The WalkUP *Wake-Up Call:* Atlanta

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I. Executive *Summary*

During the second half of the 20th century, the dominant development model has been the familiar drivable sub-urban approach. Most real estate developers and investors, government regulators and financiers have come to understand this model extremely well, turning it into a successful development formula and economic driver. There are few metro areas of which this has been more true than metropolitan Atlanta. However, starting in the mid-1990s, the pendulum has begun to move back toward building the opposite—walkable urbanism.

This research has found the surprising and overwhelming recent emergence of walkable urban development and places in metropolitan Atlanta. Walkable urban development represents not only a growing share of new development in the Atlanta region, but recently the majority of most real estate development. Walkable urban real estate projects now command an impressive rent premium over their drivable sub-urban competition. The amount of walkable urban square feet built in each of the last three real estate cycles in metropolitan Atlanta has mushroomed, growing from a small fraction in the 1990s to a majority in the current real estate cycle.

The market has spoken—it is now time for public policy to reflect this new market demand by putting in the necessary infrastructure and zoning as well as encouraging place management entities, such as the Community Improvement Districts (CIDs), which will be the location of most future economic growth and development.

Metropolitan Atlanta, "the poster child of sprawl," is now experiencing the end of sprawl.

BACKGROUND

In metropolitan areas, land use is categorized as playing one of two economic functions: either regionally significant or local-serving. Regionally significant places have concentrations of employment, civic centers, institutions of higher education, major medical centers and regional retail, as well as one-of-a-kind cultural, entertainment, and sports assets. Local-serving places are bedroom communities dominated by residential development that is supported by local-serving commercial (e.g., grocery stores) and civic uses, such as primary and secondary schools, police and fire stations, and so on.

Land use in metropolitan areas can also be divided between the form that it takes: drivable sub-urban and walkable urban. Drivable sub-urban development is low density and relies on stand-alone real estate products and spatially segregated development patterns that are connected nearly exclusively by one form of transportation: highways for cars and trucks. In contrast, walkable urban places have much higher density, integrate many different real estate products in the same place, and employ multiple modes of transportation—rail and bus-transit, biking, highways—but once one is there, everything is walkable.

Both drivable sub-urban and walkable urban forms of development have market support and appeal; it is not as if one is "better" than the other, it is only a matter of current and future supply and demand. It is important to note that each form can be found in both center cities and suburbs, there is drivable sub-urban development in the city of Atlanta as well as the suburbs. There are walkable urban places in the suburbs of Atlanta as well as the city.

This research report focuses on regionally significant walkable urban places, referred to as WalkUPs. It suggests that these places will be the loci of both the growth of real estate and wealth-creating employment in metro Atlanta for decades to come.

KEY FINDINGS

- **There are 27 Established WalkUPs in metro Atlanta in 2013**. Combined, these WalkUPs account for only 0.55 percent of the total land in the metro area.[1] In addition, we have identified nine Emerging WalkUPs totaling 0.33 percent of the regions land mass. These established and emerging WalkUPs total 0.88 percent of the region.
- **The densities of the 27 Established WalkUPs average 0.60 gross floor-area ratio (FAR)**.[2] The gross FAR for the region, excluding WalkUPs, is only 0.04. In other words, WalkUPs are over 16 times denser than the rest of the region.
- **Nearly 19 percent of total metropolitan jobs are located in Established WalkUPs, with another three percent located in Emerging WalkUPs**. Overall, Established WalkUPs have an employment density of 36.5 jobs per acre; the region as a whole, not including Established and Emerging WalkUPs, has an employment density of only 0.8 jobs/acre.
- **Seventy-four percent of Established WalkUPs in the region are within the city of Atlanta**. However, all nine Emerging WalkUPs are in the suburbs and eight of the ten Potential WalkUPs identified in the study are outside of the city. The city of Atlanta has 83 percent of the total real estate square footage in the Established WalkUPs.
- **Sixteen of the 27 regionally significant WalkUPs, or 59 percent, have rail transit**. The remaining 11 WalkUPs have no rail service and none have rail transit funding.
- **Average rent in all real estate products in Established WalkUPs is 112 percent higher on a rent-per-square-foot basis than drivable sub-urban real estate**.
- **The market share of the region's development within Established WalkUPs over the past three real estate cycles** (1992 to 2000, 2001 to 2008, and 2009 to the present) **has steadily and rapidly increased**; 10 percent share in the 1990s cycle,[3] doubling to 22 percent in the 2000s cycle and more than doubling again to 50 percent in the current cycle.
- **In the current real estate cycle, more than 60 percent of income-producing property in the region was developed in Established or Emerging WalkUPs taking place in less than one percent of the region's land mass**.
- **Within both Established and Emerging WalkUPs, the vast majority of recent development has gone to those areas that are served by MARTA rail**. In the current 2009-2013 real estate cycle, 73 percent of development in Established WalkUPs went to the MARTA-served places. Even more dramatic, 85 percent of development in Emerging WalkUPs went to places with rail transit.
- **Multifamily rental housing was the most significant driver of real estate growth in regionally significant WalkUPs, which is consistent with national trends**. In the 1990s, less than nine percent of income-producing real estate captured by Established WalkUPs was multifamily rental housing. In the early 2000s, this rose to 28 percent and has skyrocketed to 88 percent in this real estate cycle.
- **Following rental housing, office space was the second most important factor in the trend toward walkable urbanism**. Only 19 percent of the office space delivered in the 1990s cycle was built in then-Established WalkUPs. This increased to 31 percent in the 2000s and to 50 percent in the current cycle that started in 2009.
- **Despite higher rents, development of new retail space in WalkUPs lag**s. Only six percent of new retail space developed in the region in the 1990s was located in WalkUPs. For the early 2000s, it rose slightly to seven percent but has fallen to only two percent for the cycle starting in 2009.

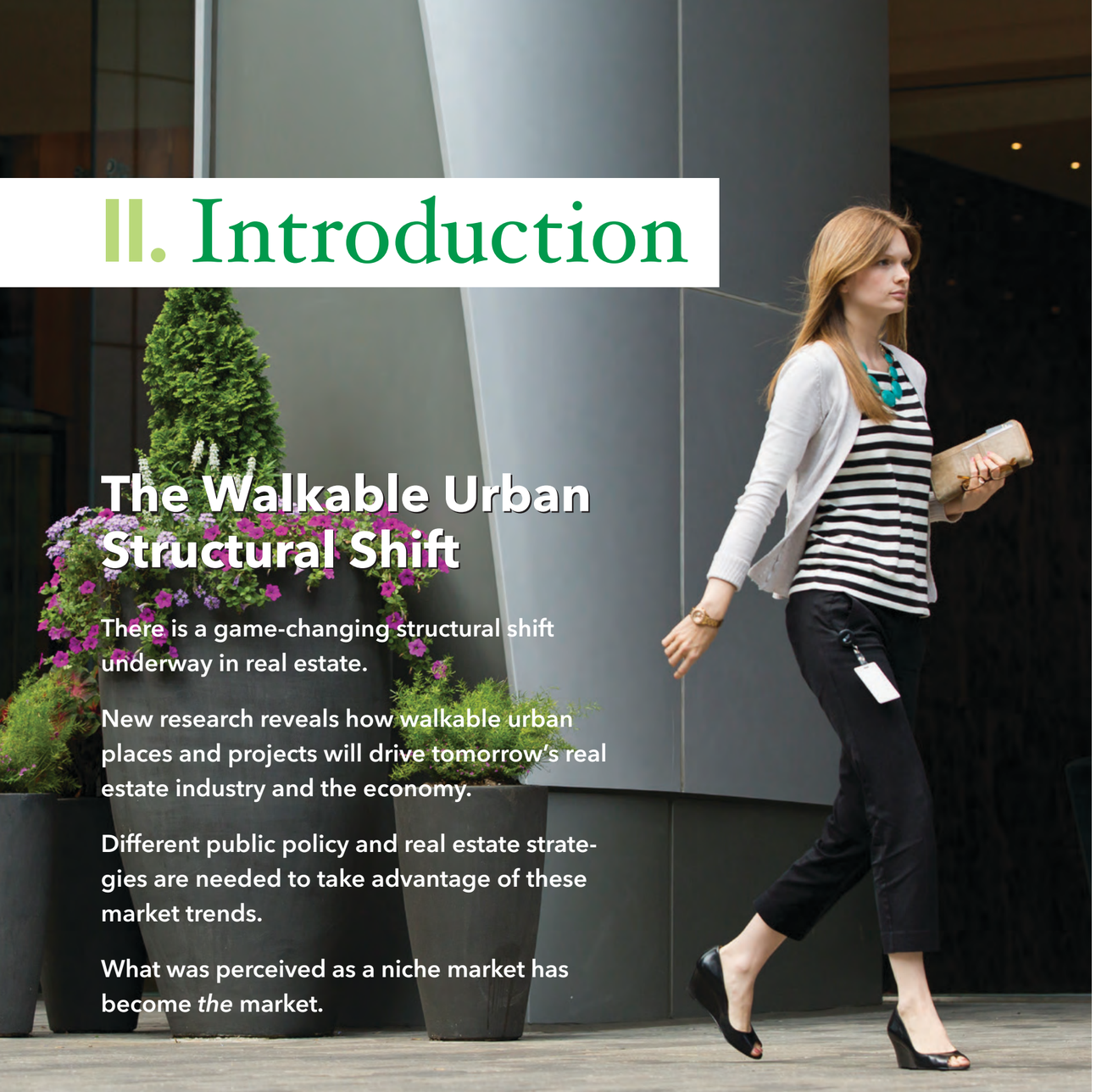
Executive *Summary*

ECONOMIC CONCLUSIONS

- **There are two factors that explain 70 percent of the variation in economic performance among the 24 metro Atlanta WalkUPs that were economically ranked** (the three WalkUPs classified as Urban University were not ranked due to lack of data). The first factor is **educational attainment** (share of the population over 25 years of age with a college degree), and the second is the **share of jobs concentrated in knowledge industries**.
- **Since the two most significant indicators of economic performance were related to the presence of knowledge-based workers, the building of walkable urban places is the most effective economic development strategy that a CID, the city, and the region can pursue**.
- **The public policy response to these market trends should be to encourage the growth of WalkUPs and the resulting benefits to jurisdictions' tax base**. Monitoring the economic and fiscal performance of a jurisdiction's WalkUPs will assist in gaining the political support for the needed investment in infrastructure and the required zoning changes.
- **Lower economically performing WalkUPs may require special attention from the jurisdiction to increase economic and fiscal performance**. When dealing with specific projects, long-term public sector investments (e.g. equity invested in real estate), as opposed to upfront subsidies (e.g. grants and low-interest, soft-second loans), are more effective to obtain project financing as well as fiscal benefits.
- **In contrast, higher economic performing WalkUPs are likely to need less in the way of special public financing programs to encourage new development**. Their relatively high rents are, in most cases, sufficient inducement for new walkable urban development. In fact, there is the possibility of employing "value capture" strategies—the voluntary sharing of private sector economic returns resulting from public improvements, such as a street car line—that could partially fund public investments.
- **Metropolitan Atlanta has been under-investing in the rail transit transportation infrastructure that greatly assists the walkable urban development the market and the economy is now demanding.** Investing in rail transit in the early 21st century is as important as the building of freeways in the 1960s and 1970s was for the economic growth of the Atlanta region 50 years ago. The City of Atlanta has made important steps in this direction with the construction of the Atlanta Streetcar and the development of the Atlanta BeltLine, but the region is continuing to fall behind, as the failure of the 2012 transportation funding ballot measure demonstrated.

SOCIAL EQUITY CONCLUSIONS

- **Stronger economic performance by metro Atlanta WalkUPs was associated with lower measures of social equity**. However, there are exceptions to this phenomenon and there are lessons from those Atlanta WalkUPs that do well on both measures, such as Midtown, Peachtree Center, and Downtown Decatur.
- **In a recently released national economic mobility study by Harvard/Berkeley researchers, metro Atlanta performed second worst in income mobility among major metro areas, and exhibited extremely low rates of income growth for poorer young people over their lifetimes**.[4] Reflecting on the Harvard/Berkeley study, *The New York Times* economic columnist Paul Krugman wrote that metro Atlanta "may just be too spread out, so that job opportunities are literally out of reach for people stranded in the wrong neighborhoods. Sprawl may be killing Horatio Alger."[5]
- **What is needed is a conscious strategy for each WalkUP to create and maintain affordable and workforce housing, as well as to increase physically accessibility**.
- **A critical component of the solution to affordable housing is simple: build more walkable urban product**. Greater land values and cost is the most significant driver of higher costs for walkable urban places—having more walkable urban land will reduce those costs.
- **NIMBY (Not In My Back Yard) opposition to high-density development is equally responsible for the land shortage**. One of the proven ways of overcoming NIMBY opposition is to have multiple examples in the region of great walkable urban places that increase consumer desire for this type of development near where they live.
- The very economic success of WalkUPs may play a key role in paying for walkable urban infrastructure, such as rail transit, and increased social equity performance. Harnessing a portion of the profits and tax-base increases from gentrification to help pay for infrastructure and affordable and/or workforce housing is becoming a possibility for metro Atlanta WalkUPs.



II. Introduction

The Walkable Urban Structural Shift

There is a game-changing structural shift underway in real estate.

New research reveals how walkable urban places and projects will drive tomorrow's real estate industry and the economy.

Different public policy and real estate strategies are needed to take advantage of these market trends.

What was perceived as a niche market has become *the* market.

The research in this report takes an in-depth look at metro Atlanta, which has frequently been referred to as "the poster child of sprawl."[6] It examines how metropolitan Atlanta is transitioning from one of the forerunners of post-World War II, auto-oriented development to a future that combines the metro area's conventional development with 21st-century walkable urbanism. We examined Atlanta's regionally significant walkable urban places to identify where development has recently occurred, and will occur, to understand how this differs from the suburban development of the late 20th century. We will illustrate the economic and social impact that this structural shift toward walkable urban development will have in metropolitan Atlanta.

Surprisingly, this research has found that sprawl in metro Atlanta is approaching an end. Assuming these trends continue and Atlanta is a harbinger for the country, the end of sprawl is the end of an era that is nearly as significant as the "closing of the frontier," as proclaimed by the historian Fredrick Jackson Turner following the release of the 1890 Census.

This research challenges policy makers, real estate developers, investors, the new field of place management, academics and citizens to rethink the way we manage the 35 percent of our nation's wealth that is invested in real estate and infrastructure—the built environment.[7] This is an important recalibration that affects how most of us live, work, and are entertained. To ignore this structural change would be akin to ignoring the impact roads and cars had on the built environment nearly a century ago.

This "new" development model is walkable urban development, which is not actually new but is the rediscovery of how cities and metropolitan areas were planned and built for the vast majority of the 6,000 years since cities first emerged. Despite Atlanta's reputation as a sprawling, auto-oriented region, the metropolitan area has already begun adjusting to the walkable urban trend on the ground in a surprisingly rapid manner.

For decades, real estate practitioners, observers and scholars have looked through an urban-versus-suburban lens. This can be traced to the U.S. Census, which serves as the platform for much of the research on the built environment. The Census separates its data into "principal city" and "outlying counties." It is not unlike the classic social science joke about the tipsy guest who drops his keys at the front door as he leaves a party. Discovered searching under a streetlight at the curb, he is asked, "Why aren't you looking where you lost the keys?" He replies, "This is where the light is."

Thus, in recent decades researchers have analyzed the urban/suburban debate where "the light was," based on crude geographic distinctions between center city and suburbs without differentiation between different forms of the built environment. In the 21st century, we have come to realize that regardless of the Census-defined location within the metropolitan area, there are two broad forms of metropolitan development:[8]

- **Drivable Sub-Urban:** This development has the lowest development density in the history of building metropolitan areas. It relies on stand-alone real estate products and segregated development patterns that are connected nearly exclusively by one form of transportation: highways for cars and trucks. This geographic segregation exacerbates the current *de facto* racial and socioeconomic segregation.
- **Walkable Urban:** This form of development has much higher density, employs multiple modes of transportation that get people and goods to walkable environments and integrates many different real estate products in the same place.

Both drivable sub-urban and walkable urban forms of development have market support and appeal and each are found in both center cities and suburbs. In the case of metropolitan Atlanta, examples of drivable sub-urban development include both the City of Atlanta's Tuxedo Park neighborhood and Cherokee County's exurban subdivisions. Likewise, Downtown Decatur and Downtown Roswell, both outside the Atlanta city limits, are examples of walkable urban development just as Atlanta's Midtown or Peachtree Center.

Surprisingly, this research has found that sprawl in metro Atlanta is approaching an end. Assuming Atlanta is a harbinger for the country, the end of sprawl is the end of an era that is nearly as significant as the "closing of the frontier."

Drivable sub-urban has been the dominant approach to real estate development during the late 20th century. There was pent-up market demand for this form of development following the Second World War and the real estate industry and required infrastructure were put in place to meet that market demand. Today, that is reversing; the pendulum is swinging back to walkable urban development.

The reasons for this shift back include significant demographic changes (decreased percentages of households with children and increased one and two-person households), absolute increase sub-urban traffic congestion, proportional increase in household transportation costs, and an increased appreciation for the convenience, diversity, creativity, and health benefits associated with walkable urban lifestyles. As a result, drivable sub-urban development has become overbuilt and this overbuilding was one of the primary market causes of the mortgage meltdown that triggered the Great Recession. There is strong pent-up demand for walkable urban development in Atlanta—as evidenced generally by the ability of walkable urban places to hold

value better than outer suburban locations during the Great Recession, as well as the price premiums shown in this research. Although some of the area's shopping malls and office parks continue to command high rents, the degree of rental and sales price premiums per square foot and capitalization rates for walkable urban development suggest it could take a generation of new construction for this demand to be satisfied.

Given that Atlanta's primary reason for economic success over the past 175 years has been as the transportation hub of the Southeast U.S., this lack of investment is disappointing. It is as if the reason for the region's very existence, transportation, has been forgotten. The overwhelming loss of the July 2012 transportation ballot measure is just the latest example of turning a blind eye to the reason for Atlanta's economic success.

Walkable urban development calls for radically different approaches to urban design and planning, regulation, financing and construction. It also requires the introduction a new industry: place management.

This shift is extremely good news for the beleaguered real estate industry and the economy as a whole, which appears to be stuck at a sub-par 2.0 percent GDP growth rate. It will put a foundation under the metropolitan economy and increase tax revenues; much like drivable sub-urban development benefited the economy and selected jurisdictions in the second half of the 20th century.

Walkable urban development calls for dramatically different approaches to urban design and planning, regulation, financing and construction. It also requires the introduction of a new industry: place management. This new field develops the strategy and provides the day-to-day management for walkable urban places (referred to in short-hand as WalkUPs), creating a distinctive "could only be here" place in which investors and residents are willing to invest for the long term.

Most importantly, this trend reinforces the need for metropolitan Atlanta to substantially invest in rail transportation, biking and walking infrastructure. The funds required to just maintain an over-extended and congested highway system will be a challenge in and of itself. However, the MARTA system has been starved of funding, as well as the other "alternative" transportation systems[9] like biking and walking.

However, there are also signs of the region embracing the walkable urban future the market is demanding. The most hopeful of these signs is the BeltLine, the 22-mile circumnavigation rail, bike and walking loop around greater center city. Similar to the Perimeter highway and other beltways around major metro areas worldwide, the BeltLine is a lateral connection between the radial MARTA rail lines coming out of downtown Atlanta. As a result of this being the first of its kind in the country, the BeltLine is the most important next phase of transit development in the country. Many metro areas will use the BeltLine as a model of future transportation infrastructure; only Atlanta will have been first, just like it was for much of its transportation history. This is appropriate for a city whose early name was Terminus, reflecting the role transportation has always played.

This new research defines–for the first time–where the Established WalkUPs are in the metropolitan Atlanta region. It shows specific locations, the physical size of the places, the product mix, the transportation options and so forth. This research also identifies the Emerging and Potential WalkUPs in the region since it appears there is more pent-up demand than the Established WalkUPs can satisfy.

This study then ranks performance for these WalkUPs, based on two criteria: economics and social equity. The economic performance metrics help determine where different kinds of investors should put their capital and how these WalkUPs compare against one another. The social equity performance metrics demonstrate whether a broad cross-section of metropolitan residents can afford to live in and have access to WalkUPs.

This is our second effort at quantifying the economics and social equity of WalkUPs in a metropolitan region. It builds on our last report, *D.C.: The WalkUP Wake-UP Call*, which was released in September of 2012.[10] Both research reports are based on research methodology, titled *Walk This Way*, which Dr. Mariela Alfonzo and I developed at the Brookings Institution.[11] The methodology has been modified and improved to encourage easier replication in other metros areas. Over time, we expect the results and methods will continue to evolve. This is not only anticipated, but it is encouraged as the field of urbanism and the real estate industry make strides in better understanding how to build and manage great places.

Sincerely,

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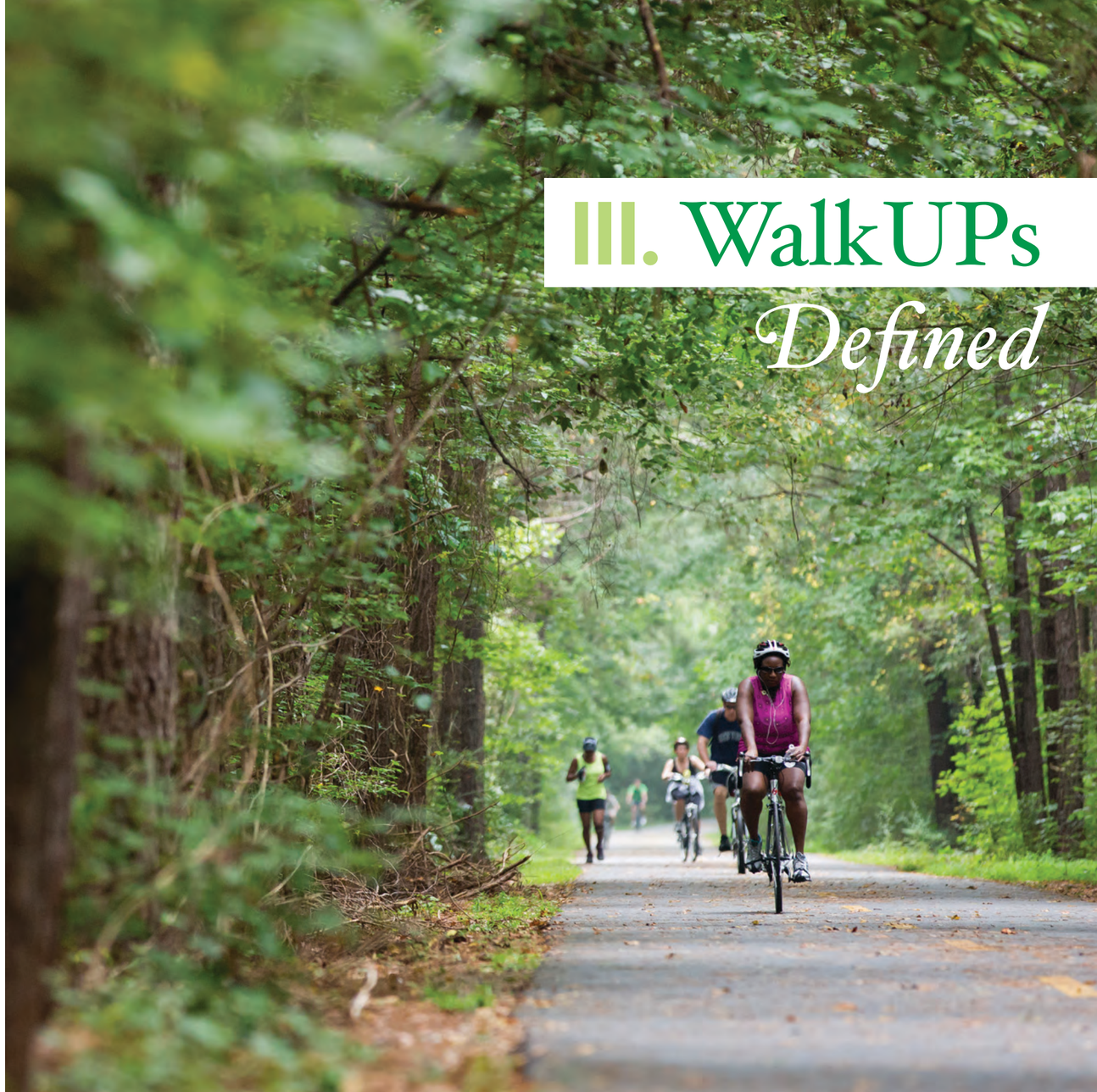


III. WalkUPs *Defined*

The Rise of the WalkUP

Starting in the mid-1990s, walkable urbanism has become the dominant development pattern in Atlanta—and many other metropolitan areas in the country. Going forward, walkable urbanism is the driving force in real estate.

The market demand for WalkUPs started to be seen nearly two decades ago in U.S. metropolitan areas, as selective downtowns began to revitalize, the birth of the New Urbanism developments such as Seaside in Florida, and the urbanization of close-in suburbs began. Today WalkUPs promise to be a powerful driver of the economy, *if* the appropriate infrastructure, legal regime and financing mechanisms are put in place. In the late 19th and early 20th centuries, Atlanta had such mechanisms in place when it constructed an extensive network of streetcar suburbs. Although the streetcars are long gone, the legacy of walkable urbanism in places like Midtown and Inman Park has led in their revitalization. Today, the question is what can Atlanta's leaders do to support both the established and the next generation of WalkUPs?

During the second half of the 20th century, the dominant development model has been the familiar drivable sub-urban approach. Most real estate developers and investors, government regulators and financiers have come to understand this model extremely well, turning it into a successful development formula and economic driver in the late 20th century, particularly in metropolitan Atlanta. It not only provided a super-charging for the economy but "fueled" the dominant industry of the industrial era—trucks and automobiles—plus the road-building, finance, insurance and oil industries that were essential supports. Metro Atlanta directly benefited as two major car assembly plants supported the drivable sub-urban development, and the real estate boom of the era lead the region to become known as "Hotlanta."

However, starting in the mid-1990s, the pendulum has begun to move back toward building walkable urbanism, which was the dominant development pattern prior to the 1930s Great Depression in the Atlanta metro area and virtually every other metropolitan area in the country. Our work in metropolitan Washington, D.C., found that during the real estate cycle in the first decade of this century and the current cycle, real estate developers, investors, government regulators, and financiers have become quite experienced developing and managing walkable urban projects. While this degree of understanding is not yet the case in the Atlanta region, its walkable urban places are surprisingly attracting a growing share of new development, and command an impressive rent premium over its drivable sub-urban areas. The market has spoken; it's only a matter of time before most of the region's policymakers and real estate professionals catch up with this new reality.

The amount of walkable urban square feet built in each of the last three real estate cycles in metropolitan Atlanta mushroomed, growing from a small fraction of the total regional net growth in office, retail, rental housing and for-sale housing, to a majority in the current real estate cycle. This growth matches the experience of metropolitan Washington, a region ranked as having the most WalkUPs in the country by a 2007 Brookings Institution study.[12]

It is now time for public policy to match this market demand by encouraging the real estate industry to build these places and to multiply and strengthen place management entities, such as the Community Improvement Districts (CIDs), which will guide these places in the future.

Form Meets Function

Regionally significant WalkUPs will be the primary location of economic growth in metropolitan Atlanta.

In metropolitan areas, land use is categorized as playing one of two economic *functions*, either regionally significant or local-serving. Regionally significant places have concentrations of employment (particularly in base/export or regional-serving businesses and jobs), civic centers, institutions of higher education, major medical centers and regional retail, as well as one-of-a-kind cultural, entertainment and sports assets. Local-serving places are bedroom communities dominated by residential development that is complemented by local-serving commercial (e.g., grocery stores) and civic uses, such as primary and secondary schools, police and fire stations, and so on. Generally speaking, regionally significant places are where the metropolitan area earns its living while local-serving places are where most residents spend their non-work lives.

This research focuses on the upper-left quadrant of the matrix: regionally significant WalkUPs, where the Atlanta region will build much of its wealth-creating employment in future decades. This is not to say that the late 20th century dominant drivable sub-urban areas are obsolete. While not having pent-up demand, these areas will, for the most part, do well economically, though some fringe drivable sub-urban areas do face an uncertain future and some have been demonstrating early signs of economic decline. However, the pent-up demand is for walkable urban places.

U.S. Metropolitan Land Use Options

	REGIONALLY SIGNIFICANT	LOCAL SERVING
WALKABLE URBAN	**WALKUP** (Walkable Urban Place) *1% of Metro Area Acreage*	**NEIGHBORHOOD** *3-7% of Metro Area Acreage*
DRIVABLE SUB-URBAN	**EDGE CITY** *5-7% of Metro Area Acreage*	**BEDROOM COMMUNITY** *80-85% of Metro Area Acreage*

Future research will focus on local-serving neighborhoods, represented by the top right cell of the matrix. For the Atlanta region, this means neighborhoods like Virginia Highland, Little Five Points, East Atlanta Village, and Cabbagetown, and places outside of Atlanta such as Stone Mountain and Woodstock.

There is a major gap in this and all other research about metropolitan development patterns: the location and size of "owner-user" space is not included.[13] Owner-user space is defined as office, retail, industrial, civic, higher education, medical facilities, etc., that is owned by the user of that space. For example, the federal and state governments mainly occupy office and the other space that they own. Universities, such as Emory, and medical centers, such as Northside Hospital, are owner-occupied. There is no regional or national database of owner-occupied space; this results in as much as 30-40 percent of all employment space not being known as to its size and location.

The only way to understand the location and size of these major facilities would be primary research. Like nearly every ranking system this methodology relies upon databases that are national in scope, which allows for comparisons between different metropolitan areas.

The 2012 Brookings Institution report, mentioned above, developed a methodology to define WalkUPs (geographically and by product mix) and to rank them using separate economic and social equity performance metrics. The Brookings research statistically defined regional significance as having a minimum of 1.4 million square feet of office space and/or a minimum of 340,000 square feet of retail space.[14] These metrics were used to rank the WalkUPs that emerged from the metropolitan Atlanta research and create four levels of economic and social equity performance.

Methodology

The methodology employed in this report has its basis in research described in the Brookings Institution report, *Walk This Way*, and was first applied systematically in the GW School of Business report, *DC: The WalkUP Wake-Up Call*. That method is outlined below.

Identifying REGIONALLY SIGNIFICANT PLACES

- The Atlanta research team began this process with a list of 114 potential places for inclusion as regionally significant WalkUPs. This list was drawn from a variety of sources, but was based most directly on Livable Centers Initiative applications and grants. This list was augmented as a result of comments and suggestions from members of the research team and from participants in a forum where the preliminary findings of this report were presented in April 2013.
- The boundaries of these places were refined to include only the areas that currently are, or have the potential to become, walkable urban in their development form. To the extent possible, single-family detached homes were excluded from these places. Many of these places were subdivided to adhere to the guideline that, based upon the metro Washington research, walkable urban places tend to not exceed 600 acres in total land area, a little less than a square mile. The reason for this is this is the extent that people want to walk before considering an alternative means of transportation.
- Once boundaries were set, we conducted an initial real estate analysis to determine which places met the criteria for being considered "regionally significant." All places that had neither 340,000 square feet of retail space nor 1.4 million square feet of office space were eliminated. What remained was a list of 53 regionally significant places; additional places were later added and place boundaries adjusted as a result of input and suggestions made at the April forum.

Identifying WALKABLE URBAN PLACES

- Walkability was determined using Walk Score. This metric was developed to estimate how easy it is, in a given place, to live a lifestyle with minimal automobile use, (not including work-related commutes). Using the public street grid to determine walking distance, Walk Score takes into account the accessibility of key community services and amenities (including grocery stores, schools, parks, restaurants, and retail) to a pedestrian. Urban design factors, such as block length and intersection density, also influence the Walk Score of a given place.
  - Walk Score measures walkability from the perspective of lifestyle and the concept of "complete communities." It assesses whether the daily needs of residents and workers can be met within a reasonable walking distance or, alternatively, if land uses are spatially segregated, necessitating a car to get around.
  - Notably, Walk Score does not measure the quality of the pedestrian environment. Factors such as pedestrian infrastructure, community design, safety, topography, weather—each of these has a significant influence on the experience of pedestrians and on whether workers and residents will choose to walk, rather than drive.
  - A high quality, successful WalkUP requires both high levels of pedestrian accessibility (what Walk Score measures) and a high quality pedestrian environment (what it does not measure). However, they play different roles in that success. A positive pedestrian experience may encourage those who might otherwise choose not to walk to instead walk. Furthermore, those who prefer the option of walking are likely to be drawn to places where it is more pleasant to travel on foot. However, a place that lacks pedestrian-accessible services and amenities can never be walkable, no matter how much is invested in pedestrian infrastructure; there is no number of street trees that will encourage residents to walk if they have nowhere to go. It is for this reason that we have chosen to focus on accessibility as a "first principle" of walkability, and the metric used to designate walkable urban places.
  - An assessment of pedestrian environment, including urban design and pedestrian infrastructure for selected metro Atlanta CIDs, was also conducted during this research, though not included in this report.
- The geographies of each of the regionally significant places determined in the previous step were submitted to Walkscore.com, for scoring. Scores came in the form of a grid of "sample" scores throughout the WalkUP. This grid was translated into a grid of polygons; census data was used to determine the total population and employment of each polygon. Finally, within each area, the "sample" Walk Scores were weighted by total population and employment and then averaged to derive an overall Walk Score for the place.
- Using the benchmark developed in *Walk This Way,* we identified the 27 Established WalkUPs as those that have overall Walk Scores above 70.5.
- In studying the Walk Scores of the other metro Atlanta places, we found a natural break at 57.0. The nine places with Walk Scores from 57.0 to 70.5 were categorized as Emerging WalkUPs.
- The 10 Potential WalkUPs were identified based on factors discussed in more detail later in this report, including MARTA rail accessibility, major redevelopment opportunities, the presence of walkability-supportive place management entities, and/or on-going investments in pedestrian infrastructure.
- *Note:* Maps of the precise geographic boundaries of all 46 Established, Emerging, and Potential WalkUPs can be found at the following address: http://business.gwu.edu/walkup/atlanta2013.

RANKING ESTABLISHED WALKUPS

The 27 Established WalkUPs were ranked on two independent performance metrics: Economics and Social Equity.

- **Economic Performance** is based on effective rents on real estate, assuming that the amount the market was willing to pay for space is a proxy for economic performance. (The ideal would be developing a WalkUP GDP, but currently GDP estimations are only available at the national, state and metropolitan levels.)

  Rent or rent-equivalents were found for four product types within each WalkUP:

  - Office
  - Retail
  - Rental Residential
  - For-Sale Residential

  These rents were then weighted by the relative presence of each of these product types within the WalkUP and averaged to determine an overall rent for the area.
- **Social Equity** is based on a composite index of affordability and accessibility, described in greater detail later in this report.

Walkability/Walk Score does not factor directly into either of these rankings—it is used only as a means of sorting places into walkable urban and drivable sub-urban.

The Seven Types of WalkUPs

There are seven types of regionally significant WalkUPs in any metropolitan area. Metro Atlanta has at least one example of each.

1 Downtown

Examples: *GSU-Government Center &Peachtree Center*

As the original downtown sections of a metro area's principal city, Downtown WalkUPs are dominated by office space. In Atlanta, however, this is much less true—only 56 percent of total square footage in its Downtown WalkUPs is occupied by offices. Two factors account for the comparatively small percentage of office space: (1) Georgia State University's campus, which serves 32,000 students, is located downtown and includes dorms, libraries, classroom space, athletic facilities, and a major hospital complex, and (2) the prevalence of large commercial parking garages, which serve the majority of Downtown workers (only three percent in the region commute via public transit). While the garages themselves do not prevent Downtown areas from being the region's most walkable, they do occupy real estate that could be used otherwise and also reinforce Atlanta's reputation as a city where car use—and ownership—is necessary.

PHOTOS:
Dane Sponberg

A. Underground Atlanta adjacent to Five Points MARTA station

B. Fenestration and flowers

C. Tourists, students, workers and residents mingle at Five Points

D. Segway tours of downtown

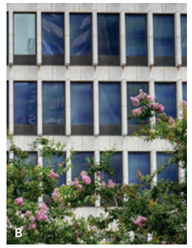
E. Woodruff Park near Five Points

F. Peachtree divides Decatur and Marietta Streets at Five Points

G. An icon of an Atlanta institution

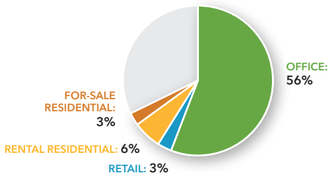
H. Chess in Woodruff Park

I. The Georgia State Capitol



Product Mix: **Downtown**

Average % of Total Square Footage



2 Downtown Adjacent

Examples: *Castleberry Hill, Centennial Olympic Park, Midtown, SoNo, Sweet Auburn*

Immediately adjacent to, and surrounding downtown on all sides, Downtown Adjacent WalkUPs are usually older mixed-use neighborhoods that have a lower density than downtown, reasonably well-connected street grids, and their own unique character.

These WalkUPs also have a substantial amount of office space—33 percent in the Atlanta metro area. This is significantly less than the 58 percent found in D.C. metro Downtown Adjacent places, and is partly the result of the more than six million square feet of hotel, sports/entertainment, and convention space in Centennial Olympic Park. In addition, Downtown Adjacent WalkUPs have significant residential (37 percent) and some retail development (three percent). The result, in most cases, is a lively, nearly 24-hour environment.

PHOTOS:
Dane Sponberg

A. Multi-modal transport in Castleberry Hill

B. Pedestrians and transit connect at one of Midtown Atlanta's three MARTA stations

C. Taking advantage of Trees Atlanta shade tree program adjacent to Centennial Olympic Park

D. Appreciating an urban troubadour in Castleberry Hill

E. Spraypainting squid art in Castleberry Hill

F. Outdoor dining on the streets of Midtown

G. Celebrating Civil Rights in Sweet Auburn

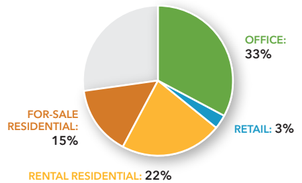
H. Legacy of the 1996 Centennial Olympics—Centennial Olympic Park and continued development

I. Midtown street scene

J. Young boys on a walk in Sweet Auburn

Product Mix: **Downtown-Adjacent**

Average % of Total Square Footage



3 Urban Commercial

Examples: *Arts Center, Buckhead Village, Inman Park, Ponce, Upper Westside, West End*

Historically local-serving neighborhood commercial, these places declined after World War II but, in recent years, found a new economic role.

Urban Commercial WalkUPs in metro Atlanta have a large amount of residential property (50 percent) and are marked by more retail (12 percent) and less office space (25 percent) than Downtown or Downtown Adjacent WalkUPs. The retail in Urban Commercial WalkUPs includes businesses that draw customers from the wider region (such as boutique shops, restaurants, bars, and nightclubs, and furniture and home décor stores), but also retains some space devoted to local-serving uses, such as grocery stores.

PHOTOS:
Dane Sponberg

A. & G. BeltLine-driven infill townhome development in Inman Park

B. Family stroll on Atlanta's burgeoning Westside

C. Award-winning Fourth Ward Park and the development that is following

D. The Westside's proximity to the Downtown job market

E. Adaptive reuse of Sears warehouse becoming mixed-use Ponce City Market

F. Tony Hawk-designed skate park adjacent to BeltLine's Eastside Trail

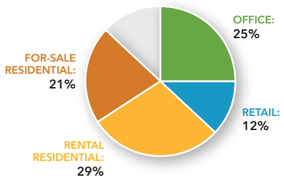
H. Former GA House member Doug Teper enjoys a book and a coffee

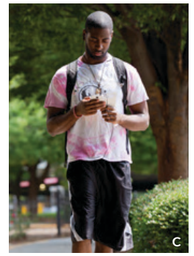
I. Highland Ave. street scene

J. Typical sunny day on the BeltLine's Eastside Trail

Product Mix: Urban Commercial

Average % of Total Square Footage





4 Urban University

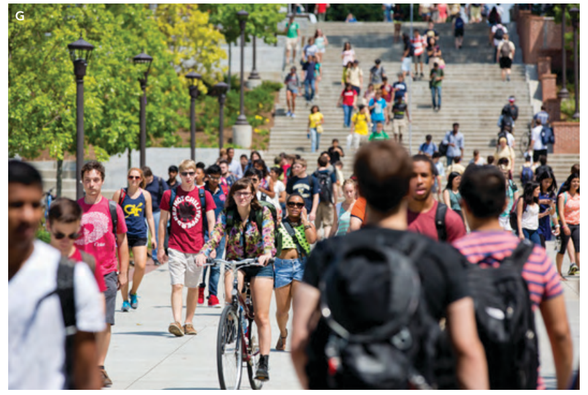
Examples: *Atlanta University Center, Emory, Georgia Tech*

Previously not recognized as a distinct WalkUP type, Urban University WalkUPs present a unique set of conditions and opportunities for walkability.

In these areas, the majority of land is controlled by a small number of owners, such as universities, medical facilities, or government research centers. These land owners gauge the "success" of their development not only in terms of rent they may be able to collect, but also in their ability to attract talent. Thus, the vast majority of economic activity is aimed at benefiting the students and employees of these institutions.

The predominance of owner-user space makes real estate analysis difficult for these areas. However, the institutions' centralized control of land and progressive natures mean that these places are, or can be, models of walkable urban development. Increasingly, many also lead in developing measures such as "bikability" that increase accessibility to their facilities and reduce auto dependence.

Since the bulk of the space is owner-user and the data not available for standardized collection, the product mix presented below is not reliable. Thus, most of the Urban University WalkUPs cannot be ranked at this time, but we acknowledge their existence and importance to the regional economy.



PHOTOS:
Dane Sponberg

A. Preferred wheeled transportation at Emory University

B. The environment created at Emory when cars were relegated to the campus edge

C., F. & H. Students at Atlanta University Center

D. View of Emory's campus

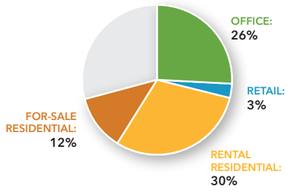
E. & G. Students on campus at Georgia Tech

I. Entrance to Emory Village

J. Biking the class commute at Georgia Tech

Product Mix: Urban University

Average % of Total Square Footage




A


B


C

E


D

5 Suburban Town Center

Examples: *Downtown Decatur, Downtown Marietta*

Typical Suburban Town Centers are 19th-century towns that were swept up in the sprawl of the metropolitan area after World War II. Laid out before the automobile, they have a walkable urban grid and, in many cases, historic buildings that preserve the memory of the place from a more vibrant era. Following decades of decline, many have found a new regionally significant economic role.

Suburban Town Centers tend to have a significant office component (30 percent in the Atlanta metro area). In contrast to many downtowns, however, Suburban Town Centers are also major centers for retail (17 percent) and residential space (30 percent).

PHOTOS:
Dane Sponberg

A. Street musician in Downtown Marietta

B. & C. Dining and retail connects people with the street in Decatur

D. Marietta Square farmers market

E. The intersection of Ponce de Leon and Commerce in Decatur

F. Strolling in Glover Park at Marietta Square

G. Appealing public space that is both inviting and functional at Decatur's MARTA Rail Station

H. & I. Dog walking and hanging out in Downtown Marietta

j. Scooters in Decatur


F


I

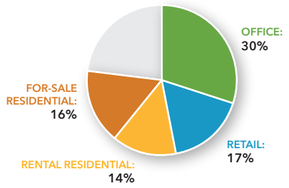

J


H


G

Product Mix: **Suburban Town Center**

Average % of Total Square Footage




A

6 Drivable Sub-Urban Commercial Redevelopment

Examples: *Buckhead, Buckhead Triangle, Cumberland-Core, Lindbergh, Downtown Roswell, Perimeter at The Center, Sandy Springs, South Buckhead*

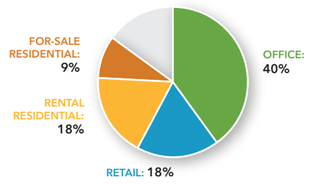
These WalkUPs are mid-to-late 20th-century drivable sub-urban commercial areas that are evolving into higher density walkable urban places.

Drivable Sub-Urban Commercial Redevelopment WalkUPs are similar in real estate mix and form to Suburban Town Centers, albeit with somewhat more office space. And whereas Suburban Town Centers are often oriented around a central node, Drivable Sub-Urban Commercial Redevelopment WalkUPs are more linear: Developed around a major auto corridor, they also integrate walkable infrastructure into the rights of way.

Many of these WalkUPs include regional malls, which have proven to be key redevelopment opportunities in recent years: nationally, 31 enclosed shopping malls in the U.S. have been redeveloped into more walkable places, with another 43 in various stages of planning.[15] This type of WalkUP will be the major focus of walkable urban development over the next generation.

Product Mix:
Drivable Sub-Urban Commercial Redevelopment

Average % of Total Square Footage




B

C


D


E


K


J


I

PHOTOS:
Dane Sponberg

A. Runners on the Cumberland Connector trail

B. Sidewalk dining in Roswell

C. The MARTA headquarters at Lindbergh Center station

D. New townhouse construction in Sandy Spring

E. Peachtree Road's transformation to a "complete street" in Buckhead

F. Trader Joe's in Sandy Spring

G. Walking on Atlanta's "Main Street" in Buckhead

H & I. Picturesque Downtown Roswell

J. Urban biking in Buckhead

K. Enjoying Buckhead's new Peachtree Road street life from a great vantage point


F

G


H

7 Greenfield & Brownfield

Example: *Atlantic Station*

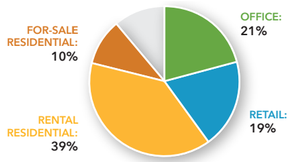
Greenfield and Brownfield WalkUPs are found where major investment has turned formerly undeveloped or contaminated land into a walkable urban place.

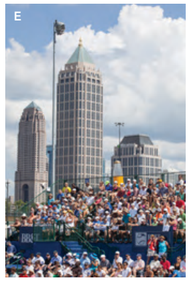
Among Atlanta's Established WalkUPs, Atlantic Station, planned and developed as a single project on the former grounds of the Atlantic Steel mill, is the only example of this place type. However, several of the region's Potential WalkUPs will join this category if current plans are fully implemented.

Usually planned and built by a master developer, these WalkUPs have the potential for a balanced product mix. Atlantic Station, for instance, is 21 percent office, 19 percent retail, and 50 percent residential. The large upfront capital costs required for these WalkUPs and subsequent high market risk mean few will probably be attempted in the next generation.

Product Mix: **Greenfield & Brownfield**

Average % of Total Square Footage





PHOTOS:
Dane Sponberg

A. Free outdoor yoga classes during Wellness Wednesdays in Atlantic Station

B. Outdoor screening of *The Wizard of Oz* in Atlantic Station's Central Park

C. A sunset tennis match during the 2013 BB&T Atlantic Open

D. Tennis fans take a break and head to Atlantic Station's shops many shops and restaurants

E. View of spectators at the BB&T Atlantic Open

F. Strolling and shopping along 18th St NW

G. The 16-screen Regal Cinemas multiplex inside Atlantic Station

IV. WalkUPs in *Metro Atlanta*

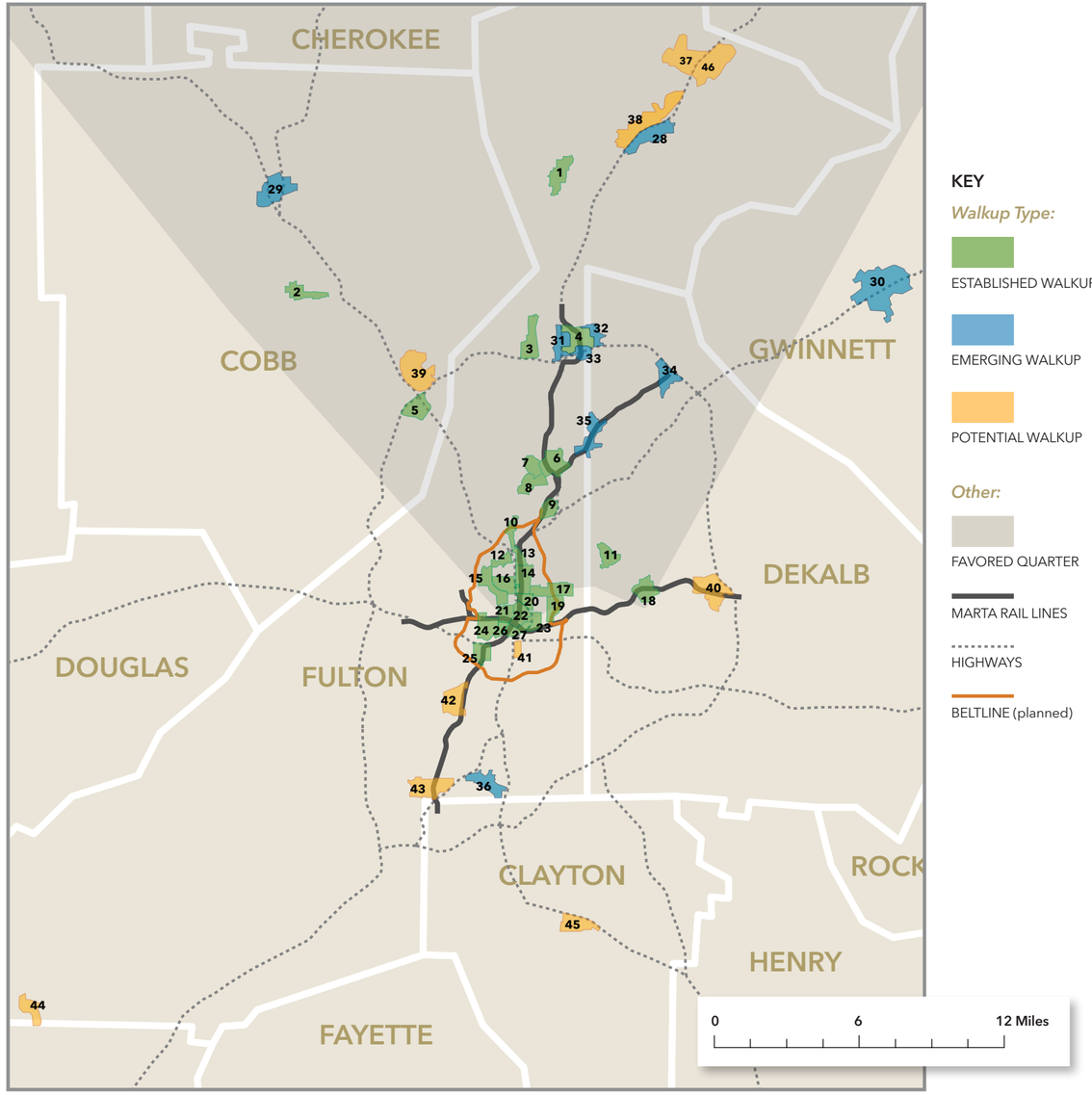
Atlanta's Established, Emerging & Potential WalkUPs

While Established WalkUPs are concentrated in the Favored Quarter and within the central city, Emerging and Potential WalkUPs are developing throughout the core of the Atlanta metro area.

ID#	ESTABLISHED WALKUPS	Acres
1	Downtown Roswell	536.6
2	Downtown Marietta	410.6
3	Sandy Springs	560.9
4	Perimeter at The Center	628.3
5	Cumberland- Core	509.6
6	Buckhead	625.9
7	Buckhead Triangle	291.2
8	Buckhead Village	391.9
9	Lindbergh	293.1
10	South Buckhead	188.2
11	Emory	353.0
12	Atlantic Station	181.3
13	Arts Center	168.3
14	Midtown	474.1
15	Upper Westside	489.7
16	Georgia Tech	350.5
17	Ponce	548.7
18	Downtown Decatur	461.8
19	Inman Park	351.9
20	SoNo	207.8
21	Centennial Olympic Park	268.5
22	Peachtree Center	369.5
23	Sweet Auburn	230.7
24	Atlanta University Center	478.9
25	West End	338.9
26	Castleberry Hill	144.1
27	GSU- Government Center	245.9

ID#	EMERGING WALKUPS	Acres
28	North Point	713.2
29	Town Center	874.8
30	Gwinnett	2,002.6
31	Perimeter West at 400	427.8
32	Perimeter East	248.9
33	Perimeter Summit	249.6
34	Doraville	484.9
35	Brookhaven	575.3
36	Hapeville	530.5

ID#	POTENTIAL WALKUPS	Acres
37	West Windward	968.0
38	Encore Park	1,156.5
39	Cumberland- Powers Ferry	1,169.9
40	Kensington Station	870.0
41	Turner Field	123.4
42	Ft. McPherson	624.9
43	College Park	762.2
44	Serenbe	398.8
45	Morrow- Southlake	526.1
46	East Windward	1,046.2



WalkUPs in *Metro Atlanta*

Geographic Findings

There are a surprising number of Established, Emerging, and Potential WalkUPs in Metropolitan Atlanta for a region known as the "poster child of sprawl."

- **There are 27 Established WalkUPs in metro Atlanta in 2013.** Combined, these WalkUPs account for only 0.55 percent of the total land in the metro area. Their sizes range from 144 to 628 acres with an average of 374 acres, which is consistent with the 408-acre average size in metropolitan Washington. Since WalkUPs are bound within the comfortable walking distance from a central node, it is rare that a WalkUP will exceed the area of a circle with a half-mile radius (roughly 500 acres).
- **In addition, we have identified nine Emerging WalkUPs.** These are regionally significant places that have long been auto-oriented, but are in the process of intentionally developing into walkable urban places. They do not yet meet the walkability criteria necessary to be included in the list of Established WalkUPs, which includes size of developed square footage (defined by the Brookings methodology mentioned above) and the level of walkability (measured by Walk Score[16]), but it is likely that they will achieve that designation in the near future if they continue their current trajectory. Combined, these WalkUPs account for another 0.33 percent of the total land in the metro area. Their sizes range from 249 to 2,003 acres with an average of 679 acres. Because these areas are not yet fully pedestrian-oriented, their edges are less well defined and their central nodes less distinct. As a consequence, many of them are significantly larger than the 27 Established WalkUPs described above.[17] As the Emerging WalkUPs continue to develop with a more walkable character, some of these WalkUPs will become smaller than their current boundaries; others may split into several sub-areas, some of which may become a separate WalkUP. In total, the Established and Emerging WalkUPs only use 0.88 percent of the region's land mass.
- **Finally, we have defined 10 Potential WalkUPs.** These areas require significant redevelopment if they are to become truly walkable urban places. However, each of these places has a set of assets (transit access, land assembly, supportive policies, planned development, recent/planned infrastructure investments, etc.) that make it probable that such redevelopment will eventually occur. Importantly, each of these 10 places has the intention of becoming a walkable urban place, as indicated by local planning and implementation efforts and/or the presence of place management organizations.
- **The densities of the 27 Established WalkUPs average 0.60 gross floor-area ratio (FAR), ranging from 0.13 to 2.91.** The gross FAR for the region, excluding these 27 Established WalkUPs and the nine Emerging WalkUPs, is only 0.04. In other words, **the regionally significant WalkUPs are over 16 times denser than the rest of the region**. The built-in capacity of WalkUPs to use much less land has many environmental, social and economic benefits, including the far more efficient use of infrastructure, even including the capital costs of rail transit. While definitive research has not been completed on this issue, it is likely that the cost per supportable square foot of walkable urban development in most categories of infrastructure is significantly less than for drivable sub-urban development.[18]
- **The WalkUPs cluster in the northern portion of the metropolitan area, especially along the corridor surrounding Peachtree Street/Peachtree Road/Route 9.** This is the core of Atlanta's "Favored Quarter," the portion of the region where wealth and employment growth has been concentrated since at least World War II.[19] Only one of the Established WalkUPs (the West End) is located south of Interstate 20, outside the Favored Quarter. I-20 is a commonly recognized demarcation between the northern (wealthier and predominately white) and southern (poorer with a higher percentage of black residents) portions of the region. The experience in metropolitan Washington, an early walkable urban-adopting region, saw a continuation of development in the Favored Quarter, which goes to the northwest, though there are indications in the current real estate cycle of walkable urban development going outside it to the northeast and southeast.
- **Nearly 19 percent of total metropolitan jobs are located in Established WalkUPs, with another three percent located in Emerging WalkUPs.** Local-serving jobs (grocery clerks, teachers, police officers, firefighters and sanitation workers, etc.), which account for approximately 35 percent of all jobs, are least likely to locate in WalkUPs.[20] Therefore, the share of base (or export) and regional jobs that are found in metro Atlanta WalkUPs is probably closer to 30 percent, meaning these jobs are disproportionately concentrated in these places.
- **Overall, Established WalkUPs have an employment density of 36.5 jobs per acre**; the region as a whole, not including Established and Emerging WalkUPs, has an employment density of only 0.8 jobs/acre.
- **Twenty-seven percent of the Atlanta region's jobs in knowledge industries are in Established WalkUPs, while another four percent are located in Emerging WalkUPs.** In addition, about 52 percent of the region's jobs in public administration are in Established WalkUPs due to the propensity of government jobs to cluster in places like downtown where the state and federal office complexes are concentrated.
- **Seventy-four percent of Established WalkUPs in the region are within the city of Atlanta.** However, all nine Emerging WalkUPs are in the suburbs and eight of the 10 Potential WalkUPs are outside of the city. The city of Atlanta has 83 percent of the total real estate square footage in WalkUPs. This is a key difference from our findings in the D.C. metro area, in which both the number of WalkUPs and the square footage was a slight majority in the suburbs, a surprising and significant finding. If this is indicative of the future, it could mean that the urbanization of the Atlanta suburbs will be major part of the trend in the future, similar to metro D.C.
- **Sixteen of the 27 regionally significant WalkUPs, or 59 percent, have rail transit.** The remaining 11 WalkUPs have no rail service and none currently funded. Rail transit is highly correlated to the development of walkable urban places, as it provides increased transportation option for residents, workers, and visitors. In metropolitan Washington, 80 percent of WalkUPs have rail transit. It also means there is less need for the building of even more costly parking within the WalkUP. However, there is no proven *causal* connection between rail transit and the development of walkable urban places, only *correlation*. The metro Atlanta WalkUPs without rail demonstrate that it is possible to foster walkable urbanism without rail.
- **There is about one regionally significant WalkUP for every 150,000 residents in the 10-county area for which the Atlanta Regional Commission serves as the regional planning and intergovernmental coordination agency.** This is the equivalent of six to seven WalkUPs per million residents (4.1 million residents in the core of the metro area divided by 27 places). As a ratio, this is 80 percent of what we found in the D.C. metro area (where there was one WalkUP for every 120,000 residents, though the metro D.C. WalkUPs are much larger in square footage per WalkUP). Working under the assumption that metropolitan Washington is the model for how the country is developing the built environment, as will be discussed below, this would suggest that, in addition to increasing the density and walkability of its Established WalkUPs, the Atlanta metro area could support at least another eight WalkUPs. However, it is too early to say with confidence that this formula will hold as the WalkUPs trend matures. In the 1960s, when regional malls were first being developed, there was similar uncertainty about the population needed to support each mall

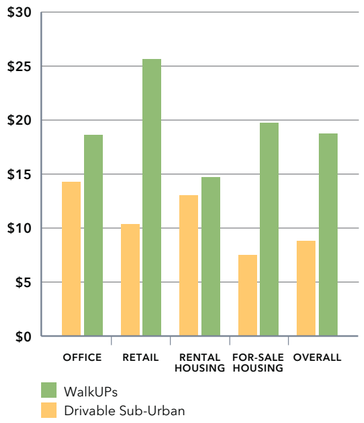
Product Findings

Despite Atlanta's reputation as an auto-oriented region, the market for walkable urban real estate is remarkably robust, particularly in the current cycle.

- **There is 3.2 billion square feet of real estate in the Atlanta region.** However, this figure notably omits "owner-user" space (i.e. government, corporate and institutional-owned space).
- **The amount of space in regionally significant WalkUPs is 11.6 percent of the total.**
- **Income-producing property, which includes office, apartment, retail, institutional and all other non-for-sale real estate, totals 1.5 billion square feet and accounts for 46 percent of metro Atlanta's total real estate square footage.** Again, this excludes owner-occupied space, which would somewhat increase this percentage.
- **For-sale residential (single-family, townhouses and condominiums) account for 54 percent of all real estate in the region.** Less than two percent of this inventory is in Established WalkUPs. The rest is split between drivable sub-urban and local-serving WalkUPs, although it is likely that the majority is in drivable sub-urban locations.
- **Disaggregated by product-type, the share of the region's income-producing real estate in Established WalkUPs varies from a low of 1.3 percent to a high of 64 percent:**
  - Industrial ..... 1.3 percent
  - Flex ..... 2.8 percent
  - Retail ..... 9.1 percent
  - Health Care ..... 17.4 percent
  - Rental Residential ..... 19.4 percent
  - Office ..... 35.4 percent
  - Hospitality ..... 37.0 percent
  - Sports/Convention ..... 64.3 percent
- **Local-serving WalkUPs are not included in product breakdown numbers, so total WalkUP market share is higher for some of these product types:**

WalkUPs vs. Drivable Sub-Urban

Comparing Average Rents per Sq. Ft.



- **Average annual office rent in Established WalkUPs is $18.55 per square foot, compared to $14.23 for drivable sub-urban office rents, a 30-percent rental premium.** This is a lower differential than in metro D.C., where there was a 75-percent office premium. One potential reason for this is the more highly utilized transit system in the Washington metro area. Transit-accessible locations in metro D.C. have significantly greater access to a highly skilled workforce. MARTA has been stereotyped as being used only by the poor, though growth in ridership since the 2008 may have reversed this perception.
- **Despite the modest rent premium, valuations of office space are significantly higher in WalkUPs.** Annual office rental income in the region totals $4.4 billion; 41 percent of these rents are generated by regionally-significant WalkUPs.
- **While retail space in drivable sub-urban areas of Atlanta had an average vacancy-adjusted rent of $10.42 per square foot, Established WalkUPs retail rented for an average of $25.71 per square foot.** This represents a premium of over 144 percent. While some of this is attributable to the large and highly successful Lenox Square Mall and Phipps Plaza in Buckhead and to other regional malls in Perimeter and Cumberland, the average retail rent in WalkUPs is still nearly double that of drivable sub-urban areas ($20.20) even when these three WalkUPs are removed from the calculation.
- **Rental housing in regionally significant WalkUPs has an average vacancy-adjusted rent of $14.67 per square foot.** In contrast, drivable sub-urban areas averaged $13.07 per square foot for this product type; a 12-percent premium.
- **The price premium is much greater in for-sale housing.** In the drivable sub-urban areas of the Atlanta region, homes are valued at $60.06 per square foot; in Established WalkUPs, values are 161 percent higher, at $156.46 per square foot.

V. WalkUP *Trends*

WalkUP *Trends*

The Last Three Real Estate Cycles

There are big questions facing developers, investors and public officials: Where is the Atlanta real estate market headed? Established and Emerging WalkUPs are an increasingly larger slice of the pie.

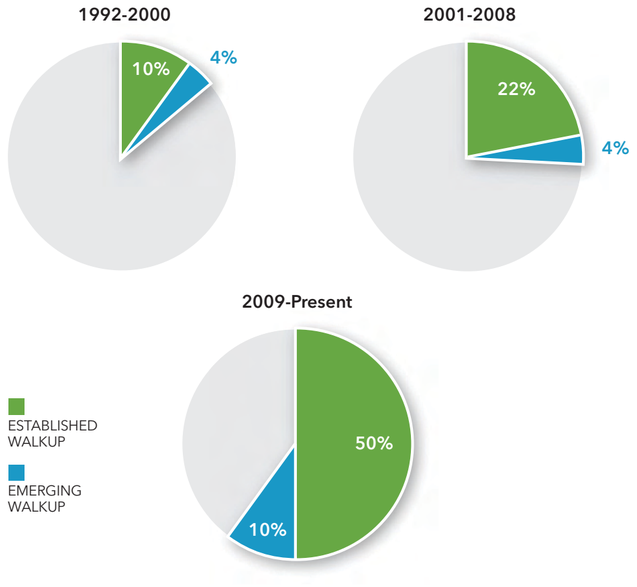
Compared to what we found in metro Washington, Atlanta has fewer WalkUPs per capita, though in general there is a surprisingly greater real estate rental premium associated with walkability. And when plotted over the course of the last three real estate cycles, it is increasingly clear, as shown in Chart 11, that it is rapidly moving toward a walkable urban future.

The market share of the region's development within WalkUPs over the past three real estate cycles (1992 to 2000, 2001 to 2008, and 2009 to the present) illustrates where different real estate products have been built over time. While these data only cover income-producing property (office, retail, multifamily rental housing, hotels, etc.), it is the development of these product types that is the best barometer of economic success for a WalkUP.

As mentioned, data are available only for regionally significant WalkUPs, the balance being both drivable sub-urban locations and local-serving WalkUPs. These data, therefore, understate the amount of walkable urban product developed during each cycle since local-serving WalkUPs are lumped in with drivable sub-urban. Finally, there has been a judgment made regarding which of the Established WalkUPs was actually walkable urban in the past two real estate cycles. For example, Sandy Springs did not consider itself, nor did the market consider it, to be walkable urban in the 1990s cycle so it was reclassified as drivable sub-urban.

Share of Income Property in Established & Emerging WalkUPs Over the Last 3 Real Estate Cycles

Income Property = Office, Retail, Apartment and Hotel



REAL ESTATE CYCLES QUANTIFIED

- **The share of the income-producing property development (office, retail, apartment and hotel) occurring in Established WalkUPs increased steadily over the past three real estate cycles.** In the 1990s cycle, only 10 percent of the region's new development in these four categories occurred in WalkUPs.[3] In the 2000s cycle, however, it doubled to 22 percent and it has more than doubled again in the current cycle, reaching 50 percent.
- **Emerging WalkUPs exhibit a similar trend, albeit on a smaller scale.** In the 1990s and 2000s cycles, the share of income-producing property development occurring in Emerging WalkUPs held steady at four percent.[21] In the current cycle, however, it has vaulted to 10 percent. Taken together, from 2009-2013, more than 60 percent of income-producing property in the region was developed in Established or Emerging WalkUPs.
- **The vast majority of recent development in Established and Emerging WalkUPs has been concentrated in areas served by the MARTA rail.** In the 2009-2013 real estate cycle, 73 percent of development in Established WalkUPs went to the MARTA-served places. Even more dramatic, 85 percent of development in Emerging WalkUPs (nine percent of total regional development) went to places with rail transit.
- **Multifamily rental housing has been the most significant driver of growth in regionally significant WalkUPs.** In the 1990s, only nine percent of multifamily rental housing was captured by Established WalkUPs. In the early 2000s, this rose to 28 percent but has skyrocketed to 88 percent in the current cycle. In fact, multifamily rental housing built in Established WalkUPs accounted for 18 percent of *all* income-producing property developed in the Atlanta region from 2009-2013. The volume of rental apartments in local-serving WalkUPs has further increased the walkable urban rental apartment market share considerably in recent years, although we do not have the data on local serving places. There are two reasons for this boom in rental apartments in this cycle. First, it was the real estate product type that has led the way out of the Great Recession throughout the country, following the for-sale housing crash. Second, and less understood, experience has shown that households in walkable urban places have historically had a higher propensity to rent than to own. It is not understood why this is the case, but this has been observed around the world as well as in this country.
- **Following rental housing, office space has been the second most important factor in Atlanta's trend toward walkable urbanism.** Only 19 percent of the office space delivered in the 1990s cycle was built in Atlanta's then-Established WalkUPs. This increased to 31 percent in the 2000s and again to 50 percent in the current cycle that started in 2009.
- **Despite higher rents, development of new retail space in WalkUPs lags.** Only six percent of the retail space developed in the region during the 1990s was located in WalkUPs. In the early 2000s, it rose slightly to seven percent but has fallen to only two percent for the cycle starting in 2009. The higher cost of parking in WalkUPs, and relatively higher parking requirements for retail, may be a factor. However, another likely reason is that many—though not all—retail tenants have not yet figured out how to build walkable urban retail formats, particularly when it comes to big-box stores. Many smaller specialty stores, such as Urban Outfitters and Brooks Brothers, and grocery stores like Publix and Whole Foods, etc. have walkable urban formats. These retailers, however, have not taken this format to metropolitan Atlanta as widely as in other regions. Big-box walkable urban pioneers, such as Target and Home Depot, only have five or so years of experience with this format, while Wal-Mart is only recently attempting walkable urban locations. Adding local-serving WalkUPs to these product totals will probably significantly increase the percentage of retail that is walkable urban in the current cycle once we have this data. In the metro D.C. area, the most significant type of development in this cycle has been 200 to 300-unit rental apartments over grocery stores in regionally significant and local-serving WalkUPs.

A Region Continually in Economic and Land Use Flux

Starting with one of Atlanta's early names, Terminus, transportation has been essential to the region's economy, driving continual changes in economic growth and land use.

Public policy initiatives on the regional and local levels are creating conditions to respond to and encourage the development of WalkUPs. The Atlanta Regional Commission (ARC) administers the Livable Centers Initiative (LCI), which was begun in 1999 as a way to provide an alternative to the prevailing development patterns; through the LCI program, planning grants are provided to local governments and non-profit organizations in order to prepare a plan for the enhancement of existing town centers, activity centers, and corridors. This enables these areas to take advantage of the infrastructure and private investments already committed in these jurisdictions—resulting in more balanced, regional development while reducing vehicle miles traveled and improving air quality. Then, after the initial plan is complete, more money is made available to the jurisdictions that can help implement these plans.

ARC established the LCI program in 1999. To date, more than $195 million in planning and transportation funds have been allocated to over a 110 distinct areas in the region. Livable Communities Coalition, Georgia Conservancy, the Congress for New Urbanism-Atlanta, and the Urban Land Institute-Atlanta are other important organizations that work to advance walkable urbanism throughout the region.

The City of Atlanta is developing one of the most comprehensive programs in the country that has the potential to create several new regional and locally significant WalkUPs—the Atlanta BeltLine. Originally proposed in a graduate thesis at Georgia Tech by Ryan Gravel, the Atlanta BeltLine is the most ambitious effort in the City's history to catalyze its WalkUP future that will guide private real estate development for decades to come. The program consists of a combination of public infrastructure investments in transit, trails and green space, incentives for affordable housing and economic development and a land use and zoning scheme that will create more urban, walkable destinations. The project is built on a 22-mile loop of old rail corridors that are two to four miles from the Downtown and Midtown WalkUPs. This program will be a model for the country as a whole.

Atlanta is also building its first new streetcar line downtown, connecting Centennial Olympic Park with the Sweet Auburn district, home of the Martin Luther King Jr. historic site. This is the first expansion of the region's rail transit system in more than a decade and is the beginning of a new streetcar network that will better serve mobility needs within the City of Atlanta and will connect to the Atlanta BeltLine.

PHOTO: Dane Sponberg

The Atlanta BeltLine is being built on a 22-mile loop of old rail corridors that encircle the city's Downtown & Midtown WalkUPs.

Metro Atlanta & Metro DC: Peas in a Pod

As comparable as any two metropolitan areas in the country, these two cities can learn much from each other.

Our first WalkUP study looked at metropolitan Washington which, based upon 2007 Brookings research, is the leading metropolitan area for walkable urban development in the nation. For many observers, metropolitan Washington, D.C., is an improbable model for the future of the built environment. As the nation's capital, it benefits from a one-of-a-kind economic and employment base, namely the federal government, which has provides a recession-resistant foundation.

Yet every metro area has a unique economic base upon which it earns its living. Metro D.C. does have the federal government as its economic base, though it also includes many high tech and bio-tech sectors and a cluster of corporate headquarters for the hospitality industry. And the federal government is not always resistant to economic contractions, as the current budget cuts due to the "sequester" demonstrate.

In Detroit, the economic base continues to be autos. In Seattle, it is aircraft, the port and software. In Columbus, it is state government and insurance. In Atlanta, the economic base, besides the state and federal governments, includes transportation (rail, highway, pipeline and air based), which has led to Atlanta being a major logistics center (e.g., UPS), other Fortune 500 headquarters and the world's largest airline, Delta. The concentration in metro Atlanta of higher education, media, telecommunications and research shows the growth of the knowledge economy as well.

This section will postulate a hypothesis that metro Atlanta is tracking the same walkable urban land development pattern as metro Washington. Atlanta is somewhat behind, but gaining rapidly. This hypothesis is based upon the most critical input into the knowledge economy: an educated work force.

First, it is important to point out the many similarities between metro Washington and metro Atlanta. On the surface it may not be obvious, but these two metro areas may be as comparable as any two large metropolitan areas in the country, as shown by:

- **Population:** Atlanta and DC share the same population in the Metropolitan Statistical Area (MSA)—metro Atlanta is 5.4 million versus metro Washington at 5.7 million (2011 estimates).
- **Character:** Both are historically sleepy Southern metropolitan areas that economically boomed in the late 20th century, primarily from being "invaded" by Northerners.
- **Development Form:** For most of the late 20th century, both metro areas were at the cutting edge of the then new drivable sub-urban development patterns, inventing some of the most famous "edge cities," such as Perimeter Center and Tysons Corner.
- **Traffic:** As a result of the development boom, these two metropolitan areas had consistently the worst traffic congestion in the nation, repeatedly in the top 10 most congested in the Texas Transportation Institute's rankings.
- **Rail Transit:** These regions received two of the three federally funded heavy rail passenger transit systems in the 1970s.[22]
- **Government Capitals:** Both are capitals, one being the state capital and the other being the federal capital, putting a stabilizing foundation under both metro economies.
- **African American Middle Class:** These metro areas are the first- and second-most favored regions by African Americans, having the two largest concentrations of black middle class households.

There are many differences as well:

- **Scale of Government:** The federal government is a far larger economic presence in metro Washington than the combination of the state and federal presence in metro Atlanta.
- **Sports Teams:** Atlanta has had consistently better performing sports teams—while this is a mildly tongue-in-cheek comment, it reflects an important but difficult to measure reality: confidence. The Atlanta business community has a confidence, civic engagement and swagger which makes it a better than even match for the metro D.C. business community, which is in the shadow of the federal government.

However, metro Washington was a first-mover in the trend toward walkable urbanism, starting in the mid-1990s with the early turn around of downtown D.C. and the urbanization of selected suburbs, such as Arlington, as verified by the D.C. research report. The differences include:

- **Forty-three WalkUPs in metro D.C. versus 27 in metro Atlanta**.
- **The average size of metro Washington's WalkUPs is 408 acres versus 374 in metro Atlanta**.
- **The economic performance ranking of the WalkUPs in each metro area was relative to the area**; a platinum ranking in Atlanta is probably a gold or even silver ranking in metro D.C.

- **One of the major conclusions in the metro D.C. WalkUPs report is that there was a positive correlation between Walk Score and economic performance**; one Walk Score point increase was associated with a $0.62 increase per square foot in annual rent for office. While the Atlanta WalkUPs have a dramatic average price premium (112 percent) over drivable sub-urban product, **in Atlanta there is no correlation within WalkUPs between Walk Score and economic performance**. Surprisingly there was a correlation between the social equity performance and Walk Score in metro Atlanta but not in metro D.C.
- **While both MARTA and D.C.'s Metro rail systems started out approximately the same in size, stations, and length in 1980, today Metro is 2.4 times larger than MARTA in these categories**. This reflects reasonably consistent investment in the expansion of Metro over the decades, including the huge new Silver Line to Dulles airport and beyond, currently under construction.
- **Metro rail riders reflect the demographic profile of the region as a whole much better than MARTA**. This means that Metro appeals to all income classes and races and therefore has sparked dramatically more walkable urban activity around the stations than MARTA in metro Atlanta. For the past half century, much of the Atlanta region has turned its back on MARTA and its potentially huge economic development impact, though this is now changing as this research shows.
- **Eighty percent of metro D.C. WalkUPs are rail-served versus 59 percent in metro Atlanta**, showing both how metro D.C. is in front of metro Atlanta in the walkable urban trend but that there is much more potential to be achieved in Atlanta.
- **In metro Washington, only 42 percent of the WalkUPs and 49 percent of the square footage are in the center city (District of Columbia) while 74 percent of the WalkUPs and 83 percent of the square footage is in the city of Atlanta**. The major opportunity for metro Atlanta is the urbanization of the suburbs. Every Emerging WalkUP, and nine of the ten Potential WalkUPs, identified in the study are in the suburbs–the next frontier of walkable urbanism in metro Atlanta.
- **There are approximately 120,000 people supporting each WalkUP in the core of the metro D.C. region** (eight and one half per million of population) **but 150,000 people per WalkUP in the core of the Atlanta region** (six and one-half per million).[23] No one knows how many people will eventually be needed to support a WalkUP since it is early in this trend, but there is certainly room to grow many more in Atlanta.

Hypothesis: An Educated Workforce Matters

In the 21st century knowledge economy, it is widely agreed that a highly educated workforce is essential to economic success.

The hypothesis most economic development professionals and many business people subscribe to is that the U.S. economy has been layering a "knowledge economy" over the 20th century industrial and 19th century agricultural base. Therefore, the education of the work force– best defined as the percentage of the workforce over age 25 with a college degree–is key to the economic success of a business, metropolitan area, and ultimately, the country. This hypothesis has not been definitively proven but it has been accepted by many observers.

Richard Florida, director of the Martin Prosperity Center at the University of Toronto School of Management and originator of the concept of the "creative class," has most clearly demonstrated this connection. As Florida says in the recently revised *The Rise of the Creative Class*,[24] the Creative Class is…the key force that is shaping our geography, spearheading the movement back from outlying areas to urban centers and close-in walkable suburbs." He quotes Carly Fiorina, then-CEO of Hewlett-Packard Co., as saying, "Keep your tax incentives and highway interchanges; we will go to where highly skilled people are."

Florida's research demonstrates that most highly skilled, highly educated creative class workers want to work and live in walkable urban places. The creative class is driving the current and future knowledge economy and, in turn, driving the demand for walkable urban places.

Notably, metro D.C.'s population holds more college degrees per capita than anywhere else in the nation. And knowledge workers want walkable urban options. In short, metropolitan Washington, D.C., can be used as a model for the future of the built environment because it is also the farthest along in adjusting to the demands of the knowledge economy and having highly educated workers. The graph below shows three sets of data about the percentage of the workforce over 25 with a college degree in 1990, 2000 and 2010:

- **Metropolitan Washington**
- **The Next Five Most Walkable Metro Areas** (out of the 30 largest U.S. metros, based on Brookings research referred to above)
- **Metropolitan Atlanta**
- **The Nation**

Metro D.C. has had the most educated workforce and has the most WalkUPs according to the Brookings study (even more than metro New York since the vast majority of the walkable urban places are in Manhattan and Brooklyn, where about 10 percent of the metro population is, while the suburbs have not urbanized as much as D.C.).

The next five most walkable metro areas of the largest 30 U.S. metropolitan areas have college-educated populations in 2010 that were equivalent to metro D.C.'s in 1990. A plausible assumption can be made regarding education levels: that the next five most walkable metro areas are 10-20 years ahead of both metro Atlanta and the nation.

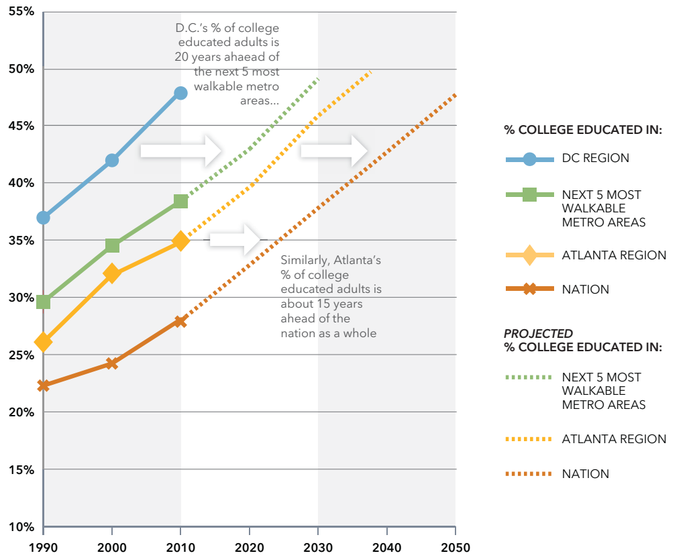
Further, assume that metro D.C. is roughly 20-30 years ahead of the nation as a whole. It is possible that the country will follow the trajectory of the most walkable metro areas and metro D.C. over the next few decades as education levels continue to increase, the country evolves further into the knowledge economy and, therefore, the walkable urban trend continues. Metro Atlanta falls in between the next highest five metros and the national average. The hypothesis would indicate that metro Atlanta would be 15-20 years behind metro D.C. However, the speed with which metro Atlanta is delivering walkable urban development shows, nearly as high a market share in this real estate cycle as metro D.C., that metro Atlanta is much more quickly adopting to this new development trend. It is a plausible conclusion that metro Atlanta is only between five and ten years behind metro Washington.

In 1990, metro D.C. had few meaningful walkable urban areas. Its downtown–like many city centers across the nation–was abandoned and considered dangerous. No suburban-located walkable urban places had yet emerged, except for Old Town Alexandria and Rosslyn. When Joel Garreau wrote Edge City in 1989, the seminal book about the rise of drivable sub-urbanism, his prime example was Tysons Corner in suburban Virginia. It was the world's largest drivable sub-urban concentration of commercial enterprises; now it is on the path to becoming walkable urban.

A rise in highly educated knowledge workers has powered the explosion in demand for and development of walkable urban places in metro D.C. and elsewhere. These highly educated creative class workers, especially the young Millennials (born between 1982 and 2004), want to live and work in walkable urban places. Since metro D.C. has relatively more of these workers than any other metropolitan area, it is not surprising that it leads the Walk UPs phenomenon. As these Millennials age, many seem to be moving to or near suburban WalkUPs, such as Arlington and

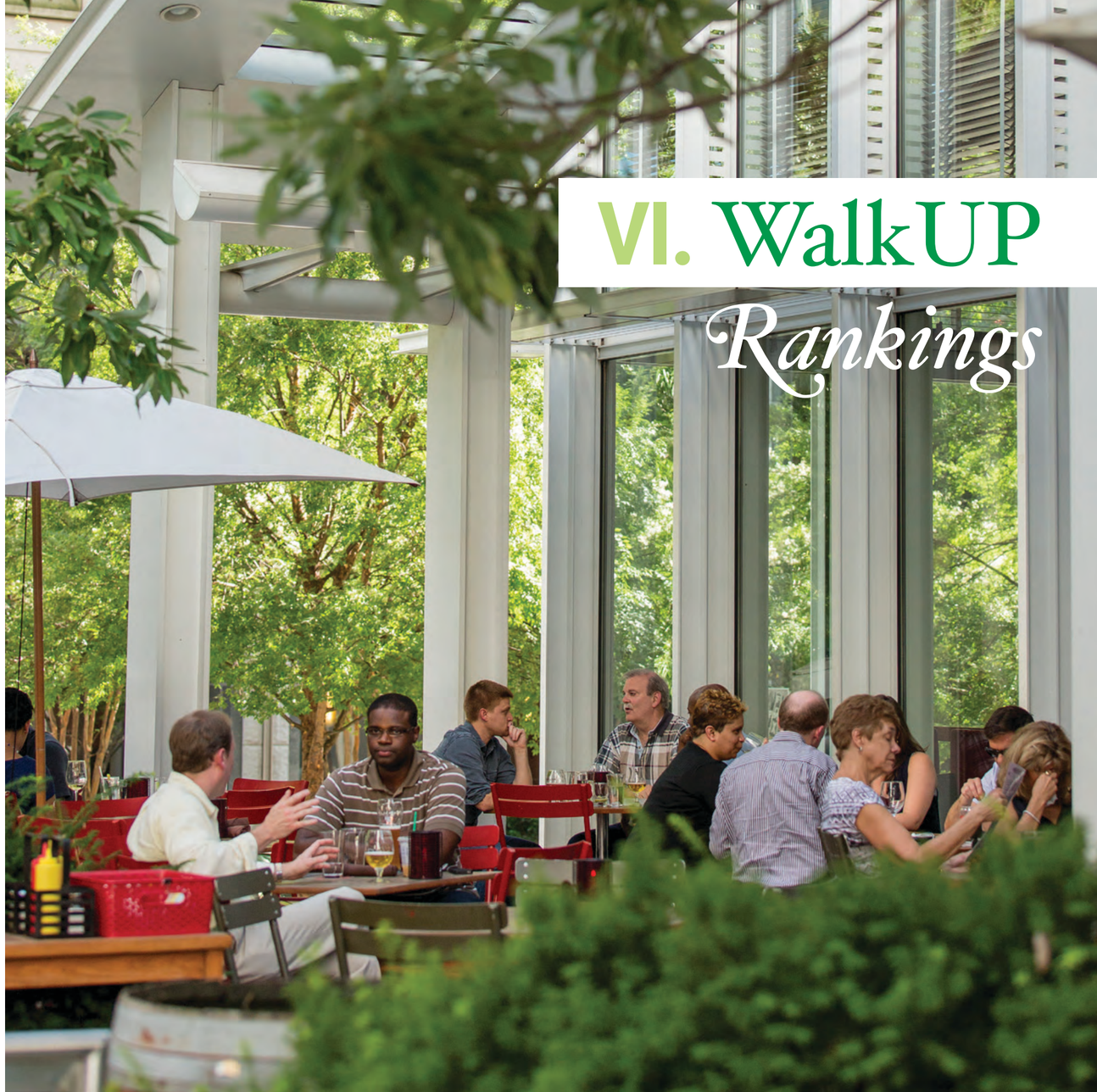
Growth of College-Educated Population

% of Adults 25 or Older in Select U.S. Metro Areas with at Least a Four-Year Degree



Bethesda. When it comes to developing suburban Walk UPs, metro D.C. has a substantial lead over all other U.S. areas.

The trajectory for large metropolitan areas—and the country as a whole—is toward a better-educated population, a greater participation in the knowledge economy and a growing demand for more walkable urban places. Metro D.C. just happened to get there first. However, this research reveals that metro Atlanta is not far behind.



VI. WalkUP *Rankings*

COPPER

SILVER

GOLD

PLATINUM

The charts to the right summarize, by level, the relative rent, Walk Score, and FAR of 24 of the 27 Established WalkUPs.

The three "Urban Universities" WalkUPs were omitted due to lack of data concerning owner-user space.

Even so, we know the amount of square footage in those three WalkUPs surpasses the minimum required and their Walk Scores were sufficient to qualify.

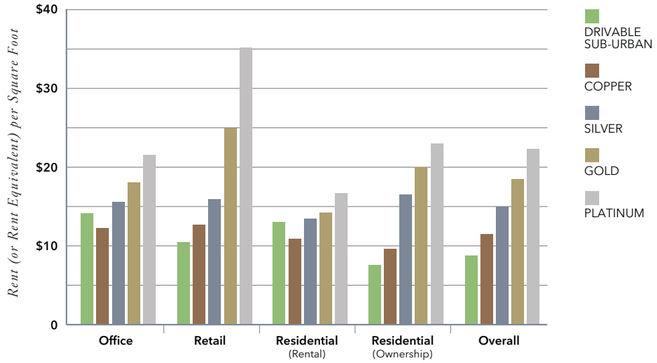
Economic Rankings

Based on the Brookings methodology, WalkUPs in the Atlanta region fall into four levels when measured by economic performance. Each WalkUP level has different growth and investment potential.

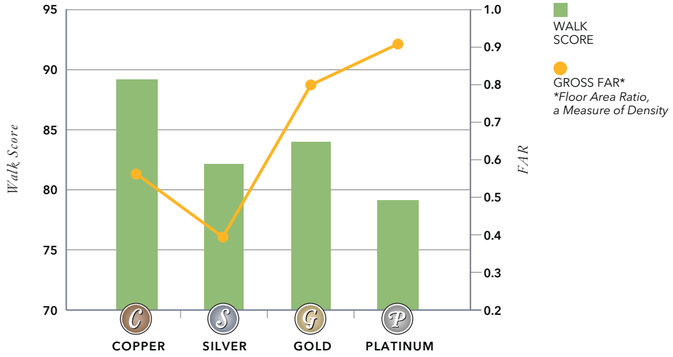
Economic rankings are based on the rents achieved for four product types: office, retail, rental apartment, and for-sale housing.[25] Each WalkUP's average rent per square foot was determined and weighted according to the percentage of square feet per product type. The assumption is that the amount the market is willing and able to pay in rent is a proxy for that WalkUP's economic performance. Rent is a proxy, but the best proxy we have at the moment since there is no calculation of gross domestic product (GDP) below the metropolitan level.

The ranges for overall weighted rents in Atlanta are vastly different than those in D.C. Annual rents for WalkUPs in metro Atlanta range from $11.21 to $25.28 versus a range of $14.07 to $46.73 in metro D.C. Because of this disparity, we graded Atlanta's WalkUPs "on a curve." Therefore, the economic performance of WalkUPs in Atlanta cannot be directly compared with their counterparts in D.C. In future studies, however, they will be directly compared, as they will be adjusted for relative GDP per capita.

Rents by Product Type



Walk Score & FAR by Category



COPPER

Castleberry Hill
GSU-Government Center
West End

CHARACTERISTICS

The lowest level of economic performance, Copper WalkUPs have generally demonstrated the intention to be walkable urban. These include some of the densest, most walkable areas of the entire region and are concentrated in and adjacent to downtown Atlanta. Though these WalkUPs have attracted a great deal of new development in recent years, Atlanta's downtown neighborhoods continue to struggle economically, achieving lower rents than most other WalkUPs in the region. However, as further explored in the social equity rankings, WalkUPs in the Copper tier of economic performance tend to have some of the highest levels of social equity in metropolitan Atlanta.

Compared to the portions of the region that are not walkable urban in nature (i.e., are not within Established or Emerging WalkUPs), office and housing rents are lower in Copper WalkUPs: office rents are only 82 percent of the average in non-WalkUPs and housing rents are only 89 percent of drivable sub-urban values. However, Copper WalkUPs do have higher retail rents (22 percent greater) and for-sale housing values (27 percent greater) than the average for non-WalkUPs.

OBSERVATIONS

Copper WalkUPs include GSU-Government Center. There is reason for optimism for increased economic performance in the near future. Georgia State University has invested significant resources in its transition away from being a primarily commuter school to one with a large residential component. New school-owned residences have also encouraged the development of private residences to accommodate the expanding student population. These developments should bring new wealth and activity to the downtown area and will provide a built-in market for new retail and entertainment uses, as has been experienced with other downtown or downtown adjacent universities, such as New York University and Columbia University in New York City, University of Pennsylvania in Philadelphia, and the George Washington University in Washington, D.C.

Copper WalkUPs also include downtown adjacent Castleberry Hill, the West End, and if we had data so as to rank it, probably Atlanta University Center. Castleberry Hill was an industrial and warehouse district that is becoming an arts community with lofts and other uses aimed at young urbanites as well as potential new entertainment and hospitality venues associated with a new stadium.

Given the pervasive trend toward the re-population and revitalization of downtown and downtown-adjacent places across the nation, increased demand for housing and retail real estate in similar locales in Atlanta is highly likely. These three places have the lowest median incomes and the largest African-American majorities among the 27 Established WalkUPs. Potentially undervalued due to demographics and the legacy of racial segregation, these areas are both well-served by transit and close to the employment centers of downtown.

Atlanta University Center can leverage the presence of four significant institutions of higher education to spur neighborhood change as has happened with other urban universities, including historically Black universities such as Howard in Washington, D.C. The West End will benefit from the development of the Atlanta BeltLine with both its linear park system and the future rail line. Consequently, these WalkUPs are well positioned to offer significant returns to investors in walkable urban development opportunities that have been seen in many other similar metropolitan areas.

Average Key Metrics

Walk Score: 89.3

Gross FAR: 0.56
(Floor Area Ratio)

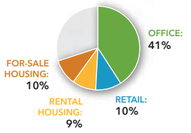
Annual Rent per Sq. Ft. {$ = $5}

OFFICE: $$$	$12.08
RETAIL: $$$	$12.67
RENTAL HOUSING: $$	$10.90
OVERALL AVERAGE: $$	$11.49

Housing per Sq. Ft. {$ = $5}

FOR-SALE HOUSING: $$$$$$$$$$	$73.71

Square Footage Breakdown by Use:



SILVER

Centennial Olympic Park
Downtown Marietta
Downtown Roswell
Lindbergh
Sandy Springs
SoNo
South Buckhead
Upper Westside

CHARACTERISTICS

This is a diverse category, including both downtown-adjacent and urban commercial places that have attracted significant new real estate development in recent years as well as suburban places that have long been auto-dependent. Silver WalkUPs have not yet achieved "critical mass," defined as not requiring any special government assistance or subsidy, but they have a trajectory that suggests they will continue to develop into higher performing walkable urban places.

Silver WalkUPs have the greatest value-creation potential for investors and developers if they continue to evolve and achieve critical mass. While they may still have an image as being somewhat economically risky, as evidenced by their high capitalization rates and relatively lower valuations, this will likely be relatively improved with more development and place management. These WalkUPs have begun to achieve a "buzz" in recent years and talk that they are "gentrifying." The eventual result should be lower capitalization rates over time and, therefore, higher valuations as they move into the Gold tier, mostly affecting the underlying land values.

Silver WalkUPs have 31 percent higher overall rents than Copper WalkUPs. This includes a 28-percent increase in office rents, a 26-percent increase in retail rents, a 23 percent increase in residential rents, and a 71 percent increase in for-sale housing values. As compared to drivable sub-urban portions of the region, Silver WalkUPs have 5 percent higher office rents, 54 percent higher retail rents, 9 percent higher housing rents, and have more than double (117 percent higher) for-sale housing values. Silver WalkUPs are both 71 percent as dense (measured by gross FAR) than Copper WalkUPs and achieve a lower Walk Score (-7.1 points) on average. The lack of density is a reflection that most of these WalkUPs are still in the redevelopment process so there is significant new development land available.

Average Key Metrics

Walk Score: 82.2

Gross FAR: 0.40
(Floor Area Ratio)

Annual Rent per Sq. Ft. {$ = $5}

OFFICE:
$$$ $15.72

RETAIL:
$$$ $16.00

RENTAL HOUSING:
$$ $13.44

OVERALL AVERAGE:
$$$ $15.01

Housing per Sq. Ft. {$ = $5}

FOR-SALE HOUSING:
$$$$$$$$$$ $134.16

Square Footage Breakdown by Use:

OBSERVATIONS

This tier includes four areas adjacent to or near downtown: Upper Westside, SoNo, Sweet Auburn, and Centennial Olympic Park.

Traditionally a center for light industry, the Upper Westside has undergone significant change in recent years. Older buildings have been rehabilitated and put to new uses as retail and restaurants, while new multifamily housing rental and for-sale housing has also been built. The impact of the Atlanta BeltLine is already being felt even though there are no physical improvements in place yet.

"SoNo," or South of North Avenue, is the area that connects Downtown to Midtown. This was one of Downtown's earliest redeveloped residential areas with a variety of single-family homes, town homes, apartments, high-rise condos, and garden-style condos. However, much of the 1980's redevelopment of this area actually reduced walkability through the installation of superblocks and large suburban garden apartment complexes. This WalkUP also contains Emory Midtown Hospital.

Sweet Auburn, the area centered along Auburn Avenue, is a downtown-adjacent place that was the historic center of black business and culture in Atlanta. It was the birthplace of Martin Luther King Jr. and includes three historic churches and storied fraternal organizations among its historic and cultural assets, many of which are managed by the National Park Service. The construction of Interstates 75 and 85 in the 1950s cut off the community from Downtown and since then it has suffered significant disinvestment and currently contains many underutilized properties. Revitalization is slowly emerging in some parts of Sweet Auburn and the streetcar line opening in 2014 will provide a major catalyst to spur a quicker pace of investment. A variety of mostly one- and two-story storefront buildings retains the character of the area and will be an important historic asset in any development. As a WalkUP in between large GSU-Government Center to the west and the economically vital Inman Park to the east, it will probably be an in-fill opportunity. Finally, while highly walkable and directly adjacent to Atlanta's downtown core, much of the land in the Centennial Olympic Park WalkUP is devoted to large, multi-block uses, which depresses its vibrancy.

Lindbergh and South Buckhead are both Strip Commercial WalkUPs, located further north from downtown, within Atlanta's favored quarter. Lindbergh Center includes a major 51 acre, master-planned site with 2.7 million square feet of office space, 330,000 square feet of retail space, 566 apartments, and 388 condominiums, all built over the course of the last decade. This has spurred new development on nearby sites and, as such, Lindbergh is on a rapidly upward economic trajectory. South Buckhead is anchored by Piedmont Hospital and the continuing transformation of auto-oriented Peachtree Street into Peachtree Boulevard will drive more walkable redevelopment in this WalkUP.

This tier also includes three suburban areas that lie beyond Atlanta's Perimeter highway: Downtown Marietta, Downtown Roswell, and Sandy Springs. Sandy Springs is a Strip Commercial Redevelopment WalkUP that is investing in new infrastructure to increase its walkability. The city of Sandy Springs, the first of a spate of new cities that have recently formed in formerly unincorporated Fulton County, is actively pursuing the development of a town center that it currently lacks. Downtown Marietta and Downtown Roswell are Suburban Town Centers that are becoming more vibrant with smaller shops and restaurants and additional residential development. Downtown Marietta would benefit from the development of a Bus Rapid Transit (BRT) corridor, currently being planned (but not yet funded), which would connect to the MARTA rail transit system. Roswell has a long-established and growing bicycle infrastructure and would benefit from future MARTA rail transit expansion up the GA 400 corridor.

Finally, though unranked due to lack of available data on its predominantly owner-occupied real estate, what data is available suggests that Emory would likely be ranked in the Silver tier. This WalkUP is home to a significant research university and a large concentration of owner-user offices and research facilities occupied by Centers for Disease Control and Prevention and two hospitals. The presence of these major institutions and employers, each of which relies on its ability to attract students and workers in the knowledge economy, offer opportunities for more walkable development patterns in the WalkUP.

Emory, however, has not yet leveraged its location to support walkable urban vitality to the degree that many urban universities have done in the last 15 years. While it is probable that this WalkUP has significant economic potential, neighborhood opposition has thus far limited the extent to which this potential has been realized—while this place serves a regional, even international function, it has the visual character of a local-serving place. The development of Emory Point, which includes 80,000 square feet of urban-oriented retail and 443 units of multifamily housing, may be a signal that this is changing.

GOLD

Atlantic Station
Arts Center
Buckhead Triangle
Buckhead Village
Downtown Decatur
Inman Park
Peachtree Center
Ponce

CHARACTERISTICS

These places have achieved critical mass; there is a "there, there" and there is generally no need for public sector intervention for projects to get financed and built. Investors recognize this by lower capitalization rates (increasing valuations). Land prices are at a premium, reflecting the higher rents and selling prices per-square-foot that have been achieved and the anticipated increase in rents/selling prices due to the upside potential as the WalkUP continues to evolve. Developers are attracted to Gold WalkUPs since the market risk is lower than Silver or Copper and there are relatively assured "exit strategies" for selling stabilized projects to institutional investors.

In metropolitan Atlanta, average rents for Gold WalkUPs are 23 percent higher than those of Silver WalkUPs, their Walk Score is somewhat higher (1.8 points) and they are twice as dense. Office rents in Gold WalkUPs are 16 percent higher than in Silver WalkUPs, retail rents are 57 percent higher, housing rents are five percent higher, and for-sale housing values are 22 percent greater. As compared to the drivable sub-urban portions of the region, Gold WalkUPs have 22 percent higher office rents, 141 percent higher retail rents, 15 percent higher housing rents, and 165 percent higher housing values.

OBSERVATIONS

Peachtree Center is the historic core, and best performing portion of, Atlanta's downtown. It has attracted a significant amount of new development in the last decade, and is (along with Centennial Olympic Park, SoNo and portions of GSU-Government Center and Sweet Auburn), managed by the Atlanta Downtown Improvement District. Peachtree Center has the highest Walk Score in the Atlanta metropolitan area and is at the nexus of MARTA's rail system; it is well positioned for economic performance improvement.

Average Key Metrics

Walk Score: 84.0

Gross FAR: 0.80
(Floor Area Ratio)

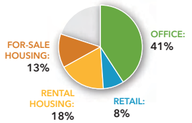
Annual Rent per Sq. Ft. {$ = $5}

OFFICE:	
$$$$$$$$$$$$	$17.92
RETAIL:	
$$$$$$$$$$$$	$25.12
RENTAL HOUSING:	
$$$$$$$$$$$$	$14.18
OVERALL AVERAGE:	
$$$$$$$$$$$$	$18.45

Housing per Sq. Ft. {$ = $5}

FOR-SALE HOUSING:	
$$$$$$$$$$	$157.11

Square Footage Breakdown by Use:



Inman Park and Ponce WalkUPs are Urban Commercial WalkUPs that have attracted a great deal of private investment in recent years, in no small part due to the public investment in the Atlanta BeltLine but also the relative scarcity of walkable urban places that attract a broad audience. These places abut the portions of the Atlanta BeltLine that have been first developed as a linear park and new multifamily housing has been developed to accommodate the new interest that the parks and trails have generated. The Ponce City Market, currently under construction, has the potential to further catalyze development and enhance its walkable character, providing a needed "100 percent" location for the WalkUP.

The Gold Tier includes the region's only Established Greenfield/Brownfield WalkUP: Atlantic Station. This master planned development has been hailed as a national model for walkable urban in-fill development, including a destination retail center, high-rise office construction, and a variety of housing options, ranging from high-rises to townhomes. A pedestrian/car bridge to Midtown and a free shuttle service connecting to MARTA was an essential part of the project. Its success is evident in its rents: at an overall average of $19.60 per square foot, Atlantic Station is only slightly below the cut-off to achieve platinum status. It did have a difficult early phase, reflecting the expense and risk inherent in developing Greenfield/Brownfield WalkUPs. The first phase must be large and includes significant infrastructure for subsequent phases.

Buckhead Village and Buckhead Triangle benefit from their proximity to Platinum-ranked Buckhead and by their location in the heart of the favored quarter. However, they have become WalkUPs in their own right as a consequence of active management and investment from the Buckhead CID. Both of these areas have been rezoned in recent years, with an emphasis on walkability and place-making. The form-based codes are encouraging a healthy mix of uses, with a great deal of multi-family housing being added to the office, retail and entertainment product in each of these areas.

Decatur has been a leader in suburban walkable urbanism in the region for decades as a Suburban Town Center. Laid out in the 19th century, it has many historic buildings and a pedestrian-oriented grid of streets. Supportive land use policies and investments in pedestrian and bicycle infrastructure have paid off for Downtown Decatur, with housing values that are among the highest in the region on a square foot-basis. Decatur's vibrant downtown, linked to the region by MARTA, help to make this WalkUP a regional destination in its own right.

Arts Center is home to the Woodruff Arts Center, a major visual and performing arts center which includes the High Museum of Art, the Alliance Theatre, and is the home to the Atlanta Symphony Orchestra. These institutions are complemented by Atlanta campus of the Savannah College of Art and Design, which adds to the vitality of the place. The restaurant concentration and the high-income housing (both high density and the Ansley Park neighborhood immediately adjacent), add to this early example of a WalkUP in the region

PLATINUM

Buckhead
Cumberland-Core
Midtown
Perimeter at The Center

CHARACTERISTICS

This ranking has been achieved by only four of the 27 WalkUPs, but they represent a wide array of walkable urbanism. Despite their varied geographical and historical position, however, all three platinum WalkUPs share one key characteristic: aggressive place management.

Platinum WalkUPs predominantly are where large institutional owners, such as insurance companies, pension funds, sovereign wealth funds and REITs, have chosen to invest, resulting in the lowest capitalization rates and highest valuations and land prices.

The Platinum WalkUPs have the highest rents, 21 percent above Gold. Office rents, retail rents, and housing rents and for-sale housing values are 20 percent, 40 percent, 17 percent, and 15 percent greater than Gold WalkUPs, respectively. When compared to drivable sub-urban areas, the difference is dramatic: office rents, retail rents, and housing rents and for-sale housing values are 78 percent, 178 percent, 53 percent, and 140 percent greater, respectively. The average density is 13 percent higher than that of Gold WalkUPs, but this tier has a lower average Walk Score (79.2). This is due, in part, to highly successful regional malls in Buckhead, Cumberland-Core, and Perimeter at The Center, which depress walkability but enhance overall economic performance.

OBSERVATIONS

The WalkUPs that achieved Platinum in Atlanta are of a strikingly different character than those that we found in our Washington, D.C., research. In that earlier research, there was a tight association between common measures of urbanity (walkability, density, etc.) and economic performance. In Atlanta, however, that connection is somewhat looser. While the redevelopment efforts of the last two decades have transformed Midtown into a highly walkable

Average Key Metrics

Walk Score: 79.2

Gross FAR: 0.91
(Floor Area Ratio)

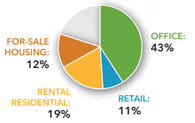
Annual Rent per Sq. Ft. {$ = $5}

OFFICE:	
$$$$$$$$$$$$	$21.53
RETAIL:	
$$$$$$$$$$$$	$35.21
RENTAL HOUSING:	
$$$$$$$$$$$$	$16.64
OVERALL AVERAGE:	
$$$$$$$$$$$$	$22.27

Housing per Sq. Ft. {$ = $5}

FOR-SALE HOUSING:	
$$$$$$$$$$	$182.63

Square Footage Breakdown by Use:



place, this process is not as far along in the other three members of this category (despite their management by active CIDs who have invested significant resources into achieving that goal). In fact, the retail sectors in Buckhead, Cumberland-Core, and Perimeter at The Center are all anchored by highly successful, but auto-oriented, enclosed regional malls. In each case, the malls help to buoy the overall rents of the places (though, each of these places also has a thriving office market). Though these malls may be valuable, cash-producing assets today, national trends suggest that the era of this retail model is coming to a close, with more malls being redeveloped into connected, gridded places every year. The CIDs that manage these places will need to help manage this transition, whenever it occurs, if they are to maintain their Platinum-level economic performance.

Midtown, located just north of Atlanta's downtown, was a nine-to-five office alternative to downtown two decades ago. Guided by the Midtown Alliance's Blueprint Midtown, nearly 13 million square feet of new real estate has been developed in this area since 2001, all with an eye toward the creation of a vital, walkable urban place. The success of Midtown has doubtlessly had a positive impact on adjacent WalkUPs (Arts Center, Ponce, SoNo, and Georgia Tech).

When Buckhead emerged to regional prominence it was due to the distinctly suburban-style development of the luxury Lenox Square mall in 1959. However, after its initial development as a drivable sub-urban office and retail district, Buckhead has achieved its current success as it has invested in an aggressive program to activate its streets and promote walkable urban development. Although it must still contend with the high-capacity traffic streets, such as Peachtree Road, Piedmont Road, and Lenox Road, and significant drivable sub-urban-style retail (including Lenox Square), Buckhead has made significant strides. Recently the entire area was rezoned to encourage more walkable urbanism.

Cumberland-Core is one of the largest employment concentrations in the entire state of Georgia, but has historically been an auto-oriented Edge City, in the mold of Tysons Corner in the Washington area. However, aggressive place management and an investment in pedestrian infrastructure have helped this area to begin the transition to a more walkable environment. Cumberland-Core is currently undertaking a rezoning process to support more walkable development and an under-utilized, 50-acre parcel with an oversized surface parking lot may be a key opportunity for catalytic redevelopment that advances this transition. However, there is a near-total absence of for-sale housing and it achieves very low rents for its rental housing. The development of additional housing of both types could help further advance the vitality and economic performance of the WalkUP.[26]

Perimeter at The Center is a former Edge City with a major concentration of employment and a major regional mall, similar to Cumberland. Unlike Cumberland, however, Perimeter has the advantage of being connected to the MARTA rail system, with two stations within its boundaries. Like Cumberland, there is a paucity of housing, either rental or for-sale. More residential development would help the WalkUP to better leverage its infrastructure (becoming an "origin" in addition to being a "destination") and help to support community-serving retail, services, and other amenities.

WalkUP *Rankings*

COPPER

SILVER

GOLD

PLATINUM

Social Equity Rankings

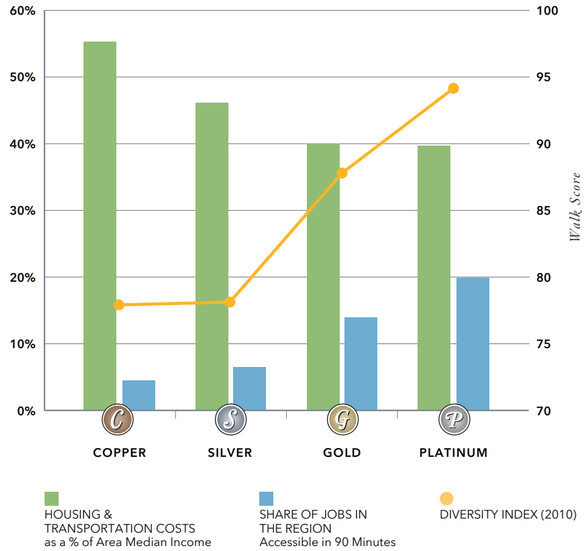
WalkUPs fall into the same four levels as the economic rankings, although driven by entirely different variables.

Our work in metropolitan Washington was our first attempt at operationalizing the social equity performance rankings for WalkUPs, based upon the original Brookings research referred to above. Since the release of the D.C. report, we have taken into account reaction and insight from commentators and refined our social equity metric, particularly regarding the concept of "access." In general, we consider a regionally significant WalkUP to be more socially equitable to the extent that it meets the following two conditions:

1. **The WalkUP is accessible to as wide a range of potential workers and consumers as possible**
2. **The WalkUP is affordable to as wide a range of potential residents as possible**

These criteria *exclude* a great many potential factors in evaluating social equity, including quality of public services, safety, and public and environmental health to name only a few. The decision

Social Equity Measures by Category



to exclude these factors was partly a function of data availability (much of this data is not available at the micro-level we require) and/or it is not available from a nationally replicable source so it can be used in all metropolitan areas in the U.S. for comparison purposes. However, we recognize that this ranking is, by its very nature, controversial. It is hoped that the release of these rankings will provoke lively discussion, further research and, hopefully, eventual consensus on how to measure social equity, something that there is no agreement upon today.

Our social equity metric is a composite of the following data:

- **Household housing and transportation costs as a percentage of the metropolitan area median income**: This is used to measure actual household affordability since housing and transportation are intimately linked, especially since many lower and middle-income households have to "drive until you qualify"—the current U.S. affordable housing strategy. The Center for Neighborhood Technology, which developed this metric, pegs 45 percent as the maximum share of a household's budget that should be devoted to H+T before it ceases to be affordable.[27] This metric factors into both elements of "access" considered in our definition of equity, since the transportation costs of living in a place are related to those of working in that place. Relative weighting is equal to 20 percent of total score.
- **Racial Diversity Index:** This measures how evenly split the population of a WalkUP is between four major racial categories: Hispanic, non-Hispanic white, non-Hispanic black, and non-Hispanic Asian.[28] A higher racial diversity index means a WalkUP's population is less concentrated among a single race. For instance, a high-diversity place like Lindbergh has no racial majority: 42 percent of its population is Hispanic, 33 percent of its population is non-Hispanic white, 17 percent of its population is non-Hispanic black, and seven percent of its population is non-Hispanic Asian. In contrast, in a low-diversity place, the vast majority of the population is in a single racial group: in the West End, for instance, 90 percent of the population is non-Hispanic black and no other racial group constitutes more than 10 percent. This serves as a measure of a common non-economic barrier to housing access—a racially diverse neighborhood is an indication that residents, brokers, and landlords facilitate an inclusive environment. Relative weighting is equal to 15 percent of the total score.
- **Income Diversity Index:** This measures the breadth of the distribution of household incomes within the WalkUP—the higher the index, the greater the degree to which the income distribution of the WalkUP matches that of the Atlanta region as a whole. This is a proxy for measuring the range of housing options and the accessibility of housing in the area to potential residents at each income class. Relative weighting is equal to 15 percent of the total score.
- **Share of housing units receiving public subsidy:** While the preservation of "market-rate affordable housing" is a widely held goal to achieve social equity, it is often difficult to meet this goal while also striving for local economic development. The provision of subsidized, rent-restricted housing is a means of maintaining long-term housing accessibility, thus allowing lower-income residents to live in a WalkUP even after the price of market-rate housing rises out of the reach of these households.[29] As such, this measure accounts not only for current affordability (which is reflected in other metrics used here), but also future affordability. In calculating this measure, we also included subsidized units within a quarter-mile of the WalkUPs boundaries, as those living within an easy walk of the neighborhood can also easily access its jobs and services. Relative weighting is equal to 10 percent of the total score.
- **Share of the population that can access the WalkUP by transit within 45 minutes:** Regionally significant WalkUPs are chiefly employment centers so the measure of access to the area was determined to be crucial for social equity.[30] Strong transit access to employment centers opens opportunities to transit-dependent workers, fosters the development of transit "riders-of-choice," and can play a critical role in sustainable regional development. Relative weighting is equal to 25 percent of the total score.
- **Share of the population that can access the WalkUP by car within 20 minutes:** While transit is favored as a more sustainable and equitable mode of commuting, we recognize that the automobile is the dominant mode of transport in the Atlanta region and is likely to remain so for the foreseeable future. However, shorter auto commutes are also valuable as a means of addressing employment access and sustainability. Relative weighting is equal to 15 percent of the total score.

C COPPER

Arts Center
Atlantic Station
Buckhead
Buckhead Triangle
Downtown Roswell
Emory
Perimeter at The Center
Sandy Springs
South Buckhead

Average Key Metrics

Housing & Transportation Costs: (As a % of median income for metropolitan Atlanta)

Subsidized Housing: 3%

Income Diversity: 0.55 (Breadth of income distribution)

Racial Diversity: 0.50 (Higher scores indicate greater diversity)

Walk Score: 77.9

Transit Accessibility: 4% (Share of population that can access the WalkUP by transit within 45 minutes)

Auto Accessibility: 4% (Share of population that can access the WalkUP by car within 20 minutes)

CHARACTERISTICS

The lowest level of social equity, these nine WalkUPs have on average:

- **The highest household housing and transportation costs of any WalkUPs** (56 percent of average metro household income). As an average, this is significantly higher than the benchmark for neighborhood affordability established by the Center for Neighborhood Technology (45 percent). Arts Center, the least affordable of these WalkUPs, housing and transportation costs consumes 67 percent of an average Atlanta area household's budget. In contrast, we found in D.C. that living in the least affordable WalkUP, Georgetown, would require an average Washington-area household to spend 84 percent of its budget on housing and transportation.
- **The second lowest average level of racial diversity,** albeit with significant variability within the Copper rankings: it includes both Emory, which has one of the highest levels of racial diversity among WalkUPs (probably due to the racially integrated nature of the student population) and Sandy Springs, which has one of the lowest.
- **Counterintuitively, the greatest average income diversity**. However, it includes WalkUPs that do not perform well on this measure, such as Emory (which is skewed toward lower-income households, again, most likely due to its student population).
- **The lowest provision of affordable housing,** with an average of only 3.3 percent of units receiving subsidy.
- **The lowest levels of transit- and auto-accessibility,** with only four percent of the population able to reach these destinations by transit in less than 45 minutes and only four percent of the population within 20 minutes by auto. Buckhead and Buckhead Triangle were the only WalkUPs accessible to more than 10 percent of the population via transit and no Copper WalkUP is accessible to more than five percent of the population via car.
- **The lowest WalkScores,** averaging 77.9 (compared to 82.5, the average for all WalkUPs in the Atlanta region).

OBSERVATIONS

Five of the nine WalkUPs in this tier lack access to MARTA rail transit, with three being located in the suburbs, outside of the I-285 beltway. This significantly limits access to the jobs and services located in these areas. Atlanta's long-range transit plan includes building regional rail to serve Emory, light rail to serve Emory and Sandy Springs, a streetcar to serve South Buckhead and Buckhead Triangle, and bus rapid transit (BRT) to serve Sandy Springs and Downtown Roswell, but none of these projects has been funded and the most recent transportation ballot measure dramatically failed.

The two WalkUPs in this category that is best linked to the regional transit network, Buckhead and Arts Center, is also the least affordable. However, as the loci of a great deal of on-going construction and future development interest, they may also have the greatest opportunity to foster greater equity through inclusionary housing agreements that will increase affordable housing. The same is true of Perimeter at The Center, one of the other WalkUPs in this category that is served by MARTA rail.

SILVER

Buckhead Village
Cumberland-Core
Georgia Tech
Inman Park
Downtown Marietta
Ponce
Upper Westside
West End

Average Key Metrics

Housing & Transportation Costs:
(As a % of median income for metropolitan Atlanta)

Subsidized Housing: 11%

Income Diversity: 0.51
(Breadth of income distribution)

Racial Diversity: 0.49
(Higher scores indicate greater diversity)

Walk Score: 78.1

Transit Accessibility: 7%
(Share of population that can access the WalkUP by transit within 45 minutes)

Auto Accessibility: 5%
(Share of population that can access the WalkUP by car within 20 minutes)

CHARACTERISTICS

The second lowest level of social equity, these nine WalkUPs have on average:

- **The second highest household housing and transportation costs** (46 percent of average metro household income).
- **A significantly greater provision of subsidized housing than Copper WalkUPs** (11.1 percent), and better transit- and auto-accessibility, as defined by the metrics above (seven and five percent of the region's population, respectively).
- **Slightly lesser racial diversity than Copper WalkUPs,** though again, with a wide range within the category. West End (with a population that is 90 percent African-American) has the lowest diversity among all WalkUPs, while Inman Park has relatively high levels of diversity).
- **Somewhat worse income diversity than Copper WalkUPs**, though again, with a wide range within the category. This category includes both the most income-diverse WalkUP in the region (Ponce) and the least income-diverse (West End).
- **Slightly higher Walk Scores than Copper WalkUPs** (78.1).
- **Greater accessibility than Copper WalkUPs,** with six percent of the population accessible by transit and five percent by auto (as defined above).

OBSERVATIONS

Six of the eight WalkUPs in this tier (Georgia Tech, Downtown Marietta, Ponce, Cumberland- Core, Upper Westside, and Buckhead Village) lack access to MARTA rail transit, but they are, on average, better connected than those in the Copper tier. Of those six, four (Georgia Tech, Ponce, Buckhead Village, and Upper Westside) are within a short bus ride or long walk to MARTA.

Most problematic in this tier is Cumberland-Core, one of the most important employment centers in the state, but with a location at the Perimeter that is inaccessible to a substantial portion of the region's population (only five percent can access it by transit and only five percent with a short car trip, as defined by the metrics above). However, BRT service is among the priorities for future transit expansion in the region.

Downtown Marietta, which is currently among the least accessible WalkUPs in the region, is also targeted for BRT service.

GOLD

Atlanta University Center
Centennial Olympic Park
Castleberry Hill
Downtown Decatur
Midtown
Lindbergh
Sweet Auburn

Average Key Metrics

Housing & Transportation Costs:
(As a % of median income for metropolitan Atlanta)

Subsidized Housing: 16%

Income Diversity: 0.49
(Breadth of income distribution)

Racial Diversity: 0.56
(Higher scores indicate greater diversity)

Walk Score: 87.8

Transit Accessibility: 14%
(Share of population that can access the WalkUP by transit within 45 minutes)

Auto Accessibility: 6%
(Share of population that can access the WalkUP by car within 20 minutes)

CHARACTERISTICS

The second highest level of social equity, these seven WalkUPs have on average:

- **Among the lowest housing and transportation costs** (40 percent of average metro household income), **substantially below those of Copper or Silver WalkUPs**. The locations within the core of the region and presence of MARTA rail transit in all seven are significant factors in the lower average transportation costs.
- **A much greater provision of affordable housing units than Silver WalkUPs.** An average of 16 percent of units are subsidized in these WalkUPs—in four of the five (Centennial Olympic Park, Castleberry Hill, Decatur, and Atlanta University Center), more than 20 percent of units receive subsidy.
- **Much better transit accessibility** (14 percent) **than Silver WalkUPs**, and slightly better auto accessibility, six percent of the population able to reach the WalkUPs by that mode.
- **Significantly higher Walk Scores than Copper WalkUPs** (87.8).

OBSERVATIONS

Overall, we found there was an inverse relationship between social equity and economic performance (a phenomenon that was also true of WalkUPs in the D.C. metro area), which makes intuitive sense; the better the economic performance, the lower the social equity performance. Downtown Decatur and Midtown are important exceptions to this rule. In addition to achieving Gold in social equity,

Decatur achieved Gold in economic performance and Midtown achieved Platinum in that ranking. Downtown Decatur has both one of the largest provisions of affordable housing among all WalkUPs and among the highest sales-per-square-foot values of for-sale housing prices. The presence of both affordable housing and highly sought-after market-rate units accounts for it also having one of the greatest degrees of income diversity.

Midtown has the greatest income diversity in the region and among the highest levels of transit accessibility, as well as the highest residential rents in the region. The only social equity category in which Midtown is below the regional average is in the provision of affordable housing. As with Buckhead, the intensity of interest in new development may present an opportunity to address this concern through inclusionary housing agreements in new developments.

PLATINUM

GSU-Government Center
Peachtree Center
SoNo

CHARACTERISTICS

The highest level of social equity, these three WalkUPs have on average:

- **Much greater transit accessibility than Gold WalkUPs,** with an average of 20 percent of the region's population located within 45 minutes. They equivalent levels of auto-accessibility (six percent of the population).
- **Dramatically higher Walk Scores than Gold WalkUPs,** including some of the most walkable neighborhoods in the region (94.2).
- **Comparable housing and transportation costs to Gold WalkUPs** (40 percent AMI), still below the threshold for affordability set by the Center for Neighborhood Technology (45 percent).
- **Somewhat greater provisions of subsidized housing units** 22 percent), much greater levels of racial diversity, and slightly greater levels of income diversity than Gold WalkUPs.

OBSERVATIONS

All three of these WalkUPs are highly walkable and highly transit-accessible. While that has not proven as surefire a path to economic performance in Atlanta as in D.C. where economic rankings are driven by walkability, there is strong reason for optimism that this will soon change. As such, these highly socially equitable places are well positioned to move up the economic rankings.

With the proper policies in place, Atlanta has the potential to host more WalkUPs that are both highly valuable and highly equitable. Peachtree Center ranked as Platinum in social equity and Gold in economic performance. A healthy and expansive office market—coupled with the greatest racial diversity and transit-accessibility in the region—are critical factors in this achievement.

Average Key Metrics

Housing & Transportation Costs:
(As a % of median income for metropolitan Atlanta)

Subsidized Housing: 22%

Income Diversity: 0.51
(Breadth of income distribution)

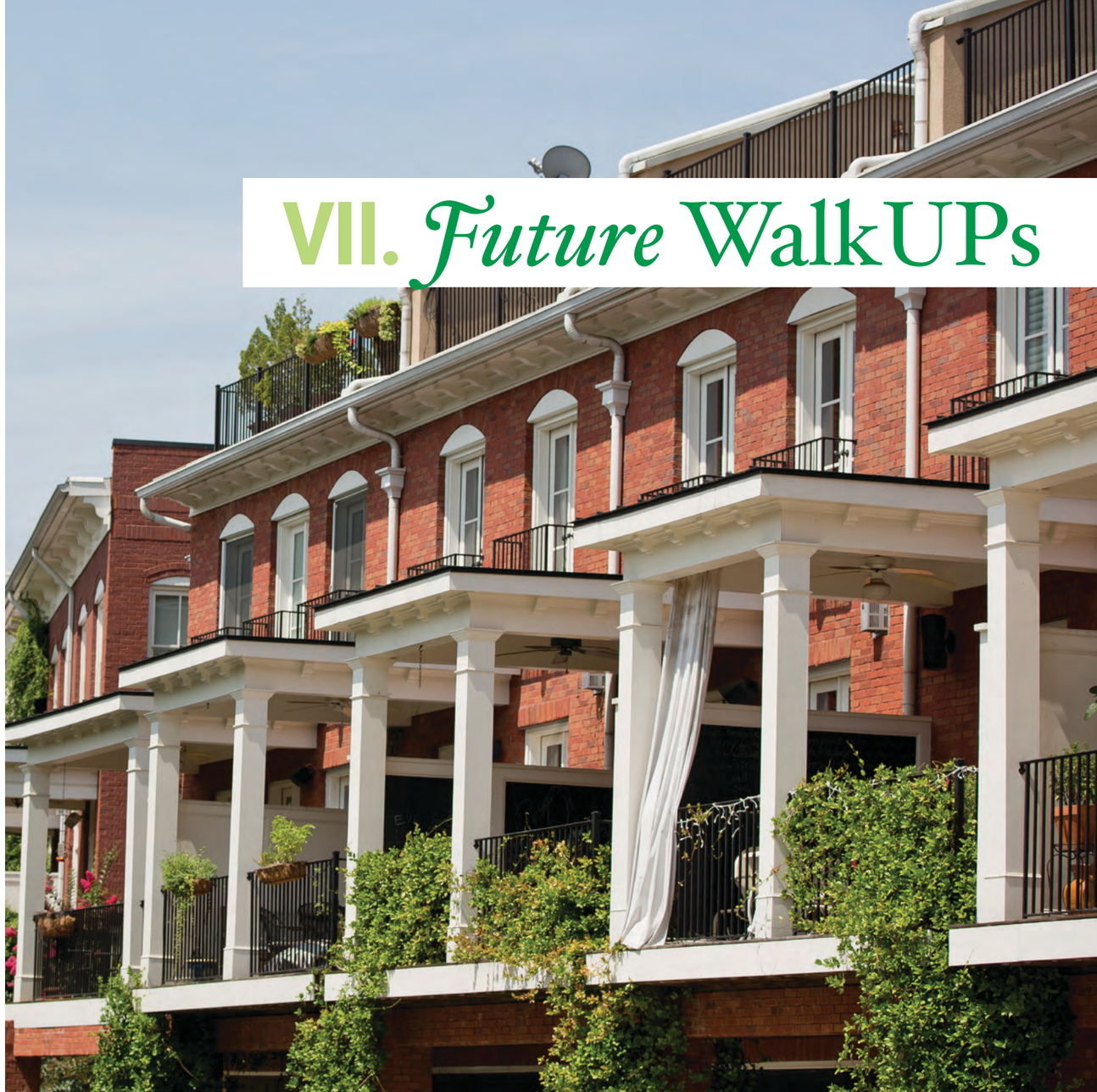
Racial Diversity: 0.77
(Higher scores indicate greater diversity)

Walk Score: 94.2

Transit Accessibility: 20%
(Share of population that can access the WalkUP by transit within 45 minutes)

Auto Accessibility: 6%
(Share of population that can access the WalkUP by car within 20 minutes)

VII. *Future* WalkUPs



WalkUPs: The Next Wave

There are more WalkUPs in metropolitan Atlanta waiting in the wings, the vast majority in the suburbs.

In addition to the 27 Established WalkUPs in the Atlanta region, we wanted to determine where the next WalkUPs are likely to emerge. As a result of this analysis, we defined 19 additional places that are either emerging as regionally significant WalkUPs or potentially have a set of assets (land, supportive policy, place management, infrastructure, etc.) that make them well positioned to redevelop as WalkUPs at some point in the future.

There are nine Emerging WalkUPs. These are places that have a sufficient allotment of commercial real estate to be considered regionally significant. Most of these have also made significant investments in walkable infrastructure and have active place management entities that have helped these places make great strides in their transition from drivable sub-urban to walkable urban development. However, in each of these cases, a diffuse, auto-oriented street layout result in lower Walk Scores ranging from 57.0 to 69.3, which is below the 70.5 threshold for WalkUPs based upon the Brookings research.

There are also 10 Potential WalkUPs. These places require significant development and/or redevelopment in order to become either Emerging or Established WalkUPs. However, each of these has some combination of many of following assets that are critical in the rapid development of newly walkable urban places.

- **Major opportunity sites** (e.g. Fort McPherson)
- **Strong transit accessibility** (e.g. College Park)
- **Supportive land use policies** (e.g. Serenbe)
- **Ongoing investment in pedestrian infrastructure** (e.g. Encore Park)
- **Existing walkable development planned, proposed, and/or under construction** (e.g. Encore Park)
- **A strong place management entity** (e.g. East Windward)
- **A long-term vision and early development of a walkable urban form but requires more scale** (e.g. Serenbe)

Brookhaven
Doraville
Gwinnett Place
Hapeville
North Point
Perimeter East
Perimeter Summit
Perimeter West at 400 Town Center

EMERGING WALKUPS

Each of the places identified as Emerging WalkUPs lie outside of the city limits of Atlanta, with six located either largely or entirely outside of the Perimeter beltway. However, four of the Emerging WalkUPs are currently served by MARTA rail and six are managed by Community Improvement Districts, with plans for an seventh CID (in Brookhaven) under consideration. As such, these places have better regional access and more tools for achieving walkable urbanism than many drivable sub-urban areas.

On average, these places have a much larger retail component than any of the Established WalkUP place types, with 31 percent of square footage in that use. This is largely due to the presence of major regional malls in North Point, Gwinnett Place, and Town Center. Office space occupies an average of 21 percent of the total square footage, while residential uses constitute an average of 23 percent of square footage, the smallest share outside of downtown Atlanta. A greater provision of residential real estate would help to encourage the development of more resident-serving retail and services, which will be an essential step toward the advancement of walkable urbanism in these WalkUPs.

While, on average, real estate in Emerging WalkUPs rent for $15.09 per square foot, (compared to $18.45 for Established WalkUPs), these places span the full range of economic performance in the region. At the high end, North Point would qualify as a Platinum WalkUP if it were able to achieve the necessary walkability benchmarks; at the low end, Hapeville and Gwinnett Place would be ranked in the Copper tier.

On the social equity axis, however, Emerging WalkUPs perform almost uniformly poorly: six of the nine would be ranked as Copper and the other three as Silver, with none reaching either of the upper two tiers. Most of these areas were relatively diverse in terms of race and income (with a notable exception being Brookhaven, which is very skewed toward higher income households due to the presence of Brookhaven Club). However, none of these areas have more than six percent of their units in the form of subsidized housing and seven of the nine have no such units at all. In addition, the peripheral locations of most of these areas hurt their performance in transit- and auto-accessibility.

While Emerging WalkUPs have not yet met the walkability criteria, active Community Improvement Districts (CIDs) have helped many of these places make great strides. For instance, Perimeter CID has invested millions of dollars in sidewalk improvement, while North Fulton CID has plans to replace the Encore Parkway Bridge and add pedestrian/bicycle facilities to that roadway in North Point. While these infrastructure enhancements are critical to improving walkability and will lay the groundwork for more walkable urban development. The advancement of supportive land use policies and assistance with recruiting and implementing high-quality development is another function these CIDs are playing in aiding the transformation of these places. Currently, CIDs manage the emerging WalkUPs of Gwinnett, North Point, Town Center, and all three sub-areas of Perimeter.

In addition to these current investments, there are plans and major opportunities related to each of these areas, which may help them become more walkable in the long term. There are unfunded plans to extend MARTA rail to Hapeville and to implement other high-capacity transit lines to North Point, Perimeter Center and Gwinnett, which will improve their regional accessibility and help support development that leverages enhanced pedestrian activity. In Hapeville, there is a 130-acre mixed-use development planned on the former Ford assembly plant that will include Porsche's new North American headquarters. Similarly, there are plans for a mixed-use town center on the site of the now-shuttered GM facility in Doraville. Future opportunity site may include the regional malls that are present in four of these Emerging WalkUPs; in other communities throughout the country, regional malls has been the focus of catalytic walkable urban redevelopment.

College Park
Cumberland-Powers Ferry
East Windward
Encore Park
Ft. McPherson
Kensington Station
Morrow-Southlake
Serenbe
Turker Field
West Windward

POTENTIAL WALKUPS

Potential WalkUPs are places in the region that currently have significant under-utilized land; have a sparse, auto-oriented street grid; lack supportive retail, services, or community amenities; or simply lack the critical mass to achieve walkability. However, each possesses some combination of assets that present strong opportunities to attract walkable urban development to become Emerging, and then Established, WalkUPs in the future.

East Windward, West Windward, Encore Park, and Cumberland-Powers Ferry are all places that were originally developed as highway-oriented, low-density, drivable sub-urban districts. However, each of these places is managed by Community Improvement Districts that are committed to the transformation of these areas to more walkable urban places. North Fulton CID (which includes Encore Park and the two Windwards) North Fulton CID has made major investments into improvements in mobility and pedestrian infrastructure and has played an important role in supporting updated land use policies at the municipal level.

This advocacy has borne fruit, as the City of Milton adopted a transfer of development rights ordinance and form-based code for its portion of West Windward. In addition, development is underway for a new walkable community near Encore Park, which will include 350 units of housing, 750,000 square feet of office space, more than 600,000 square feet of retail, two hotels, and a new campus for Gwinnett Technical College. Cumberland-Powers Ferry, managed by Cumberland CID, has also been the

focus of major planning efforts and there are plans to construct a BRT line with a station located in this area.

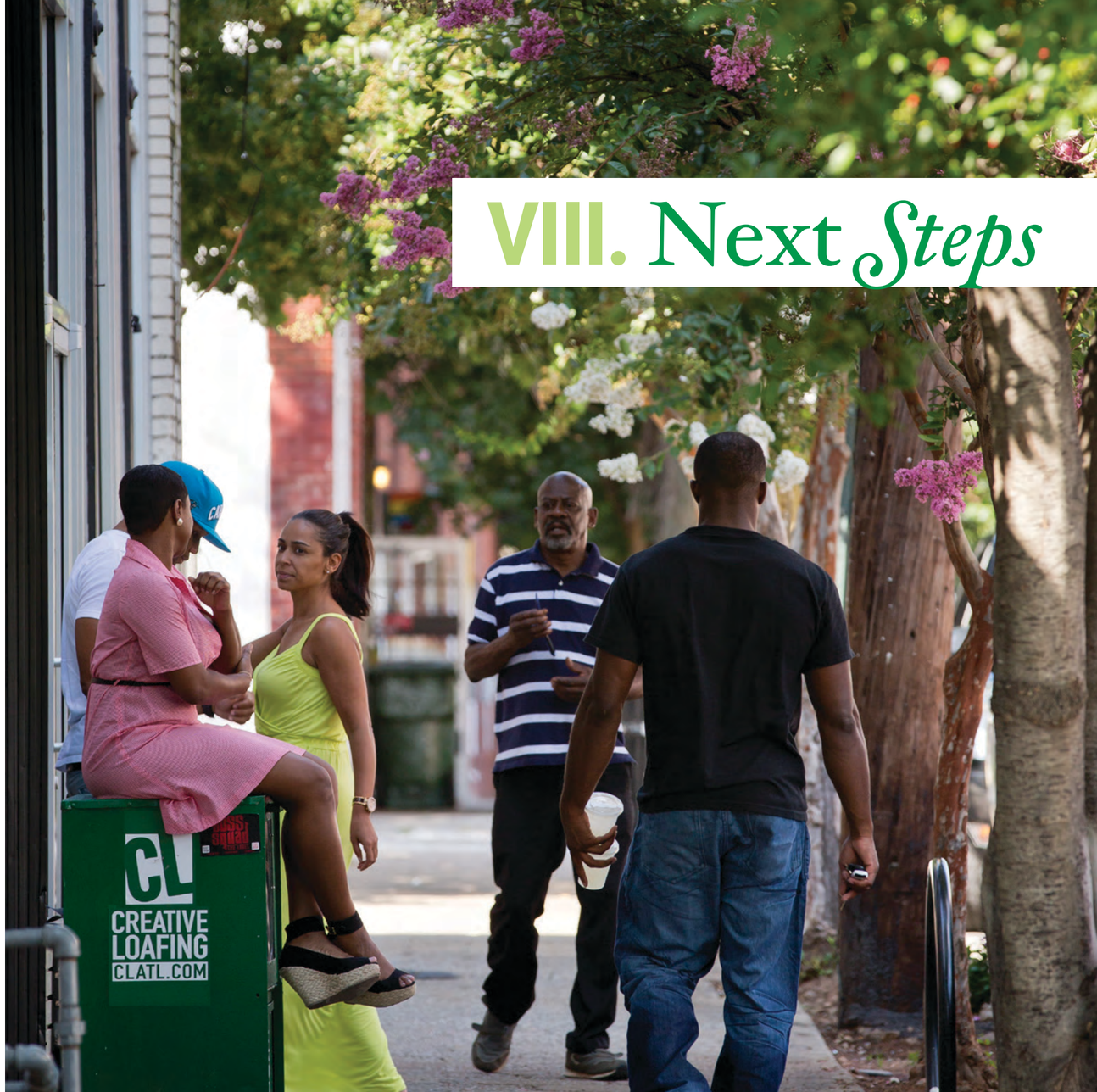
WalkUP Name	Plans/Visioning	Pipeline Development	Major Opportunity Sites	Rail/Bus Rapid Transit Accessibility	Place Management Entity	Zoning in Place	Infrastructure Investment
College Park	x			x	f		
Cumberland-Powers Ferry	x	x		f	x		x
East Windward	x			f	x		x
Encore Park	x	x	x	f	x		x
Ft. McPherson	x	x	x	x		x	
Kensington Station	x			x			
Morrow-Southlake	x			f		x	x
Serenbe	x					x	x
Turner Field	x		x	f			
West Windward	x			f	x		x

Three of the Potential WalkUPs are composed of major, publicly owned opportunity sites, two of which are adjacent to existing MARTA rail stations. Fort McPherson was closed as an Army base in 2011, and plans have been crafted by the McPherson Planning Local Redevelopment Authority to redevelop the area into a mixed-use, transit-oriented community. The first phase of this development is intended to include 3.5 million square feet of lab and office space and 1,747 units of residential development; subsequent phases may include a high-density retail district, a historic district, open space, and an additional 4,000+ units of housing. An experienced walkable urban development team has been selected, including Atlanta-based Cousins Properties and Forest City Enterprises, one of the largest walkable urban developers in the country. Kensington Station has a large vacant parking lot and older residential properties. The DeKalb County government owns a large amount of land nearby and is looking to redevelop that area into walkable urban community, consisting of as much as 2,000 housing units, 150,000 square feet of retail, and 930,000 square feet of office. Finally, a 55-acre surplus of parking lots at Turner Field, adjacent to the redeveloped local-serving Grant Park, represents a significant in-fill development opportunity for which the City of Atlanta has been evaluating development options.

Located in the southern portion of the region near the regional employment center at Hartsfield-Jackson Airport, College Park and Morrow-Southlake are also looking to redevelop as more walkable urban areas. College Park, with its existing MARTA rail station and plan to develop over 500 new housing units and 350,000 square feet of new commercial space, may be better positioned to become a WalkUP in the near term. The lead developer is Jacoby Group, the original developer of Atlantic Station. There are plans to build a commuter rail station at Morrow-Southlake. The Southlake Mall represents an opportunity for catalytic redevelopment, if that plan is implemented.

Serenbe is an innovative Greenfield WalkUP development located at the southern edge of Fulton County. With its focus on walkability, diverse architecture, access to nature, and premier restaurants, it has already become a regional destination for local tourism. While it lacks the critical mass to be an Established WalkUP, plans to attract more employment uses and to develop nearby communities in a similar mold might allow Serenbe to become a regional model for walkable urbanism.

Finally, the potential developments on the BeltLine may prove to be the catalyst for many as yet defined WalkUPs. Acting as a rail transit perimeter, similar to the highway perimeter, the BeltLine is probably the most important rail transit project in the country. The number of WalkUPs resulting from this investment has not been defined but could be between two and four.



VIII. Next *Steps*

Conclusions & Recommendations

The metropolitan landscape in Atlanta has never before been systemically categorized by walkable urban versus drivable sub-urban. There is much to learn. Even this first glimpse reveals startling differences in economic and social equity performance between the two forms of development.

ECONOMIC CONCLUSIONS

Increases in Average Key Metrics

As the average Metro Atlanta WalkUP's economic level moves from Copper to Silver, Silver to Gold, and Gold to Platinum, there are substantial increases in performance:

Office Rent:
+$3.15/square foot annually

Retail Rent:
+$7.51/square foot annually

Rental Apartment Rent:
+$1.91/square foot annually

For-Sale Housing Price:
+$42.06/square foot

Statistical analysis shows that there are two factors that explain 70 percent of the increased economic performance in the 24 Atlanta WalkUPs.

1

EDUCATIONAL ATTAINMENT

The share of the residential population 25 years or older that has a bachelor's degree or more is a positive indicator of economic performance.

By itself, this variable predicts 57 percent of the variability in average rent among WalkUPs.

2

INDUSTRY PROFILE

The share of jobs concentrated in knowledge industries (NAICS codes 51-55) is a positive indicator of economic performance.

Adding this to the educational attainment explains 70 percent of the increase in rents.

WalkUP place managers and investors/ developers would improve their economic returns by increasing the density of jobs in knowledge industries as well as the education levels of the work force.

The 27 WalkUPs yield a 112 percent rent premiums on a price per square foot basis over the rest of the metropolitan area for all four product types studied: 30 percent for office, 147 percent for retail, 12 percent for rental residential, and 161 percent for for-sale residential. However, we did not find walkability, on its own, to be a significant predictor of variations in economic performance among the 27 WalkUPs.

In the D.C. study, the walkability of a WalkUP was by far the strongest determinant of economic performance. According to a Brookings institution survey in 2007 (which will be updated in late 2013), metro D.C. is the location of the most walkable urban places in the largest 30 metro areas in the country and metro Atlanta was 14th. Thus, this finding may reflect that metropolitan Atlanta is at the beginning of its transformation of providing walkable urban development as a viable alternative and compliment to the dominant drivable sub-urban form so prevalent here. Rome was not built in a day. Just two percent of the built environment is delivered to a metropolitan area in a good year so the introduction of a new development form, such as walkable urbanism, will take decades to make itself evident. This long-term development of walkable urban places, both regionally significant and local-serving, will put an economic foundation under the metropolitan economic for a generation or more—just as the building of drivable sub-urban districts and neighborhood did during the late 20th century when Atlanta was referred to as "Hotlanta."

We did find that both of the two most significant indicators of economic performance were related to the presence of knowledge-based workers. Given that our *D.C. WalkUP Wake Up Call* report found that education and the knowledge economy are the primary drivers of the growth of walkable urban places, emphasis on the building of walkable urban places may prove to be the most effective economic development strategy a CID, city and the region could pursue. There have also been many studies showing the propensity of knowledge workers and the "creative class" to demand walkable urban places, which in turn promotes new ideas, business contacts and a lifestyle demanded by these workers.

The challenge is that while metropolitan Atlanta has a higher than the national average percentage of the work force that is college educated (35 percent in the Atlanta region, compared to 28 percent for the U.S.), many of the region's competitors rank higher. In metro Denver, Portland, Seattle, Boston, and San Francisco, the places ranked two through six in the 2007 walkability survey, an average of 39 percent of workers over the age of 25 are college educated. In the most walkable region, metropolitan Washington, 48 percent of the workforce over age 25 is college educated. The development of more walkable urban places will probably be one catalyst that will attract a more highly educated workforce, hence higher economic performance.

WALKUP INVESTMENT CRITERIA

Investors and developers looking for new opportunities should understand these place characteristics before investing, matching their risk tolerance and the implicit market risk implied in these rankings, such as:

- Investing in a Copper WalkUP means that a long-term time frame is required to maximize returns, though entry prices are relatively modest. Place strategy and management for a Copper WalkUP is particularly important to ensure economic performance.
- Silver WalkUPs are prime for growth in the existing real estate cycle and there is opportunity for improvement to a Gold ranking, increasing returns substantially.
- Investing in Gold or Platinum WalkUPs is much less risky, but the high price of entry reflects this. The upside of Platinum investments might be relatively less but more stable and, thus, attractive to institutional investors (insurance companies, pension funds, REITs, etc.).

The public policy response to these market trends should be to encourage the economic and tax-base growth, and increased quality of life resulting from WalkUP development. The first step needed to make this happen is to monitor the increasing economic performance of the jurisdiction's WalkUPs so as to understand the fiscal impact on government revenues. The second step is to make sure the zoning is in place. Crucially, the appropriate infrastructure must be planned and financed in order to make the place more walkable, to increase its job density and to attract an educated workforce.

Lower economically performing WalkUPs may require special attention from the jurisdiction to increase economic and fiscal performance. When dealing with specific projects, long-term public sector investments (i.e. equity invested in real estate), as opposed to upfront subsidies (i.e. grants and low-interest, soft-seconds loans), are more effective. A public investment approach helps a project get financing as productively as a subsidy, but it also carries a hoped-for return of capital, plus profit from the investment, that the government can then re-invest.

In contrast, Gold and Platinum WalkUPs are likely to need less in the way of special public financing programs to encourage new development—their relatively high rents are, in most cases, sufficient inducement for high quality walkable urban development. In fact, there is the possibility of engaging in "value capture" where sharing the private sector upside returns from public improvements, say a street car line, could help fund those public investments or social programs, like affordable housing. Value capture is essentially a private sector Tax Increment Financing (TIF) program. This is similar to how most rail transit was built in Atlanta a century ago by private developers, using the profits from land development to subsidize the rail transits used to get their customers to the development.

TRANSPORTATION INFRASTRUCTURE

In the built environment, it is well know that transportation drives development. For the 6,000 years humankind have been building cities, the transportation system the society selects dictates the form of the built environment. Atlanta knows this far better than other metropolitan areas in the U.S. since it has no logical reason to be where it is. The only reason Atlanta exists is that its far-sighted founders and subsequent civic leaders massively invested in transportation, freight rail, passenger rail, highways, and eventually, airports. That one of the early names of the city was Terminus shows the importance transportation has played in the region's economic history.

However, metropolitan Atlanta has been under-investing in transportation in the 21st century. It has been disturbingly under-investing in the rail transit transportation infrastructure that is most needed for walkable urban development, which the market and the economy are now demanding. The region got one of three federal investments in heavy rail transit in the 1970s, the MARTA rail system, yet the system has not been expanded enough, maintained or encouraged to play the economic role it could. Its sister system, Metro in Washington, has played the dominant role in driving economic development for the past 20 years. Unfortunately, the Atlanta region has not seen billions of private-sector development in WalkUPs and unknowable loss of economic development because the rail transit system has not been high priority.

Investing in rail transit in the early 21st century is as important as building the freeways was in the 1960s and 1970s for the economic growth of the Atlanta region. The City of Atlanta has made important steps in this direction with the construction of the Atlanta Streetcar and the development of the Atlanta BeltLine.

SOCIAL EQUITY CONCLUSIONS

Since there is no agreed upon measure of social equity, the development of this social equity performance metric will hopefully allow for more equitable development and management of Established, Emerging, and Potential WalkUPs. If you cannot measure, you cannot manage.

One obvious conclusion is that increased economic performance is associated with lower social equity outcomes.

One obvious conclusion is that increased economic performance is associated with lower social equity outcomes. Buckhead and Perimeter at The Center epitomize this with Platinum economic rankings and Copper social equity rankings. On the other hand, many WalkUPs with high social equity have lower economic performance: GSU-Government Center achieved Platinum in social equity and Copper in the economic rankings.

However, there are exceptions to this phenomenon, and there are lessons to learn from WalkUPs that perform well on both measures. Midtown is the sole WalkUP to score Platinum on economic performance while still performing well in social equity. Peachtree Center ranked as Platinum on social equity, but also scored well in economic performance. In addition, Downtown Decatur achieved Gold status on both rankings. These are all older WalkUPs that have seen significant new development in recent years, but have retained many of their smaller and older buildings, ranging from modest to the very highest rents or sales prices. This could just be part of the evolution from a mix of rents from high to low today to completely gentrified tomorrow, though the significant provision of subsidized housing units in Downtown Decatur and Peachtree suggests that those areas will be able to maintain affordability in the long term.

In their recently released study on regional variations on the likelihood of children of low-income families to rise out of poverty, Chetty, et al. found that class mobility was correlated to several of the factors included in our social equity metric.[4] The degree to which regions were racially and income-segregated was strongly correlated with the likelihood that children raised in the lowest economic quintile would rise to the highest. In addition, a comparison between the regional rankings in mobility and a 2007 ranking of regional walkability suggests that those two variables are also related.[12] The Atlanta region's poor performance in this study of economic mobility (the second worst among regions with more than one million residents) makes consideration of these factors in walkable development all the more critical.

What is needed is a conscious strategy for each WalkUP to create and maintain affordable and workforce housing, as well as to increase accessibility. Having social equity measures will provide place managers and their jurisdictions with goals to which they can aspire. Implementation of social equity goals should be the responsibility of the place management organization and part of its charter from the local jurisdiction. An excellent example of a deliberate strategy to encourage social equity is the establishment of the Atlanta BeltLine affordable housing trust fund and its accompanying policies.

The ultimate solution to affordable housing is to build more walkable urban product. There are two reasons why walkable urban housing costs more than the drivable sub-urban product. The first is the higher quality of construction required for walkable urban product (better foundations, serious architecture, buildings right up to the sidewalk, etc.). Most people compensate for this additional cost by occupying a smaller amount of space, thinking that the amount of urban amenities outside the home will compensate for the smaller space.

The second and more important reason for higher costs for walkable urban places is land values. Our work in metro D.C. found, for instance, that in platinum level WalkUPs, the land cost as a percentage of the house was at least 50 percent. In most drivable sub-urban housing, however, this cost is less than 20 percent. The shortage of walkable urban residential land, especially for townhouses and small-lot, single-family housing, is driving up land prices. This makes no sense in the United States, where there is no shortage of land. What we do not have is enough *walkable urban* land.

Public policy that creates more in-fill residential land (brownfield, rezoned, assembling small parcels, knocking down obsolete uses, etc.) is the most significant way to address social equity concerns.

NIMBY (Not In My Back Yard) opposition to high-density development is equally responsible for the land shortage. An education campaign must be undertaken to turn the opposition into YIMBYs (Yes In My Back Yard). Recent research is now demonstrating that single-family neighborhood adjacent to successful WalkUPs are achieving for-sale price-per-square-foot premiums of between 40 and 100 percent. This is because these households are living in suburban splendor, yet can enjoy urban excitement (restaurants, retail, transit, and maybe work) within walking distance, which increases their quality of life. However, single-family households, say surrounding Emory University, do not understand the potential quality of life and home value premiums at this point in time.

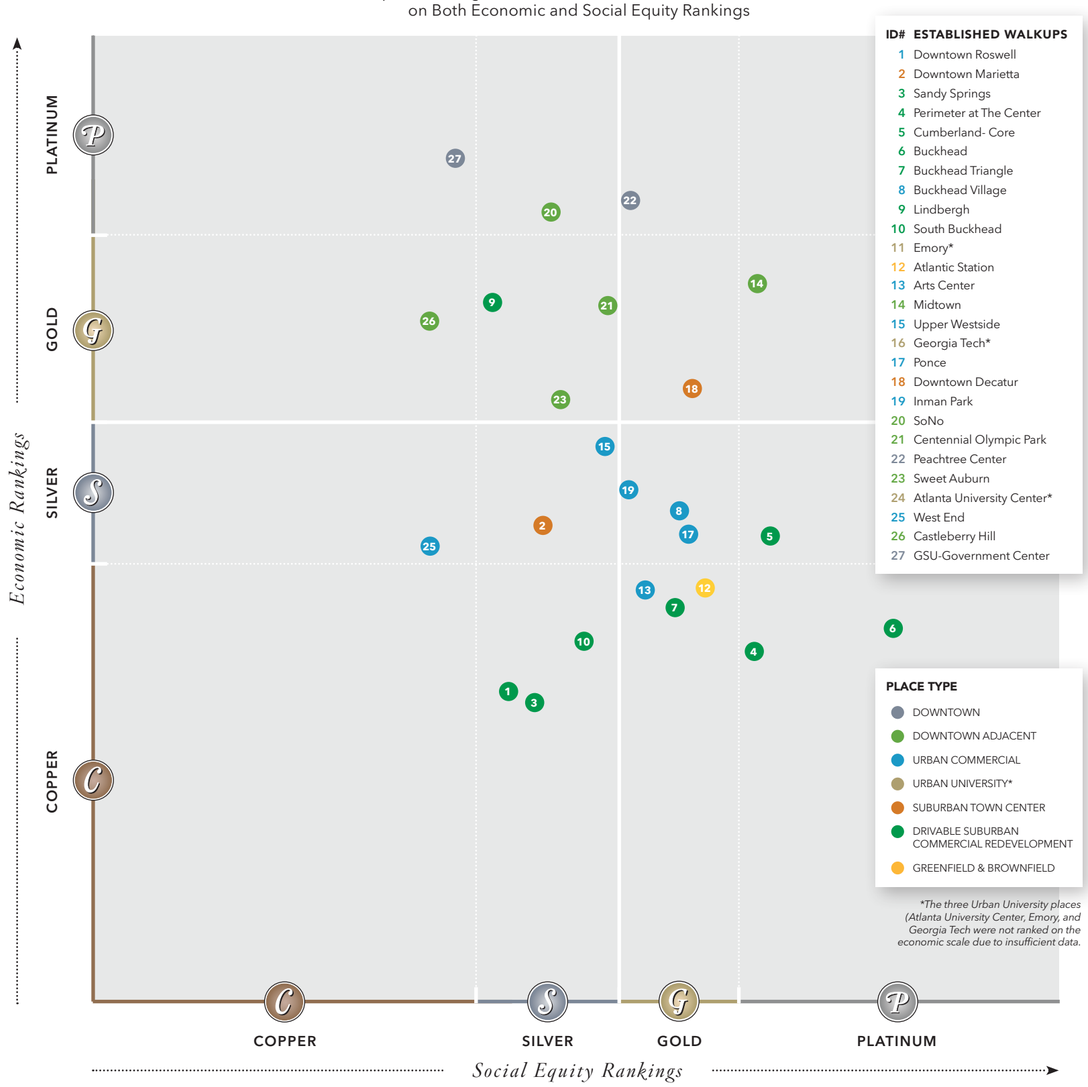
One of the proven ways of overcoming NIMBY opposition is by having multiple examples in the region of great walkable urban places. People working and living in drivable sub-urban districts and neighborhoods will end up visiting these WalkUPs for an evening out "on the town," strolling down a crowded street after dinner or a show. Eventually they will ask, "Why can't my jurisdiction have a place like that?"

Given a growing understanding of how economically successful WalkUPs can be, we may be able to take advantage of this rising tide of economic activity to pay for social equity performance. Harnessing a portion of the profits and tax-base increases from gentrification to address social equity (a form of "value capture"), could be a strategy to fund affordable housing or pay for the needed rail transit infrastructure.

Most importantly, we should recognize that economic success in walkable urban development does not preclude achieving social equity. On the following page we have summarized the performance ranking of the 27 WalkUPs on both economic and social equity in a scatterplot. That Midtown has achieved Platinum on the economic ranking and Gold on social equity, that Peachtree Center ranks as Platinum on social equity and gold in economic performance, while Downtown Decatur has achieved Gold rankings on both demonstrates it can be done. Now that we have the metrics to measure performance—something not available before—the WalkUPs in Atlanta can manage for success in both areas. However, conscious management toward increasing social equity is required for improvements to be made. It is natural to strive for increased economic performance. It takes the intention to balance economic and social equity performance to move to the upper right hand corner of our scatterplot.

Social Equity vs. Economic Rankings

Scatterplot Showing the Distribution of the Metro Atlanta WalkUPs on Both Economic and Social Equity Rankings



Further Study

No research report would be complete without the obligatory "more research needs to be done." This is particularly the case with WalkUPs research.

There are a number of areas that require expanded research:

- This research focused on regionally significant WalkUPs. Local-serving WalkUPs, walkable urban bedroom communities, need to be quantified and better understood.
- This research is a snapshot in time (early 2013), but longitudinal research will help understand what actions are needed to improve economic and social equity performance over time.
- This is the second installment of what will hopefully be many more studies of walkable urban places in the U.S. and other countries. Comparisons to other metropolitan areas will provide insights into how this market trend is unfolding as well as a larger universe of the seven different types of WalkUPs from which to learn how to improve performance.
- The lack of knowledge of owner-user space is a major handicap in understanding where a significant percentage of business, government, non-profits and others locate, and employees work. It could be any where from 30-50 percent of all employment is not known at present—a huge hole in our understanding of the built environment, infrastructure provision and the metropolitan economy.
- Optimal product mix in a WalkUP is a much debated topic in urbanism circles. How much retail or housing is best for economic or social equity performance? The urbanism field contains many opinions about the optimal product mix but few measurable principles.
- There is need to quantify the illusive concept of critical mass, colloquially referred to (using Gertrude Stein's masterful phrase) as having a "there, there." We can feel when a place is at critical mass but this feeling has not been quantified. Our definition is that a WalkUP is not yet at critical mass if the local jurisdiction needs to provide subsidies or special investment programs to make the next real estate project happen.
- What can be done to encourage development to the south and on the west side of Atlanta, outside of its Favorite Quarter? In metro Washington, there has just recently been market-rate development of a regionally significant nature happening outside the Favored Quarter, a very positive social and development trend.
- The economic measures should include development of a GDP measure for a WalkUP. GDP measures have come down as far as metropolitan areas. It is time to push this "gold standard" of economic performance measurement to the WalkUP level. We used the rent per square foot, or the equivalent for for-sale housing values, as a proxy for economic activity, but this is not as robust as a GDP calculation.
- In this analysis we looked how the share of residents that walked or took transit to work affects the economic performance of an area and found the two variables were weakly correlated. However, did not consider the influence of mode split by the workers or customers in an area. In the future, we hope to examine this as a means of testing the hypothesis that there is a value associated with being able to attract a workforce that prefers non-auto-based travel.
- Social equity measures need to be further refined. There are clear and agreed-upon definitions of affordable and workforce housing, but there is no agreed-upon measure of social equity. The only thing we can guarantee about the measure we have developed in this study is that it will be challenged and will be modified with more input and experience.
- The fiscal returns resulting from government investment in infrastructure and operating programs should be continuously measured and analyzed. The measurement of additional government revenues resulting from new investments should be calculated continuously, just as the private sector does.
- Since most of the economic returns from public sector investments tend to accrue to the private sector, we need to understand more about the potential of "value capture." These private sector, TIF-like, arrangements can help pay for infrastructure and social programs.
- Infrastructure costs per supportable square footage for drivable sub-urban districts versus walkable urban places is not understood. Preliminary research shows that drivable sub-urban infrastructure, since it is so spread out, cost many times what walkable urban infrastructure costs, even when rail transit is included in the equation.

IX. Appendices

Endnotes

1. Metro Atlanta has been defined as the "10-county Atlanta area, including Cherokee, Clayton, Cobb, DeKalb, Douglas, Fayette, Fulton, Gwinnett, Henry and Rockdale counties, as well as the City of Atlanta" that comprises the Atlanta Regional Commission.
2. FAR is a common measure of density. It involves a simple ratio of improved building square footage divided into the amount of land that it sits on in square feet. If 10,000 square feet of building (not counting parking) sits on 100,000 square feet of land, it has an FAR of 0.10. If 100,000 square feet of land sits on 100,000 square feet of land, it has an FAR of 1.0, and so on. Gross FAR, used here, is slightly different as it includes not only parcels of developable land, but also infrastructure such as streets and parks in the denominator. Therefore, the gross FAR of a place will be inherently lower than an FAR that only includes building parcels.
3. In the 1990s real estate cycle, we included only Arts Center, Buckhead, Buckhead Triangle, Buckhead Village, Castleberry Hill, Centennial Olympic Park, Emory, GSU-Government Center, Midtown, Peachtree Center, SoNo, and Sweet Auburn among Established WalkUPs as the other places had not yet developed as walkable urban. The latter two real estate cycles used the same designations as listed elsewhere in this report.
4. "The Economic Impact of Tax Expenditures: Evidence from Spatial Variation across the U.S.," March 2013. http://obs.rc.fas.harvard.edu/chetty/tax_expenditure_soi_whitepaper.pdf.
5. Krugman, Paul, *The New York Times*, July 29, 2013 (http://www.nytimes.com/2013/07/29/opinion/krugman-stranded-by-sprawl.html?partner=rssnyt&emc=rss).
6. One of the first uses of this phrase in relation to Atlanta was in the CNN documentary in 2000, "Democracy in America" (http://www.timewarner.com/newsroom/press-releases/2000/09/DEMOCRACY_IN_AMERICA_Examines_Where_We_Live_Americas_09-27-2000.php), and it has over one million entries in a recent Google search of "Atlanta, the poster child of sprawl."
7. The built environment represents the largest asset class in the economy. Its economic power has been repeatedly demonstrated both by real estate booms that helped propel the nation's economy and by real estate busts that caused two of the past three recessions. The built environment comprises two broad types of real estate products, income property and for-sale housing, as well as the infrastructure that supports real estate. That infrastructure encompasses transportation, water and sewer, public safety, electricity and broadband, among other categories.
8. These two terms employ the logic that "transportation drives development," a principle that has been at work through the 6,000 years of city/metropolitan building. The construction of these descriptive terms starts with the transportation system (drivable and walkable) and continues with the form that results (sub-urban and urban). There is a third form of the built environment, drivable urban, pioneered in theory by the Swiss architect, Le Corbusier. Best known in this country as "skyscrapers in the park," it was infamously adopted for much of the 20th century public housing and has been judged to be a massive failure, as the demolition of these "vertical slums" demonstrates. China's rapid urbanization is predicated on this form of development and the jury is out on whether this will result in a similar tragedy or not.
9. "Alternative" transportation is a federal term used in many transportation bills referring to every form of transportation, except highways. This ghettoizes the many forms of transportation that have been employed to build civilization for thousands of years.
10. "*DC: The WalkUP Wake-UP Call, The Nation's Capital as a National Model for Walkable Urban Places*," September 2012. http://business.gwu.edu/walkup/.
11. "*Walk This Way: The Economic Promise of Walkable Places in Metropolitan Washington*," May 2012. http://www.brookings.edu/research/papers/2012/05/25-walkable-places-leinberger.
12. "*Footloose and Fancy Free, A Field Study of the Walkable Urban Places in the Top 30 U.S. Metropolitan Areas*," December 2007. http://www.brookings.edu/research/papers/2007/12/1128-walkableurbanism-leinberger.
13. The long-time lack of a national data source for owner-occupied real estate is a major gap in the research. The real estate data sources used in this research have only come into existence over the past 15 years, some just in the last five years. Efforts continue to add owner-user space to the database.
14. The data sources for real estate products in that report included Co-Star (office, retail, sports/convention, health care, institutional, industrial and flex), REIS (rental apartment), Zillow (for-sale housing) and hotel (Smith Travel). In this report, Co-Star was used for (office, retail, sports/convention, health care, industrial, hospitality, and flex), RESI was used for rental apartments, and county tax records were used for for-sale housing.

Endnotes

15. Arthur C. Nelson, *Reshaping Metropolitan America: Trends and Opportunities to 2030*. Washington, D.C., Island Press, 2012.

16. Walk Score is the most popular and widely available measure of walkability. It is also the measure researchers have most used to measure not just walkability but economics of walkability. It is available throughout the country by specific address and neighborhood at www.walkscore.com.

17. Boundaries and names of all WalkUPs were determined in consultation with the Atlanta Regional Commission, based in part on Livable Centers Initiative applications and on land use patterns, with single-family residential development excluded from these WalkUPs, to the extent possible.

18. Many studies support that walkable urban place infrastructure is less than drivable sub-urban on a supportable price per square foot basis. The most recent is a survey of the literature by Smart Growth America at http://www.smartgrowthamerica.org/documents/building-better-budgets.pdf.

19. The favored quarter of any metropolitan area is a 90-degree arc starting in downtown marked by a concentration of upper-middle housing that is primarily white. Local minority housing is concentrated on the other side of the metro region. (Race has always been a major factor in how U.S. metro areas developed.) The favored quarter is also where most job growth has gone and the site of most infrastructure development.

20. The "Washington DC Regional Economy Current Conditions and Outlook" presentation to the Richmond Region of the Federal Reserve, by Dr. Lisa A. Sturtevant, assistant research professor at the School of Public Policy at George Mason University and deputy director of the Center for Regional Analysis at George Mason University, August 1, 2012.

21. In the 1990s cycle, we included only Atlanta University Center, Atlantic Station, Cumberland, Downtown Decatur, Downtown Marietta, Downtown Roswell, Georgia Tech, Inman Park, Lindbergh, and Perimeter at The Center, Ponce, Sandy Springs, South Buckhead, Upper Westside, and the West End as Emerging WalkUPs. Again, the latter two real estate cycles used the same designations as listed elsewhere in this report.

22. The Bay Area Rapid Transit system in California was also constructed during this period, but was primarily locally funded.

23. Here "core of the region" is defined as the area under the administration of the relevant regional planning agency.

24. Richard Florida, *The Rise of the Creative Class* (New York, Basic Books, 2012).

25. A rent-equivalent of for-sale values was calculated by estimating the monthly payments on a mortgage (including principal, interest, taxes, and insurance) for a home of that value. These mortgages were calculated assuming zero percent down payment, since the value associated with building equity and the opportunity cost of that capital investment are not included the rents for any other product type. Other assumptions included 30-year, fixed-rate mortgage at 4.39 percent interest (the average rate available at the time of this research). In addition, homeowners insurance was estimated at $0.50 per square foot annually, mortgage insurance was estimated at 1.35 percent, and property taxes were calculated based on the millage rates for the relevant municipality.

26. While our data shows low apartment rental rates within the WalkUP boundaries, an RCLCO Market Analysis conducted for the Cumberland CID shows that, within a larger geography, apartment rents compare favorably to the rest of Cobb County and the region as a whole, especially among Class A Apartments. This suggests that there may be apartments with higher rents just outside our WalkUP boundaries.

27. Center for Neighborhood Technology, http://htaindex.cnt.org/.

28. Both diversity indices were calculated using the Shannon diversity index.

29. Data was collected from *The National Housing Preservation Database*, created by the Public and Affordable Housing Research Corporation and the National Low Income Housing Coalition, http://www.preservationdatabase.org/.

30. Travel time data for both transit and automobiles was provided by the Atlanta Regional Commission.

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Any mistakes in this report are entirely ours—the efforts of Ellen, Jared and Jim are not to be faulted.

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