

From Edge to Edgeless City: The Transformation of Metropolitan Atlanta

Metropolitan Atlanta is now the fastest growing large urban region in the United States among cities over 2 million in population, after Phoenix. The area added one million persons and 500,000 jobs in the 1990s. This growth has mainly occurred in relatively low density suburban locations. The urban region is now the 3rd largest in the country in land area after Dallas and Houston (Table 1) and 9th in population, with 4.5 million persons.

The Atlanta Metropolitan Statistical Area (MSA) was redefined in 2003 on the basis of the 2000 Census figures. The region increased in size by adding 8 counties. All were located in the suburban fringe, mostly to the South and Southwest of the existing 20 county metropolitan area. This new 28-county region is shown in Figure 1. Note the relatively small area of the Atlanta central city which now houses about 10 percent of the regional population and 20% of the regional employment. After decades of decline, however, the city is now growing again, adding about 5,500 persons per year.

Many planning agencies are responsible for regional planning in the area. The official regional planning agency for the Atlanta region, the Atlanta Regional Commission (ARC) includes only a 10 county region. Another agency, the Georgia Regional Transportation Authority (GRTA), responsible for bringing the region into compliance with the Federal Clean Air Act, encompasses a 13-county air quality non-attainment area. Still another 16-county district is responsible for water planning in the region, the Metropolitan North Georgia Water Planning District.

For purposes of this paper I have divided the Atlanta Metropolitan Statistical Area into three clusters of counties based on their population densities and development history: 1) urban core; 2) suburban; and 3) urban fringe. (Figure 3). Since the metropolitan area was only increased in size from 20 to 28 counties in the summer of 2003 I have not had time to convert the data base used here to the new definition so the 20 county definition will be used later when referring to each of these groupings. All 8 of the newly designated counties belong in the urban fringe grouping, raising that cluster from 9 to 17 counties in number. The suburban counties remain 6 in number and the urban core comprises 5 counties. The 5 core counties comprised the entire metropolitan area as recently as 1970. The data reported in Table 2 indicate that the core counties command a dominant share of employment in the region, 71%. The suburban counties now account for 15% of the total employment and the fringe counties another 13% of the regional total.

Characteristics of the Region

Atlanta is a relatively young city, having a population of only 90,000 in 1900 and not reaching the 1 million threshold until 1960. It has a reputation of being a transportation center, initially developed around many railroad corridors and more recently the Interstate Highway system, and the Hartsfield International Airport. Global attention fell on Atlanta as the host of the 1996 Summer Olympic Games.

Post-WW II growth in the region occurred as a result of the expansion of the regional distribution center function characterized by the growth of industrial parks housing warehouses and light manufacturing, and office parks populated by regional offices of national firms. By the 1960s and 1970s Atlanta's own headquarters firms and associated

white collar office activities mushroomed in size and number. The region's most prominent headquarters firm, Coca Cola, was joined by Delta Airlines, Georgia-Pacific, United Parcel Service, and others over the years. Several large utility companies such as Georgia Power (electricity) and BellSouth (telephone), and a large contingent of local, regional, and national government functions also flourish in the city. Atlanta also claims some industrial activity such as automobile assembly, aircraft manufacturing, and high technology firms but the white collar services function remains Atlanta's stock-in-trade.

Until the 1950s, most of the employment in the region occurred in the downtown area. Warehousing, distribution, and retail activities led the employment exodus from the center city in the 1950s, following the radial arterial highway and freeway network outward. By the 1970s, several regional shopping centers and office parks formed an arc around the northern suburbs, following the path of the newly constructed circumferential highway. Soon these northern suburbs began developing into full fledged suburban downtowns, which later came to be known as edge cities. The disproportionate attractiveness of development on the North side of the region occurred as it housed the highest income suburbanites, including corporate executives who make the business location decisions.

Today, three edge cities exist to the North of the downtown area, and none occurs on the south side of the region, although the airport area has become a major employer. The downtown area remained a large employer for the region despite this outlying growth (Figure 2). New functions and activities gravitated to the central business district to replace breakaway functions. Hotel/convention/sports/entertainment activity is responsible for much of this ongoing downtown strength. Government activity also remains strong. High order business services such as banking, legal, and advertising functions also remain active in the downtown core. The downtown has also expanded to the north and seamlessly joins with the rapidly expanding midtown market which houses several arts functions and is populated by many new post-modern office towers.

Atlanta's Reputation

The suburban growth machine in Atlanta is paced by the rapid outlying expansion of single family residential subdivisions. The infrastructure that supports this growth is typically provided at the county level which allows for the large scale expansion of the roads, sewers, schools, fire and police networks. Unlike most of the rest of the U.S., local incorporated municipalities are not the major service provider, hence the label *urban county* to describe the prevailing practice of service provision. Local county government officials are also responsible for planning and zoning. A pro-growth attitude prevails as counties compete with one another to attract the most growth so as to increase the tax base. This laissez-faire growth ethic creates leap frog development patterns served by the automobile. Not surprisingly, rampant sprawl is the result.

Atlanta gained a reputation as Los Angeles East in the 1990s. Several national media reports called the region a "party animal of growth" and/or a "poster child for sprawl." Other studies noted the region lost 50 acres of forested land a day in the 1990s.

Polycentric City Paradigm

The polycentric city or pepperoni pizza model was widely heralded as the most appropriate conceptualization of the growth and development process in the Atlanta region in the 1970s and 1980s (Hartshorn and Muller, 1989), owing to the importance of suburban downtowns in capturing a diverse array of economic activity. Indeed, this perspective was later reinforced by the popularity of the edge city conceptualization introduced by Garreau in 1991.

The intellectual appeal of the edge city perspective was grounded on the notion that a concentration of activity in a suburban core area would assist in the transformation of suburban bedroom communities into diversified mixed use centers. More balance in the jobs/ housing mix would also occur. In turn, increased densities would mean shorter work trips and a friendly environment for transit services. The end result would be less sprawl or so the argument went.

Edge City Profiles

In location terms, Atlanta's edge cities occur in the northern suburbs and in the city itself (Figure 2). The downtown/midtown area can be counted as a single edge city. The Buckhead area is a second center, anchored by the largest retail mall in the southern half of the country and a high profile office and hotel skyline. Buckhead also houses high-rise residential towers and possesses a concentration of upscale restaurants and nightclubs/ bars, giving it a reputation as the center of the nightlife in the region.

The Perimeter Center and Cumberland edge cities evolved at intersections of the circumferential beltway and radial highways, while the Roswell/Alpharetta edge city, the newest center lies in the far northern suburbs astride the GA 400 freeway. The Perimeter Center area is by far the largest of the edge cities with an employment of over 225,000 persons (Table 3). Perimeter Center claims the largest number of headquarters firms in its orbit of any of the edge cities. It also contains the tallest suburban office towers in the region and a growing high density housing market.

As a group these edge cities increased their employment levels from 576,000 persons in 1990 to 751,000 persons in 2000 (Table 3). Despite this expansion, the relative share of total employment in these centers has not increased. Moreover, work trips are not shortening as Atlantans' do not necessarily live and work in the same area. The spatial mismatch of jobs and housing continues to increase. While the northern suburbs claim 57% of the region's jobs and 56% of the population, the southern suburbs only claim 21% of the region's jobs in comparison to 30% of the employment. The southside exports most of its growing share of white collar residents to the northern suburbs for work, contributing significantly to traffic congestion.

Not only do most of the people that work in these edge cities not live there, but those that live there do not work there. Much of the housing in these edge cities is very expensive. This situation fuels the outward movement of residents seeking more housing for the dollar. It also disadvantages minorities.

Edgeless City

Notwithstanding the relative strength of the edge cities in Atlanta as employment centers, including the downtown/midtown area, a growing share of activity now locates in scattered sites away from these centers. Low density fringe areas are particularly attractive areas for growth due to the lower cost of land and permissive zoning regulations in these areas. This process has been particularly pronounced in the South. "The southeast is evolving into this huge countrified city across a vast space." (Lang, 2001) Lang defines such areas as edgeless cities (Table 4). Edgeless cities are low density areas that encompass entire counties and are not easily defined due to their amorphous structure. They appear as "vast swaths of isolated buildings that are not pedestrian friendly, not easily accessible by public transport, nor designed for mixed use." While the single family housing explosion in the suburbs leads the outward movement process, relatively footloose high technology firms, back offices, and distribution centers and many forms of retail activity are attracted to edgeless locations. There is no high profile office or hotel skyline in these edgeless

communities. There is no focus, “no there there.” It is estimated that nearly 30 % of the employment in the City of Atlanta occurs in edgeless locations (Table 5), 60% of northern suburbs employment occurs in these settings, and 100% of the employment in the southern suburbs and urban fringe. These edgeless locations account for about 1.5 million of the 2.2 million jobs in the region or just over 60% of the total, a share that is growing at an alarming rate.

Edgeless city growth can be classified as suburban sprawl due to its low density form and the almost complete dependence on the single occupancy automobile to reach and connect these locations. The lure of cheap land and the urban county governance structure of the region contributes to this dispersed development pattern. The prevailing market-driven land speculation/land development process feeds this growth tradition as does the lack of understanding on the part of local officials of the connections between sprawl, traffic congestion, and air pollution. Outdated local government planning and zoning practices, weak regional planning, and government fragmentation also contribute. Moreover, the primary motivation of local government leaders is to expand the local tax base and keep tax rates low.

Severe traffic congestion is now the number one public concern in the region due to the large number of single occupancy vehicles (SOV) used for the work commute. Atlantans now drive 36 miles a day on average for the work trip, a number higher than any other metropolitan area in the country on a per capita basis. There are more than 3 million registered motor vehicles in the region traveling over 108 million miles a year. At the same time less than 5% of the region’s residents commute by transit.

Air Quality Deterioration

Due to excessive violations of the federal 1970 Clean Air Act as amended, a 13-county area is now in noncompliance with national air quality standards. When the regional transportation plan expired in 1998, and the area was in violation of air quality standards, federal funds for roads were frozen. Fully 58% of the problem results from motor vehicle emissions interacting with sunlight, creating smog. The pollution problem is most severe in summer afternoons. While the area now falls in the serious air quality category it appears that it will soon be assigned to the more critical severe category.

The Georgia Regional Transportation Authority (GRTA) was created in 1999 by the state government to address the problem and develop strategies to bring the region back into compliance. In the long term stricter land use planning guidelines will need to be implemented including growth management practices, land use shifts, higher densities, more reliance on transit and pedestrianization but in the interim the emphasis is on expanding HOV lanes on the expressways and developing an integrated regional bus transit system. A new regional transportation plan has again been adopted and approved by the federal government but is being challenged by environmental groups.

Public Transportation

At present, a two-county integrated bus and rail system, operated by the Metropolitan Atlanta Rapid Transit Authority (MARTA), offers transit services in the City of Atlanta (Fulton County) and DeKalb County. The MARTA system suffers from financial problems and cut service by 2% in 2002. In addition, three other suburban counties recently each began their own bus service: Gwinnett, Cobb, and Clayton. Unfortunately, cross-town suburban transit services are very poor, with few options for suburb to suburb travel.

Due to historical traditions, the MARTA bus and rail system focuses mainly on radial trips in and out of the downtown area. Excellent services are offered in these corridors but these areas account for only a small portion of the employment in the region. The airport area, and the downtown/ midtown, Buckhead, and Perimeter Center edge cities are all served by the MARTA system but the latter area is served solely by one radial line. Internal circulation in the Buckhead and Perimeter Center areas are still very dependent on the automobile and congestion levels are significant. Privately funded local community improvement districts in each of these areas are implementing shuttle bus services to facilitate internal circulation but the design of both areas inhibits pedestrian and transit-friendly service. Plans are also afoot to develop a state-level commuter rail network focused on Atlanta, but financing difficulties seem to have stalemated the program for the foreseeable future.

Smart Growth Alternatives

In response to the increasing concern with traffic congestion and long commutes it is not surprising that the “back to the city” movement trend in the region has gained momentum in the past five years. In some ways the 1996 Summer Olympic games kick-started the process, due to infrastructure improvements in the downtown area, and the renovation of many older properties for hospitality venues during the games. These buildings were later converted to loft housing. The favorable publicity during and after the games hyped the advantages of downtown living and showcased the bustle of the 24-hour city during the games. The back to the city trend has gained momentum since that time as the number of warehouse conversions to loft housing accelerated, new mid-rise and high-rise housing entered the downtown/midtown market changed the downtown/midtown skyline, and upscale infill housing expanded in older close-in single family suburbs.

Several conferences and workshops have been sponsored by local and national environmental and planning groups touting the need for a different approach to development in the region. Collectively, these initiatives call for more emphasis on smart growth and sustainable development. These programs call for more jobs/housing balance, greater reliance on mass transit, and growth management. Alternative urban design approaches such as a return to the grid street system instead of using cul de sacs, developing town centers, using narrower streets, and a more pedestrian friendly walking environment. Several developers in the region are starting to take initiatives in this area with new developments utilizing some of these strategies but there has been more talk than action to date. Most examples of this new approach involve the planning/government sector and public/ private partnerships.

The Livable Centers Initiative (LCI) sponsored by the Atlanta Regional Commission, with the use of federal transportation dollars, began a program in 1999 to provide planning grants, followed by implementation funds, to local governments and other organizations to stimulate develop plans to revitalize old town centers, and retail malls, etc. Projects typically involve pedestrianization strategies, improving streetscapes, expanding housing opportunities or improving transit access. This program has been successful but has done little to redirect prevailing growth trends.

Suburban mixed use development projects have been slow to materialize and few examples have emerged in the suburbs due to archaic zoning restrictions and financing difficulties. Most examples of these mixed use projects have evolved in the city not the suburbs, several involving brownfield redevelopment, such a former steel mill site that is becoming a major mixed use intown development and a few transit oriented development projects at MARTA station locations.

One positive sign that lifestyle patterns are changing is that population densities are increasing throughout the region due to ongoing infill projects and the urbanization of the suburbs (Table 6). The densities in the city of Atlanta increased for the first time in 2000 since 1970, and those in the 5 urban core counties have risen steadily over the past 4 decades and now average 1,800 persons per square mile. These totals are still significantly lower than the 3,161 persons per square mile in the city and are far lower than comparable suburbs in the West such as those in Phoenix and Los Angeles. Population densities for the suburban and fringe counties remain extremely low.

Conclusion

Edgeless cities appear to be here to stay in Atlanta and will continue to expand and turn the city inside out. Given the large number of counties competing for growth and generally following their own way, implementing effective regional planning and regional public transportation in the Atlanta region will be very difficult. Nevertheless, both will be needed to tame edgeless city growth in the future. Systemic changes are also needed in how local governments operate in the region. It appears that more state-level involvement will be required to coordinate growth in the Atlanta region but there is a reluctance to intervene due to the long-standing attitude in the South that less, rather than more, government is the answer.

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Table 1.
Atlanta Ranks 3rd in Land Area

		Square Miles (000's)
1.	Dallas	9.0
2.	Houston	8.9
3.	Atlanta	8.4

Source: Author

Table 2.
Employment Shares, Atlanta Metropolitan Area (20 county)

	1990	2000
	%	%
Urban Core Counties (5)	75	71
Suburban Counties (6)	13	15
Urban Fringe (9)	12	13

Source: Atlanta Regional Commission

Table 3.
Edge City Employment (by super-district)

	1990	1999
Perimeter Center	183,000	225,000
Cumberland	83,000	119,000
Buckhead	75,000	96,000
Roswell/Alpharetta	34,000	96,000
Downtown/Midtown	201,000	215,000
Total	576,000	751,000

Source: Atlanta Regional Commission

Table 4.
A Comparison of Downtowns, Edge Cities and Edgeless Cities

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Category	Scale	Office Density	Basic Units	Boundary
<i>Downtown</i>	A Mile or a Few Square Miles	High to Very High	City Blocks	Sharp, Well Delineated
<i>Edge City</i>	Several Square Miles	Medium to High	Freeway Interchanges	Fuzzy But with a Recognizable Edge
<i>Edgeless City</i>	Tens or Even Hundreds of Square Miles	Low to Very Low	Municipalities or Counties	Indeterminate, Very Hard to Delineate
Source: Lang, 2000				

Source: Lang 2000

Table 5.
Total Estimated Employment in Edgeless Locations, 2000
(20 County Region)

	Edgeless Share (%)	Employment (1999)
City of Atlanta	28	120,717
Northern Suburbs	60	654,568
Southern Suburbs	100	396,421
Urban Fringe	100	303,500
Total		1,475,513

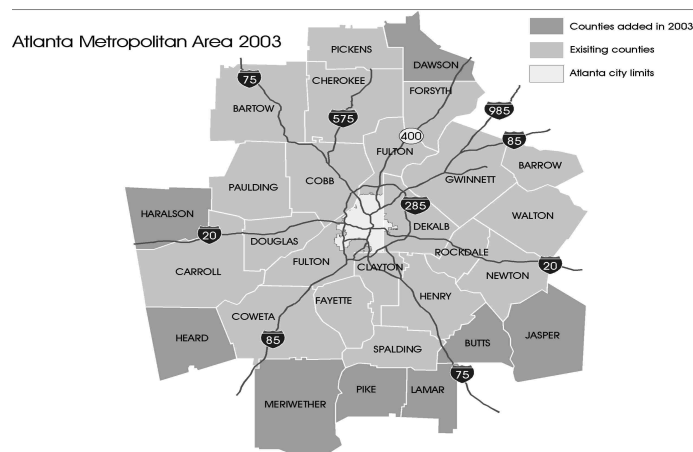
Source: Author

Table 6.
Population Densities, Atlanta MSA (20 county)
(Persons per square mile, by county)

	1970	1980	1990	2000
City of Atlanta	3,750	3,220	2,985	3,161
Urban Core (5)	816	1,032	1,317	1,766
Suburban (6)	93	175	277	434
Urban Fringe (9)	75	97	129	199

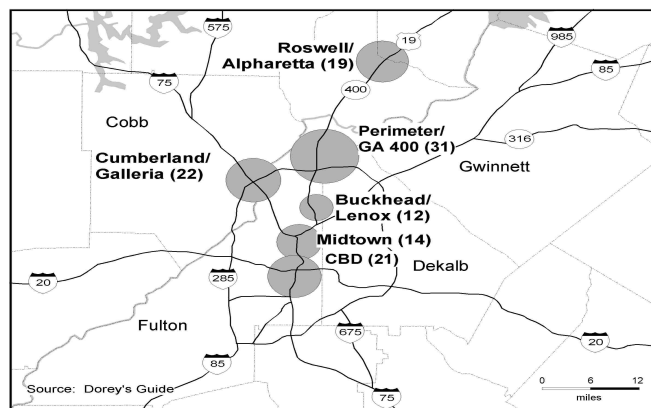
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Figure 1.
Atlanta Metropolitan Area 2003



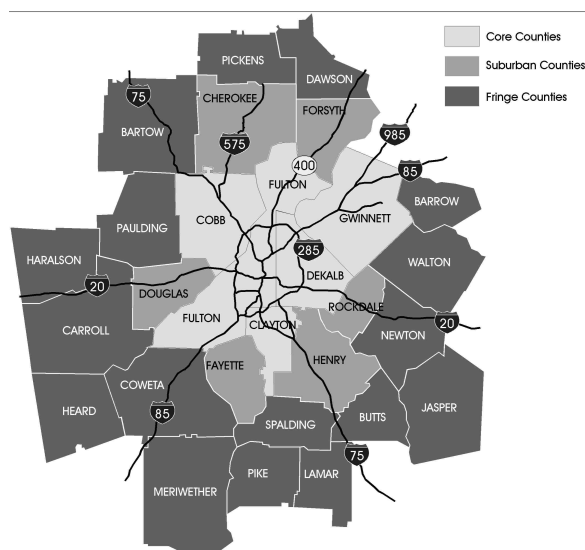
Source: Author

Figure 2.
Atlanta Downtowns
Commercial Office Space
(In millions of square feet)



Source: Author

Figure 3.
Core, Suburban, and Fringe Counties



Source: Author