

How Big Can Atlanta Get?

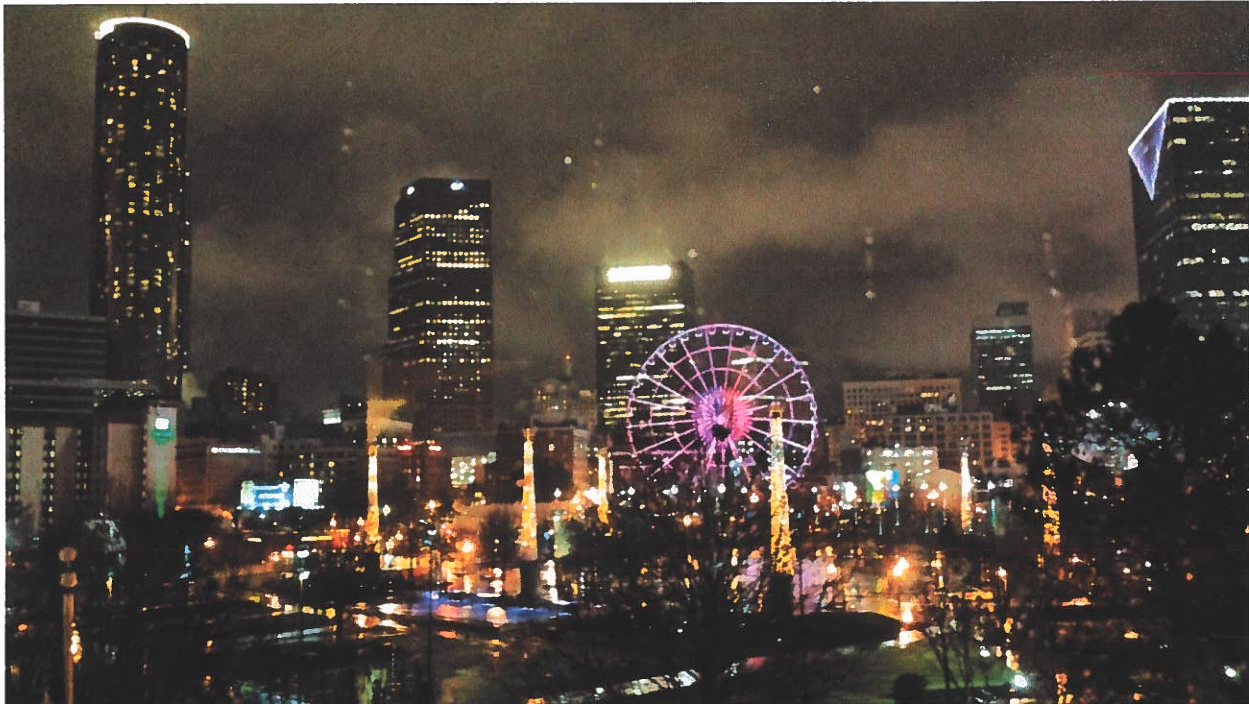


Photo: Arthur C. Nelson

Briefing paper prepared for the City of Atlanta Department of Planning and Community Development by

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September 2016

Executive Summary

Atlanta is poised to become a city of 1.3 million by 2050. This would be remarkable considering its 2015 population is less than 500,000. It would also mean the City would have to attract about a quarter of all the growth projected for metropolitan Atlanta from 2015 to 2050. There are several reasons why this is realistic:

- After decades of decline, the City is increasing its share of the region's growth. In the 2000s, it attracted five percent of the region's household growth which has doubled between 2010 and 2014.
- Yet, Atlanta's growth is less than half that of similarly-sized cities that, like Atlanta, are "inelastic" in being unable to annex much land. Those "aspirational" cities—Boston, Denver, Minneapolis, Portland, Seattle and Washington, DC—collectively have smaller incorporated city limits on average yet absorbed a third of their region's household growth.
- Scientific surveys of households indicate that about 15 percent of metropolitan Atlanta's residents would prefer to live in the City if there were opportunities. Indeed, Atlanta's aspirational cities account for about 18 percent of their metropolitan populations.
- Given its low density, land base, performance of similar aspirational cities, and market surveys, it is reasonable for Atlanta to account for at least 15 percent of the metropolitan area population in 2050, or 1.3 million people.

But where will the additional 800,000 residents live? The following opportunities have the capacity to accommodate more than 900,000 new residents:

- More than 500,000 can live in redeveloped commercial corridors and nodes following the national pattern for retrofitting these built environments.
- An additional 200,000 people may be added to downtown, midtown and Buckhead based on studies showing that up to three percent of Americans would choose to live in those kinds of locations if they had the opportunity.
- Another 250,000 may be able to find homes along the 22-mile Atlanta BeltLine.

Atlanta would also need to add another 800,000 jobs to these same areas.

Yet, most of Atlanta's future development can be low-rise and below-the-tree-line meaning that from even a short distance away such development would be masked by trees and other vegetation. While there are challenges to facilitate these changes, benefits are substantial, such as:

- Atlanta's economy would become more resilient with more people, jobs, and interactions between them, actually leading to more jobs and payroll.
- Through infill and redevelopment, public facility costs for most infrastructure projects may be cut by up to half per new unit of development resulting in savings that can be returned to taxpayers or reinvested into amenities making the City even more attractive, or a combination of both.

As the official seal of the City notes—"resurgens," Atlanta knows how to continually renew itself.

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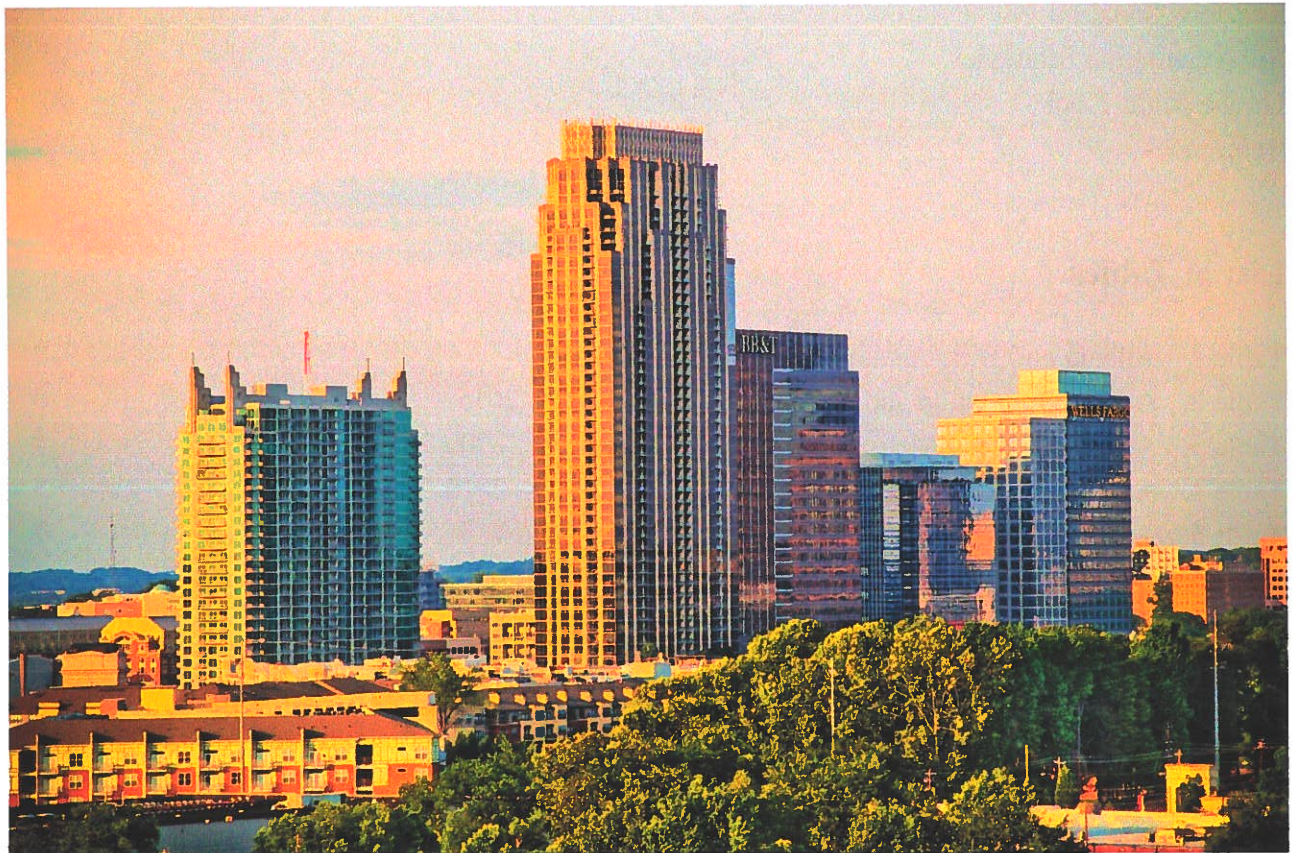


Photo: Hector Alejandro - Flickr: Atlantic Station, an urban infill/redevelopment project.
<https://commons.wikimedia.org/w/index.php?curid=18964092>

Introduction

After decades of population decline, the city of Atlanta has been growing impressively since 2010. In 1970, the City was home to nearly one-half million people but declined to fewer than 400,000 in 1990. Growth during the 2000s brought the City's population back to more than 400,000 residents and in 2015 it was home to more than 460,000 people. More impressive is that the City now has more households (and implicitly more occupied housing units) than ever before—193,000 in 2015 compared to 163,000 in 1970. As will be shown, the market demand for living in Atlanta exceeds one million residents by 2050, despite being considered an “inelastic” city. This is because as the metropolitan area's boundaries continue to expand (even into Alabama and North Carolina), the city limits are mostly fixed as annexations are likely to be limited in area and population change. Can Atlanta's city limits accommodate more than one million people it? The answer is “yes”.

This report will show how Atlanta can be home to 1.3 million people and perhaps even more by 2050. It is divided into these nine sections:

- Two World Views
- Atlanta on the Rebound
- Comparing Atlanta to Aspirational Peers
- Realistic Demand for Atlanta @ 1.3 Million Residents
- Where will the New Atlantans Live?
- Benefits of 1.3 Million Atlantans
- The Jobs Equation
- Implementation strategies
- On the Right Track

Growing 1.6 fold—from less than 500,000 residents in 2015 to 1.3 million by 2050—does not mean necessarily that Atlanta will become a *different* city. For over 150 years, the City has been known for its unique residential architecture and organically-driven, mixed-use urban design. Through growth combined with preserving the design features of the city and creating even stronger, more socially diverse neighborhoods, the Atlanta of the future can be even more Atlanta-like than today. Indeed, the noted American urban designer, Alexander Garvin (2016), suggests that Atlanta can become one of America's great cities by leveraging its architectural and urban design heritage.

Two World Views

There is something very special about Atlanta’s entrepreneurial spirit. This can be seen in the comparison between metropolitan Atlanta’s and metropolitan Birmingham’s growth since 1950.

Indeed, there may be no two metropolitan areas so near each other with such opposing views toward growth than Birmingham and Atlanta. For the *Birmingham Business Journal*, Ty West has written extensively about an underlying attitude of business leaders who are against wanting to become too big, especially as big as Atlanta or even as big as Nashville. For instance, he observes that: “Atlanta made some smart decisions that led to its growth, but Birmingham also made some bad ones that created the massive chasm between the two metros that exists today... At the time, we probably didn’t realize how those decisions would ultimately affect us decades down the road.”¹

One of those decisions led to Atlanta receiving federal support for a regional airport that was offered first to Birmingham. As Gilbert Nicholson observed also in the *Birmingham Business Journal*, “... the U.S. Postal Service ... was considering Birmingham as a Southeastern hub for airmail. Atlanta city and business leaders landed that deal for Atlanta. Birmingham, the story goes, could have been Atlanta.” The story is of course much more nuanced and a clear historical account may not be possible.²

The airport decision is merely representative of underlying world views between these metropolitan neighbors. Where Atlanta was able to attract multiple airlines to its airport, making it their hub—notably Delta Air Lines, Birmingham has none. Atlanta’s civic, business and political leaders were able to attract the 1996 Olympiad. Metropolitan Birmingham is home to one Fortune 500 firm while Metropolitan Atlanta boasts 18. Entrepreneurial differences may help explain differences in growth between these two metropolitan areas. In Table 1, we see that both metropolitan areas had fewer than one million residents in 1950. While metropolitan Birmingham added nearly 800,000 people between 1950 and 2015, metropolitan Atlanta added nearly five million.

Table 1
Atlanta and Birmingham Compared, 1950-2015

Benchmark	Birmingham	Atlanta
1950	560,000	730,000
2015	1.3 million	5.6 million
View	Don’t get too big	Y’all come down

Source: Data from Census.

¹ See <http://www.bizjournals.com/birmingham/news/2015/02/27/how-long-before-birmingham-doesnt-want-to-be.html>.

² See <http://www.bizjournals.com/birmingham/stories/2003/04/28/story3.html>. Nicholson’s account includes many theories for why Birmingham did not secure the airport that went to Atlanta, many of them related to logistical needs of airlines at the time.

Atlanta on the Rebound

Though metropolitan Atlanta grew—becoming among the nation’s fastest growing metropolitan areas since 1970 and by some accounts one of its most sprawling—the City actually lost population. As seen in Table 2, Atlanta’s population peaked in 1970 at just under 500,000. By 1990 it had lost more than 100,000 residents even though the metropolitan area grew by 1.2 million. But is another important nuance. Despite losing 100,000 people between 1970 and 1990, the City actually had more households and occupied housing units in 1990 than ever before. Key reasons for this are national trends toward smaller household sizes—meaning that more homes are needed to house the same number of people, and “white flight” that depopulated the City of thousands of White middle class households with children (Keating 2001).

Table 2
Atlanta Population and Household Change, 1970-2015

Year	Population	Percent Change	Households	Percent Change
1970	495,039		162,291	
1990	394,017	-20%	164,174	1%
2000	416,474	6%	168,341	3%
2015	463,878	11%	193,220	15%

Source: Census

The 1990s saw important changes as a combination of young adults and households without children were attracted to the City, increasing its population by six percent and households by three percent. Yet as the City added about 20,000 people, the metropolitan area added about 1.3 million. Nonetheless, the turnaround may have started during that decade.

American metropolitan areas are being reshaped by many factors (Nelson 2013). Among them is a resurgence in the demand for central city living. Cortright (2015) observes that central cities (such as Atlanta) offer proximity to services and jobs along with an affordable housing stock—sometimes affordable because transportation costs are lower due to transit and job accessibility. He further notes that central city neighborhoods are becoming more attractive to well-educated young adult singles and couples (Cortright, 2014). Table 3 shows how these trends began to favor Atlanta during the 2000s, accelerating into the 2010s.

In Table 3, we see that although its share of the metropolitan area’s total population change was negligible, the City accounted for five percent of the metropolitan area’s household growth. This is consistent with national trends seen in the 2000s as central cities became attractive to younger people and households without children. Notably, the City attracted nearly 8,000 households with householders younger than 35 years of age while the metropolitan area as a whole gained about 5,000 such households: in other words, the metropolitan area as a whole actually *lost* households in that age group while the City gained.

Table 3
Atlanta City and Metropolitan Area Comparisons, 2000-2010

Metric	Region Change 2000-10	Atlanta Change 2000-10	Atlanta Share of Change
Population	985,881	3,529	0%
Minority	905,223	(18,626)	
Households	370,135	16,995	5%
HHs w/Children	124,301	(4,240)	
Single Person HHs	124,491	16,896	14%
2 or more Adult HHs No Children	121,343	4,339	4%
HHs <35	4,929	7,812	158%
HHs 35-64	282,651	9,053	3%
HHs 65 and over	82,555	35	0%
Owner Occupied Units	235,070	9,679	4%

Source: Census. Shares of change calculations where one or both figures are negative are not reported for ease of interpretation.

Table 4 suggests that many of the trends emerging in the 2000s appear to be accelerating in the current decade. After decades of decline, the City attracted more than 10 percent of the metropolitan area’s new population and households. Notably, Atlanta attracted a quarter of the metropolitan area’s change in single person households. There is an anomaly, however: both the metropolitan area and Atlanta lost householders under the age of 35 suggesting that millennials have not yet started forming households even though there are more millennials than baby boomers—75.4 million compared to 74.9 million respectively (Fry, 2016). As millennials form households, a large share—though certainly not most—may choose central cities in which to start their adulthood if not stay through their life stages.

There is another emerging market opportunity. Between 2010 and 2014, Atlanta accounted for 10 percent of the metropolitan area’s growth in householders aged 65 and over. As baby boomers become seniors they will dominate the region’s population dynamics. With its services—especially in health care, transit, and amenities, Atlanta may be well positioned to attract a large share of senior households relocating from their suburban homes.

Will the turnaround be sustained? The answer is “yes” for reasons explained later.

Table 4
Atlanta City and Metropolitan Area Comparisons, 2010-2014

Metric	Region Change 2010-14	Atlanta Change 2010-14	Atlanta Share of Change
Population	328,513	36,009	11%
Minority	236,231	13,535	6%
Households	41,126	4,289	10%
HHs w/Children	(14,434)	(2,614)	
Single Person HHs	35,658	8,993	25%
2 or more Adult HHs No Children	19,902	(2,090)	
HHs <35	(37,717)	(2,222)	
HHs 35-64	24,795	1,249	5%
HHs 65 and over	54,048	5,262	10%
Owner Occupied Units	(44,261)	278	

Source: Census. Shares of change calculations where one or both figures are negative are not reported for ease of interpretation.

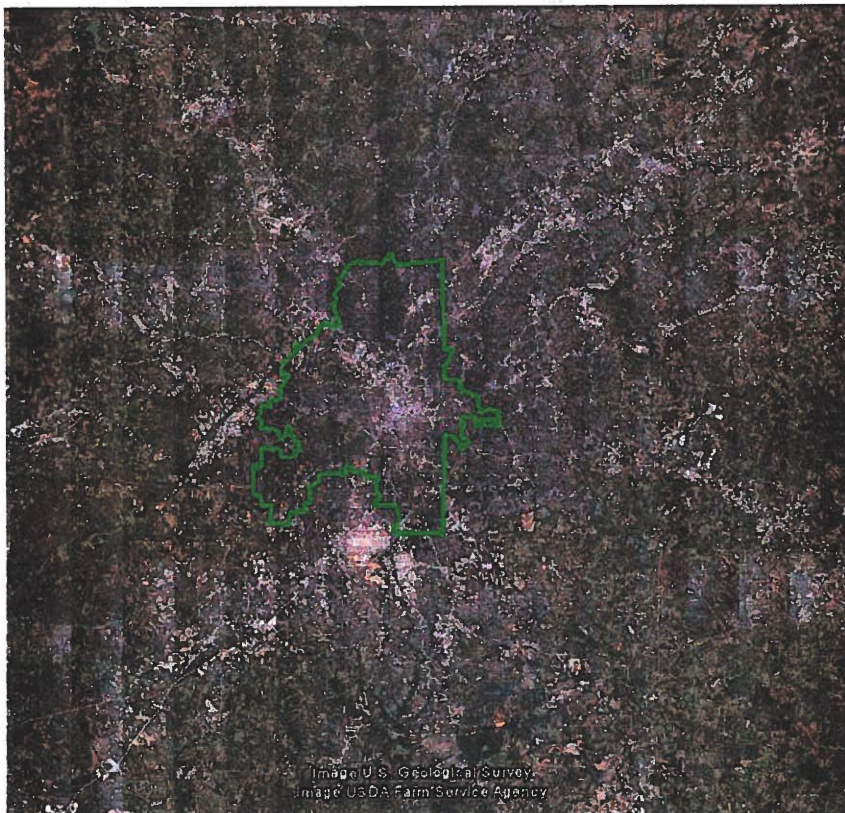


Image: <https://grist.files.wordpress.com/2010/11/atlgoogleearth1.jpg>

Comparing Atlanta to Aspirational Cities

How does Atlanta's turn around compare to similar cities? This question is addressed by comparing growth metrics for selected "aspirational" cities that meet these criteria:

- Population range from about 400,000 to 700,000 in 2015;
- Located in growing metropolitan areas of two million to six million people;
- Considered attractive cities according to the popular media; and
- Unable to annex significant land area and population, meaning they are "inelastic" (Rusk 2013)

These cities meet those criteria:

- Boston
- Denver
- Minneapolis
- Portland
- Seattle
- Washington DC (including the original District jurisdictions of Arlington County and Alexandria, VA)

Table 5 compares Atlanta to its "aspirational peers" with respect to selected metrics in 2014. For the most part, baseline metrics for the city of Atlanta and the metropolitan area are roughly comparable to the average of the aspirational cities. Figure 1 illustrates the comparison of Atlanta to the aspirational cities with respect to household growth between the periods 2000-2010 and 2010-2014. While the city of Atlanta's share of metropolitan household growth increased from about four percent during the period 2000-2010 to 11 percent during the period 2010-2014, the aspirational cities' rates were about 12 percent and 27 percent, respectively—more than double Atlanta's. Table 6 compares growth performance of Atlanta to the aspirational cities for the period 2000-2010 while Table 7 makes comparisons over the period 2010-2014.

Table 5
Atlanta Compared to Aspirational Peer Cities, 2014

Metric	ATL	BOS	DEN	MSP	PDX	SEA	DCA	Average
Population	456,012	656,051	663,862	407,181	619,445	668,337	658,893	589,969
Metro Population	5,345,192	4,732,161	2,636,542	3,206,449	2,287,448	3,671,478	5,744,398	3,946,238
Minority	281,161	356,806	310,235	161,550	178,377	226,139	423,460	276,818
Households	189,431	253,749	281,928	169,306	257,267	304,564	277,378	247,660
HHs w/Children	39,212	56,840	74,993	39,956	64,831	59,695	56,585	56,016
Single Person	90,548	93,633	108,824	68,230	86,956	121,216	123,711	99,017
2 or more Adults, no Child	59,671	103,276	98,111	61,119	105,479	123,653	97,082	92,627
HHs <35	60,293	84,274	87,902	58,744	64,318	95,253	83,691	76,354
HHs 35-64	93,773	125,779	146,220	87,557	148,878	157,169	143,224	128,943
HHs 65 and over	35,365	43,696	47,806	23,005	44,071	52,142	50,463	42,364
Owner Occ Units	83,432	88,610	135,736	80,777	132,248	138,638	112,492	110,276

Source: Census

Note: Abbreviations are for the airports serving the metropolitan areas of Atlanta (ATL), Boston (BOS), Denver (DEN), Minneapolis (MSP), Portland (PDX), Seattle (SEA), and Washington, DC (DCA).

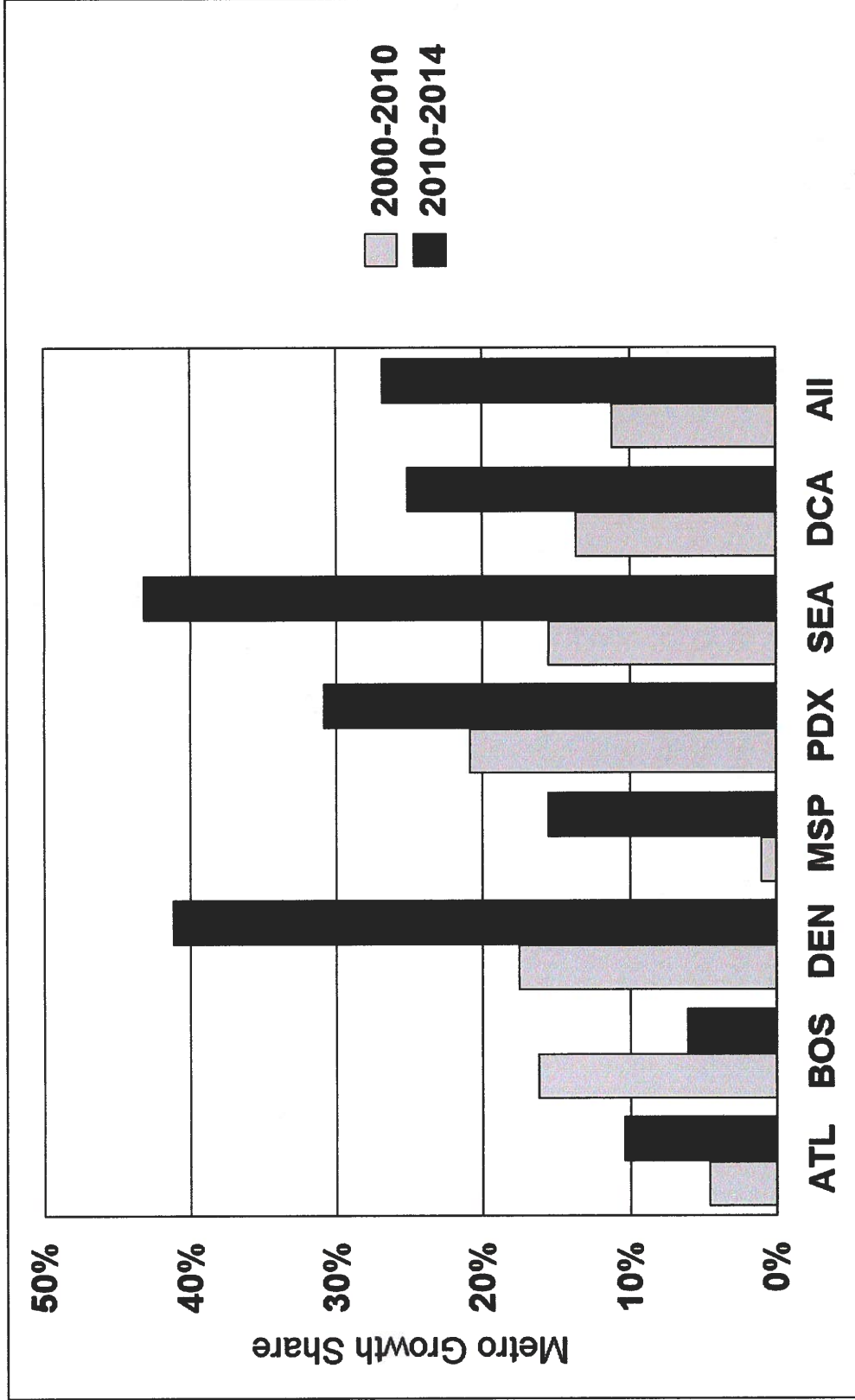


Figure 1
Atlanta Share of Metropolitan Household Growth Compared to Aspirational Peer Cities, 2010-2014

Source: Census

Note: Initials are the airport codes for the principal cities: ATL mean Atlanta; BOS means Boston; DEN means Denver; MSP means Minneapolis-St. Paul; PDX means Portland OR; SEA means Seattle; and DCA means Washington, DC.

Table 6
Comparing Atlanta's Performance with respect to Selected Metrics to its Aspirational Peers, 2000-2010

Metric	Atlanta		Atlanta		Atlanta		Select		Select	
	Metro	City	Share of	City	Share of	Metros	Cities	Share of	Cities	Metro
	Change	Change	Metro	Change	Metro	Change	Change	Change	Change	Change
Population	985,881	3,529	0%	2,132,016	233,397	11%				
Minority	905,223	(18,626)	-2%	2,026,271	99,846	5%				
Households	370,135	16,995	5%	841,731	124,311	15%				
HHs w/Children	124,301	(4,240)	-3%	137,195	554	0%				
Single Person	124,491	16,896	14%	283,527	54,599	19%				
2 or more Adults, no Child	121,343	4,339	4%	421,009	69,158	16%				
HHs <35	4,929	7,812	158%	(11,272)	40,572	See text				
HHs 35-64	282,651	9,053	3%	609,618	84,884	14%				
HHs 65 and over	82,555	35	0%	243,385	(1,182)	0%				
Owner Occ Units	235,070	9,679	4%	509,241	52,091	10%				

Source: Census

Table 7
Comparing Atlanta's Performance with respect to Selected Metrics to its Aspirational Peers, 2010-2014

Metric	Atlanta Metro Change	Atlanta City Change	Atlanta Share of Metro Change	Select Metros Change	Select Cities Change	Select Cities Share of Metro Change
Population	328,513	36,009	11%	1,171,289	309,170	26%
Minority	236,231	13,535	6%	842,670	148,159	18%
Households	41,126	4,289	10%	218,926	69,479	32%
HHs w/Children	(14,434)	(2,614)	See Text	(2,500)	21,174	See Text
Single Person	35,658	8,993	25%	81,846	16,343	20%
2 or more Adults, no Child	19,902	(2,090)	See Text	139,579	31,962	23%
HHs <35	(37,717)	(2,222)	See Text	(28,029)	(3,104)	See Text
HHs 35-64	24,795	1,249	5%	50,165	51,670	103%
HHs 65 and over	54,048	5,262	10%	196,790	20,913	11%
Owner Occ Units	(44,261)	278	See Text	12,765	10,061	79%

Source: Census

Table 7 shows that from 2000 to 2010, Atlanta did not gain share of the metropolitan area's growth although it did account for about five percent of the metropolitan area's total household growth. In contrast, the aspirational cities averaged about 11 percent of their metropolitan area's population growth and about 15 percent of the household growth. Interestingly, Atlanta accounted for all the change in metropolitan householders under the age of 35, comprised of younger Gen-Xers (born between 1965 and 1980) and older millennials (born between 1981 and 1999). Indeed, excluding Atlanta, the metropolitan area actually lost households in this age group. Nonetheless, the aspirational cities did even better.

The period 2010-2014 saw different patterns emerge. Atlanta attracted about 11 percent of the metropolitan areas' population growth and about 10 percent of its household growth. While much higher than seen during the 2000s, Atlanta's share of the gain was still about a third of the aspirational cities' share of metropolitan population and household growth, being 26 percent and 32 percent, respectively.³ Oddly, both the Atlanta metropolitan area and the city had fewer households with children in 2014 than in 2010 and while the metropolitan areas of the aspirational cities also lost households those cities themselves actually increased the number of those households. And, while Atlanta lost households comprised of two or more adults without children (though the metropolitan area gained), the aspirational cities added such households. All metropolitan areas and their central cities saw the number of householders under 35 fall during this period. Since those households could be called "millennials" (Fry 2016), this seems unusual considering more millennials were born than baby boomers. The reason may be that millennial households are forming much later in life than prior generations (Fry 2006). Finally, while Atlanta's number of owner-occupied homes increased during this period there were actually fewer owner-occupied homes in the metropolitan area in 2014 than in 2010. This is in stark contrast with the average of the aspirational cities as the number of owner-occupied homes increased in their metropolitan areas with the central cities accounting for nearly 80 percent of that growth.

Atlanta has certainly turned the corner from decline in prior decades to growth since 2000. But the aspirational cities performed many times better overall. The implication is that Atlanta is not attracting its share of the metropolitan area market demand for growth that seems plausible. The next section estimates what this market share may be.

³ One reason is that Atlanta's share of the metropolitan area population is somewhat smaller than the aspirational cities but that did not used to be the case. Moreover, as will be seen below, Atlanta's land area is much larger than most so it actually has more room to grow than most of the aspirational cities.

Realistic Demand for Atlanta @ 1.3 Million Residents

What is the market demand for living in the city of Atlanta? This question will be answered considering only general demand factors and not such constraints as facility capacity, land supply, and development regulations.

Survey research can be used to estimate the market demand for living in central cities. Since 2004, the National Association of Realtors (NAR) has reported its “Community Preference Survey” four times. Since 2011, those surveys occur every other year. These are scientific surveys of several thousand people with many of the same questions being asked during every survey. The NAR uses “stated preference” or “forced choice” designs. This is different from purely preference surveys. Certainly, when people are asked what they prefer as a residence without any constraints, 70 to 80 percent chose the detached single family home option. But when trading off attributes between choices, many choose something different. Those surveys are key to market demand analysis. The latest survey, in 2015, was limited to just the 50 largest metropolitan areas as opposed to being a national survey. (The Atlanta Metropolitan area is the nation’s ninth largest.) The 2013 survey is the most recent national survey. Both are used here. Table 8 uses the NAR’s surveys to estimate the market demand share for living in different types of communities such as cities. Table 9 applies the lowest market demand figures from both surveys to estimate a reasonable minimum demand for living in certain kinds of communities.

Table 8
Community Preference Survey Selected Results

Community Preference Survey Question	2013 National Survey	2015 Large Metropolitan Survey
<i>Imagine for a moment that you are moving to another community. These questions are about the kind of community where you would like to live. Please select the community where you would prefer to live.</i>		
Houses with small yards, and it is easy to walk to the places you need to go.	53%	48%
Own or rent a detached, single-family house, and you have to drive to shops and restaurants and have a longer commute to work	39%	48%
<i>If you could choose where to live, in which type of the following locations would you most like to live?</i>		
City -Near mix of offices, apartments, and shops	15%	18%*

Source: National Association of Realtors (2013, 2015)

*The 2015 survey did not ask this question. The figure provided is based on the 2013 survey applied only to the 2013 survey respondents living in the 50 largest metropolitan areas.

Table 9
Estimated Market Demand for Selected Community Preferences

Community Preference Survey Question	Metropolitan Atlanta Demand 2015 @ 6M Residents	Metropolitan Atlanta Demand 2050 @ 9M Residents
Houses with small yards, and it is easy to walk to the places you need to go.	2,900,000	4,300,000
Own or rent a detached, single-family house, and you have to drive to shops and restaurants and have a longer commute to work	2,300,000	3,500,000
City—Near mix of offices, apartments, and shops	900,000	1,300,000

Source: National Association of Realtors (2013, 2015)

Note: “City” is assumed mean the city of Atlanta in the context of the question.

For purposes of this report, the key market demand indicator is respondents’ to live in a “city near a mix of offices, apartments and shops.” Using this as a guide, the City may anticipate:⁴

1.3 million Atlantans by 2050

How realistic is this? Considering Atlanta’s aspirational cities, this is a very realistic target, as shown in Table 10. *Note:*

- Atlanta has the smallest population and lowest population density among the aspirational cities
- Atlanta has the second largest volume of total land within its city limits among the aspirational cities—and 40 percent more land than the average—indicating the potential to accommodate more population in comparison to them
- While the aspirational cities account for 18 percent of their metropolitan area’s population, Atlanta is home to only eight percent of its metropolitan population further indicating substantial opportunity to absorb future metropolitan growth

Comparing Table 9 and Table 10, we see that the aspirational cities’ share of their metropolitan population is roughly equivalent to NAR survey results indicating that 15 to 18 percent of Americans prefer to live in a city.

⁴ To be sure there are many “City-like” communities across metropolitan Atlanta but they are small, usually limited to historic town squares or a few master-planned “new urbanism” developments. There are also many parts of Atlanta are quite suburban by design and would continue to function in the future as such.

Table 10
Population and Density of Atlanta Compared to Aspirational Cities

City	2015 Population	Land Area	Persons per Square Mile	Metropolitan Population	Share of Metropolitan Population
Atlanta	463,878	133	3,483	5,522,942	8%
Boston	667,137	48	13,841	4,628,910	14%
Denver	682,545	153	4,461	2,814,330	24%
Minneapolis	410,399	55	7,475	3,524,583	12%
Portland	632,309	133	4,754	2,389,228	26%
Seattle	684,451	84	8,148	3,733,580	18%
DC + Arlington & Alexandria VA	1,054,903	103	10,242	6,097,684	17%
Sum, Average Excluding Atlanta	4,131,744	576	7,172	23,188,315	18%

Source: Census



Photo: Arthur C. Nelson

Where will the New Atlantans Live?

In growing to 1.3 million residents, Atlanta will need to accommodate 800,000 more residents than living in the city now—an increase of 1.6 times. Between 2020 and 2050, the City would need to average about 12,000 new residents per year. This would be 10 times the rate of growth seen between 2010 and 2014 (about 1,200 occupied units annually) but it would be just two-thirds the average rate of growth seen among Atlanta’s aspirational peers (about 17,500 occupied units annually). One’s initial impression is that Atlanta could become a sea of high-rise, Manhattan-style, dense development. This is *not* the case.

At 1.3 million people, the city’s density would be about 10,000 persons and 4,500 residential units per square mile. While seemingly large, this is actually half the density of scores of European, British, and Australian suburbs (Nelson 2014). It is also approximately the current density of Alexandria, Virginia, which has an extensive open space system and the tallest building in the entire city is about 10 floors. Indeed, one has a difficult time seeing most of Alexandria’s development for the trees that cover it.

To accommodate 1.3 million residents, Atlanta’s guiding principles may include:

- Enhance the current system of linear spines of density and transit investment through the redevelopment of commercial corridors that converge on downtown and other major centers;
- Steer the highest density development to such major urban centers as Downtown, Buckhead, and Midtown as well as smaller-scale commercial nodes;
- Facilitate context-sensitive design of new development so that it is appropriate in scale to its surroundings, similar to what is being planned along the Atlanta BeltLine;
- Assure that most new development outside of these corridors is low-rise and often “below-the-tree-line”; and
- Preserve and enhance existing, stable residential neighborhoods.

Based on these principles, Atlanta has the capacity to accommodate more than 1.3 million people and associated jobs. This will be shown through simple assessments of development capacity along commercial corridors and nodes; in urban centers, and along the Atlanta BeltLine.

Commercial Corridor and Node Redevelopment

Every structure loses value over time, often becoming obsolete and needing to be replaced or repurposed. Nationally, the average useful life of residential structures is more than 150 years, mostly because residential property owners will renew homes to sustain their residential purpose. But the vast majority of nonresidential structures are less durable, lasting an average of less than 50 years. Some retail structures may last fewer than 20 years before being replaced. Figure 2 illustrates these differences in the useful life of structures.

As nonresidential structures depreciate in value over time, the land on which they sit usually appreciates at a rate roughly equivalent to the local population or employment growth rates. These twin economic forces are illustrated in Figure 3. Suppose a 50-year life structure opens its doors for business tomorrow morning. The structure may be worth 80 percent of the total parcel

value with land being the remaining 20 percent. The nonresidential structure loses value at a two percent per year so that after 50 years there is little or no value left. The land, however, may gain value as the market area grows. If land value appreciates at two percent per year, compounded, as may be the case throughout much of Atlanta, by the 28th year the land will be worth more than the structure. To unlock the economic potential of the property based on higher land values, profit-maximizing property owners will often seek to reposition their investment to the next level of highest and best use a few years before and certainly within a few years after.

I have estimated that largely because of these dynamics, much of metropolitan American will be reshaped between now and midcentury mostly through the redevelopment parking lots (Nelson 2013; see also Dunham-Jones and Williamson 2011).

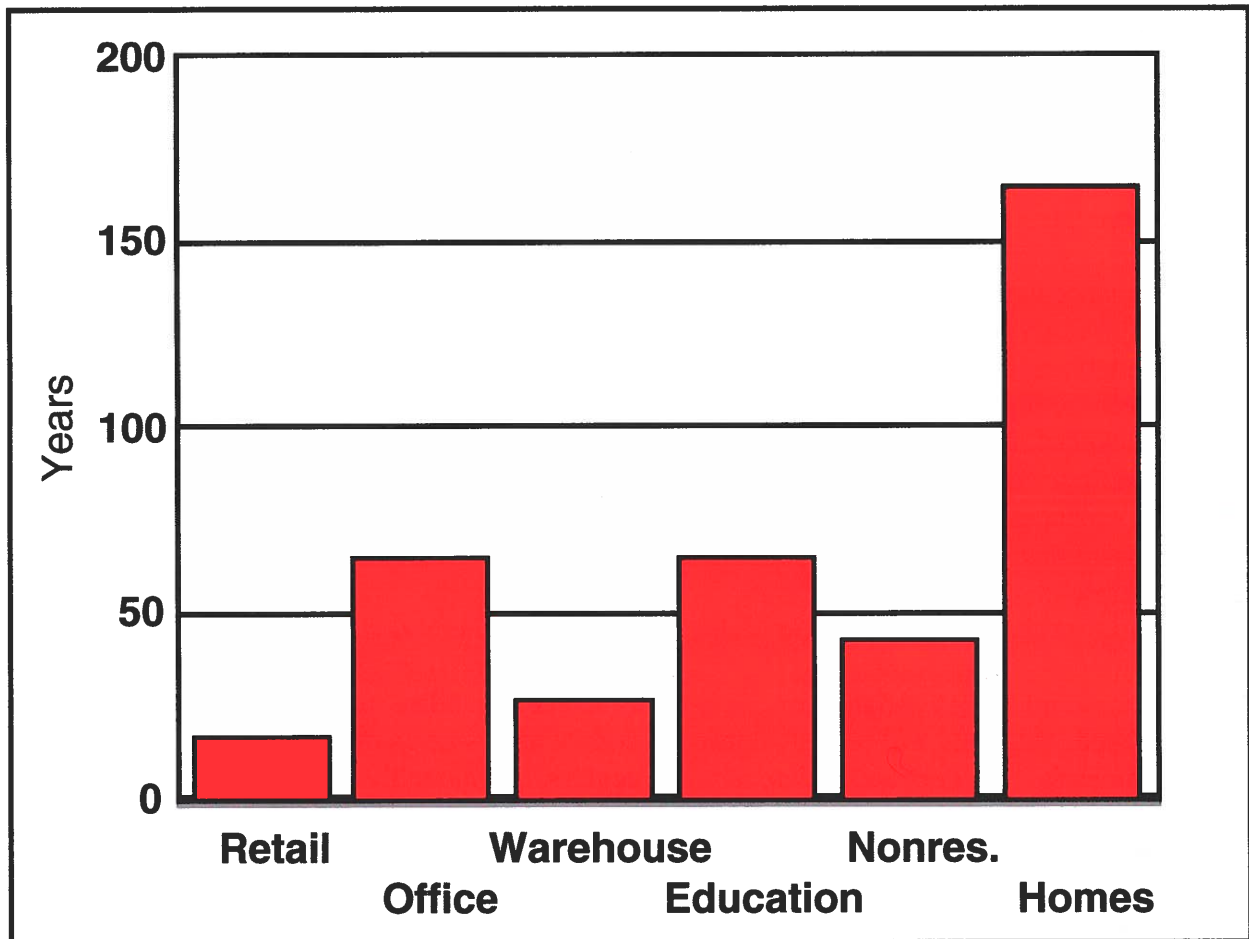


Figure 2
Average useful life of selected structure types

Source: Nelson (2013).

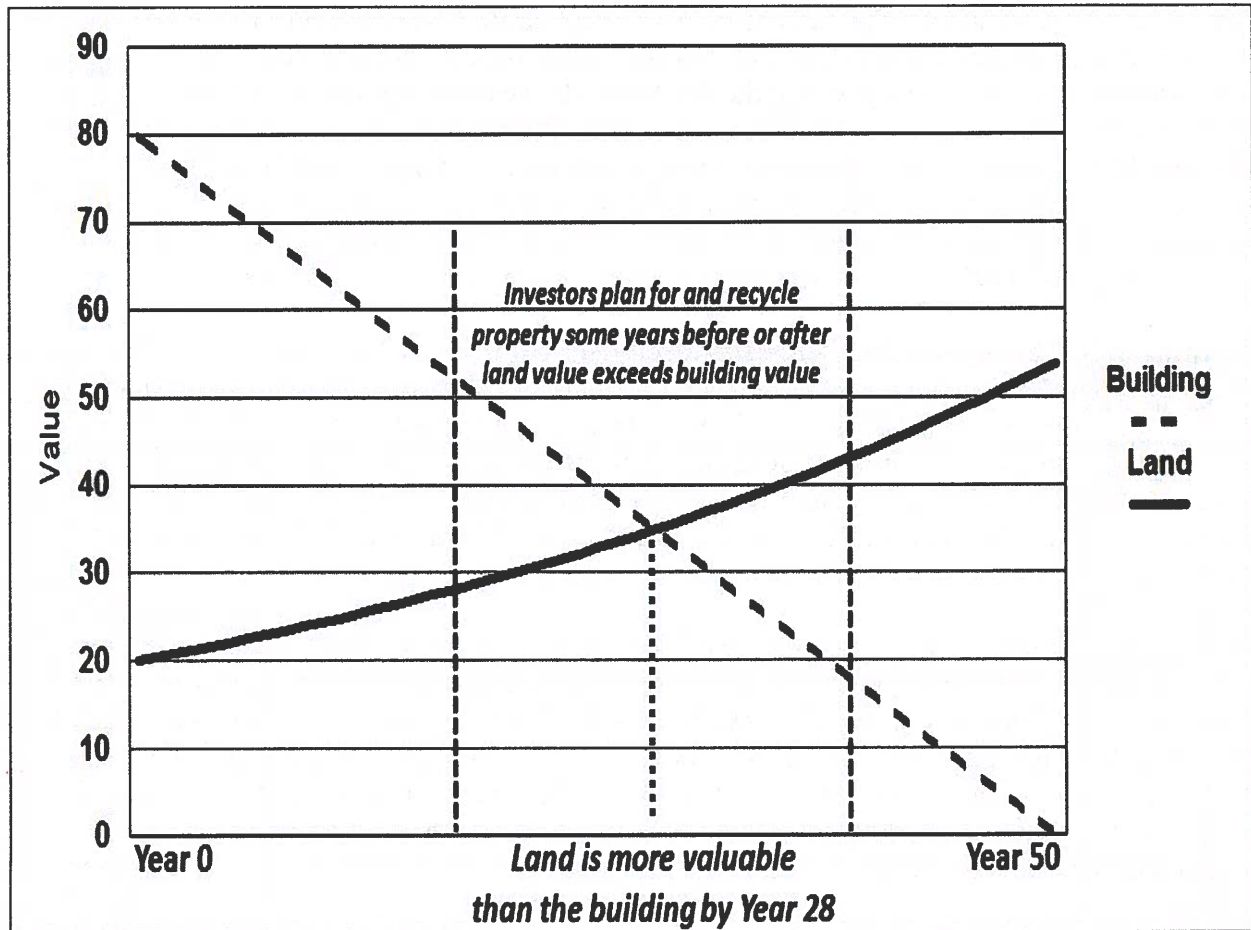


Figure 3

Plot of the Opportunity for Redevelopment of a Nonresidential Parcel

In this figure, suppose a parcel comprised of a 50-year structure—such as a one-floor office building—accounts for 80 percent of the initial parcel value. The building depreciates at two percent per year (becoming of little or no value at 50 years). Land value is equal to 20 percent of the initial parcel value and appreciates at roughly the growth rate of the market area; assume two percent per year compounded in this example. At about the 28th year the land is worth more than the building and the investors will seek to unlock the increased value of land by redeveloping or repurposing their investment to achieve the next highest and best use.

Source: Nelson (2013).

The opportunity for the redevelopment of nonresidential parcels to meet multiple needs including housing is considerable. In Atlanta, I estimate that more than 70 percent of all nonresidential structures are one- and two-floor buildings without elevators where half or more are older than 20 years. Nearly all of them will be opportunities for redevelopment to the next highest and best use by 2050. Moreover, the average nonresidential floor-area-ratio (FAR)—the ratio of built space to land area—is about 0.20 or less meaning that 80 percent or more of the land is used for parking, storage, or something else other than the building.

More to the point: I estimate that there is more than 200 million square feet of nonresidential space in Atlanta totaling more than 20,000 acres that will become opportunities for redevelopment by 2050. By increasing the FAR to 0.70, these redeveloped parcels have the potential to accommodate 500,000 new residents and 500,000 new jobs with adequate space for parking.⁵ Much of this opportunity exists along corridors with transit or are “transit ready”, meaning the rights-of-way are sufficiently wide to allow bus rapid transit, streetcar or light rail lines. When transit is available, the FAR can approach or exceed 1.00 and still meet parking needs. Moreover, much of this redevelopment can be low-rise or below-the-tree-line.

Downtown, Midtown, and Buckhead Development

I have researched the national market demand for living in downtowns (Nelson and Young 2008). Generally, the minimum demand is equivalent to one percent of the metropolitan area population for the least amenitized downtown, two percent for a reasonably amenitized downtown such as in the case of Atlanta and up to three percent for especially attractive downtowns such as San Diego, Portland, Seattle, Denver, and Nashville.⁶ This excludes other downtown-like centers such as Buckhead.

In the case of Atlanta, I estimate that three percent of the metropolitan area’s population would choose to live in Downtown, Midtown, or Buckhead if given the opportunity. I distribute this demand equally. The result is elevating Midtown to Downtown status but for good reasons: it has substantial land area and opportunities for redevelopment; it has about the same number of MARTA stations as Downtown and more than Buckhead; and it has more natural, cultural and institutional amenities than Downtown or Buckhead. Table 11 shows the target distribution of population in these three centers.

Table 11
Current and 2050 Market Demand Populations for Major Atlanta Centers

Center	2015 Population	2050 Demand	Growth
Downtown	25,000	90,000	65,000
Buckhead	25,000	90,000	65,000
Midtown	15,000	90,000	75,000
Total	65,000	270,000	205,000

Source: Current Downtown population from Central Atlanta Progress, Buckhead population based on 2014 Census estimate for zip code 30305, and Midtown population from Midtown Alliance.

⁵ I have not assessed residential redevelopment opportunities but they may be substantial. Often, residential areas no matter how challenged are comprised of socially intact neighborhoods so redeveloping them could come at social costs. Nonetheless, through an engagement process it may be feasible to reposition some neighborhoods that have high levels of housing vacancy in ways that benefit both existing and new residents. With nearly 40,000 vacant residential units equivalent to 16 percent of the total housing stock (2015 American Community Survey 1-year sample for Atlanta), there may be important albeit selected residential redevelopment opportunities.

⁶ Not that these downtowns attract up to or more than three percent of their metropolitan area populations immediately but their amenities and design approaches can facilitate this in a few decades.



Photo: Arthur C. Nelson, view from downtown to midtown with Buckhead in the distance.

Atlanta BeltLine

Perhaps no city in America has anything like the Atlanta BeltLine—a 22 mile string of old freight rail lines (many abandoned) circling downtown Atlanta that will ultimately be rebuilt with new transit service and a multi-use trail. A series of 10 community plans along the BeltLine that have been prepared and are in various stages of implementation. Based on the plans that were prepared for 2020, 2030 and “build out” scenarios, I estimate that the Atlanta BeltLine has the capacity to accommodate about 20 million square feet of nonresidential space (being less than 10 percent of all such space in Atlanta by 2050) and more than 100,000 new residential units housing 250,000 people in low-rise structures or structures below-the-tree line all within a 10 minute walk of transit opportunities.

Taken together, these opportunities can accommodate more than **900,000 new residents** without encroaching into existing neighborhoods. They are also conservative estimates in that by the end of the century each of these areas may be able to accommodate twice as much development while still adhering to the guiding principles.



Image: Atlanta BeltLine schematic by Smart Growth America, retrieved from <http://www.smartgrowthamerica.org/smartgrowthusa/wp-content/uploads/2012/05/atlanta-beltway-.png>



Photo: Arthur C. Nelson

Benefits of 1.3 Million Atlantans

Why would Atlanta want to grow to 1.3 million residents? Because the aggregate benefits exceed costs. Growing from 500,000 people (in 2020) to 1.3 million people within the city limits combined with adhering to the guiding principles noted earlier should generate such important benefits as:

- Higher employment, lower unemployment, and higher wages (Glaesser, 2011);
- A roughly 40 percent reduction in public facility costs per residential unit (Nelson et al., 2008);
- Greater resilience to economic downturns resulting in less economic decline and fewer foreclosures relative to smaller and less densely settled areas;⁷ and
- Greater sense of personal well-being (Halloran, 2012) in part as communities are walkable (Ewing et al., 2014), there are more “eyes on the street” thereby making neighborhoods safer (Jacobs, 1961); and neighborhoods are more socially and economically stable (Galster et al. 2016).

The second point about saving money by making public facilities more efficient is not trivial. At conventional suburban densities, public facility capital costs are about \$35,000 per residential unit. For the most part, Atlanta’s residential densities are mostly like many suburbs. Increasing the population to 1.3 million could translate into a savings of 40 percent of public facility capital costs per unit. This would be in the range of \$15,000 per new and existing unit or about \$5 billion.⁸ Operations and maintenance, as well as repair and replacement costs are similarly lower per housing unit. These savings can be used to lower taxes and fees thereby putting more money into the pockets of Atlantans, or can be reinvested to increase the supply of higher quality amenities thereby enhancing the City’s quality of life, or a combination of the two.

Some may be concerned about such “externalities” as traffic congestion. Yet, congestion is an outcome of economic success. Simply put, metropolitan areas with more congestion generate more economic activity per person—and by implication higher wages, more jobs and less unemployment—than less congested metropolitan areas. People might not like congestion but they are better off economically in more congested metropolitan areas than less congested ones. Congestion certainly needs to be managed but it should not be used as an excuse to stifle development.

But there is another nuance. More density combined with smart urban design can reduce demand for using automobiles. For instance, a study of mine (Nelson 2013b) using the National Household Travel Survey (NHTS) found that about a third of those people who lived within a mile of work walked or biked to work. Moreover, of those who lived or worked within a mile of non-work destinations (such as shops, restaurants and services), more than 40 percent walked or

⁷ My interpretation of the Santa Fe Institute’s work in cities, scaling and sustainability. See <http://www.santafe.edu/research/cities-scaling-and-sustainability/>

⁸ To accommodate growth, many existing facilities will need to be replaced. However, between now and 2050, many would need to be replaced anyway. Replacing facilities without growing raises costs on existing development but replacing facilities to accommodate growth lowers costs on all development.

biked to those destinations. These outcomes are dependent on a combination of density and smart urban design. In fact, it is entirely possible that higher density and smart urban design especially with transit options can reduce congestion. For instance, Ewing et al. (2014) found that the introduction of light rail transit connecting the University of Utah to suburbs in metropolitan Salt Lake City reduced traffic along the highway corridors near the university.⁹



Photo:

[https://upload.wikimedia.org/wikipedia/commons/c/c7/2006 Dogwood Festival in Piedmont Park with Midtown Atlanta skyline in background.JPG](https://upload.wikimedia.org/wikipedia/commons/c/c7/2006_Dogwood_Festival_in_Piedmont_Park_with_Midtown_Atlanta_skyline_in_background.JPG)

⁹ Numerous factors may contribute to this especially (1) every person working at or attending the University of Utah receives a free pass for all the region’s transit systems that include bus, bus rapid transit, light rail, commuter rail and streetcar and (2) on-campus parking pricing is used to encourage alternative modes to access the university.

The Jobs Equation

More than 400,000 people work within the city limits of Atlanta, about 0.9 jobs per Atlanta resident. As the regional average is about 0.6 jobs per resident, Atlanta has more people working in the city than city residents have jobs. Many tens of thousands of people thus commute into the city for work. This will likely be the case in 2050 even with a larger number of jobs inside the Atlanta city limits. The following questions are raised:

- How many jobs should the City anticipate if it grows to 1.3 million?
- What might be the general distribution of those jobs?
- Are there special benefits from adding those jobs to the City?
- Where should they be located?

These questions are addressed here.

How many jobs should the City anticipate if it grows to 1.3 million?

To be conservative, the metropolitan area jobs per person average can be used to estimate the number of jobs the City should anticipate by 2050 assuming its population is 1.3 million residents. That figure would be about:

800,000 jobs by 2050

However, through the efficiencies gained by “agglomeration economies”—where workers in allied fields are more efficient when closer together thereby generating even more jobs, the City could just as easily maintain its current relationship of 0.9 jobs per resident which would be about:

1.2 million jobs by 2050

In planning for 1.3 million residents by 2050, the City might consider designing the capacity to also include a range of 800,000 to 1.2 million jobs.

What might be the general distribution of those jobs?

In planning ahead it may be useful to know generally what the distribution of jobs may be. While there are many ways to estimate this, a simple method is to assume a constant proportionality based on the current job distribution. Table 12 shows the most recent distribution of jobs (for 2012) and offers a range of jobs to anticipate by 2050, assuming the City grows to 1.3 million residents. Jobs include only those that occupy built space. Thus, jobs in natural resources and construction are excluded because they mostly do not occupy built space.¹⁰ Finally, jobs are estimated for the broad land-use sectors of industrial, retail and lodging, office, and institutional activities.¹¹

¹⁰ Together, these non-space occupying jobs account for just two percent of all jobs.

¹¹ Technically, the economic sectors comprising the North American Industrial Classification System (NAICS) include: **industrial** comprising the industrial, utilities, manufacturing, wholesale trade and transportation and warehousing sectors; **retail and lodging** comprising the retail trade and accommodation and food services sectors;

Table 12
Jobs Needed in 2050 Proportionate to 1.3 Million Atlanta Residents

Land Use Group	2012 Atlanta Jobs	2012 Distribution	2050 Lower Estimate	2050 Higher Estimate
Industrial	47,362	13%	101,609	152,414
Retail-Lodging	60,301	16%	129,368	194,052
Office	188,628	51%	404,678	607,017
Institutional	76,604	21%	164,344	246,517
Total (rounded for 2050)	372,895		800,000	1,200,000

Source: Figures for 2102 from Atlanta Regional Commission; all others from Arthur C. Nelson

Are there special benefits from adding those jobs to the City?

Here, we consider the effect that density has on creating new jobs. Studies by Ciccone and Hall (1996), Glaeser (2011) and others show that if the population density doubles in an area, jobs can be increased by an average of six percent over and above what would have been supported anyway. This equates to adding about 50,000 to 70,000 more jobs based on the scenarios outlined above. Assuming these jobs pay the regional-average wages, Atlanta’s economy could increase by up to \$3 billion more in annual payroll as the City grows to 1.3 million residents and up to 1.2 million new jobs. This is a conservative estimate.

Where should they be located?

As noted earlier, Atlanta has about 200 million square feet of nonresidential space. By 2050, it would need to have between 400 million and 600 million square feet of such space. Yet, through good urban design, all new space can be accommodated on existing, developed sites. The reason is that at current average FAR of less than 0.20, more efficient land uses can be accommodated at FAR’s approaching 0.70 without transit services and more than 1.00 with transit services—and still remain below-the-tree-line.

office comprising the information, finance, real estate, rental and leasing, professional, scientific and technical services, management of companies, administrative/waste management, other services, public administration, and other unclassified sectors; and **institutional** comprised of the educational services, health and social assistance, and arts, entertainment and recreation sectors.

Implementation Strategies

Growing from 500,000 to 1.3 million people and from 400,000 to 1.2 million jobs will require considerable political leadership, planning and design efforts, and new ways of leveraging private investment through public-private partnerships (see Nelson, 2014). Many of these strategies are already embedded in the plans for major urban centers, selected commercial corridors and especially the 10 sector plans prepared for the Atlanta BeltLine.¹² Nonetheless, some specific strategies are offered here.

First of all, the City could consider an expansive accessory dwelling unit (ADU) strategy allowing home owners to convert part of their homes into a second apartment-like unit.¹³ I estimate that up to 10 percent of the demand for housing can be accommodated in ADUs as they serve the needs of young singles and couples, persons in life transition (such as losing a partner or a job), and downsizing seniors among others. Thus, instead of needing to plan for about 550,000 residential units perhaps the City's housing needs could be accommodated with about a half million units.

Second, the City could undertake a detailed commercial corridor and node redevelopment assessment. Using reasonably straight-forward algorithms, each nonresidential parcel could be evaluated to estimate within about five years when the land value would be worth more than then depreciated value of the structure. Such an exercise was done for Salt Lake County, Utah (population one million) as illustrated in Figure 4. Redevelopment opportunities could be identified along segments of commercial corridors where nonresidential properties have roughly the same redevelopment timing potential. With market, urban design, and planning experts, City officials could engage property owners and neighbors in sector planning processes to craft redevelopment plans that facilitate redevelopment when the time is ripe. Without such a process, redevelopment would occur only in a haphazard, parcel-by-parcel basis often inviting NIMBYism (not-in-my-backyard), court challenges, and delay.

Third, the City may consider comparing and contrasting its development and redevelopment assistance programs with those of the aspirational cities and other successful models.

Fourth, the City could create a special unit in its planning department to focus on identifying market opportunities, matching them with sites, and coordinating with other City departments to expedite development review and approval processes (see Nelson et al. 2009 for a suite of such strategies).

Above all, the City needs to be nimble in responding to new opportunities as they arise.

¹² See <http://beltline.org/progress/planning/master-planning/>

¹³ For an extensive review of the issues and opportunities, as well as sample ordinances, see this resource provided by the American Association of Retired Persons at http://www.aarp.org/home-garden/housing/info-2000/accessory_dwelling_units_model_state_act_and_local_ordinance.html

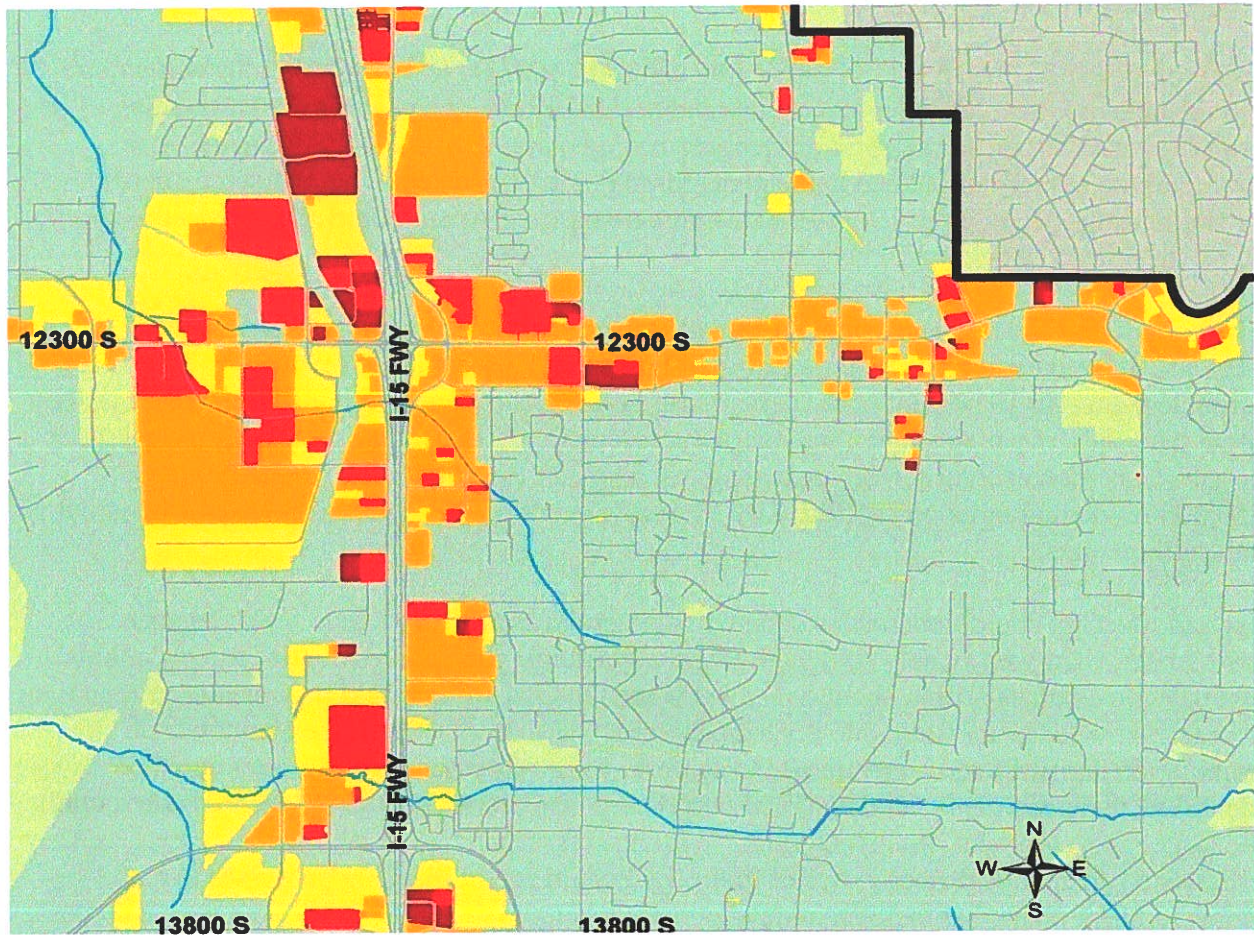


Figure 4
Plot of Nonresidential Properties Color-Coded in 5-Year Increments for Redevelopment Potential
From darker to lighter shades where the darkest shades are opportunities for redevelopment at the present because their land values exceed improvement values.
Source: Arthur C. Nelson

On the Right Track

As challenging as this 2050 growth scenario may seem, Atlanta seems prepared for several reasons:

- Atlanta has a **positive** external image that is important in attracting new investment;
- Atlanta has a solid business **reputation** gained in large part by being open to change;
- Atlanta has enjoyed a string of highly visible **successes** in leveraging public and private resources;
- Atlanta has demonstrated its capacity to engage in **inspired** planning with the Atlanta BeltLine being only a recent example; and
- Atlanta is well-known for creating effective **collaborations** among key interests.

Cities need to grow, change, and renew themselves or they will wither. It would seem that Atlanta has all ingredients needed to keep **renewing** itself, and do so in ways that make Atlanta even more Atlanta-like. After all, continually renewing itself—“*resurgens*”—is part of Atlanta’s official seal.



Source: <http://court.atlantaga.gov/img/goldseal@2x.png>

References

- Ciccone, Antonio and Hall, Robert E. (1996). Productivity and the Density of Economic Activity. *American Economic Review*, 86(1): 54-70.
- Cortright, Joe. (2014). *The Young and Restless and the Nation's Cities*. City Observatory. Retrieved from <http://cityobservatory.org/ynr/>
- Cortright, Joe. (2015). *Surging City Center Jobs*. City Observatory. Retrieved from <http://cityobservatory.org/wp-content/uploads/2015/02/Surging-City-Center-Jobs.pdf>
- Dunham-Jones, Ellen and June Williamson (2011). *Retrofitting Suburbs*. Second edition. New York: Wiley.
- Ewing, Reid, Gail Meakins, Shima Hamidi, Arthur C Nelson (2014). Relationship between urban sprawl and physical activity, obesity, and morbidity—Update and refinement. *Health & Place* 26: 118-126.
- Ewing, Reid Ewing, Guang Tian, and Allison Spain (2014). *Effect of Light-Rail Transit on Traffic in a Travel Corridor*. Salt Lake City, Utah: Metropolitan Research Center.
- Fee, K., & Hartley, D. (2012). The relationship between city center density and urban growth or decline. Retrieved from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2072258
- Fry, Richard (2016). *Millennials overtake Baby Boomers as America's largest generation*. Retrieved from <http://www.pewresearch.org/fact-tank/2016/04/25/millennials-overtake-baby-boomers/>
- Garvin, Alexander (2016). *What Makes a Great City?* Washington, DC: Island Press.
- Glaesser, Edward L. (2011). *Triumph of the City*. New York: Penguin Press.
- Galster, George, S. Williams and N. Verma (2016). The Disparate Neighborhood Impacts of the Great Recession: Evidence from Chicago,” *Urban Geography* (forthcoming).
- Halloran, Thomas M. (2012). *Better Together? Population Density and Well-Being in the United States*. Washington, DC: Georgetown University.
- Keating, Larry (2001). *Atlanta: Race, Class and Urban Expansion*. Philadelphia, PA: Temple University Press.
- Jacobs, Jane. *The Death and Life of Great American Cities*. New York: Vantage.
- National Association of Realtors (2013). *Community Preference Survey 2013*. Washington, DC. (Using analysis of raw survey data provided to the author.)

National Association of Realtors (2015). *Community Preference Survey 2015*. Washington, DC. (Using analysis of raw survey data provided to the author.)

Nelson, Arthur C. et al. (2008). *Practitioner's Guide to Development Impact Fees and Housing Affordability*. Washington, DC: Island Press.

Nelson, Arthur C. and Kathy Young (2008). The Limited Role of Downtowns in Meeting Metropolitan Housing Needs. *Journal of Urban Planning and Development*. 134(1): 1-8.

Nelson, Arthur C., John Randolph, Joseph Schilling, Jonathan Logan, James McElfish, and Newport Partners (2009). *Environmental Regulations and Housing Costs*. Washington, DC: Island Press.

Nelson, Arthur C. (2013). *Reshaping Metropolitan America*. Washington, DC: Island Press.

Nelson, Arthur C. (2013b). The Tragedy of the Demand for Walking and Biking. *The Urban Lawyer*, 45: 615-630.

Nelson, Arthur C. (2014). *Foundations of Real Estate Development Financing: A Guide for Public-Private Partnerships*. Washington, DC: Island Press.

Rusk, David (2013). *Cities without Suburbs*, Fourth edition. Princeton, NJ: Woodrow Wilson Center Press.

