expanding the business incentives it provides directly to this sector, in order to be competitive with regional peers.

4 Commodity Specific Analysis – Reverse Site Selection

We used Investment Consulting Associate’s Reverse Site Selection model to assess and illustrate the strengths and weaknesses of Florida’s five regions, relative to competing locations, in attracting investment in a set of specific product sectors. The Reverse Site Selection model takes into consideration many of the factors described in Chapter 3 and calculates a ranking of location options developed from the perspective of the companies that are interested in making investments in warehousing and DC facilities for these sectors.

As noted in Chapter 2, key imports of relevance arriving through out-of-state ports can be broken into the following categories:

- **Retail and consumer goods.** These types of goods would lend themselves to being handled through a DC and include clothing, textiles and accessories; electronics and electrical equipment; and furniture and home furnishings.
- **Manufactured products,** including plastics; machinery; agricultural products; wood, paper and printed products; and chemicals. These products are primarily linked to the wholesale market.

The key Florida-originated product being *exported* via out-of-state ports is wood, paper and printed products, and particularly paper products. For this industry, we carried out a selection of consultations to understand what drives the choice of port export location for this industry.

For the retail and consumer goods commodities that lend themselves to use of a DC, we use the Reverse Site Selection model to identify key factors that are valued by these industries. For the manufactured products, we use the Reverse Site Selection model to identify factors which would attract manufacturers of these commodities to Florida (while analysis of manufacturing opportunities is not strictly within the scope of this study, if Florida is able to attract additional manufacturers to the region then this could also drive additional traffic through Florida’s ports – a critical objective of this study).

A summary of the results and methodology used in the analysis is presented below, with further details in Appendix F.

4.1 Reverse Site Selection Methodology

Companies making expansion or relocation decisions typically undergo a multi-phase process of selecting the location that best fits their needs. This process, the site selection analysis, first uses a data-driven approach to weight and rank locations based on a variety of categories, such as labor markets, access to markets, infrastructure, and tax environment, to name a few. The process continues to narrow down the list of potential options until a short list of options are selected to begin field confirmation of the business environment and contextual themes that data alone cannot reveal.

Reverse site selection analysis assesses the region from a corporate project perspective. By reversing the site selection analysis, a region can identify its strengths and weaknesses as compared to its competitors, thereby helping it strategize how to capture opportunities by positioning for future growth. For this exercise, the drivers for the commodities that DCs handle were considered, and the relevant data and weighting was applied accordingly.

Site selectors typically assess regions based on data associated with the Metropolitan Statistical Area (MSA), so this is the geographic boundary used to assess the Florida regions and its competitors. In general terms of this study, extra weight was placed on Access to Markets, Cost Environment, and Industry Characteristics (Location Quotients and Import-Population Ratios), since these are the main drivers of DC growth. The overall categories considered in the Reverse Site Selection model are noted in Figure 4-1 below. Variations across industries were weighted differently, with details included in Appendix G.

Figure 4-1: Reverse Site Selection Model Categories and Data Points

Categories	Data Points within Category
Population and Demographics	Population 2017; Projected Population 2022; Population Growth 2017-2022; Median Age 2017
Household Statistics	Owner, Renter, and Vacant Housing Units 2017; Housing Unit Growth 2017-2022; Median Home Value 2017; Median Household Income 2017 and 2022; Median Household Income Growth 2017-2022
Labor Force Availability	Labor Force 2017; Labor Force Growth 2017-2022; Unemployment Rate 2017; Change in Unemployment Rate
Industry-Specific Characteristics	NAICS Codes (see Assumptions); Import-Population Ratios ; IP-LQ Index for Chemicals, Plastics, Machinery, Agricultural Products, and Wood/Paper/Printed Products
Occupation-Specific Employment (per 1000)	First-Line Supervisors of Helpers, Laborers, and Material Movers; First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators; Heavy and Tractor-Trailer Truck Drivers; Industrial Truck and Tractor Operators; Laborers and Freight, Stock, and Material Movers; Packers and Packagers
Occupation-Specific Salaries (Annual Mean 2010)	First-Line Supervisors of Helpers, Laborers, and Material Movers; First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators; Heavy and Tractor-Trailer Truck Drivers; Industrial Truck and Tractor Operators; Laborers and Freight, Stock, and Material Movers; Packers and Packagers
Education	Population with less than High School Diploma/GED; Population with High School Diploma/GED; Population with Associates Degree; Population with Bachelor’s Degree; Population with Graduate/Professional Degree

Categories	Data Points within Category
Transportation and Market Access	Population within 4-hour Drive Time; Households within 4-hour Drive Time; Household Growth within 4-Hour Drive Time; Household Income and Income Growth within 4-Hour Drive Time; Average Commute Time; Time Spent in Congestion; Miles and Time to Interstate; Miles to Major Airport; Miles to Intermodal Terminal; Miles to Seaport
Tax Regime and Cost of Doing Business	State Corporate Tax Climate Score; State Corporate Income Tax Rate (Highest Bracket); State and Local Sales Tax; Property Tax; Estimated Toll Miles and Max Toll Fee; Annual Operating Cost for Operating a Warehouse/DC
Climate and Natural Hazards	Days of Precipitation per Year; Annual Precipitation; Annual Snowfall; Annual Days with Thunderstorms; Tornado Risk; Hurricane Risk
Crime and Quality of Life	Violent Crime; Property Crime; Cost of Living Index; Minimum Living Hourly Wage; Physicians per Capita; Number of Hospital Beds
Real Estate Availability	Number of Industrial Buildings; Available Industrial Space; Total Inventory of Industrial Development Sites (Serviced and Non-Serviced); Average Vacant Industrial Lot Size
Economy of Scale	Number of Manufacturing SMEs and Enterprises; Number of Wholesale Trade SMEs and Enterprises; Number of Transportation and Warehousing SMEs and Enterprises

Source: Investment Consulting Associates.

4.2 Results of Reverse Site Selection Model – Imports

As noted above, the Reverse Site Selection model considered two overarching types of commodities: retail/consumer goods that typically move through a DC, and manufactured products that move through more wholesale channels. Separate Reverse Site Selection models were run for each specific commodity, revealing the nuances of each region regarding the attraction of commodity distribution activity.

After weighting and scoring the categories, an aggregate rank was assigned to each of the 11 regions assessed. Key findings are summarized below, and the results are presented in figure 4-2 on the following page. A more detailed view of the assumptions and results of each scenario model can be found in Appendix F.

Key Findings from Reverse Site Selection Model

- **Northeast Florida** presents a competitive case for attracting Wood, Paper, and Printed Products, ranking 3rd among peer locations trailing behind Houston & Atlanta. Regarding other manufacturing commodities, the Northeast region of Florida demonstrates an average competitive scenario, though for Chemicals and Plastics it edges out its nearby out-of-state competitors of Savannah and Charleston. Northeast Florida ranks 5th for Furniture & Home Furnishings, again leading Savannah and Charleston. Though the region has an average ranking for retail & consumer goods against the 10 other locations, it does often outperform the out-of-state competition, with the exception of Houston and Atlanta due to sheer scale.
- The **Central East** region of Florida is broadly competitive across retail & consumer goods categories, ranking 2nd in Clothing, Textiles, and Accessories (even leading Atlanta), 3rd in Furniture and Home Furnishings, and 4th in Electronics & Electrical Equipment. Concerning manufacturing commodities, Central East Florida ranks 5th in Machinery and 6th in Wood,

Paper, & Printed Products. Although midtable, the region still leads out-of-state peers Savannah, Mobile, and New Orleans as well as closely trailing Charleston for these commodities.

- **Central West Florida** is competitive across an impressive five commodity categories, including Electronics and Electrical Equipment, Chemicals, Plastics, Machinery, and Agricultural Products, ranking 3rd for all five. Given its consistently high performance across manufacturing commodity categories, the Central West region of Florida can be considered on the same tier as Atlanta and Houston, and it proves the most desirable Florida location for DCs serving manufacturing commodities. Its ranking does not drop below 6th, meaning it is even a viable location for Wood, Paper, & Printed Products; Furniture & Home Furnishings; and Clothing, Textiles, & Accessories.
- **Southeast Florida** demonstrates average competitiveness for consumer goods categories but does not present a competitive case for attracting manufacturing inputs. It has the advantage of being one of Florida's most populous regions, but, being located at the tip of the peninsula, its catchment area is not as great as others. Southeast Florida ranks 4th in Clothing, Textiles, & Accessories, the second highest ranking for Florida locations for this category, also leading out-of-state competitors Savannah, Charleston, Mobile, and New Orleans. It also leads these same out-of-state competitors in Electronics & Electrical Equipment and Furniture & Home Furnishings, though numerous more attractive Florida locations are available to serve these commodities. Regarding manufacturing commodities, the Southeast region of Florida performs best in Agricultural Products, ranking just 7th.
- **Northwest Florida** – while not competitive for other commodities considered, Northwest Florida's ranking for Clothing, Textiles, and Accessories is better than those of its near neighbors, Mobile and New Orleans. The region also edges out New Orleans for Electronics & Electrical Equipment. This area of the Gulf Coast generally ranks poorly in retail & consumer goods categories, with Northwest Florida, Mobile, and New Orleans consistently rounding out the bottom three.
- **Outside of Florida**, Houston ranks first as an attractive location for every commodity, followed by Atlanta which ranks in second place across all commodities, with the exception of clothing, where it ranks third. These rankings reflect the size, scale, and growth of those urban regions. When excluding Atlanta and Houston, three of the five Florida regions provide the next best option for the commodities in question.

Figure 4-2: Reverse Site Selection Model Results by Key Industry (Ranking)

Commodity	Northeast FL	Central East FL	Northwest FL	Central West FL	Southeast FL	Savannah GA	Charleston SC	Mobile AL	New Orleans LA	Atlanta GA	Houston TX
Retail / Consumer Goods											
Clothing, Textiles, and Accessories	7	2	8	6	4	5	9	11	10	3	1
Electronics and Electrical Equipment	6	4	10	3	5	7	8	9	11	2	1
Furniture and Home Furnishings	5	3	11	4	6	7	8	9	10	2	1
Manufacturing											
Chemicals	6	8	11	3	10	9	7	5	4	2	1
Plastics	6	8	11	3	10	9	7	4	5	2	1
Machinery	6	5	11	3	9	10	4	7	8	2	1
Agricultural Products	6	8	11	3	7	4	5	10	9	2	1
Wood, Paper, and Printed Products	3	6	11	4	9	8	5	7	10	2	1

Source: Investment Consulting Associates 2017.

4.2 Opportunities to Retain Exports Leaving Florida

As shown in Chapter 2 Florida’s seaports already handle the majority of exports from the state; 85% by volume and 87% by value. This suggests the overall opportunity to capture Florida exports moving through out-of-state ports is relatively small.

The analysis revealed, however, that wood, paper, and printed products (notably paper), are exported both in *high volume* from the state, and a *high proportion* move through ports outside of Florida (39% through non-Florida ports).

As an example and in order to understand why such products are moving through non-Florida ports, we carried out a selection of interviews. Paper products are increasingly containerized and boxes require a very high standard in terms of cleanliness to avoid damages to the product (especially smooth floors and walls). The key drivers of transportation supply decisions were based on finding the nearest possible container port that can service intended export markets, where clean containers are available. In simple terms, stakeholders indicated that exporters use ports outside of Florida as a result of the greater number of shipping lines calling at the container terminals, the broader markets served from those container terminals, and the reliable availability of containers that meet their standards. Typically, shipping lines seem to relegate or reserve the cleanest containers to ports with the highest volumes of paper product traffic. It is very difficult for individual ports to influence such established trade patterns and port assignments for carrier service.

5 Strengths, Weaknesses, and Opportunities for Florida's Logistics Sector

In this Chapter, we consolidate the overarching strengths, weaknesses, and opportunities for attracting logistics and DC investment to Florida, considering, in particular, the relative comparison with competing regions.

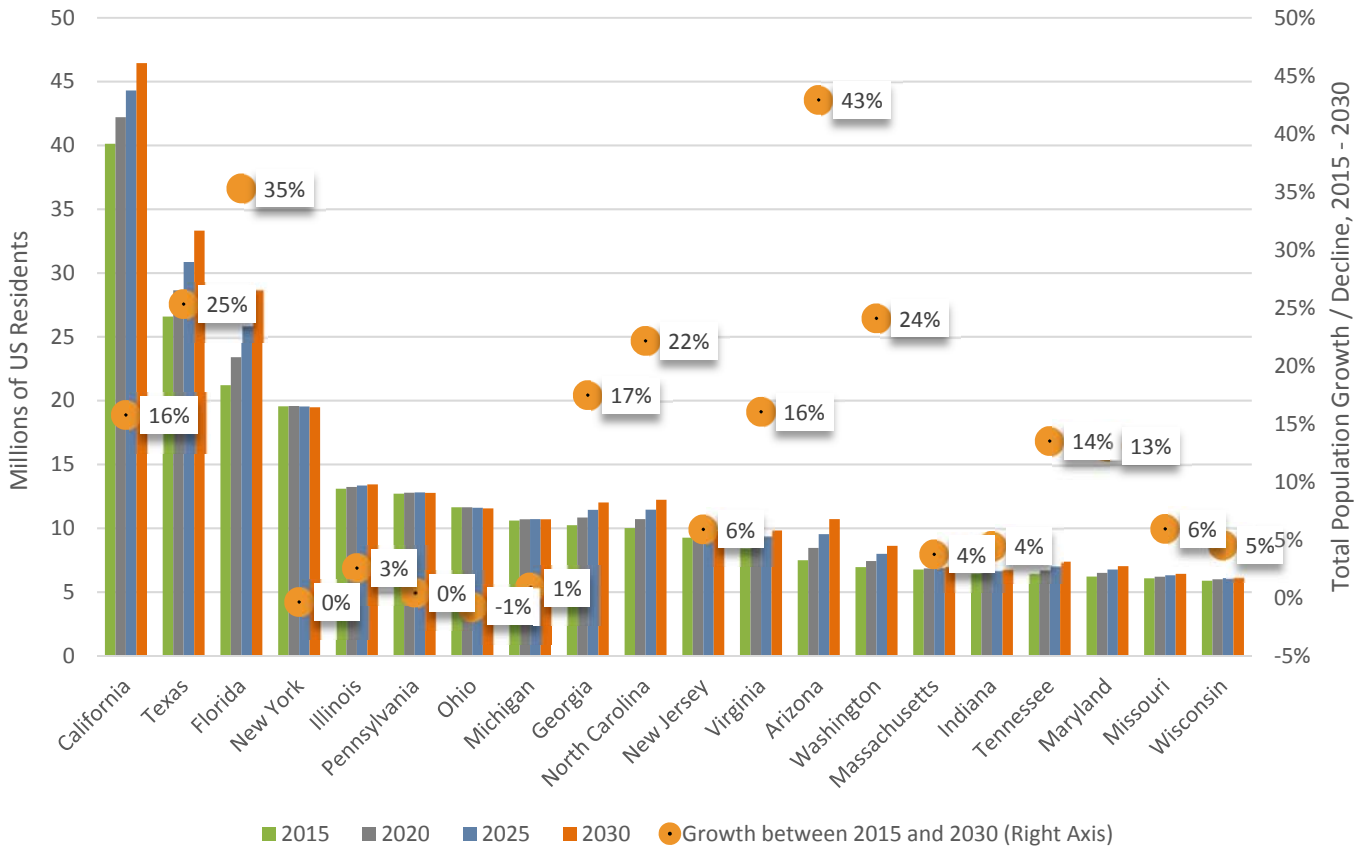
5.1 Florida as a Whole

5.1.1 Strengths

Florida has a number of strengths that bolster its value proposition as a location for investment in new warehouses, DCs and fulfillment centers. These include:

- Large population and related market access. Florida is the third most populous state. As illustrated in the figure on the following page (top twenty states by population), Florida is expected to grow more quickly than almost all other states within the top twenty. This growth – coupled with strong and growing tourism to the state (117 million in 2017), particularly relative to regional peers – will continue to increase the demand for retail stores and e-commerce fulfillment centers. Given its population, Florida is likely also a good venue for supply chain “near-sourcing”, the practice of producing products nearest to where they are sold.
- Florida has a highly favorable income tax regime relative to most of its competitors (other than Texas), considering both personal and corporate income tax. Florida is ranked 4th in the nation in terms of state business tax climate by the Tax Foundation. Only Florida and Texas have no state personal income tax.
- Labor costs (average hourly wage rates) that are comparable or lower than Houston, Atlanta, and New Orleans.
- Property Tax rates are lower in all of Florida's regions, relative to Houston, Atlanta, and Charleston.

Figure 5-1: Top Twenty States by Population, 2015 and Growth Between 2015-2030



Source: CPCS analysis of US Center for Disease Control.

- There are two major parallel interstates (I-75 and I-95), the Florida Turnpike, the transcontinental I-10, as well as the I-4 corridor, which is home to a growing number of DC and logistics facilities serving central and south Florida.
- Florida is particularly well known for its water carrier services to and from Latin America and the Caribbean. Miami International Airport is also one of the country’s most important international air freight hubs, handling large volumes of fresh produce and flowers. The large and diverse freight which passes through these facilities to/from Latin America and the Caribbean has created economies of scale in terms of expertise and infrastructure to handle and process a wide range of products.
- Public investment in infrastructure is high. Florida's investment in freight infrastructure is being highlighted as one of 10 state and metropolitan initiatives to watch by the Brookings Institution,⁵⁹ and Florida has also been ranked as the number one state for transportation infrastructure in the US.⁶⁰

⁵⁹ <https://www.bizjournals.com/southflorida/blog/2013/01/brookings-institute-floridas.html>.

⁶⁰ <http://www.flchamber.com/know-florida-ranked-1-transportation-infrastructure/>.

- From a quality of life perspective – a factor in attracting skills and workforce to a certain extent – Florida is a desirable place to live, with excellent weather year-round. Good air service to/from the state’s twelve international airports also makes the state a good option for regional or national offices of 3PLs, especially those doing business in Latin America and Europe.

5.1.2 Weaknesses

- Some parts of the state are serviced by two Class I railroads (CSX and Norfolk Southern), but there is only one Class I railway in most regions. This is more limited than all other regions. All competing regions outside of Florida have Class I rail service from between two and six Class I railways. It is common knowledge that service to a port by just one rail line is not apt to result in competitive or aggressive intermodal rail rates, especially when the same rail carrier has targeted work, captured, in a competing seaport.
- With the exception of the Southeast Region, electricity rates (cents/kWh) are higher in Florida than comparable regions.
- With the exception of Northwest Florida (6.7%), Florida’s regions have lower vacancy rates than Houston and Atlanta. However, they are higher or similar to Savannah and Charleston.
- While Florida has some strengths in terms of lower costs relative to some peers, when overall operating costs for a hypothetical 500,000 square-foot warehousing facility are calculated, each and every Florida region is more expensive than *any* of the regions outside of Florida.
- Labor Access and Availability: Generally speaking, LQs (a measurement of an area’s employment base) in the transportation and logistics sectors are higher in the regions outside of Florida.
- Florida has a concentration of container lines services for feeder/Caribbean/Latin American services, with relatively few container line services to/from Asia, the Middle East and Northern Europe.
- Considering freight that would typically require a DC or warehouse,⁶¹ there is more inbound freight to Florida than outbound freight, resulting in an imbalance of backhaul and higher prices for inbound freight than would otherwise occur with more balanced trade. For example, according to Freight Analysis Framework (FAF) data, the state receives approximately 97,475 KT of inbound surface freight each year (truck, rail, multimodal), but ships only 58,919 KT of freight outbound by these surface transportation modes.⁶² As a result of this imbalance, trucking and rail rates to ship anything from the US into Florida,

⁶¹ E.g. excluding bulk and breakbulk commodities such as petroleum products, aggregate, live animals, metals and minerals.

⁶² Truck tonnage: 40,904 ktons outbound, 55,715 ktons inbound; Rail tonnage: 10,699 ktons outbound, 30,273 inbound; multimodal: 7,316 ktons outbound, 11,487 ktons inbound.

and to Central and South Florida, in particular, are quite high, because less freight leaves the region to go back into the US.

- Fewer business incentives are available or targeted to the transportation and logistics sector, relative to nearby states. Other southeastern states often outbid Florida for major employers by offering significant incentives in the form of tax credits, land acquisition and even outright money grants for businesses willing to locate within their state.

5.1.3 Opportunities

A company with a national footprint would likely not choose Florida as the location for their first DC to serve the continental US. However, consultations suggested that for companies with a national footprint, Florida would typically be the location for a sixth or seventh DC, once other DCs are established. To provide an example, Canadian-based online retailer Article currently operates warehouses in Seattle, Los Angeles, and New Jersey. The company recently announced that it would open a fourth facility in Jacksonville in 2018 to serve the US southeastern region.⁶³

Thus, an opportunity for Florida could be to adopt a strategy to entice companies that already have four to six DCs elsewhere in the US, and market to them to set up their next DC in Florida. Florida's large and growing population, coupled with high tourism numbers, are strong selling points here. Florida's much more favorable personal and corporate income tax regime is also to be highlighted, relative to all peers analyzed.

Given the large imbalance of freight coming into/out of Florida (more coming in than going out), there may be significant opportunities for shippers to take advantage of the potentially lower backhaul rates.

5.2 Regional Strengths, Weaknesses, and Opportunities

The summaries below illustrate the general strengths, weaknesses, and opportunities for the five Florida regions analyzed from the perspective of investors looking to establish a new or expanded DC in the state. Not included are the capital improvement projects currently underway at ports across the state, some of which relate to local, niche trades and some of which relate directly to attracting container shipping lines.

⁶³ <https://www.americanshipper.com/main/asd/online-furniture-retailer-to-open-319000sqft-facility-near-jaxport-terminals-70073.aspx>.

5.2.1 Northeast Florida

Strengths	Weaknesses
<ul style="list-style-type: none"> • LQ above 1 in all but one of the six categories analyzed, indicating a strong economic base in the logistics and warehousing sectors. • Relatively strong and diversified container line services (12 services weekly), including four to/from Asia (more than any other Florida port). • Class I service from two rail providers (CSX, Norfolk Southern). 	Few
Opportunities	
<ul style="list-style-type: none"> • Based on the Reverse Site Selection Model, Northeast Florida presents a competitive case for attracting Wood, Paper, and Printed products. Although 8th in Tax Regime and Cost of Doing Business, it ranks 3rd in both Industry-Specific Characteristics and Transportation and Market Access. Regarding the Industry-Specific Characteristics, Northeast Florida has strong location quotients in Construction, Wood Product Manufacturing, and Printing. Regarding Transportation and Market Access, it has excellent transportation infrastructure and a relatively large number of households within a 4-hour drive time. 	

5.2.2 Central East Florida

The table below mentions the specific case of Central East Florida. However, it is worth highlighting the strengths of Central Florida as a whole, including areas between Central East and Central West Florida, notably Lakeland and Davenport. This central region of Florida has shown to be particularly attractive in drawing DC and fulfillment center investment, in large part as a result of its location in the geographic middle of the state, and access to east-west Interstate I-4 which connects to two major north-south Interstates (I-95 and I-75) and the Florida Turnpike.

Examples of recent e-commerce activity across this central corridor include FedEx’s recent establishment of their Florida three million square foot hub in Davenport, as well as Walmart choosing Davenport for their newest e-commerce fulfillment center.⁶⁴ CSX opened a 318-acre intermodal terminal in Winter Haven which has the capacity to process up to 300,000 containers a year and is designed for scalable expansion as freight volumes continue to grow. The terminal is surrounded by 930 acres that are being developed in phases to build up to 7.9 million square feet of warehouse DCs and light industrial facilities.⁶⁵

⁶⁴ 2016 Florida Air Cargo Study. <http://www.florida-aviation-database.com/library/filedownload.aspx?guid=90cff320-313d-4c9f-a639-d63d538b467a>.

⁶⁵ <https://www.csx.com/index.cfm/about-us/media/press-releases/csx-celebrates-future-of-intermodal-transportation-at-central-florida-ilc-grand-opening/?mobileFormat=true>.

Strengths	Weaknesses
<ul style="list-style-type: none"> • Within 250-mile catchment area, similar population to Savannah, Houston, and Charleston. • Large relative population within 50 mile catchment. 	<ul style="list-style-type: none"> • Low LQ (indicator of employment base) across all indicators (<1 across all categories). • Lowest vacancy rate across all of Florida’s regions, and lower than other comparator regions (other than Savannah). • Limited current container shipping line calls; 2 intra-regional North American services bi-weekly.
Opportunities	
<p>Based on the Reverse Site Selection Model, The Central East region of Florida is competitive in both the Clothing, Textiles, and Accessories and the Furniture and Home Furnishings categories. Since these categories relate to consumer goods, demographics mostly drive the location decision. Central East Florida ranks 3rd in Market Access because of its strong household population size and growth, as well as moderate household income growth within a 4-hour radius. Furthermore, the rapid pace of housing unit growth is advantageous for furniture commodities. It also has a strong clothing retail store presence coupled with a relatively low Import-Population Ratio for the State of Florida, meaning that despite the strong retail presence, the goods may be imported into a non-Florida port.</p>	

5.2.3 Southeast Florida

Strengths	Weaknesses
<ul style="list-style-type: none"> • Large local population. Within 50 miles, over 6.1 million people. • Great diversity in the population, with strong cultural ties to Caribbean, Central, and South America. • Third highest estimated size of relevant workforce in the transportation/material moving sector (after Houston and Atlanta) • Frequent and diversified container line carrier service from Port Everglades (29 calls weekly) and PortMiami (18 calls weekly). 	<ul style="list-style-type: none"> • Highest land costs (more than double the next highest option) and lease rates (almost double the average) across all comparator regions. • Within 500 miles (two day’s drive), lowest population access relative to all competitors. • Higher labor costs than all other Florida regions, though comparable to New Orleans and lower than Atlanta and Houston.
Opportunities	
<p>Based on the Reverse Site Selection model, Southeast Florida demonstrates average competitiveness for consumer goods categories but does not present a competitive case for attracting manufacturing inputs. In terms of scale, Southeast Florida has the advantage of a large population size, though its reach within 4-hours is less than that of other locations in Florida due to its position at the tip of the peninsula. Its regional population growth is not as strong as some of its peers. It has a robust density of retail stores related to Clothing, Textiles, and Accessories, Electronics and Electrical Equipment, and Furniture and Home Furnishings, but the density of manufacturing (in terms of LQs for Plastics, Chemicals, Machinery, Food, Wood, and Paper) is low.</p>	

5.2.4 Central West Florida

Strengths	Weaknesses
<ul style="list-style-type: none"> • Within 250-mile catchment area, similar population to Savannah, Houston, and Charleston. • Large relative population within 50-mile catchment. • Lowest land costs and lease rates relative to all comparable regions. 	<ul style="list-style-type: none"> • Low LQ (an indicator of employment base) across all indicators (<1 across all categories).
Opportunities	
<p>Based on the Reverse Site Selection model, Central West Florida is competitive across an impressive five commodity categories, including Electronics and Electrical Equipment, Chemicals, Plastics, Machinery, and Agricultural Products. Apart from perhaps Electronics and Electrical Equipment and partly Agricultural Products, these commodities serve as inputs for manufacturers. It has stout demographic reach in terms of population and households within a 4-hour radius. Coupled with its proximity to interstates, intermodal rail, and the seaport, its case for Market Access is strong. Furthermore, the Central West region has favorable industry concentration for these commodities. It has strong LQs for electronics wholesalers, machinery manufacturers, beverage manufacturers, and food and beverage stores.</p>	

5.2.5 Northwest Florida

Strengths	Weaknesses
<ul style="list-style-type: none"> • Within 500-mile catchment area, highest access to population of all Florida regions, and similar to Mobile (but nowhere near the access of Savannah, Charleston, and Atlanta). • Lowest land costs (per acre) and lease rates (per square foot) of all regions analyzed. • Lowest property tax rate (1.35%) of all of comparative regions, with the exception of Mobile (1.27%). • Competitive for agricultural products in the trade lanes served on container liner services from Mexico (with volumes continuing to increase year over year). 	<ul style="list-style-type: none"> • Low LQ (an indicator of employment base) across all indicators (<1 across all categories). • Low 50-mile and 250-mile catchment area population base. • No direct access to Class I railway. • The lowest absolute number and square footage of warehousing and distribution industrial buildings.
Opportunities	
<p>Based on the Reverse Site Selection model, Northwest Florida is not shown to be competitive for any of the commodities considered. That said, its ranking for Clothing, Textiles, and Accessories is better than those of its near neighbors, Mobile and New Orleans, mostly due to high location quotients for clothing retail stores. It is handicapped by population scale but has strong regional growth in household incomes within a 4-hour drive time.</p>	

6 Marketing Plan and Pitch

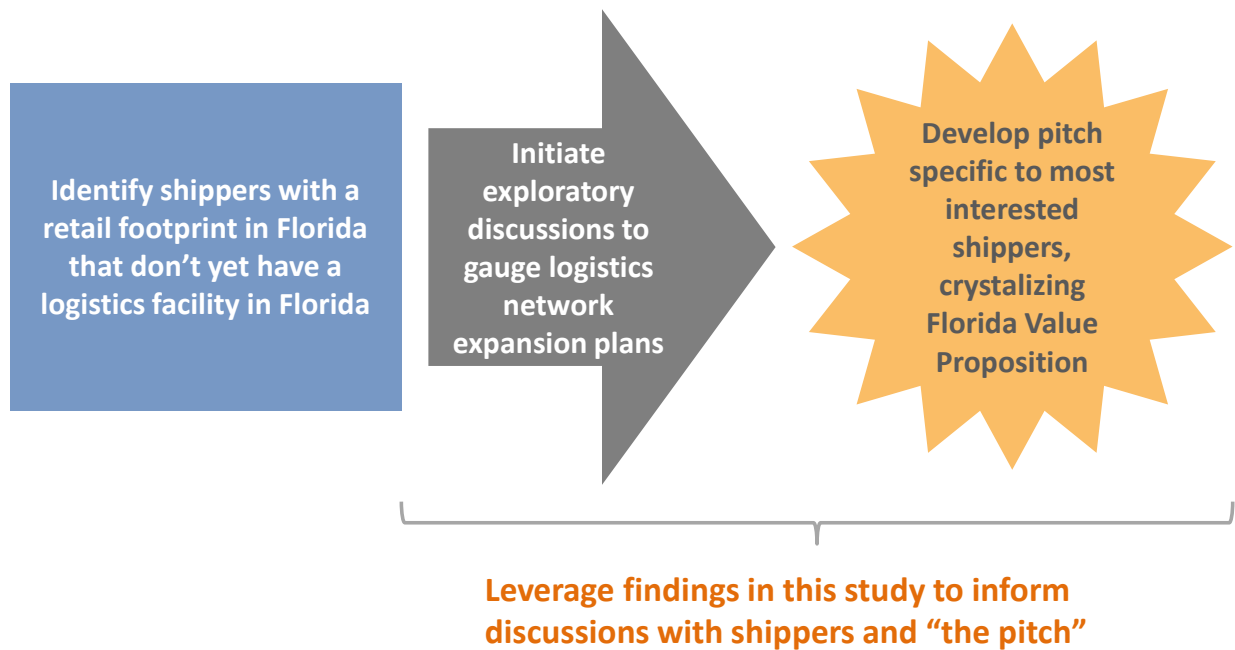
This chapter provides a direction on how to best leverage the analysis and findings in previous chapters to support Florida DC, warehouse, and other logistics facility investment attraction activities.

6.1 Investment Attraction: Two Approaches

There are at least two alternative investment attraction approaches: proactive, and reactive. The analysis and findings in this report can support both approaches.

6.1.1 Proactive Approach to Investment Attraction

The proactive approach to investment attraction, summarized in the figure below, seeks to identify shippers that could potentially benefit from a new logistics footprint in Florida and to “pitch” Florida’s value proposition to these companies on an unsolicited basis.



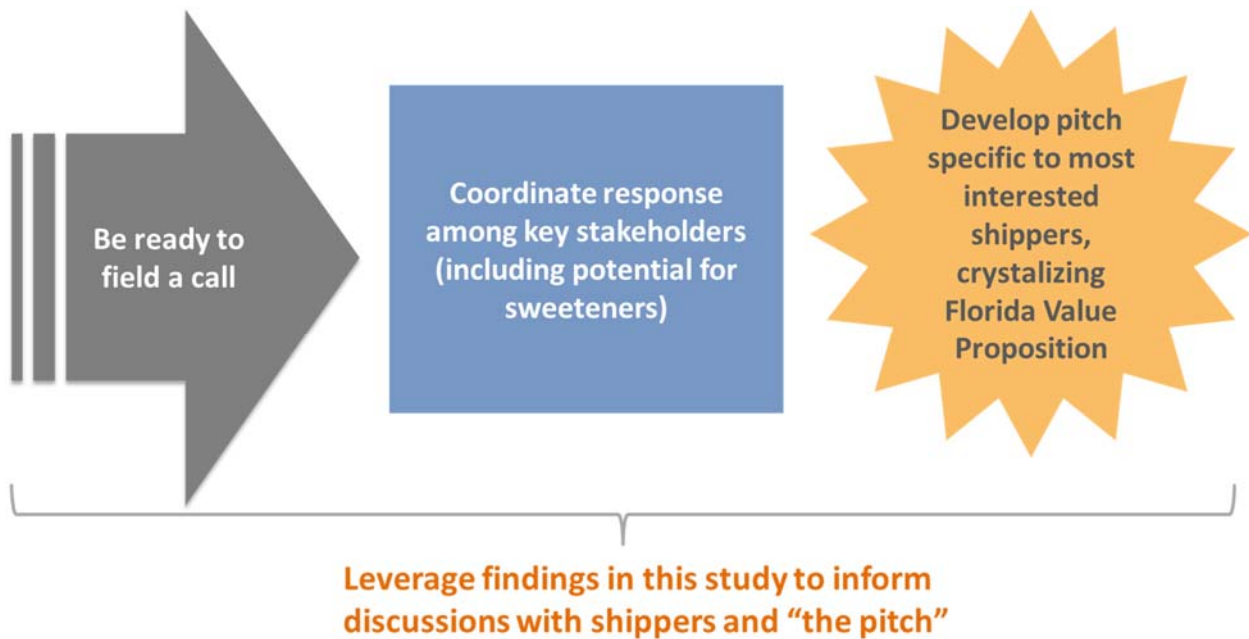
The aim of this proactive approach is to initiate a dialogue with potential investment attraction prospects and to solicit their interest in more actively considering Florida as a location for their next DC, warehouse or logistics facility.

The key steps in pursuing this proactive approach – as specific to retail sectors, for example – include the following:

- Undertake a review of national and international retailers that have a multi-store retail footprint in Florida, but that do not yet have a distribution footprint in the state (and serve the Florida market by truck from logistics facilities outside the state).
- For each company, identify the appropriate contact(s) that have responsibility for logistics network strategy (typically VP-level).
- Initiate initial exploratory discussion to gauge company logistics network expansion plans, and level of potential interest in the development of an eventual logistics footprint in Florida to serve the Florida market, and related considerations (logistics strategy, timing, etc.). A Florida/region specific marketing brochure could facilitate this initial discussion and follow-up.
- Based on results of initial outreach and related discussions, identify appropriate follow-up actions to advance the conversation and keep leads “warm”, including aligning key Florida stakeholders (e.g. including Florida ports) to support related efforts.
- It may be appropriate to develop sector-specific or even company-specific pitch packages where warranted by level of interest and potential for investment attraction.

6.1.2 Reactive Approach to Investment Attraction

The reactive approach to investment attraction, summarized in the figure below, seeks to prepare and equip Florida’s economic development agencies to respond to inquiries from companies about potential investments in the state with a clear message about the Florida value proposition.



Once initial interest has been signaled, those responding to the opportunity can coordinate follow up discussions with the right Florida stakeholders and, as warranted, prepare a marketing pitch on Florida’s value proposition specific to the shipper in question.

The findings and analysis in this study can inform the messaging when reacting to potential investment attraction opportunities.

Starting and Informing the Conversation

Neither the proactive or reactive approaches noted above are likely to, on their own, secure new investments in Florida DCs, warehouses or other logistics facilities. Rather, these approaches are aimed to help initiate, inform and advance initial discussions only. Those familiar with investment attraction activities will appreciate that this is only the start of the conversation. Nevertheless, leveraging the findings in this study, investment attraction efforts can be better informed and shaped in a way that will speak to the interest of those companies that are considering making investments in Florida.

6.2 Focus Sectors

For practical reasons, those undertaking investment attraction activities should focus on those sectors that represent the greatest potential opportunity. The study identified the following sectors as having higher potential for investment attraction success.

It may be appropriate to develop marketing materials specific to each sector, as interest and decision criteria with respect to new logistics facility investments often differ by sector. A more tailored approach to each sector could increase the probability of soliciting interest and advancing the conversation.

6.2.1 Inbound/Imports

Retail and consumer goods, including clothing, textiles and accessories; electronics and electrical equipment; and furniture and home furnishings.

Manufactured products, including plastics; machinery; agricultural products; wood, paper and printed products; and chemicals. These products are primarily linked to the wholesale market.

6.2.2 Outbound/Exports

Wood, Paper and Printed products, and particularly paper products.

6.3 Messaging and the Pitch

Given Florida's geography as a peninsula, the state is not as well suited as Chicago or Atlanta to be a national or continental logistics hub, for reasons discussed in this report. Nevertheless, Florida is an important market in its own right and a strategic location for any company looking to serve the large Florida market (particularly with respect to the retail and consumer goods sector). For this reason, messaging should target a company's "Next" distribution center (rather than pitch Florida as the location of a company's primary US or North American distribution hub).

With a focus on the retail and consumer goods sector, we would suggest that the initial "pitch" focus on the following Florida advantages which underpin its value proposition.



5 REASONS

TO LOCATE YOUR NEXT DISTRIBUTION CENTER TO FLORIDA



Access a Growing Market

Florida is the third most populous U.S. state, home to over 21 million consumers. And by 2030, its population is expected to grow by 35%, more than almost every other state in the country. This growth is coupled with more than 117 million annual visitors.



Save Millions in Trucking Costs

Florida-based distribution centers result in shorter truck trips to reach Florida's consumers, translating to lower trucking costs. Reach between 4 and 5 million consumers within 50 miles of central Florida locations, and close to 20 million consumers within 250 miles.



Pay Less in Taxes

Corporate tax rates in Florida are lower than most competing U.S. states and there is no personal income tax in Florida. Also, property and sales tax rates are lower than average.



Discover More Available Space

Most Florida regions have a larger inventory of warehousing and distribution buildings compared to other states in the Southeast. There is also more square footage of warehousing space available.



Connect to the World

Florida has a well established port system with particularly strong maritime connections to the Caribbean and Latin America.



Florida's economy ranks 5th best in the nation, and in terms of projected growth, the state's economy ranks 2nd. Source: McKinsey & Company, 2018

The pitch can be supported by more general information about Florida’s transportation and logistics sector.

A two page brochure was developed to highlight the above value proposition and supporting information. This is provided in Appendix G.

We have also developed a number of PowerPoint slides which underscore the same key message and that can be leveraged in investment attraction activities. This is provided in Appendix H.

6.1 Outstanding Questions and Next Steps

This study identified Florida’s value proposition for DC, warehouse, and other logistics facility investment attraction. It is nevertheless not entirely clear who will champion and advance the marketing plan.

In our opinion, this would be best led by state economic development agencies. In addition, the material developed as part of this study could also support and inform existing transportation and logistics sector investment attraction activities at all levels of government in Florida.

In the short/medium term, the Florida Seaport Transportation and Economic Development Council would be well placed to promote this work and the related resources with economic development agencies that would ultimately run with the downstream investment attraction activities.

In any case, the analysis, presentation materials and brochures developed as part of this study should be considered “open source” such that any entity looking to market Florida as a destination for DC, warehouse and logistics investment can leverage and tailor these resources to their specific needs and investment attraction activities.

Appendix A: Concordance Methods

The data sources used for this project use different codes to categorize commodities. The two main types of codes are Standard Classification of Transported Goods (SCTG), and North American Industry Classification System (NAICS). SCTG codes are used by the US Census Bureau’s Commodity Flow Study and the Freight Analysis Framework (FAF), while NAICS codes are used by a wide range of federal agencies and private databases, such as the PIERS database.

In order to aid with comparison of information classified with different code systems, CPCS developed a concordance table which shows which SCTG and NAICS code corresponds to the generic categories of goods or market segments described in this paper.

Agricultural Products

The agricultural products category was intended to capture agricultural products that would be most likely to pass through a DC, such as non-bulk or containerizable items like fruit and vegetables.

SCTG Codes
02 – Cereal Grains
03 – Agricultural Products (excluding animal feed and grain)
4-Digit NAICS Codes
1111 – Oilseed and Grains
1112 – Vegetables and Melons
1113 – Fruits and Tree Nuts
1114 – Mushrooms, Nursery, and Related Products
1119 – Other Agricultural Products

Food and Beverage

The food and beverage category was intended to capture processed agricultural products that would pass through a DC. These processed products could include cuts of meat to baked goods.

SCTG Codes
05 – Meat, fish, Seafood, and Preparations
07 – Other Prepared Foodstuffs, Fats, and Oils
06 – Milled Grain Products
4-Digit NAICS Codes
1141 – Fish, Fresh/Chilled/Frozen, and Other Marine Products
3111 – Animal Foods
3112 – Grain and Oilseed Milling Products
3113 – Sugar and Confectionary Products
3114 – Fruits and Vegetables, Preserves and Specialty Foods
3115 – Dairy Products
3116 – Meat Products and Meat Packaging Products
3117 – Seafood Products, Prepared, Canned and Packaged
3118 – Bakery and Tortilla Products
3119 – Foods, NESOI

Alcohol and Tobacco

SCTG Codes
08 – Alcoholic Beverages and Denatured Alcohol
09 – Tobacco Products
4-Digit NAICS Codes
3121 – Beverages
3122 – Tobacco Products

Clothing, Textiles, and Accessories

This category includes clothing, as well as fabrics, threads, and leather, all of which may be likely to pass through a DC.

SCTG Codes
30 – Textiles, Leather, and Articles of Textiles or Leather
4-Digit NAICS Codes
3131 – Fibers, Yarns and Threads
3132 – Fabrics
3133 – Finished and Coated Textile Fabrics
3141 – Textile Furnishings
3149 – Other Textile Products
3151 – Knit Apparel
3152 – Apparel
3159 – Apparel Accessories
3161 – Leather and Hide Tanning
3162 – Footwear
3169 – Other Leather Products

Electronics and Electronic Equipment

This category includes finished electronics as well as some precision instruments and components of electronics.

SCTG Codes
35 – Electronic and Electrical Equipment and Components
38 – Precision Instruments and Apparatus
4-Digit NAICS Codes
3341 – Computer Equipment
3342 – Communications Equipment
3343 – Audio and Video Equipment
3344 – Semiconductors and Other Electronic Components
3345 – Navigational/Measuring/Medical/Control Instruments
3346 – Magnetic and Optical Media
3351 – Electric Lighting Equipment
3352 – Household Appliances and Miscellaneous Machines, NESOI
3353 – Electrical Equipment
3359 – Electrical Equipment and Components, NESOI

Machinery

This category was focused on machinery, and components of machinery that may be routed through either DCs, or B2B establishments.

SCTG Codes
34 – Machinery
4-Digit NAICS Codes
3331 – Ag and Construction Machinery
3332 – Industrial Machinery
3333 – Commercial and Service Industry Machinery
3334 – HVAC and Commercial Refrigeration Equipment
3335 – Metalworking Machinery
3336 – Engines, Turbines and Power Transmission Equip
3339 – Other General Purpose Machinery

Furniture and Home Furnishings

This category includes furniture for both homes and offices.

SCTG Codes
39 – Furniture, Mattresses, and Mattress Supports, Lamps, Lights
4-Digit NAICS Codes
3371 – Household and Institutional Furniture and Kitchen Cabinets
3372 – Office Furniture (including Fixtures)
3379 – Furniture Related Products, NESOI

Wood, Paper, and Printed Products

This category included processed products derived from wood, such as lumber, pulp, paper, cardboard, and printed materials.

SCTG Codes
26 – Wood Products
27 – Pulp, Newsprint, and Paper Board
28 – Paper, and Paperboard Articles
29 – Printed Products
4-Digit NAICS Codes
3211 – Sawmill and Wood Products
3212 – Veneer, Plywood and Engineered Wood Products
3219 – Other Wood Products
3221 – Pulp, Paper and Paperboard Mill Products
3222 – Converted Paper Products
3231 – Printed Matter And Related Products, NESOI

Motor Vehicles and Parts

This category includes automobiles as well as truck tractors, buses, motorcycles, and the parts necessary to maintain these types of equipment.

SCTG Codes
36 – Motorized and Other Vehicles
4-Digit NAICS Codes
3361 – Motor Vehicles
3362 – Motor Vehicle Bodies and Trailers
3363 – Motor Vehicle Parts
3364 – Aerospace Products and Parts
3369 – Transportation Equipment, NESOI

Waste and Scrap

The waste and scrap category includes metallic and non-metallic scrap, as well as paper waste and glass waste.

SCTG Codes
41 – Waste and Scrap
4-Digit NAICS Codes
9100 – Waste and Scrap

Pharmaceutical Products

SCTG Codes
21 – Pharmaceutical Products
4-Digit NAICS Codes
3254 – Pharmaceuticals and Medicines

Plastic

This category includes products manufactured from plastic or rubber such as pipes and hoses and tires. It does not include the chemicals used to produce primary plastic.

SCTG Codes
24 – Plastics and Rubbers
4-Digit NAICS Codes
3261 – Plastics Products
3262 – Rubber Products

Chemical Products

This category focuses on chemical products that have undergone processing, such as soaps, paints, and inks.

SCTG Codes
23 – Other Chemical Products and Preparations
4-Digit NAICS Codes
3252 – Resin, Synthetic Rubber, Artificial and Synthetic Fibers/Fill
3255 – Paints, Coatings and Adhesives
3256 – Soaps, Cleaning Compounds and Toilet Preparations
3259 – Other Chemical Products and Preparations

Appendix B: Geographic Boundaries for Data Analysis

Data analysis completed for this study focused primarily on information available for the Metropolitan Statistical Areas for five regions of Florida and six regions outside of Florida. Unless otherwise noted in the report, the data analysis of each area refers to the following geographical boundaries.

Data Sources for Florida and Regional Comparison

Region	Data Source
Northeast FL	Jacksonville Metropolitan Statistical Area (MSA), comprising Nassau, Duval, St. Johns, Clay and Baker Counties
Central East FL	Orlando-Kissimmee-Sanford MSA, comprising Lake, Seminole, Orange and Osceola Counties
Southeast FL	Miami-Miami Beach-Kendall Metropolitan Division (Miami-Dade County) and Fort Lauderdale-Pompano Beach-Deerfield Beach Metropolitan Division (Broward County); Key West
Central West FL	Tampa-St. Petersburg-Clearwater MSA, comprising Hernando, Pasco, Pinellas and Hillsborough Counties
Northwest FL	Panama City MSA, comprising Bay and Gulf Counties; Pensacola
Mobile, AL	Mobile Metropolitan Statistical Area (MSA)
Savannah, GA	Savannah MSA
Atlanta, GA	Atlanta – Athens – Clarke County – Sandy Springs MSA
New Orleans, LA	New Orleans – Metairie – Hammond MSA
Charleston, SC	Charleston-North Charleston MSA
Houston, TX	Houston – The Woodlands MSA

Appendix C: Stakeholders Interviewed

Organization Name	Type of Organization
Costco Wholesale	Shipper
Family Dollar	Shipper
Lowe's Hardware	Shipper
Perry Ellis Clothing	Shipper
Publix Supermarkets	Shipper
Rooms to Go	Shipper
TSF Sportswear	Shipper
Walgreens	Shipper
Hellmann Worldwide Logistics	3PL
Ryder Systems Inc.	3PL
Bay Economic Development Alliance	Economic Development Organization
Beacon Council	Economic Development Organization
Broward County	Economic Development Organization
JAXUSA	Economic Development Organization
Orlando Economic Partnership	Economic Development Organization
Tampa Hillsborough EDC	Economic Development Organization
Enterprise Florida	Industry / Economic Development Association
Florida Customs Brokers and Forwarders Association	Industry Association
JAXPORT	Port
Port Canaveral	Port
Port Everglades	Port
Port Manatee	Port
PortMiami	Port
Port of Palm Beach	Port
Port of Pensacola	Port
Port Panama City	Port
Port Tampa Bay	Port
Winn Dixie	Shipper
Walmart (two consults: e-commerce and supply chain)	Shippers
Metro Atlanta Chamber of Commerce	Economic Development Organization
Charleston Regional Development Alliance	Economic Development Organization
Greater Houston Partnership	Economic Development Organization
Mobile Area Chamber	Economic Development Organization
Savannah Economic Development Alliance	Economic Development Organization
Greater New Orleans Inc.	Economic Development Organization
Georgia Pacific (Forest products)	Shipper
Rayonier (Forest products)	Shipper

Appendix D: Regional Profiles

Charleston, South Carolina

Regional Transportation and Logistics Facilities

The Charleston region is located approximately 230 miles north of Florida, on the Atlantic Coast. The Charleston-North Charleston region has an estimated population of 761,155 and includes the City of Charleston.⁶⁶

The deepwater Port of Charleston is capable of handling many types of fully-loaded post-Panamax vessels. The port is 50 miles away from major north-south Interstate I-95, accessible via Interstate I-26. Class I rail service is available with CSX and Norfolk Southern.

Three projects are in development to attract additional container traffic through the port. First, the harbor channel is being deepened from 45 feet to 52 feet to accommodate the newest, largest ships (completion by 2019).⁶⁷ Second, a new 280-acre container terminal (Hugh K. Leatherman Terminal) is being built at the port and is set to open in 2020.⁶⁸ Third, a new intermodal facility (Navy Base Intermodal Container Transfer Facility) is being built at the port. Both CSX and Norfolk Southern will have access to the intermodal facility.⁶⁹

One of the marketed selling points for the Port of Charleston is a connection to Inland Port Greer, an inland port opened in 2013, located 212 miles inland from Charleston between Charlotte and Atlanta. Inland Port Greer is owned by the South Carolina Ports Authority and is served directly by Norfolk Southern from Charleston.⁷⁰ The South Carolina Ports Authority website boasts that this inland port is “within 500 miles of 94 million consumers.”⁷¹

Charleston International Airport is not a major hub for air cargo. In 2016, it handled 33,850 tons of cargo (by comparison, Miami International Airport handled 2.2 million tons).⁷²

⁶⁶ Charleston-North Charleston, SC Metro Area, US Census Bureau.

⁶⁷ <http://www.crda.org/logistics/>.

⁶⁸ <http://www.scsipa.com/locations/hugh-k-leatherman-sr-terminal/>.

⁶⁹ https://www.joc.com/port-news/us-ports/port-charleston/state-and-rails-loggerheads-over-charleston-over-port-terminal_20161202.html.

⁷⁰ <http://www.scsipa.com/wp-content/uploads/sc-inland-port-flyer.pdf>.

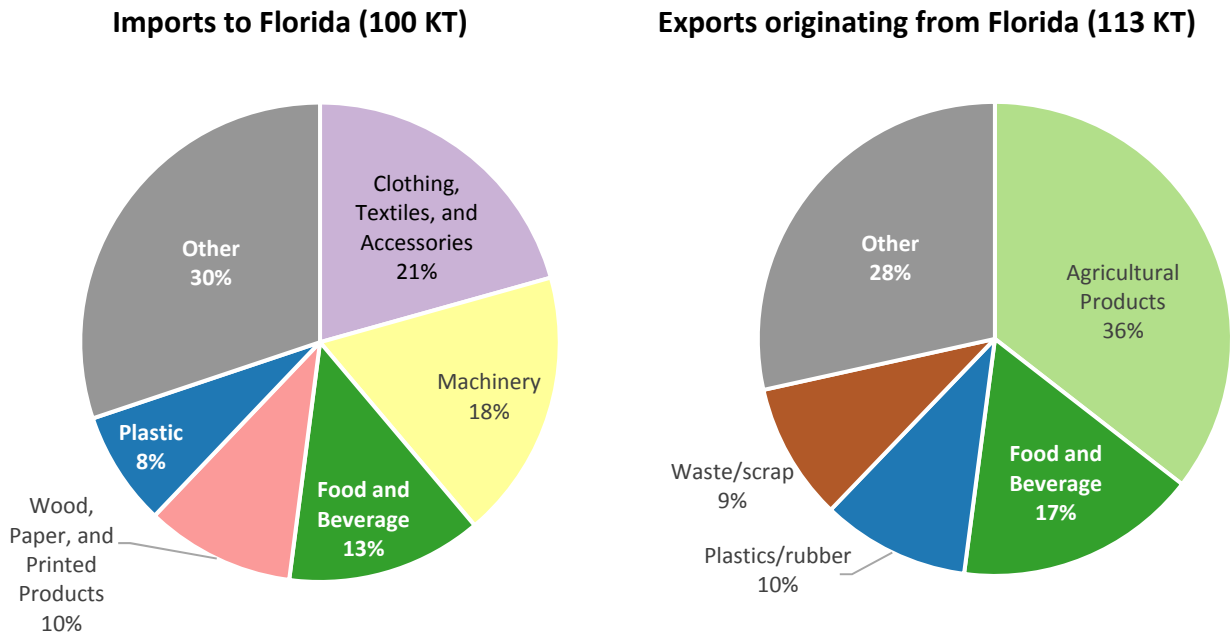
⁷¹ <http://www.scsipa.com/supplychainauthority/rail-connections/>.

⁷² <https://www.iflychs.com/AviationAuthority/Statistics/Operations-Reports> and <http://www.aci-na.org/content/airport-traffic-reports>.

Florida’s Share of Port Traffic Handled Through the Port of Charleston

In 2015, the Port of Charleston handled 13,265 Kilotons (KT)⁷³ of freight that might typically be destined to a warehousing or logistics facility,⁷⁴ comprising 6,865 KT (52%) imports and 6,399 KT (47%) exports. Of these products, 100 KT were imports destined to Florida and 113 KT were exports originating in Florida.⁷⁵ The figures below illustrate the key commodities handled at the Port of Charleston, with a Florida origin or destination, in 2015.

Figure: Imports (to Florida) and Exports (from Florida) Handled Through the Port of Charleston, 2015



Source: CPCS analysis of FAF data

Logistics Clusters and Key Shippers

Some of the larger companies with a distribution and warehousing footprint in the region include:

- Mercedes and Volvo both of which have vehicle assembly plants in the Charleston region;
- ThyssenKrupp Industrial Services, a 3PL which specializes in warehousing and transporting goods to and from the port, has a DC in North Charleston;

⁷³ One Kiloton = 1,000 short tons.

⁷⁴ Our analysis of freight flows focused on products that always or may move through a traditional warehouse or DC. It excluded bulk and breakbulk commodities such as petroleum products, aggregate, live animals, metals and minerals.

⁷⁵ FAF Data.

- Spencer Gifts, a novelty clothes and consumers goods company, has a DC in Pineville, outside of Charleston;
- Shimano bicycle and fishing tackle company has a 200,000 square-foot DC in Ladson (which has grown incrementally from 25,000 square feet in 2003);⁷⁶
- Fruit of the Loom, which doubled the size of its DC near Charleston in 2016 to 750,000 square feet;⁷⁷
- Gildan Activewear, which opened an 850,000 square-foot DC in 2010;⁷⁸ and
- Boeing, which has a major manufacturing facility in Charleston, SC where it produces the Boeing 787 Dreamliner.⁷⁹

Drivers of Competitiveness in the Region

Based on consultations and public reports, drivers of competitiveness in the Charleston region include the following:

- In part as a result of the State of South Carolina’s pro-growth approach, as well as the presence of major auto manufacturers in the region (Volvo, Mercedes), Charleston has become recognized as an attractive port for container traffic and logistics activity. According to the Charleston Regional Development Alliance, the number one import through the port is auto parts, followed in second place by consumer goods (which are typically the number one import through most container terminals).
- There has been significant investment in the port by the State of South Carolina, notably related to deepening the harbor and building a new container terminal and intermodal facility at the port. Charleston is the only container seaport in South Carolina, meaning it receives priority attention from the state (the Port of Georgetown, 60 miles north of Charleston, handles only bulk and breakbulk).
- Service from two Class I railways keeps pricing competitive. Stakeholders interviewed noted that the Port of Wilmington, located to the north, is served only by CSX and shippers have complained of uncompetitive pricing there.
- Relatively low road traffic congestion in the area around Charleston, particularly relative to other major logistics hubs (Los Angeles, New York).

⁷⁶ <https://www.anglingtrade.com/2012/10/15/shimano-expands-ladson-s-c-distribution-center/>.

⁷⁷ <https://www.scommerce.com/news/fruit-loom-double-size-berkeley-county-distribution-center>.

⁷⁸ http://www.postandcourier.com/business/gildan-celebrates-warehouse-opening/article_722014e1-bd35-5271-b5c6-588b40a5d1a2.html.

⁷⁹ <http://www.boeing.com/company/about-bca/south-carolina-production-facility.page>.

Savannah, Georgia

Regional Transportation and Logistics Facilities

The Savannah metro region is home to a population of approximately 384,000.⁸⁰ The region has emerged over the last 25 years as major logistics and trade gateway for the US Southeast, with activity centered around the Port of Savannah.

Managed by the Georgia Ports Authority (GPA), the Port of Savannah is home to Garden City Terminal container terminal, the fourth busiest container port in the US. The harbor is currently being deepened from 42 feet to 47 feet, scheduled for completion in 2020.⁸¹ The port is serviced by CSX and Norfolk Southern railways and has virtually immediate access to two major interstates: I-16 (east-west) and I-95 (north-south).

Exceptional growth of logistics in the area was the outcome of two major trends. The first concerns demographic and commercial changes that attracted cargo that conventionally transited through the middle or north Atlantic ranges of the East Coast. The second concerns major investment in port infrastructure and logistics facilities, facilitated by the availability of greenfield real estate assets and active public funding focused on positioning the region as a North American gateway. Growth in the region was also partly a result of changes to West Coast port and rail services, which resulted in the establishment of more DCs on the US East Coast.⁸²

Savannah is particularly illustrative of the self-reinforcing link between port traffic and logistics investments. Up until the 1990s, port traffic was dominated by exports such as paper and chemicals. In 1990, the port handled less than half a million TEUs. In 2016, the Port of Savannah handled 3.6 million TEUs.⁸³ The strategy followed by the GPA was to promote port development through a focus on diversifying trade and increasing imports through the Port of Savannah. The GPA, in partnership with local economic development agencies, focused their efforts on developing port-centric logistics facilities in the nearby area, such as the Crossroads Business Park in 1995, and the Savannah River International Trade Park (host to IKEA and Target DCs, among others).⁸⁴ These public initiatives triggered the additional private development of logistics facilities across Savannah.

Air freight plays a relatively limited role in the regional logistics cluster. In 2016, Savannah Hilton Head International Airport handled only 6,541 tons of cargo.⁸⁵

⁸⁰ US Census Bureau.

⁸¹ <http://www.gaports.com/PortofSavannah.aspx>.

⁸² Much of the build-up of Savannah has roots in the West Coast Port Shippers Lockout of 2002 and the subsequent UP/SP rail merger service failure all of which led major retailers to establish DC's on the East Coast as a fail-safe for the supply chains. <https://www.cognizant.com/whitepapers/Mitigating-Supply-Chain-Risk-Planning-Around-Port-Disruptions-codex1344.pdf>.

⁸³ <http://www.gaports.com/Portals/2/Market%20Intelligence/FY16%20Annual%20Container%20Trade.pdf>.

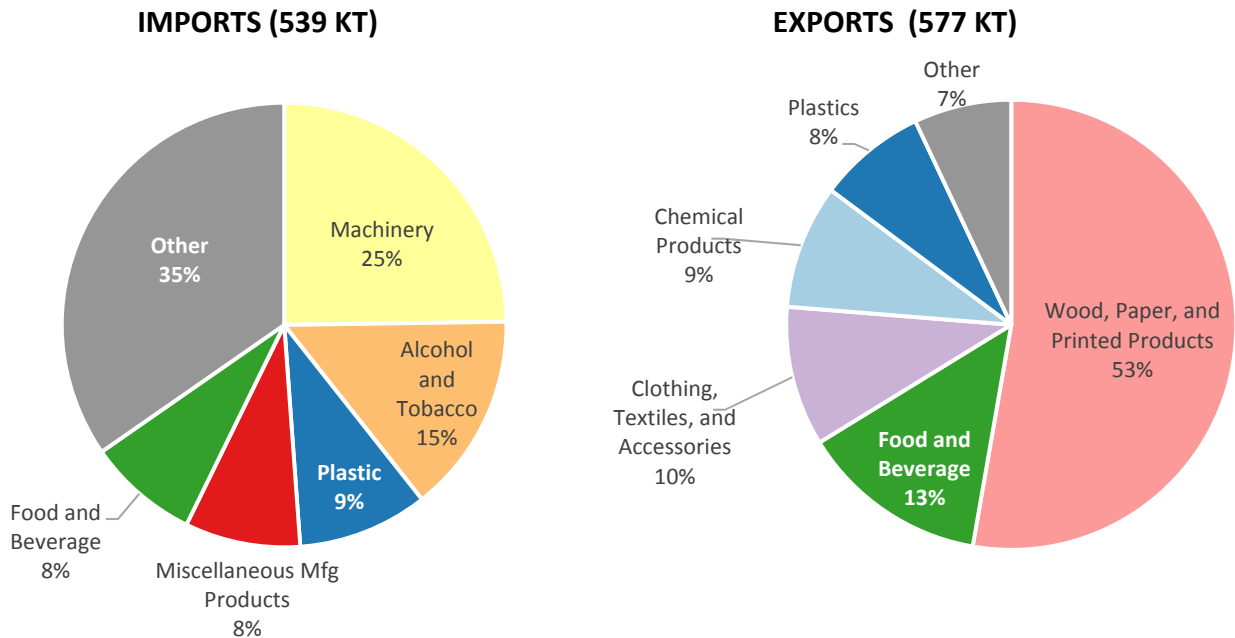
⁸⁴ <http://savannahnow.com/stories/062707/180497202.shtml#.WgN0pVtSyUk>.

⁸⁵ <http://savannahairport.com/about/statistics>.

Florida’s Share of Port Traffic Handled Through the Port of Savannah

In 2015, the Port of Savannah handled 25,069 Kilotons (KT) of freight that could be destined to a warehousing or logistics facility, comprising 12,237 KT (49%) imports and 12,832 KT (51%) exports. Of these products, 539 KT were imports destined to Florida and 577 KT were exports originating in Florida. The figures below illustrate the key commodities handled at the Port of Savannah, with a Florida origin or destination, in 2015. On the export side, the primary commodity within the dominant Wood, Paper and Printed Products category was newsprint/paper products.

Figure: Imports (to Florida) and Exports (from Florida) Handled Through the Port of Savannah, 2015



Source: CPCS analysis of FAF data

Logistics Clusters and Key Shippers

Savannah is home to a number of large DCs, including for the following companies:⁸⁶

- IKEA, which established an 800,000 square foot DC in the Savannah River International Trade Park in 2005, supplies ten of IKEA’s stores across the US Southeast, including Florida.⁸⁷
- Home Depot
- Dollar General⁸⁸
- Target

⁸⁶ <http://www.seda.org/Target-Industries/Logistics-Distribution>.

⁸⁷ <http://jacksonville.com/news/business/2017-02-24/ikea-s-growth-means-more-jobs-savannah-distribution-center>.

⁸⁸ <http://www.gaports.com/Media/Publications/GatewayToTheWorld/DollarGeneral.aspx>.

- Pier 1 Imports
- Shaw Industries
- Walmart
- Floor and Decor⁸⁹

Drivers of Competitiveness in the Region

According to research and consultation, the primary drivers of competitiveness for the Savannah region are as follows:

- Being the fourth busiest container terminal in the US, the Port of Savannah can attract many regular shipping line services from across the globe.
- The port has the capacity to accommodate larger vessels, which has driven an increase in container tonnage.⁹⁰
- Two Class I railways directly serve the port, providing for competitive pricing. The port is also doubling its rail lift capacity, adding 97,000 feet of new track and expanding working tracks to 18, designed to improve rail transit time from the port to inland areas. With this change, CSX and Norfolk Southern will be able to load unit trains at the container terminal.⁹¹
- Active investment by the state and local economic development agency in port and logistics facilities, including the expansion underway presently.⁹²
- The port is located slightly upriver from the urban and historic center, with near direct access to the interstate, which means a truck corridor with limited road congestion.
- The port has the capacity to handle additional traffic (not congested).
- A large supply of local 3PL and supporting logistics companies and associated economies of scale, given the presence of many large DCs and warehousing facilities.
- Within a 24 hour drive, 80% of the US population can be reached.

⁸⁹ https://www.joc.com/port-news/us-ports/port-savannah/floor-decor%E2%80%99s-plan-build-massive-distribution-center-highlights-savannah%E2%80%99s-shipper-pull_20160915.

⁹⁰ <http://businessinsavannah.com/bis/2017-11-06/bigger-ships-bring-record-growth-port-october>.

⁹¹ https://www.joc.com/rail-intermodal/class-i-railroads/csx-transportation/savannah%E2%80%99s-rail-project-promises-faster-transits-inland_20171026.html.

⁹² <http://www.mhlnews.com/global-supply-chain/logistics-competitive-edge-georgia>.

Mobile, Alabama

Regional Transportation and Logistics Facilities

Located on the Gulf Coast, the Mobile metro area has a population of 414,866.⁹³ It is located about 50 miles west of the Florida border and 150 miles east of New Orleans.

The Port of Mobile is the only major marine terminal in the state of Alabama. It is located very close to Interstate I-10 (east-west) and Interstate I-65 (north-south).

The Alabama State Port Authority (ASPA) owns and/or operates most of the public port facilities at the Port of Mobile. In September 2008, APM Terminals (of the AP Moller-Maersk Group) opened a new, container terminal facility at the port. The ASPA and APM jointly invested \$300 million in the new container terminal, which will have the capacity for 500,000 TEUs once Phase 2 is complete (a \$47.5 million investment in Phase 2 was announced in April 2017).⁹⁴ The terminal berths have a depth of 45 feet. The facilities can currently handle post-Panamax size vessels, and under the Phase 2 expansion, two new super Post-Panamax cranes will be added (with a reach of 22 containers) enabling the port to serve the largest container vessels in the world.⁹⁵ According to consultations, if all anticipated phases of build-out move ahead, the facility could eventually handle 1.5 million TEUs. In 2016, 277,307 TEUs were handled through the facilities.

Mobile has good Class I railway connections. It is serviced directly by Norfolk Southern, CSX and CN (with a direct link to Canada). Kansas City Southern also serves the port.⁹⁶

Since 2000, the port has also been served by a short sea rail-ferry vessel service operated by CG Railway between Mobile and Coatzacoalcos, Veracruz, Mexico. Service was established as an alternative to land transport to/from Mexico, which provides a 50 percent time savings relative to the land route, according to CG Railway's Vice President.⁹⁷ The service is marketed as a near direct link to Canada as well, through the CN connection. The two RORO vessels on the service have a capacity of approximately 115 railcars each. Approximately 10,000 carloads of commodities such as chemicals, plastics, fructose and refined sugar, steel and pulp and paper are transported annually. In September 2017, SEACOR Holdings Inc. and Genesee & Wyoming Inc. announced the formation of a joint venture to own and operate the CG Railway.⁹⁸

Florida's Share of Port Traffic Handled Through the Port of Mobile

In 2015, the Port of Mobile handled 7,467 KT of freight that could be destined to a warehousing or logistics facility, comprising 4,390 KT (59%) imports and 3,077 KT (41%) exports. Imports destined for Florida accounted for 515 KT (11.7%) of inbound freight, and exports originating in Florida accounted for 181 KT (5.9%) of outbound freight. The figures below illustrate the key commodities handled at

⁹³ US Census Bureau.

⁹⁴ http://www.asdd.com/pdf/TheAlliance_PortofMobile_04202017.pdf.

⁹⁵ http://www.asdd.com/pdf/TheAlliance_PortofMobile_04202017.pdf.

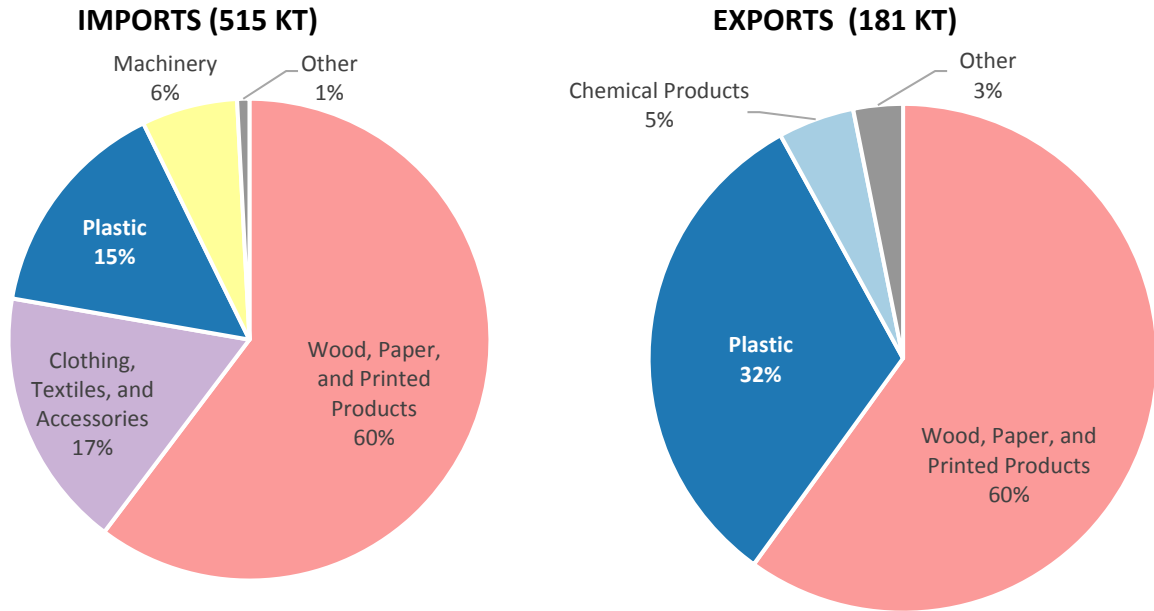
⁹⁶ <https://www.globalrailnews.com/2017/09/07/new-operators-for-usa-mexico-rail-ferry/>.

⁹⁷ <https://www.globalrailnews.com/2017/09/07/new-operators-for-usa-mexico-rail-ferry/>.

⁹⁸ http://www.cgrailway.com/blog/wp-content/uploads/wp/SEACOR_GW_Press-Release_090517-21.pdf.

the Port of Mobile with a Florida origin or destination, in 2015. As illustrated in the figures, “Wood, Paper and Printed Products” account for more than half of flows moving to or from Florida. Within this category, newsprint and paper products account for the majority of this traffic in both directions.

Figure: Imports (to Florida) and Exports (from Florida) Handled Through the Port of Mobile, 2015



Source: CPCS analysis of FAF data

Logistics Clusters and Key Shippers

The Port of Mobile has historically handled bulk and break-bulk traffic. Its primary traffic is still liquid bulk, wood, pulp, seed (from the Midwest) and steel and aluminum.

The logistics and DC sector in Mobile is thus relatively new considering the container terminal was established in 2008. Container traffic is expected to continue to grow, and there will be additional capacity available once the Phase 2 build-out is complete (500,000 TEUs). Containers are primarily import-oriented, moving inland to DCs in Alabama and elsewhere in the US Southeast.

Notable businesses in the area include:

- Airbus which established a major plant in Mobile in 2015.⁹⁹
- Walmart, which in 2017 announced the establishment of a new 2.5 million-square-foot import DC in Mobile, which is expected to increase traffic at APM terminals by at least 20,000 containers per year (or 10% overall).¹⁰⁰ The new facility is expected to supply several

⁹⁹ <http://alabamane.wscenter.com/2017/09/17/airbus-mobile-set-hit-major-alabama-milestone/>.

¹⁰⁰ <http://mobilechamber.com/celebrating-walmarts-import-distribution-center/>.

regional DCs supporting approximately 800 Walmart stores in Alabama, Mississippi, and areas to the north.¹⁰¹

- Amazon is also opening a new 362,000 square foot sorting and shipping center in Mobile in 2018.¹⁰²

Drivers of Competitiveness in the Region

According to consultations, the primary drivers of competitiveness in the region have included the following:

- Geographic location on the Gulf Coast, which is favorable for some import shipments.¹⁰³
- Availability of labor.
- Service by four Class I railways provides competitive pricing, along with access to two interstate highways.¹⁰⁴
- Fast transit times and limited congestion in the port area which has driven growth (relative to congestion in New Orleans and Houston in particular).
- Business incentives that qualify the logistics sector for tax abatements. For example, the state, county, and local governments can provide tax abatements. Walmart is taking advantage of one of these programs – Alabama Industrial Development Training (details in Appendix E) – and “port credits” to create a \$135 million import DC in Mobile.¹⁰⁵

New Orleans, Louisiana

Regional Transportation and Logistics Facilities

The New Orleans metro area has a population of 1.3 million.¹⁰⁶ The city of New Orleans is located about 185 miles west of Florida and 350 miles east of Houston.

The Port of New Orleans (NOLA) connects the Gulf Coast and the Mississippi River. Despite heavy 9th ward damage to port facilities from Hurricane Katrina, NOLA is considered a relatively deep draft port, although it is historically subject to frequent draft restrictions due to heavy silting and shoaling of the Southwest Pass at the mouth of the river.

¹⁰¹ http://www.asdd.com/pdf/walmart/Walmart_Release_03292017.pdf.

¹⁰² http://www.al.com/news/mobile/index.ssf/2017/07/amazon_facility_in_mobile_open.html, and <https://www.usnews.com/news/best-states/alabama/articles/2017-06-02/amazon-building-sorting-center-in-mobile>.

¹⁰³ <http://www.inboundlogistics.com/cms/article/the-gulf-coasts-rising-tide/>.

¹⁰⁴ <http://www.inboundlogistics.com/cms/article/the-gulf-coasts-rising-tide/>.

¹⁰⁵ <http://alabamane.wscenter.com/2017/03/29/85772/>.

¹⁰⁶ US Census Bureau.

The port primarily handles bulk products, though container traffic is growing. Of note, the port is one of the top import ports in the US for natural rubber, coffee, steel, and plywood.¹⁰⁷

The container terminal has a capacity of 840,000 TEUs and a draft of 45 feet, and the Port Master Plan includes expansion of the Napoleon Avenue Container Terminal to 1.5 million TEU capacity. The NOLA website boasts the fact that the port is served by 50 ocean carriers, though these would include many non-container services.¹⁰⁸ A 140,000 square-foot dockside cold storage facility was opened in 2012 to replace hurricane and flood-damaged cold storage.

A dedicated truck corridor links the port to the interstate system (Interstate I-10).

The port is one of only two ports in the US served by six Class I railroads (BNSF, CN, CSX, NS, UP, KCS). These railroads are connected to the Port of New Orleans via a shortline – the New Orleans Public Belt Railways, which maintains 26 miles of track along the riverfront.¹⁰⁹

Florida’s Share of Port Traffic Handled Through the Port of New Orleans

In 2015, New Orleans handled 70,055 KT of the type of freight that might typically be destined to a warehousing or logistics facility, of which the vast majority (95%) were exports. Over 90% of these exports are grain and other agricultural products. According to FAF data, very little is exported from, or imported to, Florida through NOLA (just over 100 KT in 2015).

Logistics Clusters and Key Shippers

New Orleans is home to a number of large DCs and warehousing facilities, including for:

- Walmart
- Rooms To Go
- Folgers Coffee / Smuckers (national DC)
- Imperial Trading

Drivers of Competitiveness in the Region

According to consultations, the primary drivers of competitiveness in the region have centered around land and labor affordability and availability, particularly in the “north shore” area of New Orleans, where the most development is happening presently (north side of Lake Pontchartrain).

Incentive programs linked to logistics facilities are not done on a formal basis, but, benefits for investment are typically decided on a project by project basis, and depending on the local parish. Fast tracking of opportunities is typically available for a traditional DC.

¹⁰⁷ <http://www.portno.com/about>.

¹⁰⁸ <http://www.portno.com/about>.

¹⁰⁹ <http://portno.com>.

Because the port receives such a wide range of commodities from all over the world, some of the DC activity in the region is linked to manufacturing and value-added processing. For example, Folger's roasting has large facilities in the region, as the port is a major coffee importer.

The port is improving intermodal capabilities through the acquisition of the New Orleans Public Belt Railroad, which will facilitate continued investments in port rail infrastructure, and improve access to the six Class I railroads in the region.¹¹⁰

The port does face risks associated with weather and hurricane threats, as it is largely below sea level, though the risks have been mitigated to some extent through proactive measures.

Houston, Texas

Regional Transportation and Logistics Facilities

The greater Houston metro area has a population of approximately 6.8 million people, making it one of the most densely populated areas of the US.

Port Houston is the largest port on the Gulf Coast in terms of tonnage. According to its website, the two container terminals at the port (owned and operated by the Port of Houston Authority) handled about two-thirds of all containerized cargo in the US Gulf of Mexico. Annually, more than 2.1 million TEUs are handled at the port.

The port is undergoing a \$700 million modernization program to increase cargo handling efficiency and capacity at the Bayport Container Terminal, including investment in seven super post-Panamax wharf cranes that are now in place. The modernization project includes investments at both container terminals that will bring total capacity up to 4.3 million TEUs.

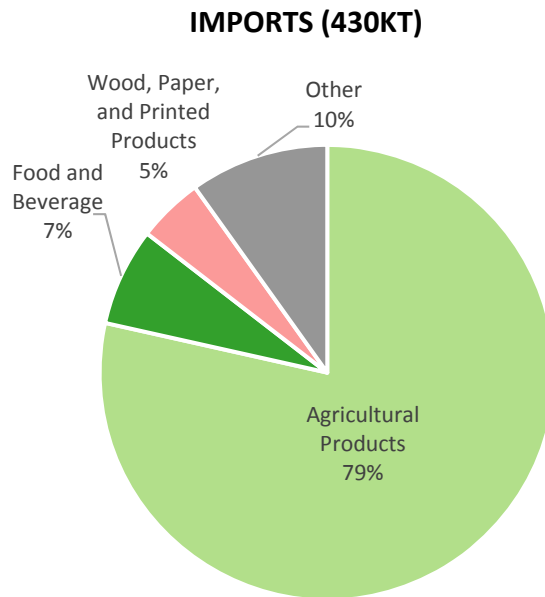
Rail access at the port is available from the Port Terminal Railroad Association (PTRA), with switching services connecting to BNSF and UP.

Florida's Share of Port Traffic Handled Through the Port of Houston

In 2015, the Port of Houston handled 28,510KT of freight that could be destined to a warehousing or logistics facility, comprising 11,100 KT (39%) imports and 17,410 KT (61%) exports. Imports destined for Florida accounted for 430 KT (4%) of inbound freight, and exports originating in Florida accounted for only 79 KT (0.5%) of outbound freight. The figure below shows key imports through the Port of Houston destined to Florida (exports not included, given small volumes). From the FAF data underpinning the figure, it is not possible to determine what makes up the "Agricultural Products" category, other than to confirm it is not meat, seafood, or milled grain products.

¹¹⁰ <https://www.ajot.com/news/ajot-president-ceo-brandy-christian-highlights-port-of-new-orleans-readines>.

Figure: Imports (to Florida) Handled Through the Port of Houston, 2015



Source: CPCS analysis of FAF data.

Logistics Clusters and Key Shippers

Being such a large metropolis, Houston is home to many large DC and warehousing facilities. Key facilities and shippers include:

- Amazon, which announced it would be building its 10th fulfillment center in Texas in 2017.¹¹¹
- IKEA, which has a DC in Baytown’s industrial park that became operational in 2017, encompassing nearly 1 million square feet across two buildings.¹¹²
- Advance Auto Parts, which opened a new DC 2017.¹¹³
- McLane Grocery, a major grocery, and drug store supply chain service provider, operating 80 DCs across the US.
- Weyerhaeuser (wood products).
- Rooms to Go.

¹¹¹ <https://www.dallasnews.com/business/retail/2017/09/20/amazon-changing-labor-market-us-cities-near-fulfillment-centers>.

¹¹² <https://www.bizjournals.com/houston/news/2017/11/07/ikeas-houston-area-distribution-facility-creates.html>.

¹¹³ <http://www.tirebusiness.com/article/20171013/NEWS/171019974/advance-auto-warehouse-to-begin-shipments-in-houston>.

Drivers of Competitiveness in the Region

According to research and consultation, the following factors contribute to Houston's competitiveness:

- Demographics play a major part. Not only does Houston have a large regional population, but the entire Sun Belt in the US is experiencing a demographic shift, with population growth higher than other regions in the country. This provides an increasingly large consumer base to support transportation and logistics investment. This shifting population center means 45.9% of the US population lives within 1,000 miles of Houston.¹¹⁴
- Houston is home to one of the largest manufacturing centers in the country, which drives associated value-added and processing facilities.
- Investment in the ports two container terminals, including expansion to accommodate post-Panamax and Super Post-Panamax vessels.
- Reputation for being business-friendly, with fast-tracking of industrial/distribution facility applications widely available. There is no zoning in the Houston city limits, which makes development easier.
- Strong multimodal transportation assets, including two Class I railroads, 1,400 truck firms, and two major interstate highways.¹¹⁵

Atlanta, Georgia

Regional Transportation and Logistics Facilities

The greater Atlanta metro area has a population of approximately 5.8 million people, making it one of the most densely populated areas of the US.¹¹⁶ The region sits at the intersection of three major interstates: I-85, I-75, and I-20. Rail service is provided by two class I railroads, the CSX and NS.

Logistics Clusters and Key Shippers

While Atlanta is landlocked and has no seaports, its large population base, coupled with strong transportation links to the rest of the US make it a strong location for logistics companies and DCs. Key facilities and shippers in the Atlanta metropolitan area include:

- A Dollar General DC which opened in summer 2017.¹¹⁷

¹¹⁴ <http://houstonblog.jll.com/supply-chain-houston-logistics-in-the-bayou-city/>.

¹¹⁵ <http://houstonblog.jll.com/supply-chain-houston-logistics-in-the-bayou-city/>.

¹¹⁶ US Census Bureau.

¹¹⁷ <http://www.aic.com/business/employment/dollar-general-hiring-500-employees-for-new-distribution-center-georgia/iGc9C7bySTbx6wBH0y3HKP/>.

- A 107,000-square-foot Toyota DC serving Lexus dealerships in the South.¹¹⁸
- The ninth and latest DC for National DCP, the distributor that serves Dunkin' Donuts franchises.¹¹⁹
- A 320,000 square foot DC for Alphabroder, which distributes a wide range of clothing brands.¹²⁰
- Multiple Amazon fulfillment centers.¹²¹
- Dick's Sporting Goods.
- Home Depot.

Drivers of Competitiveness in the Region

The primary drivers of competitiveness in the region are:

- Atlanta's large population creates enough demand for consumer goods to warrant the local placement of DCs.
- Atlanta's geographic location makes it a favorable distribution point for neighboring southern states, including Alabama, Mississippi, the Carolinas, and Tennessee. Atlanta is also within a 2-day truck drive to 80% of the US population.
- Relatively easy access to markets is facilitated by multiple interstate and Class I railroad connections.
- Atlanta is located inland and expansion is not geographically limited by a coastline or mountain range. Land is thus more readily available, and relatively inexpensive. This low cost of land has driven the speculative development of warehouse and DC space, which is attractive to firms looking to open a DC or warehouse relatively quickly.

¹¹⁸ <http://www.autonews.com/article/20160826/RETAIL05/160829882/toyota-opens-ga.-parts-distribution-center-for-lexus-dealerships>.

¹¹⁹ <https://www.prnewswire.com/news-releases/national-dcp-to-open-new-distribution-center-in-atlanta-ga-300449207.html>.

¹²⁰ https://www.alphabroder.com/cgi-bin/online/webshr/embed-page.w?p=atlanta_home.htm.

¹²¹ <http://www.ajc.com/business/amazon-plans-hire-000-fulfillment-center-metro-atlanta/7d6BsbIDCEJknszmlR6j4L/>.

Appendix E: Business Incentives

This Appendix provides a summary of the business incentives available in Florida and regions outside of Florida which directly or indirectly support investment in the transportation, logistics, and warehousing sectors.

Florida

State Level Incentives

The State of Florida has several marquee incentive programs meant to encourage job creation and capital investment. Enterprise Florida classifies these programs across four main categories: Targeted Industry Incentives, Workforce Training Incentives, Infrastructure Incentives, and Special Opportunity Incentives. In addition, the Florida Department of Revenue offers Sales and Use Tax Exemptions.

Targeted Industry Incentives

- Qualified Target Industry Tax Refund (QTI) – As explained on the EF website, this program is available for companies that create high wage jobs in targeted high value-added industries. This incentive includes refunds on corporate income, sales, ad valorem, intangible personal property, insurance premium, and certain other taxes. Pre-approved applicants who create jobs in Florida receive tax refunds of \$3,000 per net new Florida full-time equivalent job created; \$6,000 in a Rural Community (county). For businesses paying 150 percent of the average annual wage, add \$1,000 per job; for businesses paying 200 percent of the average annual salary, add \$2,000 per job; businesses falling within a designated high impact sector or increasing exports of its goods through a seaport or airport in the state by at least 10 percent in value or tonnage in each year of receiving a QTI refund, add \$2,000 per job; projects locating in a designated Brownfield area (Brownfield Bonus) can add \$2,500 per job. The selected local community contributes 20 percent of the total tax refund. No more than 25 percent of the total refund approved may be taken in any single fiscal year. New or expanding businesses in selected targeted industries or corporate headquarters are eligible.
- Qualified Defense and Space Contractor Tax Refund (QDSC) – Pre-approved applicants (Florida contractors in defense, homeland security, and space) creating or retaining jobs in Florida may receive tax refunds of \$3,000 per net new Florida full-time equivalent job created or retained; \$6,000 in a rural county. For businesses paying 150 percent of the average annual wage, add \$1,000 per job; for businesses paying 200 percent of the average annual salary, add \$2,000 per job.
- Capital Investment Tax Credit (CITC) – An annual credit, provided for up to twenty years, against the corporate income tax, intended to attract capital-intensive industries.

Eligible projects are those in designated high-impact portions of the following sectors: advanced manufacturing, clean energy, biomedical technology, financial services, information technology, silicon technology, transportation equipment manufacturing, or be a corporate headquarters facility. Projects must also create a minimum of 100 jobs and invest at least \$25 million in eligible capital costs. Eligible capital costs include all expenses incurred in the acquisition, construction, installation, and equipping of a project from the beginning of construction to the commencement of operations. The level of investment and the project’s Florida corporate income tax liability for the 20 years following commencement of operations determines the amount of the annual credit.

- High Impact Performance Incentive Grant (HIPI) –Grants are provided to pre-approved applicants in certain high-impact sectors designated by the Florida Department of Economic Opportunity (DEO). Projects must: operate within designated high-impact portions of the following sectors– advanced manufacturing, clean energy, corporate headquarters, financial services, life sciences, semiconductors, and transportation equipment manufacturing; create at least 50 new full-time equivalent jobs (if an R&D facility, create at least 25 new full-time equivalent jobs) in Florida in a three-year period; and make a cumulative investment in the state of at least \$50 million (if an R&D facility, make a cumulative investment of at least \$25 million) in a three-year period. Once recommended by Enterprise Florida, Inc. (EFI) and approved by DEO, the high impact business is awarded 50 percent of the eligible grant upon commencement of operations and the balance of the awarded grant once full employment and capital investment goals are met.”¹²²

Workforce Training Incentives

- Quick Response Training (QRT) – Offered by CareerSource Florida; reimbursable training expenses for new and existing businesses hiring new employees, as well as any state educational facility to assist. Training can be done in-house, through an outside vendor, or through state and local educational entities.
- Incumbent Worker Training Program (IWT) – Offered by CareerSource Florida; retention-based training for current employees.
- FloridaFlex – an integrated talent support service offered by CareerSource Florida that combines QRT and IWT incentives, local grants, and services such as recruitment and hiring assistance.

Infrastructure Incentives

- Economic Development Transportation Fund – up to \$3 million award made to local government to improve public transportation infrastructure that may specifically affect and company’s expansion or location decision.
- Intermodal Logistics Center (ILC) Infrastructure Support Program (ISP) – administered by the Florida Department of Transportation (FDOT), at least \$5 million are allocated

¹²² Enterprise Florida, <https://www.enterpriseflorida.com/why-florida/business-climate/incentives/>.

annually to assist local government and private sector fund projects that “enhance transportation facilities for the shipment of goods through a seaport to or from an intermodal logistics center.”¹²³ Applicants (either local government or private entities) must cover 50% of total project costs. It is worth noting that this program is scheduled to sunset in 2020.

- ILC Strategic Intermodal System (SIS) – also an FDOT program, SIS is a “statewide network of high priority transportation systems.”¹²⁴ Existing or planned ILC’s can be designated a part of the SIS if they meet certain criteria. Because of this designation, the State will match up to 75% for rail connections and up to 100% for road connections to the ILC.

Special Opportunity Incentives

- Rural incentives – lower incentive thresholds and higher incentive awards for rural counties.
- Urban incentives – lower incentive thresholds and higher incentive awards for depressed urban areas.
- Brownfield incentives – up to \$2,500 in tax refunds for each job created on a Brownfield Site with a Brownfield Site Rehabilitation Agreement (BSRA).

Regional Incentives – Northeast Florida

- CareerSource Northeast Florida can provide workforce training incentives:
 - Recruiting, Screening, and Placement Assistance.
 - On-the-Job Training at minimal cost.
 - Paid Internships at no cost to the employer.
- City of Jacksonville (consolidated with Duval County)
 - Sale-Leaseback Incentive – the Downtown Investment Authority sells to an investor-developer at above construction cost and receives a cash bonus from the investor. In return, it enters into a long-term fixed lease with the investor and subsequently subleases to a company. It can incentivize the company by using the cash bonus to subsidize part of the rent or offer it as a cash grant or forgivable loan.
 - Commercial Revitalization Program – offers a real estate tax recovery grant for up to 75% of actual tax liability.
 - Façade Renovation Matching Grant Program – up to \$10,000 in matched city funds.
- Baker County
 - None noted beyond the state level.
- Nassau County
 - Nassau County Economic Development Grant – offers a return of a percentage of real and personal property taxes based on job creation and capital investment.

¹²³ <http://www.fdot.gov/planning/systems/programs/mspi/pdf/ILCSupportOppsFinal.pdf>.

¹²⁴ <http://www.fdot.gov/planning/systems/programs/mspi/pdf/ILCSupportOppsFinal.pdf>.

- Clay County
 - Economic Development Grant – uses the incremental increase in a property’s ad valorem taxes as a grant.
 - Large Employer Grant – a retention-based grant for those considering a move out of the county.
 - Tangible Personal Property Capital Investment Grant – available with a minimum \$1,000,000 investment in machinery and equipment.
 - Industrial Development Revenue Bonds – tax-exempt bonds which finance development.
 - Regulatory relief in the form of impact fee mitigation.
- St. Johns County
 - Tax-exempt Industrial Development Revenue Bonds.

Regional Incentives – Central East Florida

- Utilities Incentives – Duke Energy, Orlando Utilities Commission, and Florida Power & Light all offer discounted and special energy rates for a certain kW load and job creation.
- Expedited Permitting.
- Training Incentives – CareerSource Central Florida will provide:
 - Recruiting, Screening, and Placement Assistance.
 - On-the-Job Training at minimal cost.
 - Paid Internships at no cost to the employer.
- City of Orlando
 - Economic Development Grant – an annual grant that equals a portion of new city personal property taxes, each year for 10 years.
 - Business Assistance Program (BAP) – provides matching funds of up to \$20,000 to offset development and impact fees.
 - Transportation Impact Fee Reduction or Waiver.
- Lake County
 - Property Tax Abatements/Exemptions – applied to new and expanding businesses in Leesburg, Mount Dora, and Tavares.
- Orange County
 - Economic Development Tax Abatement Program – up to 10 years of exemption for 100% of new capital improvements and equipment purchases.
 - Property Tax Abatements/Exemptions – the City of Maitland offers property tax exemptions based on certain criteria.
- Osceola County
 - No Transportation Impact Fees – road impact fees have been abolished since 2012.
- Seminole County
 - Impact Fee Deferral Program – impact fees can be deferred until time of power or issuance of Certificate of Occupancy.
 - Property Tax Abatements/Exemptions – the cities of Casselberry, Oviedo, and Sanford offer property tax exemptions based on certain criteria.

Regional Incentives – Southeast Florida

- City of Miami
 - Empowerment and Enterprise Zones.
- Broward County
 - CareerSource Broward workforce development incentives.
 - Direct Cash Incentive Program – direct cash paid to companies who hire new employees above the 115% county average wage, done in partnership with the County and municipality.
- Miami-Dade County
 - South Florida Workforce training incentives.
 - Economic Development Fund – allots \$75 million for projects in Miami-Dade area.
 - Miami-Dade County Targeted Jobs Incentive Fund (TJIF) – up to \$3,000 per new job and \$9,000 per new job in an Enterprise Zone.
 - Mom and Pop Business Grants.
 - Micro-Enterprise Assistance & Peer Lending.

Regional Incentives – Central West Florida

- Training incentives through CareerSource Tampa Bay:
 - Recruiting, Screening, and Placement Assistance.
 - On-the-Job Training at minimal cost.
 - Paid Internships at no cost to the employer.
- Hillsborough County
 - Permit facilitation and incentives negotiation and coordination with the State of Florida.
 - Expedited Site Development and Construction Plan Review Program.
 - Ad Valorem Tax Exemption.
 - Permit and Impact Fee Grant Program.
 - Mobility Fee Buydown Incentive Program.
 - Demolition of Distressed Structures Program.
 - Infrastructure Assistance Program.
 - Contaminated Site Assessment and Remediation Program.
 - Building Exterior Improvement Program.
 - Building Interior Improvement Program.
 - Catalyst Project Incentive Program.
 - Small Business Façade Program.
- City of Tampa
 - Business Façade Grant Improvement Program – 50% of project costs up to \$50,000.
 - Channel District Neighborhood Amenity Incentive Program – up to \$10,000 reimbursement of fees paid to the City.
 - Economic Development Ad Valorem Tax Exemption Program.
 - Transportation Impact Fee Exemption/Reduction.

- Community Contribution Tax Credit Program – 50% credit on FL corporate income tax, insurance premium tax, or sales tax refund for donations to local community development projects.
- Community Redevelopment Areas offering TIFs.
- Foreign Trade Zone No. 79.
- Pinellas County
 - Foreign Trade Zone No. 193.
 - Ad Valorem Tax Exemption.
 - Job Creation Incentive Program – \$500 per new job for each new job at 150% of average county wage, \$1,000 for a new job at 200% of average county wage.
- City of St. Petersburg
 - Grow Smarter Job Creation and Talent Attraction Program – \$3,000 per new job at 115% prevailing average county wage with greater awards available.
 - Ad Valorem Tax Exemption for Economic Development.
 - Also for Historic Preservation.
 - Reduced Transportation Impact Fee.
- Pasco County
 - Job Creation Program – \$2,000 – 5,000 per job with a minimum of 10 jobs at 115% prevailing county wage.
 - Penny for Pasco – \$0.01 sale tax increase earmarked for economic development programs.
 - Expedited Permitting.
 - SMARTstart Micro Loan Fund.
- Hernando County
 - Deferral of building permit and impact fees.
 - Land lease rate incentives.

Regional Incentives – Northwest Florida

- CareerSource Gulf Coast offers workforce development incentives:
 - Recruiting, Screening, and Placement Assistance.
 - On-the-Job Training at minimal cost.
 - Paid Internships at no cost to the employer.
- Expedited permitting.
- Economic Development Ad Valorem Property Tax Exemption.

Alabama¹²⁵

State Level Incentives

- **Jobs Credit** – An annual cash rebate of up to 3% of the prior year’s gross annual payroll (excluding fringe benefits) for eligible employees for up to 10 years.

¹²⁵ Incentives information provided by Mobile Area Chamber of Commerce.

- **Investment Credit** – For projects that create 50 new jobs (unless in engineering, chemical manufacturing, data centers, design, and research, in which case there is no minimum threshold), a credit of up to 1.5% of qualified capital investment expenses is given up to 10 years and applied against income or utility tax liability.
- **Alabama Veterans Incentive** – new or expanding corporations with at least 12% workforce of veterans, an additional 0.5% is added to the jobs credit incentive.
- **Inventory and Raw Material Exemption** – in Alabama, there is no property tax on the inventory of merchandise, nor is there property tax on raw materials stored and to be used in a manufacturing process.
- **Pollution Control Equipment Exemption** – Pollution control equipment and materials are exempt from both sales and use tax and property tax.
- **Alabama New Market Tax Credits** – Paralleling the federal New Markets Tax Credit, up to \$10 million tax credits per project can be given (with no more than \$20 million given to all applicants any given year).
- **Industrial Development Grant Program** – grants for site preparation for projects or rehabilitation of existing buildings may be given to eligible public corporations, with the size of the grant depending on the amount of capital investment. For example, a max of \$150,000 will be given for project capital costs of \$10 million or more. For smaller projects, a higher percentage of capital costs are covered (up to 5%).
- **Industrial Access Road and Bridge Program** – funds that cover construction, construction engineering, and inspection costs for creating public access for new or expanding distribution, manufacturing, and industrial firms. They do not cover preliminary engineering, right-of-way acquisition, and utility relocation costs.
- **Alabama Industrial Development Training (AIDT)** – Alabama’s workforce development program which offers pre-employment selection and training, custom post/on-the-job training, maintenance assessments, industrial safety assessments and training, leadership development, and process improvement assessments. It also runs specific programs at technical institutes with relevant expertise.
- **Alabama Technology Network** – conducts needs assessments, outlines potential solutions, and provides technical assistance. Such services include training in Lean Manufacturing, Environmental Health and Safety, Innovation and Sustainability, Quality Systems, Community/Economic Development, Industrial Maintenance, and Information Technology.
- **One-Stop Environmental Permitting** – the Alabama Department of Environmental Management provides one-stop permitting for air, water, and waste.

Local Level – Mobile, Alabama

- **Sales and Use Tax Abatement** – the local authority can grant sales and use tax abatements (for the non-educational portion) at the state, county, and city level for taxes associated with construction and equipping the facility.
- **Alabama Reinvestment and Abatements Act** – non-educational state and local property taxes can be abated for up to 20 years by the local granting authority. Investments of at least \$2 million in refurbishing, upgrading, or reactivating buildings may qualify for sales and use tax abatements on construction material, incremental increases of property tax, and taxes from increased utility services.
- **FTZ #82** – Foreign Trade Zone #82, with the City of Mobile as the Grantee.

Georgia

State Level¹²⁶

- **Job Tax Credit** – varying based on location and number of net new jobs created, up to \$4,000 tax credit may be applied against 100% of state corporate income tax liability. Each new job can earn an annual credit for five years after it is created.
- **Investment Tax Credit** – for existing companies in the state, 1-5% credit of the qualifying investment expenses (minimum of \$50,000) are given depending on the tier status of the county. 3-8% credit is given for investments in Recycling, Pollution Control Equipment, or Defense Plant Manufacturing Conversion to a New Product.
- **Port Tax Credit Bonus** – for those who already qualify for the Job Tax Credit or Investment Tax Credit, an additional bonus of \$1,250 per new job (for Job Tax Credits) or an increase in Investment Tax Credit equivalent to a Tier 1 location if the company brings qualified increases (of 10% or more) in shipments through a Georgia port.
- **Quality Jobs Tax Credit** – \$2,500 – 5,000 per job per year for up to 5 years with a creation of a least 50 net new jobs in 2 years paying at least 110% of the county’s average wage. The higher paying the job, the higher the tax credit.
- **R&D Tax Credit** – “eligible companies may claim up to a 10% tax credit of increased R&D expenses in Georgia (subject to a base amount) to be applied against 50% of the company’s net state corporate income tax. Excess credits can then be applied to the company’s state payroll withholding liability. This credit is not just for dedicated R&D facilities. Any facility in Manufacturing, Warehousing and Distribution, Processing, Telecommunications, Broadcasting, Tourism, R&D Facilities, and Biomedical Manufacturing may claim these credit with qualifying expenditures.”
- **Mega Project Tax Credit** – “companies that hire at least 1,800 net new full-time employees; either invest a minimum of \$450 million or have a minimum annual payroll of \$150 million; and pay an average wage above specified minimums, or show high growth potential may claim a \$5,250 credit per job per year for the first five years of each net new job position.”
- **Work Opportunity Tax Credit Program (WOTC)** – a federal incentive coordinated at the state level, \$1,200 – 9,000 credit per qualified employee to be applied against federal income tax liability. For individuals in groups who have “consistently faced significant barriers to employment” such as unemployed veterans, Food Stamp recipients, Rural Renewal County residents, etc.
- **Child Care Tax Credits** – for employers that purchase, build, or sponsor child care for employees. A credit equal to 100% of the cost of construction of child care facility or 75% cost of sponsorship in the state-licensed facility, to be applied against 50% of the corporate income tax liability.
- **Parolee Tax Credit** – credit of \$2,500 per parolee hired within 12 months of their parole grant, a limit of \$50,000 per employer, to be applied against state corporate income tax liability. The credit is only given if the individual is paid at or above the average wage of the county with the lowest average wage in the state.

¹²⁶ Georgia Department of Economic Development “Business Incentives” guide, provided by the Savannah EDA.

- **Sales and Use Tax Exemption** – sales and use tax exemptions for Manufacturing Machinery and Equipment, Repair to Industrial Machinery, Industrial Materials and Packaging, Energy Used in Manufacturing, Primary Material Handling Equipment, Pollution Control Equipment, Computer Hardware and Software for High Tech Companies, Clean Room Equipment, Water Costs, and Telecommunications Services.
- **Inventory Tax Exemption** – Georgia has no property tax on inventory or any other real or personal property. The Level One Freeport Law allows counties and municipalities to do the same on four (4) different classes of goods.
- **One-Stop Environmental Permitting** – state environmental permitting is consolidated with US EPA permitting, allowing one-stop permitting for water and air.
- **Hiring Assistance** – Georgia Department of Labor will post job openings, collect and screen applications and resumes, refer applicants for interviews, provide office space for interviews, and host job fairs.
- **Quick Start Employee Training** – fully customized training free of charge, often rated the #1 workforce development program in the country.
- **Retraining Tax Credit** – credit of 50% of employer’s direct costs, up to \$500 per employee per retraining program, no more than \$1,250 per employee per year, to be applied against the state corporate income tax liability.
- **HOPE Scholarship and Grant Programs** – The scholarship covers a large portion of tuition costs for degree programs, while the grant provides tuition assistance to GA residents earning a technical degree or certification through the Technical College System of Georgia.
- **State Small Business Credit Initiative (SSBCI)** – loan guarantees and partnership lending for small businesses.
- **Angel Investor Tax Credit** – an income tax credit for investors who invest in qualified businesses in GA, covers 35% of the investment capped at \$50,000 per year.
- **Regional Economic Business Assistance (REBA)**¹²⁷ – a maximum of \$750,000 grant (a cap which can be waived upon recommendation by Commissioner of DCA) for infrastructure improvements, land acquisition, construction, or machinery and equipment.

Local Level – Savannah¹²⁸

- **Property Tax Abatement** – based on investment and job creation amounts, property taxes on land and building may be abated partially or fully.
- **Inventory Tax Abatement** – Chatham County abates 100% of ad valorem property taxes for “manufacturing inventory (raw materials, in process, finished goods 12 months from date of manufacture) and on inventory stored in a warehouse of finished goods destined for shipment to a final destination outside of Georgia and inventory of finished goods which are shipped into Georgia from outside the state and stored for transshipment to a final destination outside the state.”
- **Expanding Manufacturer Property Tax Abatement** – Companies making at least \$500,000 in capital improvements and adding “substantial new jobs” are eligible for a five-year property tax abatement on the county M&O/Transit/Special Services tax.

¹²⁷ Information obtained from Georgia Department of Community Affairs website, <http://www.dca.state.ga.us/economic/financing/programs/reba.asp>.

¹²⁸ Information on Chatham County incentives provided by Savannah EDA.

- **Pollution Control Equipment Property Tax Exemption** – the ad valorem tax on new or replacement pollution control equipment is exempt.
- **Industrial Revenue Bonds** – Savannah EDA can issue up to \$10 million (\$125,000 per new job) in low-interest tax-exempt and taxable industrial revenue bonds.
- **Foreign Merchandise in Transit Tax Exemption** – a county-level FTZ program, “Chatham County exempts goods from the county personal property taxes when warehoused in Chatham County and has entered the export stream, although temporarily stored or warehoused in the county where the port of export is located OR the property has been or will be moved by waterborne commerce through the port of Savannah and US customs duties will be or already are paid at the Port of Savannah, and the goods are in transit to a final destination outside Chatham County, which means there must be a contract of sale (invoices).” If warehoused more than one year in the County, goods are no longer considered “in transit” and lose exemption status.
- **FTZ #104** – Foreign Trade Zone #104, with the World Trade Center Savannah, LLC as the Grantee.

Local Level – Atlanta¹²⁹

- **Industrial Development Bonds** – \$2-10 million, market rate, fixed or variable interest rate.
- **Lease-Purchase Bonds** – minimum of \$10 million with no maximum, 10-year term, market rate, fixed or variable interest rate.
- **Economic Opportunity Fund** – a grant from the City of Atlanta to be used for “funding of acquisition or construction of land, buildings and equipment, infrastructure or leasehold improvements, parking subsidies, relocation costs, and workforce training.”
- **Clean Energy Atlanta** – funding of at least \$5,000, up to 10% of the building’s market value for energy improvements, renewable energy installations, and water conservation. “Improvements are repaid over 20 years in annual installments along with property tax.”
- **Atlanta Workforce Development Agency** – provides funding for recruitment, job fairs, customized training, transportation assistance, drug screening, and veterans recruitment.
- **FTZ #26** – Foreign Trade Zone #26, with Georgia Foreign Trade Zone, Inc. as the Grantee.

Louisiana

State Level¹³⁰

- **LED FastStart** – customized workforce attraction, recruitment, evaluation, and training for companies that create 15 new jobs if manufacturing or DCs or 50 net new jobs if digital media, HQ, R&D, or inbound call center operations.
- **Angel Investor Tax Credit** – “provides a 25.2% tax credit on investments by accredited investors who invest in certified businesses; \$3.6 million annual program cap; investors

¹²⁹ Information obtained from Invest Atlanta website, <https://www.investatlanta.com/business/bonds-incentives/>.

¹³⁰ Information obtained from the Louisiana Economic Development website, <https://www.opportunitylouisiana.com/business-incentives>.

can invest \$720,000 per business per year and \$1.44 million per business over the life of the program.”

- **Enterprise Zones** – for companies creating 5 net new FT jobs within 2 years or increasing their national workforce footprint by 10% within 1 year; they must also hire 50% of these net new jobs from residents of Enterprise Zones, people receiving public assistance, people lacking basic skills (below 9th grade proficiency), or people “unemployable by traditional standards”. Benefits include “either a one-time \$3,500 or \$1,000 tax credit for each net new job created; a rebate of state sales and use taxes on qualified material, machinery, or equipment or a 1.5% credit of the total capital investment. The rebate cannot exceed \$100,000 per net new job.”
- **Industrial Tax Exemption** – up to 100% property tax exemption for up to 5 years, with another optional term of 80% property tax exemption on qualifying capital investment for another 3 years. The program is only available for manufacturers.
- **Quality Jobs Rebate** – to qualify, the company must be in “Bioscience, Manufacturing, Software, Clean Energy Tech, Food Tech, Advanced Materials, HQ of a Multi-State Business, Back-Office Operations, Aircraft MROs, or Oil and Gas Field Service sectors; OR have at least 50% of annual sales out-of-state; OR perform 50% of its time for its out-of-state parent company; OR be located in a parish that is within the lowest 25% of parishes based on per capita income.” Benefits include “up to a 6% cash rebate on 100% of gross annual payroll, and a state sales and use rebate on capex or 1.5% project facility expense rebate on the total capital investment.”
- **R&D Tax Credit** – “up to a 40% credit on qualified research expenditures incurred in Louisiana, with no cap and no minimum requirement.”
- **Restoration Tax Abatement** – an abatement of up to 10 years on ad valorem property taxes on renovations and improvements of commercial structures. Covers building materials, machinery and equipment, labor, and engineering.
- **Small Business Programs**
 - **Bonding Assistance Program** – access to bonds from surety companies when bonding capacity is needed; offers 25% of contract price or \$100,000 in bond guarantee, whichever is less.
 - **CEO Roundtables** – LED coordinates CEO roundtables of small business leaders 10 times a year.
 - **Economic Gardening Initiative** – technical assistance for certain businesses including market research, business development leads, and improved internet presence.
 - **Hudson Initiative** – development assistance for small businesses, such as training on marketing, accounting, business planning, etc.
 - **Louisiana Contractors Accreditation Institute** – 6-week course of 2-hour sessions twice a week on construction management and contractor licensing exam preparation.
 - **Louisiana Veteran Entrepreneurship Program** – entrepreneurial training for veterans, including a 3-week online course and in-person business boot camp covering various topics.
 - **Small and Emerging Business Development Program** – managerial and technical assistance for certain small businesses, covering topics like marketing, accounting, business planning, etc.

- **Small Business Loan and Guaranty Program** – guarantees up to 75% of loan amounts between \$5,000 and \$1.5 million for small businesses.
- **STEP Grant** – grant from the SBA to offer coverage of up to 75% of travel expenses (for new to export) or 50% of travel expenses (for market expansion) capped at \$5,555 per company for attending a trade show or mission.
- **Veteran Initiative** – greater access for purchasing and contracting opportunities for veteran businesses at the state government level.

Local Level – New Orleans¹³¹

- **Restoration Tax Abatements** – tax abatements for restoration of existing buildings.
- **Payment in Lieu of Taxes (PILOT)** – offered by the New Orleans Industrial Development Board, offering to lease land for payment in lieu of ad valorem property taxes.
- **Other Incentives at Discretion of the City**
- **FTZ #2** – Foreign Trade Zone #2, with Board of Commissioners of the Port of New Orleans as the Grantee.

South Carolina

State Level

- **Job Tax Credits** – credits of \$15,000 to \$8,000 to be applied against 50% of state corporate income tax for 5 years, for creating 10 net new full-time jobs in a taxable year.
- **Corporate HQ Credit** – state corporate income tax credit or license fee credit for establishing or expanding a corporate HQ in SC and creating 40 or more jobs.
- **R&D Credit** – up to 5% credit on qualified R&D expenditure increases for up to 10 years.
- **Property Tax Exemptions** – property tax exemption on inventory, intangible personal property, and pollution control equipment, as well as a 5-year abatement on operating taxes for the creation of 75 new full-time jobs and \$50,000 investment in distribution facilities.
- **Fee-in-Lieu of Property Taxes (FILOT)** – millage stabilization for up to 30 years and reduced assessment rates for an investment of at least \$2.5 million.
- **Sales and Use Tax Exemptions** – exemptions for companies that invest \$35 million in material handling equipment for manufacturing or distribution; exemption for packaging materials, and long-distance telecom services.
- **Cash Grants** – discretionary grants from the Economic Development Set-Aside Program and the Governor’s Closing Fund. The Set-Aside Program is for site improvements such as road and utility infrastructure. The Closing Fund requires a performance agreement that outlines job and capital investment requirements. It is intended for high impact economic development projects.
- **Job Development Credits** – up to 10-year credit capped at \$3,250 per job dependent upon job creation and capital investment. The new jobs should equal or exceed the average county wage and must provide benefits such as 50% coverage of health premiums.

¹³¹ Information obtained from the New Orleans Business Alliance website, <http://www.nolaba.org/new-orleans-louisiana-tax-advantages-incentives/>.

- **Port Volume Increase Credit** – up to \$8 million in state corporate income tax credit for at least a 5% increase in port cargo volume over a base year (with a minimum requirement of volume).
- **readySC Training Program** – the state covers costs of screening, assessment, interviewing, recruitment, training design and delivery, worth up to \$9,500 per person in deferred costs.

Local Level – Charleston¹³²

- **Revolving Loan Fund** – gap financing for start-up and high growth businesses which help bridge the divide between needs and private sector loans.
- **Urban Renewal Community** – designation by the Department of Housing and Urban Development to qualify for tax incentives and regulatory relief.
- **Dorchester County**¹³³
 - **Property Tax Abatement** – up to 25% reduction in property tax liability for 5 years in return 75 new jobs and over \$50,000 capital investment (if non-manufacturer or R&D). If manufacturing, R&D, HQ, or distribution/warehousing, only a capital investment is required.
 - **Fee-in-Lieu of Property Tax (FILOT)** – fixed millage rates for up to 20 years and reduced assessment ratios for an investment of over \$5 million (\$2.5 million in qualified rural areas).
- **Charleston County**¹³⁴
 - **Property Tax Abatement** – 5-year county property tax abatement for \$50,000 investment (and 75 new jobs if a corporate HQ or distribution facility).
 - **Sales Tax Exemptions** – exemptions on electricity and fuels, manufacturing and R&D equipment, raw materials, pollution control equipment, parts and supplies for leased aircraft repair, material handling (for \$35 million investment), and construction materials (for \$100 investment).
 - **FILOT** – fixed millage rates for up to 20 years and reduced assessment ratios which can reduce property taxes by as much as 43%.
- **Berkeley County**¹³⁵
 - **Special Source Revenue Credits** – property tax abatements in return for reimbursement of infrastructure improvement project costs.
 - **Job Tax Credit** – up to \$2,500 in job tax credits.
 - **FILOT** – fixed millage rates for a negotiated period and reduced assessment ratios.
 - **Local Grants**

¹³² Information obtained from the Charleston Regional Development Alliance website, <http://www.crda.org/doing-business-here/tax-incentives>.

¹³³ Information obtained from Dorchester County’s economic development website, <http://www.dorchesterforbusiness.com/incentives.php>.

¹³⁴ Information obtained from the Charleston County economic development website, <http://www.charlestoncountydevelopment.com/Data-Center/Incentives-Financing.aspx>.

¹³⁵ Information obtained from the Berkeley County economic development website, <http://www.berkeleymeansbusiness.com/taxes-incentives/>.

- **FTZ #21** – Foreign Trade Zone #21, with South Carolina State Ports Authority as the Grantee.

Texas

State Level¹³⁶

- **Skills Development Fund** – the fund covers costs of training and bestows grant to community or technical colleges to develop curricula and conduct training on behalf of the business.
- **Skills for Small Business** – up to \$1,800 for each new employee training and \$900 for each existing employee training per year, the company must pay the prevailing wages of the local area and have less than 100 employees.
- **Self Sufficiency Fund** – up to \$500,000 for a project targeted at roughly \$2,100 per trainee for the hiring of in-need or at-risk individuals in the state’s targeted industry clusters.
- **Texas Enterprise Zone Program** – for projects locating in an economically distressed area and offering job creation and significant private investment, the state will offer sales tax refunds of up to \$7,500 per net new job (typically \$2,500).
- **Pollution Control and Renewable Energy Equipment Tax Exemption** – property tax exemption for pollution control equipment and franchise tax exemptions/deductions for renewable energy equipment.
- **Sales and Use Tax Savings** – for manufacturing inputs, utilities, essential operating equipment for data centers, and R&D.
- **Business Relocation Deduction** – the state allows the deduction of relocation costs if coming from another state or country.
- **Texas Enterprise Fund** – cash grant for competitive projects that offer significant job creation and capital investment.
- **Texas Capital Fund/Real Estate Programs** – funds public infrastructure or real estate improvements needed for business commitment to job creation, capital investment, etc.
- **Defense Economic Readjustment Zone Program** – eligible companies within the zone may receive state sales and use tax refunds on qualifying items. It can be compounded by local communities by using local property tax abatement, TIF, infrastructure improvements, and training.
- **Defense Economic Adjustment Assistance Grant Program** – infrastructure grants to “assist defense communities that have been positively or negatively impacted by a change in defense contracts or an announced change. Funding can also be used proactively to support installations in the event of a change or announced change by the Department of Defense.”
- **Texas Military Value Revolving Loan Fund** – a minimum of \$1 million loan which may cover up to 100% of project costs. The fund is designed to “assist defense communities in enhancing the military value of a military facility in their area; provide financial assistance to defense communities for job-creating economic development projects that

¹³⁶ Information obtained from the Texas Economic Development Corporation’s website, <https://businessintexas.com/services/tax-incentives>.

minimize the negative effects of a defense base realignment or closure; or provide financial assistance to defense communities for an infrastructure project to accommodate new or expanded military missions.”

- **Spaceport Trust Fund** – funds to develop spaceport infrastructure. Only available for eligible entities.

Local Level – Houston¹³⁷

- **Property Tax Abatements and Tax Increment Financing** – a declining graduated abatement of real property and fixed-in-place equipment; future tax revenues may be used to finance improvements to infrastructure or buildings. The locality may also fix school maintenance and operations taxes to a “limitation amount” for a certain period.
- **Type ‘A’ and ‘B’ Sales Tax** – sales taxes used specifically to finance economic development programs that create direct jobs.
- **FTZ #84** – Foreign Trade Zone #84, with Port of Houston Authority as the Grantee.

¹³⁷ Information provided by the Greater Houston Partnership.

Appendix F: Reverse Site Selection Model Analysis

This Appendix provides the assumptions used to develop a comparative ranking of the regions under analysis for this study, for the range of industries of interest, notably:

- Retail / Consumers Goods
- Manufacturing

Retail/Consumer Goods Assumptions

Consumer goods distributors are concerned with the end consumer, so population and income size and growth are particularly important factors. The following assumptions and data characteristics were added to the Reverse Site Selection model of each commodity within the Retail/Consumer Goods freight categories:

Clothing, Textiles, and Accessories

- Extra weight applied to population size and growth – both MSA and 4-hour drive time radius.
- Extra weight applied to median household income and income growth (as a reflection of purchasing power) – both MSA and 4-hour drive time radius.
- Industry-specific location quotients added for retail store NAICS.¹³⁸ The assumption here is that a higher LQ in these retail stores demonstrate a higher intensity of activity and could be an opportunity for DC's of this category.
- Import-Population Ratio – Clothing and Textiles added. If we were to assume retail consumption patterns are generally even across the US, a ratio below 1 could indicate that the area is underserved and therefore has a potential for growth.

¹³⁸ NAICS 44811 (Men's/Women's clothing stores), 44813 (Children's and infants' clothing stores), 44814 (Family clothing stores), 4482 (Shoe stores), 44831 (Jewelry stores), 452 (General merchandise stores).

Ranking for Clothing, Textiles and Accessories

Weight	Categories	Northeast FL	Central East FL	Northwest FL	Central West FL	Southeast FL	Savannah GA	Charleston SC	Mobile AL	New Orleans LA	Atlanta GA	Houston TX
7%	Population and Demographics	7	2	9	7	6	5	4	10	10	2	1
3%	Household Statistics	4	6	10	8	5	7	3	9	11	1	1
5%	Labor Force Availability	8	4	11	5	3	6	6	9	10	2	1
19%	Industry-Specific Characteristics	8	1	1	8	3	4	10	6	5	10	7
5%	Occupation-Specific Employment (per 1000)	3	10	11	9	8	2	5	4	5	1	5
8%	Occupation-Specific Salaries (Annual Mean 2010)	8	4	1	2	6	7	10	3	5	9	11
2%	Education	3	2	4	1	6	9	5	7	10	8	11
25%	Transportation and Market Access	5	3	11	2	7	6	8	9	10	4	1
12%	Tax Regime and Cost of Doing Business	8	9	2	10	11	2	4	1	6	6	5
2%	Climate and Natural Hazards	1	8	4	10	11	2	4	9	3	4	7
2%	Crime and Quality of Life	3	9	9	1	11	2	5	4	6	7	7
5%	Real Estate Availability	3	8	9	5	6	10	7	11	4	1	2
5%	Economy of Scale	6	4	10	5	3	8	8	10	7	1	1
	Overall Rank	7	2	8	6	4	5	9	11	10	3	1

Source: Investment Consulting Associates 2017

Electronics and Electrical Equipment

- Extra weight applied to population size and growth – both MSA and 4-hour drive time radius.
- Extra weight applied to median household income and income growth (as a reflection of purchasing power) – both MSA and 4-hour drive time radius.
- Industry-specific location quotients added for NAICS industries affiliated with electronics' retail sales.¹³⁹ The assumption here is that a higher LQ in these retail stores demonstrate a higher intensity of activity and could be an opportunity for DC's of this category.
- Import-Population Ratio – Electronics and Electrical Equipment added. If we were to assume retail consumption patterns are generally even across the US, a ratio below 1 could indicate that the area is underserved and therefore has a potential for growth.

¹³⁹ NAICS 42343 (Computer and software merchant wholesalers), 4236 (Appliance and electronics wholesalers), 443142 (Electronics stores), 44411 (Home centers), 452 (General merchandise stores).

Ranking for Electronics and Electrical Equipment

Weight	Categories	Northeast FL	Central East FL	Northwest FL	Central West FL	Southeast FL	Savannah GA	Charleston SC	Mobile AL	New Orleans LA	Atlanta GA	Houston TX
7%	Population and Demographics	7	2	9	7	6	5	4	10	10	2	1
3%	Household Statistics	4	6	10	8	5	7	3	9	11	1	1
5%	Labor Force Availability	8	4	11	5	3	6	6	9	10	2	1
19%	Industry-Specific Characteristics	8	4	2	3	1	10	11	6	6	5	9
5%	Occupation-Specific Employment (per 1000)	3	10	11	9	8	2	5	4	5	1	5
8%	Occupation-Specific Salaries (Annual Mean 2010)	8	4	1	2	6	7	10	3	5	9	11
2%	Education	3	2	4	1	6	9	5	7	10	8	11
25%	Transportation and Market Access	5	3	11	2	7	6	8	9	10	4	1
12%	Tax Regime and Cost of Doing Business	8	9	2	10	11	2	4	1	6	6	5
2%	Climate and Natural Hazards	1	8	4	10	11	2	4	9	3	4	7
2%	Crime and Quality of Life	3	9	9	1	11	2	5	4	6	7	7
5%	Real Estate Availability	3	8	9	5	6	10	7	11	4	1	2
5%	Economy of Scale	6	4	10	5	3	8	8	10	7	1	1
	Overall Rank	6	4	10	3	5	7	8	9	11	2	1

Source: Investment Consulting Associates 2017

Furniture and Home Furnishings

- Extra weight applied to population size and growth – both MSA and 4-hour drive time radius.
- Extra weight applied to median household income and income growth (as a reflection of purchasing power) – both MSA and 4-hour drive time radius.
- Extra weight applied to housing unit growth projection under the assumption that new housing indicates downstream demand for new furniture and furnishings.
- Industry-specific location quotients added for stores that stock or sell related products.¹⁴⁰
- Import-Population Ratio – Furniture and Home Furnishing added. If we were to assume retail consumption patterns are generally even across the US, a ratio below 1 could indicate that the area is underserved and therefore has a potential for growth.

¹⁴⁰ NAICS 4232 (Furniture and furnishing merchant wholesalers), 4422 (Home furnishing stores), 44411 (Home centers), 452 (General merchandise stores).

Ranking for Furniture and Home Furnishings

Weight	Categories	Northeast FL	Central East FL	Northwest FL	Central West FL	Southeast FL	Savannah GA	Charleston SC	Mobile AL	New Orleans LA	Atlanta GA	Houston TX
7%	Population and Demographics	7	2	9	7	6	5	4	10	10	2	1
3%	Household Statistics	4	5	9	8	6	7	3	10	11	2	1
5%	Labor Force Availability	8	4	11	5	3	6	6	9	10	2	1
19%	Industry-Specific Characteristics	7	5	3	9	1	6	9	4	2	8	11
5%	Occupation-Specific Employment (per 1000)	3	10	11	9	8	2	5	4	5	1	5
8%	Occupation-Specific Salaries (Annual Mean 2010)	8	4	1	2	6	7	10	3	5	9	11
2%	Education	3	2	4	1	6	9	5	7	10	8	11
25%	Transportation and Market Access	5	3	11	2	7	6	8	9	10	4	1
12%	Tax Regime and Cost of Doing Business	8	9	2	10	11	2	4	1	6	6	5
2%	Climate and Natural Hazards	1	8	4	10	11	2	4	9	3	4	7
2%	Crime and Quality of Life	3	9	9	1	11	2	5	4	6	7	7
5%	Real Estate Availability	3	8	9	5	6	10	7	11	4	1	2
5%	Economy of Scale	6	4	10	5	3	8	8	10	7	1	1
	Overall Rank	5	3	11	4	6	7	8	9	10	2	1

Source: Investment Consulting Associates 2017

Manufacturing Assumptions

Distributors of commodities that serve as inputs for the manufacturing sector are less concerned with demographics and more concerned with the existing industry base, as well as access to inputs. They seek to find where the manufacturers are (i.e. their “market”). For this reason, the model tends to weight industry-specific factors such as location quotients to a higher degree.

Chemical Manufacturers

- Extra weight applied to transportation access such as miles to interstates, intermodal terminals, and seaports.
- Extra weight applied to the economy of scale, specifically the number of manufacturing entities.
- Industry-specific NAICS location quotients added for the chemicals industry.¹⁴¹
- Import-Population Ratio – Location Quotient Index – Chemicals. If a region indicates a low Import-Population Ratio, but a high industry base as reflected by location quotients, this could demonstrate that the region’s industry is sourcing inputs from elsewhere rather than importing directly. It could, therefore, be an opportunity for more direct imports.

¹⁴¹ NAICS 325 (Chemical manufacturing), 4246 (Chemical merchant wholesalers).

Ranking for Chemicals

Weight	Categories	Northeast FL	Central East FL	Northwest FL	Central West FL	Southeast FL	Savannah GA	Charleston SC	Mobile AL	New Orleans LA	Atlanta GA	Houston TX
5%	Population and Demographics	7	3	9	8	6	5	4	10	10	2	1
5%	Household Statistics	4	6	10	8	5	7	3	9	11	1	1
7%	Labor Force Availability	8	4	11	5	3	7	5	8	10	2	1
17%	Industry-Specific Characteristics	5	6	8	4	6	8	8	3	1	8	2
7%	Occupation-Specific Employment (per 1000)	3	10	11	9	8	2	5	4	5	1	7
8%	Occupation-Specific Salaries (Annual Mean 2010)	8	4	1	2	6	7	10	3	5	9	11
5%	Education	3	2	4	1	6	9	5	7	10	8	11
15%	Transportation and Market Access	4	6	11	1	10	3	5	8	8	6	2
15%	Tax Regime and Cost of Doing Business	8	9	4	10	11	2	2	1	6	6	5
2%	Climate and Natural Hazards	1	8	4	10	11	2	4	9	3	4	7
2%	Crime and Quality of Life	3	9	9	1	11	2	5	4	6	7	7
5%	Real Estate Availability	3	8	9	5	6	10	7	11	4	1	2
7%	Economy of Scale	6	5	10	4	3	9	8	10	7	1	1
	Overall Rank	6	8	11	3	10	9	7	5	4	2	1

Source: Investment Consulting Associates 2017.

Plastics Manufacturers

- Extra weight applied to transportation access such as miles to interstates, intermodal terminals, and seaports.
- Extra weight applied to the economy of scale, specifically the number of manufacturing entities.
- Industry-specific location quotient added for NAICS 326 – Plastics and rubber products manufacturing.
- Import-Population Ratio – Location Quotient Index – Plastics. If a region indicates a low Import-Population Ratio, but a high industry base as reflected by location quotients, this could demonstrate that the region’s industry is sourcing inputs from elsewhere rather than importing directly. It could, therefore, be an opportunity for more direct imports.

Ranking for Plastics

Weight	Categories	Northeast FL	Central East FL	Northwest FL	Central West FL	Southeast FL	Savannah GA	Charleston SC	Mobile AL	New Orleans LA	Atlanta GA	Houston TX
5%	Population and Demographics	7	3	9	8	6	5	4	10	10	2	1
5%	Household Statistics	4	6	10	8	5	7	3	9	11	1	1
7%	Labor Force Availability	8	4	11	5	3	7	5	8	10	2	1
17%	Industry-Specific Characteristics	6	6	10	5	6	10	6	3	1	4	1
7%	Occupation-Specific Employment (per 1000)	3	10	11	9	8	2	5	4	5	1	7
8%	Occupation-Specific Salaries (Annual Mean 2010)	8	4	1	2	6	7	10	3	5	9	11
5%	Education	3	2	4	1	6	9	5	7	10	8	11
15%	Transportation and Market Access	4	6	11	1	10	3	5	8	8	6	2
15%	Tax Regime and Cost of Doing Business	8	9	4	10	11	2	2	1	6	6	5
2%	Climate and Natural Hazards	1	8	4	10	11	2	4	9	3	4	7
2%	Crime and Quality of Life	3	9	9	1	11	2	5	4	6	7	7
5%	Real Estate Availability	3	8	9	5	6	10	7	11	4	1	2
7%	Economy of Scale	6	5	10	4	3	9	8	10	7	1	1
	Overall Rank	6	8	11	3	10	9	7	4	5	2	1

Source: Investment Consulting Associates 2017.

Machinery Manufacturers

- Extra weight applied to transportation access such as miles to interstates, intermodal terminals, and seaports.
- Extra weight applied to the economy of scale, specifically the number of manufacturing entities.
- Industry-specific location quotients added for NAICS 333 (Machinery manufacturing) and NAICS 4238 (Machinery and supply merchant wholesalers).
- Import-Population Ratio – Location Quotient Index – Machinery. If a region indicates a low Import-Population Ratio, but a high industry base as reflected by location quotients, this could demonstrate that the region’s industry is sourcing inputs from elsewhere rather than importing directly. It could, therefore, be an opportunity for more direct imports.

Ranking for Machinery

Weight	Categories	Northeast FL	Central East FL	Northwest FL	Central West FL	Southeast FL	Savannah GA	Charleston SC	Mobile AL	New Orleans LA	Atlanta GA	Houston TX
5%	Population and Demographics	7	3	9	8	6	5	4	10	10	2	1
5%	Household Statistics	4	6	10	8	5	7	3	9	11	1	1
7%	Labor Force Availability	8	4	11	5	3	7	5	8	10	2	1
17%	Industry-Specific Characteristics	7	5	10	3	9	11	3	2	1	8	6
7%	Occupation-Specific Employment (per 1000)	3	10	11	9	8	2	5	4	5	1	7
8%	Occupation-Specific Salaries (Annual Mean 2010)	8	4	1	2	6	7	10	3	5	9	11
5%	Education	3	2	4	1	6	9	5	7	10	8	11
15%	Transportation and Market Access	4	6	11	1	10	3	5	8	8	6	2
15%	Tax Regime and Cost of Doing Business	8	9	4	10	11	2	2	1	6	6	5
2%	Climate and Natural Hazards	1	8	4	10	11	2	4	9	3	4	7
2%	Crime and Quality of Life	3	9	9	1	11	2	5	4	6	7	7
5%	Real Estate Availability	3	8	9	5	6	10	7	11	4	1	2
7%	Economy of Scale	6	5	10	4	3	9	8	10	7	1	1
	Overall Rank	6	5	11	3	9	10	4	7	8	2	1

Source: Investment Consulting Associates 2017.

Agricultural Products

- Extra weight applied to transportation access such as miles to interstates, intermodal terminals, and seaports.
- Extra weight applied to the economy of scale, specifically the number of manufacturing entities.
- Extra weight applied to population size and growth – both MSA and 4-hour drive time radius.
- Extra weight applied to median household income and income growth (as a reflection of purchasing power) – both MSA and 4-hour drive time radius.
- Industry-specific location quotients added for food manufacturing.¹⁴²
- Import-Population Ratio – Location Quotient Index – Agricultural Products. If a region indicates a low Import-Population Ratio, but a high industry base as reflected by location quotients, this could demonstrate that the region’s industry is sourcing inputs from elsewhere rather than importing directly. It could, therefore, be an opportunity for more direct imports.

¹⁴² NAICS 311 (Food manufacturing), 312 (Beverage and tobacco product manufacturing), 445 (Food and beverage stores).

Ranking for Agricultural Products

Weight	Categories	Northeast FL	Central East FL	Northwest FL	Central West FL	Southeast FL	Savannah GA	Charleston SC	Mobile AL	New Orleans LA	Atlanta GA	Houston TX
7%	Population and Demographics	8	3	9	6	4	7	5	10	10	2	1
5%	Household Statistics	4	6	10	8	5	7	3	9	11	1	1
6%	Labor Force Availability	8	4	11	5	3	5	5	8	10	2	1
18%	Industry-Specific Characteristics	9	10	11	7	8	2	5	5	4	1	2
6%	Occupation-Specific Employment (per 1000)	3	10	11	9	8	2	6	4	5	1	6
8%	Occupation-Specific Salaries (Annual Mean 2010)	8	4	1	2	6	7	10	3	5	9	11
5%	Education	3	2	4	1	6	9	5	7	10	8	11
20%	Transportation and Market Access	4	3	11	1	8	5	7	9	10	6	2
10%	Tax Regime and Cost of Doing Business	8	9	2	10	11	3	3	1	6	6	5
2%	Climate and Natural Hazards	1	8	4	10	11	2	4	9	3	4	7
2%	Crime and Quality of Life	3	9	9	1	11	2	5	4	6	7	7
5%	Real Estate Availability	3	8	9	5	6	10	7	11	4	1	2
6%	Economy of Scale	6	5	10	4	3	9	8	10	7	1	1
	Overall Rank	6	8	11	3	7	4	5	10	9	2	1

Source: Investment Consulting Associates 2017.

Wood, Paper, and Printed Products

- Extra weight applied to transportation access such as miles to interstates, intermodal terminals, and seaports.
- Extra weight applied to the economy of scale, specifically the number of manufacturing entities.
- Extra weight applied to population size and growth – both MSA and 4-hour drive time radius.
- Extra weight applied to median household income and income growth (as a reflection of purchasing power) – both MSA and 4-hour drive time radius.
- Industry-specific location quotients added for NAICS categories associated with the forest products industry.¹⁴³
- Import-Population Ratio – Location Quotient Index – Wood, Paper, and Printed Products. If a region indicates a low Import-Population Ratio, but a high industry base as reflected by location quotients, this could demonstrate that the region’s industry is sourcing inputs from elsewhere rather than importing directly. It could, therefore, be an opportunity for more direct imports.

¹⁴³ NAICS 23 (Construction), NAICS 321 (Wood product manufacturing), NAICS 322 (Paper manufacturing), NAICS 32311 (Printing), and NAICS 42381 (Construction equipment merchant wholesalers).

Ranking for Wood, Paper, and Printed Products

Weight	Categories	Northeast FL	Central East FL	Northwest FL	Central West FL	Southeast FL	Savannah GA	Charleston SC	Mobile AL	New Orleans LA	Atlanta GA	Houston TX
5%	Population and Demographics	8	2	9	7	5	5	4	10	10	3	1
7%	Household Statistics	4	5	9	7	8	6	2	10	11	3	1
6%	Labor Force Availability	8	4	11	5	3	5	5	8	10	2	1
17%	Industry-Specific Characteristics	3	8	11	6	10	9	5	1	6	4	2
6%	Occupation-Specific Employment (per 1000)	3	10	11	9	8	2	6	4	5	1	6
8%	Occupation-Specific Salaries (Annual Mean 2010)	8	4	1	2	6	7	10	3	5	9	11
5%	Education	3	2	4	1	6	9	5	7	10	8	11
16%	Transportation and Market Access	3	3	11	1	8	5	6	9	9	7	2
15%	Tax Regime and Cost of Doing Business	8	9	4	10	11	2	2	1	6	6	5
2%	Climate and Natural Hazards	1	8	4	10	11	2	4	9	3	4	7
2%	Crime and Quality of Life	3	9	9	1	11	2	5	4	6	7	7
5%	Real Estate Availability	3	8	9	5	6	10	7	11	4	1	2
6%	Economy of Scale	6	5	10	4	3	9	8	10	7	1	1
	Overall Rank	3	6	11	4	9	8	5	7	10	2	1

Source: Investment Consulting Associates 2017.

Appendix G: Brochure – Five Reasons to Locate your Next Distribution Center in Florida

Appendix H: CPCS Presentation to Florida Ports Council on Florida Value Proposition