Atlanta Regional Commission

Regional Assessment

DRAFT
January 27, 2010

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RESOLUTION BY THE ATLANTA REGIONAL COMMISSION
TO DEVELOP THE PLAN 2040 - Adopted February 25th 2009

WHEREAS, since 1952 the Atlanta Regional Commission has developed and adopted regional plans for the Atlanta region; and

WHEREAS, these plans include the Regional Development Plan (RDP) for the ten county area; and the Regional Transportation Plan (RTP) and associated Transportation Improvement Plan (TIP) for the eighteen county area, and

WHEREAS, the RDP must be prepared pursuant to the Georgia Planning Act of 1989 and consistent with minimum standards and procedures for regional planning developed by the Georgia Department of Community Affairs (DCA); and

WHEREAS, in November 2008, Georgia DCA adopted revisions to Chapter 110-12-6, Standards and Procedures for Regional Planning, "Regional Planning Requirements"; and

WHEREAS, the RTP and TIP must be prepared pursuant to Safety, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) and the Clean Air Act Amendments of 1990; and

WHEREAS, the RTP and TIP must conform with the applicable State Implementation Plan (SIP) for air quality and ARC should seek to recognize other applicable state policy; and

WHEREAS, ARC proposes to develop a regional unified plan and specify a strategic vision for both the RDP and RTP/TIP, and will seek comprehensive approaches to accommodate economic and population growth sustainably in the Atlanta region during the next 30 years; and

WHEREAS, ARC will seek to conserve and protect critical environmental resources, rural landscapes, critical habitat, greenspace, water supply, water quality, air quality and other environmental features while meeting the overall regional needs to manage growth sustainably;

WHEREAS, the regional plan should seek to incorporate and unify both regional and local growth policy as outlined in local government Comprehensive Plans; and

WHEREAS, ARC will seek to incorporate strategies and projects outlined in existing plans and programs including the Livable Centers Initiative (LCI), Southern Regional Accessibility Study, Multi-Modal Corridor Plans, County Transportation Plans, Freight Mobility Study and others; and

WHEREAS, ARC will undertake a communication process that provides regular updates on plan development to local government officials and other planning partners and provide opportunities for engagement in key steps in the plan development; and

NOW, THEREFORE, BE IT RESOLVED that the Atlanta Regional Commission commits to undertake and adopt the Plan 2040 unified process for the Atlanta region.

Introduction

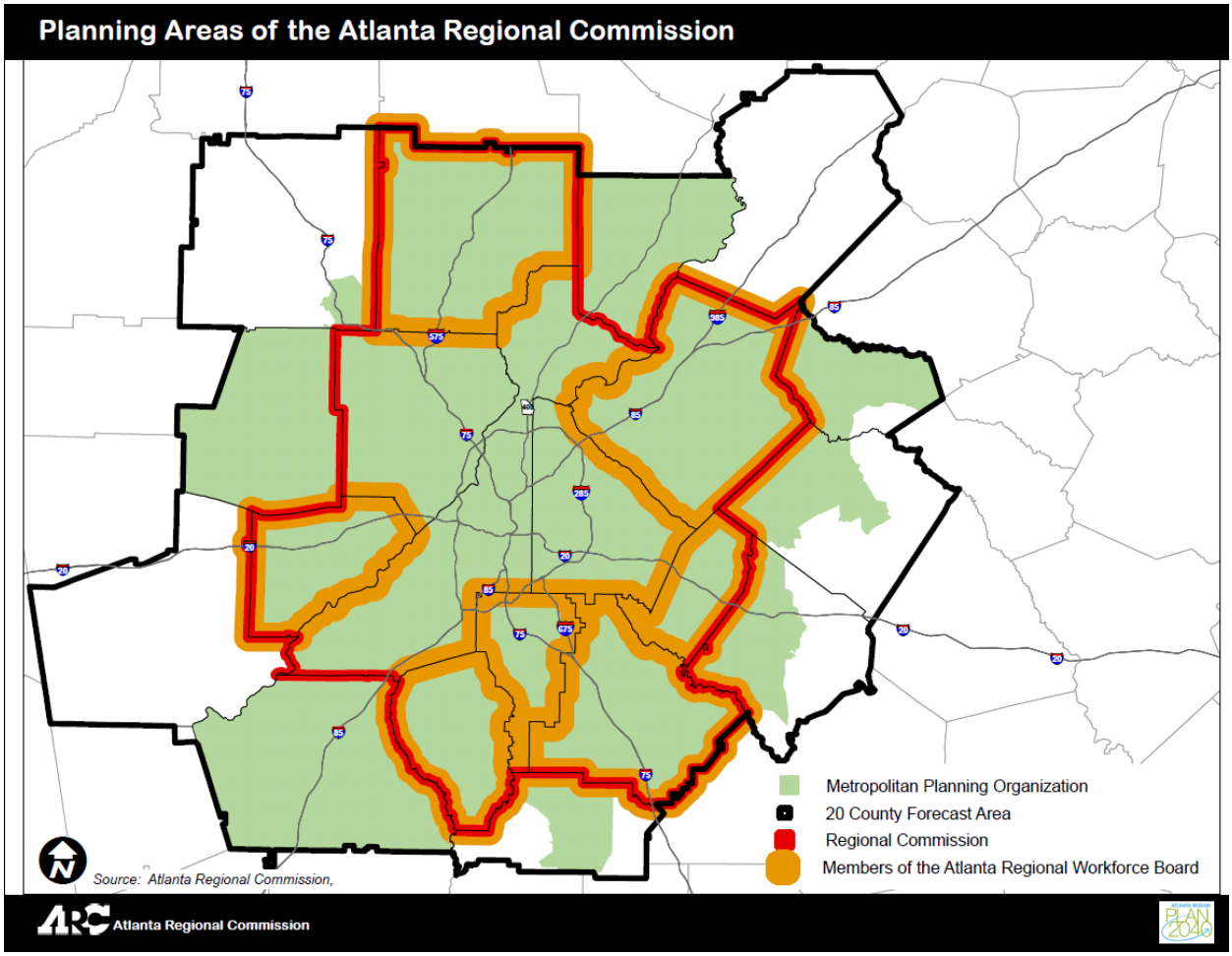
The Atlanta Regional Commission (ARC) is the regional planning and intergovernmental coordination agency created by the local governments in the Atlanta region pursuant to legislation passed by the Georgia General Assembly. ARC is not a government, but is the forum through which officials of local governments in the Atlanta region confer to solve mutual problems and decide issues of regionwide importance. ARC engages in a continuous program of research, study, and planning of matters affecting the Atlanta region. As an area of greater than 1,000,000 population, ARC has authority under state laws as both a Metropolitan Area Planning and Development Commission (O.C.G.A. 50-8-80) and Regional Commission (RC), effective July 2009, as outlined by House Bill 1216 in 2008.

In addition to being the official planning agency under state law for a 10-county region, ARC is also the transportation planning agency for the Atlanta region under federal law as the designated Metropolitan Planning Organization (MPO) for an 18-county area. In support of planning for transportation, ARC must develop a long-range forecast for population and households for a 20-county area to ensure transportation activities are consistent with efforts to improve air quality in this area. ARC provides planning staff to the 15-county Metropolitan North Georgia Water Planning District (MNGWPD), whose mission is to develop comprehensive regional and watershed-specific water resources plans for implementation by local governments. ARC also serves as the administrative agency for the seven county Atlanta Regional Workforce Board (ARWB). Aging services and policy guidance are provided by ARC as the Area Agency on Aging (AAA). Figure 1 on the following page shows the planning geographies of ARC.

The MPO was expanded in 2004 from 10 to 18 counties. The MPO boundary is based on the extent of urbanization, and Atlanta has the 3rd largest urbanized area in the nation.

ARC provides technical assistance to local governments as well as leadership programs including the Regional Leadership Institute (RLI), the LINK program, Community Planning Academy (CPA) and the MARC (Model Atlanta Regional Commission) youth leadership program.

Figure 1: ARC's Regional Planning Areas



Regional Assessment Purpose

The Regional Assessment identifies and confirms the region's needs. In addition to meeting the requirements of the regional assessment for the Georgia Department of Community Affairs (DCA), the Assessment also identifies critical findings that will lay the groundwork for policy and program development during subsequent steps of the transportation and regional development planning process.

ARC must prepare and adopt a Regional Development Plan (RDP) pursuant to the Georgia Planning Act of 1989 and consistent with minimum standards and procedures for regional planning developed by the Georgia DCA. In 2008, Georgia DCA adopted revisions to Chapter 110-12-6, Standards and Procedures for Regional Planning, "Regional Planning Requirements." The regional plan seeks to anticipate and apply comprehensive approaches to accommodate economic and population growth that will occur in the Atlanta region during the next 25 years.

The *Plan 2040 Regional Assessment* intends to meet all applicable state and federal requirements while integrating elements of formerly separate regional plans. Additionally, the planning process and subsequent documents will seek to understand and reflect local plans and policies. Many local governments in the Atlanta region have recently adopted local comprehensive plans. The Regional Assessment is the first step of the multi-year *Plan 2040* effort.

The Regional Assessment helps set the context for future policy discussions. Subsequent steps in the planning process will develop measures, policies, and final plan recommendations.

Plan 2040 is the Atlanta region's long-range plan for land development and transportation needs, scheduled for completion by July 2011. *Plan 2040* will serve as both the Regional Development Plan (RDP) and Regional Transportation Plan (RTP) for the Atlanta region. A collaborative effort among local, state and federal planning partners will be a critical part of the process. *Plan 2040* will guide growth for metro Atlanta through the year 2040 and address not only land use and transportation issues, but environmental, economic, housing and human services challenges as well. It will also meet state and federal guidelines and regulations for regional comprehensive and transportation plans, including financial constraint, federal air quality requirements and an implementation program that defines roles and actions for the many parties in the region that implement regional plans and programs, including local governments. Figure 2 on the following page provides a general overview of the current schedule for *Plan 2040* development

Figure 2: Overview of Plan 2040 Schedule and Process

Regional Assessment – Key Findings

Plan 2040, ARC's new regional planning process, began in February 2009 with adoption of a resolution by the ARC Board directing staff to develop a unified plan that specifies a vision to comprehensively address the accommodation of future population and employment growth in a sustainable manner. The Board further directed staff "to incorporate and unify both regional and local growth policy." It is anticipated that in the current period a commitment to addressing the challenges outlined in the *Plan 2040 Regional Assessment* will require a rethinking of how ARC addresses regional issues and delivers services to local governments and other stakeholders. The Regional Assessment document should serve as the beginning of this dialogue.

Primary Regional Challenges

The Atlanta region, for perhaps the first time in history, is experiencing a challenge to the fundamental conditions which propelled the region to prosperity and growth for the past four decades. The Atlanta region has grown and expanded largely on the basis of national migration trends to the south; federal policies that enabled highway construction and decentralized growth; access to one of the world's busiest airports and the region's prominence as the economic capital of the south; inexpensive land; low cost of living, business costs and wages. The region also has proximity to major ports, substantial opportunity for higher education, home-grown and new Fortune 500 business headquarters as well as national facilities such as the Center for Disease Control (CDC).

The region is currently dealing with a distressed regional economy as the result of economic struggles at the national level. It is unclear when a sustained economic recovery will occur but it is likely that the conditions that were present during the past 40-plus years that enabled continuous and rapid growth will not return. There is a great deal of uncertainty as to how the federal government will invest in infrastructure in the future. Substantial shifts in federal programs and policies would impact the regional strategies undertaken to support and manage growth in the region.

Atlanta has been one of the fastest-growing regions in the nation in recent years, accommodating large amounts of population and employment growth. This growth has brought many benefits to the region, including a change from a small regional center to a major international player economically. Despite a strong economy and an overall good quality of life, the overall pattern built to accommodate this growth is already strained and does not appear to be sustainable going forward.

The ARC Board provided clear guidance to staff in the February 2009 resolution to initiate the plan development process that regional plans and programs aimed at moving the region toward becoming more sustainable was desired. In its simplest form, sustainability is about balancing 1) environmental responsibility, 2) economic need and 3) social stability while ensuring that the needs of the present are not met at the expense of future generations. ARC intends to use this

framework of a "triple bottom line" as the focus for *Plan 2040*. ARC staff will seek to develop and implement a regional plan that maximizes sustainability through environmental, social and economic strategies.

While the current period has created much uncertainty, it should be anticipated that metropolitan Atlanta will continue to be one the fastest-growing regions in the nation. Each new and existing resident places demands on infrastructure, public services and the region's natural systems. The region is currently facing numerous challenges associated with growth over the past few decades, as well as national and global challenges that are likely to shape future growth. Existing and future challenges will need to be addressed comprehensively in order to ensure the long-term viability and global competiveness of the Atlanta region.

Development of "Critical Themes"

A comprehensive look at the current and future trends, challenges and opportunities in a region as large and complex as the Atlanta region could be an unending task. In order to bring structure and organization to the process, ARC began by interviewing regional leaders, including many from organizations that had not been previously consulted in long-range planning efforts and are directly linked to the livability of the region.

Community conversations and input early in the process resulted in the recognition of three "Critical Themes" that were heard and discussed repeatedly. These themes were also echoed in internal working meetings, ARC Board discussions, planning partner surveys and local government discussions.

"Critical Themes" were identified in early 2009 to provide input into organizing the Regional Assessment. These will be revisited in 2010 based on feedback from the Regional Assessment

The critical themes help to focus the Regional Assessment, but are not final plan goals or outcomes. These critical themes were developed in the expectation that the document would be more user-friendly by tying analysis more closely to interest areas expressed by regional policymakers. A holistic reassessment of the current *Envision6 RTP* goals and objectives, and *Envision6 RDP Policies,* including policy development, will occur in follow-up planning activities in 2010. *Envision6* is the existing long-range development and transportation vision for the Atlanta region.

Plan 2040 Critical Themes for Regional Assessment

Solutions should address social, environmental and economic needs of the region while protecting the region's resources and prosperity for future generations.

Provide access to safe, affordable and efficient transportation choices.

Governing collaboratively to address funding issues and effectively implement regional plans.

Key Findings from Regional Assessment

Urban Expansion of Region

Expansion of the Region Is Slowing, but Even Minimal Expansion Will Adversely Impact the Region's Capacity to Meet Current and Future Needs

Recent ARC population and land cover analysis indicates that the urban expansion of the developed areas in the region may be slowing. Suburban areas are still expanding into exurban communities as employment sheds grow. The dynamic of increasing urbanized area size adversely impacts the ability of the region to implement needed transportation programs and projects, in addition to local challenges of meeting service needs in growing communities. Land use and land cover changes have significant impacts on stream conditions, as well as impacting many services provided by local governments, including water and wastewater systems, parks, libraries, fire and public safety services.

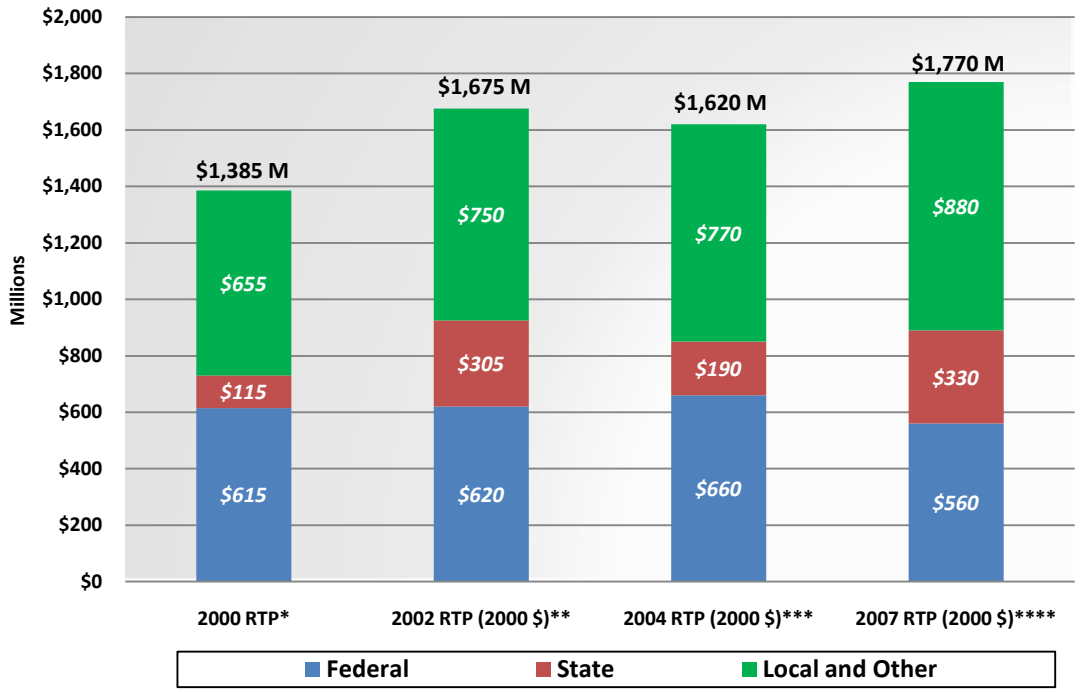
In response to an expanding region, many exurban communities often lose their unique character, while at the same time struggling to generate sufficient funds to provide for needed infrastructure improvements in response to this growth.

Urbanizing counties on the exurban fringe of the region often have large-scale needs for expensive infrastructure projects with costs higher than the revenues generated to fund them. For example, in many cases formerly rural two-lane roads have traffic volumes that exceed 10,000 to 15,000 vehicles per day, with geometrics that create safety problems as traffic increases. Furthermore, transit options are limited because densities have not increased to a

level needed to support transit services, leaving most transportation improvements limited to highway-related capacity and operational projects.

This growth dynamic as related to transportation infrastructure is illustrated by an analysis of growth and revenue patterns within the Atlanta region over this decade (shown in Figure 3 below). Past RTPs are compared using the amount of real revenue generated in each RTP. While the Atlanta region grew from 10 to 18 counties over the decade, real federal revenues dropped from $615 million per year to $560 million. This figure is important because federal sources are what most local governments rely on to fund major transportation capital expansion projects, while state and local funding is largely used for matching funds or minor transportation improvements and maintenance. Even minor expansion of the region after the 2010 Census will adversely impact the region's capacity to fund needed infrastructure throughout the region.

Figure 3: Average Annual Revenues during Prior RTP Periods



*TEA-21 Transportation Bill
10 County MPO
High-level O&M Forecasts
26 Year RTP (2000-2025)

**TEA-21 Transportation Bill
10 County MPO
Updated Funding Forecasts
Gov. Barnes' Transportation Choices Initiative Bond Program
23 Year RTP (2003-2025)

***TEA-21 Transportation Bill
18 County MPO
Gov. Perdue's Fast Forward Bond Program
26 Year RTP (2005-2030)

****SAFETEA-LU Transportation Bill
18 County MPO
Fast Forward Bond Program
Emergence of PPP's (I-75/575)
More Accurate Long-Range O&M Forecasts
23 Year RTP (2008-2030)

Source: ARC

Water Supply and Conservation

The Long Term Economic Success of the Atlanta Region Is Directly Related to the Availability of Water

The Atlanta region relies primarily on surface water from rivers and storage reservoirs as its main source of water supply. In fact, surface water provides more than 99 percent of the water supply in the Metropolitan North Georgia Water Planning District. The Chattahoochee basin accounts for approximately 73 percent of the permitted available water supply in the Metro Water District. Residential water use, including single and multi-family use, accounts for 53 percent of the Metro Water District's total water use.

Lake Lanier and Allatoona Lake have played a key role in assuring an adequate water supply for the Metro Water District since their construction by the U.S. Army Corps of Engineers (Corps) in the 1950s. Current planning assumes that federal reservoirs will continue to operate to meet water supply needs of the region. Recent changes to Corps operations of these lakes beginning in 2006 represent a dramatic change from previous operations. These changes are a significant challenge to the region's water supply and potentially represent significant impacts to the region's economy. The operation of the reservoirs is the subject of litigation of which the outcome is uncertain. These uncertainties represent a significant challenge in planning for the long-term ability of the region to provide adequate water to support the region's existing and forecasted population.

Congestion Continues to Threaten the Health of the Regional Economy

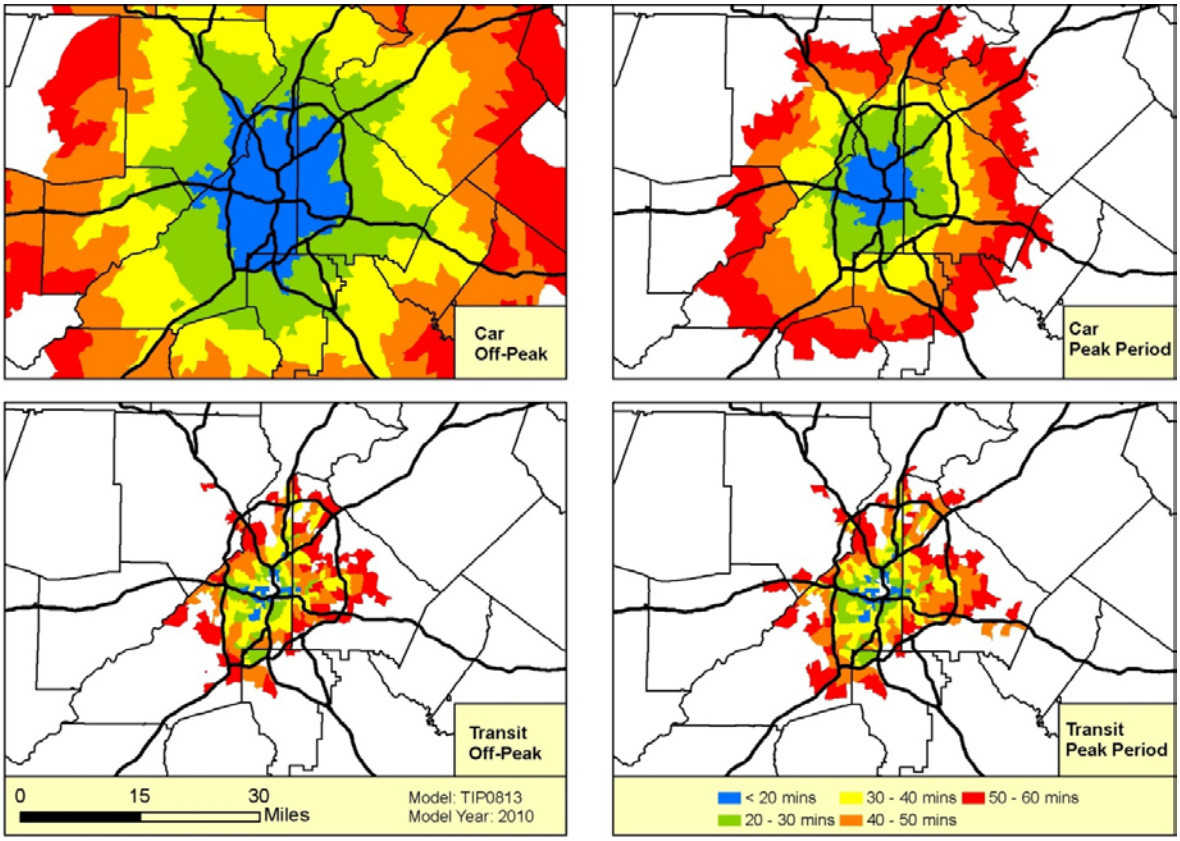
Access to Employment Opportunities in the Region's Most Developed Centers will be Critical

The region has struggled with addressing the challenges of congestion, with varying levels of success over the past decade. This urgency has become more pronounced since the economic downturn of the latter part of this decade. Many regions are using Atlanta's high congestion level as a recruitment tool. Established job centers in the Atlanta region recognize the need to tie economic development and transportation agendas to each other, especially as these areas transition from outlying "edge cities" to more urban-scaled activity centers that support a wide range of land uses and economic activities. In the coming decade, it is important to implement a creative congestion relief strategy that can be implemented within expected funding levels.

Congestion reduces the population able to get to downtown Atlanta, in 40 minutes and less, from 3 million to 1.3 million.

One indicator of the impact of congestion on the regional economy is illustrated by a comparison of peak to off-peak travel times to the Atlanta Central Business District (CBD) in Figure 4 below. More than three million people can access downtown Atlanta, in 40 minutes or less, during off-peak periods. This decreases to 1.3 million people during peak travel periods. This shrinks the peak period travel shed to that of a smaller city, similar to Raleigh-Durham, Nashville and Charlotte. Addressing these mobility needs is critical in the development of Plan 2040.

Figure 4: Impact of Congestion on Regional Travel



Source: ARC

Dynamics of Population Growth Will Greatly Impact Region

The Composition of the Region's Eight Million Residents in 2040 Will be Markedly Different than the Population of Today

The Atlanta region has been one of the fastest-growing metropolitan areas in the nation for decades, reaching a population of four million at the turn of the century in the 10-county region. During the last eight years alone, the Atlanta region has added 1.1 million people, making it the second-fastest growing metro in the country, behind Dallas. The magnitude of growth in the Atlanta region has generated significant economic activity in the region but also has resulted in numerous challenges related to sustaining the economic, environmental and social health of the region in the long-term.

Recent population growth in the region has been unprecedented and future growth will continue to generate economic activity but has the potential to strain resources.

The Atlanta region will undergo a dynamic shift in the racial and ethnic profile of the region over the next 30 years. Additionally, the region will also experience significant shifts related to the age of the population. The ratio of working age individuals to non-working age will change dramatically as the region will have many more non-working aged residents in 2040. The share of population over the age of 65 will increase dramatically, as will the share of children in the region.

Meeting the needs of a changing population does not fall to social and education systems alone, but also to a built environment and supportive infrastructure that allows these individuals to be independent and active.

Current Housing Supply vs. Future Demand

Market Forces that Shape Residential Products Will Change the Types of Housing Demanded

The vast majority of housing available in the Atlanta region has been constructed over the past 40 years. In fact more than 20 percent of the housing stock in the Atlanta region was built between 2000 and 2007. The development community, working within local government regulatory environments, has done a remarkable job of delivering substantial quantities of housing to meet historic and recent demands for housing, but it is uncertain if this supply is aligned with future consumer needs.

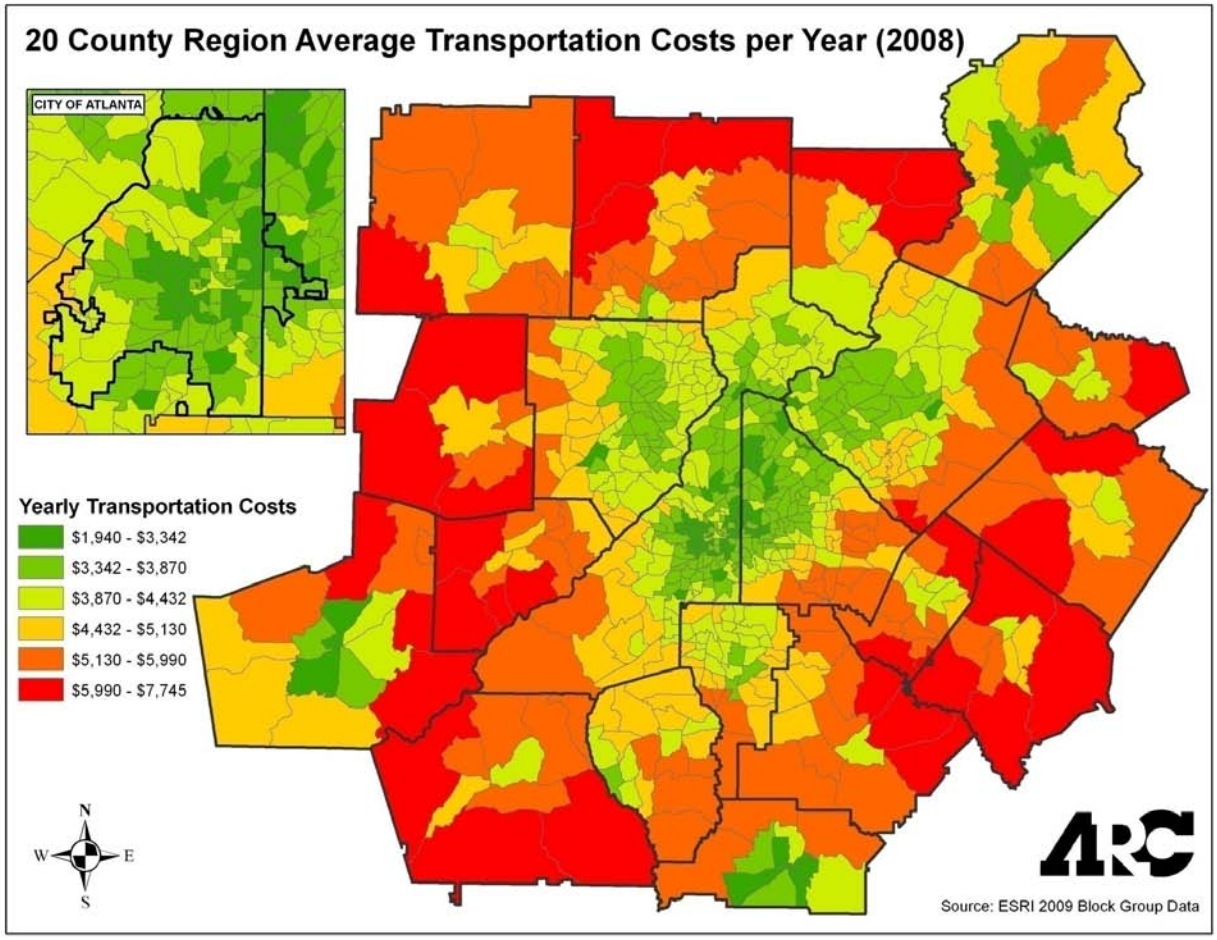
A majority of households in the Atlanta region already consist of families with two persons or fewer. The share of households in the Atlanta region that have more than two people is

expected to continue to decline over the course of the next thirty years. Current household sizes and future trends suggest a mismatch between current housing stock and the needs of current and future households. National research suggests that the nation as a whole is undergoing a fundamental shift in the typical household one would expect. Three decades ago, approximately half of the share of households had children, compared to 21 percent expected nationally in year 2030.

Households in the Atlanta region spend more on transportation each year than any other metropolitan area.

The Atlanta region has experienced tremendous growth over the past several decades. Much of this growth has been fueled by the region's ability to supply housing affordable to the workforce mostly in the region's suburban counties. This pattern has been supported by relatively inexpensive travel costs, particularly in terms of the cost of gasoline. Rising fuel costs are likely to place significant strains on household budgets. The region's housing supply limits options to reduce these costs through household location choices. Figure 5 illustrates the range of transportation costs throughout the region.

Figure 5: Average Transportation Costs



The Region Has Limited Areas That Support Multi-Modal Travel and Transit

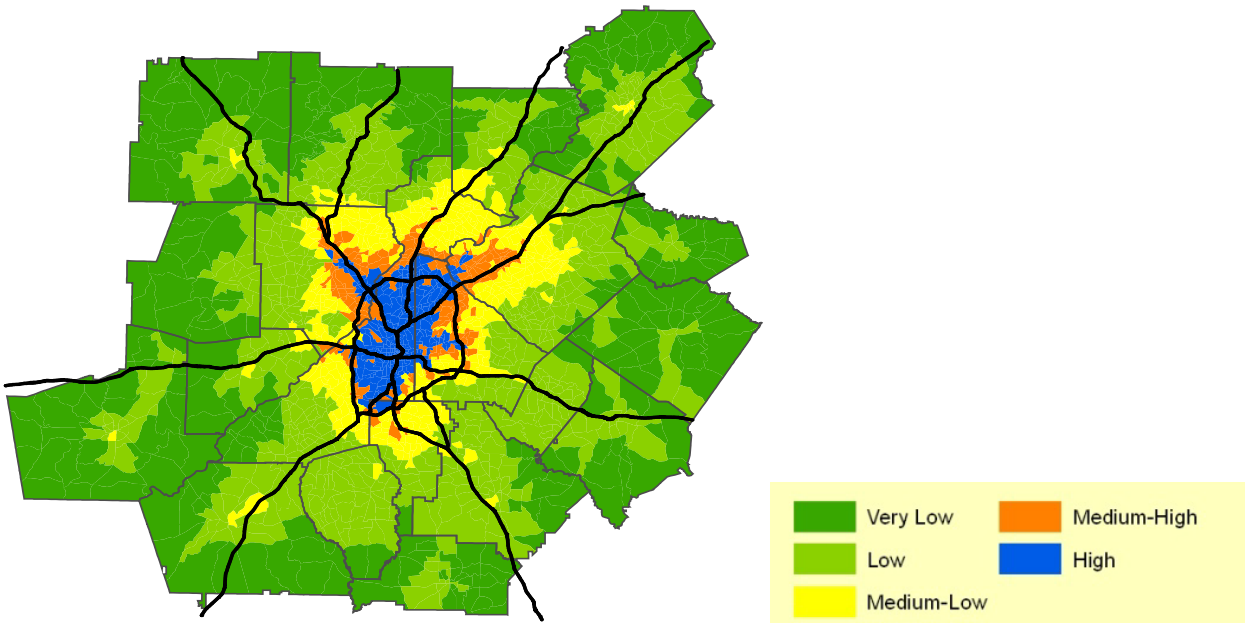
Most of the Region has Very Limited Travel Options Due to both Transportation Availability and Land Use Patterns

The Atlanta region has an extremely ambitious transit concept, commonly known as "Concept 3." This transformational concept includes expansion of fixed-guideway transit in many urban and suburban locations in the region. Initial analysis indicates that in spite of the major investments in the region's activity centers through Livable Centers Initiative (LCI) studies and projects, more assertive policies are needed to support the establishment of transit centers in the region.

Most communities seeking fixed-guideway transit stations do not have the minimum densities needed to support successful transit expansion.

Figure 6 below illustrates that few areas outside of the region's core will have the residential and employment densities and supportive infrastructure by 2040 to support multimodal transportation expansions in many parts of the region. Addressing the need to provide adequate densities and supportive mix of uses to support fixed-guideway transit expansions is an important policy discussion in *Plan 2040*. With currently expected land use patterns, the region will find it challenging to be competitive in receiving federal transit funding for projects outside the core.

Figure 6: Multi-Modal Accessibility



Source: ARC

Over the past 10 years, the LCI program has spurred cities, counties and communities of all sizes to undertake planning and create transportation-efficient land use strategies for activity centers, town centers and corridors. Analysis of these studies support conclusions that land use patterns can reduce per capita VMT even while expanding the population and employment within the study areas. Balancing jobs and housing within LCI areas, increasing the overall diversity of land uses and an improving multi-modal transportation network all work in concert to produce tangible travel and emission benefits. The LCI program provides the framework for transit-supportive communities in the future.

The Region Must Focus On Both Urbanized Areas And Conservation Areas

There Are Significant Challenges Facing ARC and Local Governments on Both Ends of the Development Spectrum – Urban/Urbanizing Areas and Local Communities that Would Like To Conserve Land and Community Character

Research is showing that many urban neighborhoods across the country are experiencing dramatic transformations where higher residential types are replacing parking lots, underutilized commercial sites and former industrial sites. Furthermore, permit data show that in several regions there has been a dramatic increase in new construction in central cities and older suburbs, reflecting a fundamental shift in the real estate market.

Future development trends suggest a residential market near mass transit stops, infill areas in suburban markets with existing traffic problems and mixed use construction in urbanizing suburban nodes. Outer-ring suburbs and exurban areas may experience greater losses as the market demand continues to shift toward infill neighborhoods.

The Atlanta region has developed programs and policies to assist with adding necessary urban amenities to areas in need of these improvements, particularly through the LCI program. In July, 2009, ARC hosted an all-day work session of Urban Land Institute (ULI) to review existing plans and programs. The panel recognized significant progress that had been made by the region in terms of supporting appropriate development in the region's town and activity centers, but they also recognized that future development in these areas may be even more intense than ARC or local governments are currently anticipating. This group also concluded that the region is currently failing to have a proactive approach to development and conservation initiatives in suburban and exurban communities. Many of these areas are looking for alternatives to recent suburban development patterns, but currently do not have adequate support or guidance from ARC on alternative strategies.

During the past decade local governments have generated significant revenue locally for greenspace acquisition.

ARC and local governments should pursue a systematic, strategic and comprehensive planning effort to acquire, protect and manage conservation lands, open space, green space and agricultural/farmlands in perpetuity in order to develop a green infrastructure network. A variety of greenspace types will create a rich, cohesive and sustainable inventory of interconnected natural habitats, open spaces and rural lands that will serve numerous functions, including buffers to development, recreational areas, growth management tools and sources of economic development.

The Region, State, and Nation Have Experienced a Decrease in Financial Capacity to Fund Needed Transportation Improvements

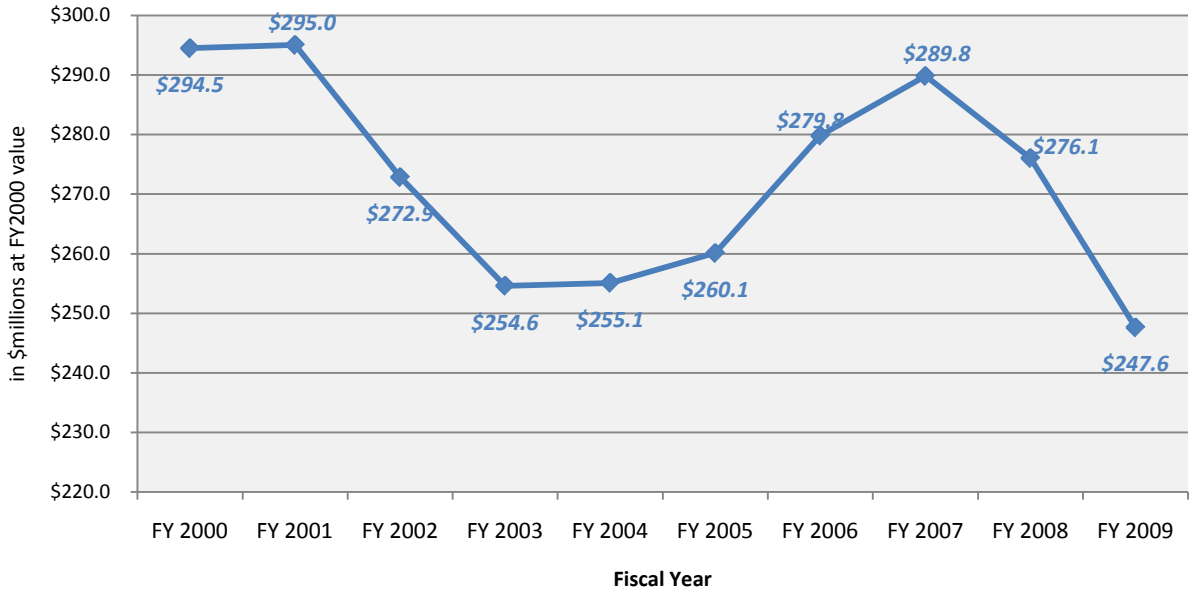
The Need for Transportation Investments in the Region Continues to Trend Upward – But Revenues Are Going in the Wrong Direction

The region has experienced a significant decrease in its capacity to implement large-scale transportation projects. The current economic downturn has been, and will be, deep and prolonged. Many regional partners may not be fully aware of the amount of time required for the region to return to funding levels seen in the mid-part of this decade.

Local sales tax receipts comprise the primary funding source for most transportation projects sponsored by local governments and MARTA. The economic recession has resulted in an unprecedented decrease in funding. An assessment of Fulton and DeKalb county sales tax receipts reveals the depth of the challenge. As shown in Figure 7 below, in year 2000 dollars, MARTA has 16 percent less funding today than in 2000. Forecasts indicate that regional sales tax receipts will not return to pre-recession levels until the mid-part of the next decade, while the region continues to see increased demands for transportation infrastructure associated with growth.

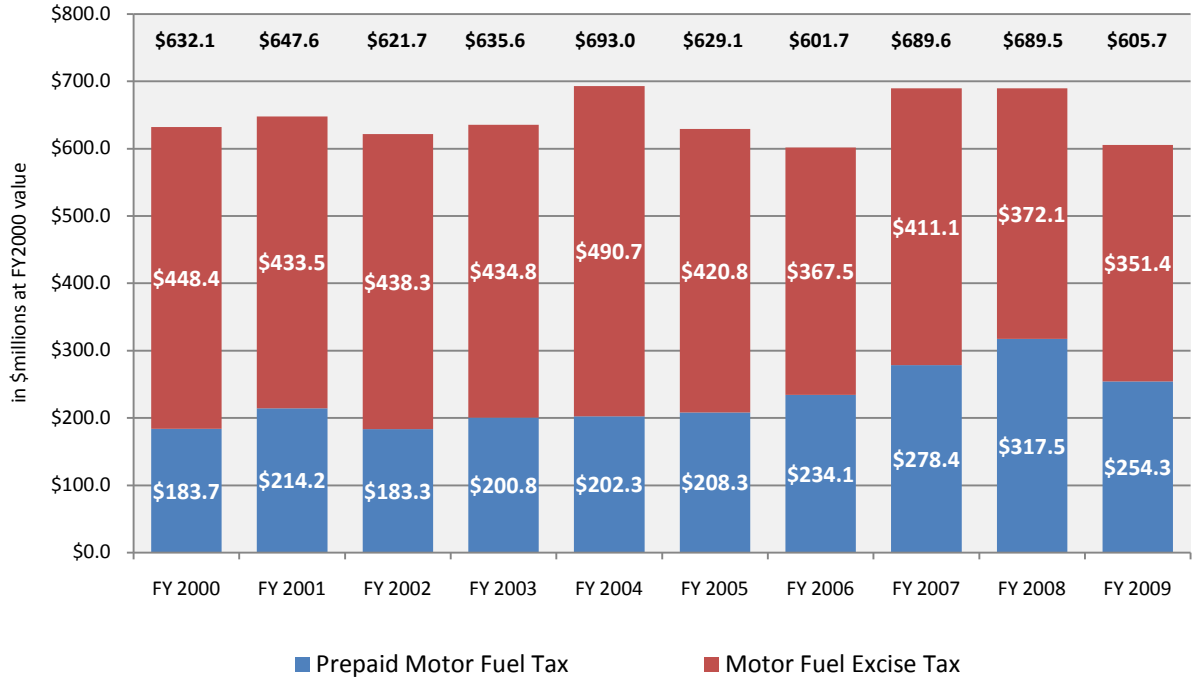
The real dollar value of both MARTA sales tax receipts and state motor fuel revenues are less today than in 2000.

Figure 7: Historical Real Value of MARTA Sales Tax Receipts; FY 2000-FY 2009



Transportation funding at the state level has decreased throughout the decade, in real terms (Year 2000 $). The current economic recession and the resulting levels of unemployment have contributed to a drop in total motor fuel tax revenue. As illustrated in Figure 8 below, total fuel tax revenue collected by the state has dropped 12.2 percent between the fiscal years 2008 and 2009. Current year funding is lower in real terms than in 2000.

Figure 8: Total State Revenue from Motor Fuel Taxes: FY2000 – FY 2009 (Year 2000 $)



Sources: Georgia Department of Revenue/Bureau of Labor Statistics Consumer Price Index

Nationally, the funding trends are also ominous. The federal funding crisis is based on declining Vehicle Miles Traveled (VMT) and the increasing fuel efficiency of the overall fleet. Both trends led to decreased funds flowing into the Highway Trust Fund (HTF), the primary source of federal aid for major transportation projects. Current levels of VMT are at year 2003 levels. The impact is reflected in the HTF's funding deficit, with planned expenditures at 30 percent above expected revenue. Without some type of federal policy changes, these trends will lead to less federal funding to Georgia and the Atlanta region in the next decade.

Keys to Implementation and Recovery: Integration, Cooperation and Partnership

The Region Is Well Positioned for an Economic Recovery, but Must Be Able To Seize Opportunities and Recognize Existing Issues that Limit Future Growth

Growth and expansion of the region have resulted in a region that is tremendously complex, making it difficult to provide one-size-fits-all policy solutions. As described previously and throughout the Regional Assessment, the Atlanta region and the State of Georgia are facing significant short- and long-term challenges.

It is unclear when a national economic recovery will begin, but it is likely that the foundations upon which Atlanta grew will not be as prevalent in the future. The last 15 years in the Atlanta region in particular represent a period of growth that is likely to never be seen again. As the region slowly inches toward a recovery, it is uncertain if expectations will begin to approach that of the 1990s and mid-2000s or if the region will embrace a "new normal" represented by continued growth that may be more manageable in terms of magnitude.

The Atlanta region has a long-standing tradition of cooperation among local governments. ARC must build on this record of success and bring together local governments, the private sector, non-governmental organizations and the state to cooperatively address the most pressing issues facing the region. Interviews and conversations with regional leaders in 2009 revealed that ARC's existing coordination mechanisms provide a significant foundation to build on, but there are key opportunities that must be explored, including:

- ARC should explore if there is a role to play in education – The region must improve graduation rates and provide a workforce that can support economic opportunity.
- The region must create a sense of unity among the diverse perspectives around the region, while also recognizing that different areas of the region have different needs.
- Build in accountability and near-term expectations in long-range planning efforts.
- Local buy-in is the key to successful regional programs.
- In order to maintain prosperity and attract new, strong businesses the region must nurture partnerships around the region and the state.
- The region must recognize that many of our present and coming challenges have global influences, innovation will be the key to our long-term success.

Organization of Plan 2040 Regional Assessment

The Plan 2040 Regional Assessment covers a broad array of topic areas. Extensive efforts have been made to streamline this document, but the intent of the development of this assessment is to undertake a comprehensive look at issues and opportunities in the Atlanta region Therefore, there is significant data and information that must be considered. The Assessment is organized around the three critical themes that were identified by the ARC Board and through interviews with regional leaders early in the plan development process.

Readers should note that the Regional Assessment is a living document and will be subject to updates in calendar year 2010, as minor adjustments are made to forecasts to reflect the latest financial and growth trends. However, these updates are not expected to significantly impact or change findings made in this assessment. This document will be forwarded to the Georgia DCA in early 2010 to meet state planning requirements and shall be subject to stakeholder feedback and input. The major findings of the Regional Assessment will also become a key component of a regional dialogue on potential solutions and responses that will begin in 2010.

Several Appendices are included as part of the document. State and federal planning requirements include significant data gathering efforts in support of assessment development. Some of these data are presented within the text while others are included in the Appendices in order to streamline the document for the reader.

Theme 1: Solutions that Address the Social, Economic, and Environmental Needs

The Atlanta region continues to be one of the fastest-growing regions in the nation, adding more than one million people in the last seven years alone. Each new and existing resident places demands on infrastructure, public services and the region's natural systems. The region is currently facing numerous challenges associated with growth over the past few decades, as well as national and global challenges that are likely to shape future growth. Existing and future challenges will need to be addressed comprehensively in order to ensure the long-term viability and global competiveness of the Atlanta region.

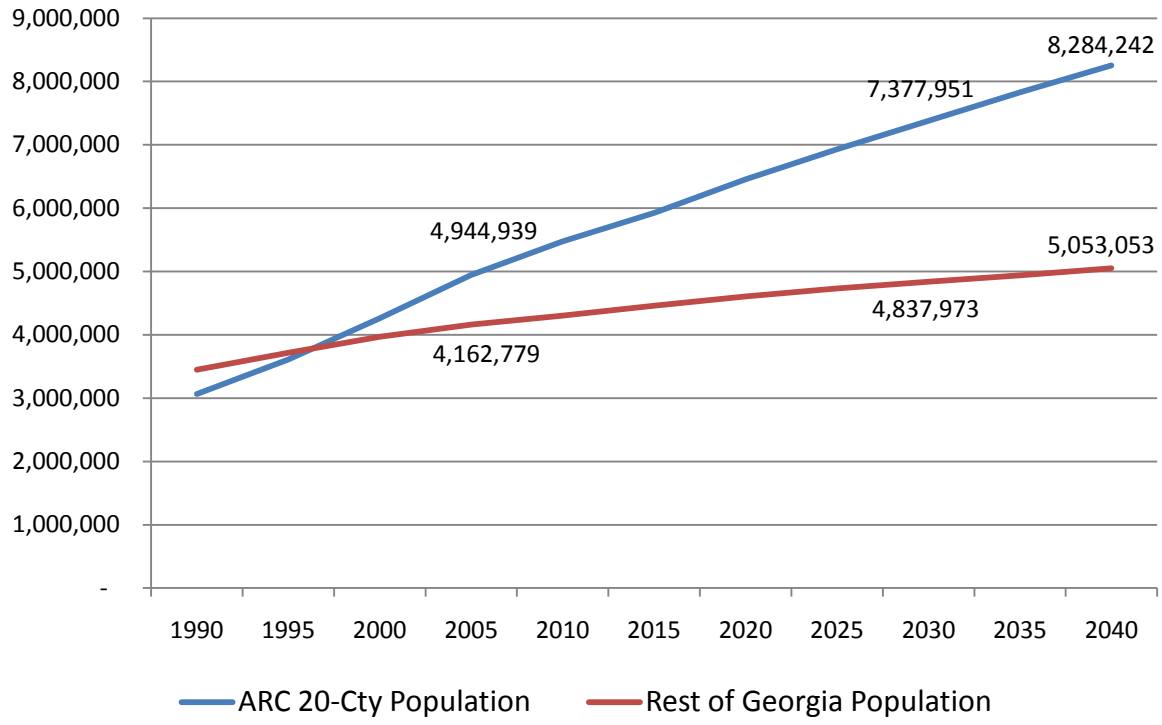
As our world continues to change, leaders in the public, private and civic sectors of the Atlanta region are beginning to recognize the need for – and the vast, untapped potential of – a region capable of sustaining itself over the long-term. Our leaders are also concerned about the future of Atlanta if we do not set a sustainable development agenda for ourselves and start consciously and consistently pursuing it. From green building and energy-efficient construction, to simple conservation and cleaner-burning fuels, there are a variety of choices we can all make to ensure that future generations enjoy the same quality of living we have today.

Reviewing the relationships between demographics and travel behavior is important in understanding the needs of those who live and work within the region. In order to supply adequate transportation services and identify supportive land use policies, an understanding is needed of the complex issues relating to who, what, when, where, how and why transportation choices are made. As the region continues to grow and diversify, maintaining an economic advantage is dependent upon an adequate availability of flexible transportation and land use options.

Dynamics of Population Growth

In 1995 the 20-county Atlanta region had less population than the rest of the state. At the close of the last century the region had pulled ahead of the rest of the state and the disparity in attracting future population growth is anticipated to accelerate over the next 30 years. ARC expects the population of the Atlanta region to increase 71 percent between 2005 and 2040, while the rest of Georgia will only see a 22 percent increase. While population growth in the Atlanta region will continue to be substantial, it may never again approach rates experienced in the past fifteen years. As shown in Figure 9, ARC's most recent forecast in support of *Plan 2040* development anticipates the 20-county Atlanta region to add roughly three million people, for a 2040 population of 8.3 million.

Figure 9: Population Growth (Atlanta Region and State of Georgia)



Source: ARC Initial Plan 2040 Forecast

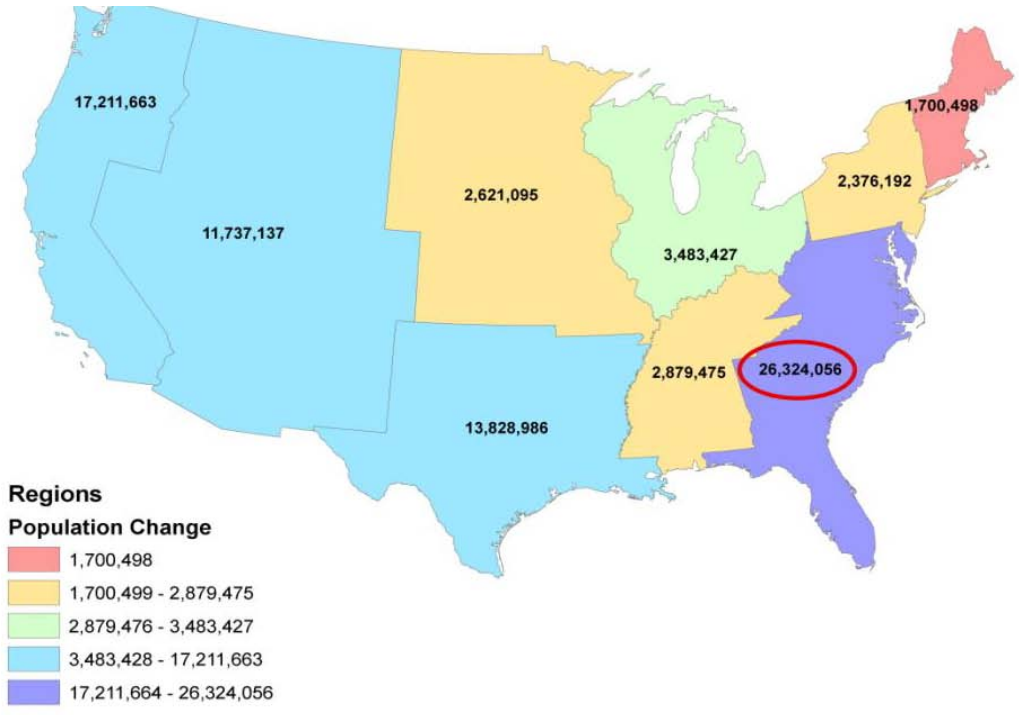
The core 10-county region is anticipated to add more than 2 million people between 2005 and 2040, a 57 percent increase since 2005. The initial forecast for *Plan 2040* predicts that four out of the 10 counties could double their 2005 population by 2040 (Cherokee, Douglas, Henry and Rockdale). Each of these counties is currently among the five least populated counties in the 10-county region, along with Fayette County. While Fayette County may not double its population by 2040, its' population will grow by nearly 85 percent. While these counties are expected to have significant population growth in terms of percentage increases between 2005 and 2040, in total, Fulton and Gwinnett are expected to add more than 900,000 persons between 2005 and 2040. ARC's initial forecast indicates that Fulton and Gwinnett counties will both have populations exceeding one million in 2040.

The core ten counties represent the majority of growth forecasted over the next 30 years, but each of the outer ten counties that are included in the ARC forecast are expected to grow tremendously in that time. In total they will be adding more 1.2 million people in the next 30 years. Seven of the ten are expected to double their population in the next 30 years, with every county expected to grow by at least 85 percent. Forsyth County will add more population than seven out of the ten core counties (250,000), approaching a population of 400,000 by 2040.

Much of the expected population growth can be attributed to the growth momentum of the Atlanta region, but it is also influenced by larger growth trends. The U.S. Census Bureau projects that the Southeastern portion of the United States will experience the greatest change in population of any region in the country. Figure 10 below illustrates the shares of national population growth that regions around the country are anticipated to experience over the next twenty years. The State of Georgia, and the Atlanta region are well positioned within the Southeast to receive a significant share of growth in the Southeastern United States.

Figure 10: Regional Population Projections (U.S.)

Source: US Census Bureau



The dynamics of growth that will impact this region are not just related to magnitude alone. Over the course of the next 30 years, the Atlanta region will transition from a largely bi-racial region to a region with no ethnic or racial majority. The Census Bureau anticipates that by 2027, most U.S. population growth will be driven by immigration rather than by natural increase (more births than deaths). ARC's forecast reflects this estimate, particularly in the White-non Hispanic population. Over the next 30 years, Black and White natural population change will decrease, with White non-Hispanic becoming negative in the latter years of the planning horizon. Population increases in the region that can be attributed to natural increase will be largely dependent on the Hispanic population.

In addition to a dynamic shift in the racial and ethnic profile of the region of the next 30 years, the region will also experience shifts related to the age of the population. Currently the 28-county metro Atlanta is a very young area when compared to other metros in the nation. In fact, Atlanta has the second largest share, behind only Dallas, of those aged 25 to 39, generally referred to as "Generation X," when compared to 26 other metro areas with a population larger than two million. Conversely, the Atlanta MSA currently has the lowest share of population over the age of 65, but this is the fastest-growing age group in the 20-county Atlanta region.

Over the next few decades the region will experience significant changes in its overall age profile. A graph known as a "population pyramid" is used to display the size of age groups. The three population pyramids on the following page show the distribution of age groups in the region over time. It should be noted that because of the overall growth in total population in the region, the X-axis of each graphic was modified to allow for comparison. In the 1970 Pyramid the rise of the Baby Boomers, those born in the middle of the 20th century, can be seen in the base of the pyramid. This generation has significantly shaped the growth and development patterns of the Atlanta region.

The 2007 pyramid shows the region's significant share of the Baby Boom generation, in addition to demonstrating the region's large share of Generation-X (those born a generation after the Boomers). The overrepresentation of Generation X in the Atlanta region means that the region has a very large number of individuals in their working years currently. As the third pyramid demonstrates, over the next forty years, the age profile of the region will undergo another significant transformation. The ratio of working-age individuals to non-working age will change dramatically as the region will have many more non-working aged residents.

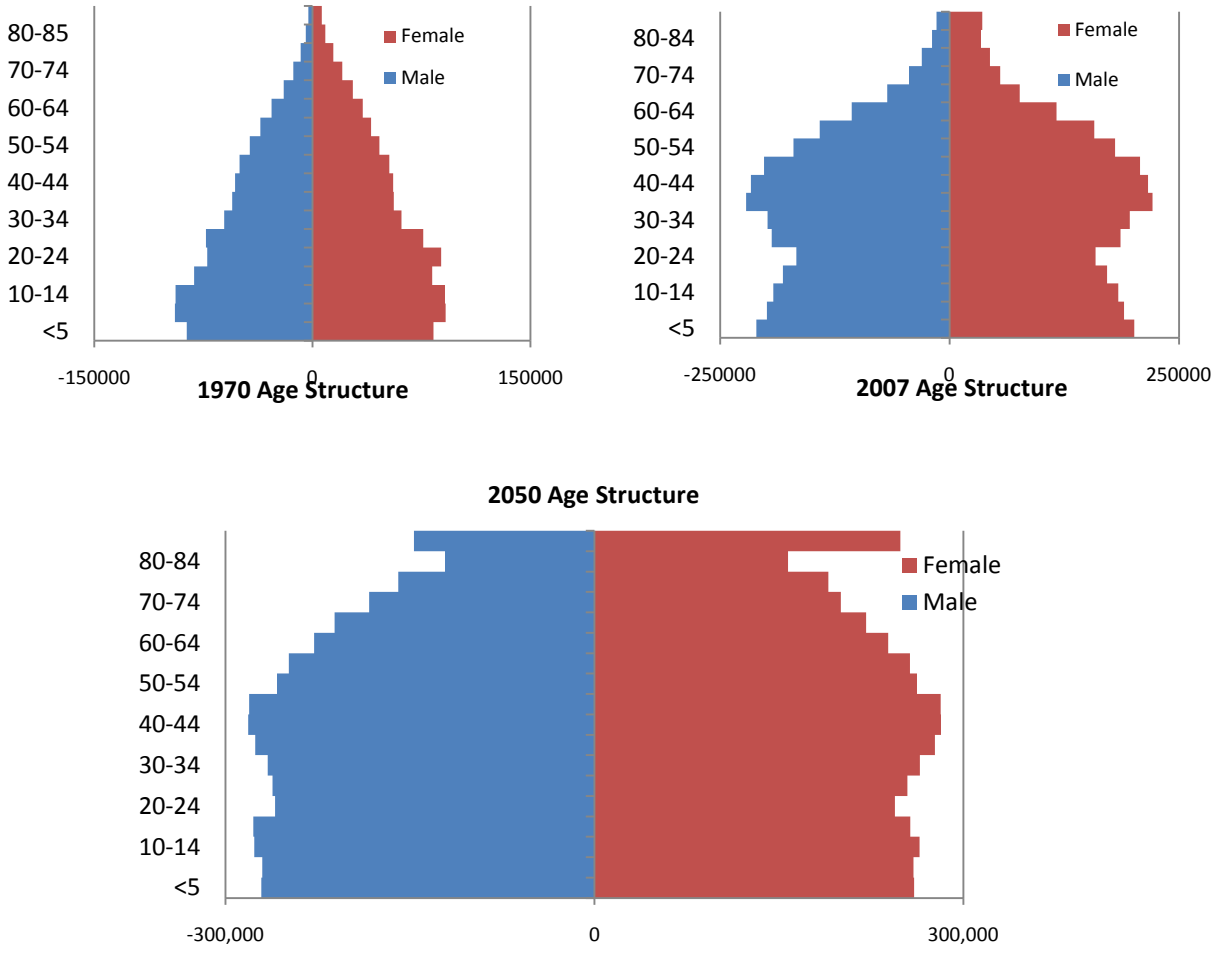
A growing older adult population will occur throughout the planning process. This will be most evident in the early part of the planning horizon as the Baby Boom generation begins to turn 65.

The transition to a region with a larger share of older adults not only impacts long term care services, but will also challenge the built environment and infrastructure in place to serve it. It is

not possible to meet the needs of the growing older adult population with supportive programs or innovations in healthcare alone, but rather, the places where people live will determine whether or not it is possible to lead an independent, active and engaged life. The region will transition from a region of just over 200,000 persons over 65 in 1990 to one with more than 1.6 million older adults in 2040. Any meaningful response to this demographic shift will mean a change to the way the region develops, spends transportation and infrastructure dollars, delivers healthcare, promotes services and trains professionals.

Figure 11 below shows the transformation the region will undergo in terms of age composition in the region. As can be seen, the region is currently populated by many persons in their working years, but this dynamic will change greatly over time as the region becomes home to more equal shares of persons over 65 and under 18.

Figure 11: Population Pyramids (1970, 2007 and 2050)



Source: US Census Bureau and REMI

The transportation system affects the way people live at all different stages of life. Much more than simply getting from point A to point B, transportation access determines where and when individuals work, how and where they spend their money and which educational, recreation and vacation opportunities are available.

Transportation for older adults in particular is about mobility, but more importantly, it determines connections to the community, quality of life, health and independence. Older adults hope to age in their communities and plan to do so. Access to transportation gives them the freedom to do so. However, this goal is impossible without an adequate range of transportation options.

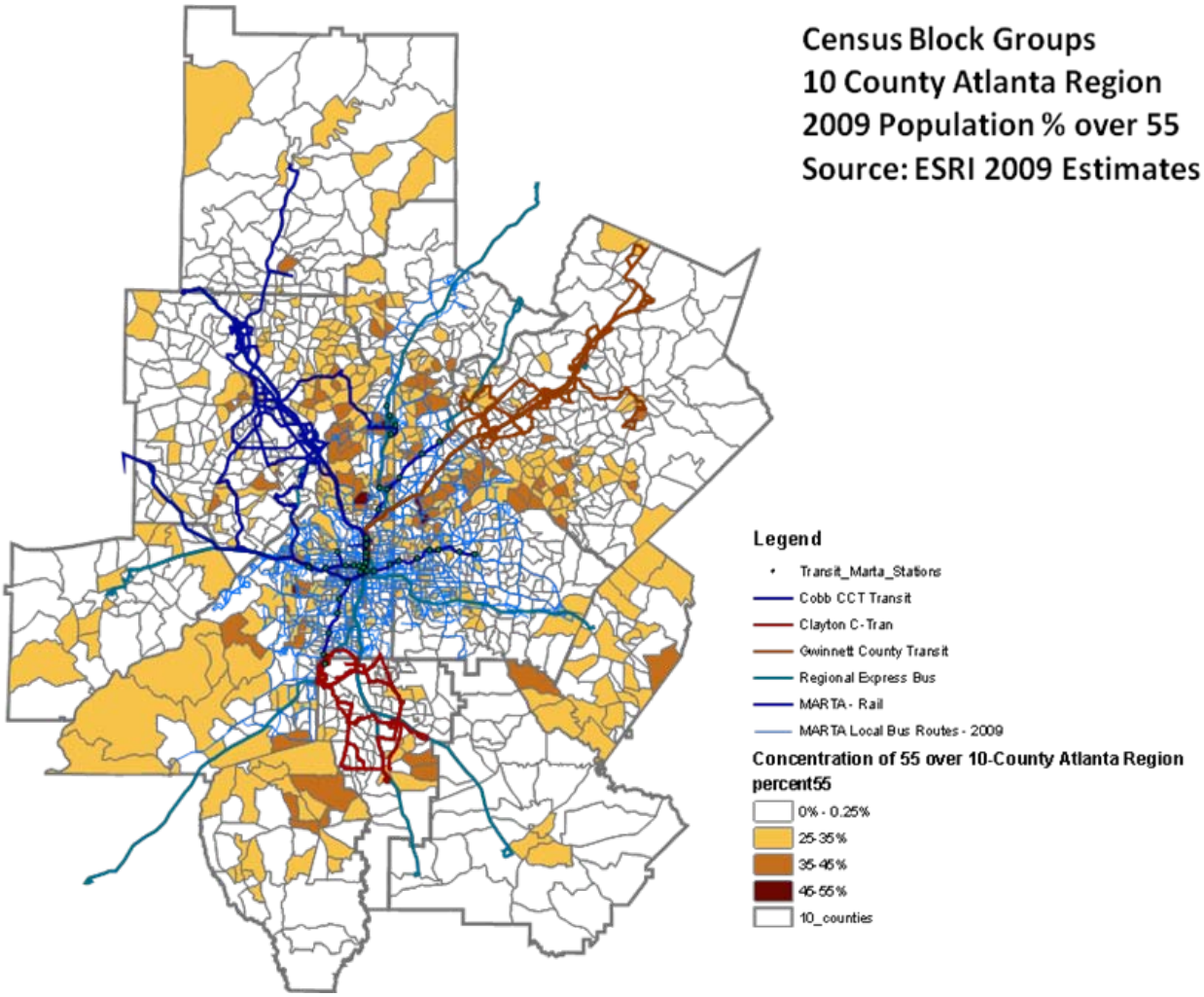
Unfortunately, Georgia has invested very little in transportation infrastructure and services that reflect the realities of an aging population. Instead, driving is the only option in the vast majority of communities where current and future older adults live.

Older adults are more likely to experience increased isolation when they can no longer drive and often are unable to get to the doctor, pharmacy or meet other critical needs.

The next decade will see massive growth of the senior population, especially in older suburbs unaccustomed to housing older people. Suburban communities built for the baby boomer generation and their families are not well-equipped to accommodate these individuals. Well-designed neighborhoods are becoming more popular and in demand because of changing demographics and desires for more choices, not only among aging Boomers, but also their children. Unfortunately, the region has a limited number of areas that include the infrastructure and amenities needed by older adults and individuals without regular access to an automobile.

Figure 12 below illustrates the current and future challenges the region faces in terms of meeting the travel needs of older adults. The region already includes significant concentrations of older adults that have limited access to public transportation. Lack of public transit options throughout the region places significant strain on County Senior Services to provide transportation for older adults to accomplish daily tasks.

Figure 12: Percent Population over 55



ARC's Aging Division has identified three transportation planning areas that need targeted attention to address the issues raised by a population that is growing older and living longer:

- Developing walkable communities
- Creating safe roads and safe drivers
- Providing a range of alternative modes of transportation for Georgia's older adults.

Taking a more comprehensive approach to transportation in Georgia will benefit people of all ages who do not drive, either through choice or inability. It can reduce fuel consumption and improve air quality. Investing in transportation options now will better prepare the state to manage an increasingly diverse population with increasingly diverse needs.

The transportation needs and concerns of older adults vary by the type of community in which they live—urban, suburban, and rural. The opportunities and choices available vary by the

concentration of older adults in these communities and the capacity to coordinate among different services.

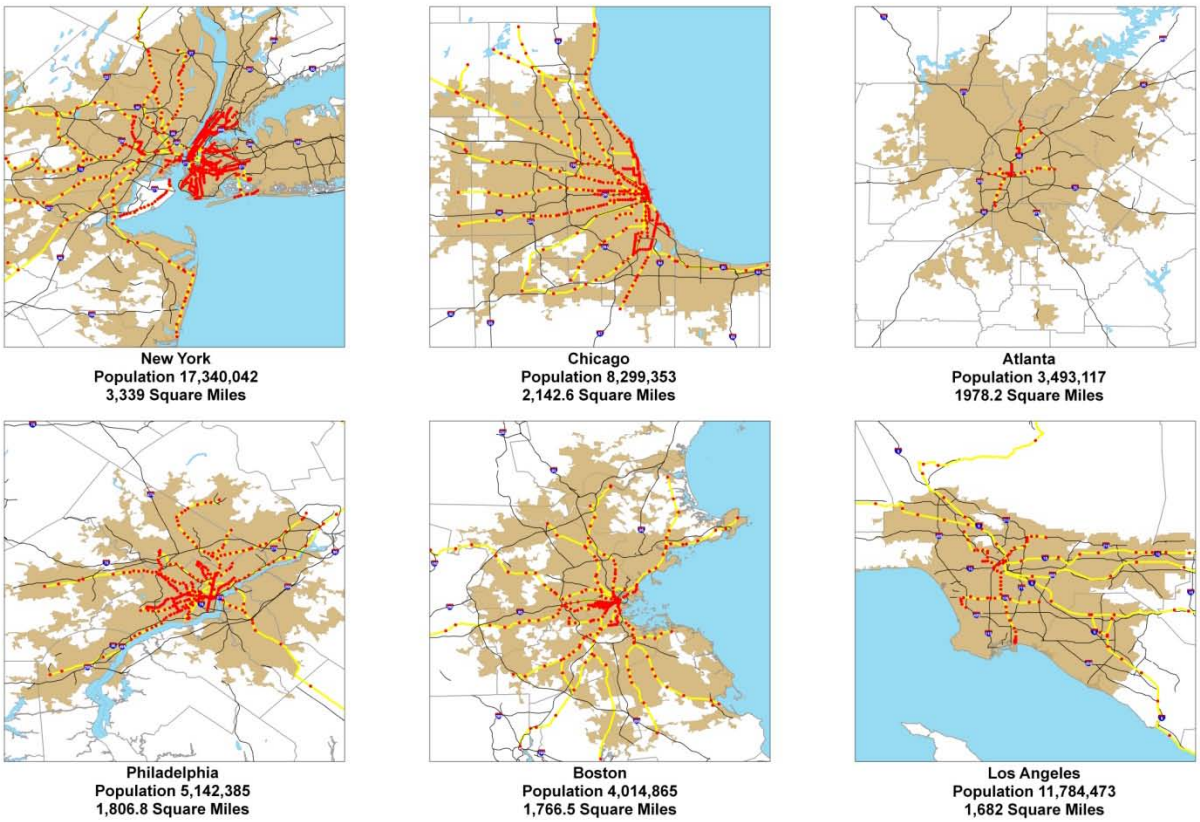
The need to accommodate older drivers and pedestrians in transportation infrastructure design is becoming a traffic safety imperative with the rapid increase in Georgia's aging population. Because the ability to drive safely changes as people grow older, and because older drivers continue to drive until they are well up in years, the time has come to improve road design standards. Doing so will increase driving safety for all drivers, not simply older ones. Additionally, providing transportation alternatives to the automobile and promoting walkable communities will provide a fuller range of options to meet the diverse needs of the state's changing population.

Development Patterns, Housing and Livable Communities

Compared to other regions in the U.S., the Atlanta region has developed an overall footprint that has not been matched with corresponding infrastructure investments. This could be viewed as doing more with less, but realistically it represents perhaps the region's biggest challenge moving forward.

The maps below (Figure 13) are all drawn at the same scale to demonstrate the relative size of key urban areas in the U.S. The darker portion of each map is the urbanized area of each region as defined by the U.S. Census Bureau. Core infrastructure in the form of fixed guideway transit and limited access roadways (as of 2004) are also shown. These images clearly show the Atlanta region is not keeping up in terms of providing urban infrastructure that can adequately serve the region's urban extent. The comparisons illustrate that other region's are significantly ahead of Atlanta in providing transit infrastructure throughout their regions.

Figure 13: Regional Urban Expansion and Infrastructure Comparison



Source: National Transportation Atlas Dataset 2009

Much of the available land for development in the Atlanta region has been used for very low density residential uses. While substantial areas exist in commercial centers or corridors for redevelopment, the fact is that new development on vacant land and redevelopment are not the same. Redevelopment takes longer, requires different strategies and can be more expensive. In addition, many local governments may seek to limit the intensity of development on redevelopment sites.

Many of the region's existing developed areas will continue to face growth pressures over the next 30 years.

Approximately 51 percent of the 10-county region is developed with urban type development or a mature and well-established suburban pattern. Current trends and policies suggest than an additional 16 percent of the 10-county region would be considered developed by 2040. Under current trends, the remaining land area of the region would be in varying states of being actively developed, with a small percentage of the region being undevelopable or in a protected use.

The largest five counties of the region (Cobb, Clayton, DeKalb, Fulton and Gwinnett) have roughly 80 percent of the region's population and jobs. It is anticipated that these counties will become more densely developed over the next 30 years. ARC's initial Plan 2040 forecast anticipates that these counties will grow by 1.4 million people by 2040. Clayton, DeKalb and Cobb counties have the least amount of prime developable land available in 2009. Fulton and Gwinnett Counties each have significant vacant land relative to the other five core counties.

An population increase of 1.4 million people in the five core counties will require increased densities and the introduction of residential uses into primarily commercial areas, including areas that are in need of redevelopment. While ARC's initial forecast indicates that there will be tremendous growth pressure at the center of the region, urban and suburban expansion remains a probability over the course of the Plan 2040 planning horizon.

While conversion of agricultural and forested lands has slowed when compared to earlier in the decade, the region did convert roughly 26,000 acres of primary, developable land into some other use between 2007 and 2008. Most of that land was converted to a commercial or residential use. In 2005, 53 percent of all land in the 20-county area was either agricultural or forested. By 2008, that percentage had dropped to 51 percent. During 2007-2008, the 20-county region added nearly 20,000 acres of residential and an additional 500 acres of land dedicated to multi-family structures.

The region converted more developable land, on an annual basis, in 2007-2008 than in the previous period, 2005-2007. Counties in the "external seven" (Barrow, Bartow, Carroll, Hall, Newton and Walton) counties generally have the most developable land remaining, but Cherokee, Fulton and Henry counties within the ARC's Regional Commission planning area have substantial vacant land available.

The expansion of the Atlanta urbanized area has significantly increased more than other peer regions. Atlanta is significantly larger and less dense than Dallas, the region's closest peer. Phoenix, a region often compared with Atlanta, is actually twice as dense as the Atlanta region. With no natural barriers to restrain where development occurs, the region has seen a philosophy of separating land uses dominate the development pattern through the region. Increasingly it appears this development pattern will put a strain on providing adequate public services, including transportation infrastructure to the citizen of the region.

ARCs most recent population and housing estimates show that the 10-county region has averaged almost 77,000 new residents each year since 2000. Practically all of the new multi-family construction since 2000 has been built in the core 10 counties, accounting for 97 percent of new multi-family units in the 20-county area. In the external 10 counties, a little more than one unit of multi-family housing was added per 100 new residents, meaning that the vast majority of new residential growth is occurring in single-family homes.

Having added an average of 7,600 residents each year this decade, the City of Atlanta saw growth of 3,400 persons in 2009, which accounted for 14 percent of the region's total growth. While the region's central city's growth over the past decade has been substantial, other cities around the region are also seeing substantial growth. Five cities with a population of more than 10,000 in 2007 have doubled their population since 2000 (Canton, McDonough, Stockbridge, Villa Rica and Woodstock). Growth in cities has been remarkable over the past decade, but the majority of 10-county residents live in unincorporated areas.

Single-family detached housing units represent the primary housing product available to consumers in the region, as can be seen in Figure 14. In 2008, 1.14 million of the 1.68 million housing units in the 10-county region were single family (68 percent). This percentage increases for the external 10-counties.

Figure 14: County Housing Totals (Single-Family and Multi-Family only)

	Single-Family (SF) Units				Multi-Family (MF) Units			
County	2008 SF Units	% SF Units	2000 SF Units	SF Change	2008 MF Units	% MF Units	2000 MF Units	MF Change
Cherokee	67,030	83.8%	45,144	21,886	9,393	11.7%	2,733	6,660
Clayton	70,883	66.0%	57,265	13,618	32,769	30.5%	25,327	7,442
Cobb	197,873	71.1%	172,359	25,514	75,653	27.2%	59,986	15,667
DeKalb	185,329	61.6%	170,026	15,303	114,407	38.1%	90,256	24,151
Douglas	41,654	82.0%	27,550	14,104	6,583	13.0%	4,515	2,068
Fayette	35,110	88.7%	28,909	6,201	3,193	8.1%	2,462	731
Fulton	238,692	54.9%	196,508	42,184	193,967	44.7%	150,516	43,451
Gwinnett	220,452	77.4%	161,896	58,556	59,426	20.9%	42,766	16,660
Henry	61,759	86.6%	36,881	24,878	6,716	9.4%	3,148	3,568
Rockdale	26,143	83.7%	20,978	5,165	4,082	13.1%	3,031	1,051
"Core" 10	1,144,925	68.2%	917,516	227,409	506,189	30.2%	384,740	121,449
Barrow	21,106	83.9%	13,586	7,520	864	3.4%	858	6
Bartow	27,844	76.7%	21,101	6,743	2,188	6.0%	2,120	68
Carroll	32,443	73.8%	24,516	7,927	4,896	11.1%	3,377	1,519
Coweta	39,037	87.9%	28,176	10,861	3,118	7.0%	2,773	345
Forsyth	56,761	92.6%	32,102	24,659	717	1.2%	614	103
Hall	50,473	78.3%	37,900	12,573	5,931	9.2%	5,174	757
Newton	32,887	88.4%	19,683	13,204	2,246	6.0%	1,328	918
Paulding	42,264	93.1%	25,752	16,512	601	1.3%	967	(366)
Spalding	20,984	78.3%	17,710	3,274	3,304	12.3%	2,864	440
Walton	25,552	87.1%	18,838	6,714	1,068	3.6%	980	88
"External" 10	349,351	84.3%	239,364	109,987	24,933	6.0%	21,055	3,878
20-County Total	1,494,276	71.4%	1,156,880	337,396	531,122	25.4%	405,795	125,327

Source: ARC

Single-family construction remains the preferred type of housing development encouraged by many local governments. While there are legitimate reasons to encourage single-family construction, over the next thirty years consumers will need choices available due to affordability issues, desire to be closer to work and inability to consistently maintain a single-family home. Consumers that are limited in housing choices include:

- Disabled persons
- Older adults
- Individuals and families on fixed incomes
- Single parents or smaller families
- Individuals seeking to live in mixed-use or transit supported housing
- Employees in low-paying retail, service sector and entry level jobs

A majority of households in the Atlanta region already consist of families with two persons or fewer. The share of households in the Atlanta region that have more than two people is expected to continue to decline over the course of the next thirty years. Current household sizes and future trends suggest a mismatch between current housing stock and the needs of current and future households.

National research suggests that the nation as a whole is undergoing a fundamental shift in the typical household one would expect. Three decades ago approximately half of the share of households had children, compared to 21 percent expected nationally in year 2030. This trend coupled with the tripling of metro retirees, many of whom will look to downsize their homes, speaks to a potential mismatch in current housing stock and future housing stock that will be shaped by local regulations that tend to favor large, detached units.

In the future, the region may not only be facing a mismatch in the types of housing available, but may also see a transformation in the types of communities desired by consumers. Across the country, research shows that many urban neighborhoods are experiencing dramatic transformations where higher residential types are replacing parking lots, underutilized commercial sites and former industrial sites. Future development trends suggest a residential market near mass transit stops, infill areas in suburban markets with traffic problems and mixed use construction in urbanizing suburban nodes. Outer-ring suburban and exurban areas may experience greater losses as the market demand continues to shift toward infill neighborhoods.

One of the Atlanta Regional Commission's (ARC) principal goals is to support local governments in their efforts to create highly livable and vibrant communities. Few of our programs do that as effectively as the Livable Centers Initiative (LCI) program. Seen as a cutting-edge program around the country, the LCI program was awarded the American Planning Association's National Planning Excellence Award for Implementation in 2009, and was awarded the Environmental Protection Agency's 2008 National Award for Smart Growth.

The planning process, project goals and deliverables outlined in the LCI program provide an efficient, realistic and effective method for communities to undertake smart-growth planning

and implementation. In return, this works to achieve more balanced regional growth by concentrating new development away from undeveloped greenfields and into areas with existing infrastructure, reducing vehicle miles traveled and improving air quality. The LCI program has proven enormously successful as the catalyst to major redevelopment efforts taking place in transit station areas and small and large urban centers and corridors. These investments have spurred new housing and development closer to jobs and are helping to promote more efficient transportation nodes.

The 2009 LCI Implementation Report indicated that LCI communities are capturing a growing share of the region's new development, especially office and commercial uses. Since the last implementation report in 2006, the amount of development concentrated into LCI areas compared with the rest of the 10-county region has doubled.

All LCI communities are different and face different challenges and opportunities. As a result, LCI plans vary in response to these specific needs. But, as unique as each community is, all LCI plans demonstrate an understanding of the primary goals and policies of the program:

To connect homes, shops and offices by encouraging a diversity of mixed-income residential neighborhoods, employment and recreational choices at the center/corridor level

To provide access to a range of travel modes including transit, roadways, walking and biking, while emphasizing the pedestrian

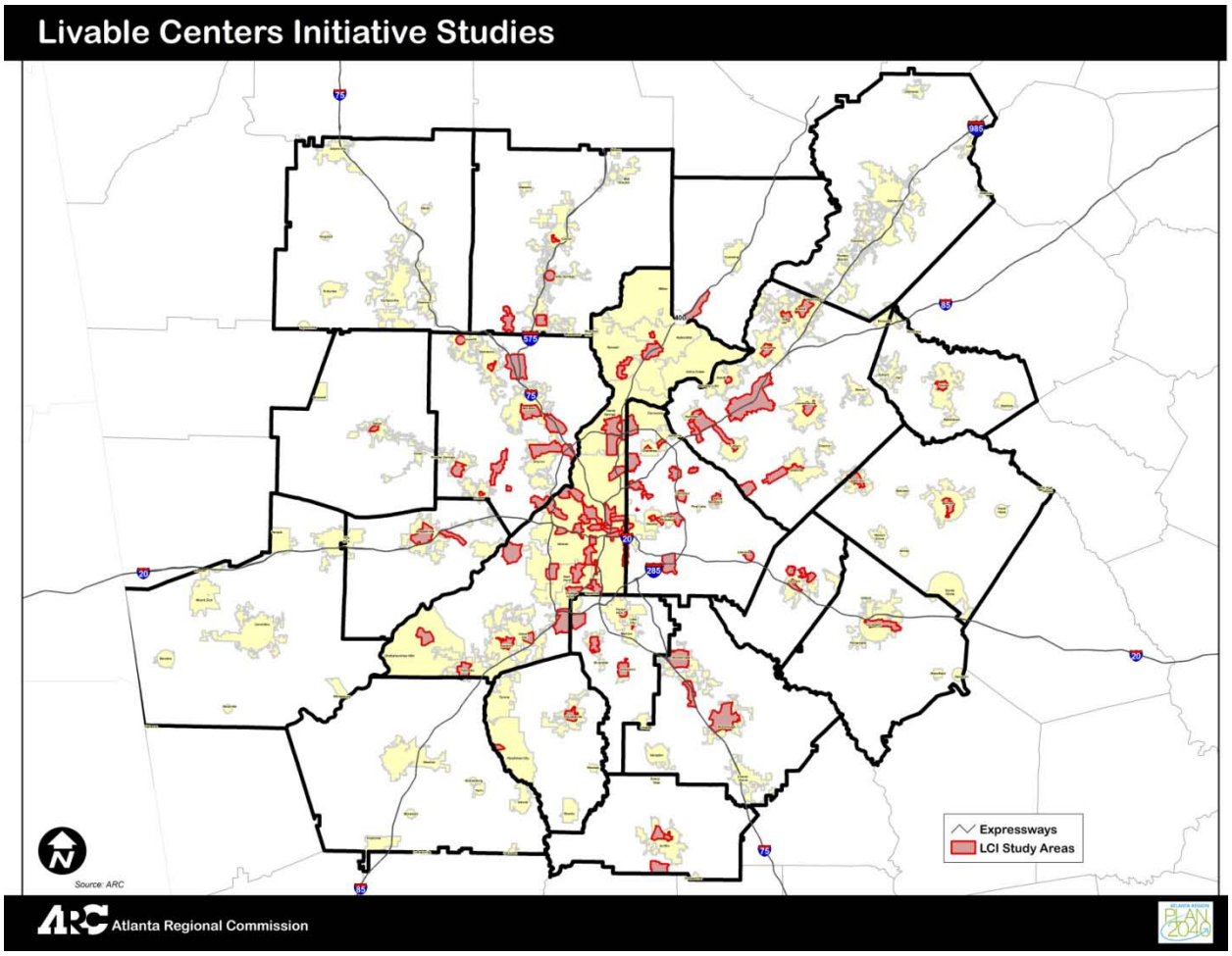
To improve safety and a sense of place in order to increase livability and quality of life for all members of the community

To develop an outreach process that promotes the involvement of all community stakeholders so that the LCI plans created reflect the goals and vision of the community

Over the past 10 years, the LCI program has spurred cities, counties and communities of all sizes to undertake planning and create transportation-efficient land use strategies for activity centers, town centers and corridors. The LCI program has been the primary regional program and resource during the past decade in the Atlanta region to spur redevelopment, foster new urban development and implement transit oriented development (TOD). To date, more than

$141 million in planning and transportation funds have been allocated to support 102 distinct planning areas in the region (shown in Figure 15 below).

Figure 15: LCI Study Areas (2000 - 2009)



The region has accommodated tremendous growth in the number of housing units over the past decade, and even prior to 2000. Currently the housing market in the Atlanta region and across the nation is as weak and constrained as it has been in recent memory. The Standard & Poors/Case-Shiller Home Price Indices have shown a steep decline in housing prices in their 10- and 20-City Composites since 2006. The Case-Shiller index is used by most media sources as the comparison for major markets, including Atlanta. The composites declined 18 percent in April 2009 compared to the same month in 2008. This follows record annual declines in January 2009 when compared to the previous year. Recent months have indicated that the overall market may be stabilizing in some areas, including the Atlanta region.

Overall the S&P/Case-Shiller Indices suggest a 14.8 percent decrease in the past year of a typical single family home in the Atlanta region. While this represents a significant decrease,

the region, on the whole, has withstood this market correction better than most of the other metro areas included in the Indices.

Falling prices for existing housing units is not the only force constraining and influencing the housing market in the Atlanta region. The region also has significant numbers of new, unsold units (more than a 12-month supply); an excess inventory of approved buildable lots (more than 150,000, or a 200-month supply); foreclosed and/or abandoned dwellings; and new subdivisions in various states of completion, some with developers that have walked away from the project. All of these combine to create a great deal of uncertainty in the Atlanta housing market. A significant number of builders, housing developers and potential consumers have likely been taken out of the market as financing has become restrictive for all parties.

The region's ten core counties have together experienced over a 420 percent increase in the number of foreclosures filed from 2000-2008.

The Atlanta region followed many of the trends of the U.S. economy, which built substantial quantities of single-family homes during the past decade. Home ownership was encouraged through financing tools that have resulted in widespread foreclosures during the current major market correction. Housing values for all residential homes have fallen in the Atlanta region due to the deflated housing bubble fueled by increased access to credit. In 2008, sales of foreclosed properties accounted for nearly 40 percent of all sales of resale properties.

While the rate of foreclosure filings has risen dramatically in many locations throughout the country, the State of Georgia, particularly the Atlanta region, ranks high among the hardest hit locations. According to RealtyTrac's first quarter 2009 news release, one in every 138 Georgia homes have had a foreclosure filing, the seventh highest state foreclosure rate in the nation. The 20-county Atlanta region is responsible for 80 percent of Georgia's foreclosures. The most significant increase at the county level has been seen in Henry County. Between 2000 and 2008 the county saw a 773 percent rise in the number of foreclosures reported.

Foreclosures are having many detrimental effects, for both the families who have been displaced, and the neighborhoods and communities where homes and properties now sit vacant or underutilized. A weak real estate market, coupled with the vacant for sale and foreclosed homes available, is posing an ever increasing dilemma for jurisdiction's who are simultaneously experiencing decreased tax revenues and increased demand for services.

Current market constraints are clearly impacting the ability of many consumers to enter the housing market. There are significant short-term struggles in the housing market impacting both producers and consumers, but long-term forecasts for the Atlanta region suggest that demand for housing will return to pre-recession levels. However, it is likely that the overall

characteristics of what consumers demand will be different, in large part because the average consumer in the Atlanta region will be different than in the 1990s and 2000s.

Economic Opportunity

The State of Georgia's economic viability is directly linked to a strong economy in the Atlanta region. Now more than ever, where residents work and the fields they are working in will drive the region's future growth and prosperity and impact the many services, programs and investments necessary to support economic growth. The challenges of the current economic climate make it very important that the metro Atlanta's economic growth is strategic and inclusive.

The Atlanta region is fortunate to have many essential elements for economic growth. The region has the busiest airport in the world and one of the world's largest airlines (Delta Air Lines) using Hartsfield-Jackson International Airport as a primary hub. The region has a well-connected transportation system with more than 80 percent of the U.S. commercial and consumer market accessible within two truckload days.

The region is not just well-positioned in terms of transportation access, but it also has the ability to provide an educated and prepared workforce. The metro area has 48 accredited degree-granting colleges and universities offering more than 400 fields of study and serving more than 176,000 full time students.

The Atlanta region is often viewed as the capital of the "New South," but the region's success (and challenges) has impacts closer to home too. The Atlanta region is the economic engine of the State of Georgia. Between 2001 and 2006, the Atlanta MSA averaged 68 percent of the state's Gross Domestic Product (GDP). In fact, during that time, the region accounted 25percent of the GDP for the entire southeast. However, that percentage is decreasing as other states increase their GDP at a much higher rate than the Atlanta MSA.

The economy of the region does not recognize jurisdictional boundaries. People, goods and services flow between cities and counties in the region everyday, contributing to the region's economic success. The region is tied not only to the Southeast, and the country, but also the world. Individual cities and counties lack the necessary infrastructure and resources (including labor) to compete at that level. However, the Atlanta region, as a whole has those resources and infrastructure.

In addition to the aging Baby Boomers, the region's workforce population will double during the next 25 years. As the Baby Boomers leave the workforce they will not only leave vacancies for new residents to fill but

National economic challenges will likely result in older adults staying in the workforce longer. This will likely result in more demand for transportation choices and communities that can support the needs of older adults.

they will also create demands for new services which the region will need workers to provide. The region may not be well prepared to provide the housing and transportation choices to accommodate these workers. Workforce housing and transit availability could be keys to ensuring a larger and well-supported workforce is sustained in the region.

The Atlanta region's recovery from the 2001 recession was realized during 2005 and 2006, when the 20-county region added approximately 87,000 jobs. Yet the job recovery was mostly in sectors that had lower incomes than the high-quality jobs which had been lost early in the decade. Since that point the employment situation in the region, and nationally, has deteriorated significantly.

The region is in the midst of a lost decade of job growth - The current recession will result total employment in 2015 being equal to regional employment figures for 2005.

Since 2000, the 20-county region has added more than 100,000 jobs, or a little fewer than 13,000 jobs per year. As a comparison, during the 1990s, the region added approximately 55,000 jobs per year. Practically all of the job growth between 2006 and 2008 occurred in the "core" 10 counties. This reverses a trend seen earlier this decade, between 2000 and 2006, when some 87 percent of the job growth occurred in the "external" 10 counties.

In 2008, the core 5 counties of the region (Clayton, Cobb, DeKalb, Fulton and Gwinnett) had 77 percent of the 20-county region's total jobs at 1,805,191, compared to a 20-county total of 2,357,835. This large share of jobs reinforces the importance of sustaining access to a functioning and efficient core. This does not diminish the importance of the remaining counties in the region, but it does suggest that future strategies to support employment growth in the region should consider a range of options that are tailored to the needs of the various employment centers around the region.

Fulton County led the region in job growth between 2006 and 2008, adding more than 11,600 jobs during that span. Despite this recent growth, however, Fulton has actually experienced a net decline in jobs this decade, down almost 42,000 jobs. Cobb County was second in job growth during the 2006 – 2008 period, adding 5,800 jobs, followed by DeKalb (+ 3,300) and Henry (+2,600).

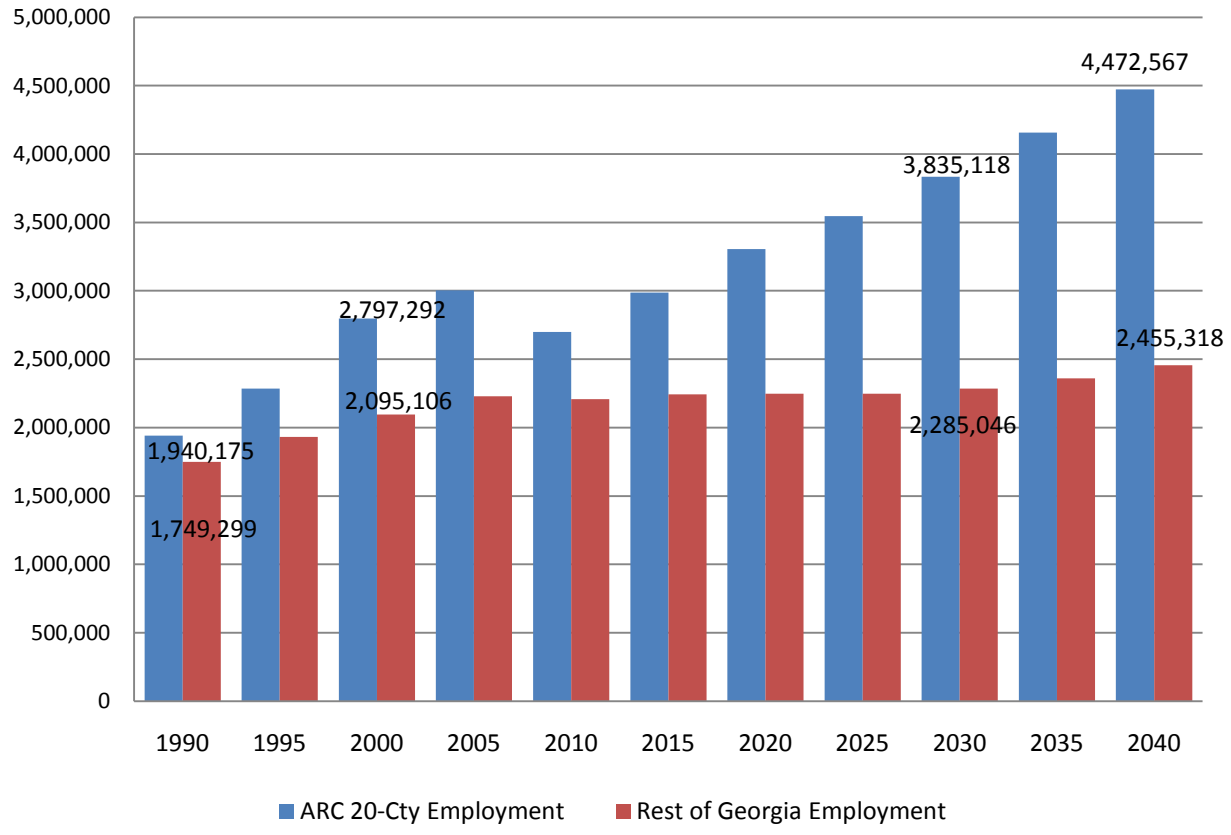
For the decade, Gwinnett leads the region in overall growth, adding more than 28,000 jobs. Henry County has also shown strong job growth since 2000, adding almost 20,000 jobs. Hall County remains a dynamic employment center outside the 10-county region. Clayton, DeKalb, Fulton, Rockdale and Spalding counties each posted job losses between 2000 and 2008.

The Atlanta Region is currently in a period of job contraction. Between May and June 2009, the Atlanta MSA lost 12,000 jobs. Nationally, construction, retail trade and professional and business services are all experiencing declines in employment. The Atlanta region is not

insulated from this recession. Currently the unemployment rate for the 10-county RC planning area is 8.9 percent which was a 4 percent increase from April 2008. With this employment contraction, ARC forecasts that it will take until 2015 for the metro region to regain employment at its 2005 levels.

Employment growth will continue to 2040, but at a slower rate then what the region experienced in the 1990s. ARC forecasts that the 20-county region will continue to be the main job center within Georgia, with state employment growth increasing slightly outside the 20-county region. ARC forecasts that total employment in the region will be less in 2010 than it was in 2000. Importantly, the forecast also calls for an eventual, but slow recovery for the Atlanta region. ARC's forecasting tools also include the remaining counties in Georgia. Between now and 2040, statewide growth in employment (outside the Atlanta region) is anticipated to be very modest. Figure 16 below illustrates both the significant dip in total employment in the region as the result of the current recession and anticipated job growth in the region and state through 2040.

Figure 16: Employment Growth - 1990 to 2040



Source: ARC Initial Plan 2040 Forecast

Many high-paying jobs were lost in the early part of the decade following the "dot com" bubble, but as mentioned, the recovery of the mid-2000's did not replace many of these jobs.

Overall, when the region was adding employment, it was fueled by low-paying jobs. Based on the average wage reported in these low paying job sectors (average yearly incomes below $35,000 in 2007), individuals in these sectors have limited housing options that can be comfortably afforded.

In 2008, the Urban Land Institute's (ULI) Terwilliger Center for Workforce Housing in Atlanta analyze and evaluated many of the central issues related to workforce housing in the Atlanta region. The Atlanta region's median household income was $62,100 in 2006. Workforce households typically include those households that earn between $37,260 and $74,521 annually. Nearly two-thirds of households with the 10-county region fall within this income range.

Higher development costs in the region's core counties present significant challenges in bringing new workforce housing products to the market. These counties are a particularly important market for workforce products because there are opportunities to provide housing near the region's most developed employment centers and also provide the broadest range of transportation options.

Based on current industry norms for housing costs, workforce households in the Atlanta region can afford housing in a price band from $112,000 to $224,000 for for-sale housing and from $832 to $1,763 per month in rent. New for-sale housing is not affordable to many workforce households. Data on recent home sales in the Atlanta region shows that there was an annual average of 24,116 new homes sold in the four counties over the period from 2005 to 2007. The average price of homes sold in the four counties was approximately $252,000. Thus, at the most basic level of comparison, the recent average price of new, for-sale housing is above what workforce households in the four counties can afford.

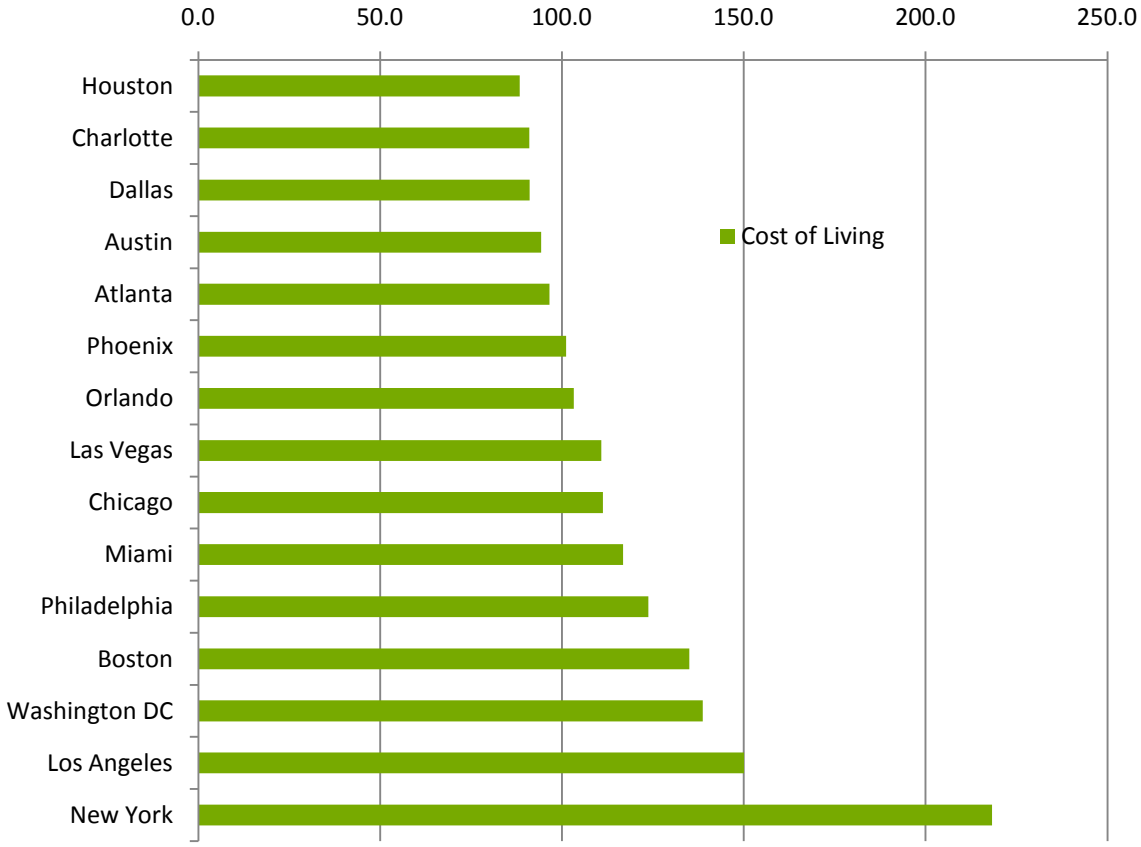
With smaller household sizes, modest wages of many jobs, higher living and fuel costs, substantial pressure will likely occur for local governments to accommodate diverse housing needs including more affordable communities in the future.

The rental market does provide a better opportunity to house workforce households. The majority of new rental units constructed between 2005 and 2007 are affordable to households earning between 60 – 80 percent of Area Median Income (AMI). There are, however, limited options as to where new rental products can be built as many of the local zoning regulations around the region strongly favor detached housing.

In general, the Atlanta region has a low cost of living, which has been a primary driver of the explosive growth the region has experienced. At the same time, however, metro Atlanta lags behind many of its peers in key income measures. The chart below compares the Cost of Living

Index, as well as the broad, weighted categories that comprise the index, for the 15 largest and fastest-growing metro areas in the nation. The average index across all metro areas is equal to 100. Atlanta's cost of living index, for example, is 96.6, meaning that it is 3.4 percent less expensive than the average metro area. As can be seen in Figure 17, the Atlanta region and many of its Sunbelt peers offer a lower cost of living than other regions around the country.

Figure 17: Cost of Living - Metro Comparisons



Source: Cost of Living Index – Council for Community and Economic Research

While cost of living in the Atlanta region is comparable to many of the regions in the Sunbelt, the region is actually losing ground relative to these same regions in terms of per capita income. Several areas lagged behind the metro Atlanta area in 2001, but have since passed the region. Dallas has seen a 16 percent increase in per capita income between 2000 and 2006 versus the eight percent for the Atlanta region. The Atlanta region was the only region to show a less than 10 percent increase over that six-year period (2001 – 2006). A recent study by the Metro Chamber of Commerce found that the region had the least amount of growth in per capita income among the nation's 25 largest regions over the last decade.

The Atlanta region is fortunate to have 48 universities and technical schools within the region that offer a wide variety of programs and research. More than 220,000 students are enrolled at

four year institutions in Atlanta, ranking the region as the seventh in student enrollment among US urban areas. The Atlanta Regional Council for Higher Education estimates that these institutions create a $10.8 billion dollar economic impact and 130,000 jobs in Georgia.

However, even with the large contribution of higher education to the Atlanta region, the region still has issues with an educated workforce (13.5 percent of the population has not completed high school or a GED). Even with the large number of universities and technical schools a large portion of our population does not have a bachelor's degree or advanced degree.

Education is the primary means though which individuals increase incomes. The skills and level of education of the region's and state's residents impact the type of jobs that the region attracts and the incomes of the regions residents. The EPE Research Center calculates graduation rates using data from the Common Core of Data (CCD), an annual census of public schools and school districts in the United States conducted by the U.S. Department of Education. For the 2005-06 school year, Georgia's graduation rate was 55.9 percent compared to the national average of 69.2 percent. Georgia's rank among states was among the worst at 49th in the nation. The graduation rate improvement over time from 1996 to 2006 was +0.7, compared to the national average of +2.8.

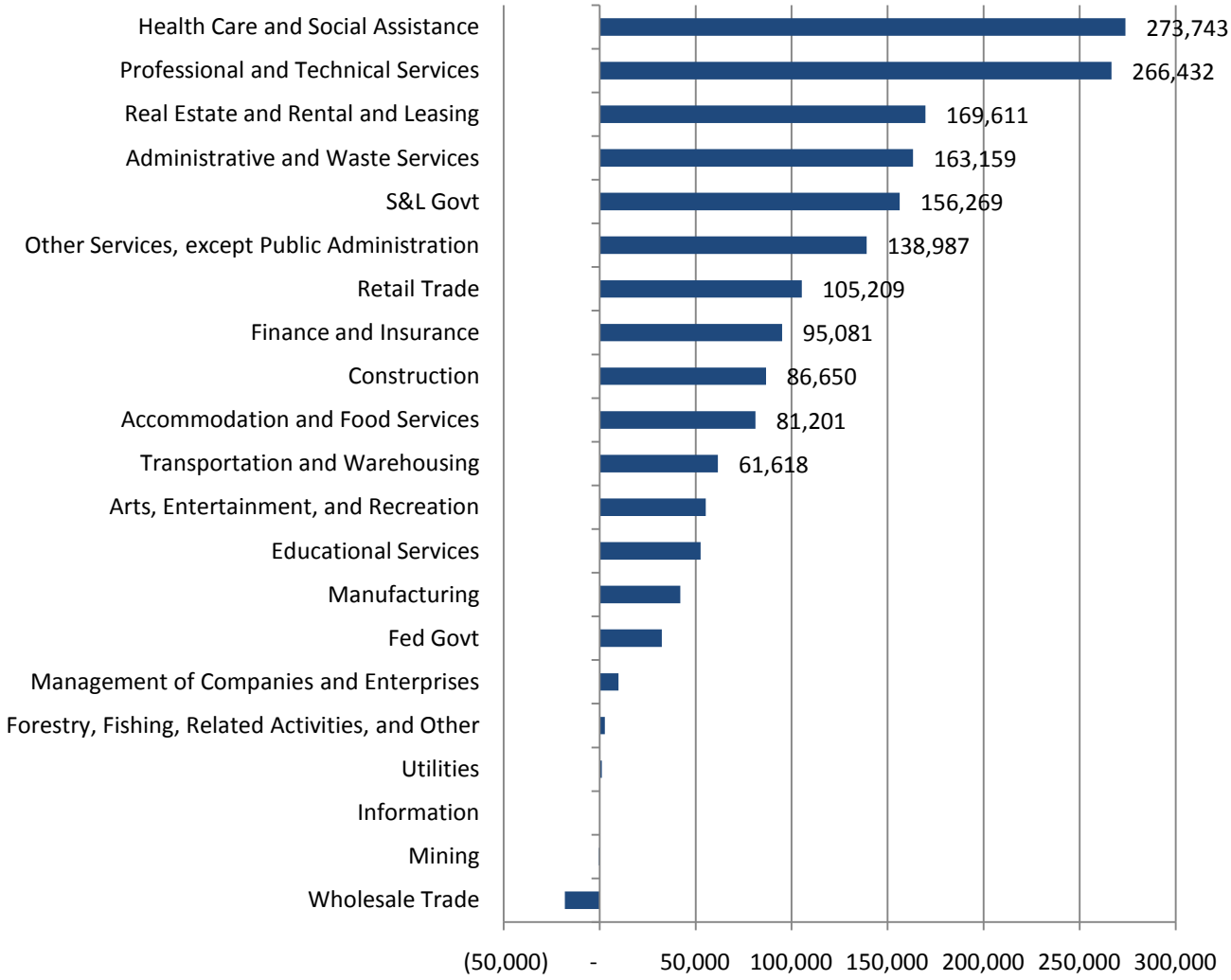
The educational system in Georgia is likely a factor in the overall level of income of the region's residents. While the region has large and diverse colleges, the share of the region and state's residents who are not college educated creates downward pressure on incomes, particularly as technology and global competition create increased need for skills and knowledge.

Undereducated and less-skilled job seekers exist across the region and may be left out of the push toward a technology and information based economy. The region's diversified economy offers a great deal of options to job seekers. The strong growth of the service and retail sectors of the economy provide job opportunities to many of these residents and may mitigate the harshest effects of a transition to a more technological economy.

Attracting high-wage industries is dependent on having an educated workforce capable of providing the knowledge and experience needed.

Figure 18 on the following page illustrates the expected sectors that will be responsible for fueling employment growth in the Atlanta region over the next 30 years. Despite currently not having any distinct advantage in competing for jobs in the Health Care sector, the initial regional forecast for employment indicates this sector will add the most jobs. This is in large part due to the magnitude of overall population growth in the region and specifically the region's transition to a region with a greater share of older adults.

Figure 18: Employment Growth by Sector (2005 to 2040)



Source: ARC Initial Plan 2040 Forecast

In 2009, the region's strongest sectors were Transportation, Trade and Utilities, Wholesale Trade, Information Services and Professional Business. Unlike many other metro regions throughout the US, the Atlanta region's economic base is diverse with strong levels of employment in a variety of fields. The region currently has relatively low levels of employment opportunities in Education and Health Care fields. As the chart above illustrates, the Health Care field in particular will become a major sector of the Atlanta region's economy. This sector has been one of the few sectors that have added jobs in the current recession.

Currently, ARC has a very limited role in traditional economic development efforts. The region has many chambers of commerce, county development authorities and is also impacted by state initiatives. The majority of these organizations have some level of marketing, planning and outreach capabilities. There is likely a need for municipalities and counties to be more proactive

in developing and implementing programs that recognize circumstances unique to their submarket or shared interests across the region. ARC's role in an overall regional economic development effort will need to be determined during the Regional Agenda. Guidance from regional leaders during early interviews associated with the Regional Assessment suggested that ARC should consider increasing its current role of supporting initiatives of existing economic development groups.

ARC should work with member local governments to ensure they understand state economic development strategies such that they can leverage local efforts to build on state initiatives.

ARC is the administrator for the Atlanta Regional Workforce Board (ARWB) and is responsible for providing policy guidance for the Workforce Investment Service Area as designated by the Governor. This area includes seven counties: Cherokee, Clayton, Douglas, Fayette, Gwinnett, Henry and Rockdale. Separate boards serve the City of Atlanta, DeKalb County, Fulton County and Cobb County. The Workforce board provides workforce solutions for dislocated workers, low-income adults and youth and for businesses seeking qualified applicants.

A key example of regional collaboration is the Innovation Crescent Regional Partnership. The Innovation Crescent Regional Partnership is a geographic area and a coalition of more than a dozen counties and entities focused on life sciences and economic development. Unlike other economic development strategies this program includes many jurisdictions and agencies with representatives from the state, regions, and local governments.

The State of Georgia has identified six key industries and four supporting industries for a strategic approach to economic development. These industries offer the most growth potential and opportunities for near-term success:

Strategic Industry Clusters
- ***Aerospace***
- ***Agribusiness***
- ***Energy & Environmental***
- ***Healthcare & Eldercare***
- ***Life Sciences***
- ***Logistics & Transportation***

Supporting Industry Clusters
- ***Advanced Telecommunications***
- ***Business & Financial Services***
- ***Multimedia***
- ***Software Development***

These industries employ 1.7 million residents, or approximately 34 percent of the current Georgia workforce. The region is well-positioned to build upon those strategic industries. The state of Georgia concluded during the Commission for a New Georgia process that many of Georgia's counties do not possess the resources needed for comprehensive economic development efforts. Working together as regions will be fundamental for the overall success of local governments and the state of Georgia. The Atlanta region currently dominates the concentration of employment in many of these clusters. As a result, state initiatives must be recognized at the local level in order to fully realize the potential of each cluster.

One economic strength of the Atlanta region is its convenient access to many major U.S. markets. The region is roughly equidistant from New York and Dallas, Detroit and Miami. Atlanta is slightly farther west than Detroit and lies closer to the Chicago market than Washington DC, Baltimore or Philadelphia. Atlanta's central location allows truckload shipments to reach 82 percent of the US industrial markets, 79 percent of the largest consumer markets and 77 percent of the nation's metropolitan buying power in two days or fewer.

Hartsfield-Jackson Atlanta International Airport, located 10 miles southwest of Atlanta's Central Business District, is one of the world's premier gateways to U.S. and international destinations. With the merger of Delta Air Lines and Northwest Air Lines, Hartsfield-Jackson Atlanta International Airport now has non-stop service to 165 cities within the U.S. and 95 international cities.

On average, there are more than 2,700 arrivals and departures daily, making Hartsfield-Jackson the busiest airport in the world.

The Atlanta region is the logistics hub serving the southeast United States. The region was identified as twelfth in the nation in 1990 by total employment statistics, but its increased level of importance as a logistics hub has elevated the region to fifth as of 2004. This increase in freight has supported the region well, with continuous employment growth within the transportation field.

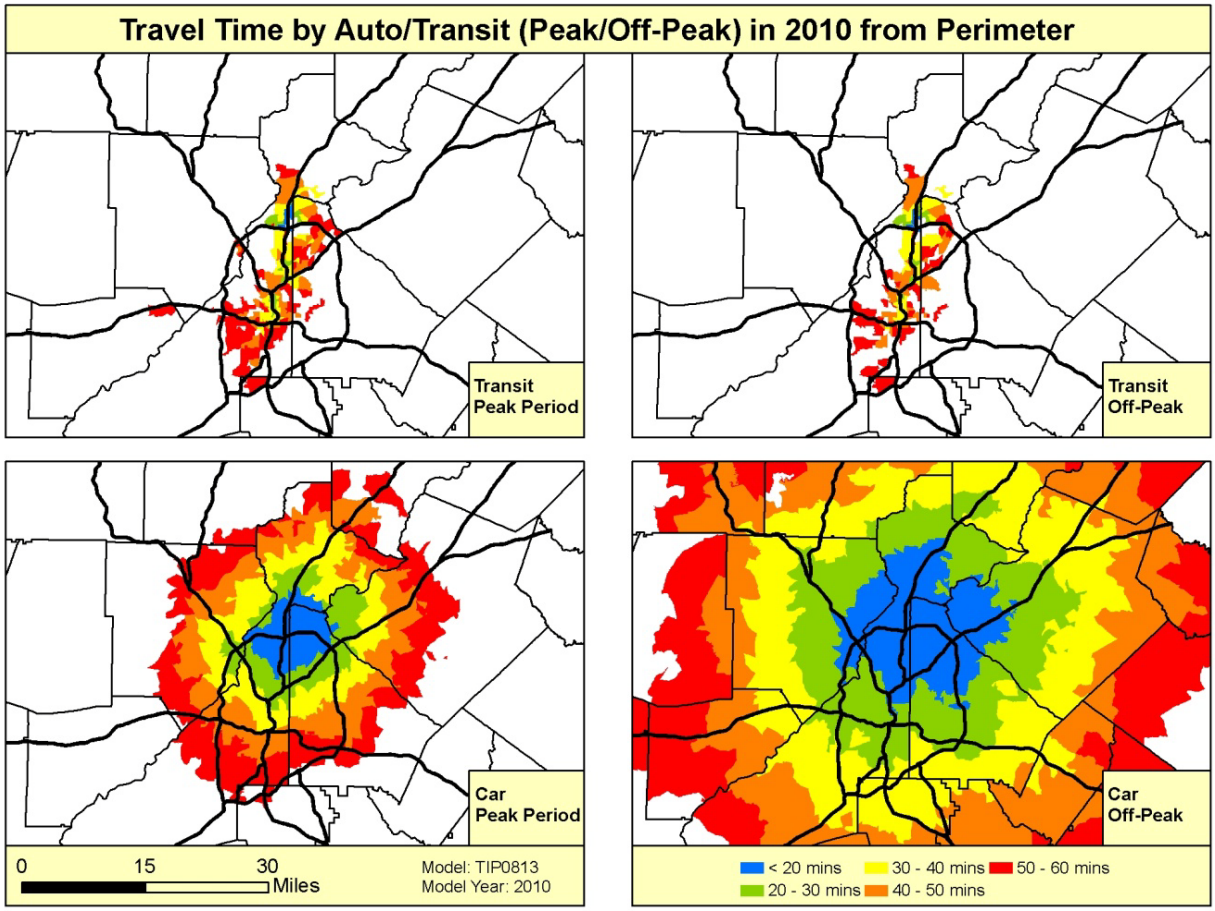
The Atlanta region's freight transportation system consists of highways, railroads, Atlanta Hartsfield Jackson International Airport and numerous intermodal facilities. In addition, east coast ports significantly impact the region. The region is one of the strongest and fastest growing logistics clusters in the nation. Because of the strategic role the region plays in the nation's freight system, identifying and programming effective improvements to accommodate increasing freight, goods and services movement in the Atlanta area is critical to the economic vitality and quality of life of the region.

The *Regional Freight Mobility Plan*, completed by ARC in February 2008, establishes an effective set of strategies and recommendations to maintain and improve the existing area transportation facilities, encourage appropriate land use, ensure the safety and security of the regional system and address environmental concerns.

With this growth of truck-related movement, the supporting transportation system must grow to meet the challenges of existing traffic volumes and face the opportunities of the future. The lack of planned enhancements may have dire consequences on the future ability of the region to successfully serve as a leading transportation hub. Regional competitors for industry and transportation services from other metropolitan areas may benefit from greater delays and congestion in Atlanta. Additional information on issues related to transportation and logistics is found later in the Regional Assessment.

Roadway congestion is impacting both regional employment centers and the employees from around the region that must access these areas. As illustrated in Figure 19, a significant portion of the region can reach the Perimeter Center area, the largest office center in the region, within 40 minutes by car during off-peak hours. Roughly 3.2 million people in the region have access to this area by automobile in less than 40 minutes in off-peak conditions. However this number drops to only 980,000 in peak travel periods due to congested roadway conditions.

Figure 19: Perimeter Area Commute Sheds



Source: ARC

Figure 19 also illustrates the difficulty of accessing the largest office center in the region via transit in a timely fashion. Perimeter Center has three heavy rail stations, but the limitations of the overall transit system significantly limit the number of potential persons that can reach this job market in less than an hour on transit.

Similar declines in travel time impact the region's other major regional activity centers. Downtown experiences a similar decrease in its travel shed accessible in 40 minutes or less by car, decreasing from 3 million to 1.3 million. Hartsfield-Jackson International Airport, a critical element in the region's overall economic viability, experiences a decrease in population able to get to the airport in 40 minutes by car from 2.07 million to 863,000. A critical objective of Plan 2040 is to improve accessibility to these activity centers to further economic development opportunities for the region.

Multi-faceted strategies and investments are necessary to support the long-term economic viability of the region's most critical employment centers.

Environment

Many of the issues ARC seeks to address are directly related to protecting the natural and human environment. The overall reach of ARC's impact is furthered when you consider the significant impact of local governments around the region. Local governments are continuously working to develop more sustainable communities and government operations. ARC is well-positioned to work with them and other partners to provide assistance and guidance in implementing more sustainable practices across the region.

As the region continues to develop, more and more effort has been put into finding a balance between the environmental needs of clean air and water, the availability of water, retaining areas of natural significance for animal and plant habitats and those of a growing population and economy. Moving forward, the region will need to recognize the competitive advantages that come with valuing natural assets as a means to growing the economy and meeting the needs of the region's growing population. Continuing education of the general public and developers will bring about increased awareness of the importance of maintaining a proper balance between people and their environment.

Over the past two decades, a primary challenge that faced the region was the reliance on 'greenfields,' or previously undeveloped lands, as the areas that were needed to accommodate growth. Many of the region's current environmental and growth challenges include air quality and water quality and supply. These challenges are in fact substantially related to the dominant trend of low-density, single-purpose development on undeveloped areas within and beyond the 10-county region.

Some greenfield development will be necessary to accommodate future needs, but it must be done more wisely than in the past by including a variety of housing opportunities along with neighborhood and community-based commercial activities. Connectivity and linkages between commercial and residential land use, and an emphasis on alternative modes of transportation are all necessary to create sustainable land use patterns that can accommodate projected growth.

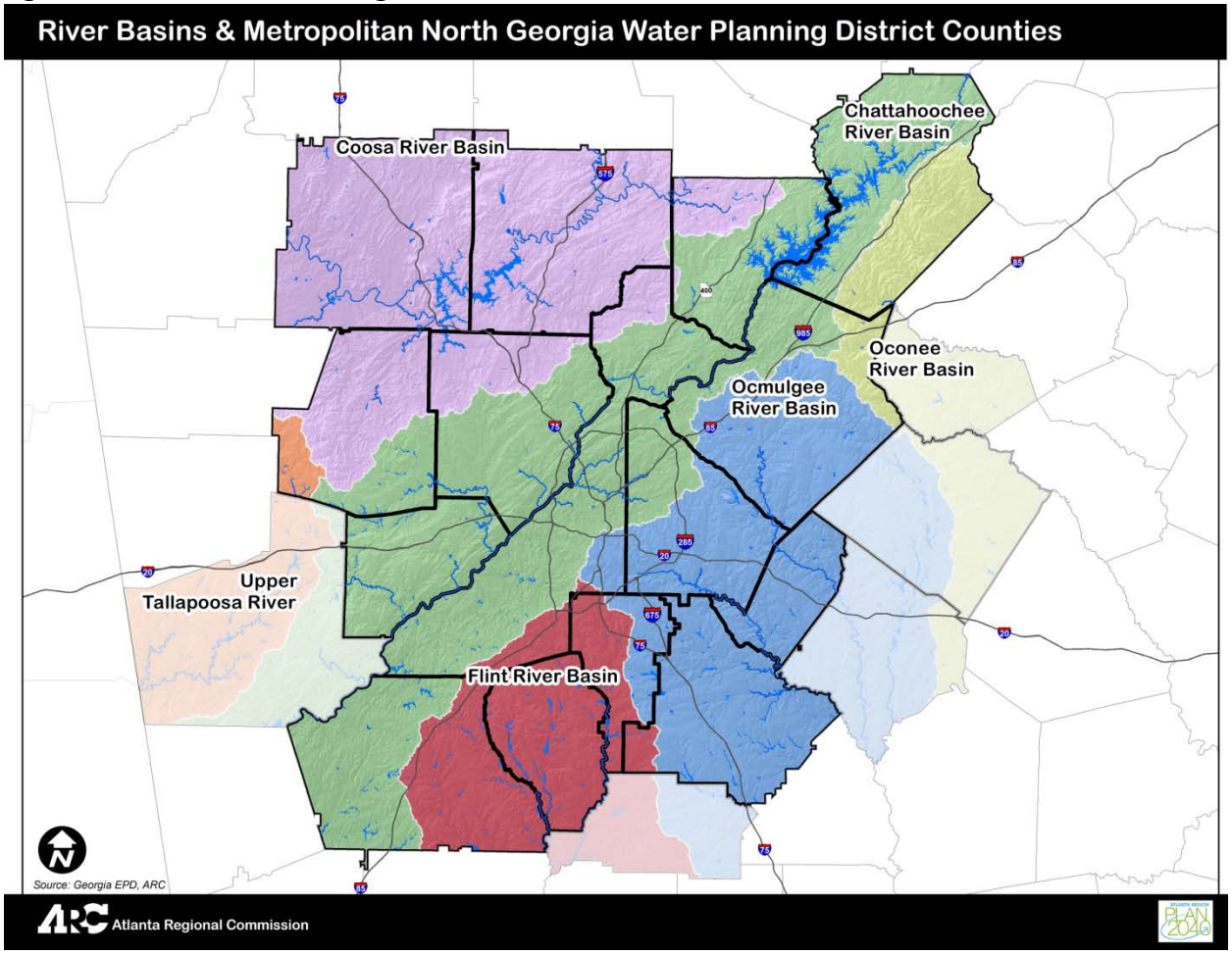
Throughout its history, ARC has been involved in efforts to increase the amount of protected greenspace in the Atlanta region. As the region grew, along with ARC's planning area, some areas targeted for protection were saved while others were lost to development. The Atlanta region has varied supply of major parks and recreation areas, wildlife management areas, conservation areas, nature preserves and water resources. Currently, however, there is no consistent, coordinated mechanism to ensure the region's inventory of protected lands increases as the region grows through 2040.

Water resources are critically important to the Atlanta region's economic vitality and quality of life. The region, however, lies at the headwaters of several major river basins, increasing the need for protection of water resources. In addition, rapid population growth has resulted in the need for additional water supplies while increasing the amount of both treated wastewater and stormwater pollution discharged to the region's rivers, lakes and streams.

The Metropolitan North Georgia Water Planning District (Metro Water District) was created by the Georgia General Assembly in 2001 (O.C.G.A. §12-5-571) to serve as the water planning organization for the greater metropolitan Atlanta area. The Metro Water District's purpose is to establish policy, create plans and promote intergovernmental coordination of water issues in the District from a regional perspective. ARC provides planning staff for the Metro District.

The Metro District includes 15 counties (shown in Figure 20), including all 10 ARC counties: Bartow, Cherokee, Clayton, Cobb, Coweta, DeKalb, Douglas, Fayette, Fulton, Forsyth, Gwinnett, Hall, Henry, Paulding, and Rockdale counties as well as, the cities partially or fully within these counties. The Metro Water District also has seven authorities which provide water, sewer and/or stormwater services. The Metro Water District's plans and policies work to protect water resources in the Chattahoochee, Coosa, Flint, Ocmulgee, Oconee and Tallapoosa river basins.

Figure 20: MNGWPD Planning Area



With the adoption of the Georgia State-wide Water Management Plan by the Georgia General Assembly in 2008, the Metro Water District is now one of eleven regional water planning councils in the state, and will continue to work within the integrated framework of state water resources planning.

The Metro Water District enabling legislation mandated the development of three long-term regional plans to address the water resources challenges. All three plans were originally adopted in 2003 and were updated in 2008:

- Water Supply and Water Conservation Management Plan
- Wastewater Management Plan

- Watershed Management Plan

The Atlanta region relies primarily on surface water from rivers and storage reservoirs as its main source of water supply. In fact, surface water provides more than 99 percent of the water supply in the Metro District. The Chattahoochee basin accounts for approximately 73 percent of the permitted available water supply in the Metro District. Residential water use, including single and multi-family use, accounts for 53 percent of the total water use.

Lake Lanier and Allatoona Lake have played a key role in assuring an adequate water supply for the Metro Water District since their construction by the U.S. Army Corps of Engineers (Corps) in the 1950s. These federal reservoirs are multi-purpose projects that store water for multiple purposes: hydropower production, flood control, navigation, water supply, water quality, recreation and navigation. Although the Corps controls the storage in these reservoirs, the water in the State of Georgia is allocated and managed among users by the State of Georgia.

Current planning assumes that federal reservoirs will continue to operate to meet water supply needs within the District. Recent changes in Corps operations of these Lakes beginning in 2006 represent a significant challenge to the region's water supply. The operation of the reservoirs is the subject of litigation of which the outcome is uncertain. These uncertainties represent a significant challenge in planning for the long-term ability of the region to provide adequate water to end users.

Groundwater use makes up less than 1% of the public water supplies in the District due to bedrock geology.

Recent drought conditions resulted in dangerously low reservoir levels in some communities. These conditions indicate that future reservoirs should be sized larger. Reliability of existing and future reservoirs will be an on-going challenge, particularly as future demands increase and global climate change potentially increases in the severity and length of drought condition. Recent drought conditions also resulted in an increase in small surface water withdrawals to avoid drought irrigation restrictions. In aggregate these withdrawals can have significant impacts on water supply, particularly during times when conditions dictate that supply must be more closely monitored and controlled to protect the needs of downstream users.

The Metro District forecasts that with even aggressive water conservation measures the region will need additional water supply sources. In addition to the existing reservoirs, there are three reservoirs planned for the Metro District in the near future that require 404 permits. These planned reservoirs are far enough along in the permitting process that state and federal permits are being sought for these projects. Three additional reservoirs are in early planning stages but anticipated to be constructed in the next 25 years.

An aggressive water conservation program was developed for the 2003 Water Supply and Water Conservation Management Plan. The Metro Water District is the only major metropolitan area in the country with more than 100 jurisdictions implementing a long-term comprehensive water conservation program that is required and enforced. The water conservation program is essential for meeting future water supply demands in the Metro Water District and were reinforced and expanded in the 2008 Management Plan.

With the challenges associated with permitting surface water and the limited availability of groundwater, water reuse may be a viable option to extend limited, local water supply sources.

An important consideration for the jurisdictions within the Metro Water District is the effect of consumptive use. Consumptive use, as defined in the Georgia Comprehensive State-wide Water Management Plan, is the difference between the total amount of water withdrawn from a defined hydrologic system of surface water or groundwater and the total amount of the withdrawn water that is returned to that same hydrologic system over a specified period of time. Water use is consumptive when water is removed from a specified hydrologic system of surface water or groundwater and is not returned to that same system within a time frame that allows contemporary users to avail themselves of the benefits of that quantity of water.

Consumptive uses of water can be appropriate measures of water management, but in total these practices must be managed in a sustainable manner. Interbasin transfers, considered a consumptive use, are a key element in supplying water throughout the Metro District. The Chattahoochee River basin is the major donor basin within the district. Residents in the Ocmulgee River Basin currently rely heavily on the Chattahoochee River Basin for water supply.

The Atlanta region is dominated by headwater streams and reservoirs and includes surface waters that are used for multiple purposes including drinking water, recreation, fisheries and discharge points for wastewater treatment plants. Wastewater issues facing the region include:

- Waterbodies that have limited capacity to receive wastewater without deleterious effects which in turn requires higher levels of treatment.
- On-site sewage management and land application systems are considered consumptive.

- Increasing numbers of private facilities that provide less reliable performance.
- Lack of septic system planning, maintenance and management.
- The need to reuse water in areas with limited future water supply.

Currently the Metro District is home to 16,000 miles of sewers. These facilities range from being new to more than 100 years old. As the collective regional system continues to age, proper inspections and maintenance are critical. Inspections and maintenance not only maintain a high level of customer service, but also protect water quality.

Septic systems and decentralized systems will continue to be used as wastewater discharge options in areas not served by sewer. Local county boards of health are responsible for the siting, design and construction of onsite wastewater management systems, the region must focus on the planning and policy frameworks to be established by the local governments and local wastewater providers in the Metro Water District in coordination with the county board of health.

The Metro District is committed to working closely with local governments and service providers in its 15-county area to ensure the implementation of best practices in wastewater management. All local jurisdictions within the District are required to comply with District plans in order to obtain new or expanded withdrawals or wastewater discharges, municipal stormwater permits or any funds through the Georgia Environmental Facilities Authority (GEFA).

Population and employment growth and the land development to support that growth have resulted in significant land use and land cover changes in the Atlanta region. Within the last several decades there has been a dramatic shift of forest and agricultural lands to residential, commercial, industrial and other urbanized land uses greatly impacting watershed hydrology and stream conditions around the region.

The District, the State of Georgia and local governments all play important roles in implementing water resource plans.

These stream and watershed impacts can have dramatic physical, economic and aesthetic consequences to communities in the Atlanta region. The key focus of the 2008 Watershed Management Plan is to provide watershed management measures, strategies to help local communities protect their watersheds from future impacts and to help effectively mitigate existing problems to the maximum extent practicable.

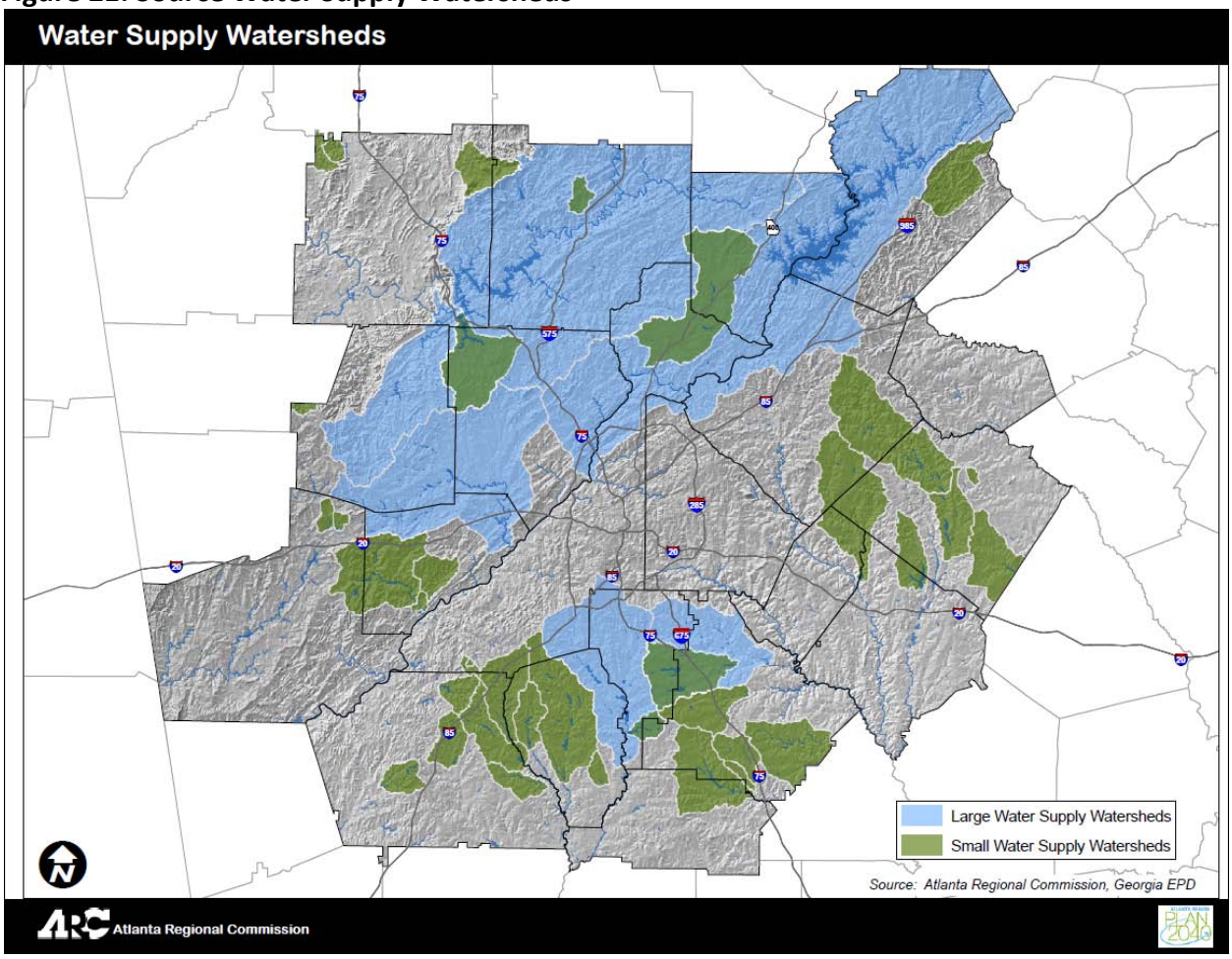
The protection of source water (drinking water supply) watersheds is vitally important to the region, as almost all of the Metro District's public drinking water supply comes from surface water sources, which include streams, rivers and man-made reservoirs. Water quality

degradation of these surface waters can potentially pose human health threats, and often increases water treatment costs for local communities.

Source water watersheds are classified by drainage area size in the state of Georgia: small water supply watersheds have less than 100 square miles of land within the drainage basin upstream of the water intake, while large water supply watersheds are 100 square miles or greater in size. Smaller drainage basins are more vulnerable to contamination by land use development and spills than larger watersheds, therefore more intensive watershed protection is needed. Source water watersheds are shown in Figure 21.

Implementation of watershed management strategies as outlined by the North Georgia Water Planning District are primarily performed by the local governments. The local management measures form a comprehensive program for addressing watershed management issues consistently across the region. Through an audit process of the Ga. EPD local jurisdictions are held accountable for implementation of the measures.

Figure 21: Source Water Supply Watersheds

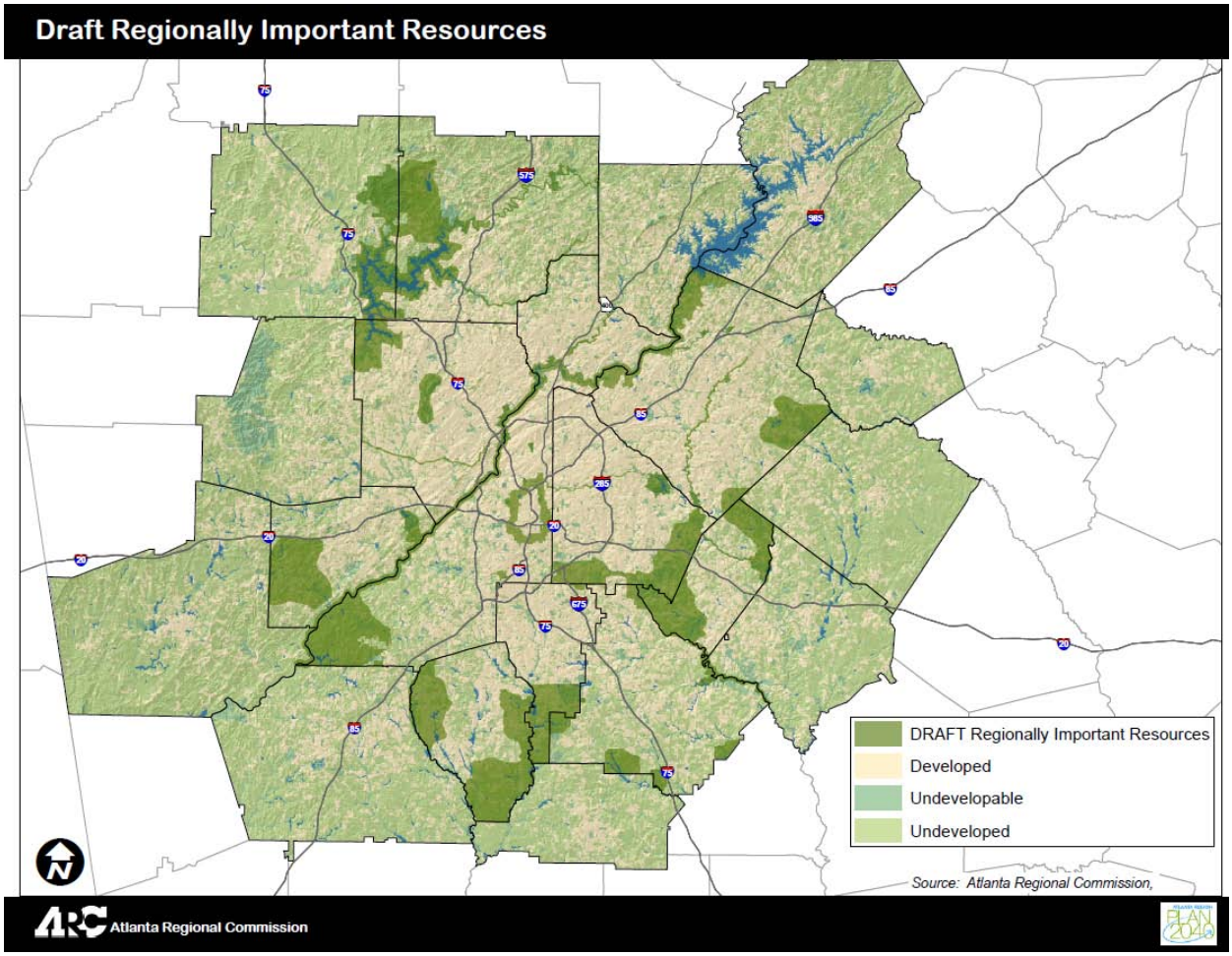


Green Infrastructure

Regional green infrastructure, including significant cultural resources, is a framework for strategic long-term land conservation and future land use planning that can ensure the region will continue to grow while protecting irreplaceable natural assets. With connectivity as the goal, green infrastructure demands a regional approach and perspective. Because of this, green infrastructure planning must take place on local, regional, state and federal levels. All these levels must communicate with one another in order to create an interconnected system. This ensures that the system is greater than the sum of its parts.

ARC has developed a Draft Regionally Important Resource Map (Figure 22) that identifies critical components of the region's green infrastructure that all parties in the region will need to work to preserve and protect. The process to develop the Draft Regionally Important Resource Map included a public nomination process and numerous consultations with impacted parties and resource experts. Initial designation as a Regionally Important Resource does not denote that an area is off limits to future development. What it does suggest however, is that these areas should have an enhanced level of protection and management and that careful consideration should be given to new development.

Figure 22: DRAFT Regionally Important Resources



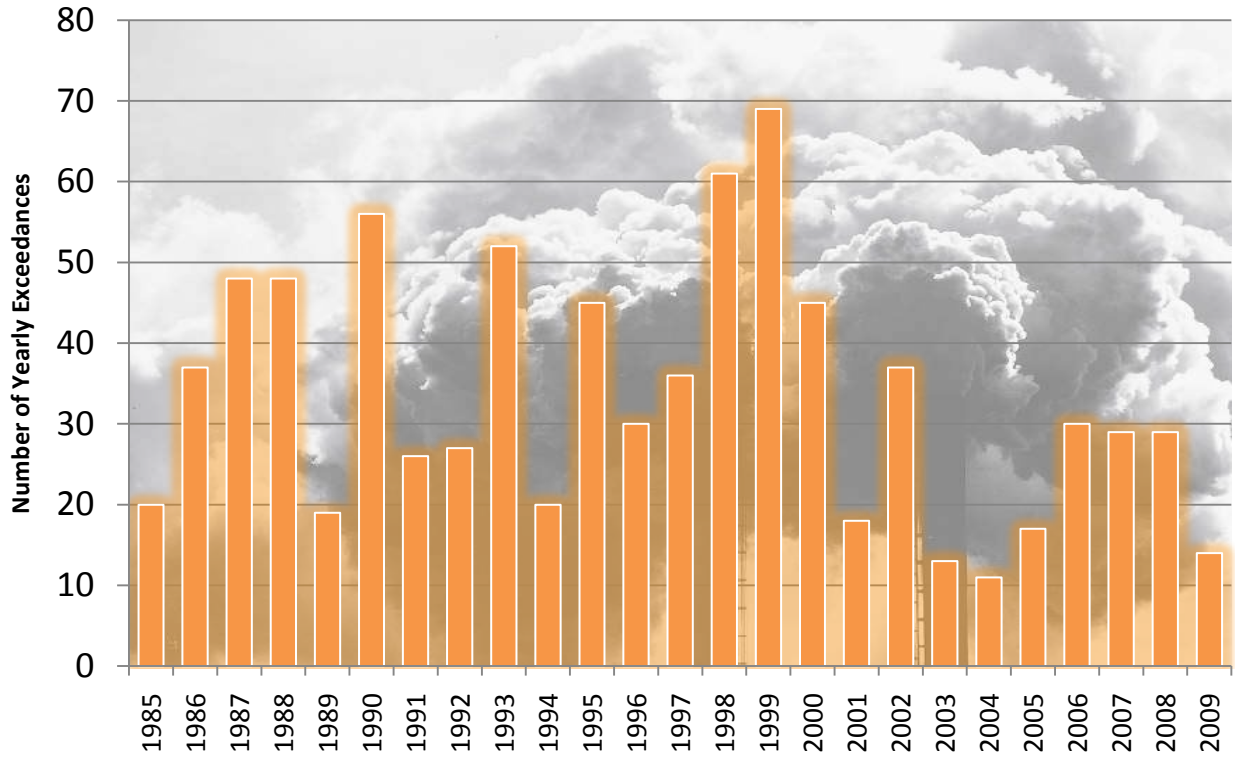
Air Quality

The Atlanta region does not meet the federal standards for ozone and fine particulate matter, two of the six pollutants regulated under the Clean Air Act. Natural weather conditions, geography, mobile sources, power plants, and industries all contribute to air quality.

In April 2008, the region (20-county area) was reclassified from a Marginal to a Moderate eight-hour ozone nonattainment area. The Atlanta region must attain the 1997 ozone standard no later than June 15, 2010. The Georgia Environmental Protection Division is developing a State Implementation Plan (SIP) outlining a plan to bring the region into attainment of the current eight-hour ozone standard by 2010. In March 2008, the EPA tightened the standard for ozone to 0.075 parts per million, the first update since its creation.

As shown in Figure 23, the number of days exceeding the eight-hour ozone standard dropped dramatically from a high of 69 days in 1999 to fewer than 20 days in 2005. While the overall trend in number of days in exceedance of the standard from 1999 — 2007 is downward, 2006 and 2007 saw increases compared to 2003–2005.

Figure 23: Yearly Exceedances of the Federal Ozone Standard



Source: GA EPD

Several factors explain the decrease in exceedances this decade. Atlanta experienced a hot, dry summer in 1999, a cool, wet summer in 2004 and a very hot and dry summer in 2007. Advanced technology, such as cleaner fuel standards, fleet turnover and particle capturing devices at power plants, have all contributed to improved air quality. Enhanced tools and models also help make more accurate measurements.

Unlike the ozone standard, there is no classification system for fine particulate matter. An area either meets the standard (attainment) or exceeds the standard (non-attainment). Most monitoring stations in the region do not attain the annual PM2.5 standard. In April 2005, the USEPA designated a 20-county metro-Atlanta non-attainment area for failing to meet the fine particulate matter standard.

ARC is responsible for managing the process that ensures transportation plans and programs within the Atlanta nonattainment area when implemented do not cause or contribute to degraded air quality. This process is referred to as transportation conformity. Mobile (transportation-related) emissions, as estimated by ARC, must conform to established limits, or Motor Vehicle Emissions Budgets (MVEB), for nonattainment pollutants and/or their precursors. MVEB are set by the state air agency, the Georgia Environmental Protection Division, in the State Implementation Plan (SIP), and are approved by the USEPA as adequate for use in the transportation conformity process.

Significant reductions in the level of ozone precursor emissions have been realize - Additional focus must now be placed on particulate matter pollution as new federal standards are implemented.

ARC currently utilizes air quality performance measures as a means of determining how well the RTP enhances and protects the quality of life for the region's citizens. ARC's air quality measures offer a quantitative measurement to analyze this success. At this time, ARC has identified other potential quality of life measures, but has not developed a quantitative measurement.

The key performance measures for this goal are tons per day of transportation-related pollutants (VOC, NOx, and PM 2.5). *Envision6*, the Atlanta region's current long-range transportation and development plan, received a positive conformity determination under the eight-hour ozone standard and under the PM2.5 standard on October 10, 2007 and again in June 2009. These determinations were made for the entire 20-county nonattainment area, and demonstrate that the RTP complies with all air quality requirements associated with the eight-hour ozone and PM2.5 standards, and with the ozone SIP currently in place.

The Atlanta region is facing many factors that drive a rise in greenhouse gas emissions at a time when national policies are considering strategies for reducing all Greenhouse Gas (GHG) emissions. ARC has begun to look at reductions of transportation-based GHG emissions.

Regional planning for climate change is gaining more attention. Hundreds of local governments across the country have taken steps to reduce their greenhouse gas emissions. *Envision6*, the current RTP, contains strategies that lead to reductions of primary pollutants as well as CO2 emissions. The Metropolitan North Georgia Water Planning District long-range management plans have identified climate change as key factor that must be monitored in order to ensure adequate water supply in the future.

The transportation sector is responsible for roughly one-third of domestic CO2-equivalent (CO2e) emissions, the predominant greenhouse gas contributing to global climate change. In Georgia, power and transportation are the leading sources of CO2e emissions. Most transportation sector CO2 is emitted from tailpipes. Between 1990 and 2004, mobile-source CO2 emissions in Georgia increased 36%. This increase in CO2 can be attributed to four factors:

Increase in vehicle miles traveled (VMT)

The Atlanta region has experienced significant growth in population and consequently VMT from 1990 to the present. Population exploded and communities developed further and further from the city center, causing a 60% increase in VMT and a 62% increase in population between 1990 and 2005. Based on Envision6, VMT is forecast to increase 54% by 2030.

Fleet inefficiency

Fleet efficiency is considered by most experts to be the most critical factor in influencing CO2 emissions. Although fuel economy has a slightly improving trend, this is completely offset by the increasing number of fuel-inefficient vehicles in the fleet. The number of sport utility vehicles and pick-up trucks, the least fuel-efficient vehicles in the fleet, registered in Georgia has increased dramatically over the last two decades.

Increase in freight volume

Trucks are the primary mode of freight transportation in the region, accounting for approximately 84% of all freight movement. Truck VMT in the Atlanta region is expected to increase 55% between 2005 and 2030.

Congestion

Congestion and its associated impacts such as, wasted time and fuel, decreased regional economic competitiveness and air quality are among the most significant problems facing the Atlanta region. Low travel speeds and idling lead to decreased vehicle efficiency and results in increased ozone precursor and CO2 emissions.

Climate change is a highly debated topic at the national level. While the exact resolution of the issue into federal policy is uncertain, any type of federal climate change legislation will likely involve a "cap and trade" mechanism that will increase the cost of carbon-based fossil fuels. Any strategy aimed at reducing GHG emissions is likely to have substantial impacts on the transportation sector. Many legislative proposals at the federal level have emphasized infrastructure funding programs that focus on limiting single-occupancy vehicle travel in favor of transit projects and transit-supportive land use programs. The region must closely monitor the evolution of these programs, as federal policy will likely change in the coming decade.

Theme 2: Providing Access to Safe, Affordable, and Efficient Transportation Choices

Overview of Recent Challenges and Successes

For residents living in the region since 2000, the decade has been one of many changes – both positive and negative. This mixed bag also applies to transportation planning. "Looking back" helps the region apply important lessons learned. While many of today's challenges are unique in the region's history, many of these are not. The region began this decade attempting find solutions to worsening congestion while managing significant air quality challenges. There are many lessons learned that will help the region better understand the challenges ahead – a central purpose of this Regional Assessment.

Residents new to the Atlanta region may not understand the level of debate that occurred in the late 1990s regarding suburban transit. The debate centered on the wisdom of focusing on transit expansion as a foundation of the 2000 RTP.

One of this decade's most impressive accomplishments has been the success of expanded regional transit services, now covering parts of 12 counties.

Only two major regional transit systems operated at the beginning of this decade – MARTA and Cobb County Transit (CCT). In the *2025 RTP,* the first major expansion of regional transit was included in the RTP since the original MARTA concept of the 1970s. The *2025 RTP* and TIP recommended implementation of major transit services between 2000 and 2005. Early years of this decade focused on rapid development of a multi-county express bus system, using interstate High-Occupancy Vehicle (HOV) lanes, to provide reliable travel times to the Atlanta Central Business District (CBD).

Expanded local bus systems are important in providing a means for the region's transit-dependent to access employment and services in one the nation's largest regions. Since 2000, six of the region's twelve transit systems began operations. These six new systems have increased the regional fleet by over 400 buses and vans, increasing the number of regional transit miles traveled from 780 million in 2000 to over 911 million in 2007.

While many challenges remain in implementing a financially viable regional system, the region should recognize the significant progress made during this decade. Regional residents, including households without access to private automobiles, have significantly more options than before. The success of expanded regional transit this decade should reassure citizens and policymakers that residents will use quality services in the coming decades.

The *2025 RTP* placed emphasis on constructing HOV lanes, on heavily congested interstates corridors, as a core strategy to provide congestion relief and support expanded transit services

this decade. The region succeeded expanding HOV lanes for nine miles on I-85 North in DeKalb and Gwinnett counties this decade. Where implemented, HOV lanes have provided reliable trip times for express bus transit services - such as those in Gwinnett County.

However, the inability to construct the *2025 RTP* HOV concept has limited the region's ability to take advantage of the large investments in regional express bus services this decade. AS shown in Figure 24, significant elements of the HOV network planned for this decade were not constructed, including segments on I-20 E/W, I-75 North, I-575, I-285, and SR 400.

Figure 24: Unconstructed Elements in the HOV Network Planned for Implementation by 2010

Interstate	From	To
I-20 E	Columbia Dr	Evans Mill Dr.
I-20 W	SR 280 (Holmes Drive)	SR 6 (Thornton Rd)
I-285	I-75 N	I-85 N
I-575	I-75 N	Sixes Road
I-75 N	I-285 / Kennedy Interchange	Wade Green Road
I-75 S	Aviation Blvd	SR 54
SR 400	I-285	McFarland Rd

Source: ARC

Lack of implementation success with the regional HOV network has also impacted transit expansion in the region, particularly Bus Rapid Transit (BRT) and express bus. The inability to provide more reliable transit travel times, in comparison to those found in the general purpose interstate lanes, has reduced the incentive for regional residents to change travel behavior. In the coming decade, an important need is to improve the timing of managed lanes expansions to coincide with expanded express bus services.

In conjunction with the planned expansion of regional transit and HOV lanes, the *2025 RTP* emphasized expansion of TDM programs and vanpool services. These services were critical to an overall congestion relief, transit expansion, and land use strategy to create a more livable region.

Since 2002, total vanpool services have increased from a total 178 to 553 in 2008, or more than tripling in during the period. This strategy was supported by incentives such as those from the Guaranteed Ride Home Program. These programs are an important element in providing synergy among various strategies to reduce congestion and expand transit use

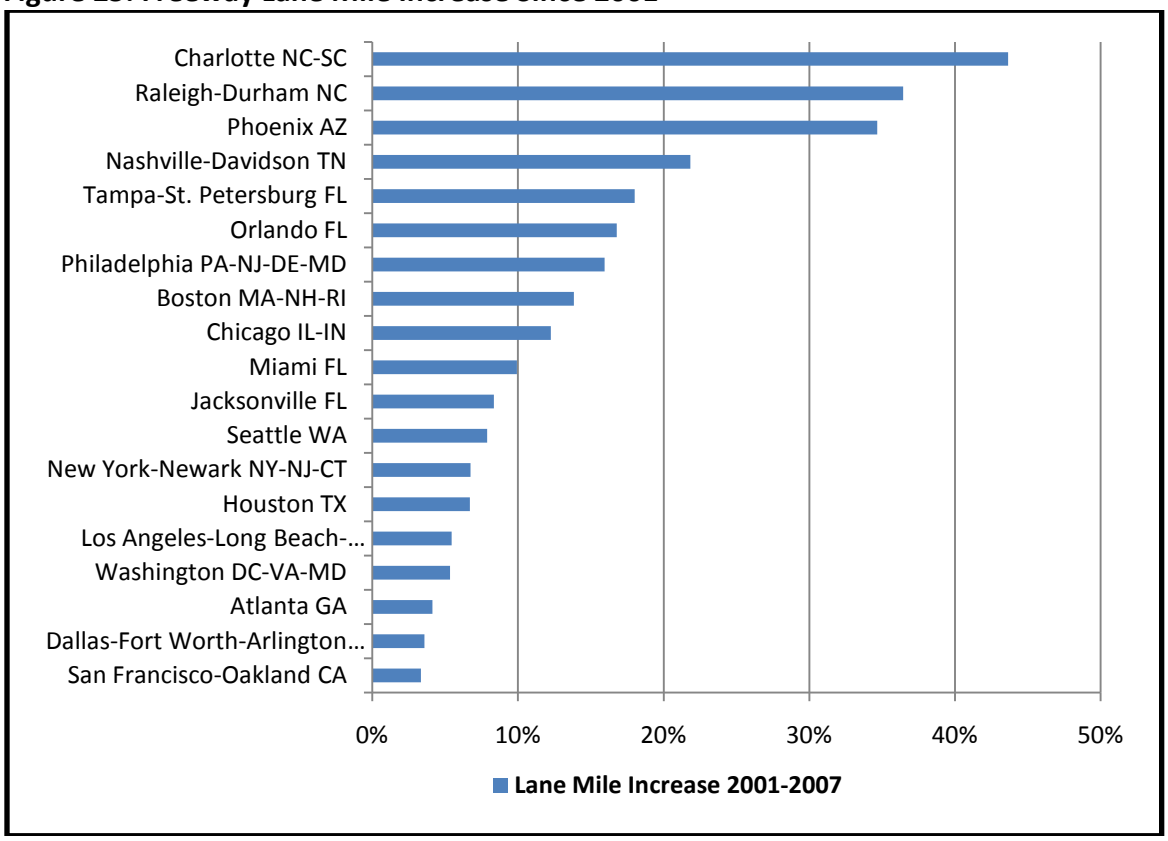
When compared to the freeway expansion programs in other peer regions in the nation, including economic competitors in the southeast, the Atlanta region has implemented limited freeway expansion this decade. It must be noted, however, that the Atlanta region is a highly developed urbanized area with significant constraints on right-of-way, greatly limiting its ability to expand interstate freeways and expressways.

Many smaller regions have aggressively constructed freeway capacity this decade, an option difficult in the Atlanta region due to urban densities along many corridors.

Charlotte, Raleigh-Durham, Phoenix, and Nashville, have increased freeway lane miles in excess of 20% this decade while Atlanta has only increased freeway capacity by 4.1%. Figure 25 notes freeway land miles added since 2001 for the Atlanta region and other regions around the country.

There are several additional reasons for relatively limited increase in freeway capacity, including inadequate funding and changing design concepts. At the time of the adoption of the 2000 RTP, major freeway expansions were assumed as a partial solution for critical congestion bottlenecks.

Figure 25: Freeway Lane Mile Increase Since 2001



Delays with the implementation of the *2000-2003 TIP* became apparent early in the decade. In response to direction among policy officials, ARC began monitoring the implementation rate of TIP commitments each year. This review confirmed what many policy makers suspected; regional projects were not meeting project delivery expectations.

While implementation is important for the obvious reason of being responsive to promises made to the public, project delays impact other areas as well. The inability to implement a project within promised timeframes increases costs due to inflation. Delays in one project often leads to delay in other projects, as the financial impact of delay forces other projects to be delayed so adequate funding resources can be made available.

Funding shortfalls, over-optimistic scheduling, and changing priorities have contributed to delays in delivering projects.

A major lessoned learned by policy makers and planners was that the region must be more conservative in project implementation assumptions in the coming decade. The dissatisfaction with low implementation rates among state officials has led to major restructuring of state departments and new legislation such as Senate Bill 200.

The *2000 RTP* focused funding on stimulating change to existing land use and transportation patterns through what was then a new program: the Livable Centers Initiative (LCI). In March 2000, ARC approved an allocation of $5 million over 5 years to fund the study portion of the program. ARC also approved $350 million for priority funding of transportation projects resulting from the LCI studies. The ARC Board, in December 2004, extended the LCI program to include another $5 million for 5 additional years of planning studies and added $150 million for priority funding of transportation projects (for a total commitment of over $500 million).

The Atlanta region has made remarkable progress this decade in addressing air quality challenges. The *2025 RTP*, and the accompanying updates to the air quality State Implementation Plan (SIP), resulted in many of the tough policy decisions that led to air quality conformity.

In the *2025 RTP*, ARC gave strong policy support for policy measures that, while not popular at the time, brought the region back from air quality conformity lapse:

- Stronger inspections and maintenance programs to reduce harmful tailpipe emissions
- Cleaner fuels to reduce NOx and VOC emissions
- Cleaner technologies in coal burning power plants in the region
- Expansion of funding for clean fuel vehicle purchases and bus stop electricification
- Funding for clean fuel infrastructure to fuel vehicles

Several challenges are ahead, discussed in detail in the air quality section of the Regional Assessment. The region will find that meeting tightening ozone and PM standards will prove to be challenging. New analysis tools, such as EPA's MOVES model, will also increase the region's measured emissions. These factors point to a continued emphasis on improving air quality in *Plan 2040*.

The region faces similar air quality challenges in the coming decade as existed in the late 1990s with more stringent federal standards.

Regional policy makers initiated several transit-related initiatives to determine opportunities to improve transit delivery and planning. The *Regional Transit Institutional Analysis* (RTIA) examined how the Atlanta region should organize to plan, build, fund, and operate public transit services. This study laid the foundation for a follow-up organization named the Transit Planning Board (TPB).

The TPB completed a multi-year process in 2008 to review organizational structures and development of comprehensive update of the region's transit concept. The updated regional transit concept, Concept 3, this new regional transit concept pushes regional transit cooperation further than previous efforts.

Developed in a collaborative manner among regional stakeholders, Concept 3 is a visionary $40 billion investment in regional transit.

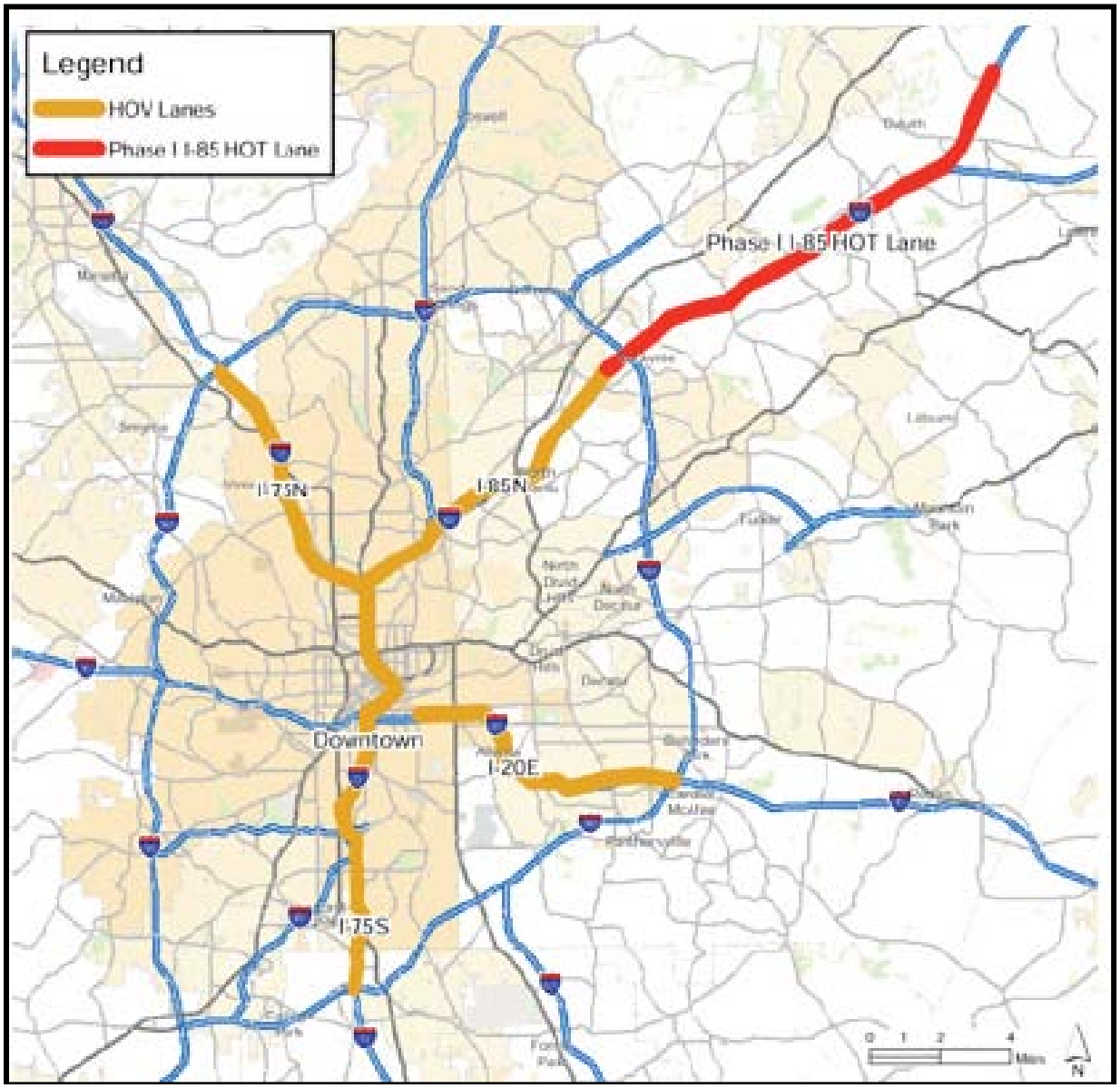
The cooperative spirit among regional stakeholders at the end of this decade contrasts with the tension present ten years ago as the *2025 RTP* was developed. All regional counties recognize the importance of pursuing a unified solution to the region's pressing transit challenges, and pursuing an aggressive policy of seeking opportunities to collaborate in transit is one of the region's biggest achievements this decade.

ARC was one of the first MPOs in the nation to plan for the potential conversion of HOV lanes to "managed lanes" in the *Envision6 RTP*, adopted in 2007. This strategy was in response to the high cost of interstate mainline capacity increases and the increasing difficulty in expanding the interstate systems' right-of-way footprint in the region. Furthermore, this option was expected to provide a shorter delivery time in implementing a congestion-relief alternative for residents. The *Envision6 RTP* also included the first set of managed lanes policies in the region's history, laying the foundation for future successful initiatives.

On November 25, 2008, previous USDOT Transportation Secretary Mary Peters and Georgia Governor Sonny Perdue announced the state of Georgia was awarded $110 million in federal

funds to support a $147 million pilot project through the USDOT Congestion Reduction Demonstration Program. The project converts 14.3 miles of High Occupancy Vehicle (HOV) lanes to High Occupancy Toll (HOT) lanes on I-85 between Chamblee-Tucker Road (DeKalb County) and Old Peachtree Road (Gwinnett County); enhances transit service; and implements innovative technologies. Areas impacted are shown in Figure 26. This section is planned to be the first phase of an expanded HOT network in the State. The state and region's focus in implementing managed lanes directly led to successful award of competitive funding to address regional mobility needs.

Figure 26: Segment of I-85 Proposed for Conversion to High-Occupancy Toll Lanes (HOT)



Source: TIB, 2008

Regional Travel Options

Many transportation options are available in the Atlanta region, including the use of single occupancy vehicles (SOVs), carpools, transit, vanpools, bicycling and walking. Although these transportation options are available, development patterns limit the efficiency of many of these options. SOVs make up the vast majority of trips in the Atlanta MPO area.

Regional Vehicle Miles Traveled (VMT) is increasing, in large part due to population growth. The VMT per capita has been decreasing since its peak in the late 1990's. This steady decrease reflects the shortening of trip lengths associated with a more dense land use pattern – a major policy initiative of the ARC since the *2025 RTP* adopted in 2000. Expanded regional transit use also contributes to the reductions in this important statistic.

Figure 27 details regional VMT trends. In 2008, the outer eight counties had a higher VMT per capita (29.5) when compared to the inner ten counties (27.9).

Figure 27: Average Daily Vehicle Miles Traveled in the Atlanta MPO Area, 1995-2008

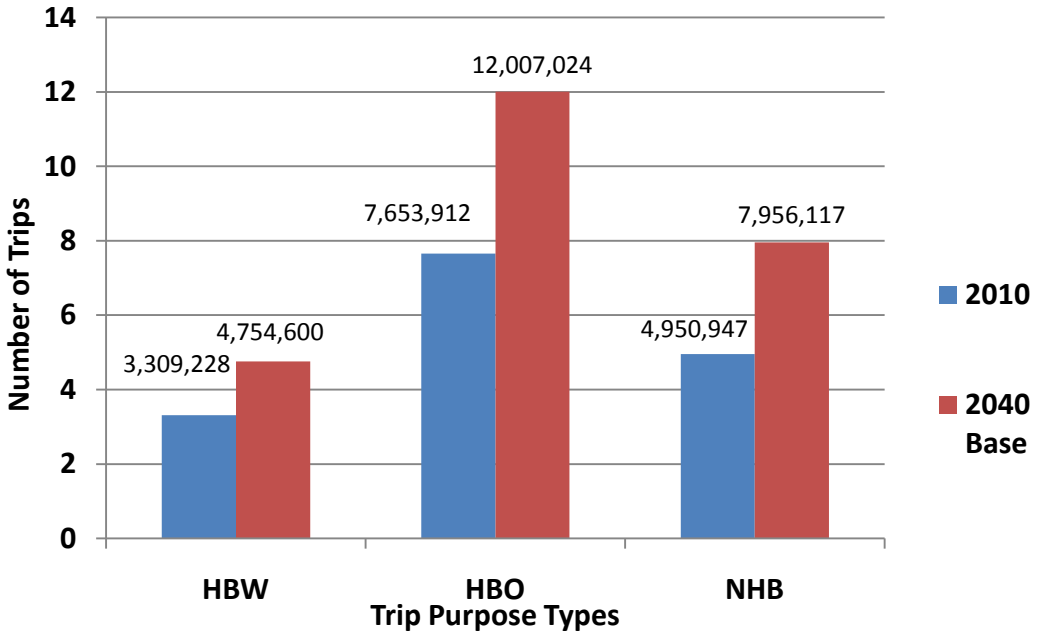
Year	18-County Atlanta MPO Area	Percent Change from Previous Year	VMT per Capita
1995	108,730,647	n/a	32.60
1996	114,462,547	5.27%	33.33
1997	120,142,338	4.96%	34.01
1998	125,864,531	4.76%	34.57
1999	126,223,823	0.29%	33.65
2000	129,486,176	2.58%	32.10
2001	132,887,292	2.63%	31.81
2002	134,124,420	0.93%	31.25
2003	135,215,454	0.81%	30.72
2004	141,346,238	4.53%	31.23
2005	141,720,605	0.26%	30.39
2006	140,981,999	-0.52%	29.23
2007	141,520,280	0.38%	28.51
2008	142,289,456	0.54%	28.05

Source: GDOT Office of Transportation Data; U.S. Census Bureau Population

Travel patterns are driven by trip purpose. There are three major trip purposes useful in estimating and forecasting regional travel demand: home-based work (HBW), home-based

other (HBO), and non-home based (NHB). Because most congestion is created in the morning and afternoon travel periods by commuter-oriented travelers, the home-based work trip is more closely studied relative to other trip purposes. As shown in Figure 28, the percentage of trips that are home-based-work trips (HBW) is stable between 2010 and 2040, only decreasing a small amount from 20.8% of current total trips to 19.2% by 2040.

Figure 28: Trips by Purpose Type (2010 - 2040)



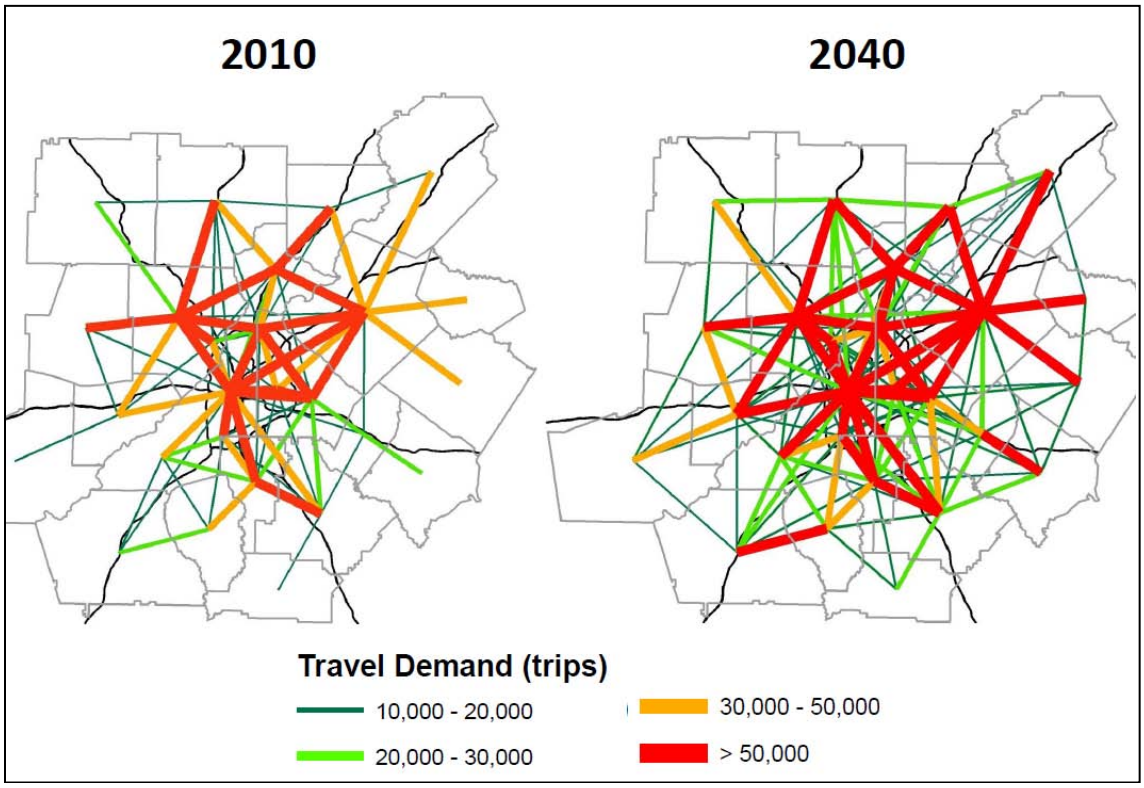
Source: ARC

Due to population growth, however, by 2040 there will be a 1.4 million increase in home-based work trips. From a planning perspective, this increase will be a challenge to accommodate if commuters chose to primarily travel in SOV vehicles during the morning and afternoon peak travel periods.

The bulk of the total increase in travel (7.4 million) between 2010 and 2040 is in other trip purposes of HBO and NHB. This increase is positive in the sense that these trips largely occur outside of the most congested peak travel periods. However, these trips by nature are more difficult to accommodate via long-haul transit, typically being local or business related trips.

Regional travel demand patterns, both existing and forecast to the year 2040, are illustrated in Figure 29. The thickest red lines represent the highest volumes of travel demand. The five core counties of Fulton, DeKalb, Gwinnett, Cobb, and Clayton accommodate most trips both now and in the future.

Figure 29: Total Travel Demand in 2010 and 2040



Source: ARC, 2009

However, significant changes are illustrated and reflect the complexity of travel patterns by the year 2040. Several counties on the edge of the region, such as Bartow, Carroll, and Hall, experience relatively few external trips to other destinations within the 20 county region. These counties are less interconnected with the core of the region, producing more internal trips to local employment centers.

However, many of the areas close to major employment centers experience a large number of external trips from suburban communities. Counties such as Clayton, Douglas, Paulding, eastern DeKalb, Rockdale, and Newton see a large percent of their total workforce leave the county each day.

By 2040, major centers emerge on the south side of the Atlanta region, generating trip movements similar to those existing today Gwinnett and Cobb.

Many factors help predict how residents in the Atlanta region travel. Some of these factors include determining types of trips, travel time, cost, and mode of travel. ARC updates this information every 10 years through surveys and census data. ARC uses the survey information to make calculation on who, where, when and how much people will travel.

In general, home based work trips remain predominately SOV in nature. Even the CBD, which has one of the highest transit mode splits in the region, sees nearly 64% of its home based work

trips arrive via SOV. Regional transit usage remains a small share of the total trips, accounting for roughly 5% of the total. The CBD sees approximately 25% of its home based work trips utilize transit.

Other trips purposes (trips that are not linked directly from home to work) experience a larger variation in mode split. Nearly half of these trips are accounted for by HOV vehicles. These trips are influenced by the household size of areas in the region. Many trips to shop, eat, and attend events are undertaken with other members of a household. Transit shares decrease during these trips relative to work trips. Only about 1.5% of regional other trips are undertaken via transit.

Regional Congestion Issues

Most of the analysis needed to understand current and future needs use statistics from the ARC regional travel model. Three "scenarios" are studied to provide near- and long-term comparisons:

- 2010 – This network scenario provides a point of comparison against which to evaluate future conditions. This network reflects the region's current transportation network and its performance - based on today's population and employment levels.

- 2040 No-Build – This scenario assumes today's current transportation network is still in place by the year 2040, but tests it against expected population and employment levels assumed by the year 2040. This is not a realistic "scenario" per se, since transportation improvements will be made between now and 2040. A 2040 No-Build assessment, however, is useful in that it can provide a point of comparison to assess the level that recommended strategies address needs or "move the needle."

- 2040 (*Envision6* RTP Projects) – This scenario examines growth to the year 2040 and assumes projects included in the financially constrained *Envision6* RTP are constructed. The financially constrained *Envision6* RTP includes only projects planned for implementation through the year 2030 – not through the year 2040. This network scenario is tested to evaluate the impact of 10 years of additional growth on the existing RTP and identify challenges ahead in crafting an updated RTP that addresses regional needs.

Congestion will continue to be a major future challenge. A region of 8 million people by 2040 will led to significant increases in per capita congestion levels.

As mandated by the Safe, Accountable, Flexible, and Efficient Transportation Equity Act: Legacy for Users (SAFETEA-LU) passed by Congress in 2005, ARC oversees the Atlanta region's Congestion Management Process (CMP) for the 18-county MPO area. The CMP identifies congested locations and facilities and is a key

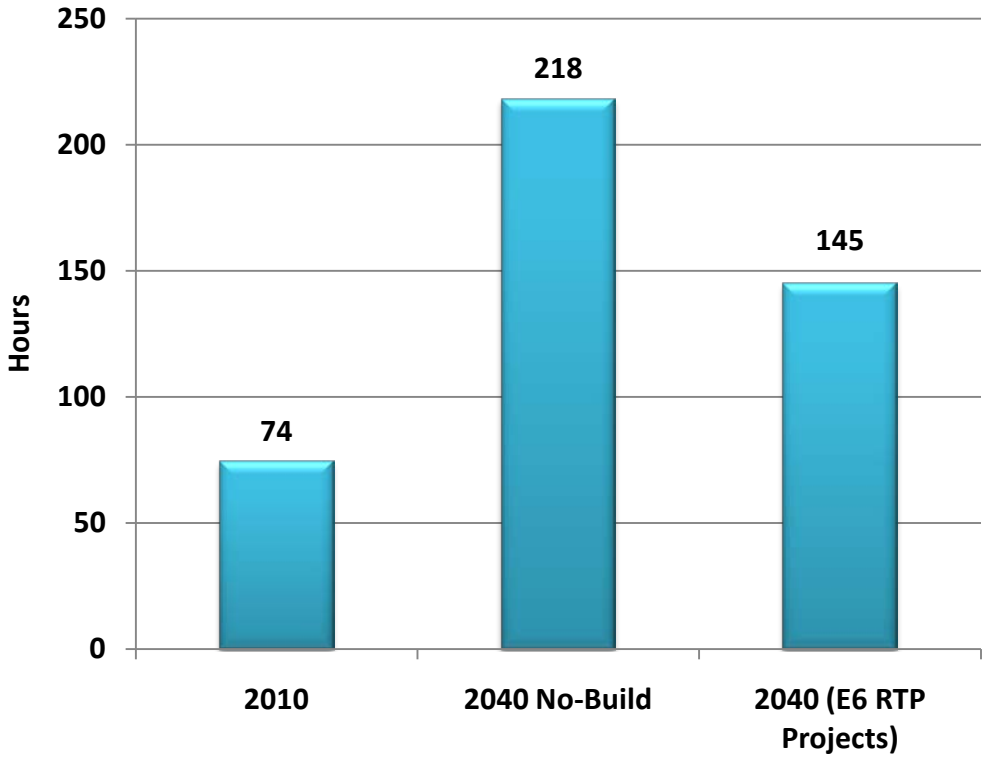
tool used to define and implement strategies for improving congested locations.

A key factor in assessing the impact of transportation congestion on households is the annual delay per capita. This measure considers the delay a typical person faces as a result of congestion on regional roadways.

In 2010 the annual delay per capita is 74 hours per year. By 2040, even assuming projects in the *Envision6 RTP* are constructed, delay per capita is expected to nearly double to 145 hours.

As shown in Figure 30, *Envision6 RTP* does result in significant improvements in comparison to the 2040 NB which has 218 hours of delay per capita. This increase in delay will adversely impact many regional residents and businesses, suggesting continued attention to identifying effective congestion relief strategies by *Plan 2040*.

Figure 30: Annual Hours of Delay per Person



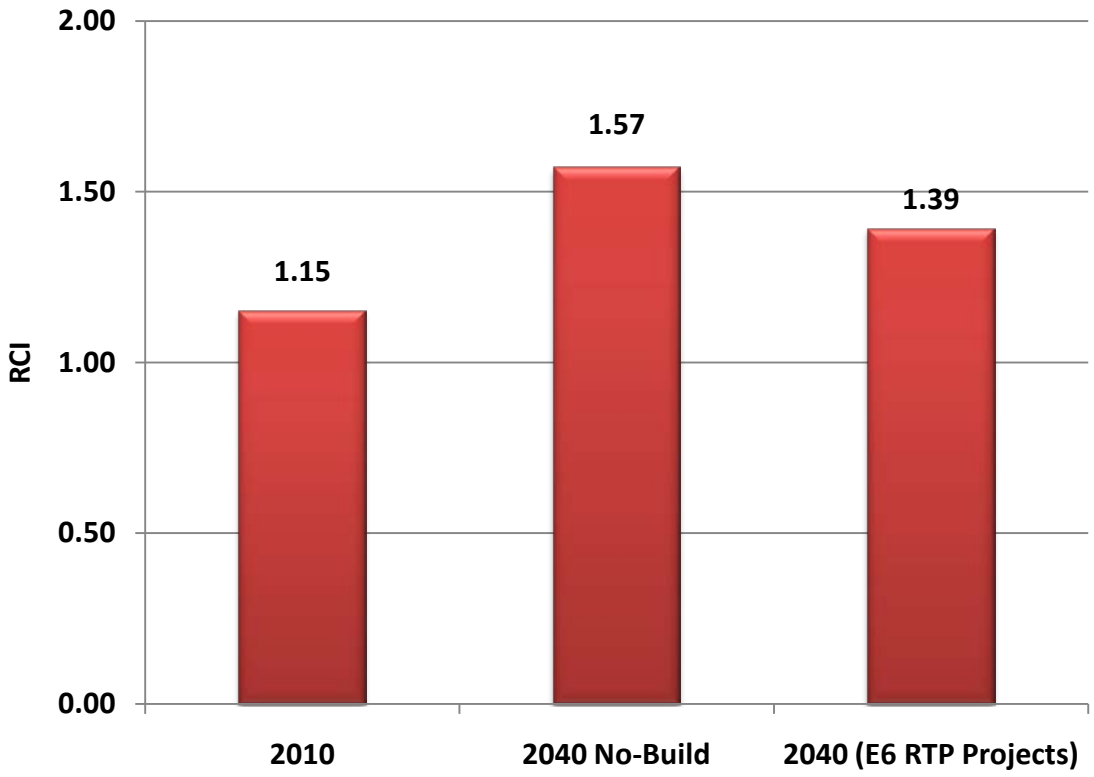
Source: ARC, 2009

The level of congestion on regional facilities is illustrated by Regional Congestion Index (RCI) statistics comparing 2010 to 2040. The RCI compares the increase in travel times when compared to free-flow travel conditions. A score of 1.5 indicates that it takes transportation users 50% longer to travel in peak travel period compared to off peak periods.

The region's current congestion index of 1.15 is well below previously adopted goals of 1.35, leading to questions about the viability of this measure as a useful tool.

As shown in Figure 31, RCI is forecast to increase from 1.15 in 2010 to 1.39 in 2040. The effectiveness of planned projects is by the RCI, with the E6 RTP lowering the RCI from a 1.57 in the No-Build Scenario. This statistic reinforces the challenges ahead in addressing congestion in *Plan 2040*.

Figure 31: Regional Congestion Index



Source: ARC, 2009

The cost impact of congestion on households and businesses is significant. In 2010, the annual cost of congestion is $874 per person. By 2040, this figure increases to $1,955 under the existing *Envision6* RTP.

The impact of congestion on economic development and regional businesses is also a key challenge going forward. The region's job centers all see a reduction in accessibility during congested periods. Providing safe, reliable, and affordable commutes into and from the region's activity centers must be a key focus for *Plan 2040*, and any other effort designed to continue the past economic success of the Atlanta region.

Congestion reduces the population able to access the Perimeter Center office market, in 40 minutes and less, from 3.2 million to 980,000.

Strategies to increase reliable access to job centers around the region must go beyond stand-alone transportation investments. Managing demand and emphasizing the role of land use and development patterns is crucial. Severe jobs-housing imbalances throughout the region result in overall pattern that is dominated by jobs-rich areas supported by a large footprint of areas that must 'export' workers.

Figure 32 below shows the areas with the largest concentrations of households that have a high degree of access to jobs (blue and orange) in both 2010 and 2040. Significant imbalances exist within the SR 400 corridor that leads to severe congestion on SR 400 and other cross-regional arterials on the north side of the region. Areas in the darkest green have limited employment opportunities and often "export" workers to employment centers.

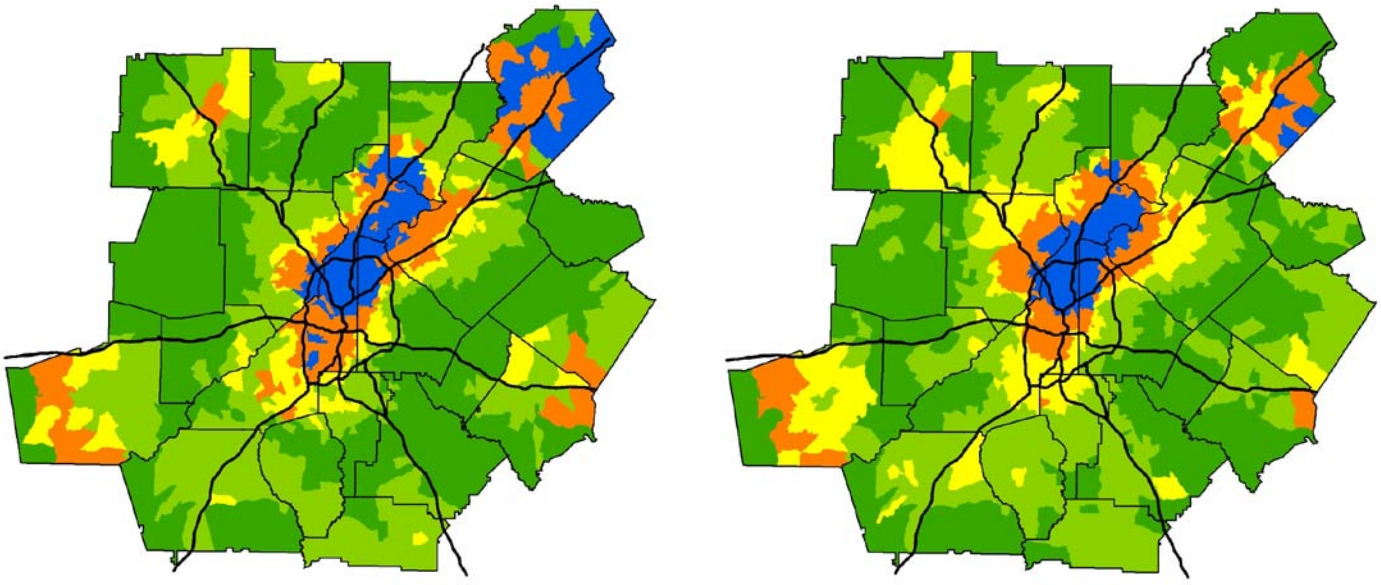


Figure 32: 2010 (L) and 2040 (R) Jobs-Housing Accessibility (30 minute Peak)

Source: ARC

ARC uses a variety of measures to assess congestion levels for the region's major roadway facilities. There are various perspectives for defining and quantifying congestion. ARC has adopted the following three dimensions to define and quantify congestion, pursuant to guidance from the Federal Highway Administration (FHWA):

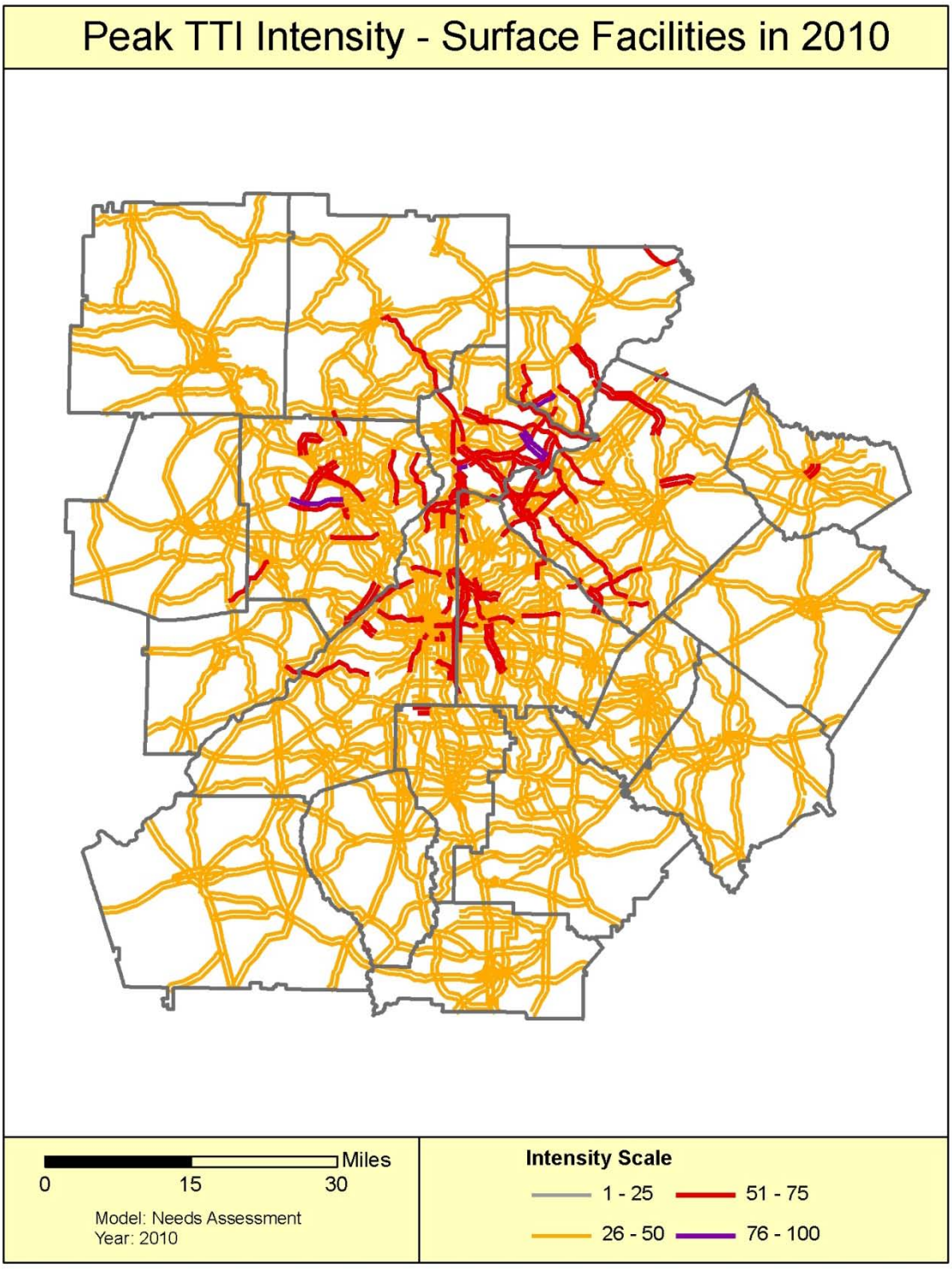
1. **Intensity** is represented by using the Travel Time Index (TTI) performance measure. TTI is calculated by comparing the congested travel time along a given corridor to the off-peak or free-flow travel time. Shown in Figures 33 and 34.
2. **Duration** is a representation of how many hours per day that the volume on the facility exceeds the designed capacity (volume-to-capacity ratio). Shown in Figures 35 and 36.
3. **Extent** represents the percent of delay experienced by the vehicles traveling a specific roadway segment compared to the total vehicular delay experienced by the entire network. Shown in Figure 37 and 38.

Using the results from the regional travel demand model, all three dimensions were separately calculated for surface roads, freeways/expressways, and high-occupancy vehicle (HOV) lanes. Freeway examples are GA 400, I-285, and Lakewood Freeway. Examples of non-freeway facilities include Peachtree Street, Cobb Parkway, and Panola Road. The result of the analysis formed an intensity, duration, and extent value for each facility, by direction. The facilities were then ranked separately for each dimension, and then compositely (representing the values of all three dimensions). The following figures show the severity of congestion based on each dimension as well as the composite (all three dimension scores combined and weighted equally).

The major finding of this analysis is that most of the region's congestion for surface roads and expressways occurs in the northern half of the region, no matter which dimension is analyzed. This is likely due to the higher ratio of households and jobs in these areas compared to other parts of the region. Many of the most intensely congested roadways are east-west orientated, suggesting that these facilities support a significant amount of traffic to and from GA 400 and I-85 (Northeast Expressway).

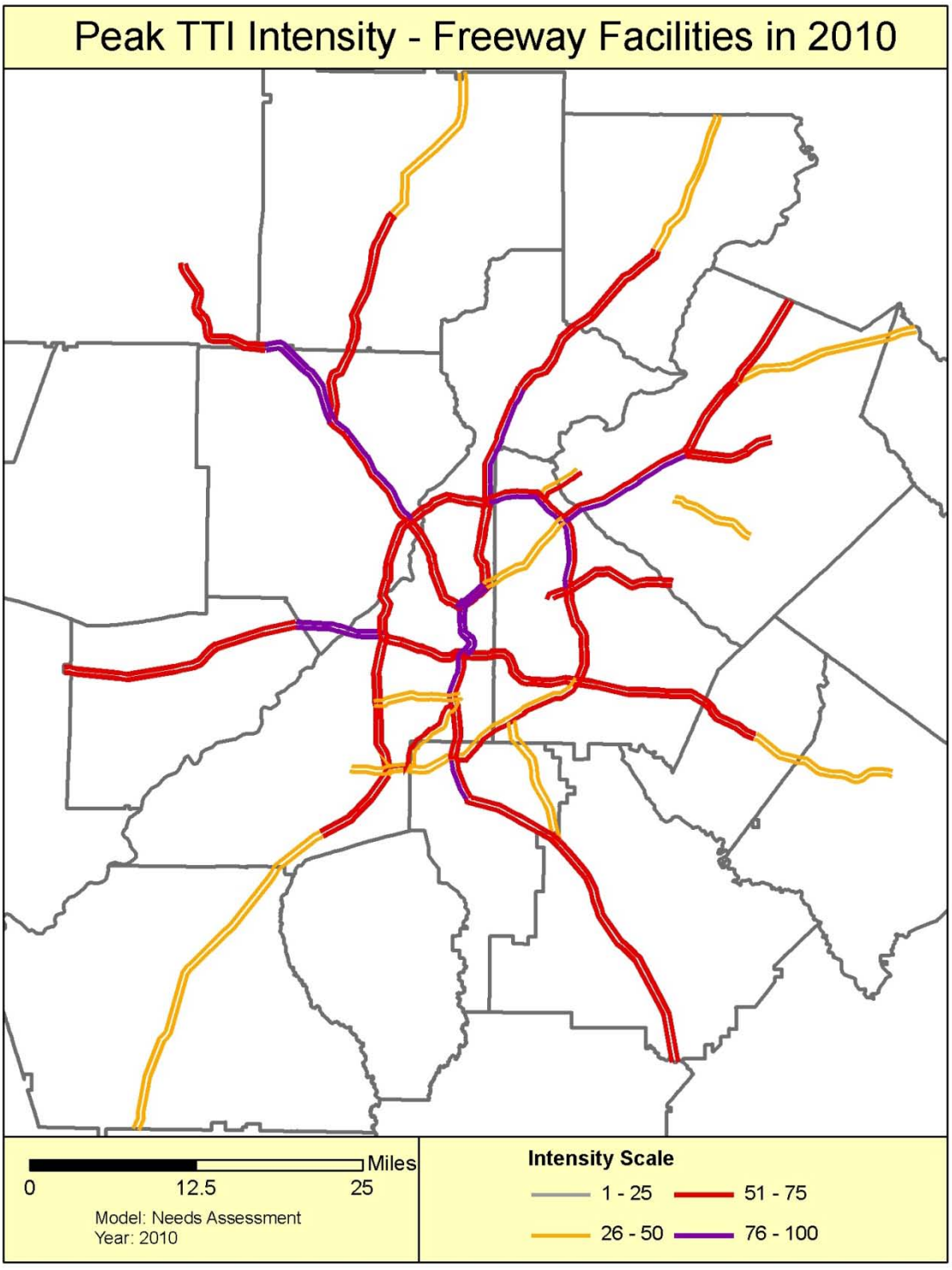
It is important to note that the results of this exercise merely capture the severity of congestion due to roadway capacity constraints. This does not reflect non-recurring congestion effects such as accidents, bad weather, construction, or intersection signal timing. For a more detailed explanation on the characteristics of congestion, as well as an illustration of the three aforementioned dimensions, please refer to Appendix T3.

Figure 33: Travel Time Index (Intensity) - Non-Freeways



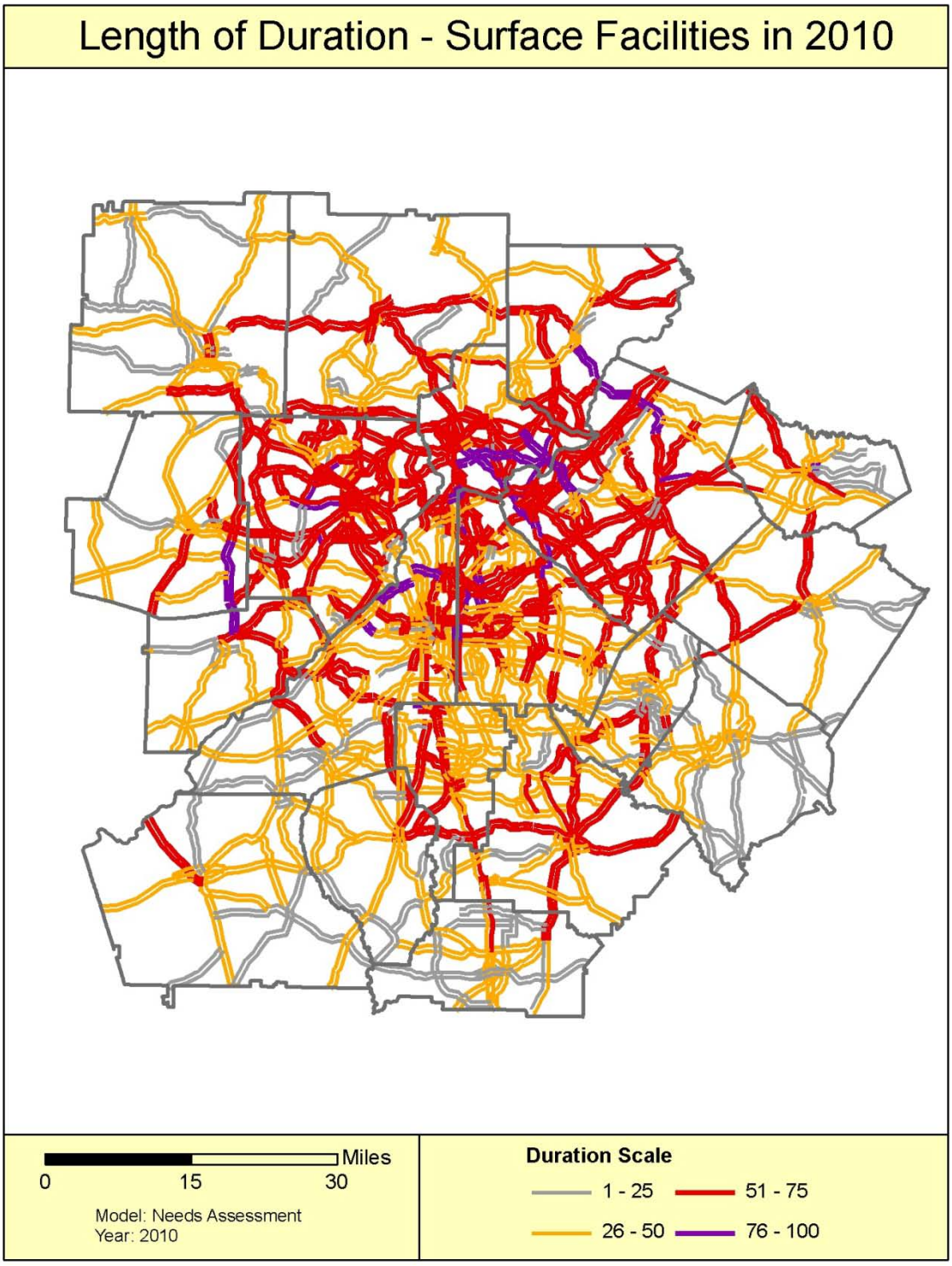
Source: ARC, 2009

Figure 34: Travel Time Index (Intensity) – Freeways



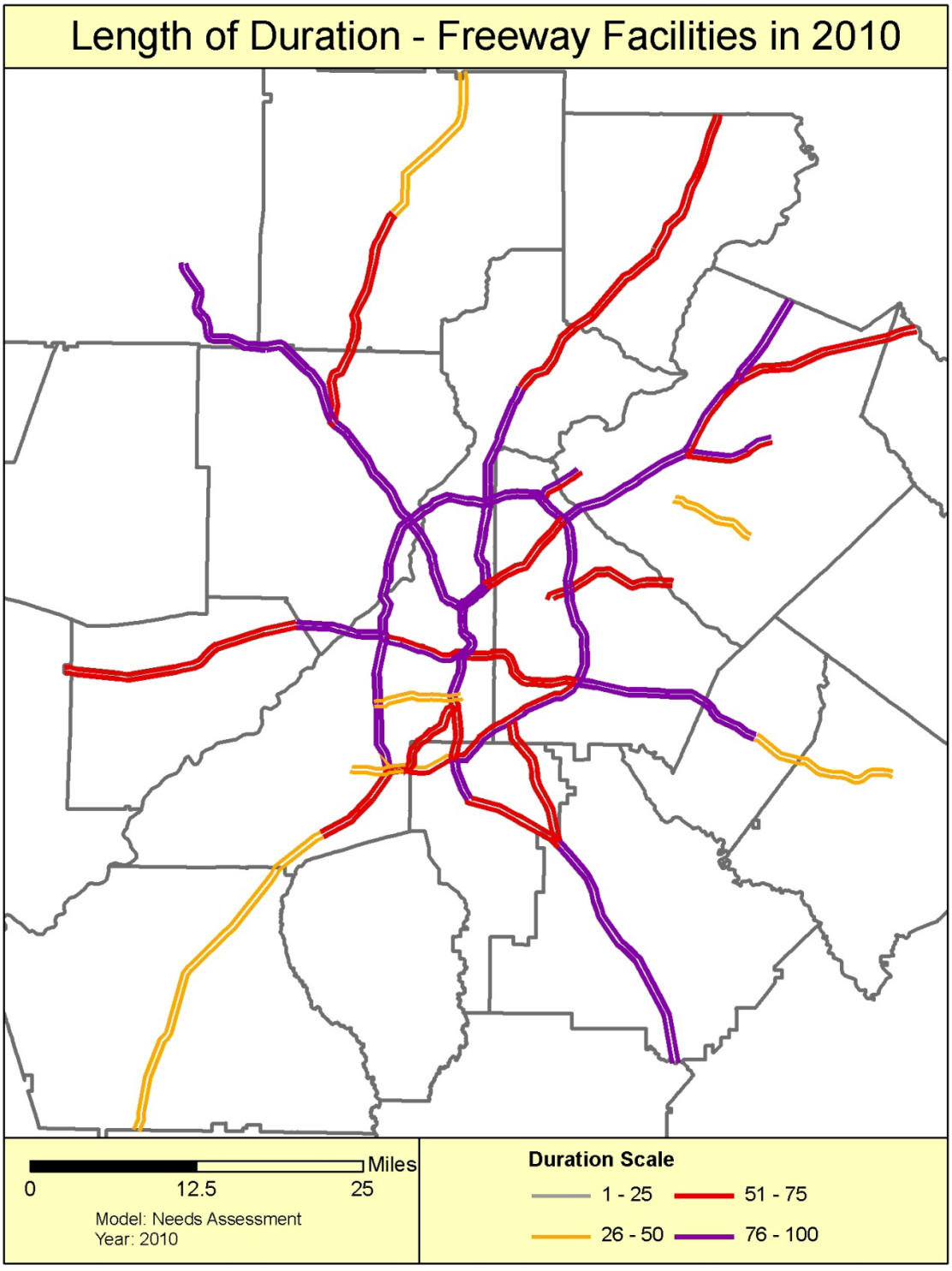
Source: ARC, 2009

Figure 35: Congestion Duration – Non-Freeways



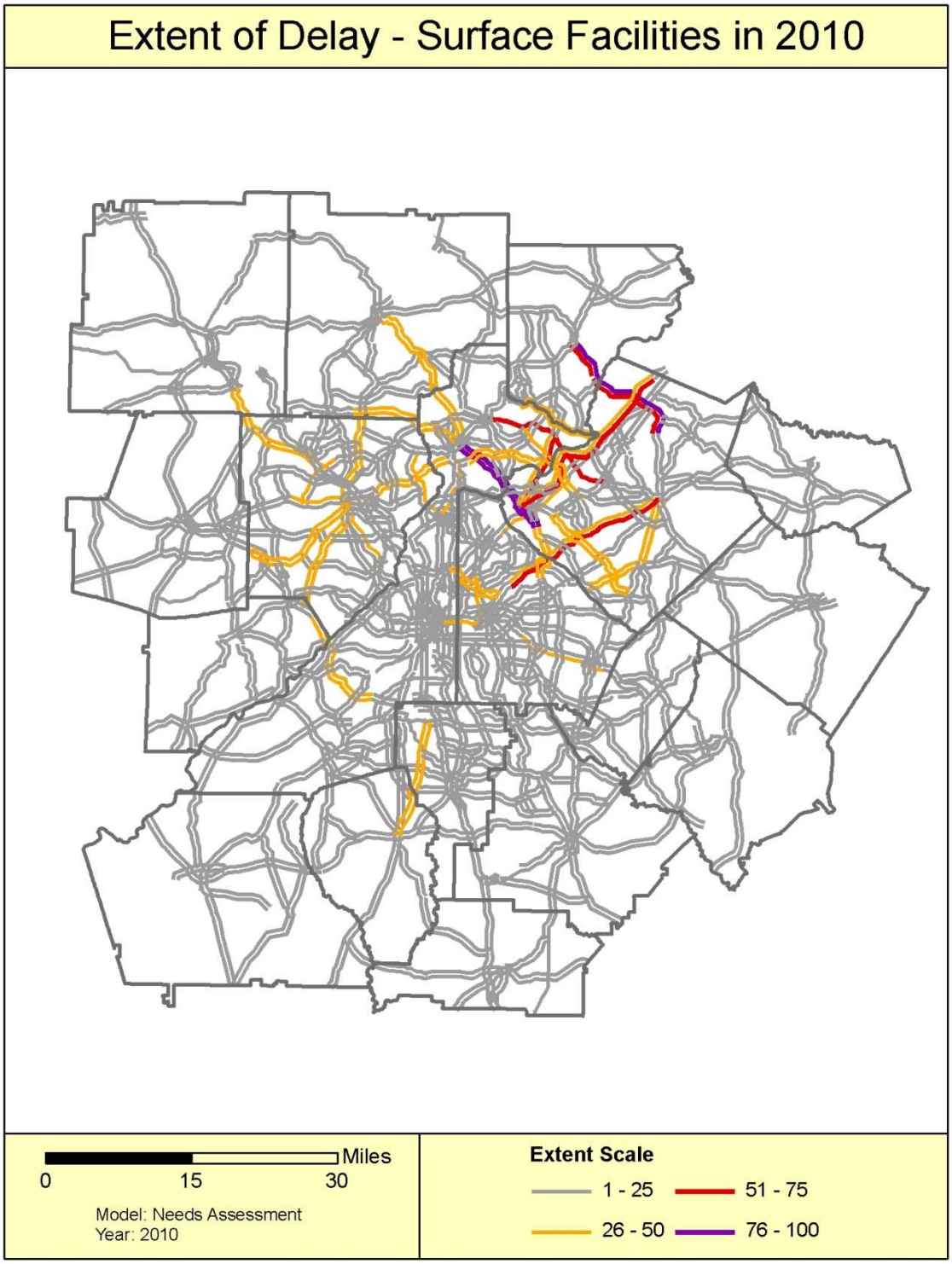
Source: ARC, 2009

Figure 36: Congestion Duration – Freeways



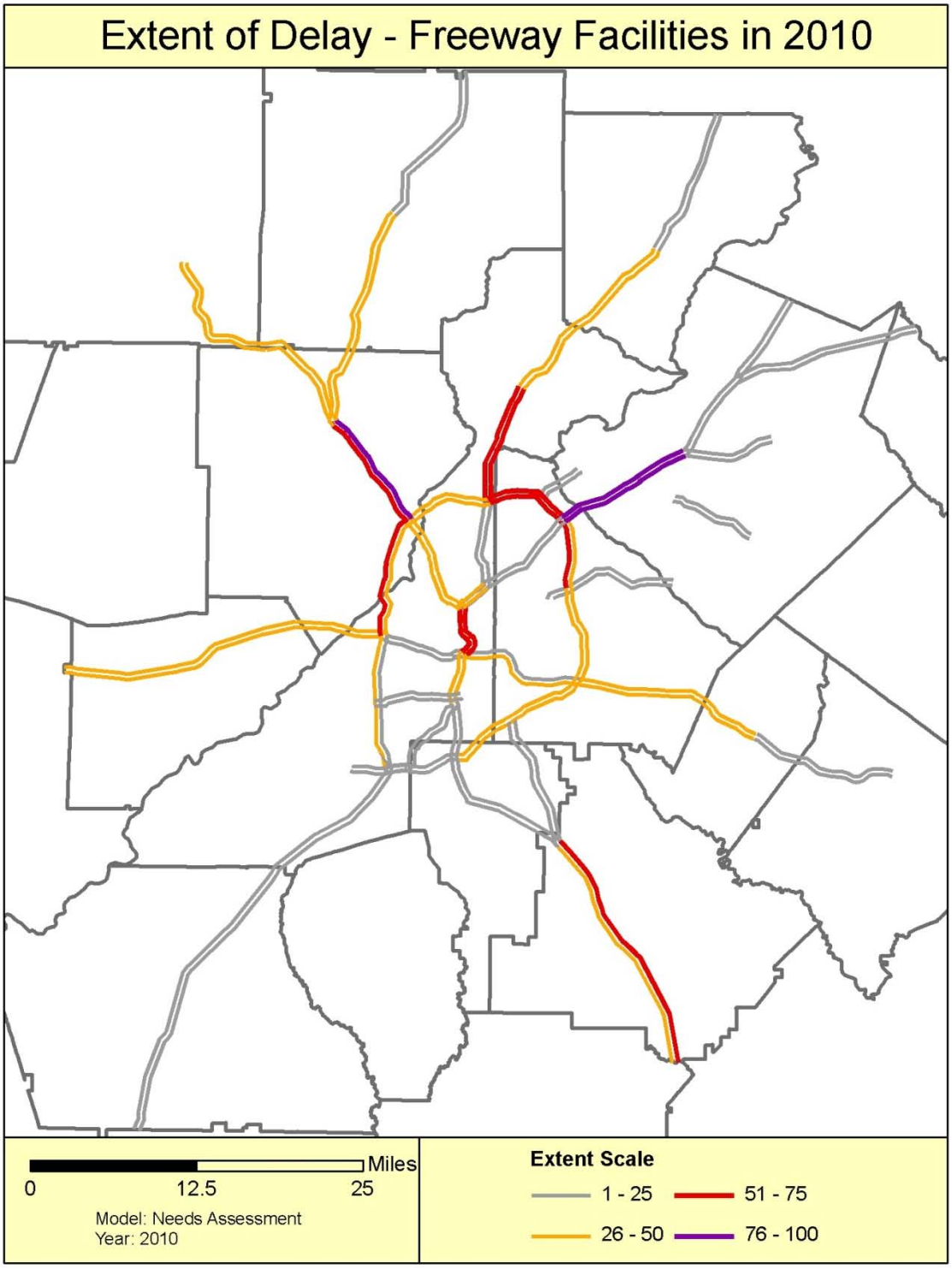
Source: ARC, 2009

Figure 37: Percent of Vehicle Hours of Delay (Extent) – Non-Freeways



Source: ARC, 2009

Figure 38: Percent of Vehicle Hours of Delay (Extent) – Freeways



Source: ARC, 2009

To assess the overall levels of congestion, all three-dimensional factors are compiled into composite scores. Each facility has the possibility of scoring a maximum of 18 points, based on

the individual dimension scores. Several facilities scored five or less. This is consistent with current land development patterns, where most of the low scoring facilities are in the suburban and rural areas of the region. The region's most congested facilities are shown in Figures 39 and 40.

It is important to understand that because a facility received a low score, it does not mean that there is no congestion experienced on those facilities. The composite rankings resulted from a process that compares the facilities amongst each other to determine the worst capacity deficiencies as well as the most heavily traveled corridors.

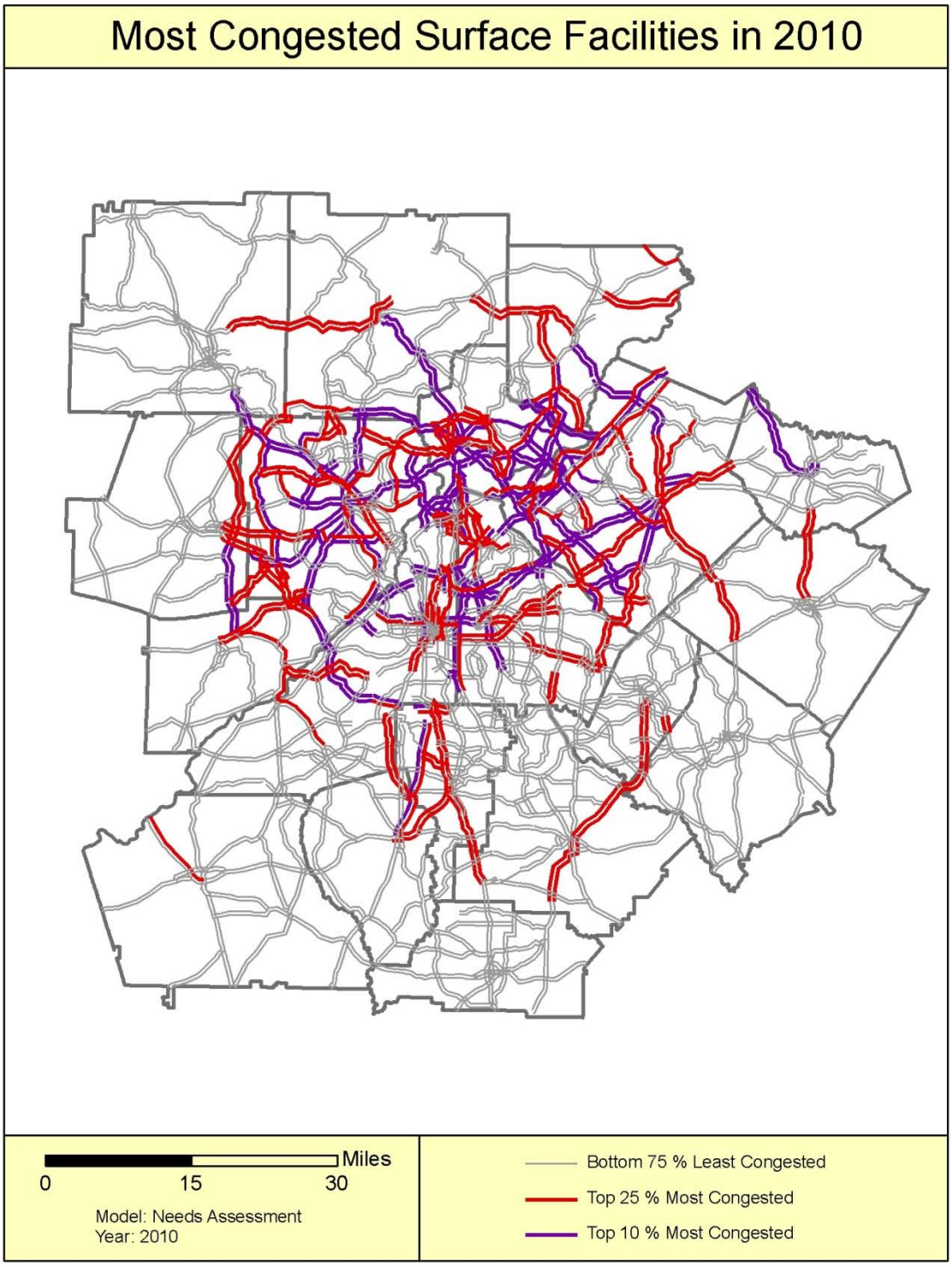
Non-capacity related factors, such as crash density (number of crashes per miles driven) are not incorporated into this methodology, but it is possible that some of the comparative ranking results could change if these factors were integrated. Non-capacity factors, or non-recurring congestion, are more difficult to predict.

Access to real-time and historic field data would enable the process to include such factors. However, that type of data is not currently available at the regional scale, and is expensive and time consuming to accumulate.

The extremities of the region's highway network have the lowest TTI values since peak-hour traffic normally "tails off" towards the edge of the region. The segments that are adjacent to the region's most intense employment centers such as Downtown, Midtown, Buckhead, Town Center, and Perimeter Center experience the highest TTI values in 2010.

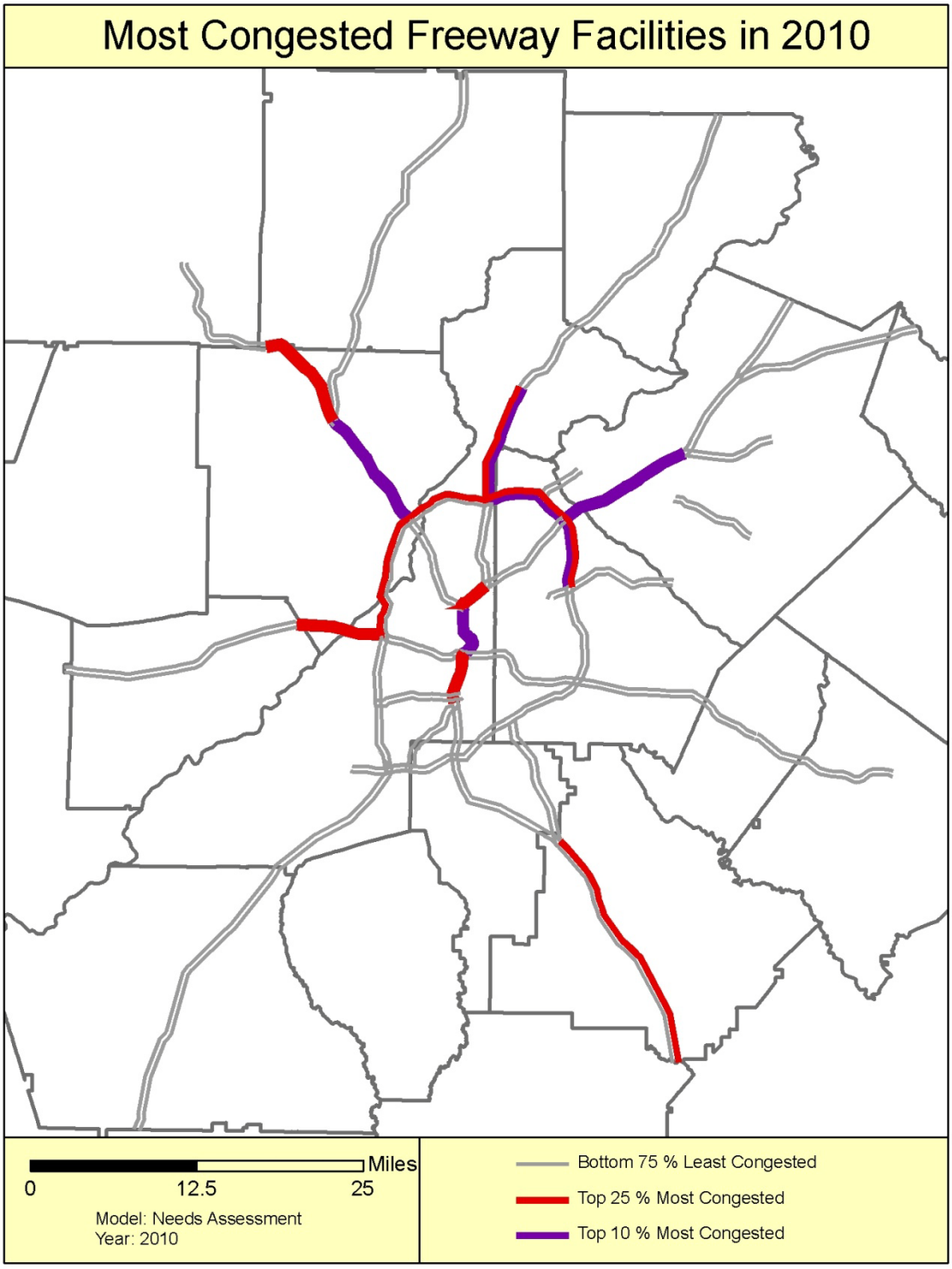
The north side of the Atlanta region is "job rich" relative to the number of households within a 30 minute peak commute, leading to complex and long trips – particularly along the SR 400 corridor.

Figure 39: 2010 Composite Congestion Rankings – Non-Freeways



Source: ARC, 2009

Figure 40: 2010 Composite Congestion Rankings – Freeways



Source: ARC, 2009

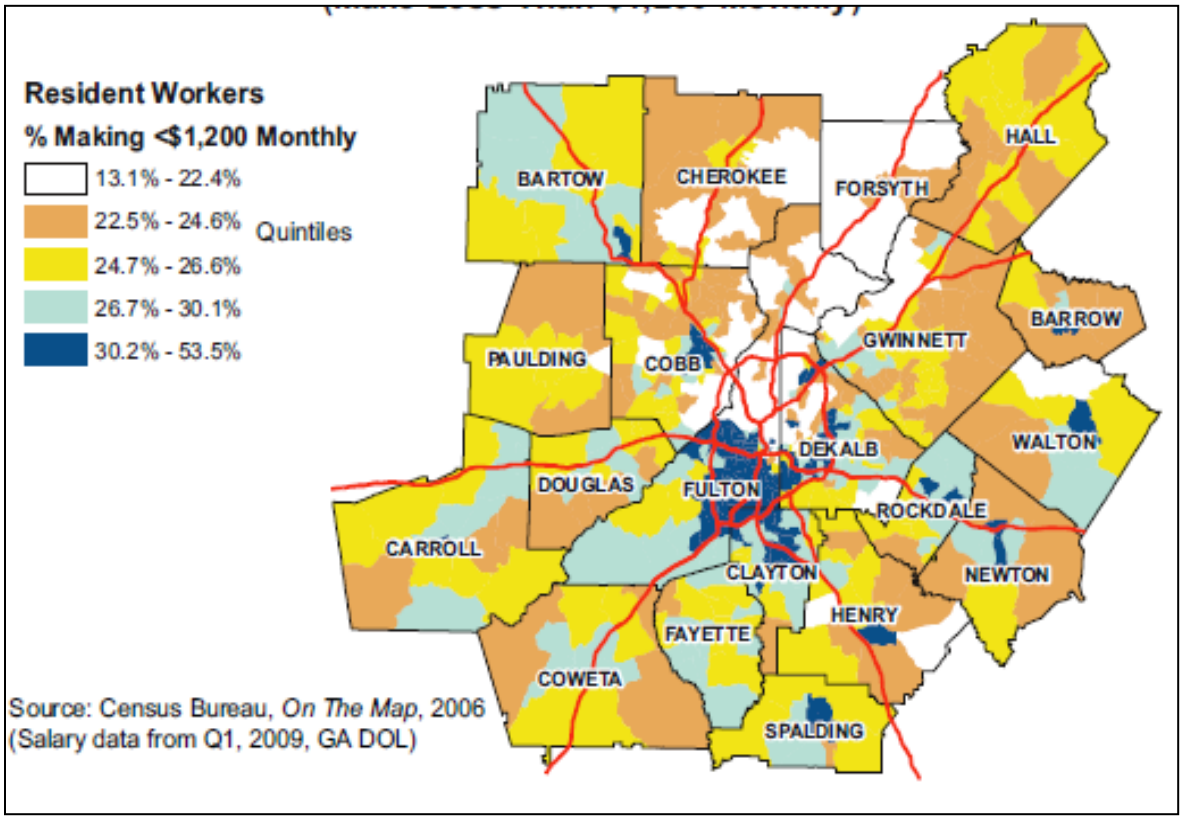
Travel Options for Low-Earning Workers

The vast majority of transportation dollars in Georgia are dedicated to residents who drive. Infrastructure investments and fuel subsidies support those who have the ability and the funds to use an automobile as their primary mode of transportation. As a state, Georgia has very few options for those who are unable or unwilling to drive. Suburban and rural areas in particular lack the options non-drivers need.

Over the next 30 years the region will need to take a more comprehensive approach to transportation in Georgia to assist the growing numbers of residents that cannot drive or choose not to drive. Investing in transportation options now will better prepare the state to manage an increasingly diverse population with increasingly diverse needs. Many other states and regions are investing significant dollars into transportation alternatives. There is greater interest at the federal level in transportation options than there has been for several decades.

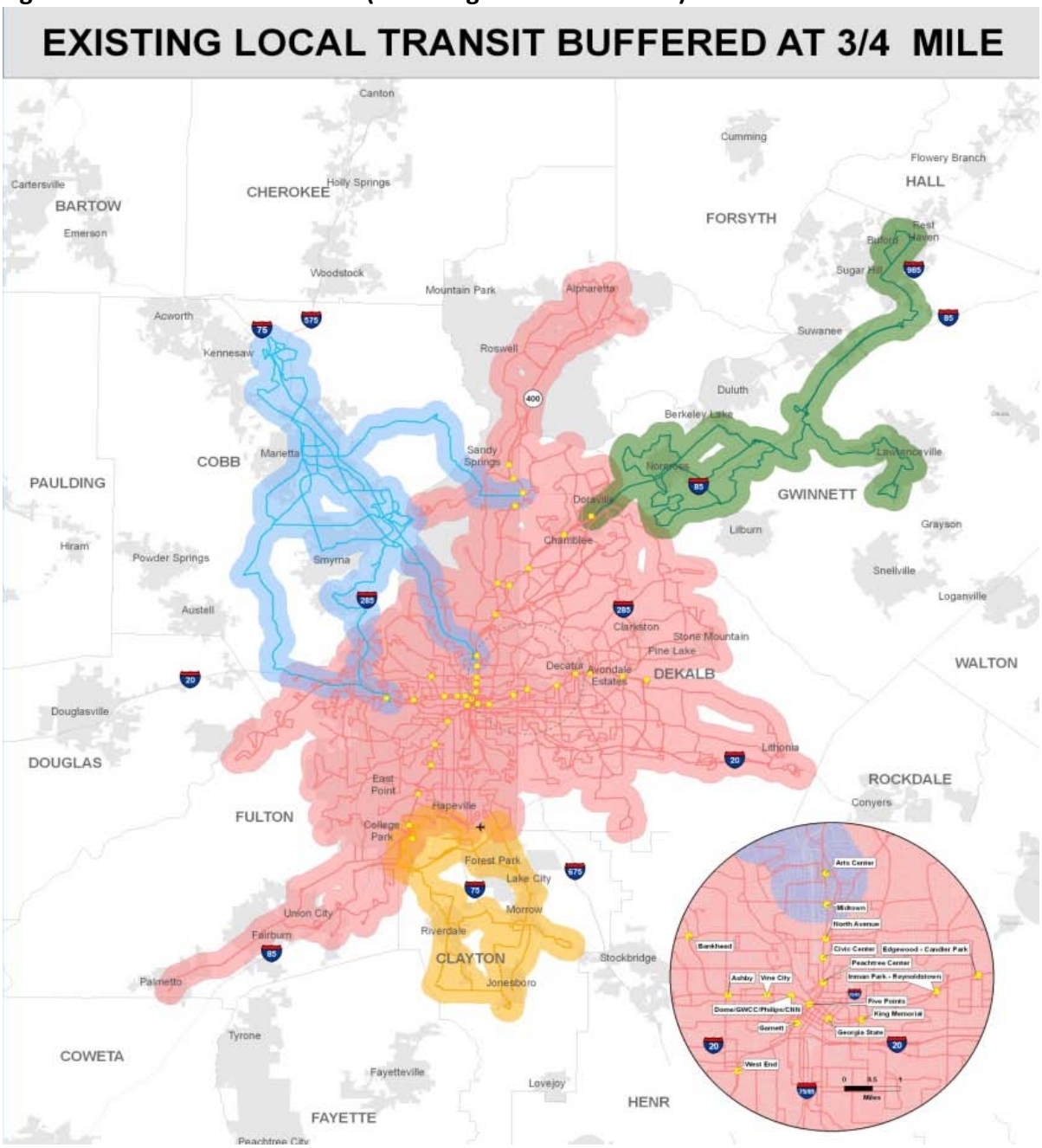
The location of low-earning workers and accommodating their needs must be a critical strategy in developing a program of transportation strategies that addresses full spectrum of travel needs in the region. These workers are in most need of alternative transportation strategies. Figure 41 below shows the locations of low-earning workers are found throughout the region. The largest concentrations of these workers reside inside of I-285 and south of I-20. Additional areas are found in several areas that are not currently served by high capacity transit, including Monroe, Conyers, McDonough, and Marietta.

Figure 41: Low-Earning Workers



Most of these areas in the core 10-county region are served by local transit systems, with several exceptions in Henry and Rockdale Counties. A foundation of local bus services exists to build on expanded services can meet the needs of the transportation disadvantaged. Existing local transit is shown in Figure 42. The region's long-range transit vision, Concept 3, provides an extensive expansion of regional transit services that meets the transit needs of the region and communities around the region.

Figure 42: Transit Service Areas (Including Local Bus Routes)



Concept 3 – Transit Vision for the Atlanta Region

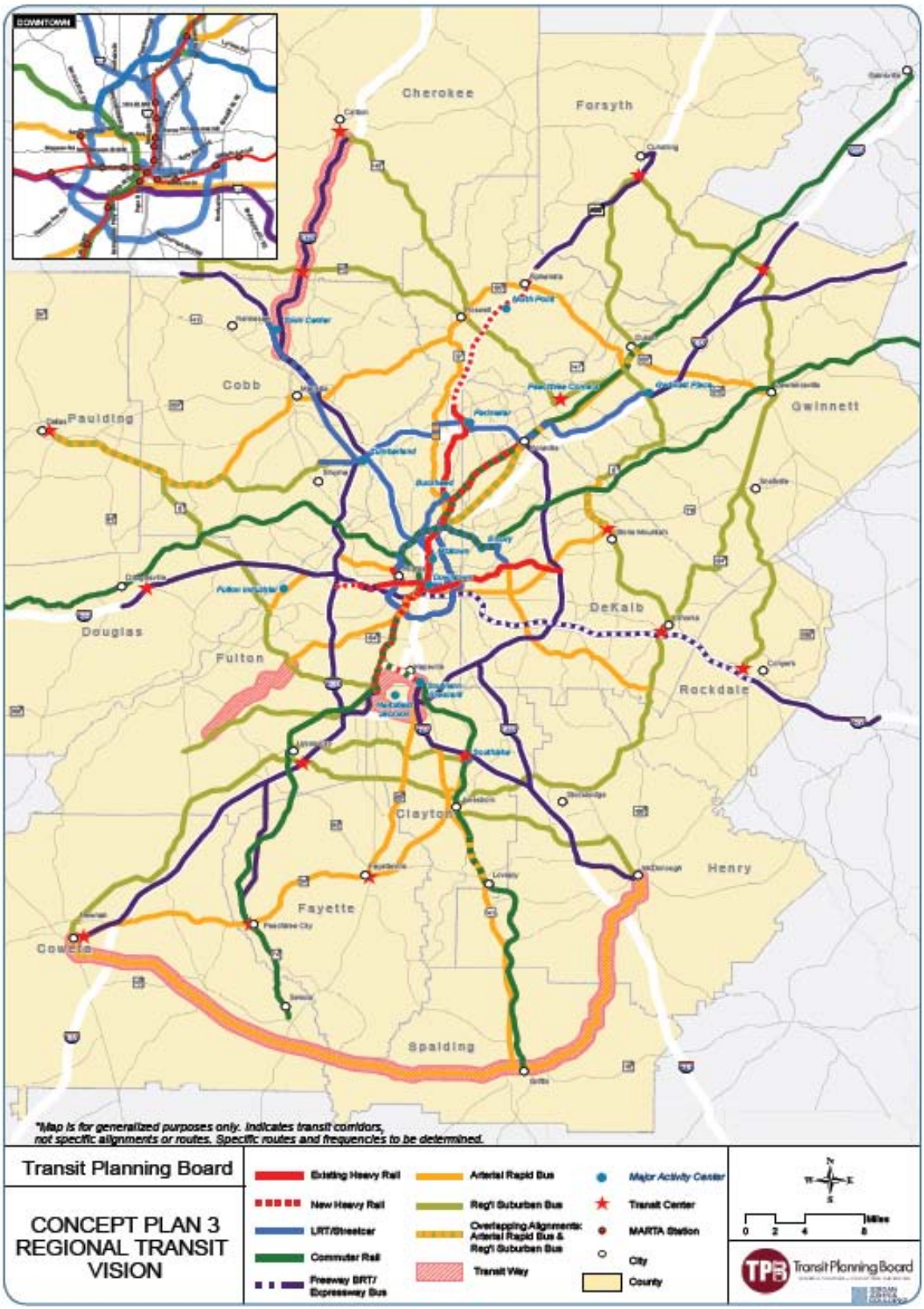
Metro Atlanta continues to lay the groundwork for a major expansion of the regional transit system. The centerpiece of this effort in 2008 was the adoption of a regional transit plan called Concept 3, an ambitious long-range vision based on the principles of connecting people throughout the region to employment/activity centers; providing mobility choices; providing access to those without cars or who do not drive; providing reliable and competitive transit travel time; and making seamless regional transit travel convenient, accessible and attractive.

Concept 3 was adopted by the ARC Board in December 2008 and now serves as the transit component of the region's long-range Aspirations Plan. The development of Concept 3 was a two-year effort overseen by the Transit Planning Board (TPB), a regional partnership created in 2006 by a joint resolution of ARC, MARTA, and GRTA. Following adoption of the plan, the TPB reached its sunset in December 2008, and was immediately succeeded by the Transit Implementation Board (TIB). The TIB shares the same membership as its predecessor, but the focus has shifted toward identification of a long-term funding and governance strategy to make the Concept 3 vision a reality. The 19-member TPB/TIB board of directors is made up of county commission chairpersons from 10 metro counties, the DeKalb County CEO, the mayor of Atlanta, the Chairpersons of the Boards of MARTA, GDOT, and GRTA, the MARTA General Manager/CEO, and three appointees of the Governor of Georgia.

Implementation of Concept 3 will require not only funding, but also commitments from around the region to transit-supportive land use patterns.

A map of Concept 3 follows on the next page (Figure 43). Additional information regarding the regional assessment of transit needs as completed in 2008-2009 is available on-line at *http://tpb.ga.gov/*.

Figure 43: Concept 3 - Regional Transit Plan



Environmental Justice and Transportation Planning

Environmental Justice public policy includes a goal to ensure that harmful human health or environmental effects of government activities does not fall disproportionately upon those with low income and minority populations living and working with the community. The populations impacted may be African-American, American Indian, Asian, Hispanic, the elderly, children, or people with disabilities. Those impacts could come from air pollution, noise, safety issues, hazardous materials, limited access to jobs, services and other opportunities, deflated property values, business and/or home displacement, or disproportionate costs of transportation. The social impact could be on neighborhood cohesion and functioning as well as safety and aesthetics.

ARC emphasizes the importance of environmental justice in its transportation planning process. Title VI, Executive Order 12898 and Section 450 of TEA-21 requires that ARC's transportation plans and programs:

- Provide a fully inclusive public outreach program.
- Prevent disproportional impact to minority and low-income communities.
- Ensure that low-income and minority citizens fully share in the benefits of the region's transportation infrastructure.

ARC's Environmental Justice program is interwoven into the regional planning process. Considerable attention is directed toward ensuring the fair and equitable distribution of benefits and burdens combined with equal opportunity for citizens to help shape the substance of regional plans and policies. ARC's comprehensive approach emphasizes outreach to all segments of the community; an equitable allocation of resources; broad based community partnerships; and balanced planning impacts.

ARC has incorporated the Model Plan for Public Participation developed by the National Environmental Justice Advisory Council as a guide for encouraging public participation in all aspects of environmental decision-making and to maintain honesty and integrity in the process.

ARC has implemented several positive programs to further the goals of environmental justice planning:

- ARC's regional Access to Jobs Program.
- Establishment of an ARC liaison to African American, Hispanic and Asian-American communities.
- Structuring ARC's Public Involvement Plan using the Model Plan for Public Participation developed by the Public Participation and Accountability Subcommittee of the National Environmental Justice Council.
- Participation from many of Atlanta's environmental justice special interest groups on the Environmental Justice Planning Team.
- Investments in environmental justice communities through the Livable Centers Initiative, including $2,000,000 in planning studies.

ARC's Access to Jobs Program created the first comprehensive regional job transportation plan to identify specific county-by-county transportation improvements that expand employment opportunities for minority populations, especially those with disabilities and low-incomes. In addition, ARC's liaison to African-American and Hispanic communities assists with the coordination of public involvement activities for transportation plans, develops and maintains relationships with these communities and coordinates environmental justice strategies. ARC is constantly researching new ways to encourage public participation in all aspects of environmental decision-making and to maintain honesty and integrity in the process.

Walking and Bicycling

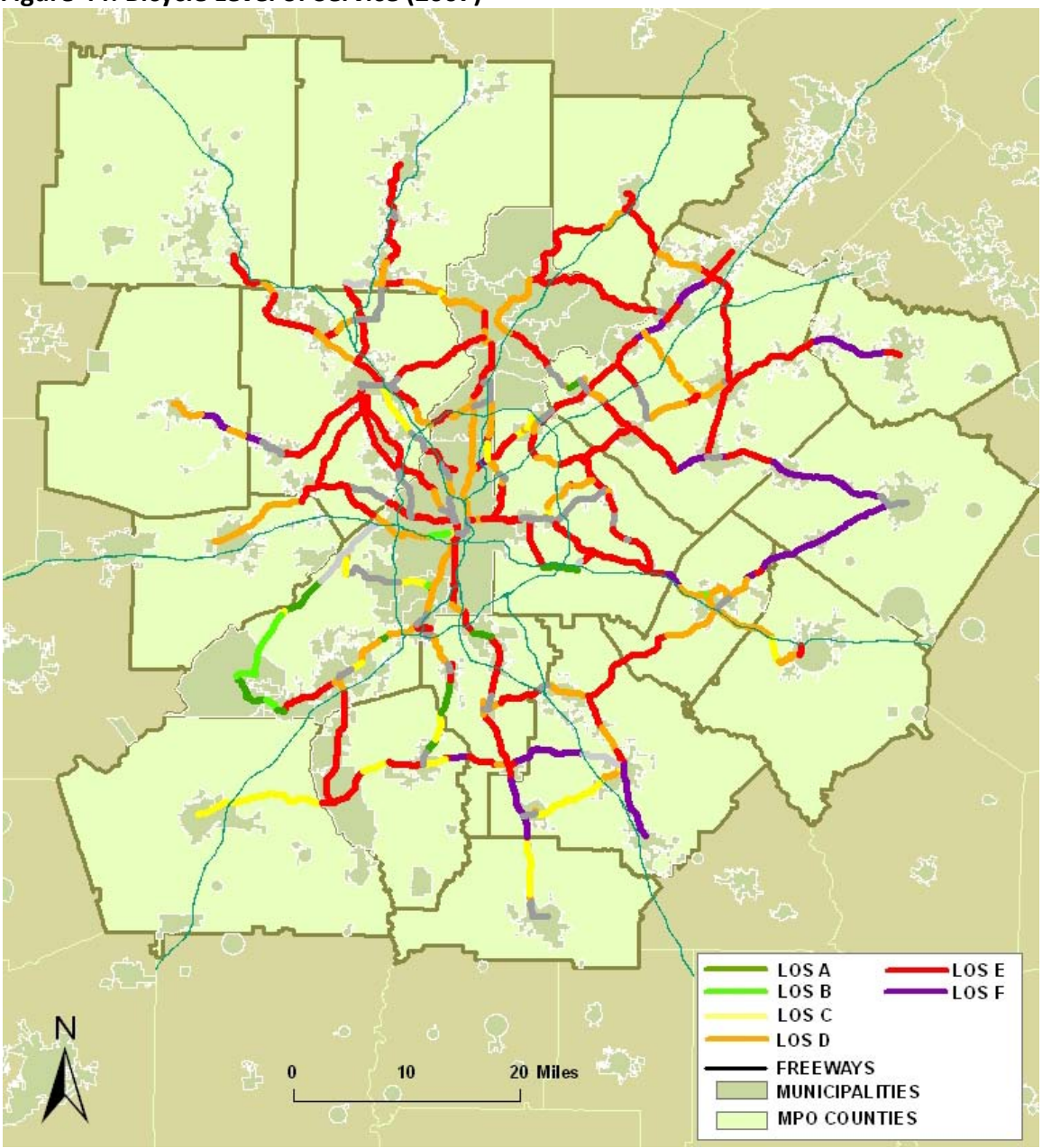
Bicycling and walking have become realistic modes of transportation in the Atlanta region as the region becomes more urban and traffic congestion becomes more severe. They also provide residents with an opportunity to reduce the percent of their household budget dedicated to transportation. While cyclists and pedestrians can use almost any regional transportation corridor, many facilities are not equipped or safe enough to support this mode of transportation. ARC has been promoting safe, functional, and regional bicycle and pedestrian planning since 1973 and continues to update its process to address new needs and trends.

A multi-modal transportation system includes facilities designed for all types of users, including bicycles. In Georgia, bicycles are considered vehicles and are therefore allowed to operate on nearly every roadway, with the exception of those routes on which bicycles are specifically prohibited such as interstate highways and limited-access freeways. Though bicycles are able to operate within and share the roadway with motorized vehicles, dedicated bicycle facilities are often provided to make bicycling safer and more comfortable.

The *2007 Atlanta Region Bicycle Transportation & Pedestrian Walkways Plan* identified a Bicycle Study Network made up of regionally significant roadways that serve as links between regionally significant nodes including Livable Centers Initiative (LCI) study sites, town centers, and activity centers. These roadways are significant to regional transportation needs and have a federal funding priority. Building on this effort ARC conducted the first regional bicycle facility inventory to begin establishing a dataset of where dedicated bicycle facilities are located throughout the region.

Figure 44 following page shows the performance of the existing roadway network in terms of accommodating bicycles (using Bicycle Level of Service).

Figure 44: Bicycle Level of Service (2007)



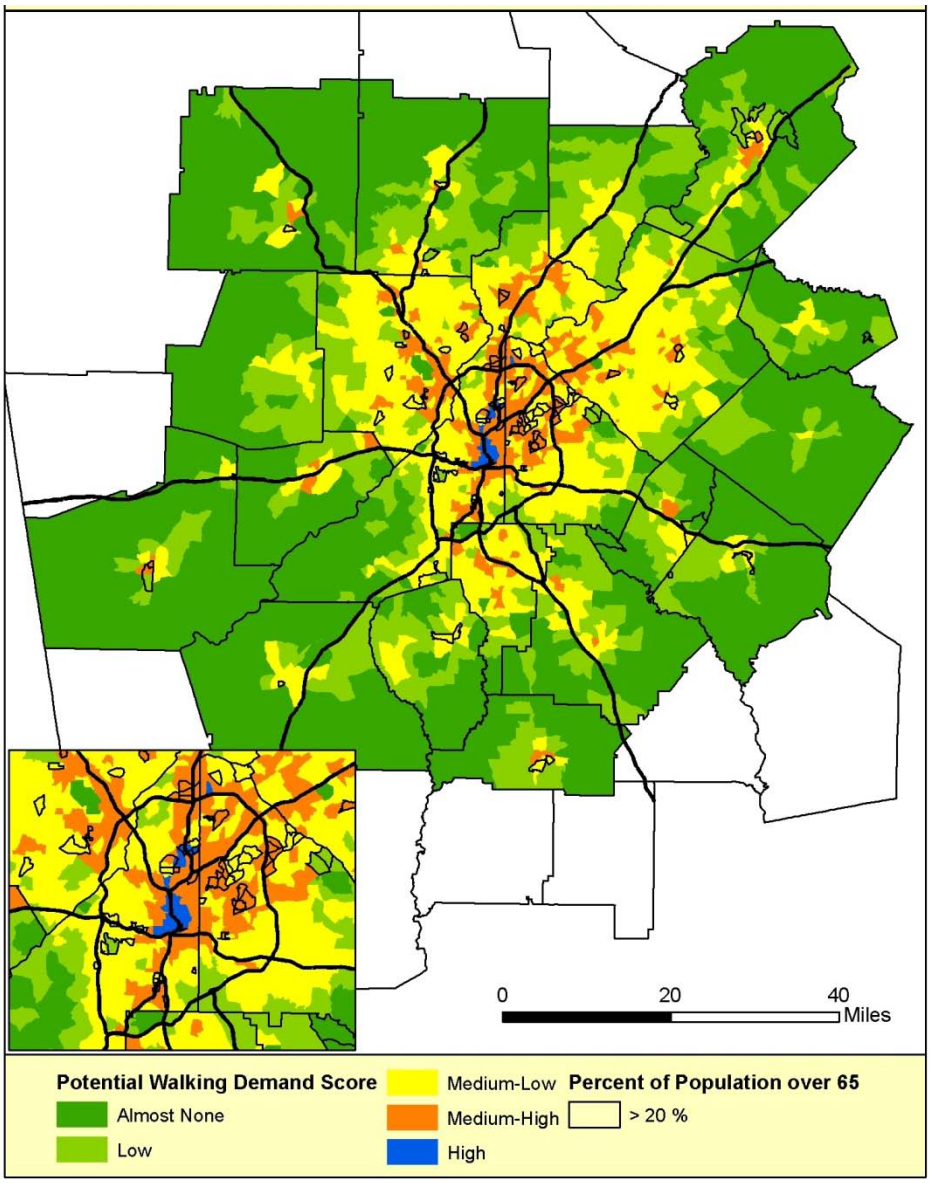
Source: ARC

Figure 45 below shows a measure developed by ARC to identify potential demand for walking trips. The map also specifically highlights areas that have a current concentration of older adults (only 7% live in High potential demand areas). The Potential Walking Demand Index measure evaluates the latent demand for pedestrian trips throughout the region based on local proximity to specific variables that are likely to attract or generate pedestrian trips. The evaluated variables include service and retail employment, the number of households and the

number of street intersections within a half-mile radius of each Traffic Analysis Zone (TAZ) center.

Areas that score high have a large number of each of these variables and can be considered mixed-use communities with a high degree of attractiveness to pedestrian trips. The best scoring areas are in the highest density locations of the region, as well as in outlying town and activity centers. Currently, only 20% of the region's population lives in areas that score medium-high to high. These same areas account for over 50% of the region's retail and service employment and occupy less than 5% of the region's surface area. Consequently, walking is not a viable option for travel for most of the region's inhabitants.

Figure 45: Potential Walking Demand Index – 2010 (Including Concentrations of Older Adults)

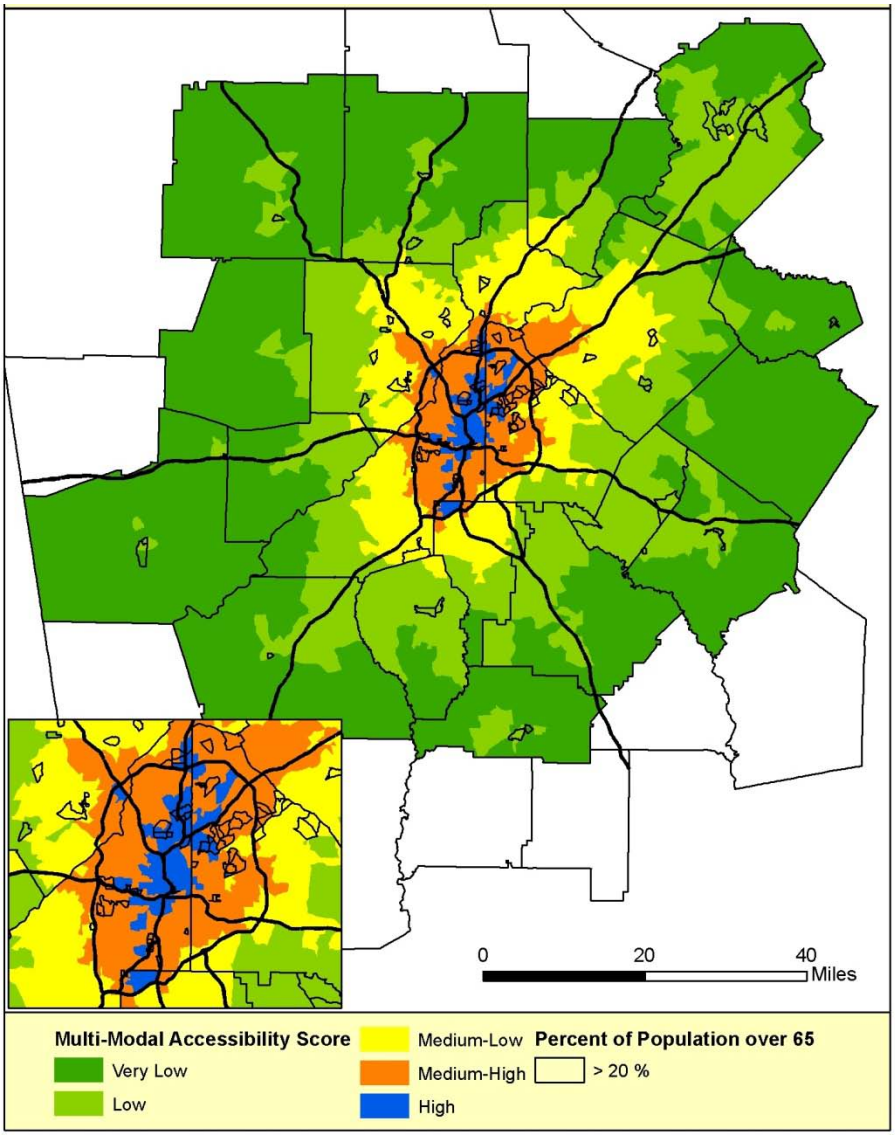


Source: ARC

The Potential Walking Demand Index does not take into account the existence or quality of pedestrian amenities, but it does highlight areas that have attributes that support pedestrian trips.

The region also has limited areas that have a degree of access to jobs using the three primary modes of travel (walking, transit and automobile). ARC has developed a multi-modal measure to identify areas that have a high degree of multi-modal accessibility based on travel times (15 minute walk, 30 minute drive or 45 transit trip). Figure 46 below shows the spatial pattern of how areas performed on this measure. As was shown in the previous map, Figure 46 also specifically highlights areas with existing concentrations of older adults. These areas likely represent places in the region that are in need of multi-modal environments due to existing residents that have limited travel options. Nearly 60% of the region's population over 65 currently lives in High or Medium-High Access areas.

Figure 46: Multi-Modal Access to Employment

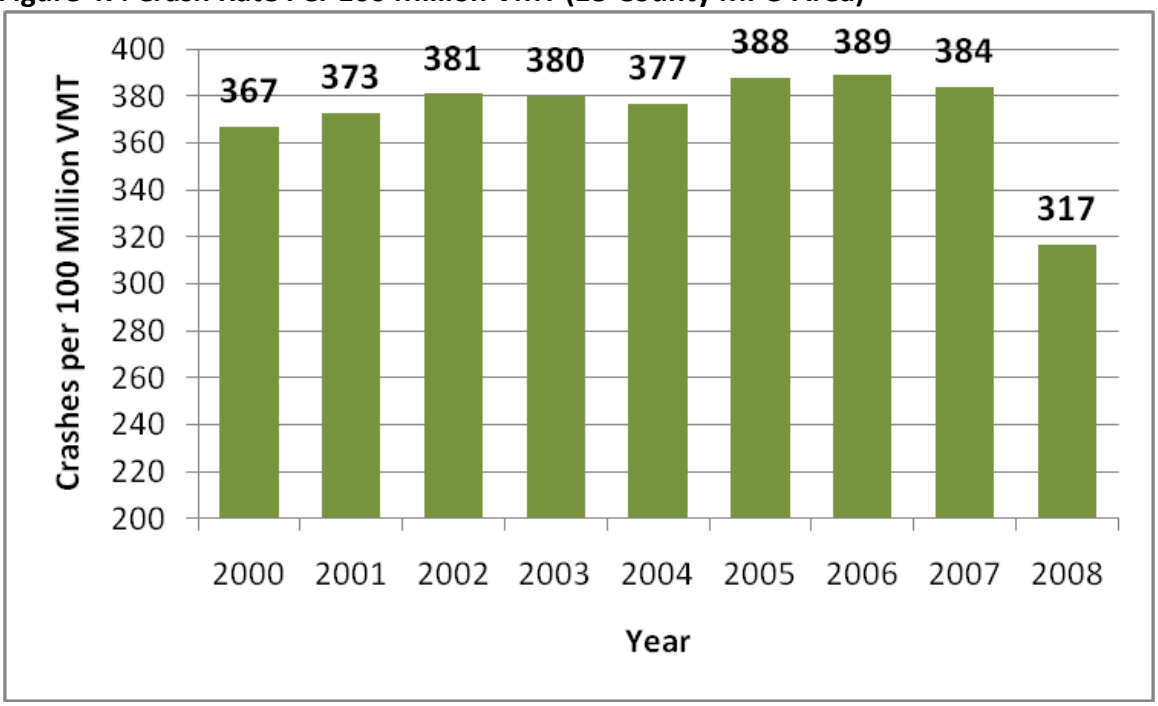


Source: ARC

Safety

As the Atlanta region continues to grow, additional vehicle trips translate into increased automobile crashes. This had been the story for the Atlanta region from 2000 to 2005, but since 2005, crash data shows a decrease for total number of crashes, fatalities, and injuries for both the Region and the State. These totals are now lower than 2000 crash numbers. The vehicle crash, fatality and injury rates are also decreasing. Figure 47 below displays the decrease in crash rate per 100 million vehicle miles traveled (VMT) for the 18-county Atlanta MPO area. Decrease in the growth of VMT for the region and throughout the State within recent years is considered a main reason for this decrease in highway incidents.

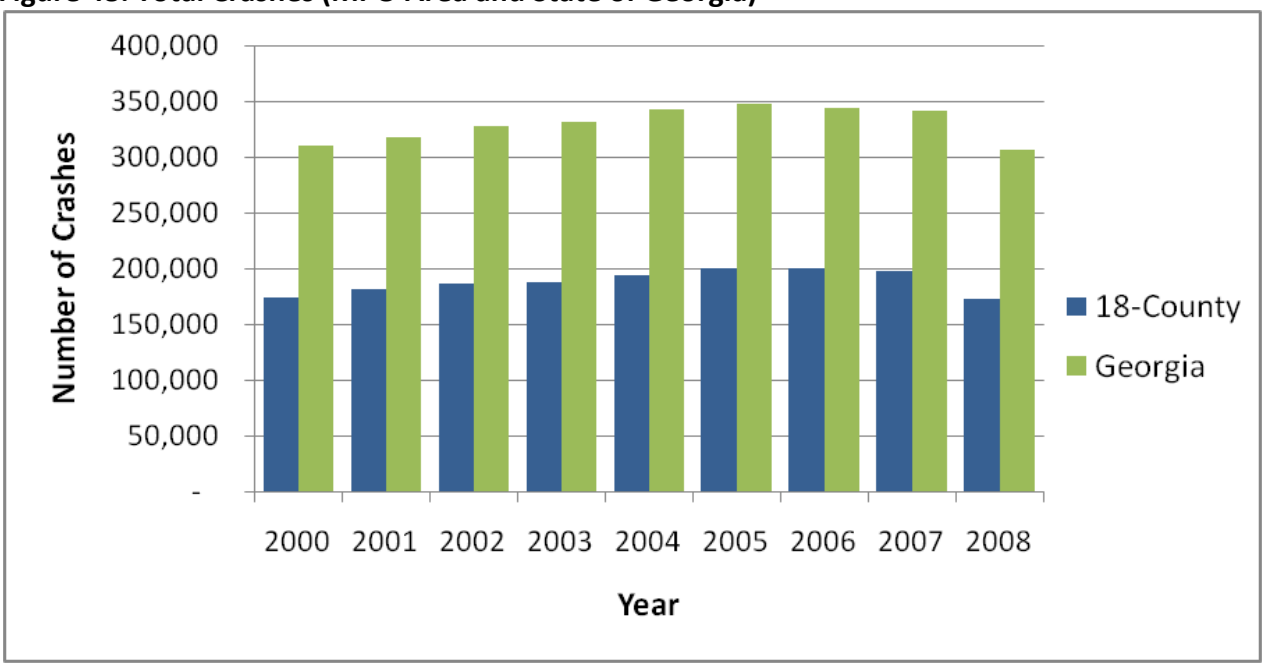
Figure 47: Crash Rate Per 100 Million VMT (18-County MPO Area)



During the past three years, total vehicle crashes in the Atlanta region have decreased more than 13%, from 200,500 crashes in 2005 to 173,420 in 2008. There was also a decrease in total fatalities from motor vehicle crashes for both the Region by 20% (from 655 in 2005 to 521 in 2008).

The 2008 pedestrian crash rate for the region was 26 crashes per 100,000 population, slightly higher than the state pedestrian crash rate of 23 crashes per 100,000 population. The bicycle crash rate for the region was six per 100,000 population, slightly lower than the state rate at eight crashes per 100,000 population. As shown in Figure 48, the 2008 region pedestrian and bicycle crashes rates are lower than the 2000 levels.

Figure 48: Total Crashes (MPO Area and State of Georgia)



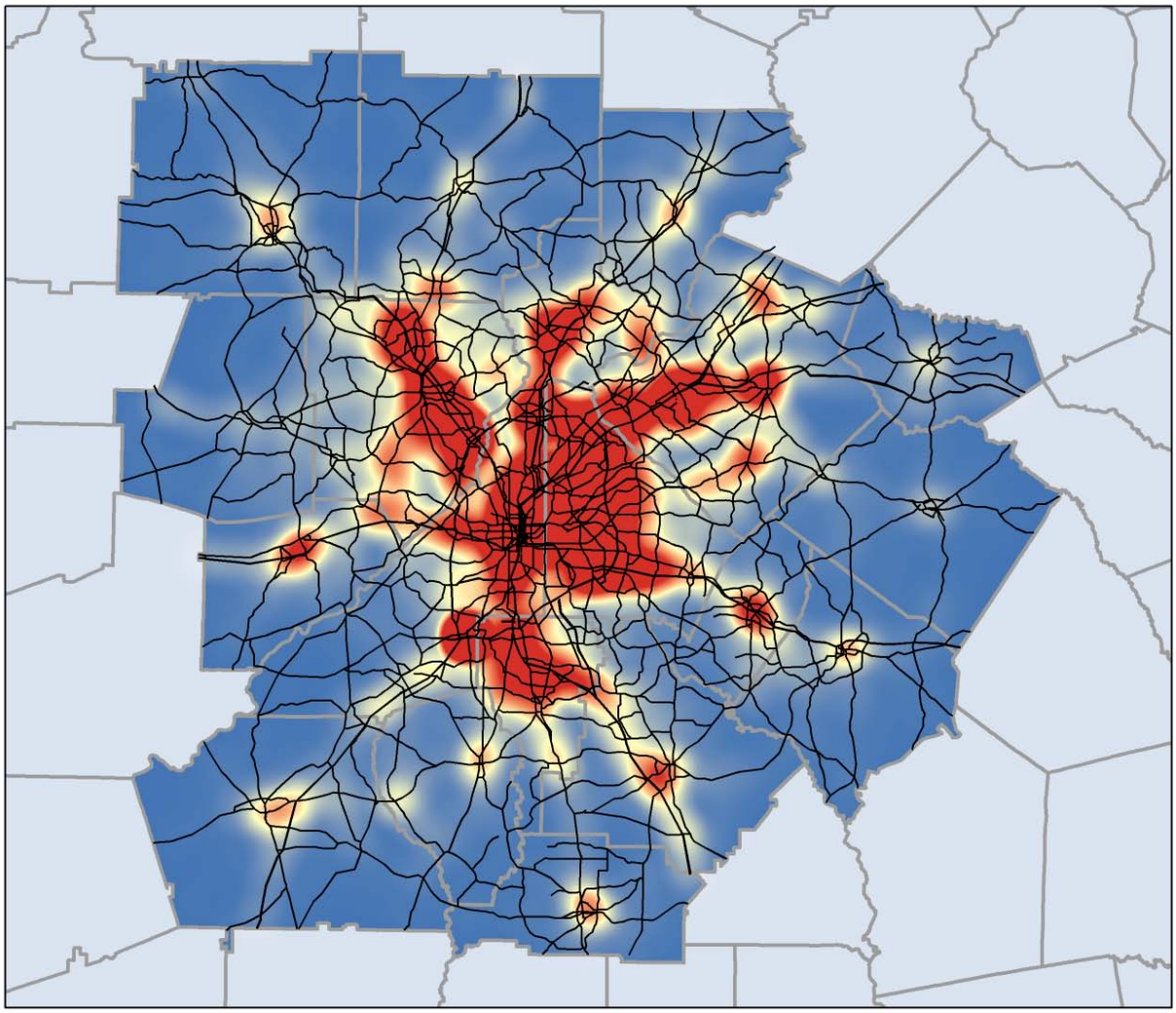
SAFETEA-LU (August 2005) requires that each State DOT develop a Strategic Highway Safety Plan (SHSP) to identify and reduce the number of highway fatalities and serious injuries on all public roads. To best leverage the statewide safety planning initiatives and to meet the specific safety needs of the 18-counties in the Atlanta region, ARC actively participates in the development of the SHSP and subsequent safety task teams.

Through the collaborative efforts with Federal, State, and local safety stakeholders, the SHSP establishes goals and objectives for improving highway safety and identifies key emphasis areas for priority implementations. In relation to this process, ARC will seek more expertise to assess the region's safety needs more accurately and more comprehensively. For each jurisdiction in the region, ARC will develop a safety profile, including key crash rates, and mapping of hot spot locations for different types of crashes such as pedestrian and commercial vehicle crashes. ARC will also use the state-wide goals and objectives identified in the SHSP as guidance to establish its own benchmarks based on various criteria. These benchmarks will then be used in *Plan 2040* project evaluations and selections.

ARC will continue to analyze the crash rates on severely congested corridors as identified through the CMP network. ARC will also use GDOT's research and the Critical Analysis Reporting Environment (CARE) software to develop benchmarks for crash rates based on functional classification, identify corridors and intersections with high crash rates, and establish a methodology for cost benefit evaluations. ARC's research and analysis in this discipline may lead to the identification of more advanced safety policies for consideration in *Plan 2040*.

Figure 49 on the following page shows areas in the region that experience a high share of the region's crashes (shown as crash density).

Figure 49: Crash Densities (2005 - 2008)



Pedestrian crashes accounted for 0.7 percent and bicycle crashes accounted for 0.2 percent of the Atlanta 18-county MPO area's total number of crashes in 2008. The 2008 pedestrian crash rate for the region was 26 crashes per 100,000 population, slightly higher than the state pedestrian crash rate of 23 crashes per 100,000 population. The bicycle crash rate for the region was six per 100,000 population, slightly lower than the state rate at eight crashes per 100,000 population. The 2008 region pedestrian and bicycle crashes rates are lower than the 2000 levels.

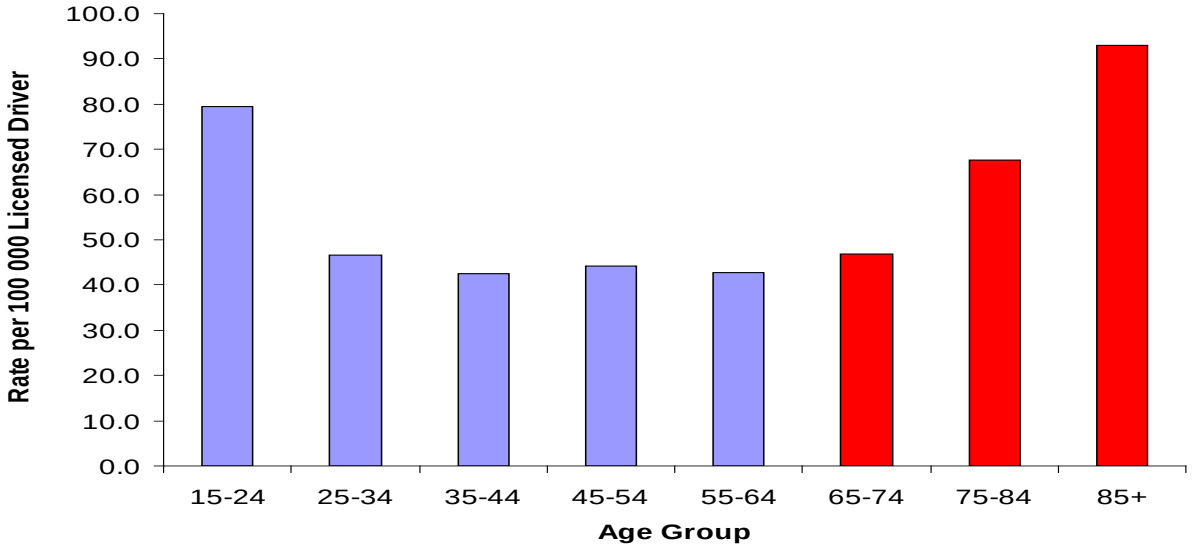
In 2007, Georgia's population aged 65 and over represented 12.1 percent of the state's total number of licensed drivers and 10 percent of the total population. The growth in the older adult population, particularly the growth in the 85+ segment of the population, will dramatically increase the number and percentage of older drivers on Georgia's roads. Nationally, one out of every four licensed drivers will be aged 65 and older by 2030. The personal vehicle is the dominant mode of transportation for older adults. When faced with the

prospect of no longer being able to drive, many older drivers are reluctant to give up the keys, fearing loss of mobility and independence.

The natural process of aging leads to a decline in physical, cognitive, and sensory capabilities affecting a person's ability to drive. Older individuals tend to be relatively safe drivers, with lower crash rates per licensed driver. They are less inclined to engage in risky behavior while driving.

Statistically, however, older drivers have an excessively high rate of motor vehicle fatalities, on a per vehicle mile traveled (VMT) basis, compared to other adult age groups. Drivers 74 years and up are at greater risk of suffering a fatal injury in the event of a crash than their younger counterparts. As shown in Figure 50, by age 85+, older drivers have crash hospitalization rates in excess of teenage and younger drivers.

Figure 50: Georgia Motor-Vehicle Driver Hospitalization Rate



Source: *Georgia State Highway Safety Plan, Older Driver Task Force Recommendations Report, 2007*

Older Adults and Travel Safety

Pedestrian fatalities and injuries related to pedestrian-vehicle crashes remain significant in Georgia, especially among older adults aged 65+ years who live in urban areas. In 2007, 60 percent of pedestrian fatalities among older adults in the U.S. occurred at non-intersection locations.

Older adults, particularly those in suburban or rural areas, are subject to driving longer distances on higher-risk road conditions to access health and community services (University of Georgia Institute of Gerontology, 2005). The lack of public transportation in the Atlanta region limits the transportation options for older adults. *Plan 2040* must consider how to better coordinate land use and transportation planning to promote more age-friendly communities and provide transportation options, including transit services, for Georgia's diverse population.

Several potential actions are recommended for further consideration in the *Plan 2040* process:

- Continue to support for the Georgia Older Driver Safety Program.
- Integrate the Federal Highway Administration's guidelines for older driver road design into state standards.
- Support the recommendations of the Georgia Older Driver Task Force (ODTF).
- Enforce the integration of ADA standards into the pedestrian environment.

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Continue to support for the Georgia Older Driver Safety Program.

Integrate the Federal Highway Administration's guidelines for older driver road design into state standards.

Support the recommendations of the Georgia Older Driver Task Force (ODTF).

Enforce the integration of ADA standards into the pedestrian environment.

Freight Needs in the Atlanta Region

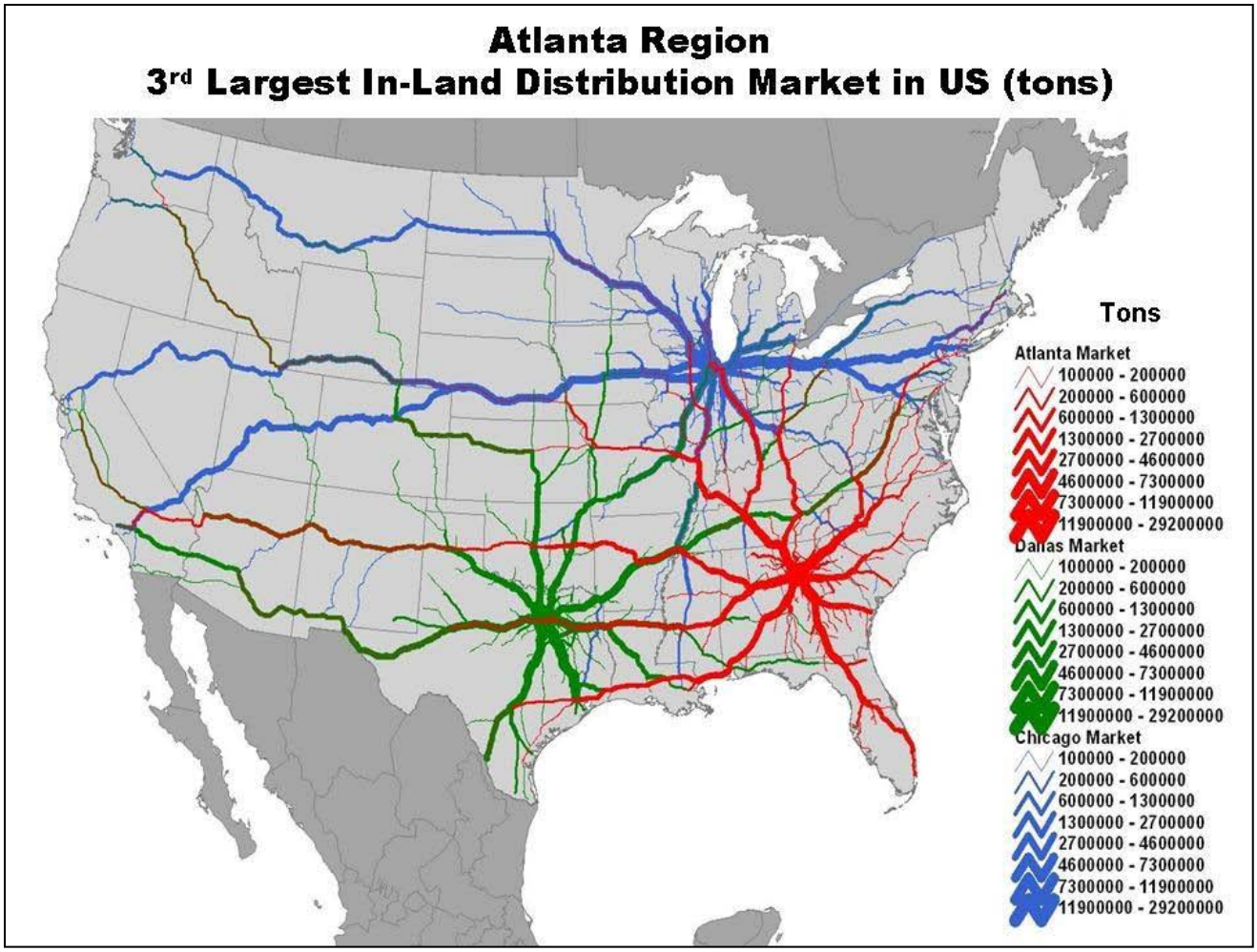
The Atlanta region plays a strategic role in the nation's freight system. Identifying and programming effective improvements to accommodate increasing freight, goods, and services movement in the Atlanta area is critical to the economic vitality and quality of life of the region.

The region's transportation system must grow to meet the challenges of existing traffic volumes and the growing amount of volume and trips associated with the region's key role in the national freight system.

The highway freight networks for the three largest inland distribution cities in the U.S. are illustrated in Figure 51. Note that Chicago and Dallas (as well as Atlanta) all have large local

markets. The total regional freight volumes being transported by truck is approximately 84 percent. Truck traffic is primarily focused on the interstate network.

Figure 51: National Freight Patterns



Source: ARC, 2007

Because of the heavy reliance on truck transportation, the highway system is instrumental in the efficient movement of freight in the Atlanta region. Figure 52 below lists the top 10 destination ZIP codes in Metro Atlanta for trucked freight in 2008, which together are responsible for 29 percent of trucked freight delivered to destinations within the metro area. Many of these locations are at or near intermodal years serving a broad range of destinations

Figure 52: Top Ten Freight Truck Destinations in the Atlanta Region

TOP TEN FREIGHT TRUCK DESTINATIONS IN METRO ATLANTA 2008 (from origins outside the region)		
Destination (by ZIP)	**Tons**	**Vehicles**
Union City - 30291	18,615,787	786,559
Atlanta - 30318	13,458,445	862,755
Alpharetta - 30004	10,857,937	551,215
Alpharetta - 30022	10,132,373	492,037
Atlanta - 30349	8,357,302	488,296
Roswell - 30076	7,402,078	477,775
Atlanta - 30331	7,183,632	357,926
Mableton - 30126	6,645,738	292,097
Atlanta - 30344	6,135,254	369,484
Roswell - 30075	6,133,835	318,942

Source: Global Insights

Six percent of the nation's rail tonnage today is based in or carried through the region, including 11 percent of U.S. intermodal volume. Rail comprises 13 percent of Atlanta's total freight tonnage and plays an important role in essential economic sectors such as the supply of coal to electric utilities, and the commerce associated with burgeoning international trade. Figure 52 on the following page lists the top 10 destination ZIP codes in Metro Atlanta for rail freight arriving at destination points within the metro area. Most of these destinations are related to heavy users of raw materials, such as coal-burning Georgia Power plant in Cartersville.

There are two primary Class I railroads, along with three small railways, operating in the region including CSX Transportation and Norfolk Southern. The Class I systems stretch generally from the Atlantic Coast to the Mississippi River, and from the Gulf Coast to the Canadian Border.

Figure 53: Top Ten Rail Destinations in the Atlanta Region

TOP TEN FREIGHT RAIL DESTINATIONS IN METRO ATLANTA 2008 (from origins outside the region)		
Destination (by ZIP)	**Tons**	**Vehicles**
Cartersville - 30120	10,509,967	96,783
Whitesburg - 30185	4,997,700	42,661
Newnan - 30263	2,575,351	22,375
Smyrna - 30080	1,389,248	12,424
Atlanta - 30354	1,113,968	30,804
Atlanta - 30340	1,070,602	19,443
Flowery Branch - 30542	1,067,021	11,098
Atlanta - 30316	777,536	7,975
Gainesville - 30501	658,352	6,967
Winder - 30680	561,037	5,894

Source: Global Insights

The Atlanta region has experienced prosperity due to the world's busiest passenger airport, Hartsfield-Jackson Atlanta International Airport (H-JAIA). In 2008, 90,039,280 passengers traveled through H-JAIA). Air cargo activity (includes domestic and international freight, express shipping, and mail) within the Atlanta region is dominated by Atlanta-Hartsfield Jackson International Airport (H-JAIA) as well. In 2008, HJAIA handled 722,443 tons of air cargo, which is 9 percent less activity than in 2007—reflecting the current global economic downturn.

Theme 3: Governing Collaboratively to Address Funding Issues and Effectively Implement Regional Plans

ARC Planning Areas

ARC is the regional planning and intergovernmental coordination agency for the Atlanta metropolitan area. For 60 years, ARC has helped to focus the region's leadership, attention, and resources on key issues of regional consequence such as aging services, governmental services, leadership development, research and mapping, workforce development, environmental planning, land use planning, and mobility and air quality issues.

Cooperation among local governments in the Atlanta region is a long-standing tradition. ARC and its predecessor agencies have coordinated the planning efforts in the region since 1947, when the first publicly-supported, multi-county planning agency in the United States was created. At that time, the Metropolitan Planning Commission (MPC) served DeKalb and Fulton counties and the City of Atlanta. Since then, ARC membership has grown to its current size of 10 counties and 63 municipalities. The Atlanta Regional Commission Board is composed of officials from political subdivisions and private citizens within the region. Thirty-nine members comprise the ARC Board - 23 local elected officials, 15 private citizens and a representative of the Georgia Department of Community Affairs.

ARC's work program includes many interrelated issues, but in many instances the planning boundaries within which we plan are different.

ARC serves multiple roles in the regional planning arena, under state and federal laws, and these roles cover different geographies as well. ARC is fortunate to be tasked with managing multiple issues around the region in one agency. This affords ARC the opportunity to offer programs and services that reflect strong integration among many of these issues.

Atlanta Region Workforce Board (7-county planning area) - provides workforce solutions for dislocated workers, low-income adults and youth, and for businesses seeking qualified applicants. Services include: training for in-demand occupations, business partnerships, youth programs, career resource centers, and rapid response activities to address plant closings and layoffs. Additionally, ARC is the grant recipient for multiple strategic industry sector initiatives, including the Bio Science Innovation Crescent and the Supply Chain Management sectors. These initiatives often include counties outside the 7 county ARWB area.

Area Agency on Aging (10-county planning area)- plans and provides comprehensive services to address the needs of the region's older population through a continuum of home and community-based services, including information and referral services, case management, transportation, in-home services, home-delivered meals, health and wellness programs, employment and volunteer opportunities, senior centers, caregiver support and legal services.

Regional Commission (10-county planning area) – assisting local governments in fulfilling the state comprehensive planning requirements, including reviewing comprehensive plans, solid waste plans, and capital improvement elements; reviewing and determining compliance with state and regional goals for developments of regional impact; preparing a regional land use plan with associated maps and policies.

Metropolitan Area Planning and Development Commission (10-county planning area) – established by state law to coordinate planning and development within each area of the state having a population of more than 1,000,000 according to the United States decennial census. This law designates the MAPDC also as the Regional Commission. For purposes of this intergovernmental coordination discussion, the role of the MAPDC is included in references to the Regional Commission roles.

Metropolitan North Georgia Water Planning District (15-county planning area) – created to establish policy, create plans and promote intergovernmental coordination of all water issues in the District from a regional perspective, with a primary purpose to develop regional and watershed-specific plans for stormwater management, waste-water treatment, water supply, water conservation, and the general protection of water quality. ARC provides planning staff to the District under a Memorandum of Agreement between ARC and the District.

Metropolitan Planning Organization (18-county planning area) - charged with developing regional plans and policies to enhance mobility, reduce congestion and meet air quality standards through activities such as modeling, forecasts, and preparing short and long range transportation plans.

Ozone Non-Attainment Area – 8 hour Standard (20-county planning area) – In late 2003, a 20-county Atlanta nonattainment area for ozone under the 8-hour standard was designated which includes the 13-county area in the 1 hour area plus Barrow, Bartow, Carroll, Hall, Newton, Spalding and Walton Counties. ARC must perform required technical work, including long-range forecasts and emissions modeling to meet federal conformity requirements.

Particulate Matter (PM 2.5) Non-Attainment Area (20-county planning area + parts of two counties) - In 2004, an Atlanta nonattainment area for particulate matter was designated. This area includes the 20 counties in the 8-hour ozone area plus small areas of Heard and Putnam counties. ARC must work with state, federal and adjacent MPOs to accomplish technical processes that meet federal conformity requirements.

In carrying out the roles described above, ARC partners with numerous organizations at the federal, state, regional and local level. In each case there are a variety of formal and informal coordination mechanisms to guide the relationship between organizations. The table below provides a snapshot (but not an exhaustive list) of partners ARC coordinates with while performing its various activities.

Figure 54: ARC Planning and Coordination Partners

Local & Regional Organizations	RC	MPO/AQ	AAA	MNGWPD	ARWB
Cities and Counties	X	X	X	X	X
MARTA	X	X	X		
Gainesville-Hall MPO		X			
Adjacent Regional Commissions	X	X		X	
Chambers of Commerce and Development Authorities	X				X
Universities, Colleges, Boards of Education	X	X			X
Non-Governmental Authorities and Organizations (such as CIDs, TMAs, CDCs, etc)	X	X	X	X	X
Non-Profit Groups (such as PEDS, Georgia Conservancy, Livable Communities Coalition, etc)	X	X	X	X	X
State Organizations	RC	MPO/AQ	AAA	MNGWPD	ARWB
Department of Community Affairs	X	X			
Department of Transportation	X	X			
Georgia Regional Transportation Authority	X	X			
Department of Natural Resources	X	X		X	
Governor's Office of Workforce Development					X
Department of Human Services			X		
Department of Labor					X
Governor's Office of Planning and Budget				X	
Georgia Environmental Facilities Authority				X	
Governor's Office	X	X		X	
Federal Organizations	RC	MPO/AQ	AAA	MNGWPD	ARWB
US HUD	X		X		
US DOT FHWA	X	X			
US DOT FTA		X	X		
US EPA	X	X		X	
US DOL					X
US HHS			X		X
National Park Service	X				
Army Corps of Engineers				X	

Regional plan development and implementation includes working with partners above and many others to identify potential planning issues, but to also identify shared programs, policies and actions that can collectively address them. On many issues and programs ARC has a key role in implementation, particularly when ARC has been designated as the agency to carry out a federal or state plan or program. In other areas ARC may have an integral role in identifying issues and moving the region toward implementation, but many other parties are more directly linked to implementation activities, particularly the region's local governments.

During development of the Regional Assessment stakeholders and regional leaders consistently stressed the need for closer coordination on many issues facing the region. In this region, as in most regions of the U.S, regional plans are implemented through various programs of

incentives, state or regional rules, agreements, technical assistance and collaboration among agencies and local governments.

Financial Capacity for Plan Implementation

The region is currently dealing with a distressed regional economy as the result of economic struggles at the national level. The recession which began in 2006 and likely lingering effects, particularly for local governments and any state or federal financial tools that are needed to support community services or expand infrastructure.

Primary elements of Atlanta region's transportation system were built with federal funding. A core component of the region's economy has been the ability of the public and private sectors to provide housing and jobs to existing and new residents. Federal transportation dollars have been critical to allow the growth machine to keep turning. Uncertainty with how the federal government will manage the national budget as strategies to invest federal dollars in local and regional infrastructure in coming years will substantially impact the Atlanta region.

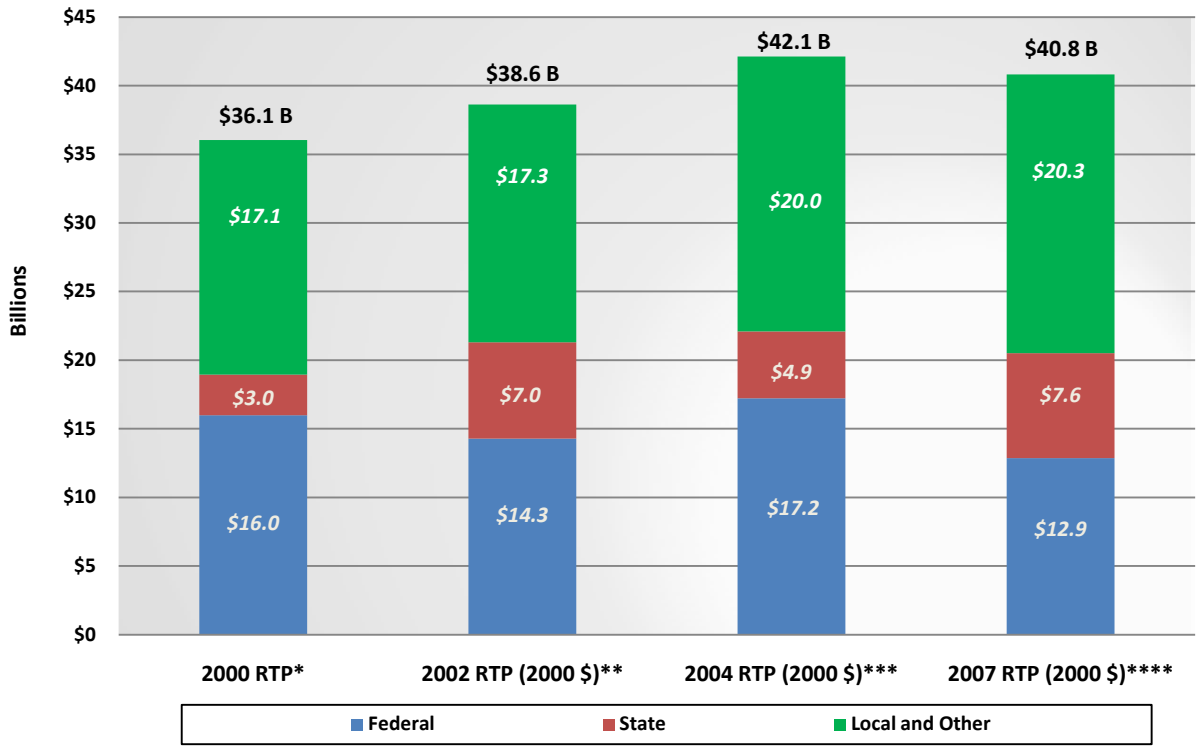
Over the past several years, ARC has tracked worsening trends impacting the financial capacity of the region to fully fund needed transportation plans and programs. These trends include a probable decline in future federal transportation funding for transit and roads, further decline in the purchasing power of state motor fuel taxes, and rapid inflation in the construction industry. Additionally, the economic downturn that began at year-end 2007 has contributed to significant decreases in the levels of funding for local governments—many of which depend on local SPLOSTs for capital infrastructure improvements—as well as for the State, which has been impacted by decreasing motor fuel sales tax revenue.

Local funding for transportation comes primarily from two sources: Special Purpose Local Option Sales Taxes (SPLOST or local imposts) and local general fund expenditures, which tend to fund operations and maintenance of existing infrastructure. In the Atlanta Region, local areas typically dedicate a portion of SPLOST revenues to fund transportation, with dedicated funds typically ranging from 30% to 100% of total SPLOST revenues. Primarily these revenues are used as a match to State and Federal funds for large capital projects. Many counties in the region have experienced a drop in SPLOST revenue of more than 10 percent between FY 2008 and FY 2009 (nominal values).

The rapid escalation in the prices of raw materials and construction, as well as the declining value of the US dollar, has compounded this problem. Fortunately, the full impacts of the economic downtown have been mitigated in part through the allocation of American Recovery and Reinvestment Act of 2009 (ARRA) funding by the Federal government to the Atlanta region. However, with the region facing $110 billion of identified needs, based on recent plans and studies completed by the ARC, new initiatives that provide alternative funding sources and allocate funds to projects with optimal benefits for the Region will be essential for meeting our funding challenges.

As illustrated in the figure below, overall revenues for the region increased by 13 percent in the 2000-2007 period—from $36.1 billion in the *2025 RTP* to $40.8 billion in the *Envision6 RTP* (All dollar amounts in FY2000 dollars). However during this same period the ARC's transportation planning area expanded from 10 counties to all or parts of 18 counties. Additionally the 20-county forecast area added nearly 850,000 residents.

Figure 55: Total Annual Revenues during RTP Periods



*TEA-21 Transportation Bill
10 County MPO
High-level O&M Forecasts
26 Year RTP (2000-2026)

**TEA-21 Transportation Bill
10 County MPO
Updated Funding Forecasts
Gov. Barnes' Transportation Choices Initiative Bond Program
23 Year RTP (2003-2025)

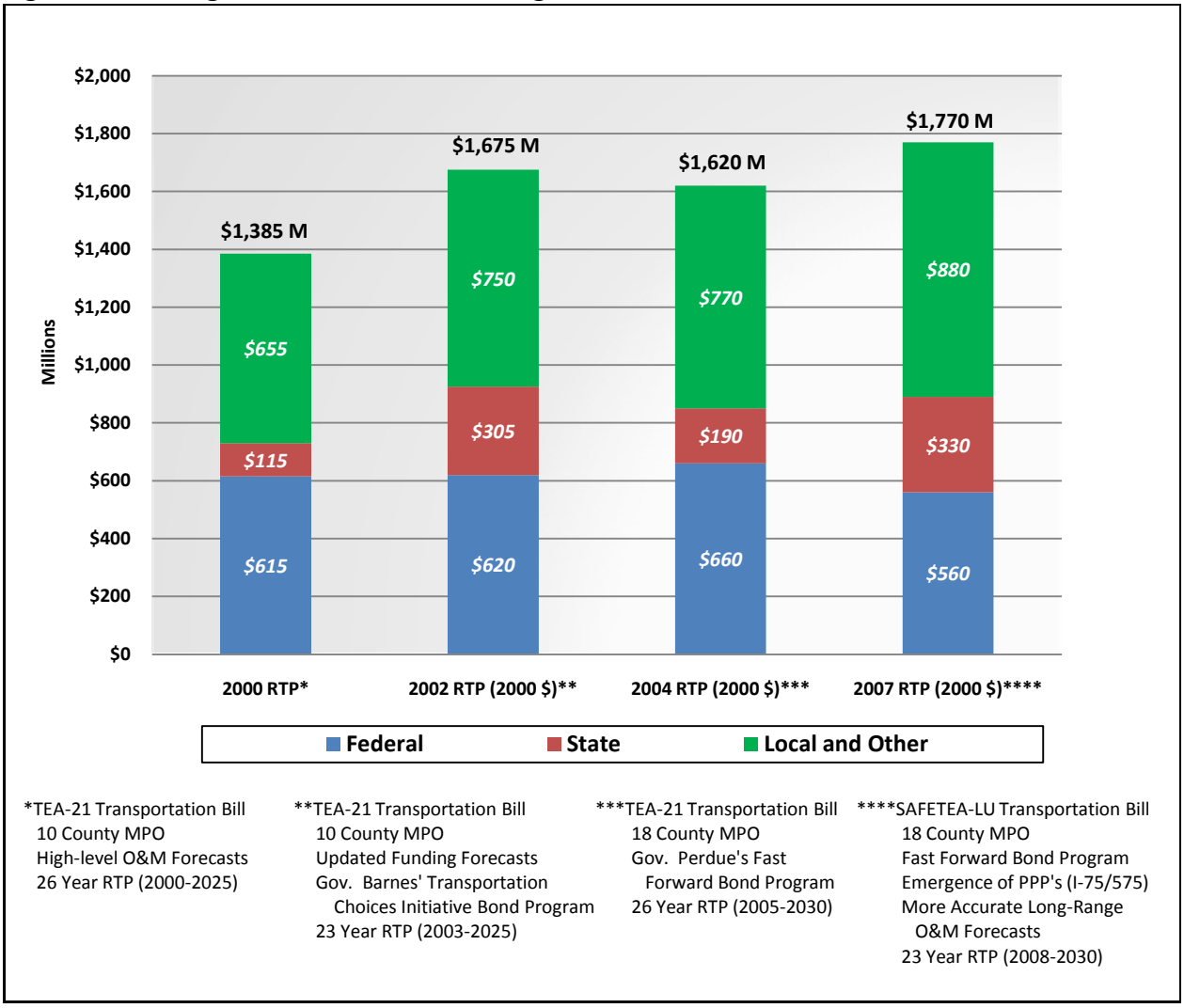
***TEA-21 Transportation Bill
18 County MPO
Gov. Perdue's Fast Forward Bond Program
26 Year RTP (2005-2030)

****SAFETEA-LU Transportation Bill
18 County MPO
Fast Forward Bond Program
Emergence of PPP's (I-75/575)
More Accurate Long-Range O&M Forecasts
23 Year RTP (2008-2030)

Source: ARC, 2009

When considering the average annual revenues (held constant in year 2000 dollars) generated over the seven-year period for the transportation planning area, the troubling funding trends facing the region become even more apparent. Thus, the modest increase in overall revenues has proven inadequate to meet the ever-increasing needs generated by the rapid population growth and physical expansion of the region.

Figure 56: Average Annual Revenues during RTP Periods



Source: ARC, 2009

Federal funding for transportation is authorized through a transportation bill setting upper limits on funding for highways and transit facilities. Funding in the transportation bill comes from federal taxes on fuel, heavy-duty trucks, and, to a lesser extent, general funds. Tax revenues are tracked through the Highway Trust Fund (HTF) which is separated into two accounts – a highway account and a mass transit account. The highway account is by far the larger of the two accounts, comprising roughly 90% of the HTF.

Historically, the HTF has carried a positive net balance (or savings account) due to federal decisions to annually distribute or spend less than incoming tax revenues. However, the balance of the HTF is declining rapidly. In September 2008, the funding crisis facing the HTF became apparent to the public when the president approved the transfer of $8 billion from the Congressional General Fund to the HTF in order to avoid insolvency.

According to State law, Federal and state transportation funds are required to be balanced by Congressional Districts--leading to balanced transportation spending based on population. However, despite the rapid growth and expansion of the ARC's planning area, the level of Federal funding to the region has decreased over the past several years. In the 2000-2007 periods, average annual Federal funding for the Region has decreased 9% from $615 million annually under the 2000 RTP to $560 million under the 2007 RTP.

The State of Georgia collects two types of taxes on motor fuels to help fund transportation investments.

Motor Fuel Excise Tax: This is based on a fee or tax based on the volume (gallons) of fuel purchased. The amount of the excise tax on gasoline is 7.5 cents per gallon. The current rate has been used since 1971 and is not indexed for inflation. Since this tax is based solely on the volume of gasoline sold, revenues increase only with an increase in roadway usage. However improved engine technology and higher fuel efficiency of vehicles has counteracted the efficacy of this tax.

Prepaid Motor Fuel Sales Tax: Georgia also collects a 4-percent sales tax on the average retail price of fuel, referred to as a Prepaid State Tax. Three percent is dedicated to transportation and the remaining 1 percent is allocated to the State General Fund. Revenues from this tax rise and fall with the price of gasoline. However, frequent fluctuations in the revenue stream are minimized by how Georgia collects the sales tax. The Prepaid State Tax is collected based on a cent per gallon rate that is set using a weighted average indexed retail sales price for each type of fuel. The weighted indexed retail sales price is determined and published in the months of November and May in order that they are enacted at the beginning and mid-point of each fiscal year.

The State of Georgia also issues bonds to construct roads and transit facilities. Bond transportation funding is a valuable tool enabling needed facilities to be built sooner than the traditional pay as you go method. Bonds can be backed and transportation projects funded from a variety of anticipated state revenue sources including state motor fuel funds, federal transportation funds, toll revenue, or any combination of these sources. The most recent State bonding program for transportation investment was Governor Sonny Perdue's Fast Forward Congestion Relief Program, which is a 6-year $15.5 billion program enacted in 2004 to relieve congestion and spur economic growth through the acceleration of programmed projects.

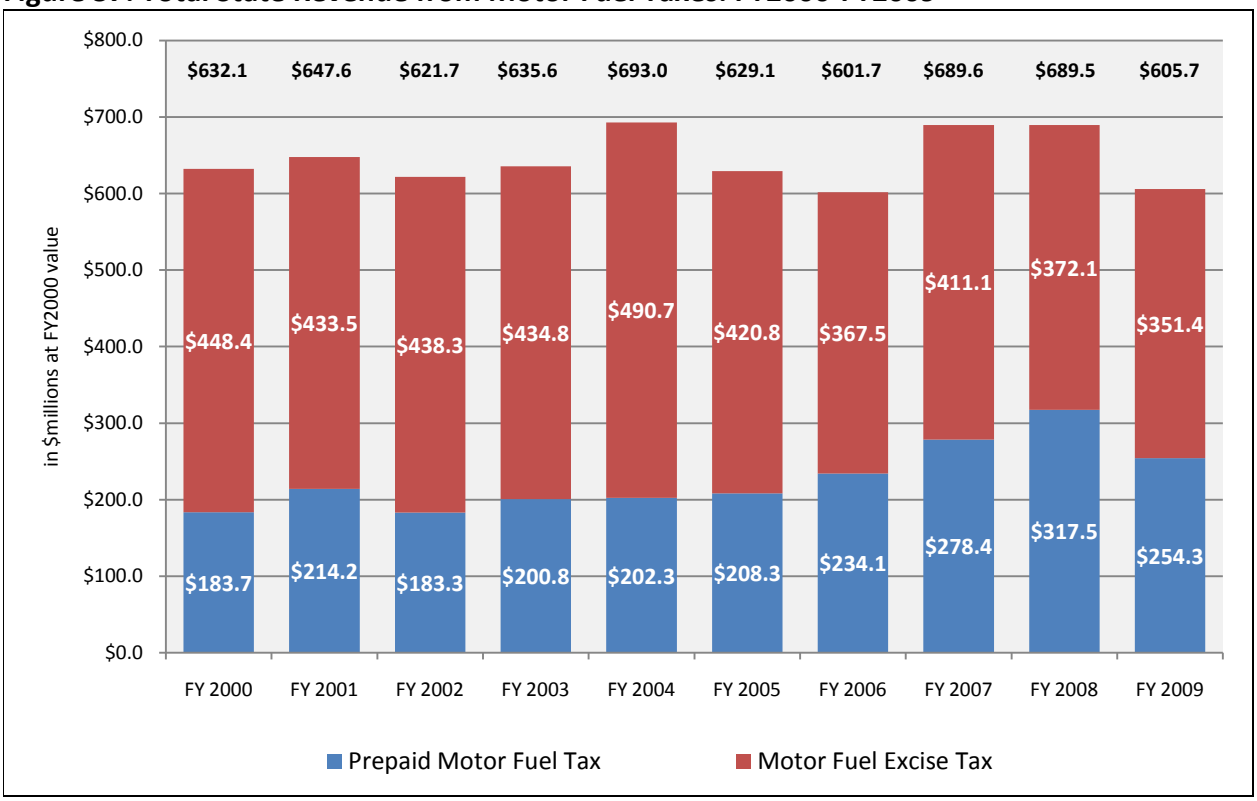
Average annual State funding for the Region has almost tripled since 2000—increasing from $115 million annually under the 2000 RTP to $330 million annually under the 2007 RTP. However, it is important to note that the large increase in State funding is the result of several large-scale projects that were to be financed through bond financing, but have been either canceled, reduced in scale, or delayed for several years into the future. Despite the history of the use of bonding for financing large-scale transportation projects, the State has signaled through its budgeting process that it will not fund large-scale capital projects through the issuance of bonds given the current financial climate and the subsequent massive cuts in the State budget.

Overall, motor fuel tax revenue remains the primary source of revenue for transportation on the State level through the Motor Fuel Excise Tax and the Prepaid Motor Fuel Sales Tax. As stated earlier, the Motor Fuel Excise Tax raised has remained at the rate of 7.5 cents/gallon since 1971 and is not indexed for inflation. Therefore, the real value of the revenue contributions from this funding source has declined sharply. Conversely, the real value of the Prepaid Motor Fuel Sales Tax portion of total revenue has steadily increased during the same period by 38.4 percent (an average annual rate of 3.7%)--given that it is based on a percentage rather than a flat rate. Rising fuel prices contributed to revenue generated from this source to peak in FY 2007; however revenue from the Prepaid Motor Fuel Sales Tax began to decline the following year as fuel prices dropped. The counteracting effects of the two fuel taxes have contributed to a steady level of total fuel tax revenue over the past ten years, despite the robust growth that the Atlanta Region—and the state of Georgia as a whole—has experienced over the decade.

Overall fuel tax revenue has remained steady over the past ten years, but significant growth in the region has created more demand than revenue.

The current economic recession and the resulting significant level of unemployment have contributed to a drop in total fuel tax revenue. As shown in the figure below, total fuel tax revenue collected by the State has dropped 12.2 percent between the fiscal years 2008 and 2009. After the economy recovers, it is expected that revenue generated from state motor fuel taxes will stabilize at modest levels as motor vehicle fuel efficiency improves.

Figure 57: Total State Revenue from Motor Fuel Taxes: FY2000-FY2009

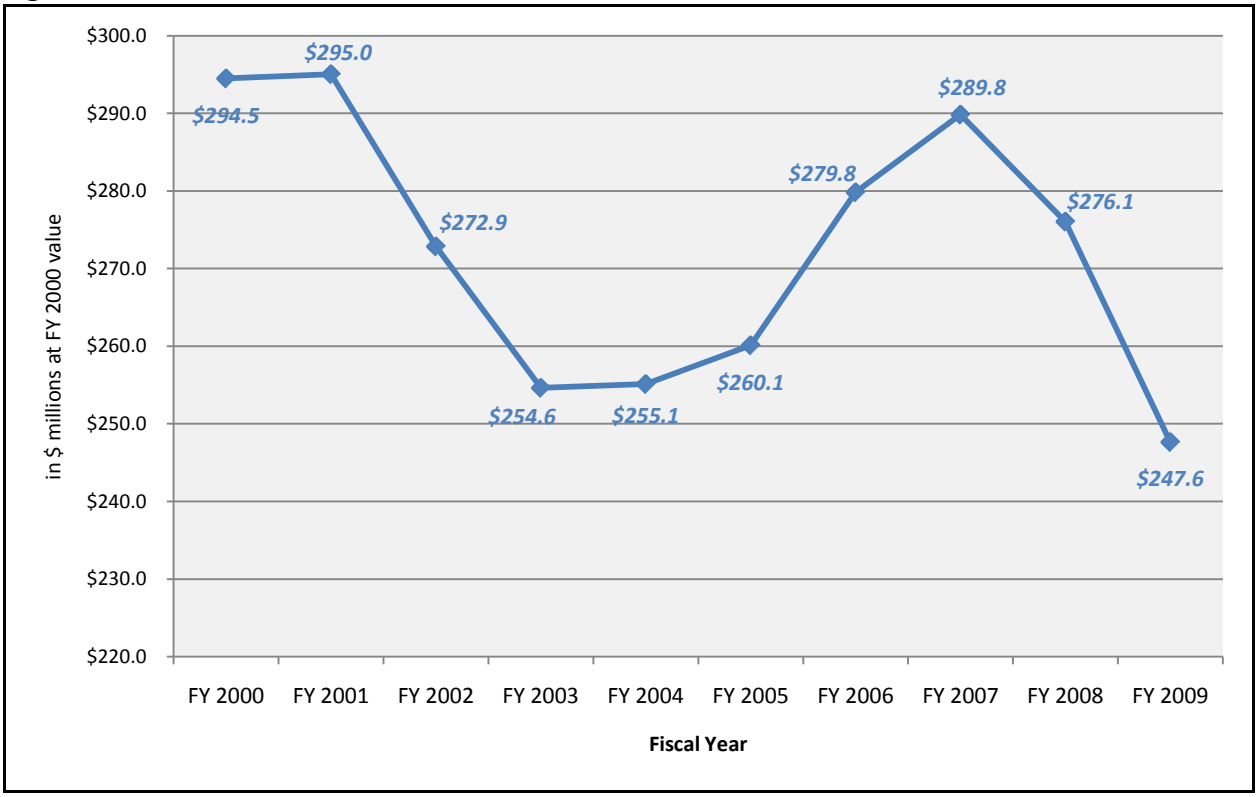


Sources: Georgia Department of Revenue/Bureau of Labor Statistics Consumer Price Index

Another significant source of funding regionally that is generated from a sales tax is the 1-percent sales tax levied by MARTA on Fulton County, DeKalb County, and the City of Atlanta. Looking at historical revenue trends, while holding the US dollar at its FY 2000 value, MARTA sales tax revenue decreased by 15.9 percent--from $294.5 million in FY 2000 to $247.6 million in FY 2008 ($308.9 million in FY 2008 dollars). As shown below the effect of the recent economic downturn becomes evident in the sharp decrease in revenue by 14.5 percent or $42.2 million between FY 2007 and FY 2009. It must be noted that MARTA is the only major public transit agency with a heavy-rail network that receives no financial support from the state level—thus adding further challenges to the agency's decline in revenue.

In May 2009 the ARC Board approved stimulus funds to temporarily address MARTA's budget shortfalls. This historic action required region-wide support for the region's core transit provider. The money for MARTA was needed because the state legislature failed to pass a bill allowing the agency to shift a portion of its $65 million capital-investment budget into its general operations fund. In return MARTA will expend capital funds for transit-oriented projects in communities in their service area. Nonetheless, sales tax revenue collected by MARTA, as well as by local and county governments through SPLOSTs, is expected to remain at modest levels until FY 2012 when consumer expenditures are forecasted to grow again.

Figure 58: MARTA Sales Tax Revenue: FY 2000-FY 2009



Sources: Georgia Department of Revenue/Bureau of Labor Statistics Consumer Price Index

With the recent and future growth rate for the Atlanta region, implementing needed transportation improvements is crucial to meeting the region's travel demands, but also improving quality of life and maintaining the region's economic competitiveness. In 2008 ARC released the sixth annual progress advancement report (*Breaking Ground*). The 2008 report found that of all projects scheduled for 2008, 63 percent were delayed to fiscal year 2009 or later, or were dropped entirely. The funding committed to project phases that were delayed is about $2.4 billion. Over the six years that ARC has prepared the *Breaking Ground* report annual project advancement has rarely topped 50%. Key challenges to advancement include:

Rising construction costs and the declining value of the US dollar

Lower funding obligation levels from the Federal government

The State's diminished bonding capacity and stagnant levels of motor fuel tax revenue in the face of a rapidly growing population

Declining sales tax receipts, through county SPLOSTs and the MARTA sales tax, as a result of the current economic downturn

Regional challenges associated with project delivery and meeting the transportation needs of a growing urban area are anticipated to continue for the foreseeable future. The region and its planning partners must adopt and follow comprehensive strategies that can work to address these challenges in a variety of ways. Key strategies should at minimum include:

Identify new sources of funding—i.e. regional TSPLOST, the extra one-percent of the Prepaid Motor Fuel Sales Tax that is allocated towards the State General Fund, tolling/user fee, value capture

Institute a comprehensive and transparent project prioritization process that selects projects of the highest need and greatest benefit regionally

Further, integrate transportation planning with land use planning over the long range in order to encourage responsible and sustainable development patterns that minimize impacts on the regional transportation network.

Emphasizing Programs that Focus on Implementation

Implementation of key programs and strategies identified during the development of the *Plan 2040* Regional Agenda and RTP should build on past successes, while also recognizing the value of new approaches. ARC has many existing programs that have proved successful, and also is currently nurturing new ideas and concepts to help address growing issues. Two prime examples of this are the Livable Centers Initiative (LCI) program and the Lifelong Communities effort.

The LCI program has been nationally recognized and was consistently mentioned by regional leaders and stakeholders as a model for effective regional plan implementation through local actions. The LCI planning process, project goals and deliverables outlined in the LCI program provide an efficient, realistic and effective method for communities to undertake smart-growth planning and implementation. In return, this works to achieve more balanced regional growth by focusing new development away from undeveloped greenfields and into areas with existing infrastructure, reducing vehicle miles traveled and improving air quality.

Over the past 10 years, the LCI program has spurred cities, counties and communities of all sizes to undertake planning and create transportation-efficient land use strategies for activity

centers, town centers and corridors. The LCI program has been the primary regional program and resource during the past decade in the Atlanta region to spur redevelopment, foster new urban development and implement transit oriented development (TOD). To date, over $141 million in planning and transportation funds have been allocated to support 102 distinct planning areas in the region.

The LCI program has proven enormously successful as the catalyst to major redevelopment efforts taking place in transit station areas and small and large urban centers and corridors. These investments have spurred new housing and development closer to jobs, and are helping to promote more efficient transportation nodes.

The 2009 LCI Implementation Report indicated that LCI communities are consistently capturing a growing share of the region's new development, especially office and commercial uses. Since the last Implementation Report in 2006, the amount of development concentrated into LCI areas compared with the 10-county region has doubled.

Connect homes, shops and offices by encouraging a diversity of mixed-income residential neighborhoods, employment and recreational choices at the center/corridor level.

Provide access to a range of travel modes including transit, roadways, walking and biking, while emphasizing the pedestrian.

Improve safety and a sense of place in order to increase livability and quality of life for all members of the community.

Develop an outreach process that promotes the involvement of all community stakeholders so that the LCI plans created reflect the goals and vision of the community.

All LCI communities are different and face different challenges and opportunities. As a result, LCI plans vary in response to these specific needs. But, as unique as each community is, all LCI plans demonstrate an understanding of the primary goals and policies of the program:

As the region transitions from a region dominated by age groups in their working years to a region with a larger share of older adults it will face numerous challenges to long term care services, but will also challenges related to the built environment. Not only will the region very quickly become home to more older adults, this growing senior population is like none before it. They expect and demand different things. As caregivers for their own parents, they have been well-educated about the challenges of growing older. They want to live in the communities they have helped develop and love and they expect to have the options and choices they desire.

Many of these communities however were not designed to support the needs of older adults. ARC's Lifelong Communities program recognizes that the social service challenges the region will face as the number of older adults doubles are made much more difficult by the design of the region's communities.

Lifelong Communities work to achieve three major goals:

Promoting Housing and Transportation Options

Encouraging Healthy Lifestyles

Expanding Information and Access to Services

ARC is working with partners throughout the region to transform cities, counties and neighborhoods into Lifelong Communities. Lifelong Communities are places where individuals can live throughout their lifetime; they provide a full range of options to residents, insuring a high quality of life for all.

This tremendous shift will transform the region and challenge every aspect of community life: healthcare, transportation, employment, housing, recreation and leisure, economic development, infrastructure expansion, and education. In response to and because of these changes, the rapidly increasing older adult population offers the Atlanta region the opportunity to re-imagine what it means to live as a community improving the quality of life for all residents, no matter their age.

Plan 2040 will also need to build on the policies and programs initiated during the region's most recent long-range planning effort, *Envision6.* ARC's *Envision6* planning process resulted in a resolution approved by the ARC Board to adopt three key development guides to assist with on-going integration of land use and transportation plans and policies.

- *Envision6* Regional Development Plan Land Use Policies
- Atlanta Region Unified Growth Policy Map (UGPM)
- *Envision6* Regional Place and Development Matrix

In addition, the *Envision6 Implementation Strategy* was developed to outline programs and activities that ARC would undertake during the 2006 to 2009 period to coordinate land use, transportation and related planning and forecasting associated with updates of the RTP. The staging of activities was be determined by resources and programmed in the ARC Annual Work Program. The activities were supported by the ARC Board for implementation of land use components of *Envision6*. Individually and collectively these activities sought to further integrate issues of land use, transportation, water and associated regional and local plans.

The region's transportation choices and investments in the coming years must yield more strategic investments that enrich the existing region's footprint rather than expanding it.

The region must do more to strongly move towards patterns of growth which are more in line with the most progressive regions of the U.S. and world. The Atlanta region remains very dependent on the automobile for most transportation needs, thereby limiting travel choices to much of the region's population. The region's housing stock is very low density and could potentially become increasingly obsolete as demographic trends create smaller households and buyers seek new lifestyles choices.

Strategic Efforts to Minimize Demand

ARC's Transportation Demand Management Division (TDM) strives to relieve traffic congestion and improve air quality in the region by helping commuters find simple, reliable alternatives to driving alone. Record-high gas prices, fuel shortages and an increase in local efforts made 2008 one of the banner years for TDM efforts in the Atlanta region. Assistance is provided to those who live or work in the Atlanta MPO area, which includes some commuting from adjacent states.

TDM strategies are organized through the RideSmart program. RideSmart encourages and helps regional commuters find potential carpool, vanpool and bike partners, or transit schedules through the use of customized software. RideSmart also manages the funding for eleven employer services organizations (ESOs) in the region. These organizations provide comprehensive service for a defined geographic area and additional programs, such as vanpool subsidies, circulator shuttles, information sessions for both employers and employees and promotional events. These organizations work closely with employers to encourage formation of and participation in employer-supported commute options programs that can help with employee retention, and tardiness and absenteeism, as well as parking demand.

Support for TDM programs in the region is provided by federal Congestion Mitigation and Air Quality (CMAQ) funds distributed by the Georgia Department of Transportation. Approximately $15 million in CMAQ funding was spent on TDM efforts in 2008, including ESO funding awards,

advertising and marketing, reporting and measurement and vanpool subsidies. The ESOs were awarded CMAQ funds primarily through the RideSmart program.

Plan 2040 – Next Steps: Plan Development in 2010

The *Plan 2040 Regional Assessment* will be provided to the ARC Board for their review in January 2010. The Assessment will be transmitted to the Department of Community Affairs for their review in February 2010. During 2010, ARC will engage stakeholders from around the region in an effort to ensure broad input and support for Plan 2040 goals, policy, transportation investments and programs is achieved. These activities will supplement the ARC existing committee structure and include opportunities for diverse public participation as the region develops the Plan 2040 Regional Agenda and Regional Transportation Plan.
The following are the anticipated key milestones in Plan 2040 development in 2010.

Finalize Regionally Important Resources Map – Develop Regional Resource Plan
Currently ARC has developed a Draft Regionally Important Resources Map that was developed through public nomination and a regional evaluation of those nominated resources, as well as local, regional and state conservation priorities that have been identified in various plans and programs. In 2010 ARC will work with local governments from around the region to finalize resource boundaries and develop policies that support appropriate management practices.

Update Regional Goals, Objectives, and Performance Measures
Utilizing findings from the Plan 2040 Regional Assessment, statewide planning initiatives, and *Envision6*, ARC will work with local governments and regional stakeholders to develop plan-level goals, objectives, and performance measures focused around the "triple bottom line" theme of delivering a plan that maximizes sustainability through environmental, social, and economic strategies. Regional goals and objectives will be used to guide development of land use and transportation policy and project performance evaluation criteria. The performance measures will be used to measure overall performance of Plan 2040 in achieving the triple bottom line.

System Visions Development
An important component of the Regional Transportation Plan is identifying system-level visions. Employing regional goals and objectives, Unified Growth Policy Map, and project compilation work conducted in 2009 of projects included in approved local, regional, and state transportation planning studies, ARC will develop system visions. These system visions will be evaluated on their ability to meet regional goals using the regional performance measures. Outreach with local, regional, and state stakeholders will be critical in evaluating and finalizing the system visions.

2010 Update of the Unified Growth Policy Map (UGPM)
Beginning in April 2005, the process to develop the Unified Growth Policy Map (UGPM) and other Envision6 Development Guides, and subsequent Regional Transportation Plan (RTP), has relied on extensive collaboration between ARC and our local, regional, state, and federal

planning partners. Maintenance of the UGPM requires extensive outreach and coordination with local governments in the region. ARC anticipates a significant update process to the UGPM in 2010 that will evaluate all aspects of the Development Guides including, but not limited to, product format and how regional growth and development policies across an increasingly complex region.

Project-Level Performance Evaluation

Using the regional goals, objectives, and performance measures as a foundation, project-level performance evaluation procedures will be drafted, tested, and vetted through local, regional, and state planning partners. These will include both quantitative and qualitative assessment tools for various project and program types. Once finalized, the project-level performance evaluation procedures will be used to develop a draft constrained Regional Transportation Plan.

Develop Draft Financially Constrained Recommendations

ARC will develop a draft financially constrained Regional Transportation Plan that includes policies, programs, and projects that will be pursued over the life of the plan to achieve regional the goals and vision. This draft Regional Transportation Plan will include extensive local, regional, state, and federal level stakeholder outreach and incorporate final programmed funding levels and financial forecasts.

Develop Local Performance Standards

A critical component of the implementation program of the Regional Agenda will be a new focus on establishing expectations for local government implementation of regionally planning programs and policies. ARC will be working with local government to establish Performance Standards that will recognize the varying size and capacity of local governments in the region. Meeting, or exceeding, the standards will ultimately be linked to Qualified Local Government (QLG) status as currently maintained by the Department of Community Affairs.

Regional Work Program and Implementation Strategies

ARC will identify specific activities that will be pursued over the first five years of the planning horizon to achieve the goals of the plan. These activities will include programs performed by ARC to assist local governments in their efforts to meet the Local Performance Standards. ARC will also develop communications, education and technical assistance programs that support plan implementation.