The Tennessee Advisory Commission on Intergovernmental Relations

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MEMORANDUM

TO: Commission Members

FROM: Lynnisse Roehrich-Patrick
Executive Director

DATE: 20 June 2012

SUBJECT: Charting a Course to Tennessee's Future

This report, Charting a Course to Tennessee's Future, is provided for your information. The report seeks to stir the imagination of our state's leaders, to lift their eyes to the horizon, to glimpse the Tennessee of tomorrow. We hope it sparks discussion about ways today's leaders can help the leaders and citizens of the future.

Just as a vision of the future becomes clearer as time advances, so has this report as it developed, growing from a simple idea to a comprehensive state snapshot. The report provides an overview of many of the state's challenges, each of which is worthy of its own report. The information provided here, however, is purposefully general and illustrates the interconnections among issues and the need to consider them together.

Charting a Course to Tennessee's Future

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Executive Summary

Tennessee has many strengths. Its location makes it a natural transportation hub. Its beautiful landscapes and varied topography make it a natural tourist destination. Its people, with their "Volunteer spirit," have built top-ranked universities and research facilities, have created and fostered industry leading businesses, and enjoy a quality of life that continues to attract new businesses and residents. And yet we face many challenges:

- Our educational attainment levels and overall health, though improving, lag those of other states.
- We have sharp contrasts of wealth and poverty.
- Our aging population is putting new pressures on services ranging from health care to transportation and shrinking our workforce.
- Our business and industry has become increasingly intertwined with other nations, causing changes in the ways we work.
- As in most other states, our roads and bridges, water pipes and sewer lines, are deteriorating at a time when governments at all levels are strapped for resources.

What does Tennessee's future hold? Interviews with more than 40 Tennesseans—public officials, leaders from the private sector, members of academia—hold surprising similar opinions about Tennessee's strengths, challenges, and opportunities as we move into the future. What we need, however, is a common vision for the future to serve as a foundation to develop and work toward common goals and solve shared problems. How can we do that?

- *Collaborate*—draw on the expertise of various groups and people and facilitate meaningful discussion of public problems.

  - ✓ *Engage leadership groups*—build on the strength of existing regional and local leadership groups that are already focusing on the future of their local areas. Compile and share information from these groups and tap their energy.

  - ✓ *Tap higher education institutions*—partner with the state's colleges and universities, both public and private, to identify trends, assess problems and solutions, and strengthen students students' improved understanding of governmental systems and civic responsibilities.

  - ✓ *Involve not-for-profit agencies*—encourage Tennessee's not-for-profits to collaborate more, both among themselves and with government agencies, to achieve economies of scale and extend their reach.

- *Exploit data*—take better advantage of the vast array of data already collected and maintained by state agencies. Find out who has what and figure out how to use it to support efforts to create a better future. Develop a clearinghouse for commonly used data, expand the use of geographic information systems to analyze that data, transform data into to knowledge, and make it widely available.

- *Emphasize outcomes*—consider ways to increase the emphasis on outcomes and performance. Similarly, they may want to consider incentives for state agencies and local governments to focus on long-term issues and solutions and improve cooperation among local governments.

- *Create incentives*—use grants as incentives to improve coordination among disparate interests focused on a shared vision for Tennessee's future. Think across existing "silos" to improve results and make more efficient use of resources.

And who should lead this effort? Governor Bill Haslam has taken initial steps to coordinate the efforts of state agencies through his Tennessee Forward initiative. This gives other leaders something to build on. Members of the General Assembly and organizations of local government officials, chambers of commerce and local leadership groups, regional visioning groups and neighborhood alliances, all have something to contribute. All we lack is a vision to rally them around. The Governor's Office and the legislature are places to start. Either could call representatives of these organizations together to begin the effort. Other states have done it. The report that follows explores why and how Tennessee should join them.

"The future ain't what it used to be."-- Yogi Berra

Introduction

Imagine a Future where . . .

- Tennessee is recognized as a world-class place to live and learn, work and play . . .
- Diverse people combine their talents and knowledge to help Tennessee compete in the global economy . . .
- Tennessee's education system ranks high relative to other states . . .
- Tennesseans stay physically and mentally healthy . . . and
- Tennesseans maintain and protect their state's natural beauty and use its resources wisely.

No one would likely challenge this image, but what does Tennessee's future *really* hold? Is anyone actively thinking about the future? And working on it? Although no one can predict the future absolutely, we can identify likely trends and scenarios--and prepare accordingly. This report suggests that Tennessee--its governments and its people—should better prepare for the coming years to provide needed services, encourage job development, protect the state's natural and cultural resources, and participate in the knowledge economy. Developing a common statewide vision could establish a foundation for both private and public sector leaders to work toward common goals and solve common problems. And it could help our governments deliver public services more efficiently and effectively, by setting priorities and targeting duplication.

We know with certainty that our population is aging and becoming increasingly urban. Our economy intertwines with countries on the other side of the earth. We know that we depend too much on foreign oil. And we know that all of our governments are fiscally stressed. How will such issues shape our thoughts and actions?

This report draws on the thinking of several past and present Tennessee leaders (see Appendix A). More than 40 people from state government, local government, business, higher education, and the not-for-profit sector shared their thoughts about Tennessee's future. They expressed pride in their state and conviction that Tennessee has many strengths—its location, its beauty, and its people. But many also think that Tennessee, as a state, lacks a long-term vision of its future. To compete in the world's economy, the state needs to quickly develop such a vision and begin working toward it.

This report was started as the nation's economy took its most drastic downturn since the Great Depression. This fundamental change required a recalibration of the initial work on this project, so staff added input from current officials and updated many of the earlier interviews. The report also draws on the discussion and writing of participants in the Forum on Tennessee's Future, a group of ten public and private sector leaders convened by the Tennessee Advisory Commission on Intergovernmental Relations (TACIR) in October 2008 to discuss the challenges Tennessee faces. That group arrived at a list of Tennessee's ten greatest challenges encompassing

- education
- cultural diversity
- affordable health care
- justice
- business environment
- energy
- land use
- government efficiency
- fiscal sustainability
- political environment.

Strategies to address such challenges must be multi-faceted, and they must inspire people to reach across lines—county, city, and state lines, racial lines, and political lines. It is imperative that we improve cooperation between public and private entities and use scarce resources more effectively. Many of today's challenges will continue into the future while new ones develop. How we as a government and a people choose to confront them, though, will determine our state's destiny.

Where Are We? Where Do We Want To Go?

In some ways, Tennessee is a state of stark contrasts—a land of prosperity and poverty, mountains and flat farmland, inner cities and remote Appalachian hollows. The state is home to some of our nation's best medical research facilities, yet our population is relatively unhealthy. While some areas of the state are very wealthy, more than half our children live in poverty.

Some of our nation's finest scientists work at the Oak Ridge National Laboratory, yet Tennessee's students lag other states' students academically. The U.S. Department of Education in *The Nation's Report Card* indicates that although Tennessee has shown marked improvement in science and math performance in the last two decades, in 2011 about 36% of Tennessee's eighth graders scored below "Basic" on the National Assessment of Educational Progress (NAEP) math test. Science scores for 2011 show 39% of Tennessee's eighth graders perform below "Basic."

Because of such contrasts, developing statewide policy will be daunting. Perhaps, too, because of our state's history, geography, and topography, people tend to identify themselves as East, Middle, or West Tennesseans, rather than as Tennesseans. People from the state's opposite ends often appear to feel that they have little in common.

Other characteristics of our part of the planet may change as well. A recent report to the U.S. Climate Change Science Program, notes that

> *Ecosystems and their services (land and water resources, agriculture, biodiversity) experience a wide range of stresses, including pests and pathogens, invasive species, air pollution, extreme events, wildfires, and floods. Climate change can cause or exacerbate direct stress through high temperatures, reduced water availability, and altered frequency of extreme events and severe storms…. Climate change can also modify the frequency and severity of stresses. For example, increased minimum temperatures and warmer springs extend the range and lifetime of many pests that stress trees and crops.*[1]

Some futurists predict that climate change will cause the U.S. population to shift inward from the coasts as people flee storms and flooding. Because Tennessee has a more temperate climate than many other parts of the country, displaced people may come here.

A recent report by the University of Maryland's Center for Integrative Environmental Research predicts that Tennessee will experience temperature increases greater than the global average. The rise in temperature may prompt a seven percent increase in precipitation as well as increases in extreme weather and flooding. The center predicts that the state's already strained water and wastewater resources may suffer,

[1] http://www.fort.usgs.gov/ClimateChange/.

as may infrastructure, hunting, and people's health. Heat-related diseases such as asthma may increase.

Climate change also may affect a wide range of economic sectors including agriculture, manufacturing, and tourism. Mathias Ruth, principal investigator and center director, says "State and local communities would do well to prepare for a cascade of impacts on many of their most basic systems and services."

Most people interviewed for this report were asked, "What do you think Tennessee's biggest challenges will be over the next 20 years?" They responded with a wide range of issues, but with surprising commonality, summarized below under the broad topics of challenges of people, infrastructure, natural resources, and governance.

"…for tomorrow belongs to the people who prepare for it today."

The Challenges of People: Enhancing Human Capital

Education/Competitive Workforce

A well-educated citizenry correlates to higher incomes, more labor force participation, less poverty, better health, and greater civic participation. Tennessee has struggled to improve its educational standing for several decades, and with some success. The state has improved standards, aligned curricula, and raised graduation rates. *Education Week's* annual national report card*, Quality Counts*, ranked Tennessee 23rd overall in 2011. The state ranks 31st in achievement, but 46th in education spending. Other states have focused on educational improvement too, and improving achievement scores of an entire state's school population is not easy.

In 2010, Tennessee was awarded $501 million in federal "Race to the Top" funds. In exchange, Tennessee committed to a dramatic set of school reforms aimed at improving student achievement. These include improving young students' academic readiness, improving high school graduates' readiness for colleges and careers, and attaining higher rates of graduates enrolling and succeeding in post-secondary education. In February 2012, the federal government granted Tennessee a waiver from the federal No Child Left Behind Law, a major driver of school reform since 2001. State officials believe that Tennessee's new state standards are a better benchmark for school improvement.[2]

For Tennessee to compete in the global marketplace, its workforce will need to adapt to change. Workers will need to be more highly skilled and better educated. Just improving skills, however, may not be adequate, as countries such as China and India also produce more educated and highly skilled workers—workers who are willing to work for lower wages. Some believe that innovation will be a deciding characteristic of tomorrow's workforce. Regardless of how the world of work evolves, the educational system will need to better align with the demands of business and industry. According to education commissioner, Kevin Huffman, "More people need to understand that what will be needed in 20 years is not what is needed now."

Over the last few decades, Tennessee has experienced many changes in its economic base. Manufacturing, once a mainstay, has declined each year since 1990. Many of the jobs lost have been relatively low-skilled, low-wage jobs. Employers can more easily shift these to other countries or eliminate them with investments in improved equipment and technology. Some of Tennessee's rural counties have relied heavily on manufacturing and, thus, have suffered disproportionately as that economic sector declined.

[2]Duncan, 2012.

The Tennessee Department of Labor and Workforce Development projects an increase of 173,000 jobs in Tennessee through 2018, with the greatest increases in the industry groups of ambulatory healthcare services, educational services, and professional and technical services. These occupations often require postsecondary education and skills such as social perceptiveness, time management and critical thinking. Although Tennessee has attracted several corporate headquarters, employers indicate that Tennessee lacks the highly skilled administrative personnel needed to work with the high-level management of these corporations. In 2007, when Governor Phil Bredesen conducted a cross-state tour of Tennessee to listen to employers, he heard repeatedly that our state lacks sufficient workers with appropriate skills and work ethic.

In addition to lagging in elementary, secondary, and postsecondary education, Tennessee's adult education programs are less developed than other states'. A 2009 policy audit by the National Center for Higher Education Management Systems makes an observation about Tennessee's adult education:

> Higher education policy in Tennessee has been developed primarily with recent high school graduates - not adults - in mind. There is no cohesive body of higher education policy oriented specifically to adults. The net effect is a policy environment that impedes access and success for adult students. . .[3]

The U.S. Department of Education, cited by the Southern Regional Education Board, indicates that from 2005 to 2008, while the number of adults participating in adult education programs in many southern states increased, the number of Tennesseans in all types of adult education programs decreased. See Table 1.[4]

[3]National Center for Higher Education Management Systems, 2009.
[4]Southern Regional Education Board, 2010. p.7.

Table 1.

Enrollment for Adults 25 to 59 in Southern Regional Education Board States, 2005 and 2008

	Adult Basic Education			Adult Secondary Ed.			English as a 2nd Language		
	2005	2008	Percent Change 2005 to 2008	2005	2008	Percent Change 2005 to 2008	2005	2008	Percent Change 2005 to 2008
SREB States	233,121	232,828	0	45,432	42,697	-6	207,011	210,237	2
Alabama	4,904	7,475	52	1,720	1,967	14	1,204	1,568	30
Arkansas	11,193	11,559	3	3,454	2,941	-15	4,064	4,021	-1
Delaware	1,297	1,548	19	415	254	-39	1,215	1,016	-16
Florida	51,061	49,530	-3	8,145	6,756	-17	77,952	86,702	11
Georgia	20,597	20,519	0	3,568	2,176	-39	17,985	16,512	-8
Kentucky	12,393	15,304	23	2,717	4,655	71	2,209	3,069	39
Louisiana	6,356	8,657	36	1,169	1,114	-4	1,074	1,451	35
Maryland	6,378	7,395	16	2,934	2,378	-19	8,435	10,625	26
Mississippi	7,827	7,974	2	1,143	950	-17	361	282	-22
North Carolin	25,598	33,485	13	6,746	7,830	16	20,476	23,731	16
Oklahoma	6,569	6,436	-2	1,134	719	-37	3,112	2,716	-13
South Caroli	24,907	21,244	-15	4,759	4,338	-9	5,078	4,474	-12
Tennessee	18,070	14,096	-22	2,320	1,871	-19	4,643	3,675	-21
Texas	21,220	16,444	-23	1,911	1,307	-32	47,529	39,158	-18
Virginia	7,152	7,382	3	2,228	2,361	6	11,504	11,073	-4
West Virginia	3,599	3,780	5	1,078	1,080	0	170	164	-4

Source: U.S. Department of Education. Cited in *A Smart Move in Tough Times: How SREB States Can Strengthen Adult Learning and the Work Force*, © 2010, Southern Regional Education Board

The aging of Tennessee's population will make adult education even more crucial. The Southern Regional Education Board, in 2005, noted that if the percentage of students completing high school remains constant, the percentage of working-age adults with a high school education would actually decline by four percentage points by 2020.

Population Changes

Like the United States as a whole, Tennessee's population is becoming older and more racially and ethnically diverse. The Tennessee Data Center projects that Tennessee's population will increase by about 25% between 2010 and 2040, from 6,346,105 to 7,936,430. The population aged 85 and older, however, will slightly more than double from about 100,000 to 203,500. At the same time, the percentage of children will decrease. Increasing life spans will mean more healthy years for most adults but will also have implications for Medicare, Medicaid, and Social Security. Tennessee's

leaders will need to consider how these changes will affect demand for services such as health care, housing, transportation, and education.

The aging of the Baby Boomers also will continue to affect Tennessee's workforce for many more years. U.T.'s Center for Business and Economic Research estimates that by 2020, about one of every six Tennesseans will be 65 years of age or older. Even though the recent recession has caused some older workers to delay retirement, they will ultimately retire and leave the workforce.[5] Scott Reeves, writing in Forbes magazine says, "Boomers make up about one-third of the U.S. workforce, and there aren't enough younger workers to replace them. Labor shortages in key industries will force a radical rethinking of recruitment, retention, flexible work schedules and retirement." According to the U.S. Census Bureau, the percentage of the population in the "working ages" of 18 to 64 is projected to decline from 63 percent in 2008 to 57 percent in 2050.[6] The Bureau of Labor Statistics projects that the percent of the labor force that is 55 or older will grow by 18 to 24 percent from 2008 to 2018.[7]

Health

Just a few years ago, Tennessee had some of the very worst health rankings in the country. In 2008, the United Health Foundation ranked Tennessee 47th in the nation in overall health. By 2011, however, Tennessee had risen to 39th. Although still in the bottom half of states, the improvement may indicate that an increased focus on health issues is having a positive effect.

In spite of these improvements, though, the health of Tennessee's citizens continues to be a challenge. *The 2011 Tennessee Women's Health Report Card,* compiled by the Vanderbilt Institute for Medicine and Public Health, gives Tennessee Fs in several health categories including heart disease, stroke, sexually transmitted infections, and low birth weight and infant mortality, particularly among African Americans. The United Health Foundation's *America's Health Rankings 2011* places Tennessee among the lowest 10 states in obesity, diabetes, violent crime, infant mortality, and cancer deaths. Health, possibly more than any other condition, is affected by choices in so many other seemingly unrelated spheres. For example, many of our towns and cities with their suburban stores, lack of sidewalks, and lack of public transportation make it practically impossible to walk—the easiest exercise.

Former Health Commissioner Susan Cooper put it this way:

> What we need to understand is that all these things are related. Plans written in isolation do not work. For people to get exercise, they need safe places to walk and play. Health is not just an outcome, but also a driver. Health, education, and jobs creation are intimately linked. . . As we move forward, we must utilize a "health in all policies" approach

[5] University of Tennessee Center for Business and Economic Research, *2011 Economic Report*, pp. 57-59.
[6] U.S. Census Bureau News, U.S. Department of Commerce, Washington, D.C, August 14, 2008.
[7] U.S. Bureau of Labor Statistics, 2009.

> at the local, state, and federal levels of government. Health, transportation, urban planning, education, and agriculture policies should tie together to create healthy environments. The healthful choice becomes the easy or default choice. We have spent years investing in healthcare; now is the time to invest in health and prevention. Returns on our investments in health will take time, however, and we cannot delay. Doing nothing is not an option."

Several reports consistently rank Tennessee as one of the most obese states, citing epidemic proportions of heart disease, childhood obesity, and childhood type II diabetes. For 2012 the Trust for America's Health ranks Tennessee 4th in the nation for adult obesity and 6th for childhood obesity. Obesity rates are especially high among Blacks and Latinos.

Tennessee's high rate of obesity incurs a high cost. Although state specific estimates are not available, a 2009 study by Eric A. Finkelstein for the Centers for Disease Control and Prevention found that the direct and indirect cost of obesity nationally "is as high as $147 billion annually." The significant fiscal costs of obesity stem from its close association with several serious chronic diseases and numerous health conditions, including certain cancers, heart disease, stroke, diabetes, and degenerative osteoarthritis.

Fortunately, these troubling obesity statistics prompted the creation of the Tennessee Obesity Taskforce, a broad-based, statewide coalition representing state agencies, scientists, city planners, transportation experts, parents, and nutritionists—people from a diverse set of disciplines who otherwise would rarely talk to each other. The Taskforce produced "Eat Well, Play More Tennessee: the Tennessee Statewide Nutrition and Physical Activity Plan." Although the ultimate effects of this effort are not yet clear, the work of this group illustrates the common vision that can be developed when a group of people focus on the future and what it could look like. In addition, if efforts to reduce obesity succeed, related health care costs could be reduced.

High rates of infant mortality and other poor birth outcomes are also too prevalent in Tennessee. According to *America's Health Rankings,* in 2011 Tennessee ranked 45th worst of the 50 states for deaths per 1000 live births, and 41st for low birth weight babies.[8] The Tennessee Women's Health Report Card notes that the death rate for black infants is more than twice that of white infants. That report gives Tennessee an F for the percentage of women who smoked during pregnancy, a preventable, cultural habit that unnecessarily affects the unborn. Pregnant white women in Tennessee, in particular, are nearly twice as likely to smoke as their counterparts nationally.[9]

[8] United Health Foundation, 2011.
[9] Vanderbilt Institute for Medicine and Public Health, et al., 2011.

In addition to Tennessee's babies who die before their first birthday, the number of low birth weight babies who survive is also high. The Tennessee Department of Health indicates that 9 of every 100 Tennessee babies born in 2009 were underweight; for black babies the number reached nearly 14 percent. In addition to requiring expensive neonatal medical interventions, such babies are disproportionately prone to developmental delays and lifelong health problems. These conditions increase medical expenses. The National Conference of State Legislatures estimates that preterm births cost society at least $26 billion per year. Medicaid programs pay for 40 percent of preterm births. The former Tennessee Office of Children's Care Coordination estimated that Tennessee spends $610 million annually on health care costs associated with poor birth outcomes. These conditions also increase special education spending because children born prematurely or with low birth weight are more likely than their peers to have mild learning disabilities, attention disorders, and developmental impairments.

In short, Tennessee has many opportunities to improve its health. Many of the costly health problems that plague our population are rooted in poor eating habits, lack of exercise, and dangerous personal choices such as smoking and refusing to wear seatbelts. Changing such behaviors could lessen healthcare costs and improve economic productivity. On June 10, 2011, Governor Bill Haslam announced the formation of a task force to focus on improving Tennesseans' health, citing the high cost of unhealthy personal choices. He hopes to increase the amount of money available for other functions of state government, such as education, by decreasing the amount spent on health.[10]

If Tennessee is to enhance its human capital it will need to continue to improve the overall education and health of its citizens by incorporating those goals into all of its endeavors.

[10]Hirst, *The Tennessean*, 2011

The Challenges of Infrastructure: The Systems that Support Us

Tennessee, like most other states, expanded its roads, bridges, power and water systems when federal money was plentiful. In the years since, however, much of that infrastructure has deteriorated and needs repair or replacement. The infrastructure supporting broadband and information technology is newer but will need to be expanded and maintained in years to come. The Tennessee Advisory Commission on Intergovernmental Relations (TACIR) is charged with developing and maintaining a public infrastructure needs inventory. The June 2011 report estimates that Tennessee needs $37.6 billion in public infrastructure improvements for the period 2009 through 2014. Of this, transportation and utilities needs comprise $19.5 billion.[11]

Transportation Infrastructure

To meet transportation infrastructure challenges, Tennesseans will need to think beyond their borders—and beyond traditional reliance on cars and highways. States are heavily dependent on the federal government for transportation funding, and our nation's economy demands that goods, and sometimes people, travel long distances.

According to the Brookings Institution's *A Bridge to Somewhere*, transportation is now the second largest expense for American households, consuming on average 20 cents of every dollar.[12] The report concludes that the condition of U.S. roads, bridges, and rail is declining, especially in urban areas. In addition, the U.S. transportation network is obsolete, no longer reflecting today's travel patterns nor fully embracing technological advancements. Brookings cites growing concern about a "perfect storm" of environmental and energy sustainability and transportation's role. The report calls for the federal government to develop an overarching national transportation vision.[13]

The condition of our nation's transportation infrastructure is further compounded by the lessening reliability of gas taxes. As vehicle fuel efficiency increases and hybrid and electric cars become more popular, the revenue derived from federal and state gas taxes declines. John Schroer, who became Tennessee's Commissioner of Transportation in 2011, notes that the only way to maintain our transportation infrastructure is with money that is now derived from "an archaic system based on gallons of gas burned."

Although states are considering highway tax systems based on miles driven rather than gallons of fuel consumed, making the switch will not be simple. The systems are not in place and citizens seem somewhat resistant to devices that would measure their miles travelled.[14]

[11]Roehrich-Patrick, Corley, Maringa, 2011.
[12]Puentes, 2008, p.5.
[13] Ibid, pp. 16-57.
[14] Nichols and Holeywell, 2011.

In 2003, the Comptroller's Office of Research found that "Lack of integrated planning prevents Tennessee from fulfilling the federal law's intent that overall transportation planning lead to an integrated, intermodal transportation system that facilitates the efficient movement of people and goods, while 'minimizing transportation-related fuel consumption and air pollution."[15] Partially as a result of that report, the Tennessee Department of Transportation undertook a broad-based planning process, resulting in a comprehensive long-range plan, called *PLANGo*. The plan has three parts: a 25-year Vision Plan, a 10-year Strategic Investments Program, and a 3-year Project Evaluation System. It sets forth seven principles:

- Preserve and Manage the Existing Transportation System
- Move a Growing, Diverse and Active Population
- Support the State's Economy
- Maximize Safety and Security
- Build Partnerships for Livable Communities
- Promote Stewardship of the Environment
- Emphasize Financial Responsibility

The plan's preamble says, "The plan places the highest priority on the preservation of existing infrastructure, transportation services, and public safety. It also calls for investing more in all transportation modes and developing a long-term sustainable funding structure for transportation in Tennessee."

A recent report by the non-profit organization Smart Growth America ranks states' transportation policies to encourage road and street projects that support all users and increase likelihood that citizens will walk and use public transportation. Tennessee ranks 27th overall and received points for complete streets initiatives—efforts that require planners and engineers to incorporate sidewalks, bike lanes, wheelchair ramps and bus pull-offs as appropriate. Tennessee scored zeroes, however, for categories such as safe routes to schools and quality growth policies.[16] (On January 20, 2012 Governor Haslam announced that 10 Tennessee cities would receive Safe Routes to School grants, which may improve this ranking.) Another report finds that, because of urban sprawl, Nashville has the longest commute times of the 51 most urban cities in America; Memphis ranks 6th.[17] Improving such conditions will require greater cooperation among disparate functions such as education, transportation, and housing.

Gerald Nicely, Tennessee's former transportation commissioner, rated Tennessee's transportation infrastructure as somewhat better than other states, but says we need to think more strategically. He noted that long-term funding has become a serious issue and that building four-lane highways in some parts of Tennessee is simply unrealistic. He believes that Tennessee needs to link land use planning and

[15]Spradley, 2003, p.21.
[16] Bhatt, Peppard, Potts, pp. 14-15.
[17]Cortright, p.7.

transportation and better utilize our waterways TDOT's 25-Year Long-Range Transportation Plan identified a funding gap of $16 billion between forecasted revenue and the cost to implement the plan, an amount that has likely increased since that estimate was developed.

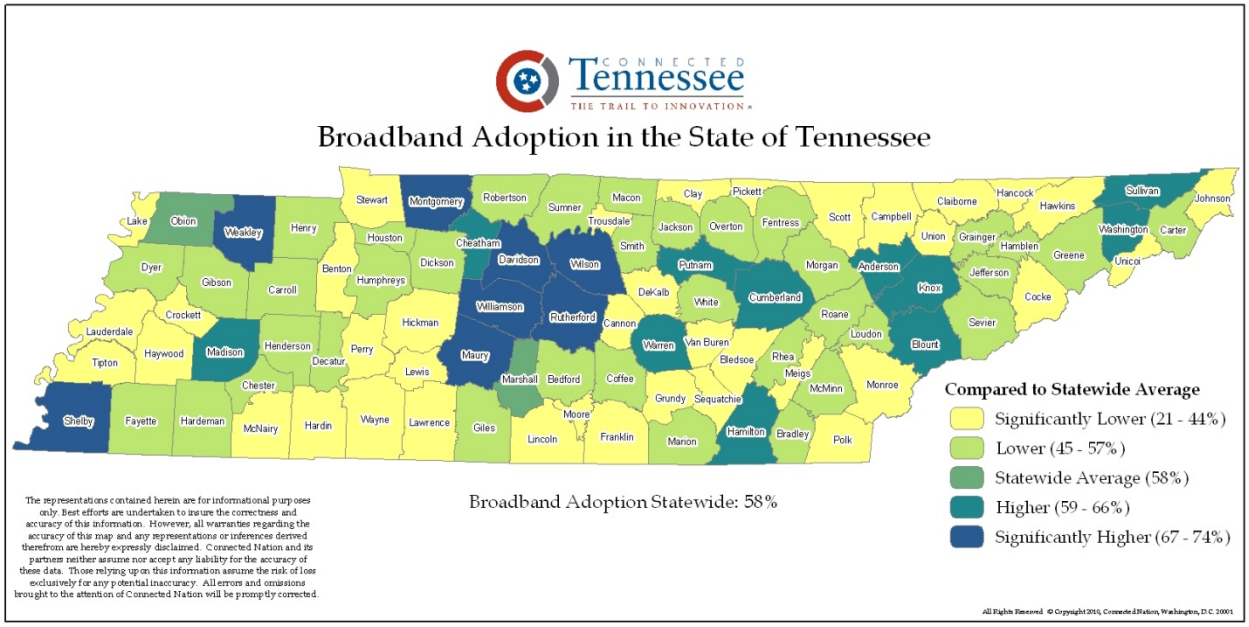
Meeting future transportation needs will require some shifts in emphasis. The increased number of people aged 85 and older, for example, may necessitate more public transportation options. Greater intrastate, interstate, and international cooperation may also be needed. The Enterprise Center Inc. of Chattanooga is working to bring high speed ground transportation linking Atlanta, Chattanooga, and Nashville. In addition, states will need to improve multi-modal transportation—the interconnectedness of various types of transportation—including water, high-speed rail, air, and roads within their borders. And changes outside the boundaries of the United States will affect transportation in Tennessee. For example, expansion of the Panama Canal will cause more ships to come to the eastern U.S., bringing more traffic to the Mississippi River and the Port of Memphis.

Information Technology Infrastructure

Some suggest that information technology is Tennessee's hope for the future, particularly for its rural areas. Meeting the technology and data needs of businesses and governments will continue to be a challenge. Connected Tennessee, a non-profit agency focused on improving Internet connectivity across the state, indicates that 75% of Tennessee residents reported having a computer at home in 2010. Rates of ownership were the highest, however, in urban and suburban areas and lowest in rural areas. (See Map 1.) Rates of ownership were also highest in the 18-44 age group and lowest among those 65 or older. Eighty-two percent of Tennessee residents, however, access the Internet either from home or from another location. Fifty-eight percent of all Tennessee residents reported having broadband service at home, up from 43% in 2007.

Expansion of broadband and Internet access will continue to be vital for economic development as well as for student success. The U.S. Department of Commerce's National Telecommunications and Information Administration (NTIA) indicates that the American Recovery and Reinvestment Act injected $6.8 million into Tennessee to expand broadband availability. The need for such targeted investment in Tennessee's technology infrastructure will likely continue to support global communication and commerce.

Map 1. Broadband Adoption in the State of Tennessee -2010



Source: Connected Tennessee, used by permission.

Water and Sewer Infrastructure

Many of Tennessee's water and sewer lines, as well as its treatment plants, were installed in the growth period after World War II and are now approaching the end of their useful life. In addition, some areas have seen rapid expansion to keep pace with population growth, and the water systems' capacities simply are not big enough. Many of Tennessee's cities and utility districts have not actively addressed the maintenance of these systems. [18] TACIR's 2011 *Public Infrastructure Needs Inventory* estimates the total amount of needed water and wastewater projects in all counties at $4 billion.

In addition to existing water and sewer infrastructure challenges, University of Maryland researchers believe that climate changes will worsen water quality. According to their 2008 report, *Economic Impacts of Climate Change on Tennessee*, policymakers should investigate the degree to which changes in water quality will increase water treatment and management costs and what steps can be taken to integrate possible scenarios into planning and budgeting.

According to the 2009 American Housing Survey for the United States, about 21% of households lack access to a public sewer system.[19]Specific data on septic tank use in Tennessee is not available; however, the Comptroller's Division of Property Assessments maintains property characteristic data for 88 of Tennessee's 95 counties.

[18] See Terry, 1.
[19] U.S. Department of Housing and Urban Development and U.S. Census Bureau, Table 1.4.

As of July 2011, of the 1,748,118 buildings in those 88 counties, 880,063 (50%) had septic tanks. Because that database excludes the four most urban counties, the statewide percentage would be lower; still this information indicates a large potential need for sewer infrastructure. Ultimately, providing sewer systems for everyone clearly is not cost-effective, but the widespread use of septic tanks may adversely affect water quality. As Tennessee's population increases and becomes more urban, the underlying wastewater infrastructure will need improvements.

Energy Infrastructure

Tennesseans' thirst for energy to power their vehicles, heat and cool their homes, and run an ever-increasing number of electronic devices, seems insatiable. Although the average person probably takes energy for granted, Tennessee has a widespread infrastructure to support that demand. Giant pipelines flow underground to deliver petroleum and natural gas products. A dense network of power plants and lines transmit electricity statewide. More recently, solar "farms" and wind turbines have become more common. Vehicles powered by nontraditional fuels such as natural gas, propane, biofuels, and hydrogen signal changes to come in the infrastructure that supplies our cars and trucks. What kinds of energy will future Tennesseans use and where will they get it?

Electricity—About three-fifths of Tennessee's electricity is produced by coal-fired power plants; nuclear and hydroelectric power sources provide the remainder. The U.S. Energy Information Administration (EIA) projects that despite rapid growth in electricity generation from natural gas and non-hydropower renewable energy sources, coal will continue to account for the largest share of electricity generation. EIA projects few new coal-fired power plants, however, and coal's share of the total generation mix will fall slightly from 45 to 43 percent.

The Tennessee Valley Authority (TVA) recently agreed to shut down 18 of its oldest power-producing units as a result of long-running legal disputes about the agency's compliance with federal clean air standards. To compensate for the removal of these units, TVA plans to expand its nuclear facilities. Although better for air quality, nuclear plants also can have negative environmental impacts because of problems associated with disposing of nuclear waste.

So how will the electrical infrastructure of the future differ from the infrastructure of the present? Some believe that there will be less emphasis on the national power grid, and more emphasis on systems that provide electricity locally, even to individual buildings. And the need to provide electricity more cleanly and efficiently will also be important.

Petroleum—Under Tennessee's surface lies a network of pipelines that transport both crude and refined petroleum products. Tennessee's three grand divisions are fed from various sources. Middle Tennessee primarily relies on a single pipeline, the Colonial Pipeline. The pipeline runs from southeastern Texas through southern

Louisiana and Mississippi, central Alabama and on through Georgia and South Carolina to the Mid-Atlantic States, branching into Tennessee from Georgia. The Colonial Pipeline also supplies East Tennessee along with a spur of the Plantation Pipeline (see Map 2). Because these are the only sources for refined fuel products to Middle and East Tennessee, the eastern two-thirds of the state are somewhat vulnerable to disruption because of the distance from other sources.

Memphis is supplied by the Valero Refinery giving West Tennessee a more local source than the other grand divisions. According to its website, crude oil is supplied to the refinery through the Capline Pipeline and also can be supplied by barge. Its products are then distributed by truck, barge, and a pipeline that delivers directly to the Memphis airport. The rest of Tennessee also receives refined fuels by barge and truck. According to the executive director of the Tennessee Petroleum Council, the state's present pipeline system is working at maximum capacity and cannot handle much more demand.

Map 2.
Pipelines Supplying the Eastern United States-2011

Source: Heat USA

In September of 2008, successive hurricanes Gustav and Ike severely diminished southeastern U.S. petroleum supplies. As hurricane Gustav approached the Gulf Coast, 32 of the 33 refineries in the region shut down operations. After Gustav had passed, operable refineries began to get back online, a process that takes seven to ten days. Just as they were recovering, however, Hurricane Ike made landfall in Texas and pounded the Houston area, causing refineries that were nearing full capacity after the first storm to shut down again. A week after Hurricane Ike, Gulf Coast output was about 50% lower than normal: as of September 19, 2008, Gulf refineries

produced 1.8 million barrels of gasoline per day, down from 3 million per day a few weeks earlier.[20]

Tennessee's former energy policy director indicated the situation was further complicated because it occurred during the annual transition from summer to winter gasoline, and providers had sold down their inventories. Supplies operated at 5% to 15% capacity for several days. During those few weeks of high gasoline prices and lines at the pumps people were forced to focus on their fuel dependence, consider alternative forms of transportation, and adopt fuel conservation methods. Tennesseans glimpsed life with gasoline shortages—difficulty getting to school and to jobs, difficulty obtaining goods, and skyrocketing prices at the pump. The shortage highlighted a lack of alternative energy technologies, as well as dependence on a single source of fuel for transportation. In addition, Tennessee may be more dependent on fossil fuels than other states because, as noted earlier, commuting distances are longer than many other states, and mass transit is less prevalent.

Natural Gas—The U.S. Energy Information Administration (EIA) categorizes Tennessee as a state that is at least 85% dependent on interstate pipelines for its natural gas supply. The U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration indicates that Tennessee has 4,901 miles of interstate natural gas pipelines crossing the state and 36,998 miles of gas distribution pipelines delivering gas to homes and businesses from the interstate pipeline.

Unlike America's petroleum sources which are concentrated in a few regions of the country, natural gas is more widespread. The EIA cites strong growth in shale gas production and growing use of natural gas and renewables in electric power generation. Shale gas production in the U.S. grew at an average annual rate of 48% between 2006 and 2010, largely because of horizontal drilling and hydraulic fracturing. The EIA in its 2011 Annual Energy Outlook projects that shale gas production will make up 47% of total U.S. production by 2035, up from 16% in 2009. In addition, although natural gas has been a mainstay to heat and cool buildings, its liquid form is gaining new attention as a potential transportation fuel source.

Emerging Energy Infrastructure—In recent years state officials have sought new businesses engaged in emerging energy technologies. According to the Department of Economic and Community Development's Office of Energy Policy's website, Tennessee is home to "a diverse portfolio of companies in the solar, wind, biofuels and electric vehicle sectors, including Hemlock Semiconductor Corp., Wacker Chemie, Nissan North America, SIAG-Aerysin, Alstom Power and DuPont Danisco Cellulosic Ethanol." Nissan North America is investing $1.4 billion to retool its Smyrna manufacturing plant to produce zero-emissions vehicles and state-of-the-art lithium-ion battery packs to power them. Through the efforts of TVA, the Electric Power Research Institute, and Oak Ridge National Laboratory, Tennessee is one of five states participating in a

[20] Heat USA.

large-scale installation of solar-assisted electric vehicle charging infrastructure and the deployment of up to 5,000 Nissan battery electric vehicles.[21]

Tennessee also has been experimenting with biofuels. Tennessee is home to one of the nation's first cellulosic ethanol demonstration plants and the only one dedicated to converting both agricultural residue and bioenergy crops to fuel ethanol. A 74,000-square-foot facility in Vonore has the capacity to produce 250,000 gallons of ethanol annually from corncobs and switchgrass and is a partnership of DuPont Danisco Cellulosic Ethanol and the University of Tennessee/Genera Energy.

Tennessee's vehicles of the future will run on energy sources that are different from those we have known for the past century. These in turn will prompt a need for a different kind of energy infrastructure.

[21] Huotari.

> We do not inherit the earth from our ancestors; we borrow it from our children.
> —Native American Proverb

The Challenges of Natural Resources: Using Tennessee's Assets Wisely

Tomorrow's Tennesseans will need adequate supplies of clean water and air, good land, and clean, affordable energy. Supporting transportation, industry, and food production will bring new challenges. To obtain some resources, such as water, we have depended largely on our own supplies. For others, such as fossil fuels, we have some availability, but must import large quantities and so need to reduce our dependence on them. In recent years, the United States, including Tennessee, is increasingly exporting raw resources to China and other countries. The way we choose to use each type of resource will affect its availability, quality and effect on the environment.

Tennessee is blessed with a rich and varied natural environment, but competing economic endeavors can affect that environment, leading to contaminants in air, water, and soil that can ultimately harm health. In addition, Tennessee attracts many visitors because of its beautiful land, waterways, and historic sites, all of which can easily suffer from activities associated with economic activity, such as construction, mining, and excess cultivation.

As Tennessee's population continues to grow, people will have to live somewhere and will consume more and more resources while adding more pollutants to their water and air. A recent TACIR research brief highlights problematic land-use trends and issues such as sprawl, land fragmentation, loss of farmland, location of industrial megasites, and local land use conflicts. New construction is widely considered positive for the economy, but continued building and sprawl have been linked to storm water run-off and decreases in available potable water. As noted previously, longer commuting distances to work centers, as well as more traffic congestion, lead to increased fuel consumption and air pollution. Each type of resource is discussed below; all are inextricably intertwined.

Water

Access to clean, plentiful water for commercial, residential, and recreational use is vital to Tennessee's future. Tennessee has abundant water resources—more than 60,000 miles of rivers and streams and over 570,000 acres in lakes and reservoirs nourish its people and beautify its landscape. As of November 2010, however, the Department of Environment and Conservation had posted 62 streams, rivers, and reservoirs as public health threats. And some areas of the state have periodic shortages because of drought.

As Tennessee's population grows, the state's water resources will face unprecedented demands. Mary English of the University of Tennessee's Institute for Secure and Sustainable Environment wrote in April 2010, "Tennessee is well positioned to begin statewide water resources planning. With its water withdrawal registration program, its regulation of inter-basin transfers, and its strengths in water quality monitoring and regulation (particularly its Aquatic Resource Alteration Permit program), Tennessee has some of the essential underpinnings for integrated, statewide water resources planning."[22] Indeed, an intergovernmental task force reported the results of two regional pilot studies concluded in 2011.[23]

Dr. English points out, however, that Tennessee, like other states in the Southeast, is experiencing water shortages from the pressures of growth, as well as from droughts. She notes that land use is a complicating factor, particularly affecting rural water needs and rural sprawl, which has been encouraged by the availability of on-site wastewater treatment systems that reduce the need for individual septic systems. English writes, "In-situ package treatment plants enable pockets of residential density in areas that are sparsely populated, leading to scattered development that does not necessarily have ready access to public services (schools; police and fire protection; paved, well-graded roads; etc.) or adequate water supplies. Because these areas typically have limited land-use controls and planning resources, these scattered developments often are able to proceed with little oversight."

Tennessee's water supplies will experience ever-increasing pressures in the coming years. Because local officials often fail to consider the effects of development on water supply, long-range thinking about Tennessee's water resources now might help ensure the availability of sufficient clean water in the years to come.

Land

The ways that people use land ultimately affect agriculture, commerce, air and water quality, and scenic beauty. Statewide land-use data show a slow but steady increase in developed land, corresponding to Tennessee's increasing population. As land is developed, it reduces the amount available for growing food and diminishes vegetation that helps filter air and water and helps prevent erosion. The National Resource Conservation Service indicates that in 1982, 6.6% of Tennessee's land had been developed. By 2007, the percentage of developed land had grown to 12.2%. This represents an 85% increase in developed acres, coinciding with a decrease in cropland. From 1982 to 2007, 25% of cropland acres in Tennessee were converted to other uses. For that same period, Tennessee ranked 7th nationwide for loss of agricultural land. In addition to general loss of cropland, the increased use of remaining cropland to supply energy may affect the availability of food for people and livestock.

[22] English, 13.
[23] For more information see Tennessee Department of Environment and Conservation, Water Resources Regional Planning, http://www.tn.gov/environment/regionalplanning/

As the state's population grows, Tennessee will continue to lose open land to purposes such as homebuilding, surface mining, road construction, and industrial development. Policy makers will need to balance the demands for more land with needs to grow food, prevent flooding, and provide green spaces.

Air

Obviously, air is vital to all life. The advent of industry and the proliferation of automobiles in the U.S. brought increased emissions of pollutants into the air, many of which are harmful for people to breathe. In 1970, Congress passed the Clean Air Act. That legislation and its subsequent revisions, prompted a significant reduction of contaminants released into the air, from both industrial sites and cars. The Clean Air Act requires the Environmental Protection Agency to set standards for six common pollutants: ground-level ozone, particulate matter, carbon monoxide, nitrogen dioxide, sulfur dioxide, and lead.

Compared with a few decades ago, Tennessee's air is significantly cleaner. Because of increased federal attention to air quality, our industries have made significant progress in reducing harmful emissions. Cars have been modified to reduce air contaminants and some local governments have implemented emissions testing programs. Tennessee, however, is still heavily dependent on fossil fuels for energy, and producing energy from fossil fuels tends to release more contaminants into the air than energy produced from other sources. In 2011, the EPA listed 7 East Tennessee counties for nonattainment with EPA standards, most for particulate matter. The American Lung Association in its *State of the Air 2011*, ranks the Knoxville area as one of the top 25 ozone-polluted cities in the U.S.

As Tennessee moves into the future, policy makers will need to consider the quality of air as they make other decisions. Recent increased attention to natural gas as a fuel source, for example, has been prompted in part by its low carbon dioxide emissions.

Fossil Fuels

In 2009, the U.S. Energy Information Administration ranked Tennessee 20th among the 50 states in total energy consumption per person. Because of widespread use of electricity, rather than natural gas or oil for heating, Tennessee ranks 13th in electricity consumption per person and 14th in coal consumption. More than one-half of Tennessee households use electricity as their primary source of energy for home heating. In addition, Tennessee's hot summers contribute to high consumption of electricity for cooling. About three-fifths of Tennessee's electricity is produced by coal-fired power plants; nuclear and hydroelectric sources provide the remainder.[24] The high use of coal as a primary energy source affects Tennessee's air as it is burned and affects its water and landscape as it is extracted.

[24] U.S. Energy Information Administration, *State Energy Profiles*, 2009, 1-2.

Obtaining adequate fuel for automobiles and trucks also presents challenges for the United States generally and for Tennessee. Our country's dependence on foreign fuel sources makes us vulnerable to political decisions and unrest in oil-producing countries. In early 2011, fuel prices spiked because of events in the Middle East. Even so, proposed efforts to increase access to U.S. fuel sources have sparked opposition from environmental advocates.

Tennessee obviously cannot address its energy policy without the involvement of many other players, including the federal government and other states. Nevertheless, Tennessee has made lessening fossil fuel dependence a priority. In May 2008, former Governor Bredesen convened an energy task force that met several times. The task force's goal was to develop a state energy plan including

- opportunities for state government to lead by example;
- prospective policies, legislation, regulations and/or incentives to encourage public and private sector energy conservation;
- possible public-private partnerships and collaborations to encourage research and development of clean-energy technologies; and
- strategies for expanding the use of alternative fuels and renewable energy sources.[25]

The task force's efforts culminated in the "Tennessee Clean Energy Futures Act," Public Chapter 529, Acts of 2009. The new law promoted energy cost saving measures in state buildings, purchase of energy-efficient state motor vehicles, an emerging industry tax credit for industries promoting clean energy technology, and increased emphasis on residential weatherization.

The ways that Tennessee pursues continued development, mineral and natural gas extraction, and other human intrusions on the natural landscape will certainly affect Tennesseans' quality of life, which in turn will affect its economic viability. As tourist development commissioner Susan Whitaker noted, "Many people come to Tennessee because it is a beautiful state. If it becomes ugly, they won't come. We must have both economic development and environmental protection." Getting the most effective and efficient use of Tennessee's resources while minimizing damage will continue to challenge our state's leaders.

[25]Executive Summary can be found at http://raabassociates.org/main/projects.asp?proj=68&state=Current

"Government is a trust, and the officers of the government are trustees. And both the trust and the trustees are created for the benefit of the people." –Henry Clay

The Challenges of Governance: The Entities That Lead Us

Local Government Challenges

Tennesseans cherish the concept of local governance. The state has 95 counties, 347 municipalities, and myriad other local and multi-government entities such as utility districts, special school districts, and development districts. Some people interviewed believe Tennessee has too many small governments and that some need to consolidate or at least find ways to work together better.

In the recession's aftermath, many local governments are experiencing unprecedented fiscal challenges. Although sales tax collections are rising once again, many of Tennessee's counties are collecting less than they did 4 to 5 years ago. Local property tax bases will also be subject to declines as reappraisals begin to reflect declining property values. Providing basic government services such as animal shelters and trash collection has become increasingly challenging. Peggy Bevels, Lincoln County Mayor and former President of the Tennessee County Mayors Association, believes that local governments will be forced to work together more just to provide basic services.

The global economy has affected local businesses and leadership as well. The Southern Growth Policies Board in *Seeing the Future: Leadership and Social Capital* notes that traditional sources of community leadership are changing. The local bank president and newspaper publisher often are no longer autonomous but affiliates of large conglomerates. Global philanthropies are more likely to have a greater influence on local policies, and technology has changed the way that people communicate, work, and play. In addition, many key issues, such as transportation planning, economic development, and environmental protection require action beyond any town's boundaries.

Two local officials cited examples in which utility districts were clashing, either with each other or with neighboring cities. In one community, two utility districts were building water treatment plants adjacent to each other rather than merging their efforts. In another, a city official indicated that a utility district was preventing annexation because the utility district's water lines were not big enough to provide fire protection.

Until July 2011, local-land use planning had continued state focus and support through the Department of Economic and Community Development's Division of Local Planning. Even so, one interviewee noted that the state's policies in this area were

developed in the 1970s and 1980s, opining that they are geared toward urban sprawl, not quality growth. And in the spring of 2011, Governor Bill Haslam announced that he would abolish the Division of Local Planning in order to shift some of the state's limited resources to new regional economic development initiatives. This source of technical assistance may be partially absorbed elsewhere, its decentralization may diminish local governments' ability to plan effectively and the state's role in promoting quality growth initiatives at the local level.

State Government Challenges

Finding the Funds—In 2012, Tennessee finds itself beginning to recover from the "Great Recession," but the impacts of that economic downturn will be felt well into the future. In addition, Governor Bill Haslam has noted that many government programs are simply unsustainable. He has particularly cited health care cost increases and their consequent effect on everything else that the government funds, from higher education to programs for the aging.

Tennessee has long prided itself on being a "low-tax" state. In 2009 the non-profit Tax Foundation ranked Tennessee 47th in the nation in state and local tax burden; Tennessee was lowest in the Southeast. In 2010, the U.S. Bureau of Economic Analysis ranked Tennessee 37th in income per capita, however, indicating that its ability to pay taxes is higher than its actual tax burden. Although many individuals and businesses find low taxes desirable, the lack of resultant public funds means that Tennessee constantly struggles to maintain public services and infrastructure for its growing population, much less actively improve them. In addition, other states that have income taxes may have an advantage for recruiting new business. In an interview with the *Tennessee County News*, Deputy Governor Claude Ramsey says, "One of the great things about Tennessee is that we don't have an income tax. But we found that other states will use their state income tax as a source to give money back to a new industry or an existing industry that is doing expansion."

Several people interviewed noted that the increasing demand for public services, coupled with the decreasing ability to raise public revenue, will be a long-term state challenge. Tennesseans generally seem to want a high quality of life, but a low tax rate. Tennessee's high dependence on sales tax for revenue will continue to challenge the state government. Although some believe that Tennessee's tax structure attracts business and industry, others think it stymies Tennessee's ability to develop economically by reducing potential incentives and limiting the state's ability to improve education generally for youth and adults.

Workforce—Some people interviewed are worried about the state government workforce. The retirement of the baby boom generation of state managers, in addition to an overall intentional downsizing of the state's workforce, is chipping away at the state government's institutional knowledge base. Some of these changes also reflect shifts toward and away from privatization of state government.

Table 2 illustrates the expansion and contraction of the state government workforce since 2000. In that year, state government had 40,876 full-time employees. By 2008, that number had grown to a high of 47,707. Eligible executive branch employees were offered a buy-out incentive that year that contributed to a decline in the total to 44,905 in 2009. By June of 2011, the number dropped to 42,609, a decline of nearly 11% in just 3 years. A three-year freeze on state employee salary increases further exacerbated the situation. These changes will help the state government spend less for personnel and benefits but may affect its ability to provide needed public services.

Table 2. State Government Retirement Trends—June 2000 through 2011

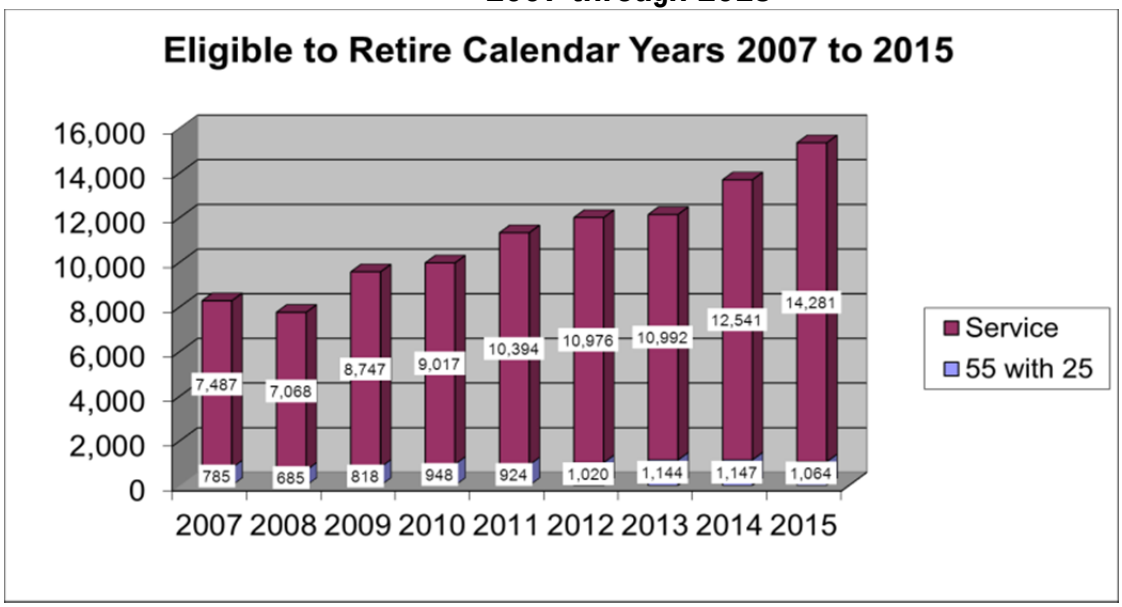
Fiscal	Full-Time Executive Retirements			Full-time Legislative/Judicial Retirements			All Full-time Employees Retirements		
Year	Total	Number	Percent	Total	Number	Percent	Total	Number	Percent
2000	38,307	959	2.50%	2,569	41	1.60%	40,876	1000	2.45%
2001	39,363	865	2.20%	3,487	35	1.00%	42,850	900	2.10%
2002	40,169	966	2.40%	3,431	27	0.79%	43,600	993	2.28%
2003	40,804	1033	2.53%	3,456	34	0.98%	44,260	1067	2.41%
2004	41,153	1026	2.49%	3,502	43	1.23%	44,655	1069	2.39%
2005	42,250	987	2.34%	3,658	49	1.34%	45,908	1036	2.26%
2006	43,473	1025	2.36%	3,707	55	1.48%	47,180	1080	2.29%
2007	43,347	959	2.21%	3,756	97	2.58%	47,103	1056	2.24%
2008*	43,826	2588	5.91%	3,881	65	1.67%	47,707	2653	5.56%
2009	41,038	969	2.36%	3,867	76	1.97%	44,905	1045	2.33%
2010	40,784	1143	2.80%	3,824	71	1.86%	44,608	1214	2.72%
2011	38,827	1096	2.82%	3,782	109	2.88%	42,609	1205	2.83%

*Note: In 2008 Executive Branch employees were offered a buy-out incentive that Legislative/Judicial employees were not. The 2008 figure includes 1,576 retirements that resulted from that incentive.

Source: Tennessee Department of Human Resources Information Systems Section

Even as the state government workforce has been reduced, more people are expected to retire. Figure 1 illustrates the increasing number of state employees who are or will be eligible to retire in the coming years. By 2015, about 14,281 state employees will be eligible to retire. Assuming the 2011 level of 42,609 total employees, this is about 33% of the state's workforce.

Figure 1. State Employees' Eligibility for Retirement
2007 through 2015



Source: Tennessee State Treasurer, Retirement Division
Note: "Service" refers to members who are 60 years old and vested or members who have 30 years of service, regardless of age. "55 with 25" refers to employees who are at least 55 years old and are vested or have 25 years of service. These employees are eligible for retirement with a reduced benefit. See http://treasury.tn.gov/tcrs/RetireEligibility.html.

The state's inability to offer competitive salaries for some professionals also may make it difficult to hire people with needed expertise. The former commissioner of transportation, for example, spoke of difficulty hiring a multi-modal transportation expert.

Government Information Technology—The state and local governments also face a need to continually improve their computer and data capabilities. Several state officials bemoaned state government's information technology and data inadequacies, citing antiquated systems and lack of compatibility among their various departments' computer systems. One former commissioner wished he had "real time" data upon which to make decisions. Another wished for an integrated geographic information system that showed everything his department oversaw.

Some of Tennessee's local governments also lack needed technology and some resist using it. According to Mike Ramage, Executive Director of Connected Tennessee, several cities lack websites. Many local officials still will not use e-mail.

Perhaps the March 2008 *Governing* Report Card summed it up best: "When all is said and done, a state's skill with information is found at the intersection of three distinct operations: the willingness to share data, the capacity to generate good information, and the ability to get those who should use the data to do so."

The Urban-Rural Divide

During the past century, differences between Tennessee's rural counties and their urban and suburban counterparts have grown wider. In 2010, Tennessee's median household income was $41,461 but ranged from a high of $82,273 in Williamson County to a low of $24,891 in Hancock County. Arguably, Williamson County's income levels are so high as to make it an outlier, but the difference between Hancock and the second highest county, Wilson, is still significant. (Wilson County had a median household income of $56,270.)[26] Differences in wealth manifest themselves in differences in schools, ability to attract business, and ability to invest in communities.

Although Tennessee's rural areas provide some of our state's most scenic landscapes and richest agricultural resources, they are confounded by geographic isolation, poor tax bases, poorly funded schools, undereducated people, lack of technological resources, and lack of adequate transportation. Each year, the Department of Economic and Community Development identifies "economically distressed counties." As of July 1, 2011, 27 of Tennessee's 95 counties fit the criteria for that designation—high average unemployment, low per capita market income, and high poverty rates. (See Map 3.)

Map 3. Economically Distressed Counties-2011

Of those 27 counties, 19 had been designated "economically distressed" for each of the four previous years as well, indicating chronic conditions of poverty.[27]

[26] U.S. Department of Agriculture, Economic Research Service.

[27] Counties listed as "Economically Distressed" for four or more years include: Campbell, Claiborne, Clay, Cocke, Fentress, Gibson, Grundy, Hancock, Hardeman, Haywood, Johnson, Lake, Lauderdale, Lawrence, Lewis, Perry, Pickett, Scott, and Wayne Counties.

Traditional farming, as well as manufacturing, has declined in the rural areas, while the costs of providing basic government services and educating children have become prohibitively expensive.

To survive in the future, Tennessee's rural places will need to find new strengths. Many have natural beauty that could be emphasized as people consider quality of life when choosing jobs and places to live. The development of technology may make rural living more feasible than in the recent past. If rural towns are to survive, though, they will need to create jobs for young people and become places where young and educated people want to live.

Although the state's urban areas are mostly experiencing population increases, the shift of population to cities and their surrounding counties presents challenges as well. Larger concentrations of people increase demand for government services such as drinking water and wastewater treatment, solid waste disposal, transportation, and police and fire protection. And while urban areas have higher rates of income generally, all of them have concentrated areas of poverty.

Conclusions and Recommendations

Tennessee, as a state, lacks long-term vision.

Although specialized pockets of focused thinking about the future can be found within some state agencies, regional organizations, and volunteer multi-county groups, conversations with many state leaders confirmed that there is no broad, representative group charged with thinking broadly about the state's future. Consequently, state agencies sometimes work at cross purposes, as do local governments, not to mention the private and not-for-profit sectors.

About half the people interviewed for this report thought education was Tennessee's biggest challenge. They cited its effect on the state's ability to provide a skilled workforce and promote economic development. They also cited the effect of an educated citizenry on health and civic engagement. Consequently, it behooves everyone to focus on improving educational outcomes for all children.

Similarly, if state leaders were to determine that improved health of our citizens should be a broad state goal, then transportation officials and local governments might think more about building and design guidelines that accommodate pedestrians and bicycles. Building designers might make stairwells more inviting. Employers might consider ways to help employees get more exercise on the job. In addition, to reduce commute times and fuel consumption, local land use planners and state transportation planners might work together more to place schools, businesses and residences in closer proximity to existing roads and to each other.

Although Tennessee presently lacks an established planning and visioning process, that has not always been the case. From 1935 to 1995, Tennessee had statutorily established entities to encourage coordinated thinking about the state's future to varying degrees. (A history can be found in Appendix C.)

The Tennessee Planning Commission, established in 1935 at the urging of the Tennessee Valley Authority, included the Governor and eight citizens representing the state's three grand divisions and both political parties. The commission's earliest work emphasized physical planning. Its staff prepared state and regional plans, collected data, conducted research, edited reports and publications for the governor, and assisted communities with local planning. Enabling legislation (Tennessee Public Acts of 1935, Chapter 43) stated

> *. . . that the state plan shall be made with the general purpose of guiding and accomplishing a coordinated, adjusted, efficient and economic development of the state, which will, in accordance with present and future needs and resources, best promote the health, safety, morals, order, convenience, prosperity and welfare of the people of the State of Tennessee, as well as efficiency and economy in the process of development; including, amongst other things, such*

distribution of population and of the uses of land within the state for urbanization, trade, industry, habitation, recreation, agriculture, forestry and other uses as will tend to create conditions favorable to transportation, health, safety, prosperity, and civic, recreational, educational and cultural opportunities, tend to reduce the wastes of physical, financial or human resources which result from either excessive congestion or excessive scattering of population and tend toward an efficient and economic conservation, production and distribution of food, water and minerals and of sanitary and other facilities.

Early staff undertook surveys and studies of water resources, land use problems, and recreation facilities. One report led to the formation of the Tennessee State Park System.[28]

In the ensuing decades, the planning and research functions experienced cycles of decentralization and centralization and varying degrees of direct gubernatorial control. In general, Democratic governors tended to centralize such functions, while Republicans tended to decentralize planning functions into the various departments. Governors of both parties sometimes convened broad-based task forces, however, to focus on specific state problems such as education, corrections, or obesity. Most recently Governor Haslam has convened a methamphetamine task force and one on school vouchers.

Greater interaction and coordination are needed within and among levels of government, as well as with the private and non-profit sectors.

Many of the officials interviewed recognized the "functional silos" in which they operate and said they would welcome more cooperation across agency lines. Several cited state challenges that affect more than one agency, or even level of government.

Increased cooperation between state and local governments could also improve service delivery. Former transportation commissioner Gerald Nicely cited a situation in which his department planned a whole road project, only to discover that a local government had approved construction of a medical center in the middle of it. One city official cited homelessness as an unfunded mandate imposed by the state on local governments. He noted that state departments, such as Mental Health and Correction, discharge residents into cities without providing adequate support, creating a burden for the local governments. He wishes the state agencies would work with the local governments to improve the situation.

The Governmental Accountability Act of 2002, (Public Chapter 875, Acts of 2002, codified at TCA § 9-4-5601 et seq.,) also requires state departments and agencies to

[28] Wagner, Jr., 2-5.

strategically plan. Although this causes the various agencies to plan to some extent in their own subject areas, no one coordinates efforts across agency lines or requires coordination among levels of government. As a result, issues such as the aging of the population and its multiple effects on health care, transportation, and housing may not be addressed. And unlike some other states with successful performance measurement systems, the goals expressed in these plans do not drive the budget.

Focusing on Tennessee's future will require continuity of thought and leadership.

Tennessee's governor plays an important role in initiating programs and determining funding priorities. The governor also sets the tone for the various state agencies. But the governor's influence necessarily is limited to one or two terms, a maximum of eight years. Addressing some of the state's big problems may require a much longer timeframe. The Commission on Practical Government, an ad hoc entity created in 1995, stated, "Today we make progress erratically—focusing on education this term, economic development the next, crime next. Because we lack any larger context in which to place these efforts, we fail to sustain sufficient progress on multiple fronts while we are focusing on just a few . . ." And governors and their cabinets must necessarily respond to the state's immediate problems and disasters, causing longer-term issues to fall by the wayside.

> *"Too often key positions in the governor's office are awarded to top campaign staff, sometimes ignoring the fact that the jobs require entirely different skills. . . Such an attitude on more than one occasion has led to the abandonment of good programs for no other reason than the program was identified with a previous administration." (Lyons, Scheb, Stair, p.111.)*

The General Assembly's ability to establish a long-range state vision is even more limited. State senators are elected to four-year terms while the House members serve just two. In addition, because they represent their particular districts, they may find it more difficult to consider the wellbeing of the state as a whole. To tackle its challenges, Tennessee needs ways to work on long-term initiatives that transcend changes in administrations and political battling.

Successful local and regional efforts may provide ideas for a state visioning process.

Although Tennessee abolished its earlier entities charged with preparing for the future, some of the state's local and regional agencies may provide ideas for the state as a whole. And though they may emphasize different issues, all represent efforts by more than one entity to come together for common purpose and benefit.

Regional and Local Entities

Tennessee has several regional planning and visioning efforts that appear to be working. Cumberland Region Tomorrow, for example, is "a private, non-profit, citizen-based regional organization working with public and private partners, dedicated to planning for the future livability and economic vitality of our ten-county region." According to its website, the organization was spawned by a one-day forum in 1999 sponsored by the Greater Nashville Regional Council and Vanderbilt University's Institute for Public Policy Studies. Although its focus may not encompass all policy areas, the organization has established a vision for growth of the Middle Tennessee Region and developed quality growth guiding principles. A comprehensive "Quality Growth Toolbox" is available to local government officials. In May 2009, the organization rolled out "The Power of Ten," an ongoing effort to promote regional cooperation in Middle Tennessee. The organization has identified six regional issues for 2012:

- Transportation/Transit
- Land Use/Quality Growth and Sustainable Development
- Infrastructure
- Open Space Conservation
- Air and Water Quantity and Quality
- Economic Competitiveness

In 2011, Cumberland Region Tomorrow led a successful effort to develop the Tennessee Regions' Sustainable Communities Roundtable, a network of regional organizations, state agencies, and philanthropic organizations from across Tennessee. The roundtable's purpose is to provide statewide forum for resource sharing, communication, and collaboration.

According to its website, the Clarksville-Montgomery County Economic Development Council is "a private, non-profit economic development umbrella organization that provides staffing, management, and a unified direction for the Clarksville Area Chamber of Commerce, the Industrial Development Board of Montgomery County, and the Clarksville-Montgomery County Convention and Visitors Bureau." Its efforts are supported through the Aspire Foundation, a privately-funded economic and community development initiative for Clarksville and Montgomery County, but its members include city and county officials, a university president, and representatives of the local business community.

Another regional effort, "Nine Counties One Vision" was a citizen-driven effort of nine East Tennessee Counties to develop a regional vision. Beginning in 2000, the organization developed recommendations for such diverse issues as downtowns, social services, transportation, education, and the environment. According to the website,

> The comprehensive scope of the Nine Counties, One Vision agenda and its regional thrust resulted from participants embracing the idea that all parts of the region are important to the well-being of the whole. Vision

participants were able to set aside local issues and focus on regional solutions.

By design, the organization abolished itself after five years but left a roadmap for other entities to follow.

Although not as broad in its focus, PlanET, a five-county East Tennessee effort is in the first year of soliciting ideas from citizens about challenges facing their region and possible solutions. The group hopes to adopt a regional vision and implementation strategies that can be used by individual jurisdictions.[29]

Innovation Valley Inc. is a regional economic development initiative in the Knoxville-Oak Ridge area. According to its website, it focuses on science, technology, and business in a 25-mile corridor. The Innovation Valley Strategic Blueprint is a five-year plan to create economic success for the region, with a specific focus on education and workforce development as well as technology and entrepreneurship.

The Blueprint focuses on six strategic program areas:

- Education and workforce development
- Technology and entrepreneurship
- Global marketing
- Business retention and expansion
- Public policy
- Resources for living[30]

West Tennessee has not been without its own planning and visioning efforts. Memphis Fast Forward[31] is convened by the Mayor of Shelby County, the Mayor of the City of Memphis, and Memphis Tomorrow, an association of chief executive officers of Memphis' largest enterprises. According to its website, the organization is focused on jobs, a better-educated workforce, a safer community, a healthier citizenry, and more efficient government in Memphis and Shelby County.

Leadership Groups

In addition to regional organizations, several Tennessee cities and counties have established local "leadership groups." These groups bring together local leaders to encourage collaborative thinking and understanding about their communities. Although they have a state association, the Association of Community Leadership, no one apparently has ever attempted to pull together their recommendations. WestStar, based at the University of Tennessee at Martin, seeks to foster collaborative thinking among community leaders from West Tennessee. Its website

[29]For more information go to http://www.planeasttn.org/
[30]For more information go to http://www.innovationvalleyinc.org.
[31]For more information go to http://memphisfastforward.com/.

states that WestStar's mission is "to identify, encourage and equip community-minded people who want to become more involved, want to help West Tennessee become a better place, and are willing to accept assertive and dynamic leadership roles."[32] A similar non-profit organization, Leadership Middle Tennessee, serves a 10-county area in the central part of the state. These groups of local leaders participate in brainstorming sessions about their communities and might contribute to an overall state visioning process.[33]

Cabinet Councils and Other Interdepartmental Groups

Several former state officials cited the Governor's Jobs Cabinet established by Governor Bredesen's Executive Order 6 as an example of a successful cross-governmental working model. The Council had 12 members including representatives of the Departments of Economic and Community Development, Labor and Workforce Development, Revenue, and Tourism. The departmental representatives worked and travelled together to recruit business to Tennessee. The participating commissioners lauded the cooperation among their departments and the ability to provide a united voice to prospective industry.

Another interdepartmental effort cited by some as a successful cooperative visioning effort was the Governor's Energy Task Force. The task force met eight times during 2008 and emerged with several energy recommendations that resulted in Public Chapter 529, Acts of 2009.

Governor Sundquist's administration provides one example of an interagency staff working group that crossed traditional "silos" and emerged with a vision for education that focused Tennessee's efforts for several succeeding years. A member of the governor's staff facilitated several meetings of a group representing the Department of Education, the State Board of Education, TACIR, and the Comptroller's Office. The group emerged with three priorities: pre-kindergarten, reading initiatives, and teacher training and mentoring.

Governor Lamar Alexander had a Safe Growth Cabinet Council for four years. The interdepartmental group addressed many emerging environmental issues including clean water, hazardous waste management, and protection of natural and cultural areas.[34]

Governor Haslam has indicated plans for four cabinet councils.

Other states' planning and visioning processes could provide models for Tennessee.

[32]For more information go to http://www.utm.edu/departments/weststar/
[33]For more information go to Leadership Middle Tennessee, accessed April 17, 2012, http://leadmt.org/about.html
[34]Ben Smith, "Alexander's department heads tell achievements; First of Series: Health and Environment," *Tennessee Town and City*, Tennessee Municipal League, December 22, 1986.

A number of other states provide possible models, including one of Tennessee's neighbors. Some are strictly governmental; others are private or a combination of public and private representation. All, however, have articulated a common vision that can be used by policymakers in all levels and sectors. Four of these are highlighted below:

Council on Virginia's Future

Virginia's General Assembly created the Council on Virginia's Future in 2003. According to the council's website its purpose is to

- Provide a long-term focus on high-priority issues
- Create an environment for improved policy and budget decision-making
- Increase government accountability and transparency
- Improve government performance
- Engage citizens in dialogue about Virginia's future[35]

The council has 8 legislative members and 10 non-legislative members. The Governor serves as the chair. It supports the development and implementation of a "roadmap" for Virginia's future, a process for establishing a state vision. Then it measures and reports the state's progress toward long-term goals. Elected and appointed officials, regional and community leaders, and citizens are responsible for implementation. The council regularly reviews progress toward implementation of the roadmap process and updates it as needed. Virginia was recently recognized by the Pew Center on the States for use of the council's Virginia Performs data system to "systematically tackle the state's budget crisis and increase agency productivity."

> "The Council provides a forum where legislative, executive branch, and citizen leaders can come together for work that transcends election cycles, partisanship, limited organizational boundaries, and short-term thinking." (Council on Virginia's Future website)

The council's director is employed by the University of Virginia. She believes that the academic affiliation helps maintain an appearance of impartiality. She indicates, though, that Virginia's business community has been the driving force behind the council from its inception.

Michigan People and Land[36]

People and Land (PAL) is an organization focused on growth and change in Michigan, funded by the W.K. Kellogg Foundation. It represents various interests including chambers of commerce, environmental groups, suburbs, realtors, farmers, and the NAACP. The leadership of People and Land believes—based on research, strategic

[35] See also *Code of Virginia* §2.2-2683 et seq.
[36] For more information see **pal@peopleandland.org**.

planning, and smart policies—that Michigan must focus on six key sectors in order to become a successful participant in the global economy.

The organization's website lists "Six Pillars of Prosperity," an agenda to reinvent Michigan as a global economic player:

> **Pillar 1: Attractive Cities and Neighborhoods**
>
> From major cities to small towns, we need vibrant neighborhoods where people want to live and raise families
>
> **Pillar 2: Highly Competitive Schools and Lifelong Learning Opportunities**
>
> Education creates the skilled workers we need to compete in a global marketplace
>
> **Pillar 3: Knowledge-Based Technologies and Michigan's Future**
>
> Job growth in Michigan will come from new and creative businesses
>
> **Pillar 4: Thriving Agriculture to Grow Michigan's Economy**
>
> Michigan's second-largest industry can provide food, fuel, and innovation while preserving beautiful rural landscapes
>
> **Pillar 5: Natural Resources for Recreation and Job Creation**
>
> Michigan is blessed with natural resources that enrich our quality of life and enhance our economy
>
> **Pillar 6: Inclusive and Entrepreneurial Culture**
>
> Innovation, new ideas, new people, new businesses: this is the currency of the new economy

Part of PAL's strategy is to help regional partnerships through Regional Prosperity Initiative Grants.

Envision Utah[37]

Since 1997, *Envision Utah* has served as a neutral facilitator to bring together that state's leaders to help shape a state vision.

According to its website, the organization brings together residents, elected officials, developers, conservationists, business leaders, and other interested parties to make informed decisions about how Utah should grow. Utah's governor serves as an honorary co-chair, and its governing board and executive committee have a combination of public and private sector members. The group also has worked to get

[37]For more information see http://envisionutah.org/index.html.

input from the public and develop scenarios. It receives funding from public and private sources. The organization was recently touted in the January 2012 issue of Governing magazine:

> What makes Envision Utah a pioneer, according to a U.S. Department of Housing and Urban Development (HUD) case study, is that it establishes "broad buy-in and significant public engagement." Envision does this by conducting significant research into what the region will look like in 40 or 50 years, presenting that data to citizens, surveying their satisfaction with that data and using what has typically been dissatisfaction with future scenarios to get stakeholders to put aside politics and focus on real solutions.

myregion.org

Although a regional rather than statewide organization, the Orlando, Florida-based myregion.org. also provides a model for cooperative visioning.[38] The organization has created a collective vision to help Central Florida compete in the global economy and improve the quality of life for its people. Led by a group of public, private, and civic leaders, its four key themes are

- conservation
- countryside
- centers and
- corridors.

Here is what myregion.org's website says:

> Quite simply, myregion.org is a tool. It's a tool that Central Florida will use to break down the barriers that divide us. We will take everything we know about our region, bring it here, mix it all together and watch what happens. We will learn what it takes to turn Central Florida into one region with one goal: to be the best and most prosperous community in the world.

Center for Colorado's Economic Future[39]

The Center for Colorado's Economic Future grew from a key recommendation of the Colorado Economic Futures Panel created by the University of Denver. The panel worked from the fall of 2004 to January 2006. The panel was created to examine the fiscal health of Colorado's state and local governments and their ability to sustain fundamental public investments appropriate to Colorado's long-term economic vitality.

[38] For more information, see http://myregion.org.
[39] For more information see http://www.du.edu/economicfuture/

Recommendations of the Colorado Economic Futures Panel addressed specific constitutional proposals as well as the need to better inform voters about ballot proposals and citizens about state and local government. Specifically, the panel recommended

> . . . that an independent, nonpartisan, non-governmental organization be established to conduct ongoing research and provide regular updates to the public on matters related to Colorado's fiscal health, other significant trends affecting the state's economy and on proposed initiatives and major legislation relating to taxation and public spending.

Where Do We Go From Here?

Like Virginia, Utah, Michigan, and Colorado, Tennessee might benefit from a statewide vision and long-term goals. Although research and policy functions are often the first to be eliminated in times of fiscal austerity, most of the people interviewed for this report affirmed that Tennessee needs to improve its ability to prepare for the future. Developing and promulgating such a vision could help the state and local governments reach better solutions and use limited resources more effectively.

The governor and the legislature may wish to consider establishing a consortium of people charged with focusing on Tennessee's long-term future. Such a group should represent both public and private interests. Although the entity obviously needs each governor's participation and blessing, Tennessee's experience would suggest that a long-term perspective must transcend governors' terms and direct control. The structure of the State Board of Education, established in TCA 49-1-301, provides an example of such a board. Members are appointed to nine-year terms by the governor subject to legislative confirmation.

Regardless of whether the state establishes a new entity or chooses to use its present structure, these actions could help the state focus more on its future:

- *Collaboration*—The state needs to be able to draw on the expertise of various groups and people, as well as facilitate meaningful discussion of various public problems. To enhance decision-making, state and local officials could be trained in futuristic thinking and strategic planning.

- *Improvement of State Data*—State departments collect and maintain a vast array of data. It would be helpful to determine what they are and how access, use, and storage might be improved. A state clearinghouse for commonly used data might be beneficial. In addition, the continued improvements in the use of geographic information systems could provide policymakers with enhanced information.

- *Use of Leadership Groups*—If the state establishes some sort of planning body, that entity should draw on the strength of the various regional and local leadership groups already in place across the state. These programs help local citizens and officials focus on the future of their particular areas. No one, however, presently compiles information from these groups to both help share information and tap the energy they generate for the greater good.

- *Use of higher education institutions*—State policymakers need to consider ways to partner better with the state's colleges and universities to provide comprehensive statewide assessments of benefits and costs, as well as innovative economic, environmental, and social solutions to public

problems. The state's colleges and universities also have expertise needed to identify future demographic trends. Greater interaction between governments and higher education entities could also give students an improved understanding of public problems and solutions.

- *Increased emphasis on outcomes*—State and local policymakers should consider ways to increase their emphasis on outcomes and performance. Similarly, they may want to consider incentives for state agencies and local governments to focus on long-term solutions and increased collaboration among local governments.

- *Inclusion of not-for-profit agencies*—State policymakers may wish to consider ways to encourage Tennessee's not-for-profit organizations to work together more. The state has many such agencies that overlap in their service constituencies and might be able to achieve economies of scale with greater coordination.

- *Use of incentives*—State and local policymakers should consider ways that available grants could be used for incentives to improve overall planning and visioning. One person suggested, for example, that the governor's "Three-Star Community" program, awarded through the Department of Economic and Community Development to cities for implementing community development best practices, could encourage good environmental practices as well. Perhaps one of the "stars" could be green. One state official suggested that the state might be able to use existing grants to encourage local governments to embrace quality growth practices. Such thinking across existing "silos" could likely improve results as well as improve efficient use of resources.

Whatever the means and methods chosen, developing a common vision might help people make more thoughtful decisions, whether they work in the public, private, or not-for-profit sectors. The signs of the future can be found in the present, but we must search for them to find the best path.

Appendix A

Persons Interviewed

(Note: Interviews for this project overlapped the administrations of Governors Phil Bredesen and William Haslam. Listings for state commissioners interviewed indicate which governor they served.)

Peggy G. Bevels, County Mayor
Lincoln County
President, Tennessee Association of County Mayors

Terry Bobrowski
Director
East Tennessee Development District
Secretary/Treasurer, Tennessee Development District Association

William Bradley, Director
Division of Budget
Department of Finance and Administration

Charles Brown
Budget Administration Coordinator
Department of Finance and Administration
(former Planning Analyst, Tennessee State Planning Office)

Sujit CanagaRetna
Senior Fiscal Analyst
Southern Legislative Conference
Council of State Governments

Michael Childress, Executive Director,
Kentucky Long-Term Policy Research Center

Susan Cooper
Commissioner (Bredesen and Haslam Administrations until 9/11)
Department of Health

Tilden Curry, Dean
College of Business
Tennessee State University
(former Director of State Planning)

Paul Davis, Director
Division of Water Pollution Control
Tennessee Department of Environment and Conservation

James Fyke, Commissioner (Bredesen Administration)
Department of Environment and Conservation

David Goetz, Commissioner (Bredesen Administration)
Department of Finance and Administration

Ryan Gooch
Energy Policy Director
Division of Community Development
Department of Economic and Community Development

William Gregoricus, Senior Policy Analyst,
Advisor to the Governor Bredesen

William Hagerty, Commissioner (Haslam Administration)
Department of Economic and Community Development

James Hall, CEO
Hall Associates
(Former Director of State Planning Office)

Michael Hann, Executive Director
Commission on Aging and Disability

Douglas Henry
State Senator
Davidson County

Kevin Huffman, Commissioner (Haslam Administration)
Department of Education

Bridget Jones, Executive Director
Cumberland Region Tomorrow

Drew Kim, Partner
P3 Consulting
Former Director of Governor's Office of State Planning and Policy (Bredesen Administration)

Matthew Kisber, Commissioner (Bredesen Administration)
Department of Economic and Community Development

Jane Kusiak, Executive Director,
Council on Virginia's Future

Lewis Lavine, President
Center for Non-Profit Management
(Former Chief of Staff to Governor Lamar Alexander and Director of Tennessee State Planning Office)

Dr. William Lyons, Senior Director of
Policy and Communications
City of Knoxville

Robert Martineau, Commissioner (Haslam Administration)
Department of Environment and Conservation

Harlan Mathews, Attorney at Law
(former U.S. Senator, State Treasurer, Director of State Planning)

A. Keith McDonald, Mayor
City of Bartlett

John Morgan, Chancellor
Tennessee Board of Regents
(former Comptroller of the Treasury and Deputy Governor)

Dexter Muller
Sr. Vice President, Community Development
Memphis Chamber of Commerce

Dr. Matthew Murray, Deputy Director
Center for Business and Economic Research
University of Tennessee

James Neeley, Commissioner (Bredesen Administration)
Department of Labor and Workforce Development

Gerald Nicely, Commissioner (Bredesen Administration)
Department of Transportation

Mark Norris
State Senator, Shelby County
Chair, TACIR

Stephen Norris, Deputy Commissioner
Division of Intellectual Disabilities Services
Department of Finance and Administration
(Former Director of Tennessee State Planning Office, Commissioner of Correction, Employment Security.)

Jeff Ockerman, Director,
and Eric Harkness, Planning and Research Coordinator
Division of Health Planning
Department of Finance and Administration

Jayme Place, Policy Analyst
Office of the Governor
(Haslam Administration)

Mike Ramage, Executive Director
Connected Tennessee

Tim Roach, Director of Local Planning
Department of Economic and Community Development

John Schroer, Commissioner (Haslam Administration)
Department of Transportation

Chuck Shoopman, Assistant Vice President
Institute for Public Service
University of Tennessee

Patrick Smith, Director
Governor's Office of State Policy and Planning
(Bredesen Administration)

Dan Speer, Mayor
City of Pulaski and
Executive Director, Giles County Economic Commission

Quincy Styke
Deputy Director
Air Pollution Control Division
Department of Environment and Conservation

Dr. Bruce Tonn, Professor
Department of Political Science and
Program Leader, Institute for a Secure and Sustainable Environment
University of Tennessee

Susan Whitaker, Commissioner (Bredesen and Haslam Administrations)
Department of Tourist Development

Carol White, Executive Director
Shared Services Solutions

Department of Finance and Administration

(Former Director of the Tennessee State Planning Office)

Appendix B

TACIR's Forum on the Future
October 2008
Tennessee's Ten Greatest Challenges

- bring Tennesseans together to plan for a future that both reflects and makes the most of the richness and diversity of our state, its people and its places;…
- provide all students equal access to adequate education and evaluation so that they may succeed in their professional, personal, civic, and community lives;
- manage an increasingly diverse society—tapping its productive and creative potential while minimizing its negative effects;
- ensure access to affordable health care for all Tennesseans, reduce costs, eliminate health care disparities, and foster healthy lifestyles;
- reform the administration of justice, including the prison system, so that it is more affordable and effective; . .
- create a business environment that is both conducive to economic growth and development and consistent with our cultural and environmental values—to make our state the preferred choice for business that Tennesseans want;
- use energy wisely and efficiently, leveraging the research assets of our universities and industry to develop new, clean, and renewable sources that will support, improve and sustain our economy and quality of life;
- use land and other natural resources wisely, consistent with environmental and quality of life standards and with economic development goals, to promote and sustain a sense of community and a relationship to the great outdoors;
- improve the delivery and efficiency of government services at the state and local levels and provide for their long-term fiscal sustainability; and
- foster a political environment and process that will support the broad public debate and accommodate the longer view necessary to design a better future for our state.

Appendix C

A History of State Planning in Tennessee
1935-1995

To varying degrees, Tennessee had entities to encourage coordinated thinking about the state's future from 1935 to 1995. Public Chapter 43 of 1935 created the Tennessee Planning Commission. The state formed the commission at the Tennessee Valley Authority's urging, which was expanding electrical service throughout the state. The authority helped fund the commission, as did the National Planning Board, which had been charged with producing a comprehensive plan for the nation. The initial commission consisted of the governor and eight citizens appointed by the governor. Members represented the states' three grand divisions; no more than six could be of the same political affiliation.

The commission's earliest work emphasized physical planning. Its staff prepared state and regional plans, collected data, conducted research, edited reports and publications for the governor, and assisted communities with local planning. Enabling legislation stated

> *…That the state plan shall be made with the general purpose of guiding and accomplishing a coordinated, adjusted, efficient and economic development of the state, which will, in accordance with present and future needs and resources, best promote the health, safety, morals, order, convenience, prosperity and welfare of the people of the State of Tennessee, as well as efficiency and economy in the process of development; including, amongst other things, such distribution of population and of the uses of land within the state for urbanization, trade, industry, habitation, recreation, agriculture, forestry and other uses as will tend to create conditions favorable to transportation, health, safety, prosperity, and civic, recreational, educational and cultural opportunities, tend to reduce the wastes of physical, financial or human resources which result from either excessive congestion or excessive scattering of population and tend toward an efficient and economic conservation, production and distribution of food, water and minerals and of sanitary and other facilities.*

Early staff undertook surveys and studies of water resources, land use problems, and recreation facilities. One report led to the formation of the Tennessee State Park System.[40]

[40] James B. Wagner, Jr., *The State Planning Agency of Tennessee: 1935-1974;* pp. 2-5.

For the next two decades the state had an active planning office and staff. By 1947 the office had 26 employees. Governors Browning, Cooper, McCord, Clement and Ellington relied heavily on their work. In 1959, the state underwent a massive reorganization, aimed at centralizing and streamlining operations. The planning commission and its staff became part of the then new staff division of Finance and Administration. That same year, an amendment to the Federal Housing Act of 1954 recognized state planning agencies for the purpose of carrying out comprehensive state planning. As a result, the division increased its functions and prepared a series of reports on the state's characteristics, problems, and opportunities.

In 1972, the General Assembly passed Public Chapter 542 which created the State Planning Office (TSPO) within the Office of the Governor. Its staff director was to be appointed by and serve at the pleasure of the Governor. The law further specified that "It shall be the function and duty of the state planning office to prepare a general state plan for the physical, social and economic development of the state." The law created a Local Government Planning Advisory Committee to advise the governor on local government conditions and needs, as well as employing professionally qualified personnel to provide planning services to local governments. In the next few years, however, the planning functions were decentralized and the TSPO assumed more of a coordinating and oversight role.

In the ensuing years, the state planning office lost its broader statewide focus almost entirely and became an operating arm of the governor's office. The office's operations changed with each new administration, depending on the initiatives of each chief executive. Governor Lamar Alexander sought to move the research and planning functions into the various state departments. He used the planning office more for special projects, particularly to launch "Homecoming '86," an initiative designed to bring native Tennesseans home. Alexander also split the state and local planning functions and transferred the Division of Local Planning to the Department of Economic and Community Development.

Governor Ned McWherter re-established a more central state planning function, but also used it to coordinate various interdepartmental policy initiatives and special projects. The office facilitated two major statewide fact-finding trips by the governor and cabinet to observe state service provision first-hand and recommend improvements. The office also developed a comprehensive initiative to fight alcohol and drug abuse, the Governor's Alliance for a Drug Free Tennessee. The office led policy initiatives in criminal justice, environment, solid waste, and clean water.

In 1995 during Governor Don Sundquist's first term, the General Assembly passed Public Chapter 501, repealing the State Planning Act and abolishing the State Planning Office. Its library moved to the State Library and Archives. The State Data Center was sent to the University of Tennessee-Knoxville. Governor Sundquist created a strategic planning function, but its focus was coordinating the state government agencies' functions rather than establishing a vision for the state as a whole. He also established the Commission on Practical Government, a 37- member advisory

commission that produced a report in 1995. In the report's transmittal letter, Chairman Ronald Terry stated, "We are encouraged by your desire to work with the General Assembly to establish a vision of Tennessee's future that not only transcends terms of office and political parties, but produces goals toward an ever-better Tennessee." It's not clear, however, whether the report was used to promote any changes in the state government.

In 2007 Governor Phil Bredesen established an Office of Policy and Planning. Interviews with its staff indicate that it mainly worked on specific initiatives such as the American Diploma Project and a Criminal Justice project, and did not consider long-range issues.

In 2011 Governor Bill Haslam directed all state departments to conduct a "top to bottom review" which resulted in 332 recommendations. His administration also developed a "dashboard," a set of five policy areas designated as priorities.

Table 3
A History of State Planning in Tennessee

1921—The General Assembly established the Memphis Planning Commission with power to adopt zoning regulations.

1922-1931—The General Assembly established planning commissions in Knoxville, Chattanooga, Nashville, Johnson City and Shelby County.

1933—State created Tennessee Valley Commission, which later became the Tennessee State Planning Board. It provided coordination of state agencies with TVA.

1935—General Assembly passed Public Chapter 43, the State and Regional Planning Act, establishing the State Planning Commission which included the Governor and eight citizen members. Also established the structure for local planning in Tennessee.

1943—First permanent field office of Local Planning Division established in Johnson City.

1944-1957—Commission established additional field offices across the state.

1945—The commission designated six staff divisions: Administration, State Planning, Community Services, Industrial Development, Local Planning Assistance, and Research. Commission designated as agency to receive and review all applications for federal funds.

1959—Government Reorganization Act (chapter 9) transferred State Planning Commission and its staff to new Staff Division of Finance and Administration, but it remained the legal and official planning agency for the State of Tennessee. Amendment to Federal Housing Act of 1954 designated state planning agencies to conduct comprehensive state planning, prompting series of reports about the characteristics, problems and opportunities arising from the state's population and economy.

The Appalachian Regional Development Act of 1965 required that all projects initiated in the states be submitted by the States' Members. The State Planning Office was designated as Tennessee's representative agency.

1972—State Planning Commission was abolished. Public Chapter 542 created the Tennessee State Planning Office within the Office of the Governor and moved all administrative powers, duties, and functions to the new office. The new planning office had a staff director appointed by and serving at the pleasure of the Governor. A Local Planning Advisory Committee was created, made up of local elected officials and department heads.

1974-75 State planning staff attempted integration into the state's annual budget process. Prepared *The Future of the Tennessee State Budget 1976-1980,* "the first formal attempt to put Tennessee's annual budget in perspective by analyzing past trends in State outlays and anticipated future directions in state progress." State took on federal A-95 grant review process and coordination of many development district activities.

1983-1986 During Alexander administration many planning functions transferred to applicable state departments, including the Local Planning Office to the Department of Economic and Community Development. TSPO became headquarters for "Homecoming '86." Executive Order 58 of 1983 made the State Planning Office the state clearinghouse for federal assistance.

1987-1995 Under McWherter's administration, the Planning Office received new responsibilities for program areas and special projects including Listening to Tennessee, Drug Free Tennessee, 1996 Bicentennial.

1989 The General Assembly passed the Solid Waste Planning and Recovery Act requiring the State Planning Office to establish a comprehensive solid waste management plan for the state. Development districts were directed to prepare and adopt regional solid waste plans, consistent with the priorities and criteria of the state plan.

1995 At the urging of Governor Don Sundquist, the General Assembly passed Public Chapter 501 repealing statutes pertaining to the Tennessee State Planning Office.

2007 Governor Phil Bredesen established the Office of Policy and Planning, budgeted through the Department of Finance and Administration, but reporting to him through the Deputy Governor. The staff worked on education and criminal justice initiatives.

2011-2012 Governor Bill Haslam abolished the Division of Local Planning in the Department of Economic and Community Development. He initiated "TNFORWARD" which included a "top to bottom" review of all state agencies of their operations to become more efficient and effective. In addition, it includes a "dashboard" a set of performance indicators in five policy areas.

Sources: Tennessee Public Acts, Tennessee Blue Book; James B. Wagner, Jr., "The State Planning Agency of Tennessee:1935-1974; "I Was There," a memoir by Harold V. Miller, former director of the Tennessee State Planning Office; Tennessee State Planning Office, State Planning Division. *The Future of the Tennessee State Budget 1976-1980,* December 1974; "Tennessee State Planning Office: 1987-1990," State of Tennessee website and various interviews.

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