



Valdosta-Lowndes Metropolitan Planning Organization

Freight Movement Study Report Series

Report #1, Prepared by the Southern Georgia Regional Commission - January 2011

Lowndes County Location Quotient and Shift-Share Analysis

In 2009, the Valdosta-Lowndes Metropolitan Planning Organization completed a Freight Movement Study, looking at the general movement of freight in the region. Although this study was a good look at the general freight movements, it raised many more questions than it answered. This report series is meant to address some of those questions. The first of these questions to be discussed is the exporting nature of businesses in the region. This location quotient and shift-share analysis for Lowndes County examines this economic data and how it can be useful for future economic development and transportation planning efforts.

What is a Location Quotient/Shift Share Analysis?

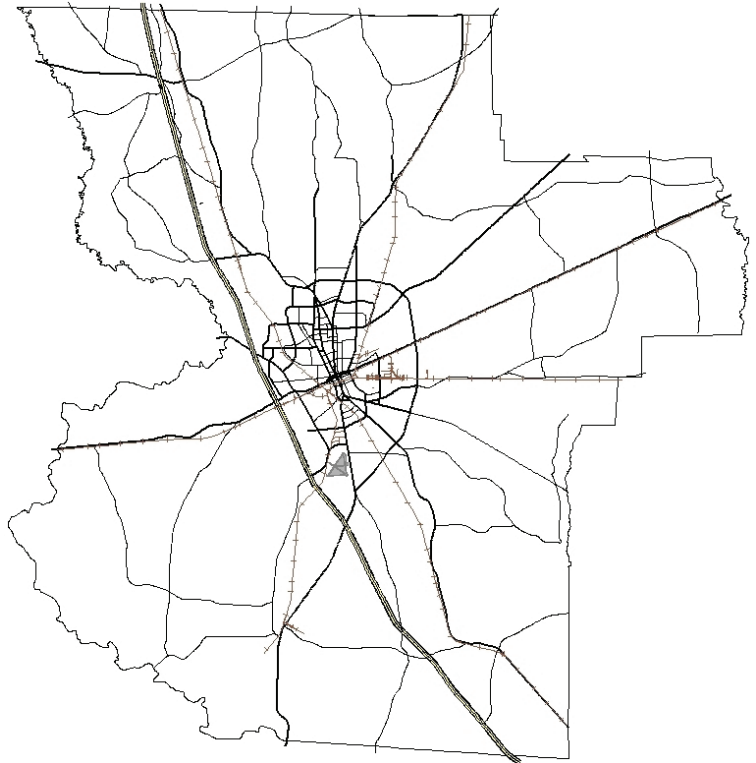
A location quotient or economic base analysis is a simple way of showing how much local industries are exporting and importing compared to the larger economy. In this analysis, exporting industries are bringing wealth into the County, not necessarily exporting goods to an outside market. Employment by industry is used for this analysis. For example, if the ratio of local manufacturing employment to total local employment is greater than the national manufacturing employment to total national employment then manufacturing is considered to be an exporting industry for that local economy.

Using location quotients to understand the local economic base can help communities understand what industries are driving the local economy.

Added to a location quotient analysis is the shift-share analysis, an analytic technique of looking back at employment and economic changes in a region versus the larger economy over a period of time. Shift-share analysis uses the location quotient and the change in employment by industry over time to map which industries have a competitive advantage within the region. Depending on the size of the larger comparison economy a shift-share analysis map can look very different for the same local economy.

The location quotient and shift-share analysis maps (see attached charts) are divided into four quadrants. Depending on where the industry falls on the chart it can be described as follows:

- Stars: Industries are more competitive nationally/statewide and regionally
- Emerging: Industries are more competitive regionally but less competitive nationally/statewide



- Mature: Industries are more competitive nationally/statewide but less competitive regionally
- Transforming: Industries are less competitive nationally/statewide and regionally

While a location quotient and shift-share analysis should not be used for in-depth economic analysis, they can give local leaders some guidance on where the local economy is going and provide more information for economic developers.

What do the numbers mean?

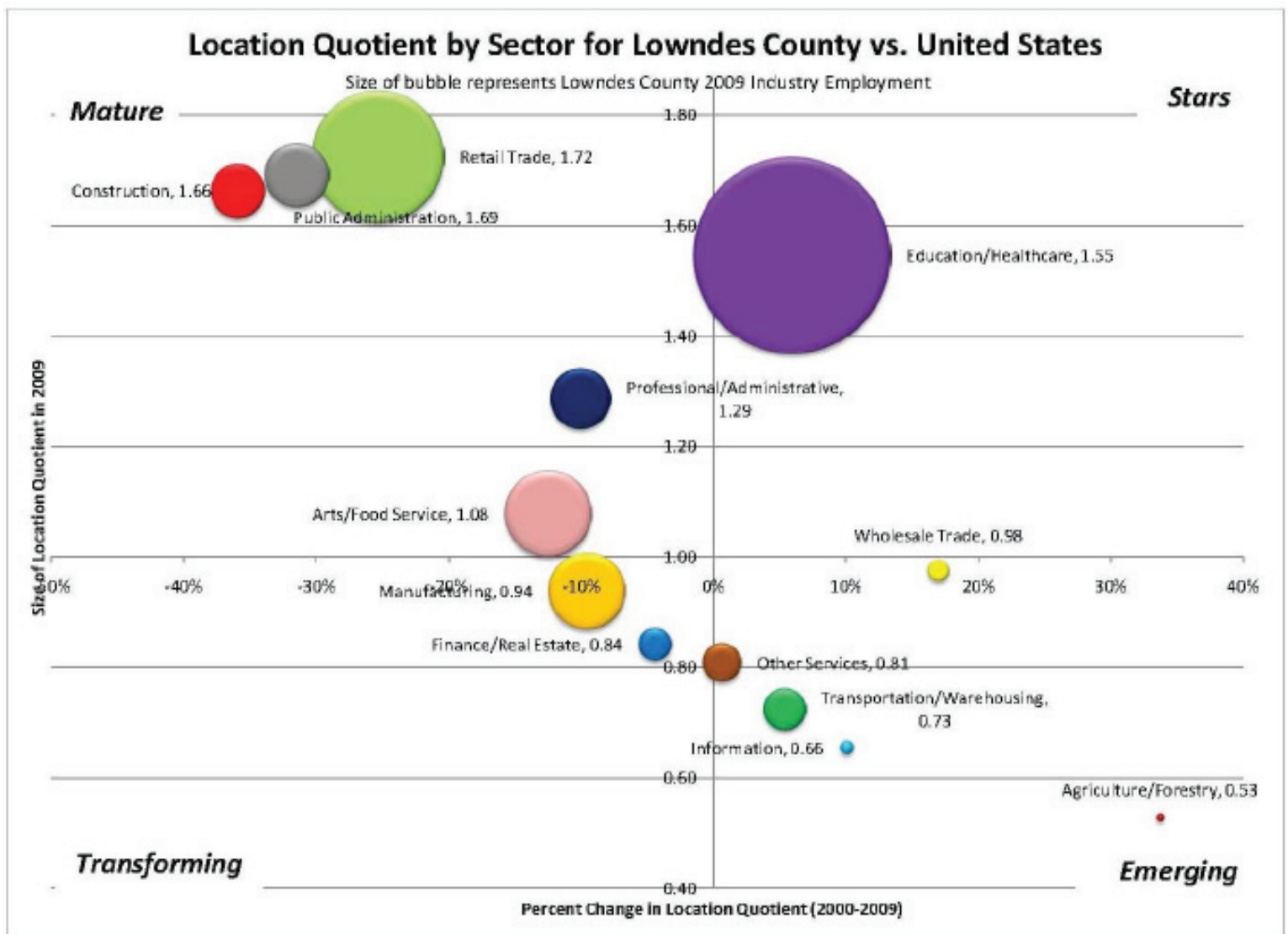
The location quotient analysis and shift-share analysis were compiled using data from the US Census Bureau's 2000 decennial Census and the 2005-2009 American Community Survey. The Census uses broad categories for defining industries. These categories used in this analysis are: Agriculture, Forestry and Mining; Construction; Manufacturing; Wholesale Trade; Retail Trade; Transportation and Warehousing; Information; Finance, insurance and Real Estate; Professional and Administrative; Education and Healthcare; Arts, Recreation and food service; Other services; and Public Administration.

In Lowndes County the location quotient analysis showed that this metropolitan region is an exporter (compared to the national economy) in the construction, retail trade, professional, arts, and public administration service industries. As a metropolitan region some of this information is not surprising or new. Lowndes County and Valdosta anchor a four-county metropolitan area where residents and companies look to this community as a leader in each of these and other industries.

Since 2000, Lowndes County is no longer an exporter of wholesale trade but has become an exporter of more service related industries like arts and entertainment. The shift-share analysis shows which industries are more competitive in a region compared to the larger economy. Using the change in employment from 2000 to 2009 for Lowndes County the education and healthcare industry continues to be a regional 'star'. This is to be expected since Valdosta is home to the South Georgia Medical Center, SMITH Northview Hospital and many other medical facilities, as well as Valdosta State University, which has recently announced the construction of a new School of Nursing. Other 'emerging' industries include transportation

and warehousing, wholesale trade and other services. These 'emerging' industries are indicative of the location and expansion of several distribution centers and freight and logistics companies in the County. As the national economy continues to move from a manufacturing base to service based, the other services industry will continue to emerge as well.

When changing the scale of the comparison of the Lowndes County economy to that of the State of Georgia, the location quotient changes slightly, while the shift-share analysis changes dramatically. Lowndes County is an exporter (when compared to the Georgia economy) in manufacturing, retail trade, finance, professional, education and healthcare, arts, and public administration service industries. The 'star' of the Lowndes County economy continues to be the education and healthcare industry. The major changes come in the 'mature' and 'transforming' quadrants of the shift-share analysis map. The public administration and professional services industries are the only two that are solidly 'mature' industries in Lowndes County. This is evidence of the strong regional, state, and federal government (excluding most military) presence located



in Lowndes County. The ‘transforming’ industries in Lowndes County are all comparable in size to the ‘mature’ industries with the exception of retail trade. When comparing the Lowndes County economy with that of the State of Georgia, retail trade employment is spread throughout the entire state (in Savannah, Augusta, Atlanta, Columbus, Albany, Macon, etc.), and it is not as concentrated in one specific or specialized geographic area.

These analyses and shift-share maps show the current state of the local economy of Lowndes County. However, this economy is continuing to change and go through cycles with the larger state, national and global economies. Local leaders should use this information as guidance as to what industries are most competitive locally and offer opportunities for future investment.

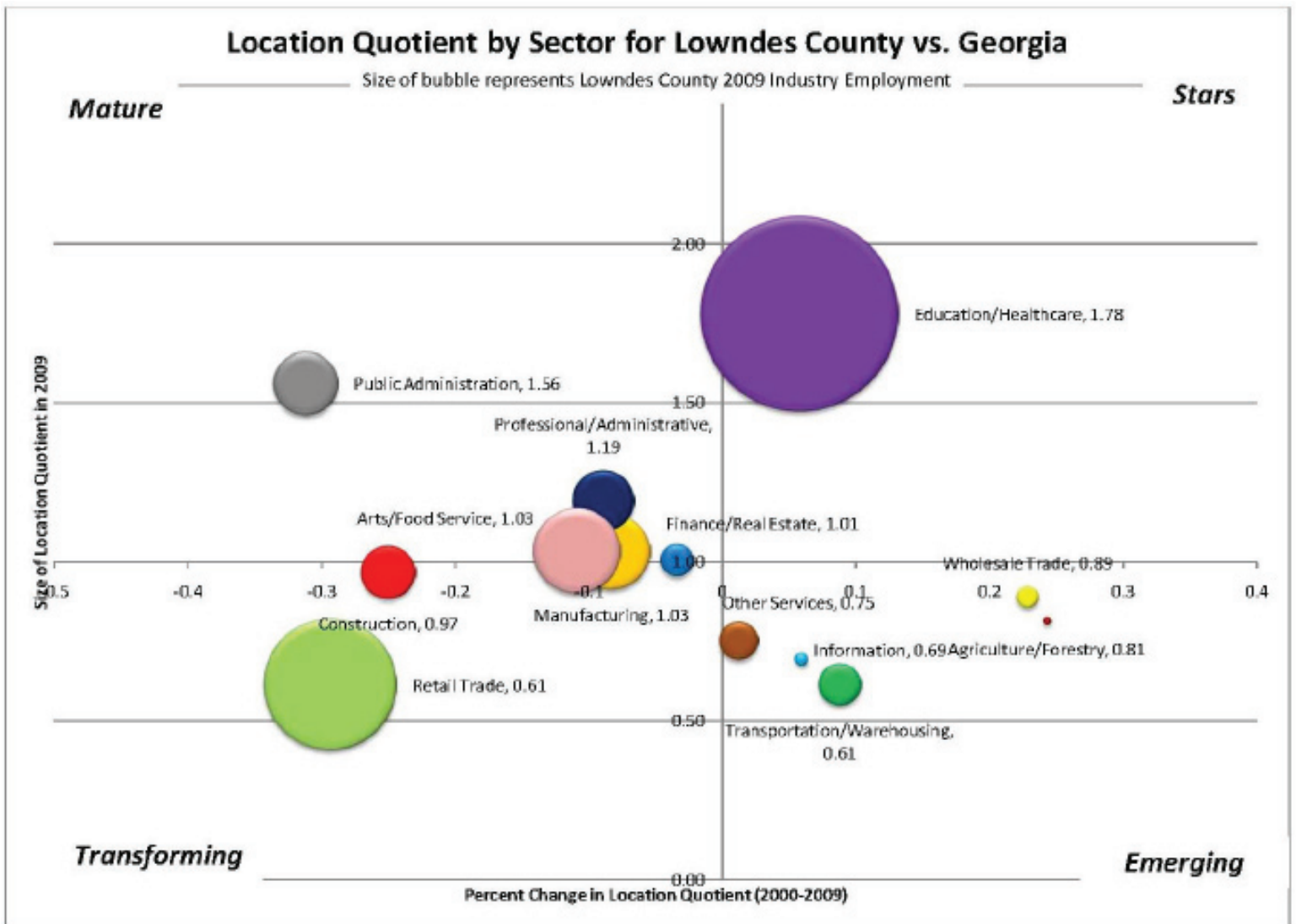
Why is this important to Lowndes County?

This analysis can provide economic development leaders in Lowndes County basic information on the growth of industries and the local economic base compared to larger economies. This information shows which industries are most competitive locally, meaning that they are likely exporters and bring outside

wealth and investment into the local economy. This also shows which industries might need help growing to become less import reliant so the wealth generated locally can remain local for greater investment.

What does it mean for Transportation?

So why is this economic development analysis important for transportation? While examining the location quotient analysis those industries that export from Lowndes County must have an adequate and efficient transportation system to ship their goods to an outside market. The users of service industries like education, healthcare and other professional services need transportation options that get them from their home to the university, doctor, or other professional service office in Valdosta. For these reasons this economic analysis is important to transportation planners and economic developers alike. When it comes specifically to freight transportation planning it is important to note that the ‘emerging’ industries in Lowndes County are transportation related: transportation and warehousing, wholesale trade, and agriculture/forestry all need an adequate and efficient transportation network to



move goods to an from markets (manufacturing continues to be a large and growing employer and transportation infrastructure user in Lowndes County, although it is no longer an exporting industry, according to this analysis).

All of this information will be presented to the Valdosta-Lowndes Metropolitan Planning Organization membership, local economic developers, local elected officials, the Chamber of Commerce and other groups to help them make better economic development decisions. The VLMPO will use this information in

future transportation studies and plans to help ensure that the local transportation infrastructure is adequate and efficient to support the needs of the growing local economy.

Sources: Data: US Census Bureau, 2000 Census, American Community Survey 2005-2009; Others: Florida State University, Dept. of Urban and Reg. Planning Location Quotient Technique, Economic Modeling Specialists Inc. Blog.

Employment and Location Quotient Analysis for Lowndes County vs. Georgia and United States in 2009										
Industry	Lowndes Emp.		Georgia Emp. and LQ				United States Emp. and LQ			
	2000	2009	2000	2009	LQ	I/E	2000	2009	LQ	I/E
Total Civilian labor Force 16 years and older	39,305	46,408	3,839,756	4,345,885	NA	NA	129,721,512	141,303,145	NA	NA
Agriculture/Forestry	586	447	53,201	51,382	NA	Import	2,426,053	2,576,402	0.53	Import
Construction	2,600	3,035	304,710	360,258	0.97	Import	8,801,507	10,520,876	1.66	Export
Manufacturing	4,627	4,301	568,830	494,502	1.03	Export	18,286,005	15,887,145	0.94	Import
Wholesale Trade	1,388	1,193	148,026	154,216	0.89	Import	4,666,757	4,516,754	0.98	Import
Retail Trade	6,229	7,415	459,548	512,616	1.87	Export	15,221,716	16,277,681	1.72	Export
Transportation/Warehousing	2,113	2,369	231,304	266,417	0.61	Import	6,740,102	7,173,048	0.73	Import
Information	913	747	135,496	121,045	0.69	Import	3,996,564	3,450,324	0.66	Import
Finance/Real Estate	1,647	1,830	251,240	294,742	1.01	Export	8,934,972	10,033,714	0.84	Import
Professional/Administrative	2,601	3,414	362,414	461,199	1.19	Export	12,061,865	14,540,450	1.29	Export
Education/Healthcare	9,163	11,037	675,593	837,257	1.78	Export	25,843,029	30,390,213	1.55	Export
Arts/Food Service	3,473	4,857	274,437	356,124	1.03	Export	10,210,295	12,395,164	1.08	Export
Other Services	1,751	2,170	181,829	211,678	0.75	Import	6,320,632	6,842,841	0.81	Import
Public Administration	2,214	3,593	193,128	224,449	1.56	Export	6,212,015	6,698,533	1.69	Export

Source: 2000 US Census and 2005-2009 American Community Survey

LQ = Location Quotient

I/E = Import or Export

The VLMPO Freight Movement Study Overview

Transportation is not just about the movement of people from one point to another, it is also about the movement of goods and services from one point to another. Increasing imports and the shipment of goods across the nation are impacting freight movements on a massive scale, requiring more transport of imports and exports to their final markets. The weight of total freight movement is expected to nearly double in the next 30 years according to the Georgia Statewide Freight Plan.

In South Georgia, freight movement is a big concern. Valdosta, originally founded as a railroad town, has been a hub for freight transportation since 1860. Today, South Georgia is quickly becoming a regional warehousing and logistics hub for the Southeast United States. Manufacturers and warehouse continue to locate in South Georgia because of the easy access to major transportation corridors located in the region. Key transportation corridors in the region include: I-75, I-10, both Norfolk Southern and CSX Railroads, US 84, the Ports of Georgia in Savannah and Brunswick, and ports in Florida.

The VLMPO Freight Movement Study assesses freight movement in all of Lowndes County and its surrounding region to determine how the movement of goods impacts the local transportation network.

In order to provide public input on the perception of freight movement in Lowndes County a survey of businesses was conducted as part of the Freight Movement Study. The VLMPO partnered with the Valdosta-Lowndes Chamber of Commerce to distribute the survey to the Chambers' 1,500 members.

The report goes on to examine the existing freight movement in South Georgia and consider future economic development and land use plans to build a profile of goods movement in the region. Although some areas of concern are highlighted in the Freight Movement Study, it has been primarily used to supplement an updated 2035 Transportation Plan for Lowndes County.

The full 2009 Freight Movement Study can be found online at www.sgrc.us/transportation, click on Data and Resources.