FISCAL RESEARCH CENTER

Tracking the Economy of the City of Atlanta: Past Trends and Future Prospects

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From the Director

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Table of Contents

From	the Director	i
		1
I.	Introduction	J
II.	The Context of Atlanta	2
III.	Trends in Employment Patterns	7
111.	A. Employment Growth	
	B. Industrial Composition of the Atlanta MSA	
	C. Industrial Composition of the City of Atlanta	
IV.	Analysis of Four Industry Sectors	17
	A. The Hospitality, Convention and Tourism Sector	
	B. The Logistics Sector	
	Logistics in the Atlanta Region	21
	Logistics in the City of Atlanta	
	Why has the Logistics Sector Grown?	25
	Prospects for Atlanta	
	C. The Health and Hospitals Sector	
	D. The Professional Services Sector	29
V.	Explaining the Change in Employment	
	A. The Atlanta Region	
	B. The City of Atlanta	39
VI.	Prospects for the Future	42
VII.	Conclusions and Suggestions	44
Dofor	rances	47

I. Introduction

Metropolitan growth in the United States during the second half of the twentieth century redefined American cities. Once primarily urban manufacturing centers, they were transformed into suburban and urban areas whose industrial composition went through a major metamorphosis. As a logistics-based city with expanding service industries, significant labor pooling, and low costs, the City of Atlanta provides a useful example for examining modern urban economic growth.

This report explores the changes over the last 25 years in the level and composition of employment in the City of Atlanta. Further, this report seeks to understand how and why the employment level and industrial composition of the City changed, and to understand the future prospects of the City's economy. We start with a brief history of the growth and development of the City and region, and then turn to a discussion of the current economic structure and how it evolved over the past 25 years. We also provide a detailed discussion of four important specific sectors: the hospitality industry, logistics, professional services, and the health sector. After exploring why these changes occurred, we turn to a discussion of what might be in store for the City's economy.

II. The Context of Atlanta

Atlanta is unique in terms of what caused its creation. Most cities that existed in the nineteenth century were established as seaports or as manufacturing centers close to water power needed to run manufacturing equipment or to raw materials such as coal. Atlanta, however, developed because of its transportation access to the Southeast.

Compared to most other major U.S. cities, Atlanta developed late. Atlanta's origin dates to 1837 when the Western and Atlantic Railroad marked the end of the rail line coming from Tennessee. The railroad established Atlanta as a collection and distribution center for the state, with food and cotton brought to Atlanta for shipment north and finished goods from the north shipped to Atlanta for distribution to other parts of the state. The Atlanta economy thus focused on retailing, wholesaling, and distribution based on the advantage it had as the terminus of the railroad.

By 1890, 11 rail lines converged on Atlanta, and as a result Atlanta became the center of the distribution network of the Southeast. As the population of the geographic area served by the railroads coming from Atlanta grew, Atlanta also became an increasingly important commercial center.

To further expand the economy, efforts such as the 1881 International Cotton Exposition were made to increase northern investment in the area, particularly in establishing textile mills. The result of these efforts was that by the end of the nineteenth century, Atlanta had become a center of manufacturing as well as commerce.

Its role as a transportation hub further expanded in the twentieth century. In 1925, William Hartsfield, then a member of the Board of Aldermen and later Mayor, encouraged the City to buy the land that is now the site of Hartsfield-Jackson International Airport. The airport is now the world's busiest airport. And when the interstate system was built, three major interstates intersected in Atlanta. Thus, originally built as a rail center, Atlanta evolved into a major regional transportation center for rail, air, and trucking.

Atlanta grew in the first half of the century for two reasons. First, Atlanta's commercial economy was based on the needs of the Southeast region, and that region grew. Between 1900 and 1950, the population of Georgia and its border states increased at an annual average rate of 1.26 percent. Second, Atlanta grew because it extended its economic reach beyond the Southeast and because the changing nature of the U.S. economy made urban locations economically more sensible.

As a result of these forces, Atlanta grew faster than the Southeast region as a whole. In 1900, the City's population was 89,872. By 1950, the City's population had increased to 331,314, an annual increase of 2.6 percent, and the Atlanta metropolitan area population had increased to 671,797, an annual increase of 4.1 percent.²

Despite its growth during the first half of the twentieth century, the end of World War II is often cited as the point at which Atlanta takes on national importance. The economy had diversified by 1950 and Atlanta had become a regional center for finance and insurance, as well as commerce (Table 1). Manufacturing employed nearly 17 percent of City residents, although in the U.S., 29.5 percent of urban residents were employed in manufacturing. Generally, City and suburban residents were employed in the same industries. A major exception was personal services, a sector in which 93.7 percent of the workers were black; these workers were largely employed as domestics and generally lived in the City.

¹ Unless otherwise noted, population data in this section are from the Bureau of the Census.

² The concept of a metropolitan area did not exist in 1900. However, we assume that in 1900, the population of the City was essentially equal to the population of the region.

TABLE 1. EMPLOYMENT BY INDUSTRY OF CITY OF ATLANTA RESIDENTS: 1950

Industry	Employment	Employment Share of Industry	Employment Share of MSA Employment
Agriculture, Forestry, Fishing, Mining	511	0.3%	9.3%
Construction	9,721	6.6%	44.9%
Manufacturing	24,620	16.8%	46.5%
Transportation	10,290	7.0%	55.5%
Telecommunications	3,039	2.1%	55.4%
Utility	2,442	1.7%	51.6%
Wholesale Trade	8,358	5.7%	56.7%
Retail Trade	28,001	19.1%	57.5%
Finance, Insurance, Real Estate	8,129	5.6%	55.2%
Business Services	3,919	2.7%	52.5%
Personal Services	21,339	14.6%	70.1%
Entertainment	1,657	1.1%	55.5%
Medical/Health	5,246	3.6%	60.4%
Education	4,919	3.4%	55.2%
Other Professional Services	3,115	2.1%	56.0%
Public Administration	9,111	6.2%	52.9%
Not Reported	1,835	1.3%	44.2%
Total	146,252	100.0%	53.7%

Source: 1950 Census of Population.

During the latter half of the twentieth century, suburban expansion in the United States became a national phenomenon, and Atlanta was no exception. In 1950, the Atlanta region was the economic center serving the Southeast, and as the economy of the Southeast grew, the Atlanta region grew. Initially, the City of Atlanta captured a large share of that growth. The period from the 1950s to the mid-1960s was one of substantial growth and development for the City, with its population increasing by over 150,000 people, including 100,000 added through the 1953 annexation called for in the Plan of Improvement.³ By 1970, the City's population had reached 496,973. But the region's growth increasingly spilled out from the boundaries of the City, in part because the City could not expand its borders.

³ See Martin (1987) for a discussion of the Plan of Improvement.

As a result, the city's population growth at first stagnated and then declined from the late 1960s into the 1990s.

However, the Atlanta region grew, adding over 3 million people between 1950 and 2000, and another million by 2005, to bring the population to 4.9 million. While the Metropolitan Statistical Area (MSA) consisted of 3 counties in 1950, it grew to 5 counties in 1960, 15 counties in 1973, 18 counties in 1983, 20 counties in 1993, and 28 counties in 2005.

Following World War II, the suburbanization of urban economies accelerated. Manufacturing and commercial activities, which had traditionally resided in the central cities, began to spread out beyond the urban centers. Thus, urban economies grew into larger commuter areas. Mills and Lubuele (1997) note that suburbanization "...has pervaded United States MSAs for at least 50 years and has characterized every metropolitan area in the world..." (p. 750). The interstate system reduced commuting costs, which allowed households to move even further from the central city. Higher wage workers moved further from urban centers, resulting in increasing income segregation between high-wage residents of suburban areas and lower-wage earners in inner cities. Suburbanization of workers has also meant a relocation of employers and industries. "Not only manufacturing but also offices and retail shops have suburbanized during the last half-century. In 1950 about 70 percent of MSA employment was in inner cities, and in 1980 it was somewhat more than 50 percent. By 1990, it was certainly somewhat less than half." (Mills & Lubuele 1997, 750-751)

Beginning in the mid- to late-1960s, the City of Atlanta succumbed to the economic and social pressures facing central cities nationwide. The development of the interstate system in the region allowed households to live further from their jobs in the central city. The growth of the middle class in the suburbs provided the economic basis for retailing to move to the suburbs, particularly in the form of regional shopping centers made possible by the increase in automobile ownership after World War II. Likewise, shipping became less tied to railroads and so wholesaling and warehousing operations were no longer tied to rail lines and the central city. Manufacturing technology changed from vertical to horizontal production processes; the resulting need for one-story buildings with large land

requirements drove manufacturing firms to seek lower cost land in the suburbs and exurbs.

Social issues were also a force driving the middle class to the suburbs. Increasing social problems associated with the growing concentration of poverty in the central city along with school integration led many to flee the City. The suburbanization of the skilled work force, along with the increase in mobility and communications technology, led to office jobs moving to the suburbs. The interstate's exits and interchanges provided an attractive location for the development of office parks such as Executive Park at Druid Hills and I-85 in DeKalb County.

As mentioned previously, the population of the City began to decline sometime in the mid-1960s and employment likely declined as well.⁴ By 1990, population had fallen to 394,017 according to the Bureau of the Census and to 415,200 according to the Atlanta Regional Commission (ARC).⁵ But the City's population began increasing again at least by the late 1990s. Current (2006) population of the City is estimated by ARC to be 451,600, while the City's own estimate is 499,000.⁶ ARC forecasts population to increase, reaching 602,783 by 2030, while the City's forecast is 783,000.

⁴ There are no population estimates for years between the decennial censuses until 1990, nor is there employment estimates for the City during this time.

⁵ There was a widely held belief that there was a substantial population undercount of the City's population in the 1990 Census.

⁶ The Bureau of the Census estimates that the 2005 population of the City was 394,929.

III. Trends in Employment Patterns

Like most U.S. cities and metropolitan areas, over the past 25 years Atlanta has redefined itself in economic terms. We start by considering the growth in employment for the City and the 10-county ARC region. We then turn to a look at the changing industrial composition, considering first the Atlanta MSA because the employment patterns in the City of Atlanta are driven in large part by regional changes. We then turn to a discussion of employment in the City.

A. Employment Growth

Table 2 shows total employment as estimated by ARC for the City and the 10-county ARC region for the period 1980 to 2005 and forecasts to 2030.⁸ During the 1970s the City added about 1,700 jobs per year. The growth increased to 3,700 per year during the 1980s, and 4,500 per year during the 1990s. Employment dropped in the early 1990s, which coincides with the 1991 recession, but rose from 1993 through 2000 before dipping again with the onset of the 2001 recession. But unlike the 1990s, City employment has yet to recover from the 2001 recession.

Employment growth in the ARC region grew faster over the period 1980 to 2005 than did employment growth in the City. For the entire period, regional employment increased at an annual rate of 3.2 percent while employment in the City increased at an annual rate of 0.5 percent.

The Atlanta Regional Commission does expect employment in the City and the ARC region to grow over the next 25 years. However, they forecast that it will be almost 2015 before the City reaches the employment level it had in 2000. In 2005, the City had 20.3 percent of the ARC region's employment. The City's share is expected to fall to 17.3 percent by 2030.

⁸ Employment for the City of Atlanta is based on estimates by census tracts. Since census tract boundaries do not align with City boundaries, employment figures may slightly overstate employment for the City.

⁷ The 10 ARC counties are Cherokee, Clayton, Cobb, DeKalb, Douglas, Fayette, Fulton, Gwinnett, Henry, and Rockdale.

TABLE 2. EMPLOYMENT IN THE CITY OF ATLANTA AND ATLANTA REGION FOR SELECTED YEARS

	Employment						
Year	City	ARC Region	City Share				
1980	355,526	901,157	39.4%				
1990	392,147	1,426,000	27.5%				
1991	384,959	NA					
1992	382,866	1,414,000	27.1%				
1993	387,954	1,478,000	26.2%				
1994	398,108	1,567,000	25.4%				
1995	402,911	1,640,000	24.6%				
1996	417,683	1,706,000	23.5%				
1997	418,321	1,774,000	23.6%				
1998	425,594	1,840,000	23.1%				
1999	431,133	1,918,000	22.5%				
2000	437,195	1,991,450	22.0%				
2001	435,492	NA					
2002	NA	NA					
2003	411,117	1,934,000	21.3%				
2004	NA	NA					
2005	403,110	1,980,500	20.3%				
2010 (forecast)	419,596	2,168,669	19.3%				
2030 (forecast)	534,073	3,086,304	17.3%				

Source: Atlanta Regional Commission.

NA: Not Available.

B. Industrial Composition of the Atlanta MSA

Making comparisons of employment over time is difficult because of changes in how the Federal government defines industry sectors. In 1997, in order to better represent the industrial composition of the U.S. economy, the federal government switched from the Standard Industrial Classification (SIC) industry codes to the North American Industrial Classification System (NAICS) for reporting employment by industry sector. In changing the system, all industry classifications were at least partially altered, and a number of them were significantly restructured. The NAICS system defined new industries, for example, *Information*, and switched sub-sectors between sectors, for example, *Durable Goods* went from *Wholesale Trade* to *Retail*

Trade. These changes make comparisons of employment between SIC and NAICS impossible. However, the NAICS better reflects the nature of today's economy.⁹

Thus, to show the changes in employment by sector between 1980 and 2006, it is necessary to use data reported by SIC code and by NAICS codes. Table 3 shows the changes for 1980 to 2000 by SIC codes, while Table 4 shows the changes for 1990 to 2006 by NAICS code.¹⁰

Table 3 shows the change between 1980 and 2000 in the composition of employment for the Atlanta MSA by major industry categories. The table reflects the increased importance of the service industry in the Atlanta MSA, which increased at a rate nearly double the increase in total employment. Its share of employment went from 20.5 percent in 1980 to 31.0 percent in 2000. This increase was particularly pronounced in business services, health services, education, social services, and engineering and management services.

TABLE 3. ATLANTA MSA EMPLOYMENT SHARE BY SECTOR: 1980, 1990, 2000 (IN 1000S)

	1980		1990		2000		%
Industry (SIC)	Emp	Share	Emp	Share	Emp	Share	Increase
Mining	NA		1.2	0.1%	1.8	0.1%	
Construction	45.3	4.7%	67.9	4.6%	119.8	5.4%	164.5%
Manufacturing	142.5	14.8%	173.6	11.7%	222.4	10.1%	56.1%
Transportation and Public							
Utilities	84.5	8.8%	128.7	8.7%	192.8	8.8%	128.2%
Wholesale/Retail Trade	263.6	27.4%	404.2	27.3%	573.9	26.1%	117.7%
Finance, Insurance, Real Estate	67.6	7.0%	107.9	7.3%	141.1	6.4%	108.7%
Services	196.5	20.5%	376.4	25.4%	683.2	31.0%	247.7%
Government	160.2	16.7%	222.6	15.0%	265.5	12.1%	65.7%
Total	960.3	100.0%	1,482.5	100.0%	2,200.5	100.0%	129.1%

Source: Employment and Earnings. Note that MSA is as defined as of the date listed.

¹⁰ The Bureau of Labor Statistics converted 1990-96 employment data to the NAICS and, as a result, we have consistent statistics over the entire 1990-2006 period.

9

⁹ The Bureau of Labor Statistics, the source of regional employment data, converted employment back to 1990 to NACIS. Thus, employment patterns according to SIC and NAICS can be compared over the 1990s.

Table 3 also shows the relative decline of manufacturing, which went from a 14.8 percent share of employment to 10.1 percent. Employment in two of the three largest manufacturing sectors, namely printing and publishing and transportation equipment, increased by less than the increase in total manufacturing employment. Employment in food processing increased by 23.3 percent. The other sector that had a slow growth was government, and this was mainly due to a near zero change in federal government employment. This shift between manufacturing and services represents both a national and state-level trend. The largest employment shift since the 1970s has been from the manufacturing sector to the services sector.

Table 4 shows the change in the composition of employment for the Atlanta MSA by major industry categories (and for some subcategories) over the 1990-2006 timeframe. The table illustrates the continued decline of the manufacturing sector and the increased importance of the service sector in the Atlanta MSA. Not only did the manufacturing sector lose employment share, it actually lost ground in absolute terms as well. Since 2000, manufacturing has lost 29 thousand jobs and now employs nearly 9 thousand fewer people than it did a quarter of a century ago. Service employment, on the other hand, increased by over 80 percent from 1990 to 2006 and its corresponding share of total employment grew from 33.1 percent to 40.2 percent. More than 400 thousand new jobs were created in the service sectors during this period. Forty-five percent of this increase was accounted for by professional and business services. The food and drink service sector made up about a fifth of the increase while health care services accounted for 16.9 percent of the employment increases. Other significant employment gainers include construction, financial activities, transportation and warehousing, wholesale and retail trade, and government—particularly at the local level.

TABLE 4. ATLANTA MSA EMPLOYMENT AND SHARE BY SECTOR: 1990, 2000, AND 2006 (IN 1000S)

		199	90	2	000	20	006	%
Industry								Change 1990-
(NACIS)		Emp	Share	Emp	Share	Emp	Share	2006
Natural Resources an	d Mining	2.2	0.1%	2.2	0.1%	2.1	0.1%	-4.5%
Construction		77.5	4.8%	128.5	5.6%	137.7	5.7%	77.7%
Manufacturing		186.9	11.6%	207.2	9.0%	178.1	7.4%	-4.7%
Food		20.4	1.3%	22.8	1.0%	24.8	1.0%	21.6%
Transpo	ortation	18.4	1.1%	21.7	0.9%	19.3	0.8%	4.9%
Wholesale Trade		114.1	7.1%	160.9	7.0%	157.3	6.6%	37.9%
Retail Trade		196.4	12.2%	263.4	11.5%	265.3	11.1%	35.1%
Utilities		12.9	0.8%	10.8	0.5%	10.9	0.5%	-15.5%
Transportation & Wa	rehousing	83.1	5.2%	116.5	5.1%	114.7	4.8%	38.0%
Information		74.4	4.6%	111.1	4.9%	89.8	3.7%	20.7%
	nmunications Telecommunications	29.2	1.8%	53.8	2.3%	35.5	1.5%	21.6%
Carriers		21.8	1.4%	35.4	1.5%	19.1	0.8%	-12.4%
Financial Activities	,	106.8	6.6%	148.4	6.5%	161.9	6.8%	51.6%
	& Insurance	81.0	5.0%	108.7	4.7%	115.4	4.8%	42.5%
	tate & Rental &		2.0,0					1=10,70
Leasing		25.9	1.6%	39.7	1.7%	46.6	1.9%	79.9%
Services		532.4	33.1	868	37.9	963.3	40.2	80.9
	Professional &							
	Business Services	203.1	12.6%	392	17.1%	398.6	16.6%	96.3%
	Education	23.1	1.4%	39.5	1.7%	51.5	2.1%	122.9%
	Health Care	86.7	5.4%	129.3	5.6%	159.4	6.6%	83.9%
	Social Assistance	11.3	0.7%	22.4	1.0%	31.3	1.3%	177.0%
	Arts&Entertainment	21.3	1.3%	23.8	1.0%	26.8	1.1%	25.8%
	Accommodations	26.6	1.7%	26.9	1.2%	24.3	1.0%	-8.6%
	Food & Drink	94.6	5.9%	145.7	6.4%	174.6	7.3%	84.6%
	Other Services	65.7	4.1%	88.4	3.9%	96.8	4.0%	47.3%
Government		219.6	13.7%	272.8	11.9%	317.2	13.2%	44.4%
Federal		47.1	2.9%	46.6	2.0%	46.0	1.9%	-2.3%
State		47.4	3.0%	56.1	2.5%	62.9	2.6%	32.7%
Local		125.2	7.8%	170.1	7.4%	208.3	8.7%	66.4%
Total		1,606.2	100.0%	2,289.7	100.0%	2,398.3	100.0%	49.3%

Source: Bureau of Labor Statistics.

Employment in construction increased by 77.7 percent between 1990 and 2006. Construction employment reflects the employment and population growth, including a booming housing sector in an expanding suburban area. Employment in wholesale trade increased by 43,200 jobs between 1990 and 2006, although employment in the sector declined by around 4,000 jobs after 2000. Transportation and warehousing also saw strong growth in the 1990s, but has been stagnant since.

Compared to the Atlanta regional economy of 1950, today's economy retains some of the same characteristics. Atlanta is still a major distribution center, as evident by its strong logistic sector (transportation, warehousing, and wholesale trade), which remains a dominant sector in Atlanta. The area's transportation sector accounts for a larger proportion of jobs than in any other domestic MSA (Keating, 2001, p.11). Atlanta is also a major commerce center, as reflected in its large retail trade, food services and accommodation sectors. What have changed are the large decline in manufacturing and the substantial increase in services such as health and professional services.¹¹

Finally, as an indication of its economic role, the Atlanta region has the third largest concentration of Fortune 500 firms of any MSA in the country (12), behind New York with 44 and Houston with 22 (*Fortune*, 2007). The 12 Fortune 500 firms in the Atlanta region and their ranking are The Home Depot (17th), United Parcel Service (43rd), The Coca Cola Company (94th), Coca-Cola Enterprises (118th), Delta Air Lines (136th), Southern Company (168th), SunTrust Banks (183rd), Genuine Parts (244th), Newell Rubbermaid (343rd), Beazer Homes (420th), Bluelinx Holdings (456th), and Mirant (474th).

¹¹ Professional Services represents the sum of Business Services, Legal Services, and Engineering and Management Services under SIC classification; and under NAICS classification consists of Professional, Scientific, Technology; Management of Companies & Enterprises; and Administration, Support, Waste Management.

C. Industrial Composition of the City of Atlanta

Like the MSA, the employment pattern for the City of Atlanta has also undergone significant restructuring (Table 5). Since 1980, the number of manufacturing jobs in the City declined by 41.8 percent (over 20,000 jobs). In 1980, this sector accounted for about one out of every seven jobs in Atlanta and was second only in importance to the service sector. However, by 2005, less than one out of every fourteen jobs in Atlanta were manufacturing jobs and this sector had been surpassed in importance by the retail trade sector, by the finance, insurance and real estate (FIRE) sector and by the local government sector. In contrast, the service sector had employment gains of more than 56 thousand and it remained the leading employer in the city throughout the 1980-2005 period. Today, the service sector accounts for over one-third of all jobs in the City, up from a quarter of all jobs in 1980.

TABLE 5. CITY OF ATLANTA EMPLOYMENT BY INDUSTRY: 1980-2005

	19	-1980		2		-2000200)5	% Change
Industry (SIC)	Emp	Share	Emp	Share	Emp	Share	Emp	Share	1990-2005
Construction	12,831	3.6	12,122	3.1	10,209	2.3	8,495	2.1	-33.8
Manufacturing	48,986	13.8	36,882	9.3	33,211	7.6	28,487	7.1	-41.8
Transportation,	32,430	9.1	30,014	7.6	32,404	7.4	28,323	7.1	-12.7
Communications,									
Utilities									
Wholesale Trade	30,155	8.5	32,683	8.2	25,913	5.9	21,106	5.3	-30.0
Retail Trade	46,020	12.9	48,994	12.3	53,861	12.3	49,550	12.4	7.7
Finance, Insurance,	31,181	8.8	34,990	8.8	35,295	8.1	36,400	9.1	16.7
Real Estate									
Services	84,694	23.8	121,202	30.5	157,917	36.1	141,581	35.3	67.2
Private Total	286,899	80.7	317,709	80.0	351,483	80.3	317,381	79.2	10.6
Federal Government	20,417	5.7	24,342	6.1	24,703	5.6	21,987	5.5	7.7
State Government	19,091	5.4	25,577	6.4	29,957	6.8	29,910	7.5	56.7
Local Government	29,119	8.2	29,519	7.4	31,429	7.2	31,328	7.8	7.6
Government Total	68,627	19.3	79,438	20.0	86,089	19.7	83,225	20.8	21.3
Miscellaneous	602	0.2	822	0.2	2,673	0.6	3,439	0.9	471.3
TOTAL	355,526	100.0	397,147	100.0	437,572	100.0	400,606	100.0	12.7

Source: Atlanta Regional Commission.

Manufacturing was not the only sector with a declining presence in the City of Atlanta. Employment in wholesale trade, transportation and construction lost ground during the past quarter century as well. These three sectors together accounted for a loss of more than 17 thousand jobs. While these sectors were becoming less important to Atlanta in terms of employment opportunities, the retail trade, FIRE, and government sectors—in addition to the aforementioned service sector—were playing an ever increasing role. Today, these four sectors account for more than three-quarters of all of Atlanta's employment and for 310 thousand jobs.

From a regional perspective, jobs in FIRE, services and government sectors were each highly concentrated in the City (Table 6). For instance, Atlanta accounts for 23.3 percent, 25.3 percent and 31.0 percent of all service, FIRE, and government jobs, respectively, in the ARC Region. Agglomerative economies, no doubt, play an important role in the clustering of many types of FIRE and service sector firms in the City while the presence of a large local government combined with an expanding Georgia State Capitol complex and a high concentration of federal government regional offices helps to explain the City's dominance in this sector.

TABLE 6. EMPLOYMENT BY INDUSTRY SECTOR, 2005

	City of	Sector		City Share of
Industry (SIC)	Atlanta	Share	ARC Region	Region
Construction	8,621	2.1%	93,280	9.2%
Manufacturing	28,633	7.1%	153,674	18.6%
Transportation,	28,435	7.0%	175,801	16.2%
Communications, and Utilities				
Wholesale Trade	21,034	5.2%	154,542	13.6%
Retail Trade	49,638	12.3%	361,167	13.7%
Finance, Insurance, Real	36,796	9.1%	145,641	25.3%
Estate				
Services	146,775	36.4%	629,656	23.3%
Government	83,478	20.7%	269,067	31.0%
Total	403,110	100.0%	1,982,828	20.3%

Source: Atlanta Regional Commission.

One way to gauge the relative importance of various industry sectors is to calculate a location quotient, which is the share of employment in a sector within a particular geographic area, in this case Atlanta, divided by the equivalent share for the U.S. A location quotient that is greater than one suggests that that industrial sector in Atlanta is relatively more important than for the U.S. as a whole. It is not possible to calculate the location quotients for the City of Atlanta because of the lack of available data, although we can do so for Fulton County for 2004. Table 7 contains the location quotients for the three-digit NAICS sectors for which the location quotient for Fulton County is above 1.20, along with the City's share of Fulton County's 2002 employment for each of these sectors for which data are available.

TABLE 7. LOCATION QUOTIENTS, 2004

		Location	City of Atlanta's
NAICS	NAICS Description	Quotient	Share, 2002
312	Beverage and Tobacco Product Manufacturing	1.36	55.6% ^a
424	Merchant Wholesalers, Nondurable Goods	1.49	42.9%
488	Support Activities for Transportation	1.54	NA
492	Couriers and Messengers	2.66	NA
511	Publishing Industries	1.90	67.3%
512	Motion Picture and Sound Recording Industries	1.60	83.4% ^a
515	Broadcasting (except Internet)	4.03	71.9%
516	Internet Publishing and Broadcasting	6.29	9.4%
517	Telecommunications	3.46	56.5%
518	Internet Service Providers, Web Search Portals, and	3.40	39.4%
	Data Processing Services		
522	Credit Intermediation and Related Activities	1.32	NA
523	Securities, Commodity Contracts, and Other Financial	1.36	NA
	Investments and Related Activities		
524	Insurance Carriers and Related Activities	1.51	NA
531	Real Estate	1.65	63.3%
533	Lessors of Nonfinancial Intangible Assets	3.91	22.4%
541	Professional, Scientific, and Technical Services	1.53	61.9%
551	Management of Companies and Enterprises	2.45	NA
561	Administrative and Support Services	1.48	41.3%

Source: Location Quotients are authors' calculation based on 2004 County Business Pattern data; City shares are based on 2002 Census of Business data.

NA: data not available for calculation.

^{a:} City share for this sector is based on number of establishments since employment information is not available.

There are some very large location quotients, particularly in NAICS sector 51, *Information*, and sector 52, *Finance and Insurance*. *Broadcasting* (NAICS sector 515) has a location quotient of over 4 and over 70 percent of Fulton County's employment in that sector is located in the City. On the other hand, Internet Publishing has a location quotient of over 6, but less than 10 percent of the jobs are in the City.

These data suggest that the economy of the City of Atlanta is dominated by real estate, communications/information, services, especially professional services, and government. Generally, these are industries with higher wage rates. For example, the Georgia Department of Labor reports that the average weekly earnings in the ARC region in 2006 was \$1,245 in the wholesale trade sector, \$1,438 in the information sector, \$1,327 in the professional, scientific, and technical services sector, and \$1,416 in the finance and insurance sector. This compares with average weekly earnings of \$902 for private sector workers and \$892 for government workers.

IV. Analysis of Four Industry Sectors

In this section we discuss in detail four specific industrial sectors: the hospitality, convention, and tourism sector, the logistics sector, the health and hospital sector, and the professional services sector.

A. The Hospitality, Convention and Tourism Sector

From its inception, Atlanta attracted individuals engaged in commerce. Atlanta was a collection point for raw materials being sent north and a distribution center for finished products coming from the north. As evidence, in 1880 the City's population was 37,400, but it had 8 hotels and 62 boarding houses (Newman 1999; 25). Efforts to expand the number of visitors also have a long history. The City organized the International Cotton Exposition in 1881 and held a commercial convention in 1885, which was attended by more than 300 representatives from 30 states (Newman 1999; 40). By 1900, nearly 16 percent of the City workforce was engaged in tourism (Newman 1999; 62). The Atlanta Convention and Visitors Bureau was formed in 1912 and in 1939 Atlanta was host to 495 conventions. By 1980, Atlanta was the third most popular convention site in the U.S. (Newman 1999; 202).

One reflection of the growing importance of the hospitality industry is the number of hotel rooms. The number of rooms in the metro area increased from 30,422 in 1982 to 51,097 in 1989, and by another 6,000 in the mid 1990s (Newman 1999; 221, 271).

There are several factors that have lead to the continued increase in the size of the hospitality industry. First, Hartsfield-Jackson International Airport provides ease of access from anywhere in the U.S., and increasingly from anywhere in the world. The current passenger terminal opened in 1980, a fourth runway was added in 1984 and a fifth in 2006. Today there are 32 passenger airlines and 19 all-cargo airlines

¹² For an excellent history of the hospitality industry in Atlanta, see Newman (1999).

that operate out of Hartsfield-Jackson.¹³ In 2006, there were nearly 85 million passengers that came through the airport.

Second, the construction of the Merchandise Mart in 1961, the Apparel Mart in 1979, and the Gift Mart in 1992, and the subsequent expansion of those buildings made Atlanta a draw for representatives of the manufacturers of the products associated with the Mart and the retailers of those products. Annually, the Marts draw nearly 300 thousand individuals from around the world to Atlanta.

Third, the World Congress Center opened in 1976 with 350,000 square feet of exhibit space. It has been expanded several times, and today has 1.4 million square feet of exhibit space. In Fiscal Year 1981-82, attendance was 794,814, while in Fiscal Year 2005-06; attendance was 1,380,617, of which 807,549 were from out of state. The Georgia Dome, which opened in 1992, is the home venue for the Atlanta Falcons. But its existence was important to securing the Super Bowl in 1994 and 2000, and the 1996 Olympic Games. The Dome hosts the Atlanta Football classic, the SEC Football Championship, and the Chick-fil-A Bowl, as well as major trade shows, concerts, and religious events. In Fiscal Year 2005-06, attendance at the Dome was 1.5 million.¹⁴

The economic impact of these facilities on the City is substantial, resulting in jobs associated with hotels, restaurants and catering, and the firms that provide services in support of the conventions and other events that bring individuals to the City. There is no way of determining how many jobs are created in the City of Atlanta by the events hosted in these facilities. But one indication of the size of the hospitality industry is that in 2002 over 37,000 individuals were employed in the City of Atlanta in establishments associated with the accommodations and food and drink sectors. Certainly, not all of these jobs are associated with the convention and

¹³ http://www.atlanta-airport.com/Default.asp?url=sublevels/airport_info/gmpage.htm (accessed October 24, 2007).

¹⁴ Annual Reports of the Georgia World Congress Center Authority and the Center's website at http://www.gwcc.com/

tourism business, but these industries are only the most obvious of the industrial sectors that support the hospitality industry.

The convention business is very competitive. Conventions are seen as attractive and a valuable economic contributor to host cities. As a result, cities have increased their efforts to attract meetings and conventions, resulting in increased competition. As with any business, to compete for meetings and conventions, cities have to do well on the factors that determine site selection. Several studies have been conducted to determine the relative importance of various factors in determining the site selection of meetings and conventions. Crouch and Ritchie (1998) identify eight primary factors: accessibility, local support, extra-conference opportunity, accommodation facilities, meeting facilities, information (including reputation and marketing attributes), site environment, and other criteria such as novelty attributes.

Atlanta does well on access, local support, accommodations and meeting facilities. But as Crouch and Louviere (2004) find, while convention facilities and costs are critical, a destination must offer other attributes to compete in the convention business. In the early 1980s Research Atlanta (1982; 1983) noted that the most pressing need for the City's convention business was entertainment. response, efforts begin to renovate Underground Atlanta, which reopened in 1989. While Underground Atlanta is not the attraction it was when it opened, it still attracted 6 million individuals in 2005 (compared to 13 million the year it opened). In the past 25 years, a number of attractions have opened in the region. These include the World of Coca-Cola in 1990 (which moved to a new, expanded site in 2007), Fernbank Museum in 1992, Centennial Olympic Park in 1998, and the Georgia Aquarium in 2005. The increase in the number of individuals living in the central city have resulted in some additional amenities downtown, but downtown is not yet the 24-hour venue that is thought to be important to making the city more attractive to conventioneers and tourists. Other facilities are in the planning stage, including a human rights museum.

In addition to competition for convention business from other metropolitan areas, the City of Atlanta is also facing increasing competition from suburban sites. There are 5,000 first class hotel rooms near the airport where College Park opened a

new 150,000 square foot Georgia International Convention Center in 2004, with plans to link it to the terminal at Hartsfield-Jackson with a light rail system. Surrounding counties have also built convention and meeting facilities. Cobb County and Gwinnett County have both built convention facilities; the Cobb Galleria Centre has 280,000 square feet of meeting space and the Civic and Cultural Center in Gwinnett has 50,000 square feet of space (Newman 2002). In 2000, there are almost as many hotel rooms in the Cumberland/Galleria area as in downtown (Newman, 2002). In addition, Marietta and Decatur have built small meeting facilities.

The convention business can undergo a substantial change as the result of one event. As a result of the events of September 11, 2001, attendance at conventions dropped significantly. As a result of Katrina, New Orleans lost most of its conventions to other cities, including Atlanta. It is reported that Atlanta was not chosen as a Super Bowl site because of the ice storm the City experienced last time the Super Bowl was in Atlanta. High crime rates or negative publicity associated with crime, panhandling, and police enforcement of jaywalking can turn conventions to other cities.

The City has become one of the leading convention sites in the country and, along with other sources of visitors to the City, is an important driver of the City's economy. The City, along with the State, has worked to provide the meeting facilities. The increase in visitors has resulted in an expansion of the number of hotels, furthering the attractiveness of the City to the convention industry. But if this industry is to continue to grow in the face of increasing competition, the City will have to continue to focus on the other factors that go into the decision of where to hold conventions and major sporting events. There are major new entertainment venues and more planned for Atlanta. Crime downtown is down from a decade ago. The City has tried to address the homeless issue, panhandling, and taxis, but without much visible success. While the focus has been on competing with other major cities, the growth in the suburban markets for smaller conventions and meetings could have an effect on the growth of the convention business in the City.

B. The Logistics Sector

Logistics in the Atlanta Region

As mentioned earlier, almost from its beginning Atlanta's strategic location has caused it to be a major transportation hub for people and for goods. Today, more than 80 percent of the U.S. population market is within a two-hour flight or a one-day interstate truck trip from Atlanta. According to the Metro Atlanta Chamber of Commerce, metropolitan Atlanta's extensive intermodal network of air, road and rail services, together with its connection to port facilities and world-reaching telecommunications network provides businesses with several competitive options for transporting people, goods and information. Logistics, which is concerned with the various facets of the movement and storage of goods, is playing an ever increasing role in the region's economy in general and that of the City of Atlanta in particular.¹⁵

Recent U.S. Bureau of the Census data on employment levels in various segments of the logistics sector in metropolitan Atlanta appears to substantiate an overall growing trend. Table 8 examines recent employment levels for the 10-county Atlanta Regional Commission (ARC) area in four major logistics categories: *Air Freight, Truck Freight, Warehousing and Storage*, and *Process, Physical Distribution and Logistics Consulting Services (PPD&L)*.

In the seven year period 1998-2005, overall logistics employment in the ARC Region grew by nearly 16 thousand jobs, an increase of more than 50 percent. With the lone exception of Clayton County, each of the ARC counties experienced growth in logistics employment over this period. Fulton (including the City of Atlanta) and DeKalb Counties accounted for more than two-thirds of regional growth.¹⁶

¹⁶ A portion of the City of Atlanta is actually in DeKalb County; however, the bulk of the city is located in Fulton County. We include all of Atlanta's employment in the Fulton County totals.

21

¹⁵ Logistics is defined as part of the supply chain that plans, implements, and controls the efficient, effective forward and reverse flow and storage of goods, services and related information between the point of origin and the point of consumption in order to meet customer's requirements. (Source: *Council Supply Chain Management Professionals*)

TABLE 8. EMPLOYMENT IN SELECTED LOGISTICS SECTORS FOR THE 10-COUNTY ARC AREA

		1998	2005	_
NAICS	Description	Employment	Employment	%Change
481112	Scheduled Freight Air Transportation	180	175	
	Total Air Freight	180	175	-3.1
484110	General Freight Trucking, Local	1625	1949	
484121	General Freight Trucking, Long-Distance, Truckload General Freight Trucking, Long-Distance, Less Than	6389	9372	
484122	Truckload	9912	8523	
484210	Used Household and Office Goods Moving Specialized Freight (except used goods) Trucking,	2345	1933	
484220	Local Specialized Freight (except used goods) Trucking,	1812	1892	
484230	Long-Distance	3468	2036	
	Total Truck Freight	25550	25704	0.6
493110	General Warehousing and Storage	1804	11147	
493120	Refrigerated Warehousing and Storage	688	1986	
493130	Farm Product Warehousing and Storage	3	15	
493190	Other Warehousing and Storage	918	3631	
531130	Lessors of Mini-warehouses and Self-Storage Units	346	478	
	Total Warehousing and Storage	3758	17256	359.2
541614	Process, Physical Distribution, and Logistics Consulting Services	1470	3691	
	Total Process, Physical Distribution and			
	Logistics Consulting Services	1470	3691	151.1
	Total	30957	46824	51.3

Source: U.S. Bureau of the Census, County Business Patterns.

By 2005, nearly 47 thousand people were employed in these four logistics sectors. Employment growth was dominated by the warehousing and storage sector, which experienced a robust three and a half fold increase in employment, representing a gain of 13.5 thousand new jobs. More than four out of every five logistics jobs created during the 1998-2005 period in the ARC region were in warehousing and storage. Even though each of the warehousing and storage subsectors experienced growth, the increase in employment was most pronounced in the

¹Data for this table was obtained from the U.S. Bureau of the Census' County Business Patterns database. Employment figures for North American Industry Classification System (NAICS) codes for the selected logistical sectors were tallied for every county in the 10-county Atlanta Regional Commission (ARC) area and summarized.

General Warehousing and Storage category (NAICS 493110), which saw employment grow from 1.8 thousand in 1998 to 11.1 thousand in 2005. The only other logistical sector besides Warehousing and Storage that experience significant growth was the PPD&L Sector (NAICS 541614) which added 2.2 thousand new jobs.

In regards to the *Truck Freight Sector*, 2005 employment remained virtually unchanged from 1998 totals. However, this stagnant overall growth trend for *Truck Freight* masks considerable employment changes among its sub-sectors. For example, nearly all of the roughly 3,000 new jobs created in the *Long Distance General Freight Trucking by the Truckload sub-sector* were offset by job losses in the *Long Distance General Freight Trucking by less than the Truckload sub-sector* and in the *Long Distance Specialized Freight Trucking sub-sector*. Furthermore, there were substantial geographic shifts. Three counties—Fulton, Clayton and Cobb—experienced significant job losses in this sector while three others—DeKalb, Gwinnett and Henry—experienced significant job gains. DeKalb County is now the largest truck freight employer, up from third in 1998, while and Clayton County is now the third largest, down from first in 1998.

Logistics in the City of Atlanta

The City of Atlanta accounted for roughly one out of every four new logistics jobs created in the 10-county ARC area during the period 1998-2005. The City added an estimated 4.2 thousand new logistics jobs, an increase of 61 percent over 1998 levels (Table 9). More than 80 percent of the increase in logistics jobs in Atlanta and about 85 percent of the growth in the suburbs were in the warehousing and storage sector. Despite this similarity, almost three times as many jobs were created in the suburbs than in the City of Atlanta, as warehouse distribution centers and trucking companies increasingly sought less expensive locations along the interstate highways outside of the City. Indeed, as Atlanta was losing 800 jobs in the truck freight sector during the 1998-2005 period, the suburbs was gaining 950 of

23

¹⁷ The Atlanta suburbs are defined here as the 10-County region outside of the city of Atlanta.

TABLE 9. ESTIMATED EMPLOYMENT IN SELECTED LOGISTICS SECTORS FOR THE CITY OF ATLANTA¹

NAICs		1998	2005	
	Description	Employment	Employment	%Change
481112	Scheduled Freight Air Transportation	46	134	
	Total Air Freight	46	134	191.3
484110	General Freight Trucking, Local	424	623	
484121	General Freight Trucking, Long-Distance, Truckload	833	1384	
484122	General Freight Trucking, Long-Distance, Less Than Truckload	2150	1017	
484210	Used Household and Office Goods Moving	634	592	
484220	Specialized Freight (except used goods) Trucking, Local	250	212	
484230	Specialized Freight (except used goods) Trucking, Long-Distance	932	596	
	Total Truck Freight	5224	4425	-15.3
493110	General Warehousing and Storage	496	2269	
493120	Refrigerated Warehousing and Storage	435	707	
493130	Farm Product Warehousing and Storage	0	15	
493190	Other Warehousing and Storage	92	1444	
531130	Lessors of Miniwarehouses and Self-Storage Units	74	60	
	Total Warehousing and Storage	1096	4494	310.0
541614	Process, Physical Distribution, and Logistics Consulting Services	426	1890	
	Total Process, Physical Distribution and Logistics Consulting Services	426	1890	343.7
	Total	6791	10943	61.1

Source: US Bureau of the Census, County Business Patterns.

these positions and while Atlanta added 3.4 thousand new warehousing and storage sector jobs the suburbs was adding more than 10 thousand of these. The estimated 3.4 thousand gain in warehousing and storage employment by the city of Atlanta was greater than that for any of the counties in the ARC Region with the exception of DeKalb County.

¹Employment figures for the City of Atlanta were estimated using the following methodology. Using *US Bureau of the Census, Zip Code Business Patterns* for 1998 and 2005, data for each of the zip codes that comprise the City of Atlanta were aggregated for the logistics sectors. The same was done for Fulton County. Next, a City of Atlanta – Fulton County ratio was developed for each sector and applied to the Fulton County totals that were provided by the *US Bureau of the Census, County Business Patterns*.

In regards to *Process, Physical Distribution and Logistics Consulting Services*, Atlanta was truly the focus of activity. Roughly two out of every three new PPD&L sector jobs in the ARC region were accounted for by the City of Atlanta. Employment growth in this sector was quite robust. In 1998, a little more than four hundred people were employed in the *PPD&L* sector; however by 2005 the City had acquired nearly 1,900 jobs in this sector. Clearly, *PPD&L* is a growth sector for both Atlanta and its nearby suburbs. Because of the presence of Hartsfield–Jackson International Airport the City of Atlanta dominates the air freight sector.

Why has the Logistics Sector Grown?

According to the Metro Atlanta Chamber of Commerce, metropolitan Atlanta has become a leading global logistics center, with more than half of the top 100 third-party logistics providers housing operations in the area. In addition, metropolitan Atlanta is home to nearly 90 percent of the top 25 third-party logistics providers in the country based on revenues. A number of these third-party logistics providers have located to the Atlanta area in recent years and have expanded operations. For instance, Manhattan Associates relocated from California to Atlanta in 1995 with just 25 employees. It now has more than 1,200 employees, more than half of which are based in metropolitan Atlanta. Initially a manager of warehouses for retailers, Manhattan Associates has expanded operations to include logistics software—Integrated Logistics SolutionsTM—that manage the entire source to consumption supply chain. These companies and others like them have contributed to Atlanta's recent and rapid growth in the *PPD&L sector*.

A number of factors have contributed to the significant expansion in logistics employment in metropolitan Atlanta in recent years. One factor has been Atlanta's designation as the first U.S. Customs Inland Port, a general purpose Foreign Trade Zone. In preparation for the 1996 Olympic Games, Atlanta was given this

¹⁸ A third-party logistics provider is a firm that provides outsource of "third-party" logistics services to companies for part or sometimes all of their supply chain management function. Third-party logistics providers typically specialize in integrated warehousing and transportation services that can be scaled and customized to customer's needs based on market conditions and the demands and delivery service requirements for their products and materials.

designation, which allows containers from abroad to travel inbound duty free from coastal ports. This development, together with the growing operations at Georgia's two deepwater ports in Savannah and Brunswick, has helped Atlanta's cargo business to boom. According to the Metro Atlanta Chamber of Commerce, the Atlanta region's cargo output ranks 10th in the U.S.

Developments at Hartsfield-Jackson International Airport have also led to increased logistics employment opportunities in Atlanta. With more than 30 cargo carriers serving the airport, Atlanta's Hartsfield-Jackson is increasingly becoming a major world port for air cargo. Currently ranked as the eleventh-busiest airport in the United States for total air freight tonnage, Hartsfield-Jackson's major growth area is in international cargo. For example, through the first six years of this decade Hartsfield-Jackson has increased its international cargo tonnage by almost two-thirds. International freight represents a growing share of Hartsfield-Jackson air freight business. International cargo now accounts for 52 percent of the airport's throughput, more than double its share in 1999. The addition of a fifth runway in June of 2006 and expanded and improved cargo operations at the airport should contribute to the sector's continued growth.

Local expertise has likely spurred logistics employment growth in Atlanta. For instance, as noted by the Metro Atlanta Chamber of Commerce, Georgia Institute of Technology boasts the nation's best industrial engineering program and its Logistics Institute is the world's largest research and education center focused on global logistics and supply chains. In addition, four of Georgia's six research universities—Georgia Institute of Technology, Georgia State University, Clark

¹⁹ According to the *Georgia Port Authority's Annual Report for Fiscal Year 2006*, the Port of Savannah is the largest single container facility on the entire east coast and is also the fastest growing container port. Between fiscal year 2002 and fiscal year 2006 Savannah's throughput has grown by 78 percent from 1.1 million containers to 2.0 million containers. In April 2006, a new container berth increased Savannah's port capacity by 20 percent and by 2015 planned capital improvements will increase annual capacity to 6 million containers. The Port of Brunswick is a major automobile entry point and is ranked among the most efficient ports in the United States.

²⁰ Metro Atlanta Chamber of Commerce (2005). This includes both all cargo airlines as well as other airlines that carry cargo.

Atlanta University and Emory University—are clustered in metro Atlanta with the others, the University of Georgia and the Medical College of Georgia, less than a two-hour drive away. Two of these research universities offer logistics-related degrees. According to the Atlanta Regional Consortium on Higher Education, in 2000 Atlanta ranked as the 4th major research center in the nation behind only Los Angeles, New York and Boston and ahead of Raleigh-Durham, NC. The contribution of logistics personnel provided by Atlanta's research institutions is augmented by the logistics talent pool generated by companies like UPS and Delta Air Lines, which are both headquartered in Atlanta. The clustering of those companies and others like them allows for knowledge spillovers and have increased the pool of logistics and supply chain professionals.

Prospects for Atlanta

The City of Atlanta appears to be well-poised to continue as a focus of logistics activity in the years ahead, particularly in the air freight, warehousing and storage, and the PPD&L sectors. The presence of Hartsfield-Jackson International Airport ensures that the City of Atlanta will continue to dominate the air freight sector and, with the recent emphasis on international cargo the prospects for future growth in this sector are good. Location advantages that made Atlanta a transportation hub will continue to attract many kinds of warehousing and storage facilities to the City, while the intellectual capital and logistical expertise as provided by Atlanta's research universities and many logistics enterprises combine to form a synergy that encourages PPD&L firm development and growth.

C. The Health and Hospitals Sector

Health care is a rapidly growing sector of the U.S. economy. In 1980, medical care as a share of gross domestic product was 10.5 percent. By 1990, its share had increased to 14.5 percent, and in 2005 it was 17.1 percent.²¹ Given its

²¹ Table 2.4.5 of the National Income and Product Accounts produced by the Bureau of Economic Analysis

growing importance, we explore its role in the Atlanta economy. However, data at the city level is limited.

In 1980, the metropolitan area had 3,825 physicians, while in 1995 there were 7,937 physicians, an increase of 212.4 percent.²² In 2003, in the Atlanta MSA there were 11,948 physicians, which ranked Atlanta 13th in the country.²³ Physicians per 100,000 persons increased from 164.4 in 1980 to 259.0 in 2003, an increase of 57.5 percent. However, the metropolitan area does not rank very high in terms of physicians per capita; it ranked 95th in 1995 and 175th in 2003. Areas with medical schools, which tend to be located in areas with smaller populations, rank high on a per capita basis. But, even among the 25 metropolitan areas with a population of more than 2 million, the Atlanta metropolitan area ranks 22nd in terms of physicians per 100,000. This is somewhat surprising given that the Emory Medical School and the Morehouse School of Medicine are located here, as is the Centers for Disease Control and Prevention.

While the number of physicians per capita has increased, the number of hospitals and hospital beds has decreased. In 1980, there were 70 community hospitals in the Atlanta Metropolitan Area, but only 41 in 2003. The number of community hospital beds declined from 11,916 to 9,061 over that period. This reflects a national trend, but the relative decline was greater for the Atlanta area. The number of community hospitals in the U.S. fell from 5,830 in 1980 to 4,919 in 2004, while the number of beds fell from 988 thousand to 808 thousand over that period.²⁴ Using the business telephone directory, we identified 23 hospitals that were located within the City of Atlanta in 1980. By 2006, 13 of those hospitals had closed, while 2 specialty hospitals opened.

These numbers are for the metropolitan area as defined in 2003.

²³ State and Metropolitan Area Data Book 2006, Table B-6.

²⁴ 2007 Statistical Abstract, Table 162

Employment in health care in the City of Atlanta in 2002 was between 25 and 30 thousand.²⁵ This represents between 5.9 and 7.1 percent of employment in the City of Atlanta, while for the U.S. the health care sector accounts for 11.4 percent of employment. Health care employment in Fulton County in 1993 was 47,532, which increased to 53,399 in 2004.²⁶ For DeKalb County, health care employment increased from 25,059 in 1993 to 32,810 in 2004.

Health care is an important sector in the City of Atlanta and the region, but it is not a dominant industry, despite Grady Memorial Hospital, the Emory Medical School, and Morehouse School of Medicine. It is not clear why employment in health care is low as compared to other communities. There does not appear to be any barriers that would prevent the Atlanta area from having a larger health care sector and thus appears to be a sector that could grow. It would seem that identifying the reason why the sector is relatively small would be potentially advantageous to the City and the region.

D. The Professional Services Sector²⁷

The distribution of *Professional Services* in the ARC region is becoming more de-centralized as service providers migrate towards population centers in the close-in suburbs. During the 1998-2005 time period, Atlanta's share of the region's professional services employment fell by more than 4 percent, while its share of the number of establishments in this sector dropped by three percent. Nevertheless, Atlanta remains an important player in the professional services sector since two out of every five jobs in the ARC region and more than one out of every four establishments are located in the City.

²⁵ The 2002 Census of Business provides only a range for employment in health care for the City of Atlanta.

²⁶ US Bureau of the Census, County Business Patterns.

²⁷ Professional services is the shortened title for the *Professional, Scientific, and Technical Services* sector (NAIC 54). It is comprised of businesses whose major input is human capital, and that are defined by the expertise and training of the service provider. The sector includes such industries as law offices, accounting firms, engineering services, architectural services, advertising agencies, veterinary services, and interior design services.

Between 1998 and 2005, the ARC region gained an estimated 25 thousand jobs (Table 10) and 4 thousand establishments (Table 11) in professional services. Most of the growth occurred in the Atlanta suburbs located in Cobb County, Gwinnett County and Fulton County outside the City of Atlanta. These three areas accounted for nearly 80 percent of the job growth and almost 60 percent of the growth in the number of establishments in the ARC region.

To a large extent, the pattern of job growth in professional services mirror changes in the regional population. For example, during the period 1990–2005 the top three gainers in population were Gwinnett County, Cobb County, and Fulton County outside the City of Atlanta. Together, they accounted for 56 percent of the total population growth in the ARC region. It makes sense that many professional service firms would tend to follow the movement of people to these areas. DeKalb County (which achieved significant population gains amounting to more than 150 thousand during the 1990-2005 period) and Clayton County were the only counties to experience a loss of professional service jobs. For DeKalb County, this was largely due to the substantial loss of jobs in two major sectors; *Computer System Design and Related Services* (NAIC 5415) and *Architectural, Engineering and Related Services* (NAIC 5413).

It is interesting to note that one of the major Professional Services subsectors—Offices of Lawyers—exhibited patterns of growth that diverged significantly from the overall trend of decentralization. For this subsector, the City of Atlanta remains the primary focus, probably because the benefits of agglomeration economies derived from the need for face-to-face contact with business clients far outweigh the gains from cheaper land in more distant locations. During the 1998-2005 period Atlanta retained its regional share of lawyers both in terms of employment and number of establishments, accounting for almost two-thirds of the former and more than two-fifths of the latter. Atlanta is more dominant in regards to the employment of lawyers because on average law firms in Atlanta are larger than the law firms elsewhere in the ARC region. In terms of growth, the City of Atlanta

accounted for an estimated 64 percent of the lawyer jobs and 30 percent of lawyer establishments created during the 1998-2005 period (Tables 12 and 13).

TABLE 10. PROFESSIONAL SERVICES EMPLOYMENT GROWTH

	1998 Employment	2005 Employment	1998-2005 Employment Growth	Percent Share of Growth
Fulton	66578	79424	12846	51.2
of which				
Atlanta est.	58000	62240	4240	16.9
Cherokee	1194	2219	1025	4.1
Clayton	1700	1505	-195	-0.8
Cobb	20583	27295	6712	26.7
DeKalb	21602	18261	-3341	-13.3
Douglas	737	1029	292	1.2
Fayette	962	1844	882	3.5
Gwinnett	15624	21205	5581	22.2
Henry	748	1774	1026	4.1
Rockdale	875	1149	274	1.1
Totals	130603	155705	25102	100

Source: US Bureau of the Census, County Business Patterns.

TABLE 11. PROFESSIONAL SERVICES ESTABLISHMENT GROWTH

	1998 Establishment	2005 Establishment	1998-2005 Establishment Growth	Percent Share of Growth
Fulton	5215	6671	1456	37.4
of which				
Atlanta est.	4040	4670	630	16.2
Cherokee	322	606	284	7.3
Clayton	250	248	-2	-0.1
Cobb	2542	3268	726	18.6
DeKalb	2412	2625	213	5.5
Douglas	149	203	54	1.4
Fayette	251	387	136	3.5
Gwinnett	2272	3125	853	21.9
Henry	153	274	121	3.1
Rockdale	168	225	57	1.5
Totals	13734	17632	3898	100

Source: US Bureau of the Census, County Business Patterns.

TABLE 12. OFFICES OF LAWYERS EMPLOYMENT GROWTH

	1998 Employment	2005 Employment	1998-2005 Employment Growth	Percent Share of Growth
Fulton	10922	14783	3861	70.0
of which				
Atlanta est.	10680	14220	3540	64.1
Cherokee	175	256	81	1.5
Clayton	175	375	200	3.6
Cobb	1446	2176	730	13.2
DeKalb	1838	2159	321	5.8
Douglas	175	111	-64	-1.2
Fayette	175	176	1	0.0
Gwinnett	1055	1343	288	5.2
Henry	175	240	65	1.2
Rockdale	98	134	36	0.7
Totals	16234	21753	5519	100

Source: US Bureau of the Census, County Business Patterns.

TABLE 13. OFFICES OF LAWYERS ESTABLISHMENT GROWTH

	1998 Establishment	2005 Establishment	1998-2005 Establishment Growth	Percent Share of Growth
Fulton	1138	1287	149	40.7
of which				
Atlanta est.	1080	1190	110	30.1
Cherokee	31	64	33	9.0
Clayton	76	75	-1	-0.3
Cobb	366	425	59	16.1
DeKalb	442	459	17	4.6
Douglas	40	35	-5	-1.4
Fayette	47	53	6	1.6
Gwinnett	233	319	86	23.5
Henry	32	52	20	5.5
Rockdale	40	42	2	0.5
Totals	2445	2811	366	100

Source: US Bureau of the Census, County Business Patterns.

Despite Atlanta's stable and dominant position in regards to this subsector during the 1998-2005 period, there has been considerable intra-city movement of law firms and employment. Law firms continue to exit the Central Business District (CBD) for other parts of the City, most notably the Midtown area.²⁸ For example, during the seven year period 1998-2005 the CBD lost 11 law offices while at the same time Midtown gained 15. This represents a continuation of a two-decade trend that saw businesses leave the downtown area only to relocate a few miles north to Midtown and well within the City limits.

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 $^{^{28}}$ The CBD is defined as zip code 30303 while Midtown is defined as zip code 30309.

V. Explaining the Change in Employment

A. The Atlanta Region

The City of Atlanta is not an economy separate from the regional economy, and thus, a large factor driving the City's employment is what is happening in the region. As Jordan Rappaport (2003) notes, urban growth experiences of American cities over the latter half of the 20th century were the result of a mixture of national, regional, metropolitan, and local factors. Thus, to explain the change in the level and composition of employment in the City of Atlanta, we should start by discussing the causes of employment changes at the Atlanta Metropolitan Statistical Area (MSA) level.

Given the significance of metropolitan MSAs in the United States, a large volume of literature has contributed to our understanding of what makes metropolitan areas more or less attractive places for firms and individuals. Many researchers have sought explanations through traditional urban economic theory of agglomeration economies, labor pooling, and capital spillover. Mills and Lubuele (1997), for example, point to agglomeration economies to explain why MSAs exist in the first place: "proximity of workers to jobs, of firms to customers, of firms to other firms with whom they do business, and of workers and firms to information generating and dispersing institutions. Not only are traditional economies of scale and scope important in producing large concentrations of workers and producers, but also the lower costs of moving people, goods, and information because of proximity within large MSAs..." (p 729) Glaeser and Shapiro (2003; 154-158) suggest a mixture of geographic determinism and human capital presence as the driving forces in explaining the level and composition of economic growth. Metropolitan growth has also required an explanation for the resulting disparities of income between inner cities and surrounding suburbs.

In *The Rise of the Creative Class*, Florida (2005) attempts to explain successful city growth through the ability to attract and retain members of what he calls the "creative class," the expanding, highly educated, workforce involved in idea-

based professional services. However, he also notes that "the key to economic growth lies not just in the ability to attract the creative class, but to translate that underlying advantage into creative economic outcomes in the form of new ideas, new high-tech businesses and regional growth." (p. 49).

Trends in industrial composition and employment in the Atlanta MSA and City of Atlanta reflect many of the changes experienced over the past 25 years by metropolitan areas in general, namely continued suburban expansion, service-related industry growth, and income and employment discrepancies between suburbs and inner cities. These changes have been attributed to the rise in the ownership of automobiles, the interstate system, changes in production and information technology, and more general economic forces associated with increased globalization. Yet, the Atlanta MSA experienced growth that was not shared by all large metropolitan areas. Thus, we focus on those factors more closely associated with explaining why the Atlanta metropolitan area experienced growth and change in employment that differed from other metropolitan areas.

Part of Atlanta's growth had to do with Atlanta's low share of declining industries, resulting in less severe losses in employment. The fact that the Atlanta MSA recently lost a significant number of manufacturing jobs was not so remarkable since in comparison to other large MSAs, Atlanta historically had a much smaller manufacturing base, and thus had less to lose. Historic manufacturing cities like Pittsburgh, Detroit, and Cleveland have all lost more than a third of their population since 1970, and their MSAs lost hundreds of thousands of workers from 1970 to 1990 (Rappaport, 2003, p.37). The Atlanta MSA has not stopped expanding in more than 50 years, and the expanding non-manufacturing industries have more than offset the losses from declining industries.

As noted above, there has been a large migration from Northeastern and Midwestern areas to the South and West. Thus, in part, Atlanta's growth reflects the increased regional importance of the South, where Atlanta is the dominant wholesale and retail trade center, as well as the transportation hub. As Glaeser and Shapiro (2003) notes, the rise of the Sunbelt simply marks the declining importance of production advantages relative to consumption advantages. Growth in the South is

also part of a strong migratory trend towards better weather. The warm and generally humid climate in the South once stifled growth, but the invention of air conditioning overcame that deterrent.

The South, and the Atlanta area in particular, now maintain a different political climate than was present 50 years ago. Once a bastion of racial tensions and civil rights abuses, the South now has a solid legal infrastructure and a political climate which is much more accommodating to businesses than the more regulatory North. Thus, new political leadership has made businesses and individuals more comfortable locating in the Atlanta area (Glaeser and Shapiro, 2003, pp.154-58). The 2003 ING Gazelle Index, which measures confidence and expectations of African American CEOs, overwhelmingly identified Atlanta as the best metropolitan area and Georgia as the best state for fast growing black businesses to relocate. Thus, Atlanta no longer represents a place where minorities are unable to succeed.

The Southeastern United States in general has become an even greater regional economic center, and is currently growing at a faster rate than any other region. Atlanta has been successful in capturing a large amount of growth and employment associated with that. The Atlanta economy also benefits from the largest concentration of federal agencies outside of Washington DC (Garoogian, 2006, p.30).

However, geographic determinism does not provide a complete explanation. Atlanta's MSA growth is also influenced by local factors, including investments in transportation and higher education, its low cost of doing business, efforts at marketing the area, and improvements in the quality of life.

Atlanta grew in its early history as a city because its location made it a natural transportation hub for railroads, and those transportation benefits have continued until today. As mentioned earlier, more people are employed in the transportation industry in Atlanta than in any other domestic MSA. The nearby Hartsfield-Jackson Airport has capitalized on the increased importance of air transportation, as it has become the busiest airport in the world, carrying around 85 million passengers each year (Quinn, 2006). The cargo port of Savannah, GA, currently the 5th largest port in the US, has

tapped into primarily Asian imports and is assuring Atlanta's status as a distribution hub for imported goods (Barry, 2005).

Importance as a logistics and professional service city would not be nearly as defined if Georgia did not provide sufficiently educated human capital. Although there is debate as to whether local skills matter because of education spillovers in production, it is obvious that there is a strong connection between workforce skills and city growth. Local human capital is important because places with more skilled workers grow faster than cities with weaker human capital bases. The percentage of college educated workers is a strong predictor for urban growth (Glaeser and Shapiro, 2003, pp.154-58) and, according to the Brooking Institution's Center on Urban and Metropolitan Policy, Atlanta has the second largest concentration of college graduates (68 percent) in the 50 largest American cities (Harden, 2005, p.64).

The increased importance of highly skilled service-oriented professionals has been supported by leading research universities, which have spurred development around them. The University System of Georgia consists of 35 public colleges and universities and almost 40 private colleges and universities. Georgia also has the most extensive technical education program in the nation, with 40 technical colleges and, in 2002, over 700,000 enrolled students. Thus, Georgia technical and higher education has created a highly skilled and varied worker population capable of accommodating and bolstering new industry growth.

Evidence for high quality of human capital can be seen in the location economies which have taken place in a number of industries, particularly in logistics and bioscience. Logistics (wholesale trade and transportation and warehousing) industry in the state of Georgia employs over 263,000 workers and is projected to grow by 17 percent by 2012 (Youtie, 2005, p.7). Georgia has also seen localization in the biosciences, which employed more than 14,000 people in Georgia in 2003. From 2000 to 2010, demand for biochemists, biophysicists was expected to increase by 50 percent (Drummond and Youtie, 2003, pp.2-4).

The costs of doing business in Atlanta are low as compared to other metropolitan areas, which have given large firms and professional services a reason to either expand inside or relocate to the Atlanta MSA. The Atlanta MSA also

presents relatively lower housing costs, costs of living, and tax rates than other large MSAs. In fact, based on after-tax cost of business startup and operations of 10 years, KPMG's guide to international business costs showed Atlanta as the least costly large U.S. city in which to do business (Metro Atlanta Chamber of Commerce, 2006). MSA median home price and average new home prices are significantly lower than national averages, as are construction, rental, and utility costs. Tax incentive packages offered to firms are extremely competitive on a national level.

The area has also benefited from efforts to market the region. The 1996 Olympic Games contributed to Atlanta's growth as a consequence of its greater recognition as an international metropolitan city. The area has also been successful in attracting large national sporting events such as the Super Bowl, which also provides exposure. In addition, public efforts to increase the arts and green space, combined with the private sector provided amenities such as restaurants and entertainment venues, have increased the quality of life in the area.

There are also factors that have hindered economic growth of the Atlanta metropolitan area. Georgia has a very weak public K-12 education system and scores on standardized tests consistently rank below U.S. averages. While public schools in the Atlanta metropolitan area are somewhat better, there is concern that the absence of a high performance education system deters firms that might otherwise locate in the Atlanta MSA.

Substantial population growth, suburban sprawl, and a lack of investment in transportation infrastructure have led to very serious traffic congestion throughout the entire 28-county metropolitan region. As an indicator of that problem, the average commute time in the Atlanta MSA is one of the longest in the nation. It is believed that relocating firms are less inclined to consider Atlanta because of the traffic congestion.

The reliance on automobiles combined with the hot summer weather has contributed to air quality problems. In 2005, the Atlanta MSA was the 9th worst polluted area in the U.S., worse than New York, Washington D.C., and Chicago (American Lung Association, 2005). This has contributed to other less glorious

rankings, such as one of *America's Worst Cities for Respiratory Infections* and as one of the *U.S. Asthma Capitals* by the Asthma and Allergy Foundation of America (Garoogian, 2006, pp.26-29).

B. The City of Atlanta

Rappaport (2003) shows that city population growth is significantly correlated with strong MSA growth—providing evidence that MSA population growth is a primary contributor to the city's population growth. And, as has been suggested, a city's economy is dependent on its region's economy. However, the City of Atlanta certainly has not captured the same share of the Atlanta MSA's industry growth. Employment in the City of Atlanta grew by 13.4 percent from 1980 to 2005, while employment in the ARC region grew by 120 percent (Table 2).

While the region's growth may have had a strong influence on the City's growth, the question of why the City's growth rate was so much lower needs to be addressed. There are several possible explanations, including land-area limitations, differential growth rates of industries located in the City versus the suburbs, population decentralization and demographic shifts, changes in the significance of agglomerations for particular industries, and differences in costs and amenities.

Land area might have been one of the most basic factors in limiting City growth. City size and industry density limit the amount of new growth which can take place within the City's boundaries. The geographic size of the City of Atlanta has been essentially unchanged since 1953. The MSA, on the other hand, saw a huge increase in total area as it grew from 15 to 28 counties. In 2005, the area of the MSA was 8,376 square miles compared to 132.4 square miles for the City. Building upwards is generally more costly than building out into surrounding areas, increasing prices in more densely populated areas. Industries like manufacturing, wholesale trade, and transportation (which saw employment losses) generally require greater land area and had an incentive to move towards cheaper land. Employment density also affects the demand and cost of leased space, as well as basic amenities such as parking.

In a number of instances, jobs followed people to the suburbs. As previously noted, many industries such as retail trade, wholesale trade, FIRE, and construction grew most in the counties where population was expanding most rapidly. In general, northern metropolitan counties were home to the most educated portion of MSA residents, providing an incentive for idea-based and professional service firms to grow nearer to their employees.

Innovations such as the internet, email, and videoconferencing might have decreased the importance of agglomerations for industries like financial and professional services, allowing for greater distancing from the historical CBD. Back office functions could be separated from central administration and relocated to cheaper space in the suburbs. Evidence for this can be seen in the clusters of professional services and warehousing in suburban areas just north of the City, such as the Cumberland district and Alpharetta. Thus, a location in the center of the City has become relatively less important.

The City's share of the region's employment is dependent on which employers experience an increase in employment because of an increase in their economic activity and on the location decisions of employers. The former is more of a short-run dynamic effect dependent on the nature of the growth in the U.S. and regional economy, while the latter is the result of more long-run decisions about location. Thus, if there is a significant increase in conventions or state and federal employment, then employment in the City is likely to increase as a result.

Over the longer term, employment pattern within the metropolitan area depends on the location decisions of employers. There are several factors that are thought to affect the location of employers. The factors that are thought to be most important are the cost of land, availability of workers with the appropriate skills, market, agglomerations, and transportation costs. But there are other factors that affect the cost or desirability of a particular site, including tax rates, crime rate, and the availability of supportive services. The relative importance of these factors will differ by industrial sector. A location near the market is very important for retail. A location near rail and interstates is important for shipping.

As discussed elsewhere in this report, long-run changes in technology have had significant effects on where businesses locate. But we can consider more marginal factors. Taxes and crime are two such factors. Over the past decade, the property tax rate in the City has declined, but the rate is still higher than most suburban jurisdictions. The crime rate in the City has fallen substantially since 1990. For example, the violent crime rate was 4085 per 100,000 in 1990 but fell to 1675 per 100,000 in 2005, although the crime rate is reported to by increasing in 2007.

Commuting times more directly affect workers, but they indirectly affect employers who seek locations that are more accessible to employees. Commuting times have increased in the Atlanta metropolitan area, but have increased more outside the City. In 1990, for example, 43 percent of metro workers took more than 30 minutes to get to work, while in 2000, 50 percent took at least that long. For City workers, 35 percent took more than 30 minutes in 1990, but by 2000 that had increased to just 38 percent.

As mentioned earlier, the City's population has started to grow in the past decade after more than 20 years of decline. The increasing congestion in the suburbs is thought to be a factor driving the increase in population in the City, although we know of no direct evidence of this. It is thought that these new residents are more skilled and are more likely to be employed in professional positions. This growth in the City's population is increasing the work force in the City, which should have a positive effect on location of firms within the City. However, while the education level increased in the City, the percent of the adult population with more than a high school degree is still higher in the suburbs.

VI. Prospects for the Future

It appears that on balance the prospects for future job growth in the City of Atlanta are quite good. The Atlanta Regional Commission forecasts that employment in the City of Atlanta will grow by 20 to 35 thousand every 5 years and will reach a total of 534 thousand by 2030. In other words, between the years 2005 and 2030 the ARC expects employment opportunities in Atlanta to grow by nearly a third. Atlanta job growth during the previous 25-year period (1980-2005), by comparison, amounted to just 12.1 percent. There are a number of reasons for such optimism.

First of all, the City's population is likely to grow appreciably and as it does it will likely attract additional retail and personal service firms. After losing about a sixth of its population (nearly 80 thousand people) during the 1970-2000 period, it appears that the City of Atlanta is in the throws of a significant rebound. According to the ARC, the City of Atlanta gained almost 48 thousand residents during the 2000-2007 period. Forty-four percent of this increase came within the last two years. The City is becoming increasingly attractive as commuting costs increase and as the quality of life improves. Longer suburban commute times together with higher gasoline prices create a substantial incentive for in-town living.²⁹

Second, changing demographics and a renewed emphasis on high density middle-class housing developments suggest that incomes in Atlanta may be growing, which provides an additional incentive for retailers and personal service firms to locate in the City. The Atlanta Housing Authority is continually replacing its low-income public housing units with mixed income developments. Many of the former low-income residents have relocated outside of the City, and this trend is likely to continue as more public housing units are converted. In addition, a number of developers have embraced "New Urbanism" projects, which place an emphasis on high density developments where one can live, work and play. These developments appeal to the highly educated, young upwardly mobile resident.

²⁹ According to the Transportation Research Board, from 1990 to 2000 metro Atlanta's average commute rose from 26 minutes to 31.2 minutes, the highest jump in the nation.

Third, industries that rely on localization economies and knowledge spillovers will continue to find the City of Atlanta attractive. This will be particularly true for the fast-growing logistics sector and also for some of the professional service firms. The large percentage of Atlanta's workforce that holds college degrees, together with the several research institutions and numerous high-tech firms located in the City, provides an incentive for more of these types of firms to locate to the City.

Fourth, new entertainment venues—such as the Georgia Aquarium, the New World of Coke, the expanded Zoo Atlanta, and the proposed human rights museum—combine to improve the attractiveness of the City for conventions and visitors. If the proposed reconstruction of Peachtree Street, the Beltline Project, and the decommissioning of Fort McPherson come to fruition, it is expected that they will generate a substantial number of new jobs in the City.

Despite these advantages, Atlanta's expected job growth could be derailed by any number of events. For instance, an increase in crime, either real or perceived, would have a serious negative effect on the attractiveness of the City to businesses and conventions. In addition, moves by any of the City's major employer could adversely impact employment growth. For example, if CNN were to move to New York, or if Delta were to go bankrupt or get bought out, or if the new owners of Georgia Pacific and BellSouth were to downsize these divisions, it would have a major negative effect on the City as well as the region. In addition, Charlotte, North Carolina could emerge as a major competitor, not just for banking but for logistics and distribution, which could dampen employment growth in Atlanta in those sectors. And finally, another terrorist attack or a big increase in jet fuel prices would, no doubt, reduce Atlanta's convention, travel and tourism business and poise serious consequences for employment in those areas.

VII. Conclusions and Suggestions

The urban economy is in a constant state of flux in which businesses are continuously being added while others are being cast aside. At the same time, people are regularly moving into and out of the urban area. To complicate matters further, there is a constant relocation of businesses and people within the urban area. In the Atlanta region, this relentless churning of economic activity over the past 25 years has led to substantial growth as the added jobs and populations during this period far exceeded those that had been taken away. It has also resulted in Atlanta being a more service-oriented and suburbanized region.

The growth of the Atlanta region over the past quarter century reinforces many classic urban theoretical explanations for economic growth. Atlanta MSA's growth shows that low costs, access to qualified human capital, localization economies, and knowledge spillovers are still important. Atlanta has also been the beneficiary of inherent advantages of its location, including its weather, centrality within the Southeast region, and lack of barriers to geographic expansion.

In an economy which is increasingly oriented around the services and the production of ideas, investment in human capital that is able to perform those jobs is also important. The Atlanta MSA provides strong evidence for how a skilled and varied workforce allows for growth, but also where it can be improved by providing better K-12 schools. As noted by Glaeser, "primary fact about urban growth is that skills predict growth," and that it is "better to concentrate on human capital than building denser downtowns (Glaeser and Shapiro, 2003, pp.154-58)." As shown by differences between the City and the MSA, density related to agglomerations in some financial and professional services may not be as important as they once were due to technology advances, signaling that more energy should be spent on creating less congestion in existing infrastructure than on constructing new high-rise buildings.

Maintaining a pro-business, pro-"creative class" climate also gives firms from base-industries a reason to locate in a city. It seems unreasonable that attracting members of the "creative class" is the only key to economic growth; as noted by Joel Kotkin and Fred Siegel (2005, p.57), "it requires a mix of 'common-sense' policies that stress basic services like police and firefighters, innovative public schools that are not beholden to teachers unions, breaking down the barriers to new housing construction, and policies that lead local businesses to expand within the urban area." To its credit, Atlanta has fulfilled many of the basics needed to allow individuals and families to live well and for businesses to expand their ideas. However, continuous attention needs to be paid to issues dealing with crime, water shortages, and air pollution. If left unchecked these problems could become impediments to growth. At the same time, it is imperative that the Atlanta region continues to recognize the importance of maintaining high caliber research-oriented educational programs and projects that promote healthy public infrastructure. Policies that foster such programs and projects enable job growth.

One basic rule that cities often forget is the importance of comparative advantage. Cities ought to spend their time maintaining their current advantages, while at the same time dismantling obstacles to progress. Atlanta's inherent advantages were location (convenient for transportation services), being culturally diverse (making minority business-owners feel comfortable in the city), and a large pool of college-educated workers. Atlanta could also a do better job in maintaining those things which make it an attractive place to be. Maintaining transportation advantages mean providing efficient connections to high-demand areas such as China, and more proximate ones like Savannah. At some point, suburban sprawl begins to diminish the natural resources and environment which make the State of Georgia attractive to people. Although tax abatement policies are important for industry growth, so too are policies which reduce congestion and improve environmental standards.

While examining Atlanta does not provide solutions for every obstacle to urban growth, it certainly provides a number of examples which both reinforce older theories on, and make suggestions about, how MSAs change and why they grow. It

also provides evidence for explaining why residents of inner cities are often left with higher unemployment rates and lesser shares of jobs.

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Tracking the Economy of the City of Atlanta: Past Trends and Future Prospects (Glenwood Ross, David L. Sjoquist, and Matthew Wooten) This report explores the changes in the level and composition of employment in the City of Atlanta over the last 25 years. FRC Report 176 (May 2008)

Georgia's Immigrants: Past, Present, and Future (Douglas J. Krupka and John V. Winters) This report examines the economic success of immigrants relative to the state's residents as a whole and speculates on how we might expect immigrant populations to fare in the future. FRC Report/Brief 175 (April 2008)

Property Tax in Georgia (David L. Sjoquist and John V. Winters) This report discusses the structure of the property tax in Georgia and various provisions that make up the structure of the property tax. <u>FRC Report 174</u> (March 2008)

A Targeted Property Tax Relief Program for Georgia (John V. Winters) This report describes how a targeted property tax relief program could be designed and provides estimates of the cost and distribution of program benefits. FRC Report 173 (February 2008)

A Historical Comparison of Neighboring States with Different Income Tax Regimes (Peter Bluestone) This report focuses on simple historical differences between states without an income tax and neighbor states with an income tax. FRC Report 172 (November 2007)

Replacing All Property Taxes: An Analysis of Revenue Issues (John Matthews and David L. Sjoquist) This brief discusses the amount of revenue needed to replace all property taxes in Georgia. FRC Brief 171 (October 2007)

Revenue Estimates for Eliminating Sales Tax Exemptions and Adding Services to the Sales Tax Base (John Matthews, David L. Sjoquist and John Winters) This report provides revenue estimates for alternative combination of eliminating sales tax exemptions and adding services to the sales tax base. FRC Report 170 (October 2007)

Report on the City of South Fulton: Potential Revenue and Expenditures (Revised) (Robert J. Eger III and John Matthews) This report evaluates the fiscal consequences of incorporating a new city of South Fulton, using Fulton County revenue and expenditure data and benchmarks from other Georgia cities. FRC Report/Brief 169 (October 2007)

Report on the City of Chattahoochee Hill Country: Potential Revenues and Expenditures (Robert J. Eger III and John Matthews) Using Fulton County revenue and expenditure data and benchmarks developed from other Georgia city data, this report evaluates the fiscal consequences of incorporating a new city of Chattahoochee Hill Country. FRC Report/Brief 168 (October 2007)

Selected Fiscal and Economic Implications of Aging (David L. Sjoquist, Sally Wallace and John Winters) This report considers pressures and potential benefits of an increased elderly population in Georgia. FRC Report 167 (October 2007)

Subnational Value-Added Taxes: Options for Georgia (Laura Wheeler and Nara Monkam) This report considers the implications of levying a subnational value-added tax in Georgia as a replacement for the state corporate income and sales tax. FRC Report/Brief 166 (September 2007)

Revenue Sources of State and Local Governments (Nikola Tasić) This brief compares the reliance on various revenue sources across Georgia compared with eight other states. FRC Report/Brief 165 (September 2007)

Tax Revenue Stability of Replacing the Property Tax with a Sales Tax. (John Winters) This policy brief discusses the implications for tax revenue stability of proposals that would replace the property tax with an increased sales tax. FRC Brief 164 (September 2007)

Potential Impact of the Great Plan on Georgia's Tax Administration. (John Matthews) This brief examines local property tax and sales tax implications for tax administrators. FRC Brief 163 (August 2007)

Is a State VAT the Answer? What's the Question (Richard M. Bird) This report provides an overview of the differences between the retail sales tax and a value added tax and the potential use of a VAT in U.S. states. FRC Report 162 (August 2007)

Budget Stabilization Funds: A Cross-State Comparison (Carolyn Bourdeaux) This brief provides an overview of budget stabilization fund policies across the states. FRC Brief 161 (August 2007)

Four Options for Eliminating Property Taxes and Funding Local Governments. (David L. Sjoquist) This policy brief provides an overview of financing options in the case of substantially reduced property tax revenues for local governments in Georgia. FRC Brief 160 (August 2007)