



TRENDS AND FORCES REPORT

JULY 25, 2013

THE MCBRIDE DALE CLARION TEAM MCBRIDE DALE CLARION
CLARION ASSOCIATES — FREGONESE ASSOCIATES — KIMLEY-HORN AND ASSOCIATES
BROWN PEARMAN RUSSELL — BAE URBAN ECONOMICS — A. COULTER CONSULTING
THE OCHS CENTER FOR METROPOLITAN STUDIES — NEATHAWK DUBUQUE & PACKETT
ARTHUR C. NELSON, Ph.D., FAICP



Trends and Forces Report

July 25, 2013

Unaccredited images are open sourced or were taken by Thrive 2055 staff.

This page blank

TRENDS AND FORCES: EXECUTIVE SUMMARY



About Thrive 2055

Thrive 2055 is a private-public initiative to engage people from across the 16-county, tri-state region of Southeast Tennessee, Northwest Georgia, and Northeast Alabama in setting a course for our shared future. The objective of the three-year process is to identify regional values and goals along with a consensus on strategies that can be implemented for the long-term prosperity of the region.

This report provides an overview of demographic, socioeconomic, and geographic forces and trends influencing the Thrive 2055 region (“the region”) and highlights key issues, opportunities, and constraints to be considered as part of the Thrive 2055 process. It is intended to help inform and serve as a foundation for discussion among regional stakeholders and the community-at-large as part of the Thrive 2055 process. In addition, it is intended to provide a concise “snapshot” of where the region is today that can be used to track the region’s progress towards the implementation of a shared vision over time.

Key Regional Drivers

The Thrive 2055 coordinating committee and working groups have identified eight regional drivers that will be critical to success of the region over the next 40 years. They include:



Working Group Assigned	Regional Drivers/Key Issues Addressed
	<p>Education & Workforce Preparedness</p> <ul style="list-style-type: none"> • Workforce training and education • Early education/childhood development <p>Regional Economic Competitiveness</p> <ul style="list-style-type: none"> • Economic development/job creation • Capitalizing on technological capabilities
	<p>Built Environment</p> <ul style="list-style-type: none"> • Built places and communities • Historic landscapes and resources <p>Natural Environment</p> <ul style="list-style-type: none"> • Conservation of priority resources • Regional linkages • Working landscapes

BASELINE INDICATORS

Current trends and conditions relative to the following topic areas are summarized in this report:

- Population Growth
- Population Diversity
- Poverty Rates
- Health
- Public Safety
- Educational Attainment
- Economy and Jobs
- Cost of Living and Housing
- Mobility and Freight Movement
- Built and Natural Environment

These baseline indicators provide a way for us to measure how well the region is meeting the needs and expectations of its present and future residents. In addition, they help us identify key issues, opportunities, and constraints to focus on as we begin to plan for the future. As a clear vision for the region emerges, the baseline indicators summarized in this report will be used to track our progress in implementing this vision over time.

Working Group Assigned	Regional Drivers/Key Issues Addressed
	<p>Energy & Communications Infrastructure</p> <ul style="list-style-type: none"> • Long-term competitive availability of energy • Availability and extent of communications infrastructure <p>Mobility, Freight and Other Infrastructure</p> <ul style="list-style-type: none"> • Transportation systems and mobility • Transportation funding • Freight movement • Infrastructure capacity, condition, and availability (sanitary sewer and water)
	<p>Health</p> <ul style="list-style-type: none"> • Community health and wellness • Healthcare access <p>Regional Vibrancy</p> <ul style="list-style-type: none"> • Arts, culture, and history • Tourism • Safety

The path towards ensuring the continued economic prosperity of the region begins with a common vision for the future. Together, the regional drivers and the key questions outlined for each represent the building blocks of this vision. The regional drivers cut across the more than 20 topics explored by the four working groups, the coordinating committee, and the community-at-large. They reinforce the interrelated nature of the issues and opportunities described throughout this document and are intended to serve as a foundation for a coordinated discussion of regional issues and opportunities at the broadest of levels—citizens of all ages, elected and appointed officials, business and property owners, local and regional agencies and service providers, and all other stakeholders who wish to play a role in the future success of the region.

The regional drivers also reflect the need to foster a clear understanding of how actions in one area of focus affect another and a desire to seek and implement shared solutions that benefit the region as a whole. As we begin to plan for the future, we must look beyond what is occurring or expected today and seek to become more innovative, effective, and successful as a region in the future.

Contents

INTRODUCTION.....	1
About Thrive 2055.....	1
Process Overview.....	1
ABOUT THIS REPORT.....	3
Purpose.....	3
Organization.....	3
How Does Our Region Compare?.....	4
BASELINE INDICATORS.....	5
Overview.....	5
Population Growth.....	6
Population Diversity.....	8
Poverty Rates.....	10
Health.....	12
Public Safety.....	17
Educational Attainment.....	20
Economy and Jobs.....	22
Cost of Living and Housing.....	25
Mobility and Freight Movement.....	28
Built and Natural Environment.....	32
KEY REGIONAL DRIVERS.....	36
Overview.....	36
Looking to the Future	36
Education and Workforce Preparedness.....	38
Health.....	40
Energy and Communications Infrastructure.....	41
Mobility, Freight, and Other Infrastructure.....	42
Built Environment.....	45
Natural Environment.....	46
Regional Vibrancy.....	48
Regional Economic Competitiveness.....	49
CONCLUSIONS.....	51
APPENDIX A: MAPS.....	A-1



This page blank

INTRODUCTION

About Thrive 2055

Thrive 2055 is a private-public initiative to engage people from across the 16-county, tri-state region of Southeast Tennessee, Northwest Georgia, and Northeast Alabama in setting a course for our shared future. The objective of the three-year process is to identify regional values and goals along with a consensus on strategies that can be implemented for the long-term prosperity of the region.

Process Overview

The Thrive 2055 planning process began in 2012 and will be carried out in three phases over approximately three years:

Phase One Objectives

- Identify **forces and trends** shaping the region
- Identify **regional values** (challenges and opportunities)
- Assess **ongoing and past efforts & successes** of local and regional agencies
- Identify **best practices** other communities are using to deal with similar forces and trends

Phase Two Objectives

- Identify **targeted goals** for regional issues and challenges
- Identify **benchmarks** to determine success
- Test **“what if” scenarios** to meet those goals
- Confirm regional vision

Phase Three Objectives

- Create **action strategies and tools** to achieve the vision
- Transition from a planning process to a cycle of active **implementation and continual monitoring** through 2055
- Finalize documents, tools, and resources generated in the process

The end result of this process will be a 40 year action plan for the region that supports the implementation of the community’s vision.



Figure 1: The Thrive 2055 Region
Thrive 2055 covers a tri-state region of Tennessee, Georgia, and Alabama. There are 16 counties and 79 municipalities within the region.



This page blank



ABOUT THIS REPORT

Purpose

The purpose of this report is to identify key trends and forces affecting the Thrive 2055 region (“the region”). Specifically, this report provides an overview of demographic, socioeconomic, and geographic characteristics and trends for the region and highlights key issues, opportunities, and constraints to be considered as part of the Thrive 2055 process. It also highlights a series of key regional drivers that are critical to our region’s success as we look to the future.

This report is intended to help inform and serve as a foundation for discussion among regional stakeholders and the community-at-large as part of the Thrive 2055 process. In addition, it is intended to provide a concise “snapshot” of where the region is today that can be used to track the region’s progress towards the implementation of a shared vision over time.

Organization

This report includes the following sections:

- **Baseline Indicators**—this section provides an overview of current trends and conditions for the region with respect to a range of demographic, socioeconomic, and geographic considerations and identifies why each of the indicator topics is important to our region.
- **Key Regional Drivers**—this section describes eight initial regional drivers: education and workforce preparedness; health; energy; mobility, freight and other infrastructure; built environment; natural environment; regional vibrancy; and regional economic competitiveness and describes why each will play a critical role in the success of our region over the next 40 years.
- **Conclusions**—this section provides a brief summary of conclusions that can be drawn from the baseline indicators and key regional drivers. These conclusions help shape the next steps in the process.

How Does Our Region Compare?

In order to truly understand the magnitude of our region's strengths and weaknesses, we must draw points of comparison. Throughout this report—where relevant and comparative data is readily available—statistics for the region are compared to the nation as a whole, the South or East South Central regions and/or the “Ten at the Top Region.”

The Ten at the Top Region is a 10-county region in upstate South Carolina, which was in a similar position to the Thrive 2055 region 20 years ago when it successfully landed the BMW U.S. manufacturing facility. After attracting this outside investment and committing to a regional planning and coordination initiative that emerged from a 2005 gathering of Upstate leaders, the region has been able to leverage its impact by generating positive synergy with far-reaching benefits.

Struck by the region's success and the similarities between the two regions, area leaders visited Greenville, South Carolina on the heels of VW's decision to build the Chattanooga plant in 2008. The idea of Thrive 2055—both in terms of geography and process—emerged from this visit and the many subsequent conversations among the region's leadership.

The success of the Ten at the Top Region provides the Thrive 2055 region with an opportunity to examine how a similar region has leveraged major investments like the VW plant to promote continued growth and economic vitality over an extended period of time, and how that region has addressed similar trends, opportunities, and challenges.

TEN AT THE TOP REGION

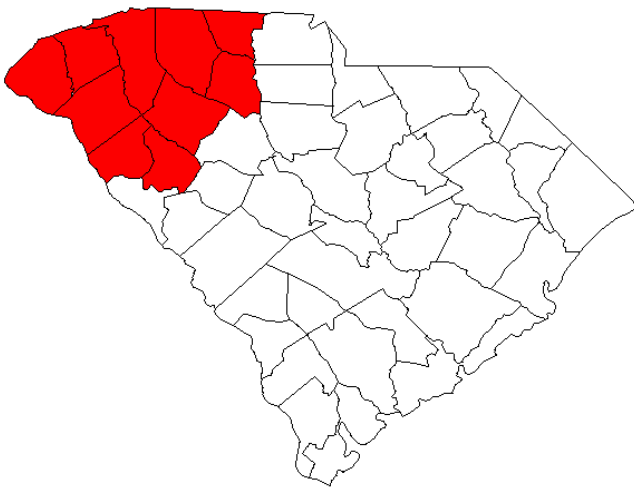
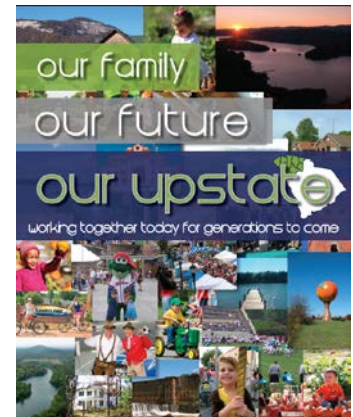


Figure 3: Ten at the Top Region

The Ten at the Top Region includes Abbey, Anderson, Cherokee, Greenville, Greenwood, Laurens, Oconee, Pickens, Spartanburg, and Union Counties in upstate South Carolina. Image: www.tenatthetop.org



Find more information about the Ten at the Top Region at www.tenatthetop.org.



Figure 2: Subregions of the U.S. South

REGIONS OF COMPARISON

The East South Central region, as defined by the U.S. Census Bureau, includes Kentucky, Tennessee, Mississippi, and Alabama. The South includes the East South Central states and the South Atlantic States. The averages of these two larger regions are used, with the U.S. national averages, as a point of comparison on many data points in this report.

BASELINE INDICATORS

Overview

This section presents a series of baseline indicators intended to give the region's residents and stakeholders a sense of where the region stands today, and, in some instances, how the region compares to the nation as a whole or to other regions of the United States. Indicators provide a way for us to measure how well the region is meeting the needs and expectations of its present and future residents. Indicators also help us identify key issues, opportunities, and constraints to focus on as we begin to plan for the future.

A brief summary of current trends and conditions relative to the following topic areas are addressed:

- Population Growth
- Population Diversity
- Poverty Rates
- Health
- Public Safety
- Educational Attainment
- Economy and Jobs
- Cost of Living and Housing
- Mobility and Freight Movement
- Built and Natural Environment

As a clear vision for the region emerges, the baseline indicators summarized in this section will be used to track our progress in implementing that vision over time.

THRIVE 2055: REGION AT-A- GLANCE

- The Thrive 2055 region is home to approximately **one million people**.
- The Thrive 2055 region includes **79 municipalities** and **16 counties** in **three states**: Alabama, Georgia, and Tennessee.
- The Thrive 2055 region covers nearly **6,650 square miles** and has an average population density of nearly **150 people per square mile**.

Population Growth

Why is this Important?

Understanding where, how much, and how quickly population growth is projected to occur over the next 40 years and beyond are key considerations in planning for the region's future. Demand for housing, infrastructure and services, schools, parks and recreation opportunities, arts and cultural facilities, and many other essentials are all driven by population trends.

Population projections provide a picture of anticipated growth based on historic patterns, current trends, and a variety of other factors. While they are an important tool for long-range planning purposes, they are not "predictions" for the future. As with any tool, they will need to be monitored and updated as conditions change over time.

Current Trends and Conditions

Regional Growth

- **Current Population**—In 2010, the Thrive 2055 region had a population of a little more than a million residents. County populations ranged from 12,000 in Meigs County to 340,000 in Hamilton County.
- **Projected Population**—The region is projected to grow to more than 1.4 million residents in 2055. This is an increase of nearly 400,000 residents.
- **Location of Growth**—The majority of this projected growth (nearly 200,000 residents) is expected to occur outside Hamilton County.
- **Household Growth**—The region is expected to grow by 177,000 households by 2055, with the greatest growth in the number of households expected in Catoosa, Meigs and DeKalb counties.

THRIVE 2055: DID YOU KNOW?

Projected Growth

- The region is forecasted to grow at 0.9% annually for the next 40+ years to reach 1.4 million people by 2055.

Comparison to the Ten at the Top Region

Both regions share a similar growth trend but the Ten at the Top region is about 20 years ahead of the Thrive 2055 region. **See Figure 5 on page 4.**

- The Ten at the Top Region is projected to grow at an average rate of 1.2% annually to 2030.
- 40 years after the first cars—1.6 million in the Ten at the Top Region (2030), 1.4 million in Thrive 2055 region (2055).

Regional Population Growth

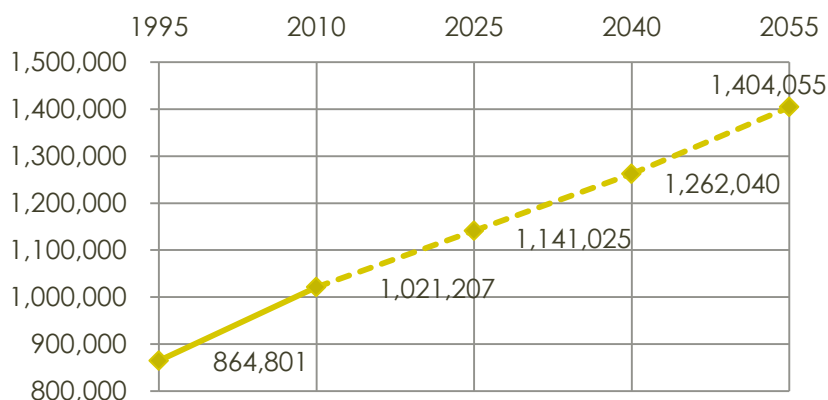


Figure 4: Thrive 2055 Regional Population Growth 1995-2055

Related Maps (see Appendix)

1. Household Growth Projections
2. Population Concentration

Sources:

Arthur C. Nelson, 2012 based on U.S. Census data and projections from Woods and Poole.

Comparison of THRIVE 2055 to the Ten at the Top Region (20 year stagger of growth trends)

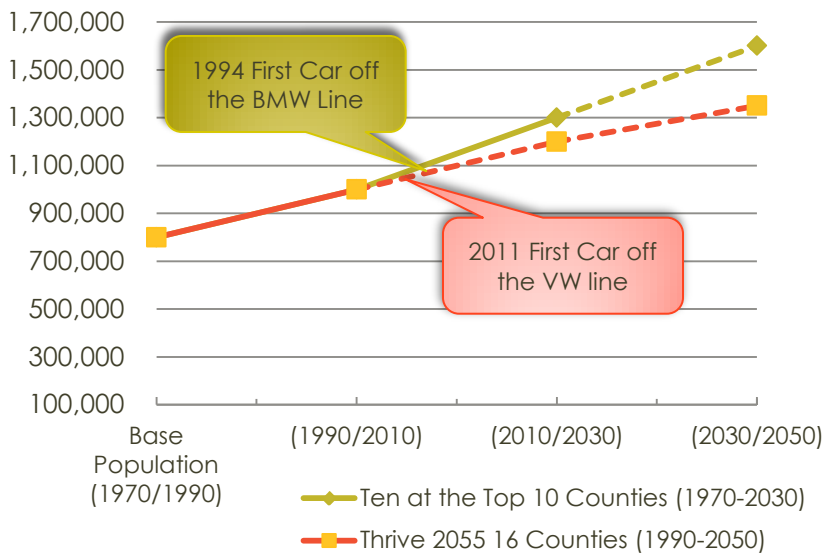


Figure 5: Regional Comparison of Growth Trends shows the population growth trends of both the Ten at the Top region and the Thrive 2055 region using the first cars off the line as a benchmark for each region. The growth is very similar although 20 years apart.

Population Density

- **Average Density**—Currently, the average density of the region is nearly 150 people per square mile.
- **Density Range**—Throughout the region, there is a wide range in population densities from as few as 32 people per square mile in Bledsoe County, Tennessee to as many as 584 people per square mile in Hamilton County, Tennessee.
- **Projected Density**—If the region’s population grows as projected, the average regional density will increase to nearly 205 people per square mile, with approximately 39 people per square mile in the most rural areas and more than 750 people per square mile in more urbanized areas.

Population by County Type

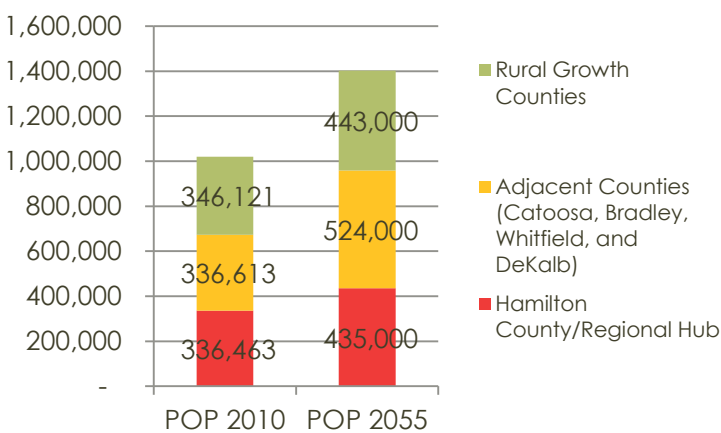


Figure 7: Population by County Type 2010 and 2055

THRIVE 2055: DID YOU KNOW?

Population Density

- By 2055 the region’s population will be contained in three primary areas:
 - Hamilton County (Primary Regional Hub)
 - Adjacent Counties of Catoosa, Bradley, Whitfield and DeKalb
 - Rural Growth Counties
- Catoosa, Bradley, Whitfield and DeKalb counties are projected to surpass Hamilton County in total population contribution, indicating a decentralization of growth and expansion of the urbanized areas into these counties by 2055.



Figure 6: County by Growth Type (See also Figure 7.)

Sources:

Arthur C. Nelson, 2012 based on U.S. Census data and projections from Woods and Poole; McBride Dale Clarion, 2013.

Population Diversity

Why is this Important?

According to the article “The Importance of Diversity to High-Technology Growth” from the Brookings Institute, overall population diversity is important because it can serve as a strong indicator of a metropolitan area's high-technology success and potential growth. For example, 11 metropolitan areas in the United States with the highest levels of overall diversity are also among the country's top high technology areas. San Francisco, Boston, Seattle, and Washington D.C. are the top four high-tech regions and rank in the top six regions on the composite diversity index. Factors indicated in the study that contribute to population diversity include age, race, language spoken, sexual orientation, type of employment, and family size and type.

In addition to employment opportunities, composition and diversity of the population also influences the region's housing, transportation, educational, and healthcare needs. For example, areas with growing senior populations need to be prepared for the mobility challenges those residents will face when they can no longer drive a car. Likewise, regions with growing foreign-born populations will need to adjust to potentially different educational needs and housing preferences.

Current Trends and Conditions

Minority Population

- **Race/Ethnicity**—Within the Thrive 2055 region, approximately 82 percent of the population is non-Hispanic and white, and 18 percent is Hispanic/Latino or some other race.
- **Minority Groups**—African American people are the most prevalent minority race in the region and approximately seven percent of the region's population is Hispanic or Latino.



THRIVE 2055: DID YOU KNOW?

Regional Diversity

- By 2055, our regional population is projected to be older and only slightly more ethnically diverse than it is today.
- These statistics are significant because both diversity and young populations are indicators present in competitive high-tech regions.

Percentage Minority Population

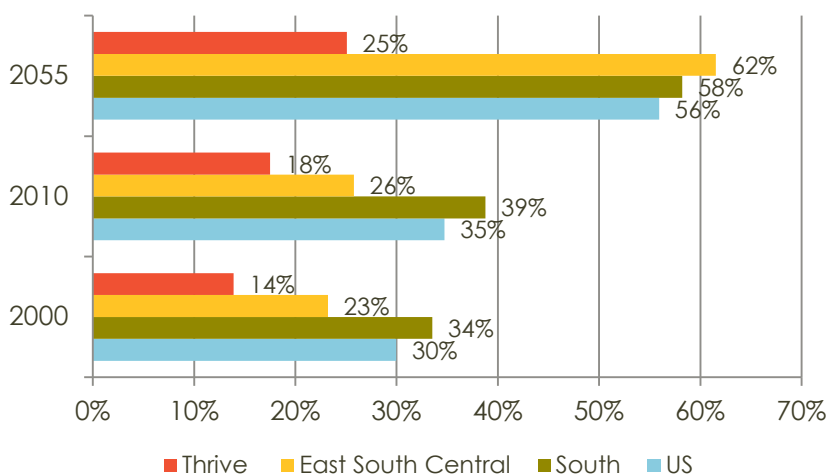


Figure 8: Percentage of Minority Population 2000-2055.

Sources:

Gary Gates, Richard Florida
“Technology and Tolerance:
The Importance of Diversity
to High-Technology Growth”
2001. The Brookings Institute.

<http://www.brookings.edu/research/reports/2001/06/technology-florida>

Arthur C. Nelson, 2012 based
on U.S. Census data and
projections from Woods and
Poole; McBride Dale Clarion,
2013.

- **Future Distribution**—The percentage of minority population in the region is expected to increase to approximately 25 percent by 2055, a lower portion in comparison to projected rates for the South and entire country. By 2055, the U.S. population is projected to be 56 percent minority, and the South and East South Central states are projected to be even higher at 58 and 62 percent respectively.

Age

- **Senior Population**—Currently, the region has only a slightly greater proportion of senior residents (over age 65) than the national average.
- **Future Trends**—By 2055, the region’s senior population is projected to expand to one-quarter (25 percent) of the overall population, up from only 14 percent in 2010. The portion of the population over 65 is also expected to increase nationally and in the East South Central and South areas, but the senior population in this region is projected to outpace these other areas by a small margin.



**THRIVE 2055:
DID YOU KNOW?**

Changing Needs

- The region's senior population is projected to expand to one-quarter (25%) of its overall population by 2055.
- Increases in the region's senior population will bring demand for different housing choices and higher demand on the region's health care system.

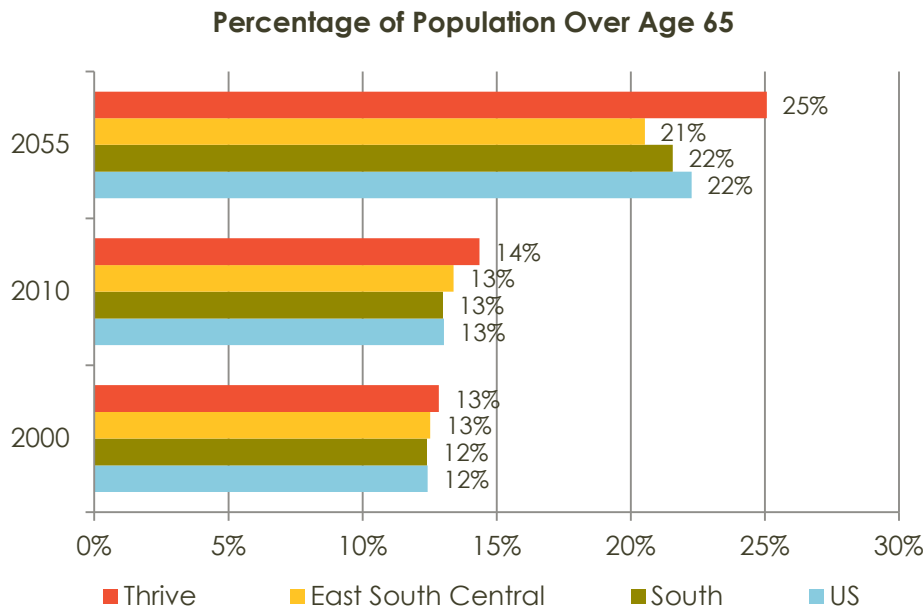


Figure 9: Percentage of Population over Age 65.

Sources:

Arthur C. Nelson, 2012 based on U.S. Census data and projections from Woods and Poole.

Image:

www.seniorcitizenhousing.org

Poverty Rates

Why is this Important?

A region's comparative level of poverty can illuminate how evenly prosperity is distributed among its population. Poverty levels can be analyzed and compared by identifying the percentage of households living in poverty, and by looking at the extent to which poor households are concentrated in certain areas within a region. Although there is no one all-encompassing indicator of poverty, the most widely accepted standard is the Federal Poverty Level (FPL), which for a family of four stands at \$23,550 as of 2013.

Higher levels of poverty are strongly correlated with low educational attainment, poor overall public health, and low levels of workforce preparedness. Higher rates of poverty indicate the untapped potential for greater productivity, regional economic output, and overall levels of prosperity.

Current Trends and Conditions

Population Living in Poverty

- **Poverty Levels**—16.5 percent of all households in the region have incomes below 100 percent of the FPL. This is comparable to Ten at the Top poverty levels (15.8 percent), but is slightly higher than national levels (13.8 percent).
- **Child Poverty**—More children in the region live in poverty than adults, with 24.4 percent of all children under the age of 17 living below the 200 percent FPL compared to 23.6 percent in the Ten at the Top Region, and 20.0 percent nationally.
- **Poverty Concentrations**—Poverty rates vary dramatically by county within the region with core urban areas and remote rural areas experiencing the highest rates of poverty. See the regional comparisons in Figure 10.

THRIVE 2055: DID YOU KNOW?

Poverty Levels

- The region's poverty levels are comparable to Ten at the Top levels, but are higher than national levels.

Child Poverty

- 24.4% of the region's children live below 200% of the FPL. This percentage is comparable to the Ten at the Top (23.6%), but is somewhat higher than the national percentage (20.0%).
- A higher percentage of the region's enrolled public school students (60.7%) qualify for reduced or free lunches, when compared to the Ten at the Top (51.4%) and the nation as a whole (48.3%).

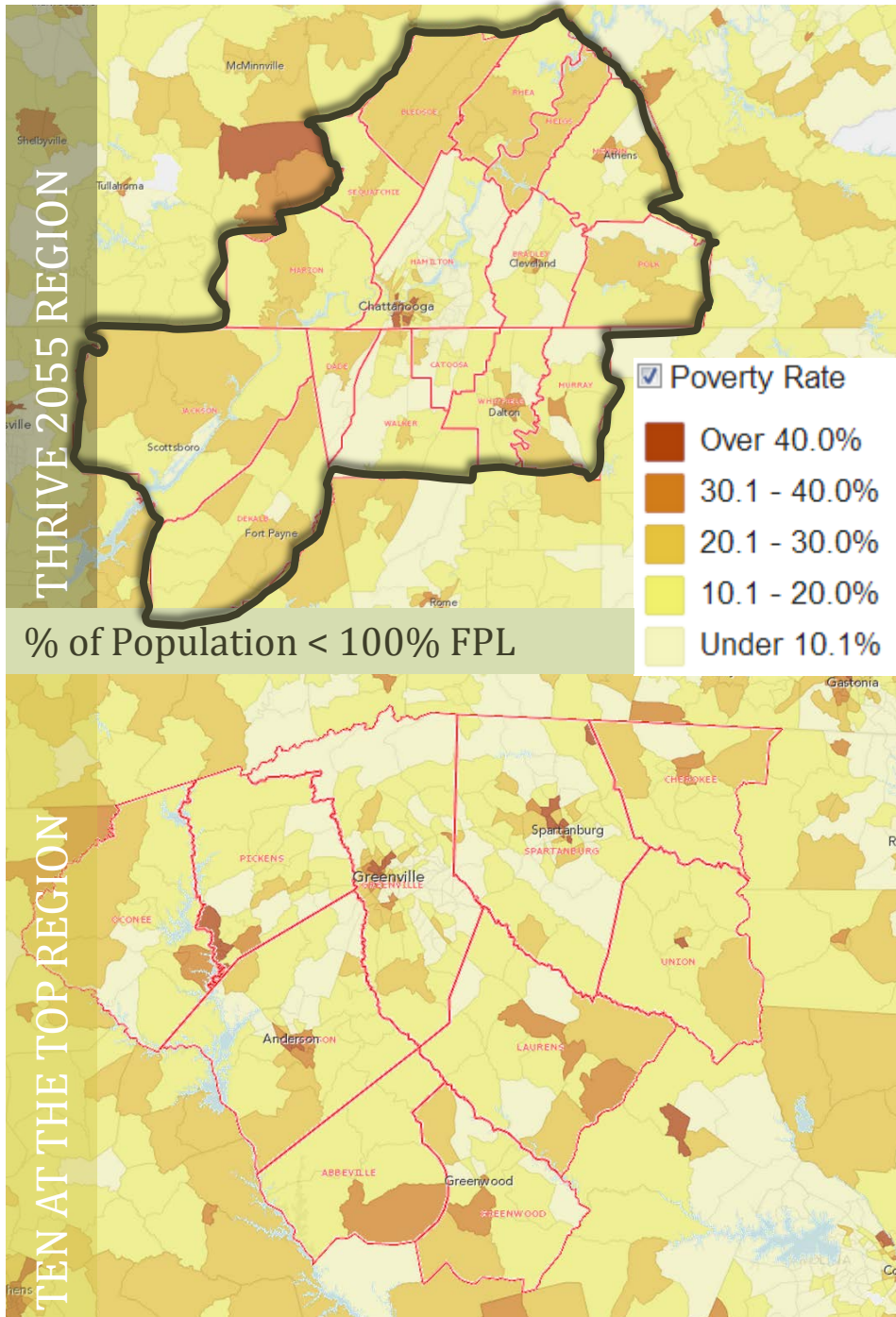
TABLE 1: 2010 POVERTY INDICATORS

	Region		U.S.
	THRIVE	Ten at the Top	
Population Living Below the Federal Poverty Level (FPL)			
% Population with income < 100% FPL	16.5%	15.8%	13.8%
% Population with income < 200% FPL	62.0%	55.7%	41.2%
Children Under the Age of 17			
% of Children living below 200% of FPL*	24.4%	23.6%	20.0%
% of Public School Students Eligible for Free or Reduced Price Lunch	60.7%	51.4%	48.3%

Sources: Community Health Needs Assessment, 2013; U.S. Census Bureau, 2006-2010 American Community Survey 5-Year Estimates. *U.S. Census Bureau, 2007-2011 American Community Survey 5-Year Estimates.

Sources:

Community Health Needs Assessment, 2013
www.chna.org; U.S. Census Bureau, 2006-2010 American Community Survey 5-Year Estimates.



THRIVE 2055: DID YOU KNOW?

Concentrations of Poverty

- The map of the Thrive 2055 region shows more rural areas with 20-30 percent of the population living under the FPL than the Ten at the Top Region.
- The highest concentrations of poverty tend to be in the urban areas of both regions.

Figure 10: Regional Poverty Distribution

The maps above show the percentage of the population in each census tract living at less than 100 percent of the Federal Poverty Level in the Thrive 2055 region (top) and Ten at the Top Region (bottom). Source: Community Health Needs Assessment, 2013, www.chna.org American Community Survey 2012.



Health

Why is this Important?

The health of our region's residents is tied to quality of life, our regional economy, and the built and natural environment. By analyzing the health trends in our region, we can begin to understand how our built and natural environment and our economic opportunities shape our overall health and wellness. Moreover, the decisions we make today related to land use, transportation, and the natural environment will influence the future health of our region's residents and their ability to thrive.

Current Trends and Conditions

Health Indicators

- **Health-Influencing Behaviors**—The region has a lower prevalence of some negative health-influencing behaviors including heavy alcohol consumption, and inadequate fruit/vegetable consumption than both Ten at the Top and national averages.
- **Health Outcomes**—The region has only a slightly higher prevalence of heart disease and obesity than Ten at the Top and national averages; however, occurrences of mortality from heart disease, and poor dental health are notably higher.
- **Maternal/Infant Health**—Infant mortality and low birth weight rates in the region are comparable to Ten at the Top averages, but are slightly higher than national averages. The region's teen birth rate is higher than both Ten at the Top and national averages.

TABLE 2: 2010 HEALTH INDICATORS

	Region		U.S.
	THRIVE	Ten at the Top	
Health-Influencing Behaviors (percentage of population that self-reports engaging in)			
Heavy Alcohol Consumption	9.8%	12.4%	16.6%
Inadequate Fruit/Vegetable Consumption (<5 servings/day)	68.1%	81.1%	75.9%
Physical Inactivity	30.6%	25.8%	19.9%
Tobacco Usage	20.2%	21.6%	19.3%
Health Outcomes (percentage of population experiencing unless otherwise noted)			
Diabetes Prevalence	10.3%	10.1%	8.8%
Heart Disease Mortality*	153.0	123.0	135.7
Heart Disease Prevalence	5.3%	4.7%	4.3%
Obesity	31.4%	30.2%	27.4%
Stroke Mortality*	50.6	51.9	41.8
Poor Dental Health	24.3%	21.0%	15.6%
Maternal/Infant Health (percentage of population experiencing unless otherwise noted)			
Infant Mortality*	8.0	8.4	6.7
Teen Births*	62.0	55.7	41.2
Low Birth Weight	9.5%	9.5%	8.1%

*Measured in occurrences per 100,000 in population. Source: Community Health Needs Assessment, 2013. Statistics are color coded by row. The best performing area is in green, and the poorest performing area is shown in red.



THRIVE 2055: DID YOU KNOW?

Behaviors and Outcomes

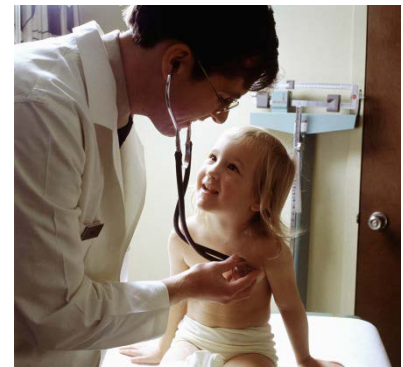
- Levels of physical inactivity in the region are higher than both Ten at the Top and national averages. This is significant because current behaviors are determinants of future health, and this indicator may illustrate a cause of significant health issues, such as obesity and poor cardiovascular health.
- The teen birth rate in the region is 62:100,000 people— 21 more than nationwide teen births per 100,000 people.

Sources:

Community Health Needs Assessment, 2013
www.chna.org; Ochs Center for Metropolitan Studies, 2013.

Healthcare Delivery System

- **Quality Ratings**—The Chattanooga Area Health System is rated among the top 10 in the nation by the HealthGrades 2012 Hospital Quality and Clinical Excellence Study.
- **Rural Challenges**—Many rural hospitals nationwide are facing financial challenges due to low patient volumes and disproportionately higher numbers of Medicare, Medicaid, and uninsured patients.¹ On the other hand, this may be less of an issue since rural patients often bypass rural hospitals for larger hospitals in larger municipalities.²
- **Access to Healthcare Providers**—The regional rate of 65.4 primary care providers per 100,000 people is less than the national average of 84.7 primary care providers per 100,000 people. The regional percentage of adults who do not have a doctor (18.9 percent) is similar to the national average (19.3 percent). See Table 3 below.



THRIVE 2055: DID YOU KNOW?

Health Paradox

- Chattanooga's quality hospital care is ranked 7th in the nation, and is relatively affordable, but the region's health outcomes are still poor in some indicator areas (e.g., physical inactivity, heart disease mortality and dental health) when compared to the nation as a whole.

Health Care Access

- Health care services and access are more limited in rural parts of the region—this challenge will become more pronounced as our population ages over time.

TABLE 3: ACCESS TO HEALTHCARE PROVIDERS

COUNTY	Primary care providers per 100,000 population	Percentage of adults without a doctor
Bledsoe County, TN	23.3	20.1%
Bradley County, TN	54.6	23.4%
Hamilton County, TN	110.3	13.5%
Marion County, TN	46.0	19.0%
McMinn County, TN	44.0	13.0%
Meigs County, TN	42.5	Data not available
Polk County, TN	59.4	24.8%
Rhea County, TN	44.0	16.6%
Sequatchie County, TN	35.4	37.9%
Catoosa County, GA	48.5	10.1%
Dade County, GA	36.1	18.0%
Murray County, GA	22.7	27.2%
Walker County, GA	23.3	27.9%
Whitfield County, GA	54.6	29.6%
DeKalb County, AL	33.8	24.6%
Jackson County, AL	50.7	12.0%
Regional Average	65.4	18.9%
National Average	84.7	19.3%

Source: Community Health Needs Assessment, 2013; Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2006-2010. Source Geography: County.

Sources:

Community Health Needs Assessment, 2013
www.chna.org; Ochs Center for Metropolitan Studies, 2013.

1 American Hospital Association, Trendwatch, *The Opportunities and Challenge for Rural Hospitals in an Era of Health Reform*, April 2011.

2 BlueCross BlueShield of Tennessee Health Institute, *Patterns of Care in Tennessee*, available at: <http://www.bcbst.com/health-institute/IssueBrief-RuralHosp.pdf>.

- **Hospitals**—The region has approximately 2,350 hospital beds. Approximately half (51 percent) of the beds are in Hamilton County; Walker, Bradley, and Whitfield counties also have large hospitals. Hospitals are also located in Bledsoe, Marion, McMinn, Polk, Rhea, DeKalb, Jackson, Murray, and Walker counties. (See Table 4.)

TABLE 4: GENERAL MEDICAL HOSPITALS IN THE THRIVE 2055 REGION

County	Facility	Beds	% Occupancy	Discharges or Admissions*
Tennessee*				
Bledsoe	Erlanger Bledsoe	25	25.8	218
Bradley	Skyridge	177	56.0	8,716
	Skyridge Westside	30	35.3	853
Hamilton	Erlanger Medical Center	489	71.3	24,252
	Erlanger North	12	84.3	282
	Memorial Healthcare System, Inc.	336	81.5	20,963
	Memorial North Park	69	66.0	4,099
	Parkridge East Hospital	108	35.2	3,774
	Parkridge Medical Center, Inc.	185	58.6	7,679
Marion	Grandview	63	48.6	2,766
McMinn	Athens Regional	63	36.0	2,299
	Woods Memorial	48	50.8	1,610
Meigs	None			
Polk	Copper Basin Medical Center	25	46.2	942
Rhea	Rhea Medical	25	47.4	1,204
Sequatchie	None			
Alabama**				
DeKalb	DeKalb Regional Medical Center	115	NA	4,089
Jackson	Highlands Medical Center	92	NA	4,084
Georgia**				
Catoosa/ Walker	Erlanger at Hutcheson Medical Center	185	NA	6,226
Dade	None			
Murray	Murray Medical Center	19	NA	679
Whitfield	Hamilton Medical Center	282	NA	9,651
Total		2,348		104,386

Sources: *Tennessee Department of Health, 2011 Joint Annual Report: Hospitals; **American Hospital Association, AHA Data Viewer; Ochs Center for Metropolitan Studies, 2013.

* Hospitals usually track utilization by number of Discharges (minus newborns) or Admissions. This figure represents the number of patients admitted or discharged for the reporting period (2011) as self-reported by the hospitals.

Economic Factors

- **Health Insurance**—Approximately 16.4 percent of the region's population lacks health insurance, which is comparable to the national percentage (16.1 percent).
- **Medicaid**—Approximately 18.2 percent of the region's population receives coverage through Medicaid, compared to 16.1 percent of the nation's population.
- **Uninsured Population**—The highest rates of uninsured population in the region are in Whitfield County (25.4 percent)

and Murray County (23.1 percent), which correlates to the highest rates of unemployment in the region. Hispanics, which represent over 30 percent of Whitfield County's population, tend to have higher uninsured percentages nationwide.³

Healthcare Disparities

- **Role of Race/Ethnicity**—Hispanics tend to have higher rates of diabetes, obesity, and HIV⁴ and African Americans experience higher rates of several types of cancer as well as diabetes.⁵ Currently only Hamilton and Whitfield have significant populations of minorities (mostly African American and Hispanic), and these national health trends are apparent in these counties' minority populations. Data availability for disparities related to African Americans is only for Hamilton County since that is the only county with significant percentages of that population. Data for Hispanics in the region is limited.

Food and Nutrition

There are many factors that contribute to what people eat: accessibility (geography, price), daily schedules, income, weight, and cultural attitudes can influence food and nutrition decisions. Food and nutrition indicators are reported and tracked by a variety of agencies at a national and local level. In addition to the Community Health Needs Assessment referenced in Table 2, the following are additional indicators examined for the region:

- **Food Access**—Food deserts are areas where a substantial number of residents have limited access to a supermarket or large grocery stores. The region has a similar percentage of the population living in food deserts (9.3 percent) as the national average (9.1 percent). However, a 2009 study conducted by the Ochs Center for Metropolitan Studies to explore food access and price within the City of Chattanooga and Hamilton County noted that food is less accessible (by distance or price) in some of the lowest income sub-regions in Chattanooga and Hamilton County.⁶
- **Fast Food**—The number of fast food restaurants per 100,000 people serves as a negative indicator of healthy food access and environmental influences on dietary behaviors. The region has a similar rate of fast food establishments per 100,000 people



THRIVE 2055: DID YOU KNOW?

Food Deserts

- Although the region is on track with the nation in terms of the percentage of the population living in food deserts, research conducted for the City of Chattanooga and Hamilton County suggests that food deserts are more prevalent in urban areas of the region.

Local Food

- Despite strong demand for local food and farm products, a recent food and farm assessment for Chattanooga found that only a fraction of food consumed in Chattanooga and the surrounding region is produced locally.
- Nationally, the CDC found the adult caloric content from fast food is declining from 13 percent in 2003-06, to 10 percent in 2007-10.

3 See Pfizer: http://www.pfizer.com/files/products/Profile_of_uninsured_persons_in_the_United_States.pdf

4 See the Centers for Disease Control report, "Health Disparities Experienced by Hispanics," available at: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5340a1.htm>.

5 See the Centers for Disease Control report, "Health Disparities Experienced by Black or African Americans," available at: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5401a1.htm>.

6 See the Ochs Center Report, "Food Access and Price. A Spatial Analysis of Grocery Stores and Food Prices in the City of Chattanooga and Hamilton County," available at: <http://www.ochscenter.org/documents/foodaccessandprice.pdf>

(70.1) than the national average of 69.3 establishments per 100,000 people. While fast food access plays a role in local food and nutrition, a national study published by the Center for Disease Control in 2013, found that the national adult population is decreasing its caloric intake from fast food. ⁷

- **Local or Slow Food**—Research conducted by the Appalachian Sustainable Agriculture Project (ASAP) as part of a 2011 Food and Farm Assessment for Chattanooga⁸ indicates there is growing regional interest in supporting local farms and sourcing locally-grown food. The report explores the food and farm products currently produced in the region, and examines the relationship between foods grown in the region and consumption by local residents. Local and slow foods are the counter-indicators to “fast” food.

Sources:

Community Health Needs Assessment, 2013
www.chna.org; U.S.D.A. Food Desert Locator, 2009; U.S. Census Bureau, County Business Patterns, 2010; The Ochs Center for Metropolitan Studies, 2013.

⁷ See the NCHS Data Brief, Number 114, February 2013. “Caloric Intake from Fast Food Among Adults: United States, 2007-2010.” Centers for Disease Control and Prevention, available at: <http://www.cdc.gov/nchs/data/databriefs/db114.htm>

⁸ See the ASAP report, “2011 Food and Farm Assessment for Chattanooga,” available at: <http://asapconnections.org/downloads/asap-food-and-farm-assessment-gaining-ground.pdf>

Public Safety

Why is this Important?

Many different factors shape the safety and perceptions of safety within our communities and region. The prevalence of gangs, substance abuse, and poverty can all contribute to elevated levels of crime and criminal activity. In contrast, the prevalence of neighborhood organizations and after-school opportunities for youth can help prevent or reduce criminal activity. The safety of our communities depends on both reducing the factors that can lead to criminal activity as well as creating safe environments and opportunities for the region's residents.

Preparedness for emergencies, including natural and other hazards, also affects the levels of safety in the region. Like criminal activity, natural and other hazards are not contained within political or regional boundaries. Instead, both emergency planning and crime prevention require coordination and strategic thinking among various levels of government, as well as the involvement of a myriad of others, such as neighborhood groups and education providers.

Current Trends and Conditions

Crime Incidents

Violent and property crime incidents are reported to the FBI individually by the county and city law enforcement agencies. According to the October 2012 report for calendar year 2011 there has nationally been a decrease in violent and property crimes for the fifth consecutive year.

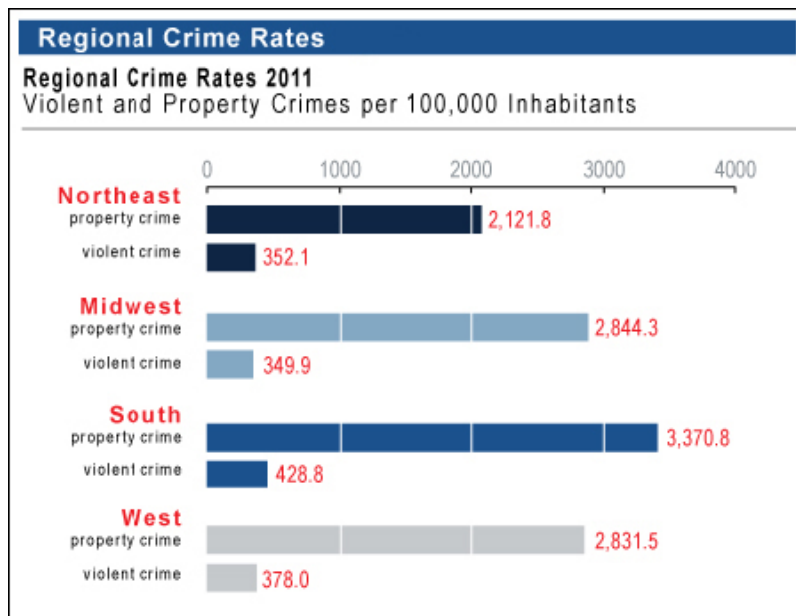


Figure 11: Crime in the United States, Regional Crime Rates 2011. Source: FBI Latest Crime Statistics (October 2012 reporting for 2011).



THRIVE 2055: DID YOU KNOW?

Crime

- Both violent and property crime incidents are more prevalent in the region than in the nation as a whole; however, rates of crime vary dramatically from county to county within the region.

Gang Activity

- The 2012 Chattanooga Comprehensive Gang Assessment revealed the need for a comprehensive set of school and community programs, and the importance of parents and families in addressing gang issues.

- **Violent Crime**—According to self-reports made to the FBI, in 2011 there were 3,922 violent crimes reported in the region⁹. This equates to 388 crimes reported per 100,000¹⁰ people in the region, compared with 386 in the nation, and 428 in the South. Urban areas of the region like Chattanooga report higher rates of violent crime (863 reports per 100,000 population) compared to rural areas like Bledsoe County (85 reports per 100,000 population¹¹). Athens and Cleveland, Tennessee have the region's highest rates of crime with 1,300 and 1,050 reports per 100,000 respectively.
- **Property Crime**—The annual rate of property crime in the region is approximately 2,880¹² reports per 100,000 people, very comparable with the national average of 2,910 reports annually. Our cities generally report a higher property crime rate than unincorporated areas with Athens, Fort Oglethorpe, Kimball, Chattanooga, and Cleveland reporting rates in excess of 54 incidents per 1,000 people. The unincorporated counties all report fewer than 25 incidents per 1,000 people.

Related Factors

- **Gang Activity**—A 2012 assessment prepared for the City of Chattanooga by the Ochs Center for Metropolitan Studies and the UTC Center for Applied Social Research revealed that gangs are entrenched in certain areas today and that the presence of gangs and their associated activities is spreading. Poverty, lack of parental involvement, illiteracy, peer pressure, desire for financial gain, lack of positive role models, and other factors have all been identified in the report as playing a role in gang proliferation.
- **Substance Abuse**—Substance abuse is a growing problem in both urban and rural parts of the region, particularly methamphetamine use and production. U.S. Drug Enforcement Agency data shows that in 2012, Tennessee had 1,585 meth lab incidents, one of the highest levels in the nation. Georgia and Alabama had only 60 and 192 incidents, respectively. These numbers have fluctuated considerably (both higher and lower) in all three states since 2005. These labs present health and safety concerns not only to drug users but to residents and neighbors of the properties where they are operated.

THRIVE 2055: DID YOU KNOW?

Substance Abuse

- U.S. Drug Enforcement Agency data on meth labs per county shows that methamphetamine production is an ongoing problem in both rural and urban parts of the region. Of the 16 counties, Hamilton (125), Jackson (104), McMinn (121) and Bradley (78) counties had the highest number of labs in 2012.

Hazard Impacts

- Between 2006 and 2012, total property losses due to reported hazard events in the region are estimated at more than \$259 million.
- During the same period, reported hazard events in the region resulted in approximately 100 deaths and more than 825 injuries.

Sources:

Federal Bureau of Investigation Uniform Crime Reporting, 2012; Chattanooga Comprehensive Gang Assessment, 2012, The Ochs Center for Metropolitan Studies and the UTC Center for Applied Social Research; Drug Enforcement Administration, 2012. U.S. Drug Enforcement (DEA) Agency, 2013;

⁹ Data for Walker County, Georgia, was unavailable.

¹⁰ The American Community Survey estimates the regional population in 2011 at 1,012,000.

¹¹ Bledsoe County only reported 11 violent crimes in 2011 with a population of 12,950.

¹² Not all counties reporting (Excludes Bradley, Murray, and Walker Counties.)

Natural Hazards

- **Potential Hazards**—The region and other areas of the southeast are geographically susceptible to severe weather events. Potential hazards include floods, tornados, severe storms, hurricanes, landslides, and drought. These hazards do not respect political boundaries and cause damage to private property and infrastructure.
- **Hazard Impacts**—Between 2006 and 2012, total property losses due to reported hazard events in the region are estimated at more than \$259 million. These recent reported events also resulted in approximately 100 deaths and more than 825 injuries.
- **Increased Frequency of Events**—Recent increases in the frequency and severity of tornados and flooding have resulted in a heightened awareness of the need for coordination in natural hazard planning, mitigation, and recovery. Most weather related deaths and injuries reported in the region between 2006 and 2012 were the result of tornados and flooding that occurred on April 27, 2011.



TABLE 5: NATURAL HAZARD IMPACTS*, 2006-2012

County	Deaths	Injuries	Property
Alabama			
DeKalb	31	29	10,674,000
Jackson	9	13	1,620,000
Georgia			
Catoosa	8	30	27,446,000
Dade	2	25	23,120,000
Murray	0	0	442,500
Walker	0	25	14,518,000
Whitfield	0	0	3,322,000
Tennessee			
Bledsoe	8	20	30,381,000
Bradley	18	412	52,395,000
Hamilton	21	239	79,061,000
Marion	0	9	3,136,000
McMinn	0	18	3,694,000
Meigs	0	0	187,000
Polk	1	1	2,082,000
Rhea	0	4	5,419,000
Sequatchie	2	0	1,514,000
Totals	100	825	\$259,011,500

* Includes impacts from Flash Floods, Flooding, Funnel Clouds, Hail, Heavy Rain, Lightning, Thunderstorm Winds, and Tornados. Source: NOAA National Atmospheric Data Center, Storm Events Database.

Sources:

NOAA National Atmospheric Data Center, Storm Events Database. DEA National Clandestine Lab Register 2004-2012; CNN Money.

Image:

www.2.bp.blogspot.com

Educational Attainment

Why is this Important?

Educational achievement is widely acknowledged as the most critical building block of economic well-being for individuals, communities, and regions. Strategic investment in educational development is essential to growing local talent, attracting outside businesses and investors, and creating long-term economic prosperity.

A robust educational system is critical to positioning our workers and our businesses to compete in the innovation economy of the future. One way to prepare students for higher levels of achievement in secondary schools, vocational academies, and universities is to focus on early childhood education.

Current Trends and Conditions

- **Primary and Secondary Education**— It is difficult to draw conclusions about early educational proficiency on a regional basis because of differences in curricula and testing across the three states and the various districts. Comparisons of high school graduation can be made across the region. Lower high school completion rates may be indicators of lower enrollment in secondary education. Approximately 22 percent of the region's adult population does not have a high school degree or equivalent.

TABLE 6: High School Graduation Rates

	Avg. Freshman Base Enrollment	Est. # Diplomas Issued	On-Time Graduation Rate
Thrive 2055 Region	11,556	8,779	76
DeKalb County, AL	888	608	68.40
Jackson County, AL	684	493	72
Catoosa County, GA	834	670	80.30
Dade County, GA	184	142	77.40
Murray County, GA	549	420	76.60
Walker County, GA	830	634	76.30
Whitfield County, GA	1,518	1,295	85.30
Bledsoe County, TN	142	107	75.30
Bradley County, TN	1,140	888	77.90
Hamilton County, TN	2,881	2,086	72.40
McMinn County, TN	659	475	72
Marion County, TN	329	244	74.20
Meigs County, TN	151	120	79.30
Polk County, TN	193	154	79.70
Rhea County, TN	394	302	76.70
Sequatchie County, TN	179	142	79.50
Alabama	60,169	42,082	69.90
Georgia	129,797	88,003	67.80
Tennessee	77,980	60,368	77.40
United States	4,024,345	3,039,015	75.50



THRIVE 2055: DID YOU KNOW?

Workforce Education

- Adult workforce education rates in the region compare similarly with the Ten at the Top Region, but our post-secondary education rates are lower than rates for the nation and the U.S. South.
- While only 24 percent of the region's workforce has an Associate's Degree or higher compared to 36 percent in the nation, an additional 21 percent of the region's adult population has had some college education.
- 22 percent of the region's adult population does not have a high school diploma or equivalent. This percentage is comparable to the Ten at the Top Region (21 percent), but is higher than the nation (14 percent).

Sources:

[The University of Wisconsin, Population Health Institute, County Health Rankings, 2012](#) and the [U.S. Department of Education, National Center for Education Statistics \(NCES\), Common Core of Data, Public School Universe Survey Data, 2005-06, 2006-07 and 2007-08](#). Source geography: County.

- High School Graduation Rates**—The high school graduation rate measures the percentage of on-time graduation from the base freshmen enrollment. Regionally, our graduation rates are comparable to the national rate. However, we have some counties that are performing very well in comparison to national statistics and others that are under-performing even their state averages. (See Table 6).
- Higher Education**—18 percent of the region’s adult population has a Bachelor’s or higher degree compared to 25 percent in the U.S. South and 28 percent in the U.S.
- Geographic Variation**—Educational attainment varies widely across the region. The chart below uses attainment of at least a four year degree (for persons at least 25 years of age) to demonstrate this variation. Bradley and Hamilton have the highest proportion of residents with a college degree, while Murray, Bledsoe, and Meigs County have the smallest proportion.

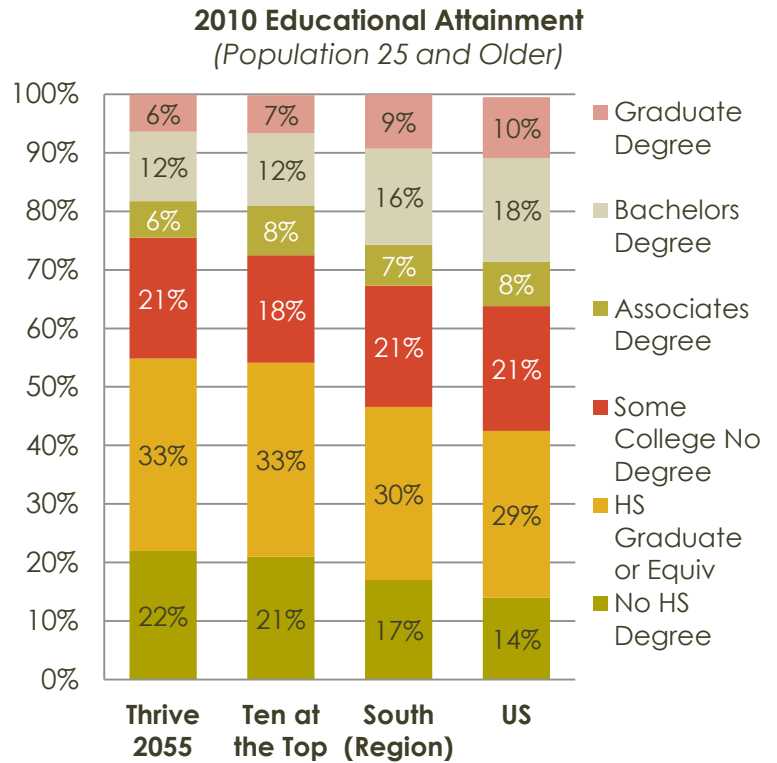


Figure 12: 2010 Educational Attainment Comparisons (Population 25 and Older)
 Source: 2006-2010 American Community Survey; BAE, 2012.

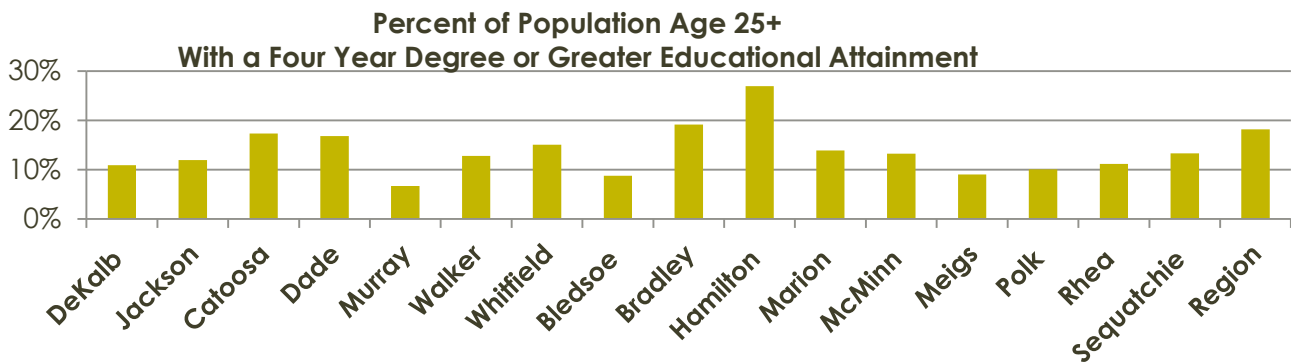


Figure 13: Thrive 2055 Region. County Population with Four Year Degree or Greater (Population 25 or Older)
 Source: 2006-2010 American Community Survey

Economy and Jobs

Why is this Important?

Job creation has traditionally been considered the most important indicator of an area's economic health and the economic opportunities available to an area's residents. Job growth in certain types of industry sectors can lead to greater and more sustained economic prosperity and wealth creation over time. In particular, sectors like manufacturing and information technology can produce goods and services that are exported outside the region. These "export base" or "traded" sectors bring revenue into the region that is then circulated around the regional economy through wages and payments to suppliers. This causes spending that creates additional jobs. A regional economy will be impacted by cycles of economic expansion and recession, but a strong regional economy is one in which regional advantages and industry specialization form the foundation for a strong, productive "export base" that continues to generate new employment across industries over time.

Resident unemployment rates and changes in the total number of jobs are key employment indicators and are the basic indicators of job availability and employment opportunities for residents. Additionally, the proportion of jobs in key industries provides an indication of the characteristics of the local economy, its level of specialization and its diversity.

Current Trends and Conditions

Employment Levels and Job Growth

- **Unemployment**—Unemployment has decreased in the past few years as the region and the nation have progressed toward recovery after the economic downturn of the late 2000's. The region has followed the U.S. pattern of declining unemployment, but remains slightly higher (nine percent) than the U.S. average (eight percent). Unemployment rates for the Ten at the Top Region (just under 10 percent) were higher than both the Thrive 2055 region and the U.S. average.

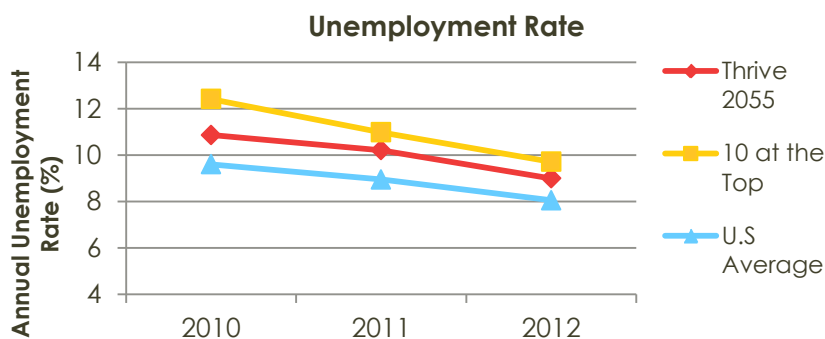


Figure 14: Unemployment Rate Comparison

Source: U.S. Department of Labor, Bureau of Labor Statistics; BAE, 2013.



THRIVE 2055: DID YOU KNOW?

National Comparison

- We are tracking the same economic rise and fall pattern as the nation, but at a significantly lower gross domestic product (GDP). (See page 22.)

Jobs Growth

- Our unemployment rates are lower than the Ten at the Top Region but are still higher than national rates.
- We gained jobs during the same period the Ten at the Top Region lost jobs, but neither region meets the national benchmark.

Related Maps (see Appendix)

3. Job Growth Projections
4. Employment Concentration

Sources:

U.S. Department of Labor, Bureau of Labor Statistics, Local Area Unemployment Statistics; Longitudinal Employment-Household Dynamics, Quality Workforce Indicators; BAE, 2013.

Image:

www.thedailygreen.com

- **Job Growth**—Job growth between 2010 and 2011 has shown only a small increase for both the Thrive region and the nation—just above one percent growth, while the number of reported jobs declined slightly for the Ten at the Top region, less than one percent.

Industry Base

- **Manufacturing and Other Key Industries**—Unlike many regions in the U.S. and globally, the Thrive region still maintains and benefits from its large share of employment in goods production and movement: 22 percent of jobs in 2010 were in the manufacturing sector, and another six percent of jobs were in transportation and warehousing. The share of each county's employment in manufacturing ranges from one third or more of jobs in Whitfield, Murray, Jackson, and Meigs Counties, to five percent or less in Sequatchie and Bledsoe Counties. For most counties in the region, the manufacturing sector is the largest provider of employment opportunities. Although the share of manufacturing employment has been declining both nationwide and within the region, manufacturing still remains the largest sector driving the regional economy. In comparison, about nine percent of U.S. jobs and 18 percent of jobs in the Ten at the Top Region are in the manufacturing sector.

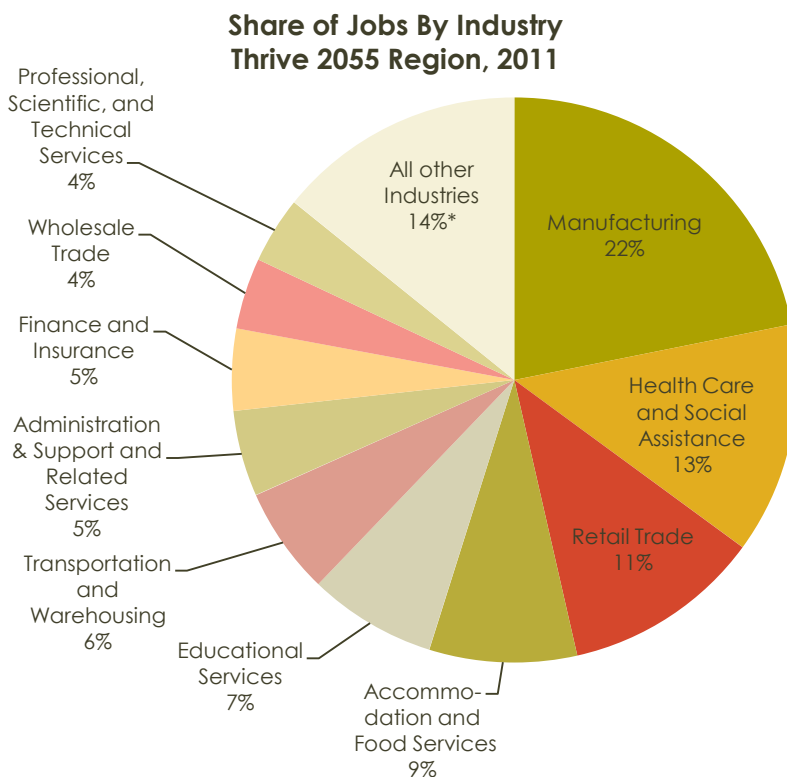


Figure 15: Thrive 2055 Region, 2011 Share of Jobs by Industry

- **Gross Domestic Product**—According to the Brookings Institution, the gross domestic product (GDP) – a measure that

THRIVE 2055: DID YOU KNOW?

Manufacturing Jobs

- The percentage of the region's regional employment in the manufacturing sector (22%) is higher than the Ten at the Top Region (18%) and significantly higher than the nation (9%).
- The high rate of manufacturing jobs indicates a robust ability to bring in dollars from goods exported outside the region, strengthening other sectors of the region's economy through a multiplier effect as those dollars are circulated through wages, taxes and payments to suppliers.

FIGURE NOTES:

*All other industries category includes sectors contributing less than 4% of the total regional employment. These categories include: Public Administration-3.5%, Other Services (excluding Public Administration)-2.6%, Arts, Entertainment, and Recreation-1.0%, Management of Companies and Enterprises-.06%, Real Estate and Rental and Leasing-0.9%, Information-1.3%, Agriculture/Forest/Fishing/Hunting-0.2%, Mining/Extraction-0.1%, Utilities-0.5%, and Construction 3.4%.

Sources:

U.S. Department of Labor, Bureau of Labor Statistics, Local Area Unemployment Statistics; Longitudinal Employment-Household Dynamics, Quality Workforce Indicators; BAE, 2013.

values the total goods and services produced – yielded \$89,000 per worker in 2010 for the Chattanooga metropolitan area. In comparison, the Greenville, South Carolina metro area (Ten at the Top Region) yielded \$76,000 per worker in 2010. The data suggest that while manufacturing is declining in total employment, worker productivity and the value of goods produced is strong.

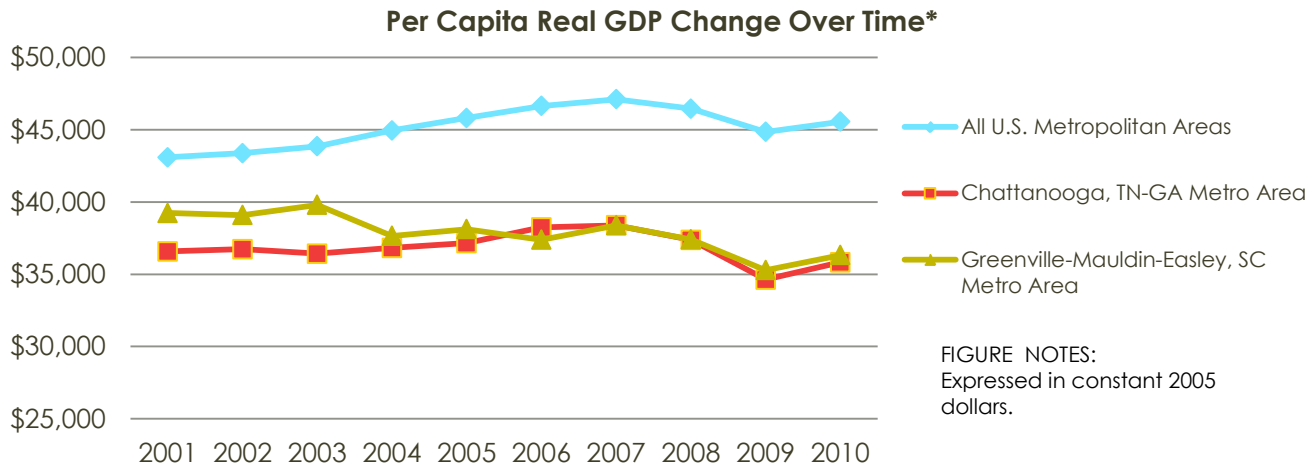


Figure 16: Per Capita Real GDP Trend Comparison
Source: U.S. Department of Labor, Bureau of Labor Statistics; BAE, 2013

Employment Growth Projections

- **Job Growth**—The mix of industries in the region will continue to change in the future. Employment projections prepared for the Thrive 2055 planning process estimate that the total number of jobs in the region will grow by about 68 percent between 2010 and 2055.
- **Growth Distribution**—The projections break down employment into the following categories based on the workplace:
 - **Manufacturing**—While the absolute number of manufacturing jobs will remain relatively constant, manufacturing’s share of total jobs will continue to decline as the total number of jobs increases.
 - **Office, Retail/Accommodation**—Office and retail employment will grow at around the same rate as the average for all categories.
 - **Institutional**—Institutional employment, which includes education and healthcare, will more than double during the 40-year time period.

Sources:

U.S. Department of Commerce, Bureau of Economic Analysis; BAE, 2013; Arthur C. Nelson, 2012 based on U.S. Census data and projections from Woods and Poole.

Cost of Living and Housing

Why is this Important?

The comparative cost of housing, goods, and services is a key driver of economic competitiveness and regional health. Many regions nationally are finding it difficult to retain businesses and talented workers due to a growing mismatch between prevailing wages, the cost of basic goods and services, and steep housing costs.

The high cost of living in other major urban centers outside the region creates an opportunity to attract individuals and entrepreneurs seeking a higher quality of life in an area with comparable long-term economic opportunities. Building on its inherent natural beauty and unique character, the region is well positioned to retain and attract workers and businesses seeking all of the benefits of a dynamic economic region but with a lower cost of living.

Current Trends and Conditions

Cost of Living

- **Chattanooga and Comparative Cities** —When compared to other cities and the U.S. as a whole, the region demonstrates a relatively low cost of living, as shown below.

TABLE 7: Cost of Living Comparisons (Cities)

	Cost of Living Index	Housing Opportunity Index*
Nashville-Franklin, TN	88.9	not available
Greenville, SC	90.3	92.0
Chattanooga, TN	91.1	83.9
Huntsville, AL	91.2	not available
Austin, TX	95.5	73.3
Nationwide Average	100	74.1
Portland, OR	111.3	73.4

Sources: NAHB/Wells Fargo Housing Opportunity Index (HOI); C2ER, Arlington, VA, ACCRA Cost of Living Index, Annual Average 2010 (copyright).

*Housing opportunity index (HOI) is the share of homes sold in an area that would have been affordable to a family earning the local median income, based on standard mortgage underwriting criteria.

Household Incomes

- **Median Household Income by County** —The affordability of an area's housing and other major household costs is partially a function of the income levels found in that area. There is variation in median household income levels among the region's counties, as shown in Figure 17. The median household income (in 2010 dollars) for the region was just over \$40,000, with median incomes over \$40,000 for four counties: Hamilton,



THRIVE 2055: DID YOU KNOW?

Affordability

- Chattanooga is more affordable than the national average.
- Median housing affordability is better than the national average.
- Utility costs in this region are significantly lower than in other parts of the country.
- In comparison to the Greenville region, groceries, utilities and health care are less expensive in Chattanooga.

Regional Variations

- There is significant variation within our region in property and sales tax rates.

Sources:

U.S. Census, 2006-2010 American Community Survey (ACS); BAE, 2013.

Image: www.chahousing.org

Bradley, Catoosa, and Whitfield. The region as a whole and its component counties had median household incomes below the U.S. median of \$51,900.

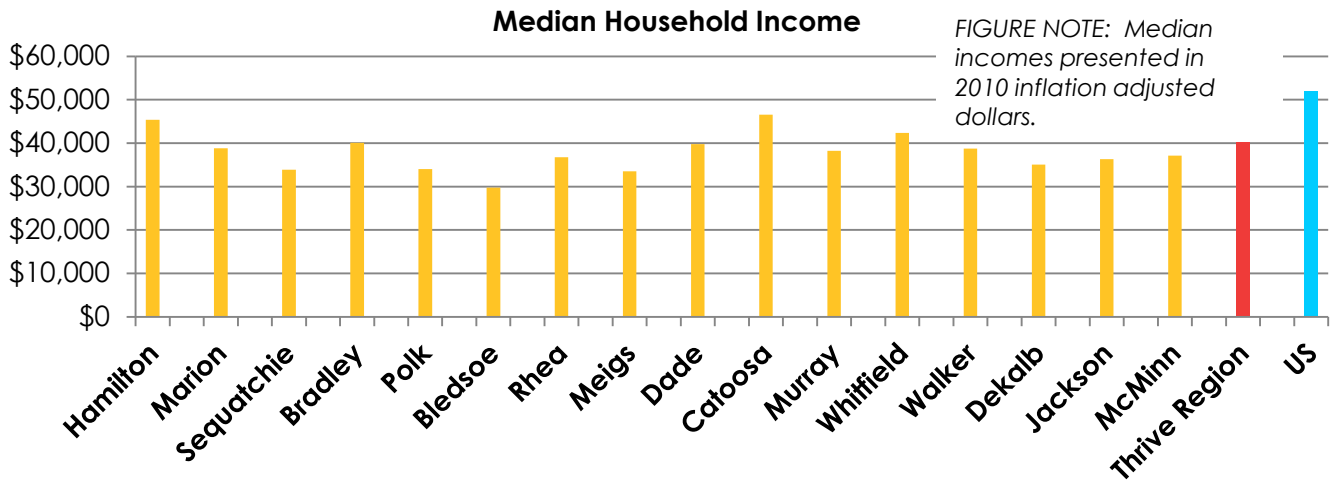


Figure 17: Median Household Income 2010. Thrive Region. Sources: ACS, 2006-2010; BAE, 2012.

Housing Costs

- Median sale price**—For most households, housing costs make up the largest portion of their monthly expenses. Housing costs vary widely around the region, reflecting spatial differences in access to jobs, housing types and quality, and the perceived quality of life offered by different locations. Figure 18 below demonstrates differences in sales prices in the counties that are covered by the Greater Chattanooga Association of Realtors (GCAR), and the change in sale price over time. The increase in median sale price between 2000 and 2012 ranged from five percent in Dade County to 57 percent in Sequatchie County, with the highest 2012 median sale price found in Hamilton County. In comparison, inflation levels measured by the Consumer Price Index (CPI) nationwide for a variety of typical household expenses rose by 33 percent during the same time period.

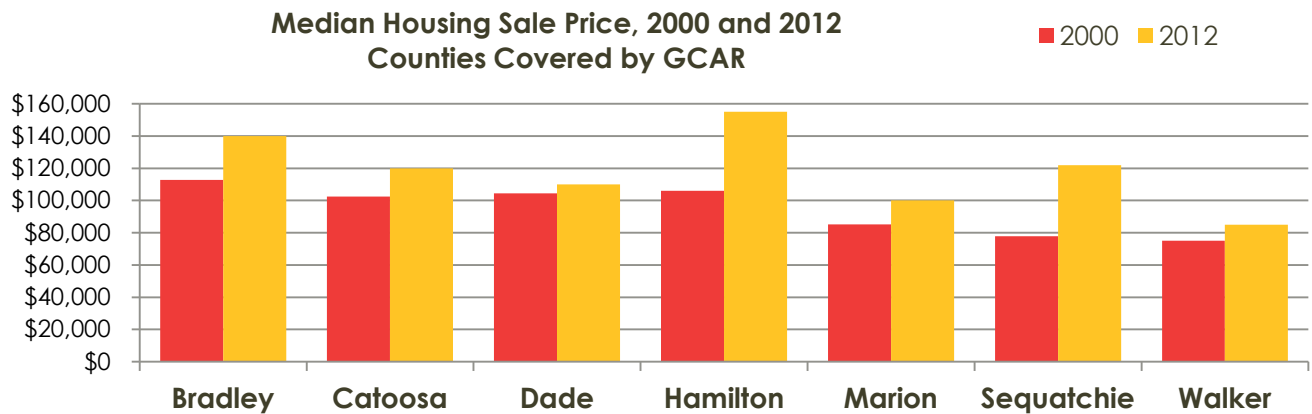


FIGURE NOTE: Only includes sales reported to the GCAR Multiple Listing Service.

Figure 18: Median Housing Sale Prices
Sources: GCAR; BAE, 2013.

- **Housing burden**—Housing costs at or below 30 percent of a household’s income are generally considered to be affordable, while housing costs that require households to dedicate more than 30 percent of their income are generally considered to be more burdensome or unaffordable. According to the U.S. Census, American Community Survey, about 30 percent of the region’s households pay more than 30 percent of their income on housing costs, a proportion similar to the Ten at the Top Region. In comparison, 38 percent of U.S. households pay 30 percent or more of their income for housing.

Housing Supply

- **Housing Options**—The region offers a variety of housing types, although single-family homes are the predominant type of housing available. Regionally, about 68 percent of all homes are single family, detached homes (excluding mobile homes). Single-family detached homes make up between half and three-quarters of the housing stock in all the region’s counties. Around the region, multifamily housing comprises less than five percent to about a quarter of the housing stock in different counties. Townhome or rowhome style (single-family attached) housing makes up only a small share of the housing in counties where it is available.
- **Future Housing Needs**—Population and household projections prepared for the Thrive 2055 process suggest that between 2010 and 2055, there will be new demand for 130,000 housing units; additionally, the need to replace 114,000 units of housing will drive demand for a total of 244,000 new housing units from 2010 to 2055. The types of housing needed will change as the makeup of the population and households change. Households with a head between 35 and 64 years of age, considered to be the primary source of demand for most large, single-family detached homes, will remain stable in number, while household growth will occur in households without children, single person households, and households headed by a person 65 years or older.

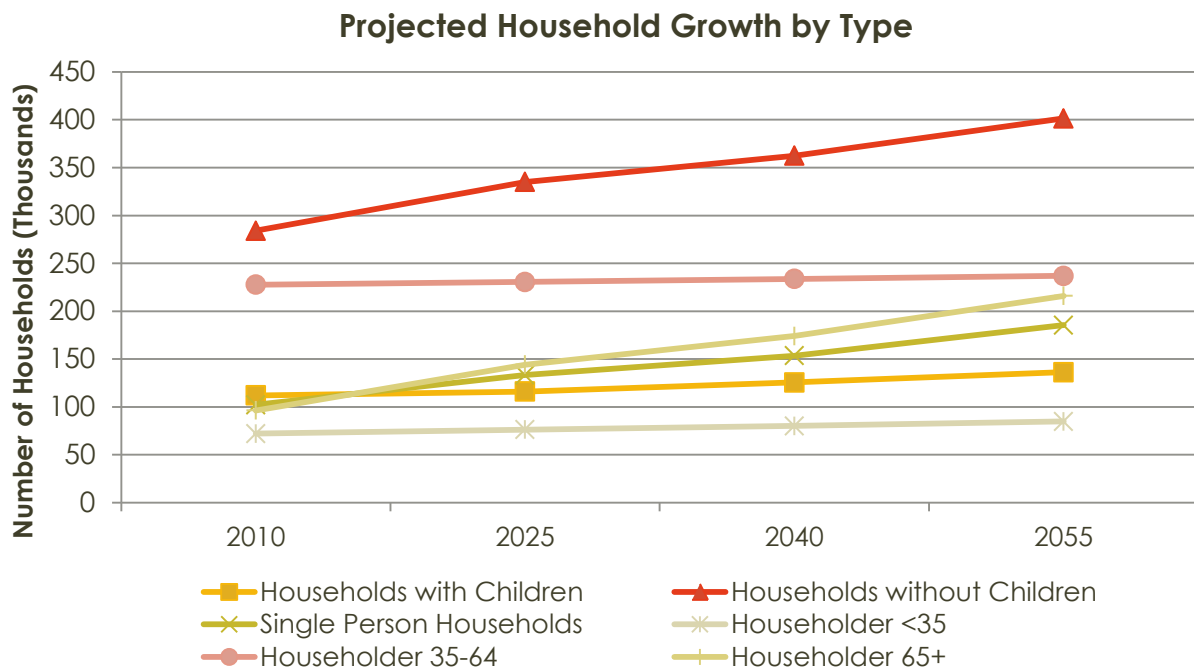


Figure 19: Projected Housing Growth by Type.

Sources: Arthur C. Nelson, 2012 based on U.S. Census data and projections from Woods and Poole; BAE, 2013.

Mobility and Freight Movement

Why is this Important?

Transportation infrastructure connects people, places, and goods. The accessibility, convenience, mode, and routes that people use to travel between home, work, and other destinations make up what we define as “mobility.”

Travel time, travel distance, and travel cost influence where people live, work, and spend time. Furthermore, mobility is an important determinant in where companies and employers locate. Mobility also plays an important role in the quality of life of residents and the economic competitiveness of a region.

Key trends affecting mobility nationwide include:

- Aging infrastructure;
- Funding challenges; and
- Rising demand for increased choice.

The financial requirements of maintaining aging infrastructure compete with the cost of system expansion. With the knowledge that not all projects will receive funding, transportation agencies must grapple with the complicated task of prioritizing projects with a host of competing interests.

Without a coordinated strategy between land use and transportation, unintended consequences can occur, such as increased congestion, reduced travel choice, and unsustainable financial burdens associated with maintaining an ever expanding system. Mobility contributes to quality of life, economic vitality, air quality, and cost of living. As such, it remains an important contributor to the region’s success.

Current Trends and Conditions

Travel Characteristics

- **Vehicle Miles Traveled (VMT)**—Using data from the U.S. Census and 2009 National Household Transportation Survey, an estimated average household VMT of 21,671 was calculated for the region. This estimate is higher than the national average of 19,850; however, this is likely a result of the influence of rural counties where there is a greater distance between uses and heavy commute patterns to counties where more employment, retail, and community services exist.
- **Transportation Costs**—In 2010, the Bureau of Labor Statistics released information about the average cost of transportation by county. When considering the counties that comprise the region, the average annual cost per household is \$15,394. While a national average isn’t a reasonable comparison due to fluctuations in regional markets, the trend information indicates that transportation costs are rising faster than income. The



THRIVE 2055: DID YOU KNOW?

Commuting Patterns

- Current commute times are comparable to national average.
- The commuter data shows the majority of workers in the outer Tennessee counties and Murray County commute to other parts of the region, primarily Hamilton, Whitfield, and Bradley Counties.

Freight

- The region is ranked in the Top 10 nationally in freight traffic volume—80 percent of this volume is through traffic.
- There are strong freight ties to the local economy—40 percent of the region’s gross regional product (GRP) is logistics-dependent industries.
- Infrastructure for multimodal freight movement is becoming a more common issue at a national and regional level throughout the U.S.

Sources:

U.S. Census Bureau, 2007-2011 American Community Survey, 5-Year Estimates; Kimley Horn, 2013.

report further explains that transportation costs tend to be higher in rural areas than urban places and that the rise in fuel prices and travel distances are contributed to these increasing costs.

Commuting Patterns

- **Commute Time**—The average commute time for residents in the region is 25.1 minutes, compared to the national average of 25.4 minutes.
- **Public Transportation**—Today, the region is largely dependent on highways for mobility. Less than one percent of the region’s residents use public transportation.

Freight

- **Freight Flows**—Freight flows within the region are significant. Within the Chattanooga urban area alone, freight flows exceeded 25 million tons in 2007, and are projected to increase to 33 million tons by 2035.
- **Barge Freight**—in 2011 over 994,000 tons of materials were moved by barge through the Chickamauga dam locks. The locks reached the end of their designed life in 2007, and funding for improvements is not available in the foreseeable future. If the lock were closed, this freight could convert to other modes, placing additional demand on the highway and rail networks. Table 8 below shows the barge freight conversion to other modes. State officials estimate this tremendous increase in tractor trailer and/or train traffic would produce immeasurable increases in pollution and carbon monoxide being deposited in the air, and insurmountable wear and tear to local, state, and federal highways. The additional traffic is estimated to have significant impacts on congestion and could potentially affect emergency vehicle access.

TABLE 8: Chickamauga Barge to Railcar to Truck Conversion

Tonnage	# of Barges	# of Railcars	# of Tractor Trailers
994,426	663	9,944	39,777

Source: Nashville District. U.S. Corps of Army Engineers. April 2013 based on 2011 actually freight movement through the Chickamauga Dam Locks.

- **Freight Economy**—Logistics-dependent industries make up 40 percent of the gross regional product and supply 40 percent of the jobs in Hamilton, Catoosa, Dade, and Walker counties. Congestion and vehicular delays, as well as a possible loss of access to barge freight, significantly impact the local businesses that rely on these systems for on-time management of goods movement.
- **Freight Origin & Destination**—80 percent of freight traffic is considered “through traffic,” which means that it originates outside of the region without destination within the region.



THRIVE 2055: DID YOU KNOW?

Funding Challenges

- According to long-range transportation plans for the region’s three MPOs, funding shortfalls are expected—a \$3.7B gap between transportation needs and funding availability exists within the region.
- Traditional sources of transportation dollars are changing. The Highway Trust Fund, from which states typically receive a portion of their required capital investment dollars, is no longer solvent.

Infrastructure Systems

- **Existing Systems**—The primary transportation system in place in the region is the network of highways and local roads. Due to regional geography and settlement patterns, the network is laid out in a spoke-like pattern with convergences in the three larger cities of Chattanooga, Cleveland, and Dalton. Topography and waterways limit the number of local and regional east-west roads. Travel delays throughout the network are commonly caused by accidents and tractor trailers climbing hills on the highways. The convergence of I-24, I-75, and I-59 funnels all traffic on to a single corridor, and an accident near the center of this network can shut down the highway systems from all directions for extended periods.
- **Maintenance Costs**—Maintenance and repair expense for existing transportation networks continues to increase due to rising costs of paving materials, labor, and the growing amount of infrastructure requiring maintenance.
- **Funding Sources**—The cost of expanding and maintaining the system is far outpacing external funding sources. The region's three Metropolitan Planning Organizations (MPOs)¹³ report a combined funding shortfall of over \$3.7 billion for the currently identified improvements needed to remedy existing problems with local, state, and federal highways (excluding any future or planned projects).
- **Climate Impacts**—Climate change and extreme weather will impact the cost of transportation services over time. The increased frequency of extreme weather events (like flooding or landslides) places additional stress on infrastructure, requiring additional funds to be allocated for maintenance (repair) and operating costs for key facilities. Additionally, as climate change and extreme weather impact infrastructure, there are secondary economic impacts generated in loss of capacity during times of repair or maintenance. Building and repairing systems to be more reliable across more extreme weather events also increases capital and construction costs.



¹³ MPO's are the organizations responsible for transportation planning. The Region's three major MPO's are the Cleveland Urban Area MPO, the Chattanooga-Hamilton County/North Georgia TPO, and the Greater Dalton MPO.

Regional Planning

- **Planning Organizations**—The region is home to three Metropolitan Planning Organizations (MPOs) in two states; however, not all counties in the region are included in the MPOs. Those counties in more rural portions of the study area are governed by county planning agencies, Councils of Government (COGs), or Rural Planning Organizations (RPOs). The variety of organizations responsible for long-range transportation planning requires a greater focus on coordination to ensure that limited resources are prioritized on regional infrastructure and investment with benefits to the whole region.
- **Shift in Policy Direction**—Nationally, there is a movement towards the creation of more walkable communities and enhanced opportunities for transit and bicycle facilities. Within the region there is evidence that a similar shift may be occurring. Review of the region's long-range transportation plans and local capital projects reveals increased spending on alternative travel modes as well as complete streets initiatives. In addition, several area plans and revitalization efforts exhibit similar strategies that promote the integration of transportation, land use, and urban design.

Funding

- **Funding Gaps**—There is a disconnect between identified transportation needs and their funding requirements. This disconnect has resulted in a projected shortfall in excess of 3.7 billion dollars for the three MPOs in the region. This shortfall is based on the transportation needs identified in the MPOs' long-range transportation plans compared to the MPOs' ability to fund the improvements.
- **Funding Sources**—Traditional sources of transportation dollars are changing; the Highway Trust Fund is no longer solvent. Typically states receive a portion of their required capital investment dollars from this source. The Highway Trust Fund revenue is generated through a fuel tax. Despite increased vehicle miles traveled and fuel consumption, other factors such as rising fuel efficiency standards and congressional refusal to increase the fuel tax or tie it to the rate of inflation means that the fund will receive less money. This decrease in money also represents a decrease in a state's ability to fund new projects.

Sources:

U.S. Census Bureau, 2007-2011 American Community Survey, 5-Year Estimates; Kimley Horn, 2013; Freight Analysis Framework 3, U.S. Department of Transportation, FHWA, June 2008; Bureau of Labor Statistics, Consumer Expenditure Survey, 2011; and Chattanooga Regional Freight Profile, 2011.

Built and Natural Environment

Why is this Important?

The Thrive 2055 region has a distinctive sense of place that is valued by residents and visitors alike. This sense of place is defined by the region's unique natural setting, diverse collection of resources, and scenic quality, as well as its 79 distinctly different communities—rural, suburban, and urban. The built and natural environment plays an important role in the quality of life of the region's residents and in our ability to attract jobs, tourism, and other indicators of economic growth. In order to ensure the region's long-term success, we must balance the need to foster and accommodate future growth with the need for conservation of our natural resources and the unique places that make the region special.

Key trends affecting the built and natural environment include uncoordinated growth, fragmented landscape character, protection of sensitive natural resources, management of natural resources (e.g., recreation, mining, forestry), availability of developable land and infrastructure, and maintenance of existing infrastructure. In order to protect the region's sense of place, these trends and the interrelationship between them must be carefully taken into account as we plan for the future.

Current Trends and Conditions

Built Environment

Existing Land Use Patterns

- **Land Cover**—According to satellite land cover data, nearly 60 percent of the region's land area is forested. Cultivated cropland and pasture/hay covers an additional 22 percent of the region's land.
- **Vacant and Underutilized Land**—A significant inventory of vacant and underutilized sites exists throughout the region; however, many sites are constrained by:
 - Topography;
 - Potential for flooding;
 - Other risks from natural hazards;
 - A lack of existing infrastructure or aging infrastructure; or
 - Redevelopment challenges such as brownfield clean up, removal of existing buildings, and fragmented ownership.
- **Spatial Distribution**—Maps of existing Land Cover and Vacant and Underutilized Land are provided in the Appendix.

Growth Trends

- **Total Land Area**—The 16-county region encompasses 4,280,960 acres (6,689 square miles).



THRIVE 2055: DID YOU KNOW?

Urbanization

- The region's urbanized area expanded by about nine percent from 2000 to 2010.
- Less than eight percent of the total land in the region was in urban areas by 2010.

Land Consumption

- The region had a net loss of 18,223 acres of farmland from 2002-2007.

Our region has unparalleled biological diversity, but continued growth trends are consuming land at an increasingly rapid rate.

Related Maps (see Appendix)

5. Natural Resources and Conservation Areas
6. Land Cover
7. Scenic and Character Defining Resources
8. Urban Growth
9. Vacant and Developed Land

Sources: University of Tennessee, Chattanooga; U.S. Census of Agriculture 2007 and 2002; Fregonese Associates, 2013; Nature Conservancy.

- **Urbanized Area**—The region’s urbanized area expanded about nine percent from 297,963 acres in 2000 to 325,310 acres in 2010. A geographical analysis of satellite image land cover and development patterns indicated that less than eight percent of the total land in the region was classified as urbanized in 2010.

Natural Environment

Resource Characteristics

- **Natural Systems**—The region’s varied natural systems cross jurisdiction boundaries. They contribute to the region’s scenic character while also providing wildlife habitat and diverse recreational opportunities and protecting our water supply.
- **Biodiversity Hotspot**—The region is recognized by the Nature Conservancy as having one of the highest concentrations of biodiversity in the U.S. The region’s richness of analyzed animal life ranges from 3,237 to 4,295 species, also among the highest in the U.S.

Farmland

- **Acres in Production**—Over 1,269,000 acres are occupied by farmland in 2007 (30 percent of region’s total land area).
- **Concentrations within the Region**—Nearly 50 percent of the region’s farmland is concentrated in three counties:
 - DeKalb County (19 percent)
 - Jackson County (19 percent)
 - McMinn County (10 percent)
- **Farmland lost**—Between 2002 and 2007, the region saw a net loss of 18,223 acres or 28.4 square miles of farmland. Greatest losses occurred in:
 - Walker County (10,578 acres)
 - Hamilton County (8,814 acres)
 - Catoosa County (6,556 acres)
 - McMinn County (5,107 acres)

During the same period, some counties in the region saw a net gain in farmland. While most of these increases were small, both Jackson County and Dade County saw fairly sizable gains (13,415 acres and 7,412 acres, respectively). These increases can generally be attributed to more aggressive outreach conducted at the state level as part of the U.S. Census of Agriculture in 2007 to ensure all farms, including small farming operations and those owned or operated by non-English speaking individuals, were counted.

Air Quality

- **Air Quality Benchmarks**—The region compares favorably on key air quality benchmarks:
 - Percentage of days exceeding emission standards for ozone (0.5 percent) vs. (0.8 percent) for the U.S.



THRIVE 2055: DID YOU KNOW?

Farmland

- Between 2002 and 2007, the region saw a net loss of 18,223 acres or 28.4 square miles of farmland.

Residential Permit Activity

- All counties in the region experienced a significant drop in residential building permits in 2008. Only Hamilton County has seen a notable annual increase in residential permit activity since 2010.
- The most significant residential development in the region over the past decade has occurred in Hamilton, Bradley, Catoosa, Whitfield, and Walker Counties.

Sources:

American Community Survey, 2006-2010; BAE, 2012; U.S. Census of Agriculture 2007 and 2002; Fregonese Associates, 2013; Nature Conservancy.

- Percentage of days exceeding emission standards for particulate matter (0.7 percent) vs. (1.2 percent) for the U.S.

Water Quality

- **Threatened or Impaired**—The EPA lists many regional waters as threatened or impaired (Category 5 on the state 303d lists), including:
 - Approximately 900 miles of streams and rivers in the Dry Creek, Bradden Creek, Coosawattee River, Gunstocker Creek, Black Fox Creek, North Mouse Creek, and South Chickamauga Creek systems.
 - Approximately 105 acres of lakes and reservoirs, including Nickajack Reservoir, and the Hiwassee River Embayment of Chickamauga Reservoir.

Recreation and Resource Management

- **Recreation Opportunities**—The region is home to 11 state parks, parts of two national forests, and one national park. In addition, the Cumberland Trail and other systems provide over 534 miles of trails throughout the region. Trails serve both active and passive recreational pursuits.
- **Outdoor Recreation and Recreation-Based Tourism**—The region has seen growing support for and interest in outdoor recreation and recreation-based tourism. Approximately \$13.5 million in Land & Water Conservation Grants have been invested in the region since 1966.

Sewer & Water Infrastructure Systems

Infrastructure is the framework on which our built environment is organized. Baseline indicators for sewer and water infrastructure include age and capacity of potable water and wastewater systems. Similar to transportation infrastructure, these sewer/waste water systems are experiencing a rate of decline resulting from age (many systems are over 100 years old) and demand from external forces. For example, *Inflow and Infiltration* (I&I) issues have been documented as one of the greatest challenges facing the nation (and the region's) infrastructure. The inflow of stormwater into these sewer systems costs service providers millions of dollars.

According to American Water Works Association (AWWA) “restoring existing water systems as they reach the end of their useful lives and expanding them to serve a growing population will cost (the United States) at least \$1 trillion over the next 25 years.” This issue impacts all communities and regions including those within the region. The issues are further exacerbated with the increased frequency of extreme weather events that include excessive amounts of precipitation. In response to these issues, many regions are preparing for the challenge of increased capital costs through coordinated delivery and treatment systems as well as system consolidation. Left unchecked, the frequency of system failures will increase with negative consequences to capital costs, user fees, rates, and environmental quality.



THRIVE 2055: DID YOU KNOW?

Water Resources

- Approximately 900 miles of streams/ivers and 105 acres of lakes and reservoirs in the region are listed on state 303d lists as Category 5 (threatened or impaired).
- Many regions in the nation are dealing with water shortages. While the region has a reasonable water supply for future demands, water usage per person is on the rise and changing weather patterns in the next 50 years could alter the accessibility to fresh water. The region's water supply is viewed as an advantage as well as a resource that deserves thoughtful use.

Sources:

Alabama Department of Environmental Management, 2012; Georgia Department of Natural Resources, 2012; Tennessee Department of Environment and Conservation, 2012.

Image:

<http://georgiainfo.galileo.usg.edu/>

This page blank

KEY REGIONAL DRIVERS

Overview

This section highlights eight regional drivers that will be critical to success of the Thrive 2055 region over the next 40 years. In no particular order of importance, the regional drivers are as follows:

- Education and Workforce Preparedness
- Health
- Energy and Communications Infrastructure
- Mobility, Freight, and Other Infrastructure
- Built Environment
- Natural Environment
- Regional Vibrancy
- Regional Economic Competitiveness

Collectively, the regional drivers cut across the many issues identified by the working groups, coordinating committee, and the community-at-large during initial steps in the process. They are intended to convey and reinforce the interrelated nature of the issues and opportunities described throughout this document. These connections indicate a need for a more integrated approach to decision-making at all levels. The objective moving forward in the process is to provide a clear understanding of how decisions about one driver can impact another, for example how transportation improvements can affect economic prosperity, or how changes in the built environment can affect the health of our people. The process will seek shared solutions that respect the autonomy of local governments to make the most of limited fiscal resources while providing significant benefits to the region. This section highlights why each of these drivers is important to our region's success and outlines a series of indicators that can be used to track our progress in each of these areas over time.

Looking to the Future . . .

As we consider each of these regional drivers and look towards the future it is important to focus our efforts on the specific questions we wish to explore through the Thrive 2055 process—questions that:

- Affect the 16-county region's diverse geographies and people; and
- Can be more effectively addressed through greater collaboration across the region.

TRACKING OUR PROGRESS OVER TIME

Our progress on the eight regional drivers will be tracked over time using a series of indicators. Using this report as a gauge as to where we stand today, we'll be able to track our progress by monitoring changes in these metrics over time.

Indicators provide a common foundation to identify, understand and act on regional issues. They help decision makers go beyond anecdotal evidence and answer difficult questions.

Is the Thrive 2055 region growing in a way that is:

- Creating a stronger economy?
- Preserving and enhancing the environment?
- Fostering a healthier population?
- Promoting stable, enduring communities?
- Expanding access to jobs, education, and workforce housing?
- Providing more housing and transportation choices?
- Ensuring a thriving future?

As the Thrive 2055 process continues to unfold, each of the questions identified in this section will be explored in greater detail. This process will allow us to understand what is already being done, if anything, to address these issues at a local or regional level. Additionally, we will want to explore what other successful regions across the U.S. have done to address similar issues and how these areas may serve as models for the Thrive 2055 region.

Education and Workforce Preparedness

Why is this Important to our Region's Success?

In the past, manufacturing provided a preponderance of employment opportunities for the region and the country, delivering a living wage in exchange for manual labor. Future employment opportunities will require more education, whether in the core manufacturing and goods movement sectors that form the region's economic base, or in other fields that pay competitive wages. The region is expected to produce 50 percent more jobs requiring a high school diploma than jobs that do not require a diploma, according to a recent report commissioned by the Tri State Regional Workforce Alliance. Employment in the region's goods-producing businesses is shifting to higher skilled technical positions that will offer attractive pay and working conditions. This means that the region needs a higher percentage of the workforce with technology skills than currently exists.

The mismatch between the labor needs of the region's businesses and the educational levels of the region's available pool of potential workers isn't only a concern for the future—it exists now. The graphic below compares the level of educational attainment of workers in existing jobs versus the share of the adult population in the region with the same level of educational attainment. The proportion of the adult population with a bachelor's or higher degree is substantially smaller than the share of the region's jobs associated with this level of education, and the share of the region's jobs that are filled with workers without a high school degree is substantially smaller than the share of the region's adult population with this level of educational attainment.



INDICATORS

- Poverty
- Early childhood readiness
- Diversity
- Educational attainment
- College readiness

THRIVE 2055 Region Educational Attainment: Potential Workers Compared to Filled Jobs

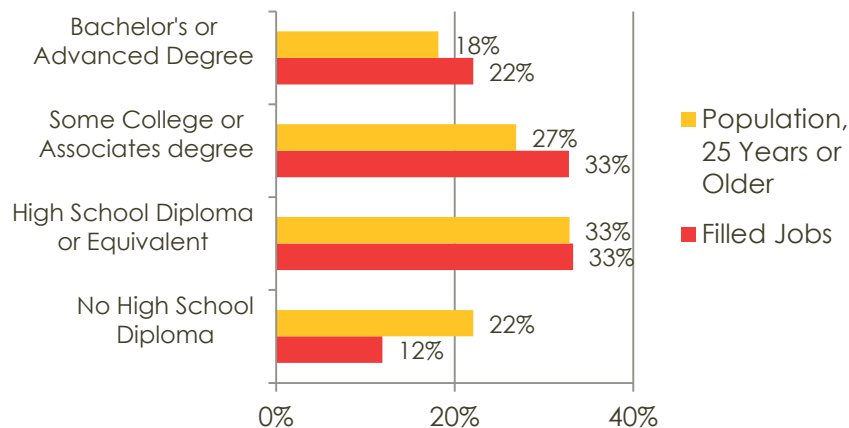


Figure 20: Educational Attainment and Filled Jobs Comparison

Sources:

U.S. Census 2006-2010 American Community Survey; On the Map/Local Employment Dynamics dataset, 2010; BAE, 2013.

Education and workforce preparedness encompass the spectrum of learning environments at every age, from pre-kindergarten to post-secondary. Educational success along this continuum depends on a multitude of factors found throughout the journey, including: positive early life experiences, proper nutrition, mastery of reading in elementary school, successful transition in early adulthood to workforce readiness, and specific educational and skills attainment. Additionally, continued training and educational options allow workers to adapt as job opportunities shift. Successful educational outcomes among the region's residents are closely tied to economic well-being; disparities in school attendance and educational attainment are aligned with differences in income and poverty levels. The link between education and economic well-being can be thought of as a virtuous cycle: education improves a household's economic condition, and economic well-being can lead to more positive educational outcomes within a household.

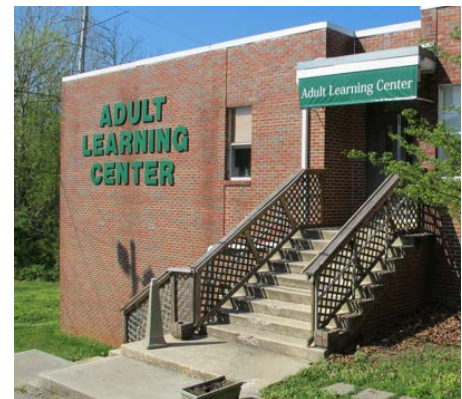
Improved skills and educational attainment not only enhances the economic prospects of working age adults in the region, it is essential to maintaining the region's economic competitiveness. The presence of a skilled and workplace-ready workforce will attract firms with higher-wage employment. Conversely, if firms and industries cannot find the workforce they need here in the region, they may locate or re-locate elsewhere.

Looking to the Future...

The region's business and economic development leaders recognize the critical importance of education and workforce preparedness to the trajectory of the region's economy and the prosperity of its residents. The work ahead of us, as a region, is to understand how to ensure that residents and businesses in the region benefit from improved educational and training outcomes. The first step to successful education and training delivery is engaging in dialogue to fully understand the forces affecting education and workforce preparedness. Exploration of this regional driver in the assessment needs to explore specific skills and education needs, present and future; delivery mechanisms; and the appropriate roles of public- and private-sector interests. As a region, we need to consider the following questions:

- How do we improve educational attainment starting at the earliest ages?
- How do we prepare workers for an economy that increasingly relies on a highly skilled workforce?
- How can we address this issue across the urban /rural spectrum? The socioeconomic spectrum?
- How do we approach this issue across county and state lines?

A focus on improved educational and workforce preparedness outcomes across the region is, in a sense, a leap of faith. Unlike traditional business attraction initiatives, sowing the seeds for comprehensive improvements to residents' educational opportunities, across the age and educational spectrum, may not fully bear fruit for years to come. However, this investment will help the region and its residents define our own economic destiny: it will allow our region's workforce to emerge as a key asset that fuels attraction of high quality jobs, and it will provide the raw material needed for the region to "grow its own" jobs through innovation and small business development.



Health

Why is this Important to our Region's Success?

Globally, nationally and regionally, there are many conversations about health trends and healthcare. Health is a complex issue that depends on the actions of individuals, as well as actions by private organizations and governmental entities.

Currently, the Thrive 2055 region is fortunate to be able to provide residents with nationally recognized quality healthcare options, yet many in our region still are not using the healthcare because of affordability or accessibility issues. As our nation's demographics and healthcare policies continue to evolve and change, we find ourselves in a dynamic environment in which our current systems are changing rapidly and the future affordability and accessibility of healthcare in our region is unknown and somewhat unpredictable.

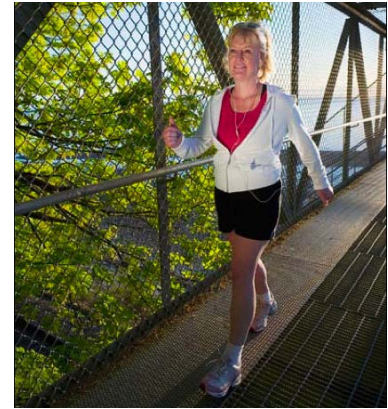
At the regional level, there is currently limited coordination on health issues, with some areas having much higher levels of healthcare access and affordability than others. The largest gaps are in the rural area of our region.

Most of the region lags behind the rest of the nation on some key health indicators, including obesity rates and prevalence of diabetes. These trends indicate that we have room to improve our region's health and wellness, and the future of our residents and workforce depends on addressing these challenges.

Looking to the Future...

As a region, we need to explore answers to the following:

- How can we become healthier as a region?
- How can we maintain the high quality of our hospital care in a changing environment?
- How do we address the health challenges of an aging population?
- The healthcare delivery system will change dramatically over the next few years. How can we use these changes to improve healthcare opportunities for residents?
- How do we address existing healthcare disparities among African Americans and among our rapidly growing Latino population?
- How can we improve community health and maintain the high quality of our hospital care?



INDICATORS

- Poverty
- Health Behaviors
- Disease Mortality
- Aging Population
- Educational Attainment
- Accessibility and Quality of Healthcare
- Employment or Unemployment Statistics

Image: www.utc.edu

Energy and Communications Infrastructure

Why is this Important to our Region's Success?

Our current supply of energy is diverse in the region and includes nuclear, coal, natural gas, solar, and hydroelectric production. Additionally, the energy providers in the region, Georgia Power and TVA, have a history of affordability (in comparison to other U.S. regions). Competitive energy costs have been and will continue to be a contributing factor to economic development. As energy affordability increasingly becomes a factor in site selection for major employers, energy affordability within the region will increase in importance. Initial investment in alternative energy suggests that the region could capitalize on this growing energy sector. Businesses such as Wacker Chemie, and Alstom are all part of an alternative energy production industry.

In previous decades, the topic of communications was dominated by long distance phone service. In the current millennium, cellular and broadband communication is the centerpiece communication topic. Like many utilities, accessibility and affordability of communications can be an important contributor to quality of life and economic competitiveness. However, when considering current and emerging trends, speed has become an additional indicator of importance. Generally, there is some diversity between the service characteristics of the rural and urban areas of the region including number of providers, type of technology, and data transfer speed.

Looking to the Future...

The region's diverse energy production positions it well to take advantage of the growing demand for domestic energy production. The region's economic competitiveness will be influenced by our shared ability to provide reliable and affordable power to homes and businesses. As a region, we need to explore answers to the following questions with respect to energy and communications infrastructure:

- What influences do the current pricing models have on the competitiveness of the region?
- Should the region identify itself as a "renewable energy" region?
- How do natural gas or renewable energy sources (hydro, solar, wind) contribute to a more competitive energy portfolio?
- Is the region prepared for the projected increase in broadband data needs?
- What are the target performance characteristics for urban and rural places in the coming decades?
- How can we ensure that the communications costs remain competitive when compared to other regions?



INDICATORS

- Diversity of energy providers
- Power Capacity
- Production and Delivery Reliability
- Emerging Production Sources
- Utility Costs (Cost of Living Index and for Commercial Use)
- Broadband Coverage

Related Maps (see Appendix)

10. Energy Plants
11. Broadband Coverage

Mobility, Freight, and Other Infrastructure

Why is this Important to our Region's Success?

Transportation ties the region together and utility infrastructure fuels its growth. Although topographic limitations exist, the region's roadways, rail, freight, and river corridors connect people and businesses locally and nationally. These external connections also play a strategic role in the nation's freight infrastructure network. Mobility is at the core of our region's ability to function. Our transportation infrastructure enables us to take advantage of freight traffic to bolster our economy and contributes to residents' quality of life. Historically, growth in the region has been driven by the availability of infrastructure and market demand even though approaches to infrastructure provision are fragmented and vary significantly.

Although mass transit usage is below one percent for the region, average commute times remain slightly less than the national average of 25.4 minutes. The ease and convenience of commuting for most residents positions the region to continue attracting new residents and employers. However, the majority of those commuting rely on highways. These highways are susceptible to incident-related delays because of topographic limitations for alternate routing. Although the commute times are reasonable now, increasing population in all counties within the region suggests that, when combined with aging infrastructure, there will be higher likelihoods of delays and failures in the future if no improvements are made.

Addressing aging infrastructure will require more creative and strategic use of available funds, as well as increased coordination among the three transportation agencies within the region. The Chattanooga-Hamilton MPO, Dalton-Whitfield MPO, and Bradley-Cleveland MPO report a combined funding shortfall of over \$3.7 billion, when compared against identified transportation needs in the region.

Freight and logistics-dependent industries are strong economic drivers within the region. Total freight flows exceeded 25 million tons in 2007, and the number of annual tons is expected to increase between now and 2040. Additionally, logistics-dependent industries make up 40 percent of the gross regional product and supply 40 percent of the jobs in Hamilton, Catoosa, Dade, and Walker counties. However, the vast majority (80 percent) of freight traffic originates outside the region without destination within the region (through traffic).

The positive economic contributions of freight also require an examination of freight's impacts on the transportation infrastructure. Frequently, freight traffic on highways negatively



INDICATORS

- Commute Times
- Vehicle Miles Traveled
- Average transportation costs per household
- Mode Split
- Tons of Freight (Through/Local)
- Costs/Revenues/Funding Balance
- Quality and Maintenance of Infrastructure

impacts congestion and incident management, and alternate routing options are not available for some strategic truck routes through the region. Additionally, the Chickamauga Lock on the Tennessee River is a critical piece of regional freight infrastructure that is in need of significant maintenance and upgrades.

The region has dozens of sanitary and water utility providers and three MPOs responsible for transportation planning. These entities share regional infrastructure despite the lack of a forum where this joint infrastructure is considered in a regional context. The absence of such a forum may result in increased challenges as the competition for funding resources continues to increase.

Looking to the Future...

Infrastructure influences the built environment in a number of different ways. When considering transportation we know that transportation access increases the value of land. This often results in a change in land use (promotes development), which in turn impacts transportation (generates trips). Similarly, the availability of water and sewer service enables more intense development than is possible when only well and/or septic systems are available. Numerous challenges regarding infrastructure should be considered and examined in closer detail in relation to the built environment.

Likewise, given the shared value of the region's freight infrastructure, and the anticipated increased freight movement, a coordinated regional strategy is needed and will likely require an enhanced intermodal approach so freight movement can continue to contribute to the region's economy.

As a region, we need to explore answers to the following:

Mobility and Freight

- How can we address the funding shortfalls?
- How do we define strategic regional transportation facilities?
- Where does high speed rail fit in?
- How important is it to maintain commute times?
- How do we balance through freight with local priorities?
- How do we address the three MPO/three state structure and address these issues regionally?

Sewer and Water Infrastructure

- Absent a coordinated strategy for where and what kind of services are offered, how do we position water and sewer infrastructure to guide growth and encourage the most efficient use of available resources?
- Is there a cost disadvantage for customers who are served by smaller providers? Especially when the infrastructure of these systems must be improved?

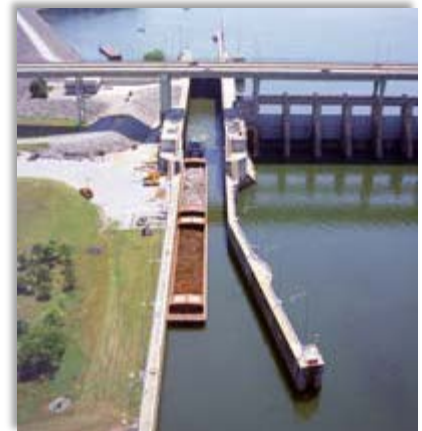


Image:

(Top) The Chickamauga Locks. circa 2009. Source: www.tva.com

- Does the multitude of providers discourage growth in areas served by smaller providers?
- Should the region consider establishing a regional transportation body to consider regional infrastructure?
- How do the three separate state DOT frameworks and corresponding set of priorities and capabilities affect regional transportation planning?
- Is there a benefit to the region's long-range transportation plans identifying a common set of priorities for infrastructure identified as regionally significant?



Built Environment

Why is this Important to our Region's Success?

Growth in the Thrive 2055 region has historically been driven largely by the availability of infrastructure and market demand. Approaches to long-range planning, land use controls, and infrastructure provision are fragmented and vary significantly within the region, creating uncertainty with respect to where and how growth is likely to occur in the future.

The quality, form, and function of our built environment will all play a significant role in our region's continued success. As a region, we must determine whether and how best to balance the need for continued growth with the protection of the places and resources that residents and visitors value, and respect for varying lifestyles and property rights.

Looking to the Future...

Without clear guidance with respect to the location and type of future development needed to support the region's continued growth, our built and natural environment will become increasingly fragmented and our costs to serve that growth will be higher.

As a region, we need to explore answers to the following:

- How can we encourage development patterns that ensure:
 - Efficient use of land and infrastructure—desirable, practical, and affordable?
 - Development of communities and neighborhoods that support a high quality of life for our residents?
 - Protection of our scenic character and natural resources?
 - Provide a variety of development types to meet the needs of a changing population and workforce?
 - Respect for varying lifestyles and property rights?
 - Accommodation of economic development and job creation in accessible and serviceable locations?
- What barriers exist today that limit our ability to achieve balanced regional growth:
 - Existing tools or a lack of tools that inhibit desired growth patterns (i.e., zoning, building codes, and fire codes)?
 - Traditional tools that are not feasible in all parts of the region?
 - Are infill and redevelopment a feasible development option and, if so, are there conditions in place discouraging it from happening (i.e., stormwater regulations, remediation costs, land values, historic preservation restrictions)?



INDICATORS

- Vacant and Underutilized Land
- Rate of Urbanization
- Housing Starts
- Cost of Living
- Meeting Needs of Changing Population

Image:

www.rivercitycompany.com

Natural Environment

Why is this Important to our Region's Success?

The Thrive 2055 region is home to a tremendous collection of natural assets that are valued by residents and visitors alike—diverse topography, a unique setting and scenic quality, abundant natural resources, rich agricultural lands, and rich biodiversity.

Growth is often attracted to the areas with the most sensitive resources—valleys, coves, waterfronts, agricultural lands—creating increased pressure on those resources.

History has demonstrated that locations without an agreed upon growth strategy are at higher risk for negative impacts to natural assets and often have a higher cost to serve when considering infrastructure, public services, and transportation.

Looking to the Future...

As a region, we must determine how best to balance the need for continued growth with the protection of the places and resources that residents and visitors value, and respect for varying lifestyles and property rights.

Maintaining a high quality of life is one of the underlying themes in developing a vision through the Thrive 2055 process. The protection and conservation of the region's natural resources and assets is paramount to current and future residents.

As a region, we need to explore answers to the following:

Resource Conservation

- How can we organize our regional conservation efforts in a more effective way to:
 - Identify priority resources of regional significance and establish collaborative strategies to protect them?
 - Encourage public/private partnerships on conservation issues within the region?
 - Leverage local, state, and federal conservation efforts to enhance regional objectives?
 - Balance conservation objectives with the need to accommodate future growth?



INDICATORS

- Acres in Forest
- Acres In Agriculture
- Acres in Open Space
- Rate of Urbanization
- Number of Species
- Air Quality
- Water Quality

Resource Management

- How can we more effectively celebrate, preserve, and expand our unique recreational, scenic, archaeological, cultural, agricultural, and historical treasures?
- How can we promote tourism that sustains and enhances the character of our place – the environment, culture, aesthetics, heritage, and the well-being of its residents?
 - How can we enhance regional linkages (trails, greenways, and blueways)?
 - How can we maintain opportunities for desirable working landscapes (farms, forestry, and mining)?
 - How can we maximize the dual benefits of recreational opportunities by conserving land and watersheds while fostering economic development?



Regional Vibrancy

Why is this Important to our Region's Success?

A variety of factors make the Thrive 2055 region a vibrant and desirable place to live, work, and visit. While some of the more tangible factors are addressed by the other regional drivers—other less tangible factors also contribute to this vibrancy. They include elements like arts and cultural heritage, social organizations, scenic beauty, a sense of community, and a sense of safety and security—elements that contribute to our quality of life. Beyond the role they play in quality of life, these factors also play a significant role in our economic well-being in several ways.

First, employers increasingly choose to locate in communities that offer a high quality of life for residents and access to a full range of amenities, such as arts and culture, parks and recreation, and others as a means of attracting and retaining a strong workforce. For example, these considerations contributed to VW's decision to build the Chattanooga plant in 2008.

Second, regions with a strong cultural base and unique natural amenities, like the Thrive 2055 region, simply attract more visitors. Travel-related sales tax revenues in the region have grown significantly since 2009 and cultural tourism has had major economic impacts on the region.

Looking to the Future...

A common thread as we define our vision for the Thrive 2055 region will likely be maintaining or improving the quality of life for our current and future residents. As a region, we need to explore answers to the following questions with respect to regional vibrancy:

- What are those unique factors that make our region desirable: what do we offer that others cannot?
- How do we improve the things we love and protect them as we change?
- How do we keep this place special?
- How can we leverage the full spectrum of assets the region has to offer and more effectively market tourism within the region as a whole?



INDICATORS

- Annual Arts and Culture Events
- Attendance at Events
- Entertainment/Activities
- Tourism
- Sporting Events
- Social Organizations
- Cost of Living vs. Quality of Living

Image: www.nooga.com

Regional Economic Competitiveness

Why is this Important to our Region's Success?

The Chattanooga region competes with other regions on a national and global scale for the jobs, talent, and investment that secures its economic success. Understanding and capitalizing on the factors that can keep people and industries here and thriving is a capstone issue that weaves together all of the regional drivers already explored, including:

- Strong places
- Healthy and educated people
- Efficient mobility and freight movement
- Modern and fiscally sustainable infrastructure
- Competitive energy costs

It is important to consider that regional economic competitiveness is not just about “smokestack chasing,” or attracting businesses through expert marketing and tax incentive packages. Business location decisions are based on all of the fundamentals mentioned as regional drivers. Workforce, infrastructure, and energy all impact a company’s bottom line and the likelihood that business expansion or relocation will be successful. Additionally, a region’s overall competitiveness is increasingly tied to its ability to attract and retain highly skilled talent: the workers that businesses need to fill their managerial, technical, professional, and creative jobs, and the entrepreneurs and innovators who will continue to generate new business opportunities and jobs.

This highly mobile, diverse, and educated workforce (including workers born and raised here) can choose among many options on where to live; they seek places that are affordable, unique and offer a high quality of life. The Thrive 2055 region can offer these workers a diverse choice of amenities: urban comforts, rural living, recreational and cultural activities, and scenic natural environments, to name a few. These features of the regional landscape need to be preserved and enhanced in order for the region to maintain its competitiveness.

The high-profile economic development gain of Volkswagen’s decision to locate its new U.S. manufacturing plant in Chattanooga attests to the skill of the region’s leaders in successfully attracting a key business, as well as the existing strength of the region’s economic assets. This type of game-changing economic investment also represents a launching pad for further strengthening of the region’s fundamental economic drivers. The “VW Effect” encompasses the spinoff economic activity that comes when parts of the company’s supply chain locate in the region, and from the



INDICATORS

- Population Diversity
- Educational Attainment
- Poverty
- Health Indicators
- Mobility Indicators
- Cost of Living /Cost of Doing Business
- Quality of Life Factors
- Energy/Infrastructure/Utility Costs
- Rate of Growth

Image:

www.areadevelopment.com

movement of dollars from VW's supply purchases and employee wages through the regional economy.

It also includes a more intangible impact on the region's outlook: the perception of the region from its own residents and from decision-makers outside the region, and the motivation among its residents, businesses, and governments to explore new economic opportunities and transcend the limits of what was once thought possible.

Looking to the Future...

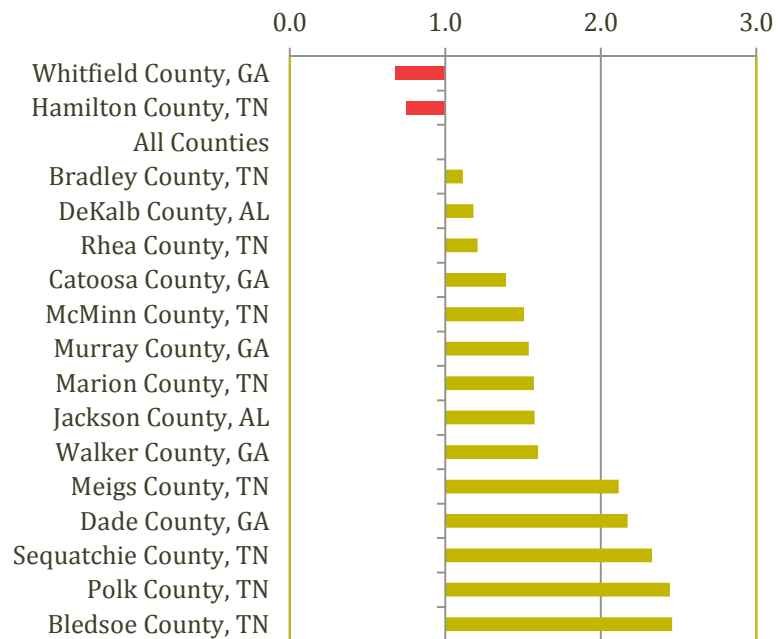
Through the Thrive 2055 planning process, those living, working, and operating businesses in the region have an opportunity to examine and engage in dialogue concerning our key economic assets, as well as features of the region that can be improved to strengthen its economic competitiveness. The tangible and intangible factors that contributed to Volkswagen's selection of this region for their U.S. operations offer a lens through which to reflect on the multiple, interrelated factors that underpin the region's success. Moving forward, we can also envision how to leverage this game-changing economic event to make the region as a whole even stronger and more resilient in a continually shifting, national and global economic playing field.

This exploration needs to examine all of the factors that our region has traditionally thought of as regional competitive strengths, such as our interstate transportation network, and how these assets can continue to attract new business investment

A REGIONAL WORKFORCE ACROSS THREE STATES

The Thrive 2055 region can be thought of as a distinct "employment shed," with only a very small percentage of residents who leave the region for work and a very small percentage of jobs that are filled by residents outside the region. The figure below depicts how the three states and 16 counties of the region share a workforce, with many workers crossing state and county lines to commute to regional job centers. For example, McMinn County has approximately one and one-half times the number of workers residing in the county than jobs within the county. Conversely, Hamilton County has more jobs than workers residing within the county. The region, given its size and transportation network, provides both workers and employers with a diversity of locations that meet their needs. The fluidity of the region's commute patterns can be thought of as an asset for this reason, in that a business can access a broad pool of workers to fill job openings. At the same time, the flow of workers across boundaries also points to the challenges facing individual states in setting economic development policies that will primarily benefit workers of that state. Commute patterns also highlight the economic development needs of some of the counties in the region, hit hard by downsizing and challenges in business attraction.

Ratio of Workforce to Jobs by County, 2010



Source: U.S. Census Bureau, Longitudinal Employment-Household Dynamics (On The Map), 2012

from outside the region. It also needs to envision the potential for our local talent to innovate, create new jobs, and build the region's economy in the future. To direct our path, these are some of the key questions we need to consider:

- How do we capitalize on the direct and indirect long-term benefits of our recent successes?
- How do we maximize the "VW Effect"?
- How do we match the economic benefits of attracting outside firms with homegrown innovation?

The path towards ensuring the region's continued economic prosperity begins with a common vision for the future. That vision then becomes reality by taking action to bring to fruition the multitude of interrelated physical, social, and economic objectives that will be the underpinnings of the region's continued success.

CONCLUSIONS

The path towards ensuring the continued economic prosperity of the Thrive 2055 region begins with a common vision for the future. Together, the eight regional drivers and the key questions outlined for each represent the building blocks of this vision. The regional drivers cut across more than 20 topics explored by the four working groups and reinforce the interrelated nature of the issues and opportunities described throughout this document. They are intended to serve as a foundation for a coordinated discussion of regional issues and opportunities at the broadest of levels—citizens of all ages, elected and appointed officials, business and property owners, local and regional agencies, and service providers and all other stakeholders who wish to play a role in the future success of the Thrive 2055 region.

The regional drivers also reflect the need to foster a clear understanding of how actions in one area of focus affect another and a desire to seek and implement shared solutions that benefit the region as a whole. As we begin to plan for the future, we must look beyond what's occurring or expected today and seek to become more innovative, effective, and successful as a region in the future.

APPENDIX A: MAPS

The following inventory maps are included for reference:

1. Household Growth Projections
2. Population Concentration
3. Job Growth Projections
4. Employment Concentration
5. Natural Resources and Conservation Areas
6. Land Cover
7. Scenic and Character Defining Resources
8. Urban Growth
9. Vacant and Developed Land
10. Energy Plants
11. Broadband Coverage



THRIVE 2055: Household Growth Projections

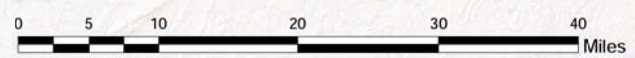
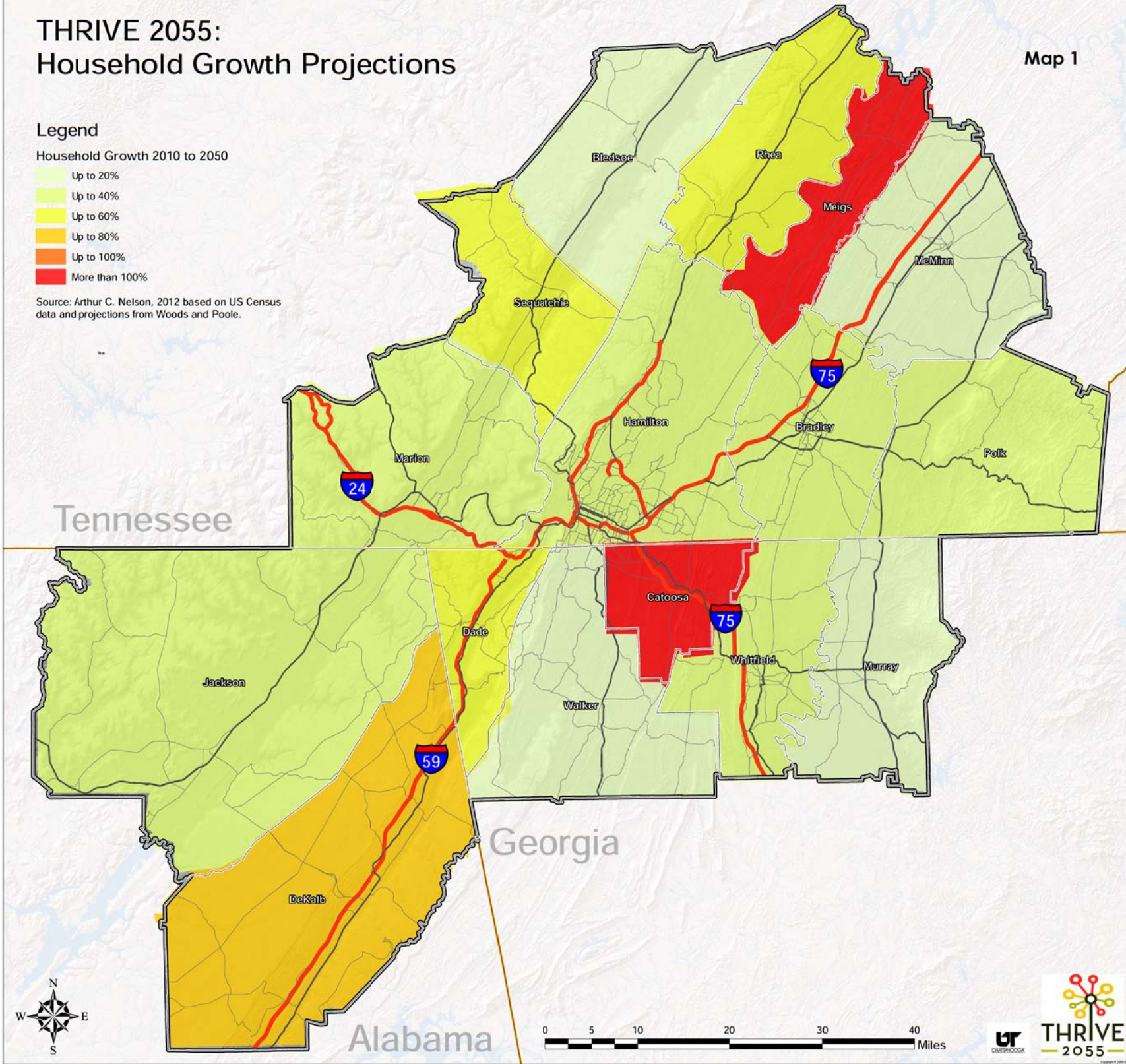
Map 1

Legend

Household Growth 2010 to 2050

- Up to 20%
- Up to 40%
- Up to 60%
- Up to 80%
- Up to 100%
- More than 100%

Source: Arthur C. Nelson, 2012 based on US Census data and projections from Woods and Poole.



THRIVE 2055: Population Concentration

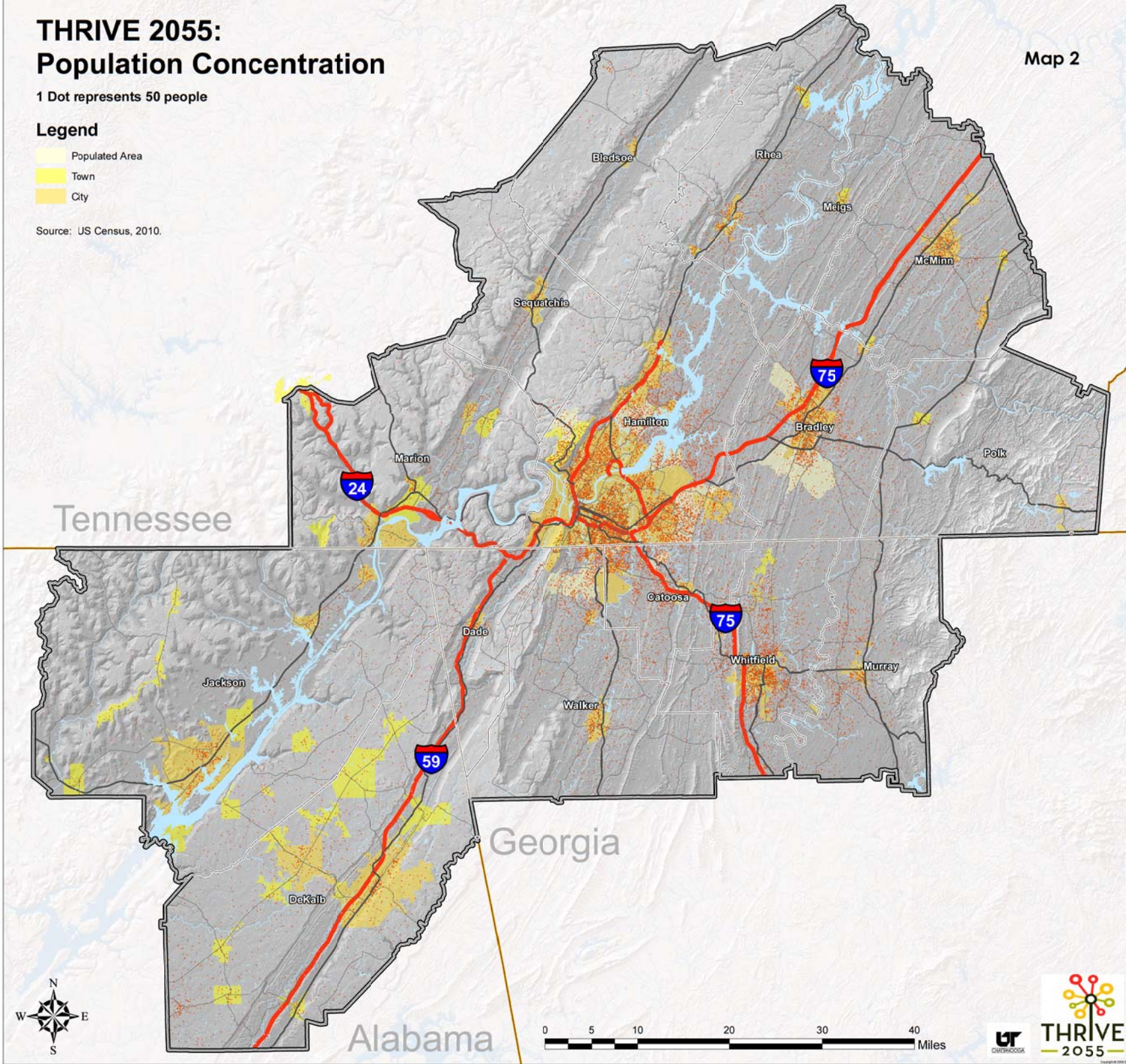
Map 2

1 Dot represents 50 people

Legend

- Populated Area
- Town
- City

Source: US Census, 2010.



THRIVE 2055: Job Growth Projections

Map 3

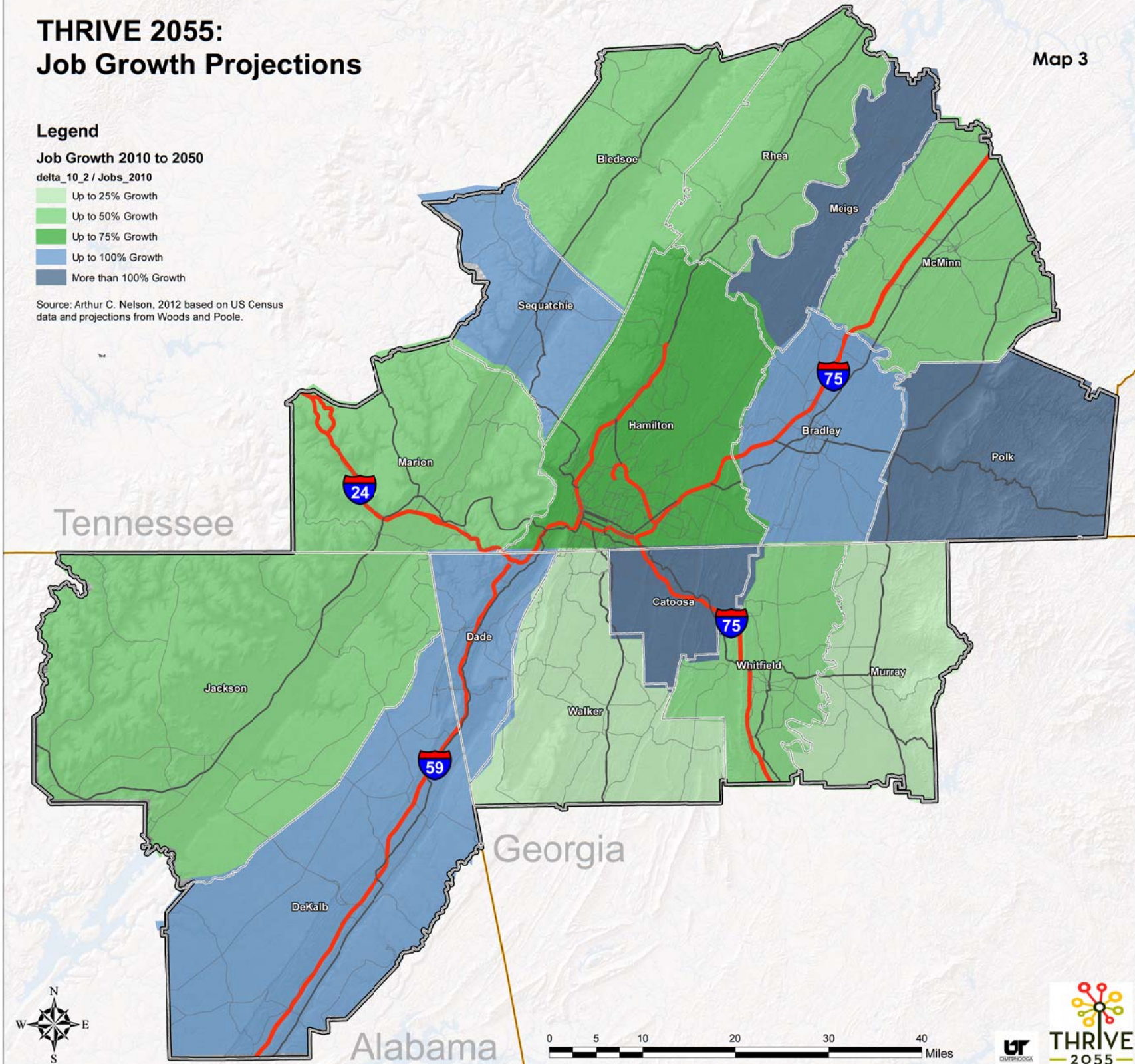
Legend

Job Growth 2010 to 2050

delta_10_2 / Jobs_2010

- Up to 25% Growth
- Up to 50% Growth
- Up to 75% Growth
- Up to 100% Growth
- More than 100% Growth

Source: Arthur C. Nelson, 2012 based on US Census data and projections from Woods and Poole.



THRIVE 2055: Employment Concentration

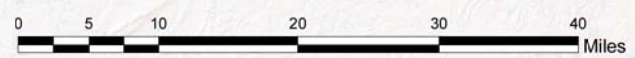
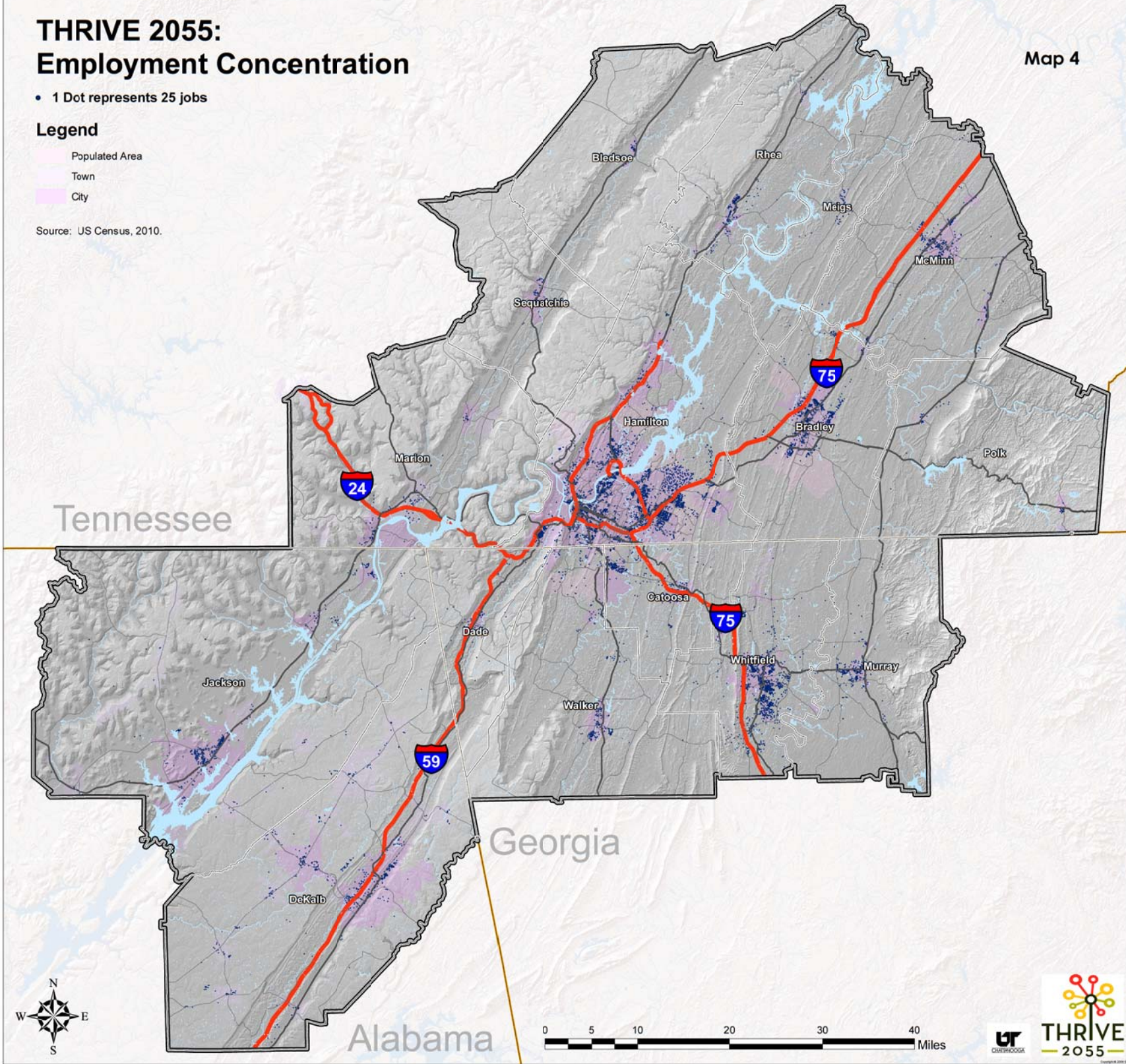
Map 4

- 1 Dot represents 25 jobs

Legend

- Populated Area
- Town
- City

Source: US Census, 2010.

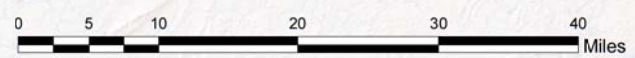
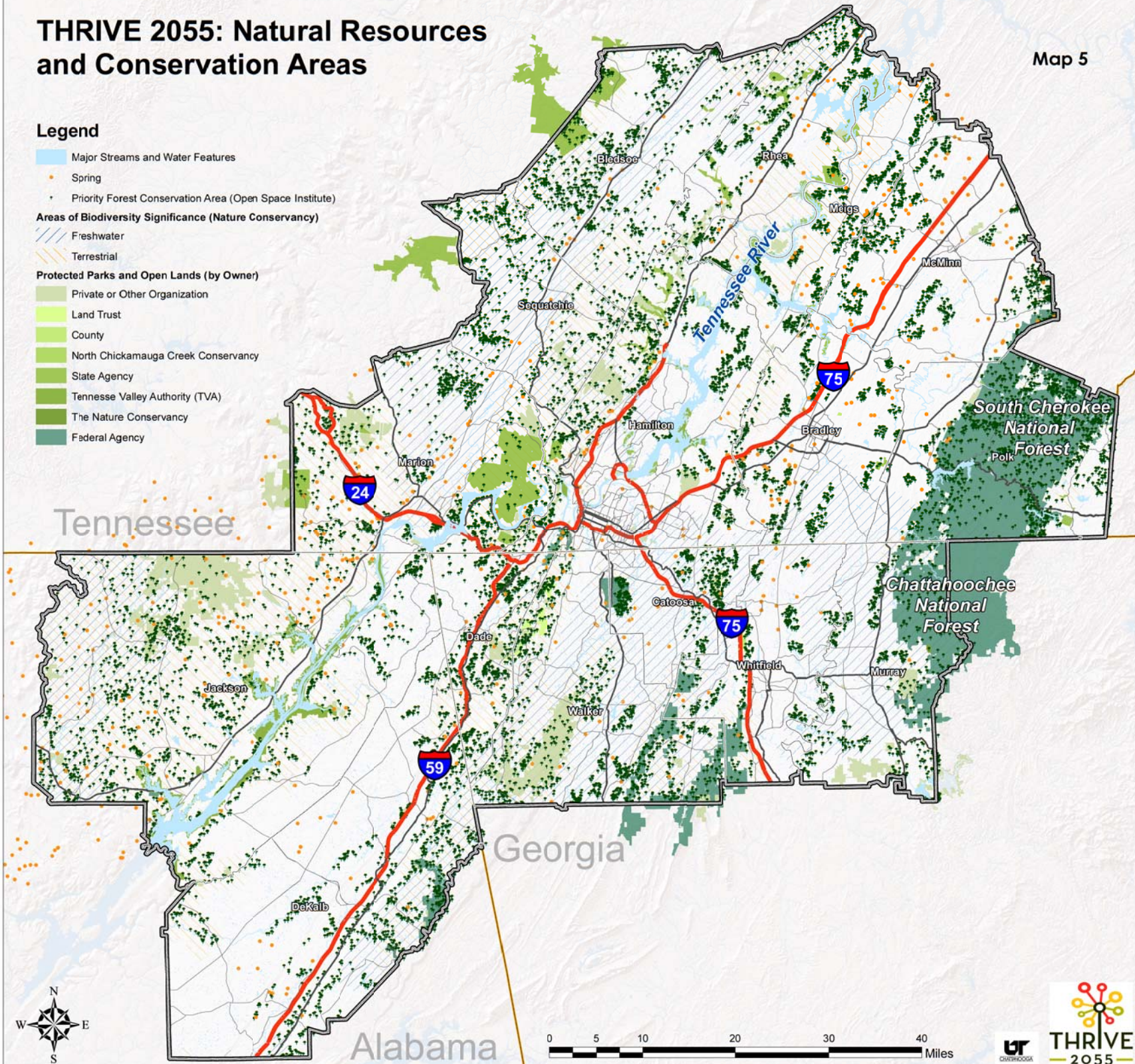


THRIVE 2055: Natural Resources and Conservation Areas

Map 5

Legend

- Major Streams and Water Features
- Spring
- Priority Forest Conservation Area (Open Space Institute)
- Areas of Biodiversity Significance (Nature Conservancy)**
 - ▨ Freshwater
 - ▨ Terrestrial
- Protected Parks and Open Lands (by Owner)**
 - Private or Other Organization
 - Land Trust
 - County
 - North Chickamauga Creek Conservancy
 - State Agency
 - Tennessee Valley Authority (TVA)
 - The Nature Conservancy
 - Federal Agency



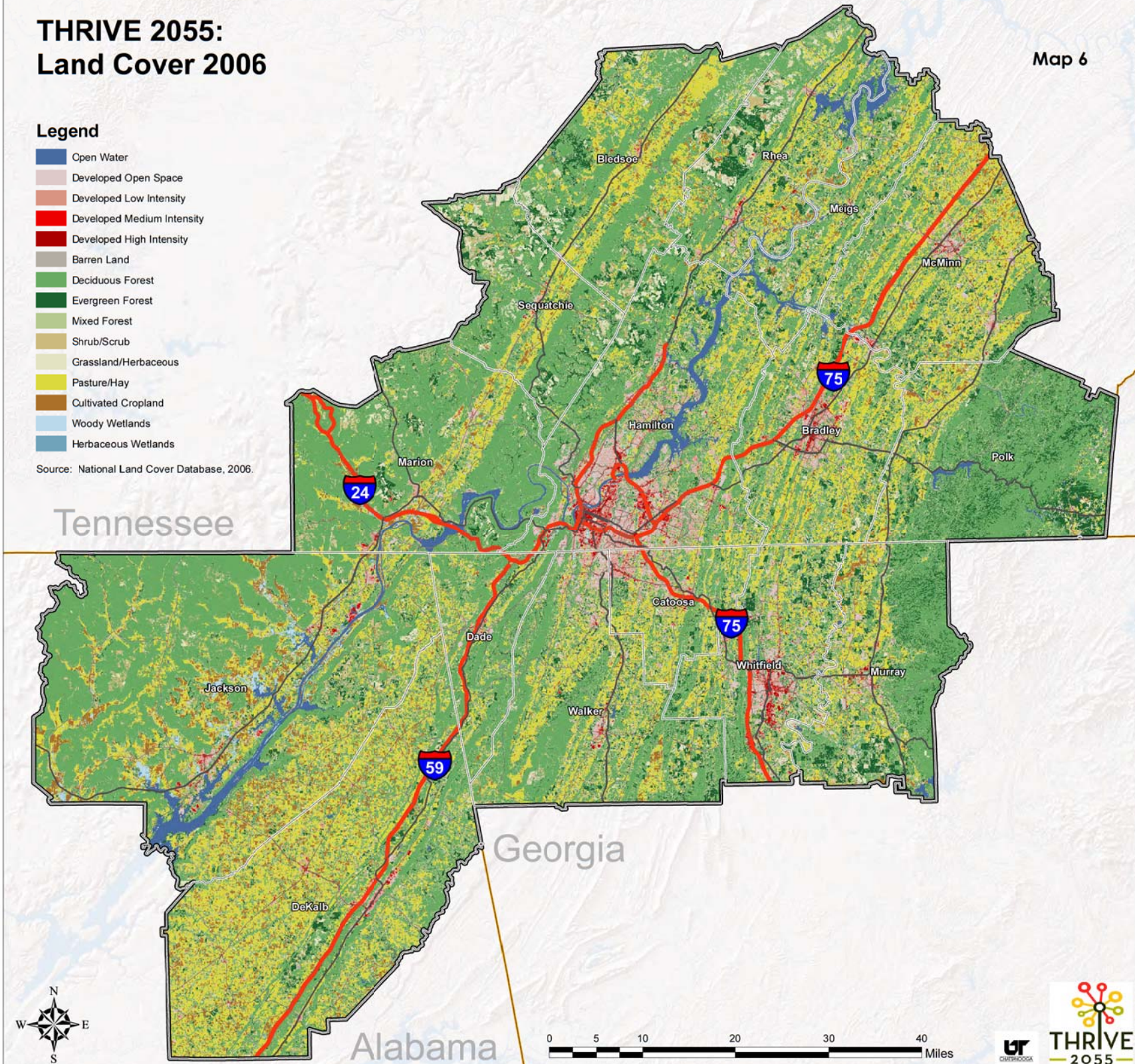
THRIVE 2055: Land Cover 2006

Map 6

Legend

- Open Water
- Developed Open Space
- Developed Low Intensity
- Developed Medium Intensity
- Developed High Intensity
- Barren Land
- Deciduous Forest
- Evergreen Forest
- Mixed Forest
- Shrub/Scrub
- Grassland/Herbaceous
- Pasture/Hay
- Cultivated Cropland
- Woody Wetlands
- Herbaceous Wetlands

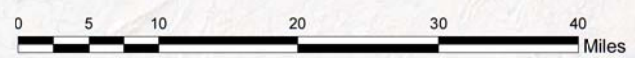
Source: National Land Cover Database, 2006.



Tennessee

Georgia

Alabama



THRIVE 2055: Scenic and Character Defining Resources

Map 7

Legend

- Cave Openings
- Prime Farmland Soils
- Major Streams and Water Features

Natural Heritage Elements (University of TN Chattanooga)

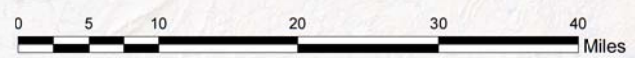
- Density
- Vary Low
 - Low
 - Moderate
 - High
 - Vary High



Tennessee

Georgia

Alabama



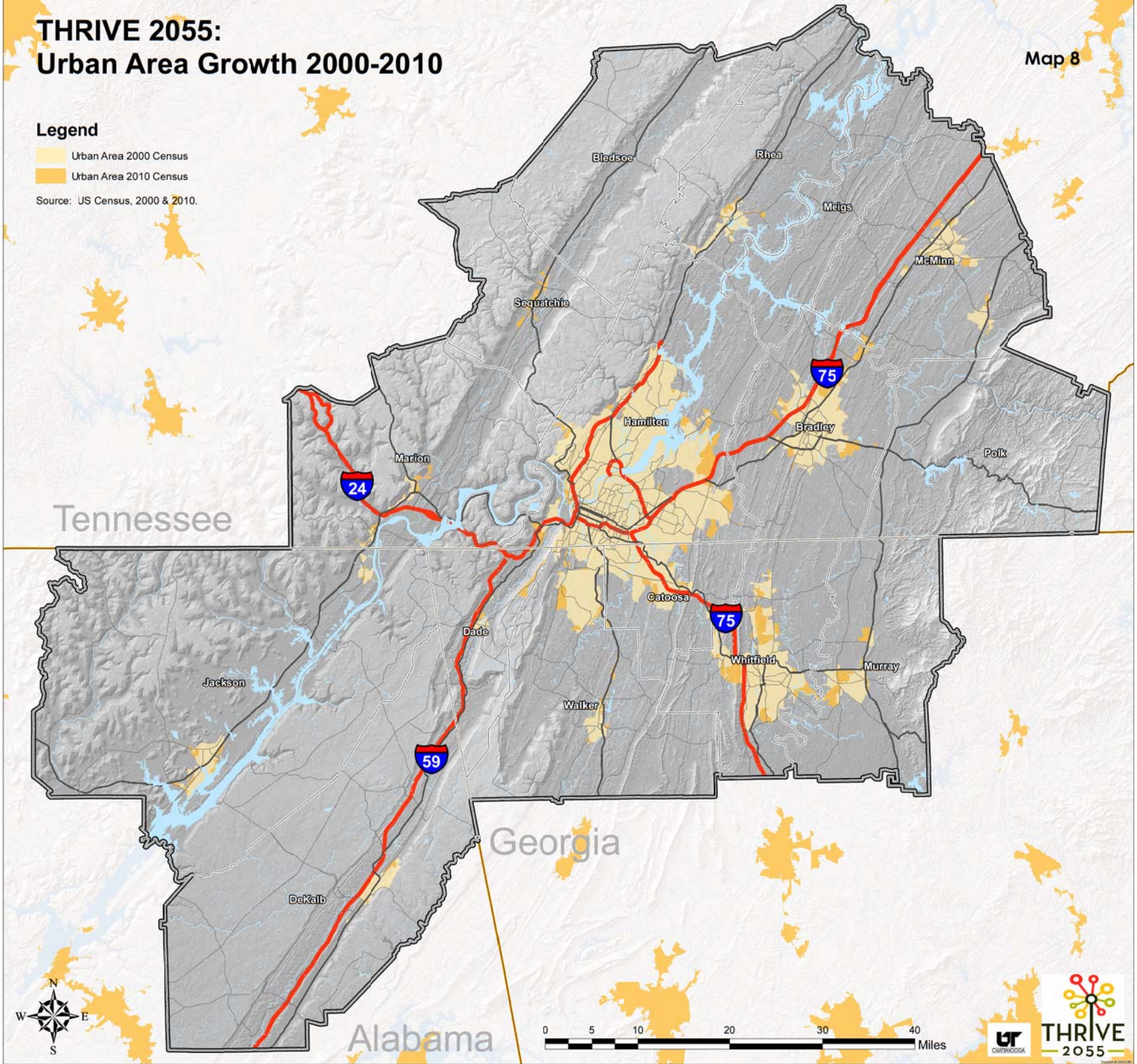
THRIVE 2055: Urban Area Growth 2000-2010

Map 8

Legend

- Urban Area 2000 Census
- Urban Area 2010 Census

Source: US Census, 2000 & 2010.



Tennessee

Georgia

Alabama

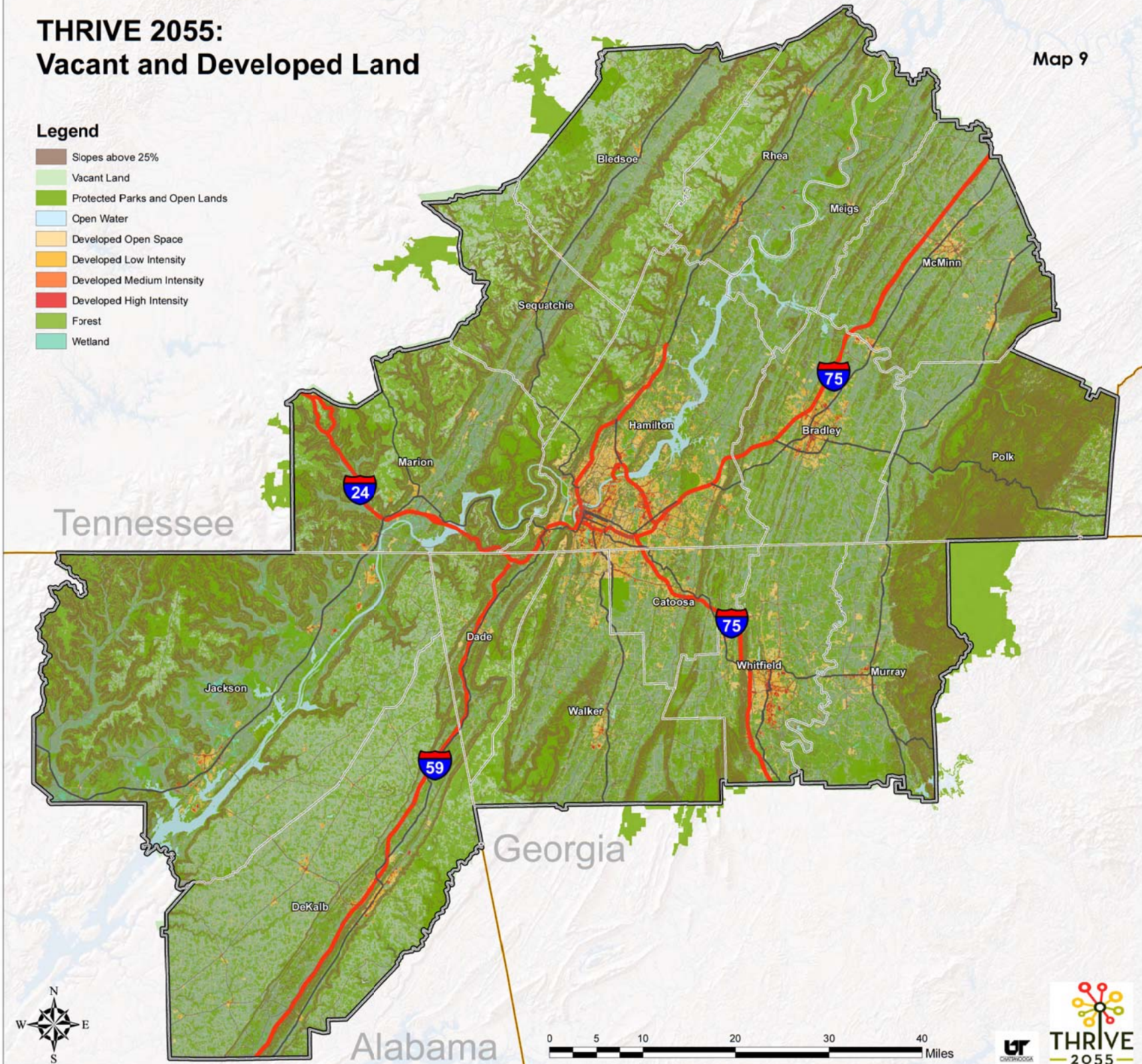


THRIVE 2055: Vacant and Developed Land

Map 9

Legend

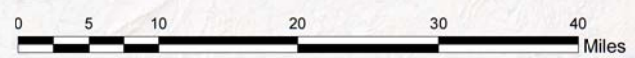
- Slopes above 25%
- Vacant Land
- Protected Parks and Open Lands
- Open Water
- Developed Open Space
- Developed Low Intensity
- Developed Medium Intensity
- Developed High Intensity
- Forest
- Wetland



Tennessee

Georgia

Alabama

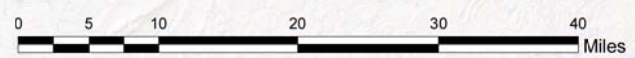
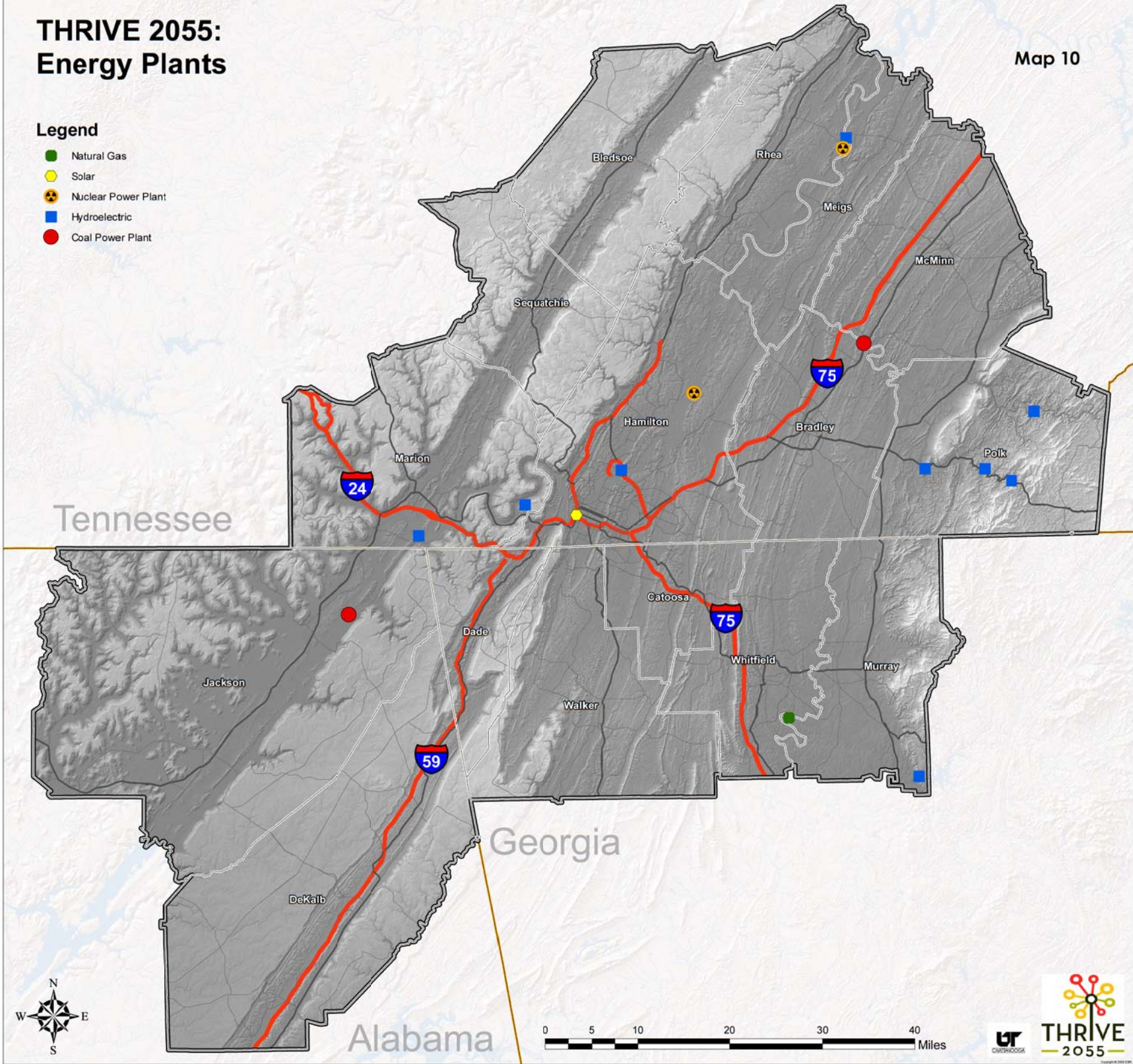


THRIVE 2055: Energy Plants

Map 10

Legend

-  Natural Gas
-  Solar
-  Nuclear Power Plant
-  Hydroelectric
-  Coal Power Plant

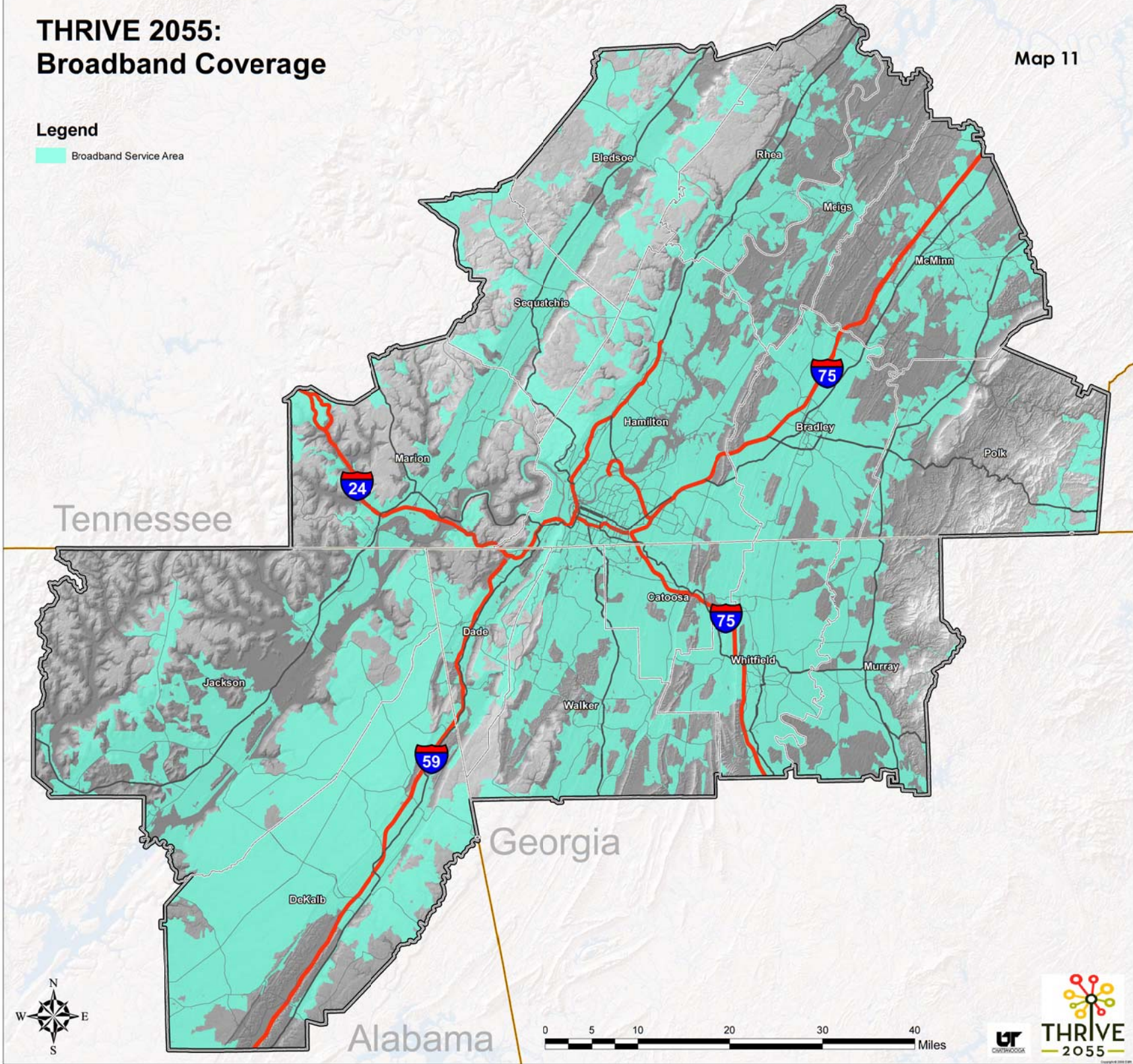


THRIVE 2055: Broadband Coverage

Map 11

Legend

 Broadband Service Area



Tennessee

Georgia

Alabama

