

State of Greater Knoxville

2017

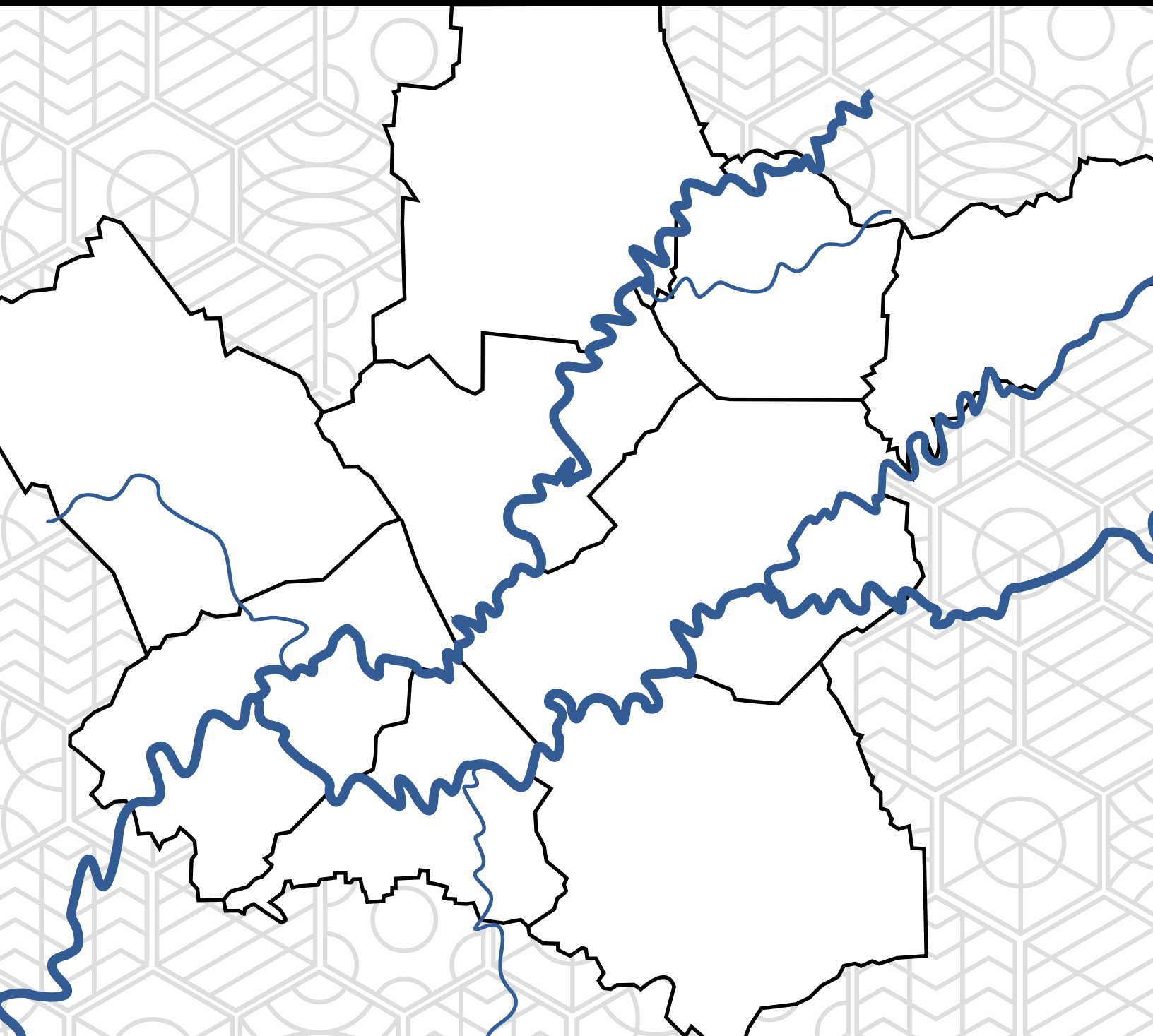


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INTRODUCTION

From its birth, Knoxville, Tennessee has been a city of tremendous potential. Shortly after James White settled in the area, Knoxville (then known as “White’s Fort”) became an early outpost in the upper Tennessee Valley, a wayfaring station of sorts for pioneers and settlers seeking opportunities to the west. Much later, when an influential group of local leaders succeeded in bringing a series of rail lines to the city, Knoxville became a central regional node, connecting metropolitan areas to the north and east to growing locales to the south and west. The railroads greatly affected the city in ways that were both harmful and beneficial: on the one hand, Knoxville became a key strategic battleground during the Civil War, suffering the effects of conflict and military occupation; on the other, Knoxville’s wholesale and manufacturing industry blossomed in the postbellum years, bringing much needed economic prosperity.

Today, as this report will show, Knoxville aspires to be a place where diverse and talented people come and dwell together and whose lives are mutually enhanced as a result. Even more, many in Knoxville today perceive opportunities for the city to become a generative center of innovation for industry (especially energy, technology, and media), culture, and natural recreation.

In order to achieve such aspirations, Knoxvilleans—both civic leaders and individual citizens—must make concrete decisions that will shape and affect the course of their shared future. Home to a growing diversity of communities, Knoxville possesses several important assets, such as University of Tennessee, a vibrant downtown, nearby Oak Ridge National Laboratory, a number of unique neighborhoods and residential areas, and a plethora of hiking trails, greenways, and waterfront activities. Each of these plays an important role in Knoxville’s flourishing, but it is the hard work, planning, and forethought of Knoxville’s leaders and residents that will help shape the trajectory of the city and region. The various communities within the Knoxville region collectively stand at a moment of decision, each path leading to alternative futures and prospects for their residents.

This is, of course, not the first time that Knoxville has been in such a position. As with any

city of its size, Knoxville and the surrounding region have periodically faced crucial moments of opportunity and decision. At times, they have risen to the occasion. One thinks, for example, of the ambitious and far-sighted leaders who championed the effort to build the railway lines or the effort and coordination which culminated in the 1982 World's Fair. At other times, they have certainly missed potential opportunities for growth and for the pursuit of the conditions for widespread flourishing—whether at the high level of legislation and development or on the lower level of collective action and civic coordination—as, for example, when the city failed to make full use of the considerable civic momentum following the World's Fair, in order to promote “mixed-use” development downtown, as best-practices would recommend. (See Appendix A for a brief summary of the political history of the region.)

The Knoxville region has tremendous potential and there are many great things about Knoxville! The reality, however, is that many of the strengths of the community are not universally experienced. Some parts of Knoxville are thriving more than others. Moreover, Knoxville stands at a moment of unprecedented change that will test its ability to build upon, sustain, and extend current thriving to all its residents over the next generation.

The Promise of Connect Knox

To understand the potential and challenges of Knoxville, we do well to remember one seemingly basic fact: Knoxville is a metropolitan area.

Metropolitan areas are where over half the world's population live, work, and play. By 2050, that number is expected to encompass 70 percent of humanity. As such, cities play an important role in either fostering human thriving or undermining it. In addition, in an age of political intransigence and polarization at the state and national levels, cities become the place where the work of governing and living is often accomplished.

This means that the lives of individuals—and the freedoms, resources, and responsibilities they enjoy—are profoundly shaped by the characteristics of the city where they reside. But cities must think about their role in stewarding thriving as a *long-*

term ambition. It is not enough to ensure thriving for their residents today, cities must also look to envision the thriving of their grandchildren.

At this moment in history, we are witnessing manifold global disruptions. Machine learning and smart technologies, driverless cars, and climate change are drastically shifting the global economy. Demographic changes are leading to an aging population. Increasing economic inequality continues to widen the gap between people who live in the adjoining neighborhoods. Social trust, the bedrock of human interactions, continues to erode as neighbors are less likely to engage with diverse communities. All these forces will change the way we conduct work, the ways we interact with one another, and will create cities and city regions that are winners and losers. Knoxville can either change proactively to meet those challenges for the thriving of its citizens, or it will change reactively—risking it being too late.

Connect Knox stands poised to address these challenges through a proactive approach to the issues facing Knoxville, and their commitment to inclusive leadership that reaches across class, gender, race, and ideological boundaries. As an intentionally cross-sectional group, Connect Knox institutionally embodies the commitment to an “ecological” framework for thinking about human thriving, which will be explained at length below. It also answers to a widespread, if not quite articulate, demand among Knoxville’s citizens for greater alignment between various parts of the community. Many have expressed a desire for “more area coordination between nonprofits, businesses and governmental organizations around growth, vision, and planned events.”¹ Others see real opportunities for “bringing more people to the table to address our issues.” Still others desire empowering average Knoxvilleans to unleash their own creative ideas that will improve quality of life in myriad ways. They would like to see “more civic involvement and a continued effort to explain that people make the difference and they can control and manage change for the betterment of all.”

For the past few decades, political scientists have argued for the creation of regional governing bodies and have emphasized the need for comprehensive planning to overcome the growing challenges confronting urban metros.² Issues such as housing, land use management, economic development, public transit, and regional transportation are now seen as larger and more complex than what one municipality can take on by itself. At the

same time, connections between central city areas and the surrounding suburbs and counties have been shown to be significant, as regions that are more cooperative are more likely to prosper.³

Despite the evidence for its effectiveness, collaborative endeavors across city regions are notoriously difficult to pull off. There are, of course, reasons why such widespread integration and alignment has proven elusive in places like Knoxville. Knox County is broken into two spheres of local governance, a county-elected board of commissioners with a county mayor and a city elected council with a mayor as well. Over the decades, Knoxville has resisted calls for city-county government consolidation due in large part to cultural and political antagonisms between the two.⁴ Each government has its own distinct area of duties, as the county runs the schools, public libraries, and health department, while the city has its own services such as a separate police and fire department. The one agency, the Metropolitan Planning Commission, does oversee planning decisions in both jurisdictions although its decisions can be individually appealed by city or county governments.

Additionally, and perhaps more importantly, the Knoxville region, and Knoxville itself, is composed of a number of distinctive communities, each with its own history, institutions, and subculture. These communities and neighborhoods can be a source of pride and identity for individual Knoxvilleans. For this reason, Knoxville is as much a “collective” as it is a unified totality. We do well to remember and honor both sides of the equation: each area and sector should strive to pursue the thriving of neighboring areas, but should do so in a way that honors their distinctive identity.

As a diverse, collaborative body, Connect Knox is ideally situated to achieve these goals. Of course, there have been other attempts in the past to align a group of citizens in order to accomplish a particular goal or set of goals. Connect Knox, however, promises more: the hope of “plugging in and powering up” in order to unleash the civic energies of Knoxville in ways that add up to real change over time. As cities become more prominent and more competitive, Connect Knox seeks not only to lure investment and talent to the area, but also to create the civic infrastructure and capacity to foster thriving over the next generation.

This Report

This State of Knoxville report springs from a partnership between the Thriving Cities Group and Connect Knox. Thriving Cities was commissioned to collect and synthesize the various reports written about Knoxville, Knox County, and the surrounding community and put that and other quantitative data into conversation with the expressed desires of Knoxvilleans, as seen through the Connect Knox Community Survey conducted by Survature over the course of the summer of 2017.

In this process, Thriving Cities read nearly 25 Knoxville-specific reports and plans from Knox County School's *Excellence for Every Child: Five-Year Strategic Plan 2014-2019* to the Metropolitan Planning Commission's *Mobility Plan 2040* (See the Appendix for a complete list of reports). This provided rich texture to the strengths, needs, challenges, and goals of the city. Working from these reports and the community input, we identified a handful of baseline metrics to track the progress of Knoxville over time on the issues that matter most to the community. These metrics, clearly identified at the opening of each chapter, are designed to be part of a larger conversation about what it would mean for Knoxville to fully thrive—and what it would take to achieve that collective goal.

The report is organized by the Human Ecology Endowments and highlights the ways each of the items within an endowment connects to or influences other parts of social life. Within each endowment, we begin by highlighting priorities articulated by the community. These concerns are then evaluated in light of available quantitative data about the community. Finally, we highlight components of community life our experience and the best academic research have demonstrated are important for community thriving. In the interconnected web of systems that allow cities to thrive, aspirations that residents may have for their communities are often tied to other parts of the human ecology by connections that may not be obvious.

This report is not a definitive work on the Knoxville region, its people, or its priorities. It is a snapshot in time designed as a starting point: a place to ignite a conversation about what it would mean and take for Knoxville, and all her residents, to thrive. Consider this report an attempt to offer an orienting framework, which will help the diverse interests and perspectives represented by Connect Knox to bring into their field of vision a common set

of concerns and goals, along with the concrete information necessary to begin to deliberate about how best to achieve those goals. We hope that this report facilitates a discussion about how best to unleash and direct civic energies in Knoxville. Additionally, this report may later be used as a baseline for evaluating progress and attaining specific objectives. Knoxville now, as ever, stands at a moment of decision. Connect Knox represents an exciting opportunity to guide this city and region toward thriving for generations to come.

About Survature

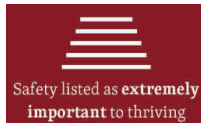
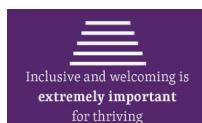
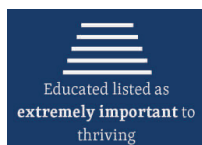
Over the course of the summer of 2017, Connect Knox commissioned Survature, a cutting-edge survey research firm based in Knoxville, to conduct a community survey to capture resident feedback on the current state of Greater Knoxville. The two areas that the survey sought to elicit engagement were the **values most necessary for a thriving community** and the **strengths/weaknesses of Greater Knoxville**. Participants were able to rate different topics and items on a 5 point scale. The survey, conducted between May and July 2017, included responses from 2400 area residents including 111 completions from participants who identified as African-American, 63 who identified as Hispanic, and 1330 who identified as White. Additionally, 1284 completions were identified as over the age of 35 and 283 completions for those under the age of 35.

Survature Questions and Responses

1 How important are the following for the Greater Knoxville area to be fully thriving?

Examples:

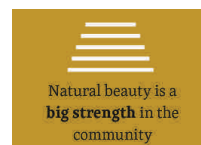
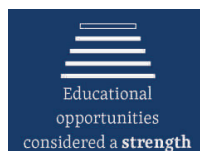
Safe
Educated
Welcoming/Inclusive
Forward-Thinking
Healthy
Etc.



2 Please rate the following as a strength or weakness of the Greater Knoxville Area.

Examples:

Natural Assets
University of Tennessee
Economic opportunities
Vital Downtown
Healthy People
Etc.



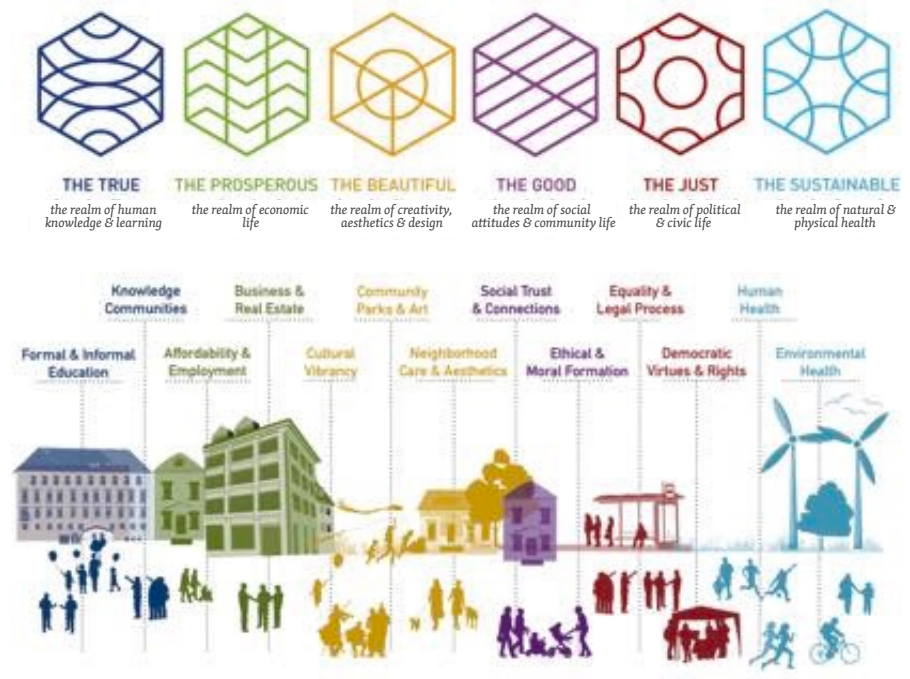


About Thriving Cities

Thriving Cities was commissioned by Connect Knoxville to collect and synthesize the various reports written about Knoxville, Knox County, and the surrounding community and put that and other quantitative data into conversation with the expressed desires of Knoxvilleans. Thriving Cities accomplished this by contextualizing quantitative data, and the qualitative data as collected by Survature throughout the summer of 2017, through their distinct Human Ecology Framework.

Human Ecology Framework

The Thriving Cities Human Ecology Framework attends not only to individual elements of a city's life, but also to the relationships between them, which together create the distinct ecosystem of a community. The Human Ecology Framework is organized around six realms of civic life—or endowments. Each endowment consists of capital, generated or depleted over time by the combined impact of resources and practices, institutions and leaders that constitute it. Only by attending to the health of each endowment and the relationships between them, are the conditions for civic thriving created.



Data Contextualized By Ecology



More on the Human Ecology Framework

Like many reports which have been created to date, this report relies on a robust collection of data about the conditions of Knoxville today and in the recent past. Distinctively, this report has carefully curated and paired this data with survey responses about the concerns of Knoxvillians. All of this has then been filtered through the lens of a Human Ecology Framework, which better captures the current opportunities and challenges of the Knoxville region, helping to identify the key insights needed to address them. What, then, is the Human Ecology Framework and why is it important?

Much like biologists think of an ecosystem as a community of living and non-living things working together in the natural world, our Human Ecology Framework helps us envision and understand the multiple and connected systems in cities that enable individuals and communities to thrive. These systems overlap and link to each other in a variety of ways forming complex layers of infrastructure that permit or constrain flows through the ecology of a city. Human Ecology sees the thriving city not simply as a product of macro forces, but as a function of complex, dynamic interactions between various sets of institutions and individuals.

Importantly, in this framework one institution or endowment of a city can dramatically affect another through positive and negative feedback cycles. For example, historians and social scientists point to the loss of industrial jobs in the mid-century as a key determinate of urban decline in many midwestern cities. Without an adequate economic base, cities could no longer provide quality services and schools to its citizens. Citizens who were stuck in these places received poorer education and had fewer jobs to choose from, thus creating an interconnected cycle that ravaged many cities, including Knoxville. All cities and places operate in this manner through their distinctive human ecology.

What sorts of things characterize a thriving city? And how do they interact with one another? These are the questions that we have in mind when we say that a city relies on a number of distinct, but fundamental “endowments” in its pursuit of thriving. These include “The True,” “The Good,” and “The Beautiful;” “The Prosperous,” “The Just,” and “The Sustainable.” These large categories describe ends and goals, activities and goods, that have long been widely considered essential to human thriving (they include things

like intellectual life, art and music, sociality, play, health and security, spirituality). These “endowments” do not remain at the level of abstraction, but take concrete shape in specific social practices and institutional settings (e.g., universities, theaters, social media, soccer clubs, health care, and places of worship). Each has a distinctive history and localized expression: The Beautiful “in general” does not exist, only the particular gardens, galleries, and murals, for example, that can be found in a particular city. Knoxville’s beauty will be importantly *Knoxville’s*—not anyone else’s. Finally, all the endowments of a place interact with one another. They bump into one another, creating both virtuous cycles when robust and healthy, and vicious cycles when depleted and weak. The results of such encounters are unpredictable, and so it will be important for us to track the effects as closely and attentively as possible. Together, these endowments will help us see where Knoxville is strong and where it is struggling.

WHAT IS GREATER KNOXVILLE?

What, exactly, do we mean when we talk about Greater Knoxville? What counts as belonging to this community? There is no clear or accepted way to identify the geography, and thus the people, who make up a community. What matters more than statistical or geographic definitions is who feels attached to a particular city. That is, who feels like they belong in the Greater Knoxville area.

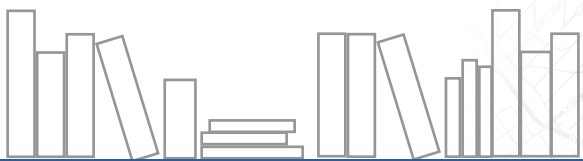
Yet imagined communities rarely, if ever, map onto statistical boundaries. Instead, statistical boundaries are chosen for reasons beyond human attachments: economic data are calculated at a regional level and rely on commute patterns; education data make the most sense based on jurisdictional or district boundaries; and crime statistics are based on the boundaries drawn by police precincts. While each reflects important information about a community, the piecemeal nature of these statistical geographies each data point always paints an incomplete picture of the place residents imagine as their community.

In this report, we weave together the incomplete geographies and statistics to talk about the state of Greater Knoxville. Often this focuses on Knox County and Knoxville, but we also work to pull in the surrounding counties.

The Knoxville Metropolitan Statistical Area (MSA) is comprised of 9 counties: Anderson, Blount, Knox, Loudon, Union, Campbell, Granger, Morgan, and Ruane—around Knoxville. It sits comfortably as the 64th largest metro with 861,679 people. Half of the MSA population is in Knox County—roughly 450,000—which includes both the County and the City of Knoxville. As a mid-sized yet growing region in East Tennessee, the region has experienced significant growth since 2000, having increased by 12 percent from 750,000 to 860,000 with Knox County driving much of that. Knoxville city, which represents 41 percent of the Knox County Population, is experiencing a resurgence with its population increasing by 7 percent from 173,890 in 2000 to 186,239 in 2015.⁵

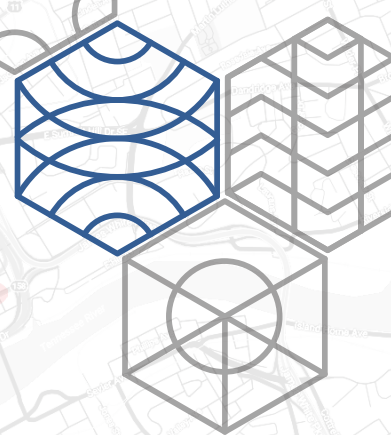
As the region has grown, so has its ethnic diversity—but this is far truer of the city than the surrounding counties. In 2000, Knox County was 88.1 percent White, 8.6 percent Black and 1.3 percent Hispanic. By 2015, the percentage of minority population had

increased by 5 percent of the total. In absolute numbers Knox County today has nearly a 17,000 Hispanic population and 44,000 Black population (up from 4,800 and 33,000 respectively in 2000). However, 70 percent of the increase in ethnic minorities is within the city of Knoxville where almost one in four residents are non-white (23 percent; In absolute numbers that equals 35,000 in 2000 and 43,000 in 2015). The larger Knoxville MSA remains 90 percent white in 2015.⁶



The TRUE

Knoxville, TN

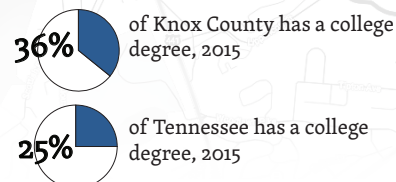


The endowment of the True represents the realm of **human knowledge and learning**, centered primarily on educational institutions in their various forms, such as **grade schools, universities, and tutoring services**

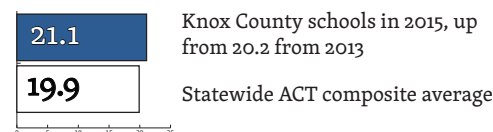
Within the Knoxville region, the primary focus of education centers around the **Drive to 55**, a gubernatorial-led initiative to have 55 percent of Tennessee residents attain a college degree or certificate by the year 2025

What the Data Says

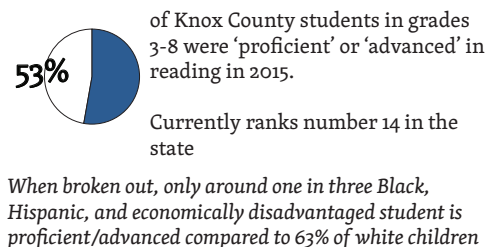
Educational Attainment



College Readiness - ACT Scores



Childhood Literacy



What the Community Says



Educated listed as **extremely important** to thriving

Educational opportunities considered a **strength**

Survey comments point to problems in K-12 education, the school-to-jobs pipeline, and the unequal distribution of educational resources

"Above all, we need to address the disparities in our educational system between those with money and those without"

"We need to do more to educate our low income youth and provide meaningful experiences for them to learn, grow, explore and have opportunities like summer camp, job shadowing, mentors etc etc"

Endowment Summary

Positive: An increase in educational attainment and college readiness shows a commitment to education

Challenges: Reading test scores in elementary schools have remained stagnant, and there are many disparities across race, income, and schools



THE UNIVERSITY of TENNESSEE KNOXVILLE

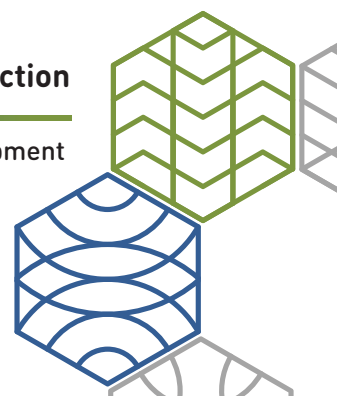
Widely regarded as the biggest asset according to survey data, UT Knoxville employs nearly 10,000 people with an annual impact of \$1.6 billion on Tennessee's economy.

Over 10,000 students participated in community service through UT's Center for Leadership and Service and its 22 Living and Learning Communities and RecSports activities

Human Ecology Connection

Educational Attainment & Economic Development

At a city and regional level, an educated population, known as human capital, is connected with higher rates of economic growth and output



THE TRUE

Introduction

Veritatem cognoscetis et veritas te liberabit: “You will know the truth and the truth will set you free.”

So reads the Latin motto of the University of Tennessee. Occupying a privileged position atop The Hill in downtown Knoxville, the University stands as a visual representation of the centrality and importance of learning and innovation to the city and region—that is, when it is not standing as a visual representation of the centrality and importance of college football and SEC athletics! Despite this apparent ambivalence in institutional identity, the university motto reminds us of the vital importance of truth—knowledge, learning, and education—for the flourishing of the city and its inhabitants.

The endowment of the True represents the realm of human knowledge and learning, centered primarily on educational institutions in their various forms, such as grade schools, universities, and tutoring services. Education in these areas connects across the development of children and youth in both formal and informal spaces of education and learning. From public school classrooms and afterschool programs, to neighborhood sports programs and vocational apprenticeships, education and formation occur in many contexts and across the life-span of individuals.

In this section, and in those that follow, we will provide a picture of the current state of the endowment (in this case the True), based on aggregated data and Connect Knox Community Survey (conducted by Survature) responses. After describing the state of the endowment in question, each section will conclude by offering a few observations about the various ways that endowment connects to (i.e., influences or is influenced by) other endowments. When these interactions are considered all together, we will have a fairly nuanced picture of the human ecology of Knoxville and its surrounding region.

Important to the Community: Educated

When you ask Knoxvilleans about the characteristics necessary for their city to thrive in the 21st century, education is at the top of their list. The overwhelming majority rated having an “educated” population as an “extremely important” priority. They also see that many of the resources necessary for attaining this goal—both through the University of Tennessee and other educational opportunities—as important assets in their community.

Knoxville, like the rest of Tennessee, is pushing ahead on the “Drive to 55” Campaign, a gubernatorial-led initiative with the goal that 55 percent of Tennessee residents will have a college degree or other educational certificate by 2025. In 2015, 36 percent of Knox County residents had a college degree and an additional 29 percent had some education beyond high school.⁷ This is well ahead of the state college degree rate of 25 percent. It is worth noting that while much of the MSA is on track for the Drive to 55, it is uneven: in Union County just one in three has any education beyond high school (30 percent) including just one in ten (nine percent) with a four-year degree in 2015.⁸ Other counties in the MSA are closer to Knox County, but Knox is the clear leader. In terms of the college pipeline, Knox County Schools are providing students with a strong foundation to build towards college: the average ACT score—one measure of college readiness—is 21.1, over a point ahead of the state’s average of 19.9.⁹

While residents claim to value an educated citizenry and to appreciate the institutions and organizations that work toward this end, the comments from residents reveal a more ambivalent picture. One resident writes, “Above all, we need to address the disparities in our educational system between those with money and those without.” Another resident highlights how educational disparities are related to a number of other formative childhood opportunities: “We need to do more to educate our low income youth and provide meaningful experiences for them to learn, grow, explore and have opportunities like summer camp, job shadowing, [and] mentors.”

In breaking down the data, concerns about educational disparities appear to be well-founded. While ACT scores on average were above the state median, the average ACT score at Austin-East High was a much lower (15.9).¹⁰ A 2013 study conducted by the Emerald Youth Foundation found that “In the six high schools that serve students from

urban neighborhoods, an average of 27 percent of ninth graders graduated in four years and scored a 21 or better on the ACT; Austin-East and Fulton had the lowest percentage of students who met this benchmark, at 7.0 and 15.9 percent, respectively.”¹¹

The disparities reflected in college readiness begin much earlier in the education pipeline. In Knox County public schools, 48 percent of 3rd graders are reaching reading targets.¹² This is a crucial educational milestone because it marks the point where children must begin to read to learn rather than learn to read. 1 in 6 children who are not reading at grade level by 3rd grade will fail to graduate from high school on time.¹³ When broken down further, only about one-third of Black, Hispanic, and economically disadvantaged 3-8th grade students have achieved reading proficiency compared to 63 percent of white students.¹⁴ This disparity sets up minority and economically disadvantaged students to struggle later in school and may prevent them from reaping the full benefits of public education, including important economic benefits. As of 2015, an individual with a high school degree earned \$185 more per week than someone without one, while a person with a college degree makes nearly double someone with only a high school diploma.¹⁵ In addition, the attainment of a higher level of education is also associated with lower death rates, lower levels of obesity, physical inactivity and risky behavior such as smoking.¹⁶ Finally, at a city and regional level, an educated population is widely regarded as an important source of “human capital,” and is connected with higher rates of economic growth.¹⁷

Conclusion

In 2009, UT Knoxville awarded Dolly Parton an honorary doctorate of human and musical letters, both for her distinguished musical career and for her role as cultural ambassador, philanthropist, and lifelong advocate for education. That same year, she was invited to deliver the commencement address. Her speech was peppered with light-hearted anecdotes and self-deprecating jokes (“Now I usually try not to give advice. Information, yes, advice, no. But, what has worked for me may not work for you. Well, take for instance what has worked for me. Wigs. Tight clothes. Push-up bras”), but also a few poignant moments. Speaking to the audience, she extolled the value of learning, and especially the importance of early childhood literacy. “It took me a while to realize that the more you learn about everything the easier it is to do it... it is my belief that if you can read, you can

learn...almost anything.” And her actions back it up: the Dollywood Foundation, and the Imagination Library which she supports, sends one book each month to a half-million children from birth until they start school. At the time of the commencement speech, that amounted to over 20 million books.

Parton’s philanthropic work in early childhood reading demonstrates a very important fact: the endowment of The True may be sought and promoted in many creative ways that fall outside the traditional bounds of formal educational contexts. The Imagination Library is one exciting example, Community Schools is another, but we could cite many more. Knoxvilleans, who are firmly convinced about the importance of quality educational opportunities, do well to encourage and support such initiatives as they are developed by both city leaders and more informal groups of community members.

Such efforts will be importantly connected to other endowments within the Human Ecology Framework, as well. As we mentioned in the Introduction to this report, the various endowments that contribute to human thriving in our cities are each related to one another in complex ways. The endowments should not be understood as completely separate and isolated “inputs” that add up to a final sum total of thriving. Rather, they should be understood as mutually interconnected aspects of one organic whole—aspects which can implicate each other in both positive and negative feedback loops. Each concluding section will note some of these relationships and feedback loops as they pertain to the endowment in question.

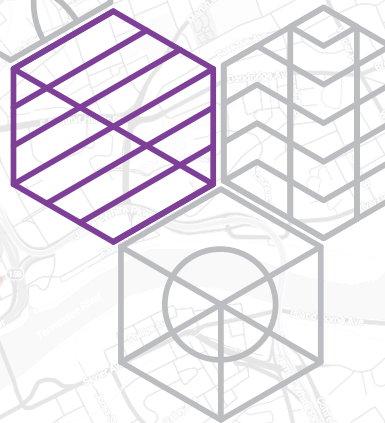
That said, we must also reckon with the fact that certain deficiencies among the other endowments can also inhibit this endowment. For example, research indicates that negative social determinants of health and lack of access to quality health care (the Sustainable) can directly and indirectly lead to disparities in educational achievement. Similarly, poor educational outcomes are linked to a host of problems associated with living in areas of concentrated poverty (a complicated issue related to both the Just and the Prosperous), including proximity to youth violence, higher levels of incarceration, higher levels of household instability and stress, and lower levels of public funding for education. On the other side, education may be understood as a catalyzing force behind many of the other endowments, insofar as education often serves as a point-of-entry for other opportunities—including jobs, management and governance, or non-profit

leadership or community organizing. Extending the UT motto, we might say that education (the True) will “set us free” to pursue the Good, Just, Beautiful, Prosperous, and Sustainable. Here we begin to see how endowments work together—whether in positive or negative feedback loops—to contribute to the thriving of the city in complicated, and sometimes unpredictable, ways.



The GOOD

Knoxville, TN



The endowment of the Good comprises the realm of **social attitudes and community life**, as well as philanthropic, religious, and non-profit institutions

Formed by engagement in one's neighborhood, religious organization, or volunteering activity, these connections and commitments create social networks, generate friendships, and facilitate collective action around pressing community issues

What the Data Says



Volunteering



of individuals reported volunteering in the past year, which matches peer cities

Non-Profits

Knox County has **60** non-profits per 10,000 residents, compared to **50.1** nationally

Home Stability



In 2015, 16% of Knoxville region residents moved, which matches peer cities

What the Community Says



Inclusive and welcoming is **extremely important** for thriving

Cultural diversity is seen as a **weakness**

Survey comments reveal what residents mean by “inclusive” and “welcoming”:

“[We need a] more welcoming environment to diverse people, cultures and thought. This not only includes attitudes towards outsiders and minority ethnicities, but also providing opportunities for diverse minority businesses, restaurants, and social gatherings”

Endowment Summary



Positive:

There is a wide range of partnerships and nonprofits in the area, significant UT student participation in the community, and a modest residential stability rate

Challenges:

Lack of engagement with diverse networks

Around almost every top issue identified in the region and city, there were **multiple non-profits or coalitions** that were helping address the challenge.

Parks and Greenways | Education | Economic Development | Arts & Culture Equity | Social Issues | Regional Planning and Infrastructure | Air Quality Water Quality | Public Health | Local Food | Biking and Walking

...

Legacy Parks | Great Schools Partnership | Innovation Valley | The Arts & Culture Alliance | Knoxville Area Urban League | DART and Compassion Coalition | PlanET | East TN Clean Fuels Coalition | Little River Watershed Association | Together! Healthy Knox | Knoxville-Knox County Food Policy Council | Bike Walk Knoxville

Human Ecology Connection

Community & Physical Health



Individuals with strong social ties are linked to improved mental health, healthy behaviors, happiness, and collective action.

THE GOOD

Introduction

The moniker “Volunteer” is deeply entrenched in the collective imagination of Knoxville and Tennesseans. Deriving from Tennesseans overwhelming willingness to volunteer themselves for military service (both in the War of 1812 and the Mexican-American War), the name stands as a symbol of selflessness and a spirit of commitment to country and neighbor. It conveys the sense that where there is a pressing and urgent need, you can count on the people of Tennessee to rise up to the challenge and deliver results. It also conveys a sense of public-mindedness, a commitment to the common good. Later adopted by the University of Tennessee, the name “Volunteer” has become almost universally associated with that institution’s sports program—around which tens of thousands of fans rally every weekend during the fall in a sense of common pride and solidarity.

The endowment of the Good comprises the realm of the social connections, associations, attitudes, and beliefs that not only constitute the fabric of community life, but also its highest ideals. Important aspects of the Good include the various philanthropic, religious, and non-profit institutions that foster these associations and ideals, as well as the moral and ethical formation that arises from them. (Of course, the sense of communal identity and connection fostered around a sports team is only one manifestation of what we might associate with the good.) Formed by the engagement in one’s neighborhood, religious organization, or volunteering activity, these connections and commitments create social networks, generate friendships, and facilitate collective action around pressing community issues. When these relational networks span across race, class, gender, political beliefs, and other divisions, putting individuals into meaningful and trusting connections with one another, they create the conditions for vibrant community life. Connect Knox, and all the collaborative efforts of the past generation, are shining examples of the Good at work!

Important to Knoxville: Inclusive & Welcoming

When Knoxville residents are asked what they value in their community life, their answers tend to be grouped around skills (e.g., education) or conditions (e.g., safety and health) necessary for thriving. But Knoxville residents also have a vision about who should be a part of that thriving. They rate being “inclusive and welcoming” as “extremely important” for the future of Knoxville as a fully thriving community. One resident describes this as wanting a “more welcoming environment to diverse people, cultures and thought. This not only includes attitudes towards outsiders and minority ethnicities, but also providing opportunities for diverse minority businesses, restaurants, and social gatherings.” Another describes it this way, “We need to ensure that all who live in Knoxville are welcomed, protected, and educated. When we invest in equity, we invest in our community.”

While residents clearly value an inclusive community, there is no good quantitative data about the extent to which individuals work to actually include and welcome those around them. Indeed, there is some indication that the value residents place on inclusivity may not actually be practiced in daily life. For example, it is through the actions of welcoming and including people from a variety of backgrounds that individuals learn and come to care about the issues facing others in their community. Yet the Compassion Coalition’s *Salt and Light Report* found that residents do not seem to understand the problems regularly faced by minorities in the community. For example, they write, “[a]fter much conversation with friends in and around Knoxville, we’ve discovered there are many in Knoxville who simply do not view racism as a problem that needs to be addressed.”¹⁸ While historically Knoxville has generally understood itself as having relatively better race relations than other cities in the south (e.g., the KKK was never entrenched as a strong presence in the area), the complicated history and legacy of racial injustice in Knoxville is well-documented.¹⁹

Community Connections

While there is no direct way to know if Knoxville residents are building relationships across diverse lines or welcoming new people into their social and collective lives, the places where these connections are formed is often through interactions with nonprofits.

Knoxville has a strong nonprofit sector, with roughly 7,500 nonprofits (60.2 nonprofits per 10,000 people), including places of worship, in the Knox County area.²⁰ This is noticeably higher than the national rate of 50.1 per 10,000.²¹ Nonprofits represent non-governmental civic energy and investment in a community around a variety of issues including youth and child wellbeing, health care, social, spiritual, and physical needs, and arts and culture. In addition to the concrete benefits a strong non-profit sector can bring to these areas of common concern, a culture of non-profit activity has the potential to strengthen a community's sense of solidarity and mutual aid. Participating in the programs and services offered by these organizations can provide avenues for residents to make meaningful connections with new and different people, to learn about issues facing others in the community, and to develop social bonds and trust, leading to a stronger sense of community and place.

One way residents can connect with nonprofits is through volunteering. As mentioned above, this concept has a deep resonance with many in the region due to historical factors and its association with UT Knoxville's sports program. In hundreds of smaller and more local ways, however, Knoxvillians are presented with opportunities to display a spirit of volunteerism toward their neighbors through everyday acts of service. Around almost every top issue identified in the region and city, there is a non-profit or coalition that is helping address the challenge. These organizations provide Knoxvillians opportunities to volunteer in the community, an important activity for helping people to invest in their place and come to know the people around them. In limited cases, volunteering can even increase collective efficacy, improve self-esteem and mental health, and strengthen social networks across a community.²² In the Knoxville region, 24 percent of individuals reported volunteering in the previous 12 months, which matches the trends in peer cities.²³

Residential Stability

Another way that residents have the ability to form strong connections with people in their communities is through residential stability. When individuals continue to live in the same location year after year it allows them the potential to develop meaningful relationships with other individuals in their area. Neighborhoods with higher rates of moving and turnover have lower rates of collective efficacy and higher rates of crime. In

Knoxville, just 16 percent of residents (one in six) moved in the last 12 months, which matches the rate in peer cities (See Appendix C for comparisons to peer cities).²⁴ Many neighborhoods, however, are more stable than this number suggests, since this rate also reflects residential patterns of university students.

It can be difficult to accurately interpret the meaning of high residential turnover. There are many motivations for moving. Some can be beneficial, such as leaving an unsafe neighborhood or moving for a better job. Higher rates of residential turnover can be a sign of population growth or may reflect the presence of a military base or a college, like UT Knoxville, in the area. However, for many households a move is associated with poor housing options, economic instability, domestic violence, changes in the family structure, and poor health. At the neighborhood level, however, we know that high residential turnover can negatively affect social cohesion and limit collective efficacy.²⁵

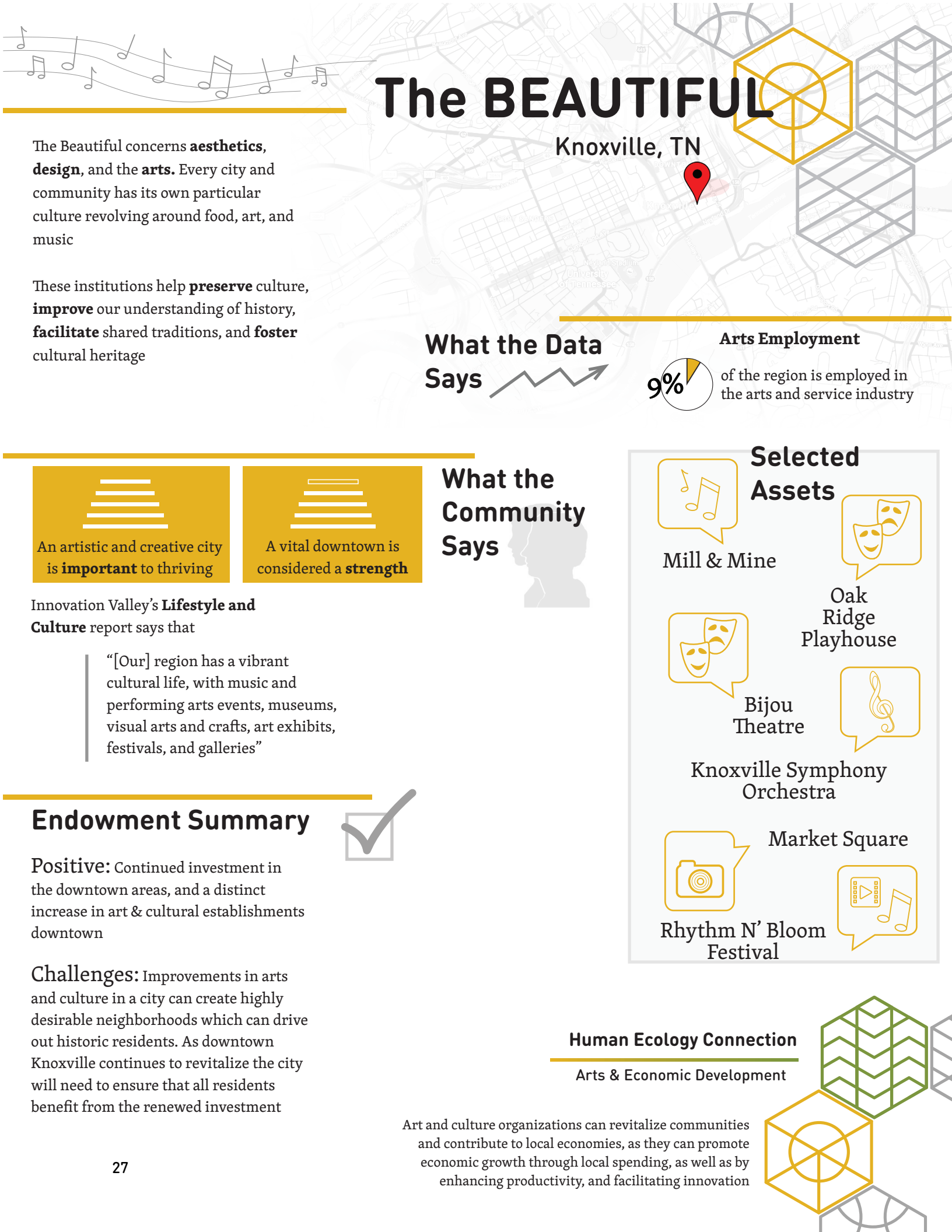
Conclusion

“We learned in the Sunday school
Who made the sun shine through.
I know who made the moonshine, too
Back where I come from
Back where I come from
I’m an old Tennessean
And I’m proud as anyone
That’s where I come from” (Kenny Chesney, “Back Where I Come From”)

There is a tension in our cultural moment between our increasing mobility and flexibility, on the one hand, and our sense of attachment to local and particular places, on the other. Many have a general sense that our increasingly nomadic existence is eroding a sense of connection to local communities, neighborhoods, and neighbors. “Place attachment,” however, has been linked to a number of positive outcomes, including a willingness to work for the betterment of our neighborhoods, to protect local natural resources (the Sustainable), to invest time and money in local development and economy (the Prosperous), and to promote safety and reduce violence (The Just) through “collective

efficacy,” defined as “social cohesion among neighbors combined with their willingness to intervene on behalf of the common good” (Sampson, et. al.).

Chesney’s hit song, “Back Where I Come From,” reflects a deep and abiding love of place—of “place attachment,” if you will. For Chesney, both church (“Sunday school”) and informal social groups (“who made the moonshine, too”) were the pith and substance of his formative years in East Tennessee. Of course, one must be careful that these social connections not become overly parochial and exclusive (Chesney sings with pride of his town as a “backward place with narrow minds”), but this reminder serves only to reinforce the basic desire of Knoxvilleans to become a hospitable, safe, and welcoming community for all. The point, of course, is not that Chesney represents the best example of the Good, but that he points toward a tight-knit sense of community and place that will be readily identifiable for many in Knoxville and East Tennessee. When such tight-knit bonds lead to residents to make sacrifices for the good of all, we have an indication that this endowment is leading to the thriving of the city.



The BEAUTIFUL

Knoxville, TN



The Beautiful concerns **aesthetics**, **design**, and the **arts**. Every city and community has its own particular culture revolving around food, art, and music

These institutions help **preserve** culture, **improve** our understanding of history, **facilitate** shared traditions, and **foster** cultural heritage

What the Data Says



Arts Employment



9% of the region is employed in the arts and service industry

An artistic and creative city is **important** to thriving

A vital downtown is considered a **strength**

What the Community Says



Innovation Valley's **Lifestyle and Culture** report says that

"[Our] region has a vibrant cultural life, with music and performing arts events, museums, visual arts and crafts, art exhibits, festivals, and galleries"

Selected Assets



Mill & Mine



Oak Ridge Playhouse



Bijou Theatre



Knoxville Symphony Orchestra



Rhythm N' Bloom Festival



Market Square

Endowment Summary



Positive: Continued investment in the downtown areas, and a distinct increase in art & cultural establishments downtown

Challenges: Improvements in arts and culture in a city can create highly desirable neighborhoods which can drive out historic residents. As downtown Knoxville continues to revitalize the city will need to ensure that all residents benefit from the renewed investment

Human Ecology Connection

Arts & Economic Development

Art and culture organizations can revitalize communities and contribute to local economies, as they can promote economic growth through local spending, as well as by enhancing productivity, and facilitating innovation



The BEAUTIFUL

continued



What the Data Says

Air Quality Index

Air Quality Index was **48** in 2015
Down from **55** in 2012




Visibility

60 miles of visibility from the Great Smoky Mountains means that the mountains are visible from the metro area on most days. This has only been true since 2007, and continues to improve



What the Community Says


Natural beauty is a **big strength** in the community


Sustainability is important, but low priority

In the Survey, Knoxville area residents see **Natural Beauty** as one of the greatest strengths of the community and they view it as both the Great Smokies and in their own backyard

“Continue to build the green spaces and connective walking and biking trails in our county. We have a gorgeous setting, we don’t have to drive to the Smokies to have a quality outdoor experience.”

Some residents call out the need to make sure that all communities have equal access to the local natural assets. One resident writes:

“greenways with destinations for ALL communities”

Urban Trails & Greenways

Greenways often follow natural land or water features, and link nature preserves, parks’ cultural features and historic sites with each other and with populated areas. Greenways link neighborhoods to these facilities and to other neighborhoods.

There are currently 112.9 miles of paved greenway and natural trails for the citizens of Knoxville.



Endowment Summary

Positive: Knoxville has 1,000 acres of urban forest containing 50 miles of trails within 3 miles of downtown

Challenges: In comparison to other cities, Knoxville has relatively few parks. Given the concentration of urban wilderness close to downtown, it raises questions of access for the rest of the region

Human Ecology Connection

Natural Environment and Health

Whether through hiking or kayaking, exposure to and engagement with nature has been proven to improve physical and mental health of individuals

THE BEAUTIFUL

Introduction

“In my Tennessee mountain home, Life is as peaceful as a baby's sigh. In my Tennessee mountain home, Crickets sing in the fields nearby...” – Dolly Parton

Nestled in the foothills of the Great Smoky Mountains, Knoxville is blessed to be surrounded by a unique and beautiful natural landscape. Many Knoxvilleians would readily identify with Parton's lyrics, in which the peacefulness of home is intimately related to the character of the surrounding mountains and the nearby fields.

Despite being surrounded by the undeniable beauty of the Smokey Mountains and enjoying waterfront access to the Tennessee River, Knoxville has not enjoyed a reputation for its beauty. In 1947, after the New York journalist John Gunther visited Knoxville, he wrote about the experience in his best-selling guidebook, *Inside U.S.A.* “Knoxville,” he wrote, “is the ugliest city I ever saw in America, with the possible exception of some mill towns in New England.” (At that time, the city had been plagued by the effects of air pollution, including widespread grime and soot from local factories and railways.) Gunter's bitter jab struck a chord, and has since taken on almost mythic proportions, as anxiety about its truth led to the foundation of civic beautification projects like Knoxville Garden Club's Dogwood Trails and Gardens.

After years of out-migration of many of the city's residents into the surrounding suburbs and other cities in the south, the downtown area, especially, was plagued by deterioration and neglect as well as rampant air and water pollution until a series of revitalization efforts succeeded in bringing new life into the area (a process which is ongoing). Today, however, the city is undergoing somewhat of a transformation, as individual communities and sections of the city are attracting new residents and emphasizing the development of architectural and natural beauty, as well as the investment in spaces for making and sharing food, art and music.

The Beautiful concerns aesthetics, design, and the arts. Every city and community has its own particular culture revolving around food, art, music, and architecture. These

institutions help preserve culture, improve our understanding of history, facilitate shared traditions, and foster cultural heritage. Central to this endowment is the idea of “place-making,” a concept which captures the relationship between the physical structure of the city (both natural and built environment) and the creative activity that expresses and consolidates a sense of common identity and ownership of a locale.

Identity and ownership are particularly important factors for contemporary cities as both retiring Baby Boomers and rising Millennials are increasingly choosing to live in places that they consider unique and interesting. The Knoxville region is blessed with a number of communities and neighborhoods that have already been cultivating a distinct identity and sense of “place.”

Moderately Important to Knoxville: Arts & Culture

When it comes to arts and culture, the residents of Knoxville do see value in having an artistic and creative city, but this is not as important to them as other things they care about—such as education, safety, or inclusivity. Despite comments from residents that a more vibrant and dynamic arts scene would be helpful for attracting and retaining young adults, there is no difference in age groups about the importance of arts and culture to the thriving of the community: residents of all ages see it as moderately important but certainly behind other priorities.

With respect to artistic and cultural assets in the community, adults older than 35 years are more likely to view it as a community strength than adults younger than 35 years. While Knoxville has key cultural institutions—Bijou Theatre, Knoxville Symphony Orchestra, and Oak Ridge Playhouse—it would appear they do a better job of appealing to an older audience than a younger one. There are also a number of venues around town that offer space for artistic and community expression. The re-invigorated Market Square is a hub of activity for community activities such as a farmer’s market, outdoor Shakespeare, and community rallies. The newly-opened Mill and Mine provides a dynamic space for music in the core of downtown. The arts and cultural scene is still an important economic driver for the area, and the Arts-Non-Profit sector is the 6th largest sector in the region.²⁶ Collectively 9 percent of the regional workforce is employed by the arts & culture industry—a statistic that also captures food and other service industry

occupations.²⁷ Additionally, according to recent research, the region spent nearly \$146 million in 2015 on the arts, generating \$8 million in local government revenue.²⁸

Downtown Revitalization

This all hints at the dynamic transformation that has occurred in downtown Knoxville, and the residents are proud of what it has become. Younger and older adults agree that the “vital downtown” of Knoxville is an important strength in the community. One resident writes, “Continue the excellent progress from the almost fully developed downtown into the surrounding areas. There are great opportunities for development and economic growth in all directions that can benefit the diverse neighborhoods that each connect to downtown.” These changes are evident in the numbers. In 2000, 1,300 people lived in the downtown core.²⁹ By 2015, that number had jumped to 2,100, a 62 percent increase.³⁰ The downtown district has also increased in education levels, with 58 percent of people possessing a bachelor’s degree, up from 44 percent in 2010.³¹ In 2016, there were 115 food and culture establishments, up from 84 in 2003.³² One gets the sense that just about every budding restaurant will choose Knoxville as a test market to see how they perform in what they consider to be a paradigmatic American town.

Driving much of the revitalization in American cities in the twenty-first century has been the increased importance of livability or quality of life factors in facilitating urban growth.³³ When residents spend more of their discretionary income on locally produced goods and services it can create long-term jobs for local residents who in turn spend their money locally. Also, these local activities can enhance productivity, and thus increase wages of a region. Known as “spillovers,” arts-based activity and occupations have been demonstrated to facilitate innovation for creative industries, such as film, graphic design, and marketing, by improving skills and creating opportunities for sharing innovations and ideas across organizations.³⁴

Continuing to build upon this and other cultural assets will enable the city to thoroughly capitalize on the benefits of having a high number of cultural and outdoor activities and amenities, such as restaurants, breweries, bars, and pedestrian infrastructure, that are known to attract companies and highly-skilled individuals to a locality.

Important to Knoxville: Natural Beauty

In recent years, Knoxville has enjoyed growing access to natural beauty through the development of trails, lakes, rivers, parks, greenways, and “Urban Wilderness” areas. Knoxvillians recognize this access and rate the natural assets as a “big strength” of the community. Specifically, they are proud of the Greenways Project and want to see it expanded. One resident writes, “Greenways have proven to be a strong asset for the area” and wants to see the project foster greater walkability. Another resident expands beyond the urban trail system saying, “continue to build the green spaces and connective walking and biking trails in our community. We have a gorgeous setting, we don’t have to drive to the Smokies to have a quality outdoor experience.” Beyond their natural beauty, the greenways and outdoor activities are drivers of the local economy. One study found that the urban trail system contributes around \$51 million to local Gross Domestic Product in both direct and indirect ways.³⁵ All of the greenways and nature areas help to build resiliency into the community. Parks and greenways help manage storm water runoff, absorb carbon, and filter air and water of toxins and pollution. In addition, these provide places for local citizens and visitors to exercise and can improve mental health.

Within the city of Knoxville, they proudly boast 1,000 acres of urban forest containing 50 miles of trails within three miles of downtown. However, when compared the 100 largest cities, Knoxville has fewer open spaces per acre of city than most other major cities. Access to green space is more than a city issue. Knox County, which includes the city, has over 6,000 acres of parkland for residents to enjoy.³⁶

While Knoxvillians see the natural beauty as an asset worthy of investment, they do not widely view environmental sustainability as necessary for their community to thrive. In other words, while they value and want more access to the natural assets, they do not yet see the work of protecting those assets as particularly important, according to responses on the Connect Knox Community Survey conducted by Survature.

Issues of sustainability have long been a struggle for the Knoxville region. Due to a geography that holds air stagnant and the activity of the nearby Tennessee Valley Authority (TVA), air quality has been a persistent problem. In 2005 the region was labeled as “nonattainment” status by the Federal Government for its Annual Particulate Matter

(PM_{2.5}) and in 2009 for Daily PM_{2.5}.³⁷ These pollutants have been linked to a host of health issues including cardiovascular and respiratory diseases.³⁸ However, due to concerted efforts on the part of the TVA and local governments, air quality has drastically improved. As a result of these efforts there has been a drastic reduction in nitrous oxide (NO_x) emissions: where 90 percent of these emissions used to come from power plants, 90 percent now comes from mobile sources.³⁹ Furthermore in 2000 there were just 29 days of good air quality recorded; by 2015, this had improved to 248 days.⁴⁰ To put this in visible terms, the Great Smoky Mountains, just 60 miles from downtown Knoxville, now dominate the skyline on most days. Prior to 2007, they were often obscured from downtown residents due to poor air quality.⁴¹

Despite the drastic change, there is still room for improvement. While visible most days, on 30 percent of days it is difficult to see the Great Smoky Mountains—one of the biggest assets in the community—due to the quality of the air.⁴² In addition to the environmental impacts, there are important implications for human health and well-being. As mentioned, the most common air pollutant in Knoxville is PM_{2.5},⁴³ one of the most dangerous forms of air contaminants because the small particles penetrate deep into the lungs causing problems in both the respiratory and cardiovascular system. Research has shown that there is no level of PM_{2.5} exposure that is safe for humans.⁴⁴ This can make it difficult for residents to enjoy the natural assets they value so highly. Continuing to address the air quality in the community will contribute to improved human health, decrease health care costs, and continue to make the region attractive for its abundant access to nature.

Conclusion

Senator Lamar Alexander once remarked, “When I was governor, I was looking for a way to unify our state. I realized music is about the only thing that unifies Tennessee.” While this statement was obviously meant as tongue-in-cheek, it points to an important characteristic of Knoxville and East Tennessee: there is an undeniable inheritance of cultural and aesthetic experience. Much of this inheritance, of course, derives from the music and culture of Appalachia—but being a town at the crossroads, Knoxville has also been a place where artists and musicians of different sorts can come together.

In addition to this cultural heritage, Knoxville's architectural and natural beauty seems to be enjoying a renaissance of sorts. As the downtown is revitalized and various greenways, gardens and parks are developed, Knoxvillians will enjoy a more pleasing, functional, and structurally beautiful environment, likely contributing to a greater sense of quality of life.

The very presence of beauty is a valuable component of a thriving city. But it also can help promote the attainment of other goods and endowments within the Human Ecology Framework. For example, as sociologist Richard Florida has argued, we are increasingly witnessing the rise of a "creative economy" in which some of the largest economic growth is associated with the presence and activity of a "creative class" composed of "people in design, education, arts, music and entertainment, whose economic function is to create new ideas, new technology and/or creative content."⁴⁵ Insofar as Florida is correct, the success of mid-sized cities in the creative economy may hinge on their ability to attract such creative types. Yet, at the same time, they will need to ensure that the byproducts of the creative economy—gentrification, inequality, and segregation—are properly accounted for and addressed.⁴⁶

Beyond simply attracting talented workers, The Beautiful contributes to The Prosperous through the generation of "creative capital," a term which refers to the way in which creative activity brings people together in ways that energize them to pursue common tasks—often resulting in economic benefits, but almost always with social benefits.

This second aspect, it seems, is an important one for a place like Knoxville, in which civic engagement and participation is not as highly valued as it could be (see The Just). The sorts of activities and institutions that fall under The Beautiful are generally connected, through the idea of "creative capital," to the formation and encouragement of creative partnerships and help unleash civic energies. Creative activity, especially when it requires collective effort and coordination, contributes to a community's sense of vitality, trust and cooperation, and social cohesion (The Good).



The JUST

The Just and Well-Ordered is focused on the **management** and **maintenance** of the civic and political aspects of community life.

It contains the institutions and practices that enable civic engagement, mobility / infrastructure, safety, and equity

Knoxville, TN 

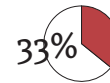
What the Data Says

Crimes Against Persons (per 1,000)

Knox County: 18
Davidson County: 45
Shelby County: 35

Mobility / Infrastructure

of commutes in the Knoxville region are over 30 minutes



This ranks Knoxville at a modest third with peer cities

What the Community Says


Safety listed as **extremely important** to thriving


Community safety is considered a **strength**

From the Survey residents say:

“We need a higher priority for policies and funding for physical connectivity of neighborhoods to destinations i.e. sidewalks, bike facilities and greenways

Safety in the community is largely a strength, but the survey comments highlight the need for services for youth to address issues in some areas. One resident writes:

“My biggest concern is providing opportunities for the teenagers / children... I am concerned by the continued violence in particular areas of town.”



The Change Center is a new recreational and entertainment attraction, under construction in the center city, designed with and for teens and young adults who are most likely to fall victim to growing gang violence. It will be a safe place to hang out and to obtain a first job, and to be connected to other job, educational, and resource opportunities in the community.

Page Summary

Positive: Increase in walking and biking infrastructure

Challenges: Pockets of high youth crime in neighborhoods

Human Ecology Connection

Safety and Education

Cities with quality walking and biking infrastructure provide opportunities for residents to engage in healthy activities such as exercise



The JUST

continued

What the Data Says



Gini Inequality Index



In Knoxville MSA, the Gini index of 0.475 has held steady for the past several years, and is higher than many other cities

0 represents complete income equality, and 1 is extreme inequality

Median Household Income by Race

The median household income for Black families is **\$29,295** as compared to **\$50,258** for White families

Voting Data



The current voting data shows 2% of the population over 18 voted in the city in 2015. National Average for local elections was 20% in 2011.

What the Community Says



Political and civic engagement is **important** in the community

Being equitable is considered **important** for thriving but is the lowest priority

While equity is a low priority for many in the community, it is **extremely important** for minorities.

“A thriving, greater Knoxville area should not just be about those who hang out on Market Square drinking craft beer. It should address the entire community...”

Civic and political engagement is moderately important, but behind other items such as having a beautiful community.



The City of Knoxville launched a Go Vote! Knoxville campaign in June 2017 to increase voter participation in upcoming city elections



Page Summary

Positive: Relatively safe, economic inequality holding steady

Challenges: Increase in commuting time, low local voter turnout, inequality is still high

Human Ecology Connection

Equity & Economic Activity

High rates of inequality in cities has been shown to decrease economic productivity, shorten growth spells, and increase the segregation of neighborhoods

THE JUST

Introduction

Students of the city's history will know that the political leadership of Knoxville has, at times, been characterized by political infighting, tumultuous elections, and intractable power-struggles. One can say this, however: Knoxville has never lacked for interesting *characters*—from the indomitable Lee Monday, whom a political opponent described as “orator in the good old mountain fashion,” to Cas Walker, whose roughly forty-year tenure on the city council was marked by a “combination of anti-establishment politics, outrageous self-promotion, and questionable electioneering tactics,”⁴⁷ not to mention a legendary fistfight at a city council meeting over the issue of peanut and popcorn concessions at Chilhowee Park!

Needless to say, such stories are interesting and funny, but do not reflect a particularly inspiring vision of local politics. The endowment of the Just is focused on the management and maintenance of the civic and political aspects of public life. It describes the institutions and practices that enable civic engagement, mobility/infrastructure, safety, and equity. This includes, but is not limited to, the operations of local government. Perhaps even more central to the Just is the notion of the city as an organic whole, comprised of many complex and unpredictable interactions and component parts and jurisdictions. The complexity of these parts and their interactions brings both promise and peril for the thriving of a city and the communities within it. Some level of management, forethought, maintenance, and equity is necessary for creating and sustaining the just conditions of thriving in a complex urban setting.

Important to Knoxville: Safety

When it comes to the traits necessary for a thriving community, Knoxvilleans overwhelming want their community to be safe. They want a place to live, work, and play where they have the freedom to live without fear, and, for the most part, they have it. The majority of respondents say that community safety is one of the strengths of the area. By the numbers, the city is relatively safe. According to the Tennessee's Bureau of

Investigation crimes against person classification (an expanded iteration of violent crime) Knox County had a rate of 17.6 per 1,000 residents compared to 44.6 for Shelby County and 35.1 for Davidson County.⁴⁸

Although Knoxville as a whole is relatively safe, certain inner-city communities have high rates of gun violence.⁴⁹ These same communities have a significant distrust of the police which not only complicates the challenges they face, but it also can lead to a range of problems that affect the city as a whole. For instance, a child's exposure to and victimization of crime can have profound implications on their development, as it heightens their stress levels and inhibits school performance.⁵⁰ High crime can also increase the rate of incarcerated youth.⁵¹ Once incarcerated, they will have lower wages and diminished educational outcomes.⁵² Even the stress of living in violent neighborhoods can affect the mental and physical health of residents,⁵³ compounding the public health challenges facing the region.

To combat the challenge of youth violence, the city embarked on several initiatives. One of these was the Save our Sons initiative that “focus[es] on mentoring, job training, and safe recreation opportunities for youth as well as helping ex-convicts re-integrate into the community.”⁵⁴ Another is the Change Center, a community center in center city that will provide after school activities for youth and serves as a job training center for adults. Largely a response from within the community to multiple tragic shooting deaths of local African American teens, these initiatives demonstrate a considerable grassroots desire for reforming the conditions which undermine safety in Knoxville.

Contested Importance to Knoxville: Equity

While Knoxville residents say having an “equitable” community is a vital component of thriving, they put it at the bottom of the list in terms of priorities when compared to all the other things that could be addressed in the community. When the data is broken down further, however, it becomes clear that an “equitable” community is extremely important to Black and Hispanic Knoxvillians, and significantly less so for White residents. Equity is typically defined ensuring that every individual has the necessary resources to be successful in life. For example, ensuring that every student has the support—tutoring, quality teachers, counseling, etc.—necessary to succeed in school.

The disconnect between White and minority residents on issues of equity is a reflection of the real disparities that exist in the community. In 2015 in the Knoxville metro region, for example, Black families had a median household income of almost \$30,000⁵⁵ compared to the median household income of almost \$50,000 for white families.⁵⁶ Hispanic families had a household income of around \$40,000.⁵⁷

Another way of looking at equity is the distribution of income in the community. In 2015, the Gini Index—a measure of inequality where 0.0 represents perfect equality and 1.0 represents extreme inequality—has held steady for the past several years at around .47, a higher rate than most other metro-regions in the U.S.⁵⁸ When compared to other cities across the country, Knoxville has higher levels of economic inequality. While this gap hasn't grown in recent years, Knoxville must continue to be careful to address this important issue, as high rates of inequality in cities has been shown to decrease economic productivity, shorten growth spells,⁵⁹ lower health outcomes for minorities, erode social trust, and increase the economic segregation of neighborhoods.⁶⁰

Much of the inequality that exists in Knoxville is concentrated in certain communities. In 2012, 61 percent of those living below the poverty line in Knoxville were in neighborhoods of concentrated poverty.⁶¹ Living in areas of high poverty can significantly impact residents' health and well-being. Those who live in these areas are more likely to have poor health related to stress, higher exposure to violence, poor housing quality, and limited access to healthy food.⁶² Research has shown that children and youth growing up in these neighborhoods have decreased verbal ability, increased levels of toxic stress, and are more likely to drop out of high school.⁶³

Lower Importance to Knoxville: Civic Engagement

Key to the performance and effectiveness of any regional and local governance is the participation of its citizens. At the core of this endowment is civic engagement and citizenship, as governments and representatives work harder for neighborhoods that actively participate in the civic process⁶⁴ and civically engaged neighborhoods have been shown to have less violent crime.⁶⁵

Knoxville residents, however, rank civic and political engagement down the list of things that are important for their community. They see it as being moderately “important” but behind other items such as having a “beautiful” or “artistic” community. This notwithstanding, the fact that widespread civic and political engagement are crucial means for securing the conditions for these other goods to thrive.

Current voting data of the city of Knoxville show extremely low rates of participation in local elections, as only 2 percent of the population over 18 voted in the last city council election of 2015.⁶⁶ This number is down significantly from 2011 levels of 17 percent, which itself is poor turnout.⁶⁷ Knox county voting isn’t much better: in 2016 just 1 in 7 adults (14 percent) voted in the county election.⁶⁸ On a national level, the average voting rates in local elections was 1 in 5 adults (21 percent; 18 years and older) in 2011.⁶⁹ There can be many reasons why individuals fail to vote (e.g., sometimes important city elections are held in an odd year). One study found, however, that two out of five non-voting adults did not vote because they felt that their vote wouldn’t matter anyway.⁷⁰ In response to this unfortunate trend, the city recently launched an initiative called “Go Vote! Knoxville!” to address issues of lower voting rates.

Mobility and Transportation Infrastructure

Underlying every city is the necessary infrastructure that maintains the current and future viability of our places. Requiring constant and innovative planning, infrastructure around mobility and transportation must consistently be evaluated by cities and regions in order to respond to changing demographics and development trends. Maintaining mobility options is important for cities and communities, as an over-reliance on cars can come at a cost to physical health, air quality, and can contribute to climate change, in addition to the everyday stress of heavy traffic and longer commute times.⁷¹

The Connect Knox Community Survey (conducted by Survature) did not address questions of mobility and transportation infrastructure to provide a sense of the community’s desire for it. Residents are divided on the importance of walkability and accessibility of community through close physical connections—about a third of respondents viewed walkability and physical connections as a strength while about 40 percent saw it as a weakness. That younger residents were more likely to see walkability

as a community weakness than a strength seems to indicate that the issue is more important to those under the age of 35.

In the comments, some residents volunteered advice about mobility and traffic infrastructure. Some argued for increased walkability, “Create more bike paths and sidewalks in the city, especially downtown, north Knoxville, south Knoxville, and east Knoxville.” Others want to see better public transit options and larger traffic changes. One resident wrote, “Density enough to support excellent public transit. Streetcars! Re-route all trucks around downtown.” While most of the comments about transportation were related to public transit, biking, or walking, a few residents voiced their frustration with current traffic systems. One resident asked for improved road infrastructure citing specific problems in the community, “Traffic is a nightmare on I-40 daily and the conditions of the interstate is subpar once you get past the downtown loop both East and West bound.”

The longer people commute to work, the less productive they are and the less time they have for socializing.⁷² For many residents, traffic is a daily problem. Currently, one-third (33 percent) of commutes in the Knoxville region are over 30 minutes, which is fairly typical for a city its size.⁷³ That number, however, has increased from 27 percent from 2009.⁷⁴ With a growing population (some estimate an additional 300,000 residents in the county by 2040⁷⁵), one of the biggest topics by Knoxville planners is developing transportation and infrastructure to best accommodate arriving newcomers in the region that will require new funding, new land, and new roads, at a time when funding for infrastructure maintenance is already a challenge.⁷⁶

In addition to influencing healthy behaviors, increasing the walkability of a community has been linked to sense of place and investment in the community, sense of security, positive social relationships, and environmental sustainability. Building alternative modes of transportation requires years of planning ahead and significant investment and coordination from the government at multiple levels—state, federal, and regional—at a time when such moves might be politically unfeasible with gas prices low, our dependence on the automobile firmly in place, and highway funding already stretched. Yet with interest in walkability growing, now may be an opportune time to solidify a development pattern that diversifies mobility options. Significantly, the city government

has taken steps in its most recent budget to allocate over \$4 million for new sidewalks, crosswalks, and bicycle infrastructure.⁷⁷

Conclusion

Historian Bruce Wheeler describes the civic and political life of 1940's Knoxville as "narrow, parochial, visionless, and ugly."⁷⁸ Today, Knoxville is light-years beyond this unfortunate moment in its history. There are many things about the current state of The Just in Knoxville which may be taken as signs of encouragement. The city and its surrounding region is fairly safe. And while there are problems with mobility infrastructure and youth violence in certain neighborhoods, it is clear that Knoxvillians are currently working to bring much needed leadership to bear on these issues—both at the grassroots level and at the level of city government and business leadership.

With that said, it is important to be honest about where Knoxville is currently missing the mark with respect to this endowment. As legendary UT Women's Basketball coach Pat Summit once quipped, "Admit to and make yourself accountable for mistakes. How can you improve if you're never wrong?" With respect to The Just, political apathy, concentrated inequality, and a failure to connect the importance of civic engagement to the attainment of the other endowments are particularly concerning elements.

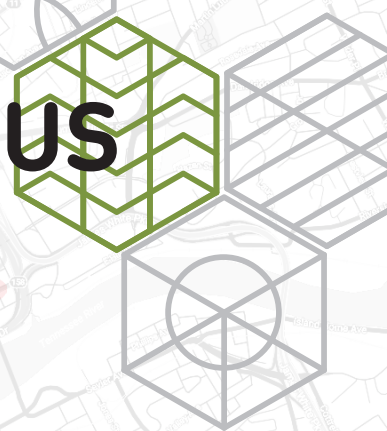
This is especially important when we bear in mind the integral connection and interactions between the Just and other endowments. In some ways, the Just may be considered a foundational endowment, for when the benefits of other endowments are sought and secured in ways that are not equitably shared, the general thriving of a city and region suffers. This is true for virtually every endowment. Inequitable access to elementary and higher education, literacy, and vocational training (the True), prosperity, wealth, and employment (the Prosperous), and exposure to environmental hazards through residential proximity to industrial, commercial and waste disposal facilities (the Sustainable)—these are just a few concrete examples of the potentially debilitating effects a deficiency in the realm of the Just can have on the general flourishing of a metropolitan region.

Each of these, however, can also be viewed from the perspective of positive (rather than negative) feedback loops. For example, when economic growth and prosperity is enjoyed by those most in need, both truancy and youth violence should decrease. Or consider the example of Knoxville's recent efforts to promote urban agriculture and agricultural entrepreneurship through community gardens and local farmers markets. Each of these may succeed in bringing affordable, healthy foods to urban areas that are otherwise considered "food deserts," thereby increasing both equity in access to food and placing city residents into a better relation with their wider ecological context. These sorts of initiatives, however, require a good deal of forethought, planning, and coordination—the management and maintenance that are also characteristic of the endowment of the Just.



The PROSPEROUS

Knoxville, TN



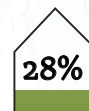
As the realm of **economic life**, the endowment of the Prosperous captures the economic vitality and affordability of a city and region

Regions and cities that attract talent and encourage entrepreneurship will foster resilient and dynamic industries able to promote growth and thrive in the constantly evolving economy

What the Data Says



Small Businesses



of employees in the Knoxville Metro work for a small business

This matches peer cities



Entrepreneurial and innovative culture is **important** to thriving



The current entrepreneurial culture is **neutral**

What the Community Says



From the Survey, residents are proud of their entrepreneurial culture:

“[There is a] strong, strong entrepreneurial spirit here in Knoxville”

Small Business Growth

Knoxville received recent recognition for efforts to support new and small businesses, particularly through initiatives like the Mayor’s Makers Council and Innovation Valley.

Etsy

Etsy Maker City
2016



Smart Growth America
Making Neighborhoods Great Together

Smart Growth America Award
for Small-Scale Manufacturing
2017

Endowment Summary



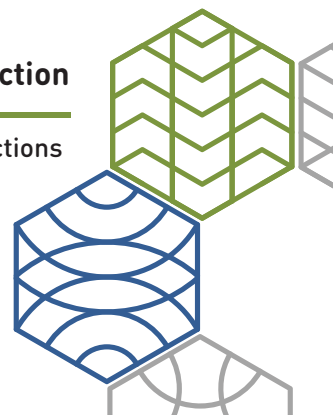
Positive: Highly affordable place to live. There are key economic assets in ORNL, UT Knoxville, and the Smoky Mountains. Robust network of organizations such as Innovation Valley and Chamber of Commerce add to the vitality of the region

Challenges: Unequal growth, and difficulty in finding quality jobs for low-education workers

Human Ecology Connection

Economic Development & Social Connections

The shape of a region’s social network has been shown to enable or hinder a business’ ability to find valuable information, secure employment, and gain access to capital and markets





The PROSPEROUS

continued

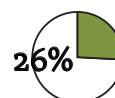
What the Data Says

Employment Rate



Employment rate in the Knoxville Metro. Lowest rate compared to peer cities

Cost Burdened Households



of the region is considered 'cost burdened' - spending 30 percent or more of their income on housing

One of the lowest among peer cities

Affordability

The Knoxville region has a regional price parity of **89.3** making it more affordable than the national rate of 100. Rent is particularly affordable at **70.3** compared to the nation at 101.7.



Affordability is considered a **strength**

Economic opportunities are seen as **neutral**

What the Community Says

In the Survey, residents see economic opportunities as **neutral** in the Knoxville region, although Black residents see them as a weakness

"We need to embrace growth and create infrastructure that precedes it. Bringing good jobs to the area will stimulate other aspects of our community"



As the Department of Energy's largest science and energy laboratory, ORNL employs 4,000 people with an addition 3,000 guest researchers, totaling an annual budget of approximately \$1.4 billion.

Summary

The Knoxville region contains several key economic assets, such as Oak Ridge National Laboratory, TVA, and UT, that foster economic development and employ thousands of people. Greater Knoxville is also home to several corporate headquarters, such as Regal Entertainment Group, Pilot Flying J, Ruby Tuesdays, and Clayton Homes. Knoxvilleans are bullish about the economic future of their city. However, a closer look at economic data around job growth and employment reveal a mixed picture. From June 2016 to June 2017, job growth in the region was a low .2%. Compared to peer cities, Knoxville had the lowest job growth rate

THE PROSPEROUS

Introduction

As with many other mid-sized, post-industrial cities, the story of Knoxville's economy has been characterized by sporadic fluctuations between growth and stagnation. From the antebellum boom in wholesale trade and manufacturing, which brought the "New South" to the Tennessee Valley, to the Post-World War II revival, which brought huge gains to local entities like ALCOA, Oak Ridge National Laboratories, the Tennessee Valley Authority, and a host of local banks—Knoxville has, at times, benefitted from being on the right side of national growth trends. However, such economic growth has, at other times, proven quite fragile, unpredictable, and elusive. Such was the case for a number of years directly following the short "boomlet" after World War II. Faced with rapid out-migration from the city center and constant complaints about the undesirability of traveling downtown for any reason, one historian describes local business and political leaders as "frightened hens running in every direction," none of whom "seemed to be able to think of a remedy".⁷⁹

Their attitude seemed to have been a mixture of desperation and resignation. As UT Football coach Philip Fulmer once infamously said: "If I could sprinkle magic dust on it, Heck, I'd fix it." There was no magic dust, but Knoxville did, indeed, "fix it." After a number of years, strong leadership from business and political leaders, and a growing alignment between the strengths of Knoxville and regional and global demand, the economy of Knoxville began to evolve and steadily grew in strength. As we will see, however, a number of significant challenges remain.

Just as macroeconomic forces eroded the economic growth follow in World War II so modern macroeconomic forces are reshaping today's economy: automation and technology continues to reshape manufacturing; advances in artificial intelligence are redefining everything from the data processing to medical testing to truck driving; changes in energy are shifting jobs away from coal and towards other cleaner sources of power; and low-wage service and retail jobs have replaced many other unskilled jobs. Many of these disruptions are double-edged. Today, our cities are seeing new investment due to emergence of the Knowledge Economy, which prioritizes human capital,

innovation, and the clustering of similar industries. Regions and cities that promote these elements by attracting talent and encouraging entrepreneurship will foster resilient and dynamic industries able to promote growth and thrive in the constantly evolving economy. The importance of proactively meeting these challenges is hard to overstate. Cities that respond proactively are likely to share in the benefits of economic shifts; those that respond reactively are often acting too late.

It is worth noting that the Prosperous is a category which encompasses much more than growth. In keeping with the Human Ecology Framework, this report adopts more holistic understanding of prosperity and economic thriving, which goes beyond the simple measure of average GDP and GDP growth. This includes attention to additional indicators, including measures of household prosperity (e.g., income and savings, assets and debt levels, homeownership rate), measures of business and employment development (including engagement with labor market and employment diversity), and measures of distribution of benefits and burdens.

Moderately Important to Knoxville: Entrepreneurial Innovation

Knoxville residents seem to take pride in their innovative and entrepreneurial spirit. They rate being “Entrepreneurial/Innovative” as moderately important to thriving. This view holds true across the age spectrum, but is slightly more important for adults younger than 35 years of age.

When it comes to the state of the current entrepreneurial culture, opinions are mixed about whether it is a strength or a weakness. Some commenters praised the current environment saying, “Continue the events for Innov865 and its gradual increase in having more events and awareness. Strong, strong entrepreneurial spirit here in Knoxville.” Others, however, expressed a general sense of disconnection between entrepreneurs and the rest of the community: “I’ve always felt there was a disconnect between ORNL [Oak Ridge National Lab], UT, and the general Knoxville population. As a former ORNL research staff and current startup entrepreneur, I just see too many people that don’t know what’s going on at ORNL.” This may reflect a longer, more entrenched ambivalence about the relationship between downtown Knoxville and its surrounding areas, especially to the west. In any case, it stands as an area of potential growth, as the entire Knoxville

metropolitan region stands to gain from developing a strong entrepreneurial spirit and a culture of economic innovation.

When looking at the numbers, it reveals that in 2014 roughly one in four people in the Knoxville area (28 percent) worked for a small business.⁸⁰ This matches many of the peer cities, although it is behind many American metropolitan areas. When looking beyond the peer cities, the Knoxville region is in the bottom decile nationally for small business employment.

Despite the lower levels of employment in small business, there are signs of growth in this area in recent years. In 2016, Knoxville was designated as an Etsy Maker City for its efforts to unite local craft makers and small-business entrepreneurs, and for its mayoral Makers Council, which seeks to ensure that creative entrepreneurs have a voice in local policy.⁸¹ The trend continued and in 2017 Smart Growth America awarded Knoxville with a Small-Scale Manufacturing award which provides technical assistance on how to use small-scale manufacturing as a driver for economic development for downtown revitalization.⁸² The city is using entrepreneurial enterprises to strengthen the economy, but the larger region would benefit from an increased focus on small businesses.

This indicator also has potential implications for issues of economic equity and equality. In addition to the high-tech culture that surrounds Oak Ridge National Labs and the University of Tennessee, small businesses are an important driver of prosperity in economically distressed communities as well. One preliminary study found that small businesses account for two-thirds to three-quarters of available jobs in areas of economic disadvantage.⁸³

Moderately Important: Jobs

Small Businesses are just one driver of the regional economy. In addition to the ORNL and UT-Knoxville, two major employers, the region is home to the corporate headquarters of Regal Entertainment, Pilot, Clayton Homes, and Ruby Tuesdays, among many others. However, despite all these major employers, the region has experienced relatively stagnant job growth over the last few quarters.

This slowing economy is also reflected in the lives of community residents. The employment rate for the Knoxville Metro is 56 percent,⁸⁴ the lowest rate compared to peer cities. Even this hides wide variation within the metro area. The employment rate ranges from 52 percent in Anderson County to 60 percent in Knox County, and finally to just 44 percent in Union County.⁸⁵ The employment rate looks at who is *actually* working in a community, rather than just those who are part of the labor market.⁸⁶ As such, it provides a better picture of the resource in a community.

Employment is an important economic indicator of income and wealth for individuals and for regional economic growth. It is connected to a range of life outcomes, such as longevity,⁸⁷ rates of incarceration,⁸⁸ and even a child's education achievement.⁸⁹ Many factors affect a person's ability to find employment, such as health, proximity to jobs, and social networks.⁹⁰ Most important of all, however, is the availability of jobs and access to education.⁹¹

Historically, economic development in Knoxville centered on manufacturing and industry. With the onset of "de-industrialization" in the twentieth century these industries became less reliable entities for economic growth, as the economic landscape shifted to a knowledge economy privileging education, technology, innovation, density, and specialization. Together these elements produce industrial clusters, known as agglomeration, where companies seeking innovative advantages favor specific regions as well as geographies within those regions. The economic development group Innovation Valley has identified five specific industrial clusters that the Knoxville region is focused on developing. They are advanced technology and manufacturing; corporate services; creative media services; energy; and transportation.⁹²

Many have a strong sense that the Knoxville region is on an upward path when it comes to jobs, prosperity, and economic development. According to one report, "[Knoxville] is strongly positioned for the future and the technology-based world of business."⁹³ With Oak Ridge National Laboratory and UT, Knoxville possesses several key economic assets that will continue to bring in high paying jobs and could generate new industrial clusters within the region. Yet a look at the data and the responses on the Connect Knox Community Survey conducted by Survature reveals a region struggling to provide economic opportunities for all, as Blacks consider economic opportunities a weakness for

the community and the economic restructuring underway will continue to leave the less educated behind.

Today, cities are the key forces driving the global economy, as industries are clustering together in places with high levels of density, innovation, and human capital. It is imperative that urban areas, like Knoxville, continue to build upon these dynamics for continued and sustained growth. But as the economy shifts to regional knowledge clusters that emphasize creativity and education, it will be imperative to connect disenfranchised and less educated populations to the benefits of this growth through job training, social networks, and quality schooling. Incorporating these communities into the ecosystem of regional infrastructure would not only help overcome growing disparities in the region but would also increase wages, promote upward mobility, and enhance employer competitiveness.⁹⁴

Affordability

While Knoxville rates relatively low in employment when compared with peer cities, the region enjoys a lower cost of living which, in turn, makes it highly affordable nonetheless. For area residents, affordability is considered one of the greatest strengths of the community, and for some it is one particularly important reason for staying in the area. According to the Bureau of Labor Statistics, rent in the Knoxville market is roughly 70 percent of the national average (70.3 compared to the national average of 101.7) and prices for other goods are at 89.3 (compared to the National average of 100). Taken together, it is one of the most affordable metro areas.⁹⁵

Consequently, only 26 percent of households in and around Knoxville are considered cost-burdened—noticeably less than the national average of 34 percent.⁹⁶ “Cost-burden” captures the number families who spend 30 percent or more on housing. It is an important measure since, for many families, providing shelter is the first and largest expense. Families who are cost burdened spend less on food, medicine and retirement than non-cost burdened families.⁹⁷

Although the region is recognized as affordable, there are some troubling trends with respect to cost of living. In 1999, for example, only 38 percent of renters were cost-

burdened; today that number is at 50 percent.⁹⁸ According to the Metropolitan Planning Commission's Workforce Housing Report, "employee wages are not growing fast enough to keep pace with the county's rising housing costs."⁹⁹ This reinforces the need to be conscious about development. As mentioned in the section on The Beautiful, changes that improve the quality of life in a community can also drive up housing prices and exacerbate inequality as poorer residents are forced to move further from vibrant centers within a metro area. In the metro area, the average household in the region already spends 32 percent of their income on transportation and mobility, a much larger percentage than the national average of 18 percent.¹⁰⁰ Unfortunately, this number could increase if the region continues to sprawl.

To maintain affordability, the region must account for the likely impact of expected population growth on transportation costs. New housing starts should be mindful of the growing traffic in the region, as new suburban greenfield development can make traffic worse as well as hamper efforts to improve air and water quality. To mitigate these challenges, new housing should be targeted in areas that are connected to mixed-use nodes with transit, greenways, employment, and retail centers. Additionally, developers should consider prioritizing housing diversity and mixed-use development, which promotes opportunities for residents to live closer to work. Public housing development in particular should be situated near heavy-resourced areas to provide access for low income communities reliant on transit and employment proximity.

Conclusion

In our contemporary society, business and economic life can easily become the dominant framework for evaluating the flourishing and well-being of our institutions and communities. In a pluralistic society, such as our own, diverse groups of citizens must learn to coexist and cooperate with one another without presuming agreement on deeper issues and ultimate ends. One common strategy for doing this has been to limit our public discourse to matters about which we can all agree—the value and desirability of money, wealth, and economic productivity.

Indeed, these things are undeniably worth pursuing, for they have the potential to secure access to other goods. To be sure, money does not buy happiness. But it *can* buy a

comfortable home, nutritious food, orthodontia for your pre-teen children, and nice vacation each year. Wealth may bring a sense of security, but also the ability to distribute benefits to others through acts of philanthropy and charity. Economic productivity not only increases the total size of “the pie,” but can also be correlated with rising household incomes and more varied and desirable employment opportunities. In this section, we have tried to describe the necessary pursuit of the Prosperous in ways that recognize the role of economic growth within a broader notion of thriving. The market plays a pivotal role in this story, but not everything can be reduced to language and logic of the market.

Currently, the endowment of the Prosperous in Knoxville holds obvious promise. Knoxville enjoys a number of resources that position the city and region to participate in the Knowledge Economy and to develop regional “clusters” for industries such as advanced technology and manufacturing, corporate services, creative media services, energy, and transportation. There is a budding spirit of entrepreneurship and innovation, which is taking shape in concrete institutions like Innovation Valley and Innov865. Knoxville is exceptionally affordable, an attractive feature that is surely one of the reasons the population of the region is projected to grow by roughly 300,000 people by 2040.

It is worth noting how the endowment of the Prosperous is intricately related to other endowments. As mentioned, in one sense, economic prosperity can enhance other endowments, for it provides the means for citizens to pursue a variety of goods, including public goods like beautification projects, parks and art exhibits (the Beautiful), sidewalks, bike trails, greenways, urban agriculture, and public health services (the Sustainable), and funding for early childhood and higher education, as well as vocational training (the True). Of course, on the other hand, concrete decisions must be made as to how to allocate spending and direct resources—a process which may put the various endowments in competition with one another.

In Knoxville’s current context, one particular relationship requires special attention: namely, the relationship between the Prosperous and the Just, the realm of political and civic affairs. There are two important aspects of the Just that bear on a pursuit of the Prosperous that enables broad-ranging thriving in our city. The first has to do with distribution; the second has to do with participation.

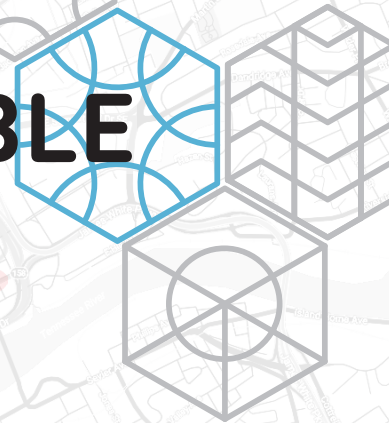
Regarding *distribution*, we do well to remember that justice requires that benefits and burdens should be shared as widely and equitably as reasonably possible. When advances in prosperity consistently fail to reach certain groups of people within the ecology of the city, we might consider this a possible sign of latent or obvious failure in our political and civic life. At the very least, we may consider it an opportunity to creatively work toward extending the benefits of prosperity to those who need it most. Furthermore, when certain groups are not able to share equitably in the general prosperity, when some groups of people are disproportionately left out, everyone in the community shares the loss of productivity. In addition, deeply unequal cities experience shorter cycles of economic growth and longer cycles of economic recession. That is, there is an equity drag that pulls at the economy of a community when there is a stark imbalance of economic resources.¹⁰¹

Regarding *participation*, business leaders always have the possibility of asking important questions like: “Who are the actors involved in fashioning the economic progress of our metropolitan areas? Who isn’t at the table?” Including a diversity of perspectives has concrete benefits, including facilitating public-private-nonprofit partnerships and cross-sector investment opportunities, providing a space for cooperative discourse rather than oppositional rhetoric, and providing protection against avoidable blindspots that arise when assumptions fail to be challenged by different perspectives.



The SUSTAINABLE

Knoxville, TN



The endowment of the Sustainable concerns the **natural and physical health** of a community

Healthy environments foster vibrant ecosystems and protect important natural resources, such as clean water and air. Healthy communities can facilitate longevity of life, mitigate against chronic disease, and even impact a person's employment

What the Data Says



Premature Death

In 2014, Knox County had **8,100** years of potential life lost before age 75 per 100,000 population

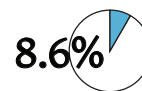
This is up from 7,900 in 1997. The best states have only 5,200 years lost per 100,000 people

Mental Health

15% of adults report 14 or more days with poor mental health. This is similar to Tennessee peer cities



Low Birth Weight



of all births in Knox County

Declined from 9.8% in 2006

This is still above the Health People 2020 target of 7.8%

Being healthy is **extremely important** for thriving

The health of the population is seen as a **weakness**

What the Community Says



In the Survey, Knoxville area residents recognize that health is incredibly important but also recognize that it is a real problem for residents. They call out both drug abuse and equity of access as major problems in the community.

“Enhanced cooperation among healthcare providers - communication, collaboration, co-location, integration will require incentives, progressive thinking, and placing community health as a priority. More treatment and support for substance use disorders - detox beds, access to rehabilitation, longer-term follow-up support will require funding, an entrepreneurial spirit, and broad community support.”



Since 2006, Knoxville Area Project Access, a local healthcare nonprofit that coordinates multiple local healthcare institutions, has provided more than \$190 million in donated health services to 22,000 low-income residents with no access to health insurance or government program

Endowment Summary



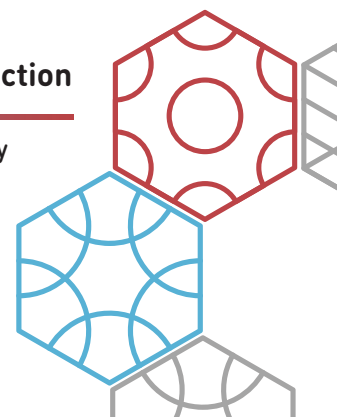
Positive: Strong progress towards improving air quality but still room for growth

Challenges: Still fighting air pollution, significant health challenges, and the addiction epidemic

Human Ecology Connection

Physical Health & Mobility

Low birthweight is connected to delayed cognitive development, behavioral problems, lower academic achievement, and a host of other issues throughout the lifespan



THE SUSTAINABLE

Introduction

The endowment of the Sustainable concerns both the natural and physical health of a city and its inhabitants. This endowment highlights the complex relationships that exist between the built environment and the natural environment, as well as the effects each of these has on the physical well-being of a city's residents and visitors. As with other endowments, The Sustainable describes the interaction between particular places (e.g., trails, sidewalks, parks, factories and waterways, community gardens), practices (e.g., gardening, walking, hiking and biking, commuting), and institutions (e.g., hospitals and clinics, park services, running and biking clubs).

To think well about the Sustainable requires one to engage issues at two conceptual levels. On the one hand, we must learn to think in a comprehensive and wide-ranging fashion about how collective human action and urban policy affect the human and natural ecology around us. The factors that impact environmental and public health problems can be incredibly complex, and facing these problems adequately often requires more widespread cooperation than is typically expected of local governance. On the other hand, we must simultaneously learn to appreciate the particular, local features of the natural world around us and recognize how these enhance the well-being of those within our communities. As noted in *The Beautiful*, there is no "general" natural environment, only the particular rivers and creeks, mountains and plateaus, gardens and paths that characterize a place like Knoxville. Likewise, there is no "general" population health, only the health of particular people who are, one way or another, our neighbors.

Over the past several decades there has been a growing public awareness about the importance of promoting the environmental health of our cities and communities. It is becoming more generally recognized that natural and physical health¹⁰² provide the necessary conditions for the pursuit of thriving more generally. Cities with healthy natural environments foster vibrant ecosystems and protect important natural resources, such as clean water and air.¹⁰³ They also provide residents with opportunities to engage with the natural world, a key activity that improves physical health, mental well-being, and can even increase life expectancy.¹⁰⁴ Because this report has already addressed key

issues in environmental health (see The Beautiful), the following section of the report will focus especially on those factors that impact human health and physical well-being. In addition to the natural environment, these include the condition of one's neighborhood, exposure to chronic stress, and access to nutritious food. Cities with healthy communities have lower healthcare costs, have higher rates of longevity, and even higher rates of productivity.¹⁰⁵

Important to Knoxville: Physical Health

Residents identify being healthy as “extremely important” to a thriving Knoxville, but they are also realistic about the current state of the city. While it is a high priority, they also identify “healthy population” as one of the weaknesses of the community. Requests for “access to health care” and “affordable access” are a common refrain from residents along with better access to mental health care.

The pessimism of Knoxville area residents in relation to health is well-founded. The area has high rates of obesity, coronary disease, diabetes, and cancer.¹⁰⁶ As a result, over the last 17 years the premature death rate has actually increased. In 1998, Knox County had 7,900 years of potential life lost before age 75 per 100,000 people. By 2014, that number had risen to 8,100 years of potential life lost. For Tennessee, the rate was 8,700 years in 2014, down from 9,300 in 1997.¹⁰⁷

Mental health is another major issue for Knoxville residents. In 2014, about one in six adults (15 percent) report having poor mental health on more than 14 days in the last month.¹⁰⁸ This is roughly the same as other cities in Tennessee and most peer cities. Mental health is linked to employment, longevity, housing stability, and host of other issues. Furthermore, it is a common occurrence: while only one in six adults in Knoxville currently have poor mental health, as many as one in two will have some type of temporary mental health struggle in their lifetime.¹⁰⁹

On the other hand, outcomes for infants seem to be improving. The percentage of infants with low birthweight (below 5 pounds, 8 ounces) dropped to 8.6 percent in 2014, down from 9.8 percent in 2006. This is now lower than the state of Tennessee but still higher than the Healthy People 2020 national goal of 7.8 percent.¹¹⁰ Birthweight is a key indicator,

which reflects a range of personal and environmental factors including maternal health, access to health care, and the effects of the neighborhood where the mother lives.¹¹¹ It is also an early signal for infant mortality and a host of developmental challenges the child will face throughout childhood.¹¹²

While community health is generally a weakness for Knoxville, there is one issue that has presented a particularly formidable challenge: the region has been hard hit by the opioid epidemic. As of the middle of July, the county was on pace for 300 overdose deaths in 2017—nearly one per day.¹¹³ The epidemic is reaching down to the smallest and most vulnerable members of the community, too. In 2014, Knox County had the highest rate of neonatal abstinence syndrome (NAS)—infants suffering from drug withdrawals—of any county in the state.¹¹⁴ While there are some signs of improvement, Knox County still has one of the higher rates of NAS.

Poor health takes a costly toll across the community. In addition to the potential years of life lost, poor physical health leads to loss in productivity, affects one's enjoyment of life, and results in an inability of many residents to partake fully in the benefits of the community. Beyond the impact on individuals, the wider community bears the cost of health care. In the case of neonatal abstinence syndrome, for example, the cost to stabilize an infant born addicted to drugs is almost \$63,000 per infant—more than 8.5 times the cost of stabilizing a healthy infant.¹¹⁵

Conclusion

What might it mean for Knoxville and the surrounding region to make strides toward a more sustainable and physically healthy future?

To begin with, it is important to recognize and appreciate the important strides that are already being undertaken in this area. As mentioned above, the problems can be exceedingly complex, but this should not lead to despair over the possibility of making progress. The growth in Urban Wilderness areas, greenways, trails, and the improvement of air quality are encouraging signs of the presence of civic energy for local beautification and preservation of natural health. This is not to mention even smaller-scale, grassroots initiatives toward developing urban agriculture and community gardens, volunteer trail

maintenance and clean-up programs (e.g., Norris Lake Clean-Up Program), and ride-share programs to decrease vehicle pollution. These developments are very likely to lead to improvements in human health, as they encourage physical activity, decrease pollution, and provide access to healthy food. While physical health indicators have not yet seen the same level of improvement, there is a palpable sense that the problems are being widely recognized and that there is a desire to begin to meet the challenge of poor health.

It is also important to recognize and appreciate the way the Sustainable is influenced by and influences other endowments within the Human Ecology Framework. We have already noted the ways in which the two aspects of human and natural health are related, as well as how each is related to the economic and financial well-being of a community (the Prosperous). While the pursuit of economic growth can sometimes have a negative effect on the natural environment and human health (e.g., when productivity is prioritized over pollution-control), leading to the vicious circle of decreased economic productivity (e.g., due to ill-health), this need not be the case. Giving adequate forethought and coordinating action to seek environmentally sustainable growth can help Knoxville avoid this pitfall.

The Sustainable is also importantly related to the Just in two ways. First, pursuing urban policy that promotes human and environmental health often requires well-ordered and functional local and regional leadership. The problems faced in this area tend to involve a greater geographical scope than a particular city and a greater temporal scope than a single term. This necessitates greater foresight and cooperation than is sometimes necessary for other issues. Secondly, the Sustainable is related to the Just insofar as the burdens of ill-health and environmental degradation tend to be borne by those who are already socioeconomically disadvantaged. Truly sustainable and just solutions will seek to improve the health and well-being of the least well-off and most vulnerable members of the community.

Finally, the Sustainable is intimately related to the Beautiful. Enhancing urban beauty requires not only revitalizing and rebuilding downtown buildings, but also preserving the integrity and extending the boundaries of the natural environment. As mentioned, Knoxville is already making strides here—but, viewed rightly, this progress should be

seen as a call to action, rather than an invitation to complacency, for it means that there is already considerable momentum and civic will to accomplish great things.

REPORT CONCLUSION

Realizing the Promise

Though in some ways a typical American city—average size, average income, average demographics—Knoxville is anything but ordinary. Its unique history, natural beauty, and personality are for many a source of pride and affection. It is no wonder that all sorts of people, like those involved in Connect Knox, are willing to work to see it thrive.

In fact, one does not have to look far to see how Knoxville is already thriving as a city and region. The University of Tennessee is both a well-respected academic center and a vital driver of economic development and local employment. Residents value education and are working hard to creatively meet the challenges of early childhood and college readiness (including Community Schools and Drive to 55). There is a budding culture of entrepreneurship and innovation that promises to tap into future economic trends, including “creative capital” and the “knowledge economy.” Downtown Knoxville has undergone significant revitalization, and with it, a number of neighborhoods in and around Knoxville are experiencing significant levels of economic development and investment. This has resulted in a blossoming restaurant scene, new arts and music venues, and a number of recreational parks and greenways. Residents desire to create an inclusive and welcoming city, and small, grass-roots efforts indicate the presence of real civic energy and community activism. Knoxville’s anticipated population growth demonstrates the attraction it holds for people who seek a comparatively safe, affordable, livable and beautiful environment—whether they come to work, to retire, or to raise a family.

There are, however, very real challenges, which must be acknowledged and appreciated in order to begin to work toward enhancing the conditions for flourishing in the future. As Knoxville grows, it is not entirely clear that the city is prepared to invest in the infrastructure needed to meet the demographic demands (especially in the areas of housing and transportation). Relatively low levels of local political and civic engagement seem to demonstrate a lack of trust in the institutions and leaders that guide the city and region. Many—both in the city and in the outlying rural areas—experience the burden of inequitable access to the benefits of economic growth, opportunities for quality

education, and adequate health care. Despite some progress, pollution remains a problem for environmental and human health, and may remain so if population growth brings a proportional increase in vehicular traffic. Residents of the Knoxville region desire a healthier population, but remain plagued by a host of health problems, including obesity, heart disease, and substance abuse.

In order to meet the challenges of the present, while continuing the progress of the recent past, Knoxville's leaders and residents will need to make a series of decisions that will have real effects for the thriving of the city and region. These decisions involve questions about how much and where to make financial investments. They will also involve questions about how to engage politically and civically, as well as questions about how to mobilize broad civic participation and grassroots movements. These are the sorts of questions that a group like Connect Knox is well-positioned to ask and answer. As a diverse group of committed and passionate citizens and leaders, Connect Knox can simultaneously work from the top-down, from the bottom-up, and from the outside-in, to have a generational impact in the Knoxville region. Top-down, by engaging the business and political leadership, enacting policies and legislation, and directing large-scale economic development. Bottom-up, by cultivating relationships at the local level, by encouraging small scale creative and entrepreneurial endeavors, and by tapping into already-existing civic energies and unleashing their potential for enacting change. Outside-in, by recognizing where gaps in achievement and opportunity leave some people excluded from economic and social goods, by working to increase opportunities for the disenfranchised to take ownership of Knoxville's future, and by seeking to help Knoxville's residents achieve their stated desire for inclusivity and hospitality by bridging divides of class, status, and geography.

As Connect Knox takes the next steps from this crossroads moment, the information and analysis of the previous pages should provide what is needed for a fruitful and productive conversation about how to achieve these goals. It cannot answer the questions, but it can help Connect Knox to ask them in new and promising ways. In doing so, Connect Knox can focus attention on how to enhance The True, The Good, The Beautiful, The Just, the Prosperous, and the Sustainable over the short, medium, and long-term future.

Bearing in mind the Human Ecology Framework, Connect Knox may begin to use this report to see how investment in one area can subsequently affect others (or, how a lack of investment in one area may negatively affect others). For example, the report has shown that greater grassroots participation (the Good) increases collective efficacy, civic partnerships, ethos and ownership, leading to greater awareness and empathy across lines of difference and greater commitment to the common good. This may help the community begin to address issues of equity and access to community goods (the Just), which will have palpable economic effects (the Prosperous), as well as effects on health and education (the Sustainable and the True). Additionally, bringing attention and investment to educating and empowering innovation and creativity (the True and the Beautiful) will help position Knoxville for future economic shifts (the Prosperous). Finally, the necessity for greater communication and regional involvement (the Just), including better city/county relations and partnerships will help Knoxville's leaders to meet economic and environmental challenges with greater scope and complexity (the Prosperous and the Beautiful).

These are just a few examples of the positive and negative feedback loops that may be taken into account when making decisions about the future of Knoxville. Doubtless, those involved with the ambitious and promising efforts of Connect Knox will discover other interactions and feedback loops, as well. Where an issue is important to Knoxville's citizens, where it has important effects for flourishing, and where there is discernible energy and momentum for working toward progress, there one will find a promising opportunity to bring lasting change to Knoxville.

APPENDIX A

Political History of Greater Knoxville

“Knoxville was—and in some ways is—a product of the struggle between innovators and traditionalists, between those who embraced change and those who were threatened by it.”

-Bruce Wheeler, *Knoxville, Tennessee: A Mountain City in the New South*

Americans have always had a peculiar uneasiness with their cities. A country blessed with an inordinate amount of land, America has mostly seen and valued itself in terms set by the agriculture of our forbears, rather than the ideals of our cities. And as America rapidly urbanized over the last century, our urban apprehensions often caused leaders and citizens to inadequately confront the range of new challenges facing their communities. In many ways, Knoxville is an exemplar of the unique American dynamic of tentatively affirming the values of cities, yet failing to fully and quickly adapt to realities that city living requires.

Founded in 1791, Knoxville’s history traces the path many American cities have followed: growth following the railroad in the 19th century, suburbanization and decay in the 20th century, and downtown revitalization in the 21st century. Yet over the decades, Knoxville’s unique blend of rural Appalachian and Southern culture have shaped the city in ways that have made its residents and leadership full of energy, yet suspicious, if not hostile, towards change, government, and outsiders.

After the Civil War, Knoxville contained the main elements of most growing Southern cities at that time. It was growing in prosperity brought on by the railroad along with subsequent in-migration from the countryside. Full of energy, its upper stratum, according to historian Bruce Wheeler, “was composed of members of an old commercial elite (many of whom could trace their ancestors to the origins of the town in 1786), transitional figures who arrived in Knoxville prior to the Civil War but who generally did not become prominent until after that conflict, and new men, most of them from outside the South, who saw Knoxville a place to make their fortunes.”¹¹⁶

While in most Southern cities, social and business leaders continued to stay active in civic affairs, in Knoxville, things began to change during the latter part of the 19th century. Due in part to rising resentment of new working class migrants and economic competition from elsewhere, Knoxville business and social leaders became relatively removed from civic affairs. At the same time, much of the population influx into the city came from Appalachian counties who brought with them a suspicion of government, outsiders, and local urbanites. With the upper class removing themselves from city affairs, these new arrivals stepped in to create their own political machines that had little appetite to address the growing needs and challenges of urbanization, such as infrastructure investment, economic development, and necessary municipal services.

In the early 20th century, traditional business and social leaders did at times enter the fray in civic matters, yet they did so either half-heartedly or in ways, such as instituting a city manager, that either increased corruption or provoked a backlash from working class constituents. All the while, crises like the Great Depression exacerbated tensions among different factions and generated a political culture hostile to change and innovation. Equally important at this time, Black political leadership began to stagnate reversing years of progress. According to Robert Booker, “Black men were elected to the office in Knoxville and Knox County and served with distinction from 1869 to 1912. Because of redistricting, no black served the City Board of Alderman or City Council between 1912 and 1969. No black was elected to Knox County Court between 1892 and 1942. Although all women received the right to vote in 1920, no black woman had been elected to office in Knoxville or Knox County until Sarah Moore Green was elected to City School Board in 1969.”¹¹⁷

By the time America entered the post-World War II economic boom, Knoxville’s leadership and politics were ensnared by infighting and were unable to adequately address the changes underway in their city such as suburban flight and shifts in the economy. According to Wheeler, “Knoxville politics during the wartime and postwar years were characterized by vicious and personal warfare, not a little demagoguery, ever-shifting factional alliances, and an almost total disregard for issues of substance.”¹¹⁸ Further, a lack of involvement from the business elite over the years had instantiated an anti-government political culture that viewed with suspicion any government service and

saw tax increases as ploys to serve the upper crust of the city. Fearing outsiders and competition, many, including even the Chamber of Commerce, in the 1950s refused to endorse municipal bonds that would have been employed to attract industry. An attempt at city-county government consolidation in 1957 was met with failure due to worries over taxes and racial integration. By the end of that decade, “What had developed was a static system of mutual distrust, in which the leaders distrusted the people and the people distrusted them.”¹¹⁹

As Knoxville lurched into the latter half of the 20th century mired in civic and economic stagnation, certain changes began to turn the tide for the city. First, there was the annexation of new communities who were more open to local government and progressive ideals. Second, there was the growth of federal and university jobs that facilitated economic mobility. Third, a new group of businessmen, tired of the intransigence of the business community, sought to bring new life and energy into the city by revitalizing downtown. Fourth was the World’s Fair in 1982 that galvanized investment and innovative planning for the downtown. And lastly was the election of new leadership in Kyle Testerman in 1971 and then Victor Ashe in 1987, mayors who embraced local government’s role in spearheading the needed changes to move the city forward.

At the turn of this century, Knoxville was on the collaborative path but faced serious challenges and hostilities. The relationship between county and city governments had become hostile due to the city’s annexation of county land in previous decades. Local resident engagement in civic affairs was dismal as many decisions were largely made in small rooms by two competing distinct power bases—small groups of businessmen and rural populists like Sheriff Tim Hutchison. Many neighborhoods and communities were defined by lack of opportunity. Racial hostilities that had long persisted in the city remained entrenched. And the quality of the air and water was one of the worst in the country. However, several key factors came together around downtown that fundamentally changed the civic and political landscape of the city of Knoxville to where it is today.

Despite lingering perceptions of downtown crime, in the late 1990s businesses and residents began moving into the area. As downtown was beginning to revitalize, the county and Sheriff Hutchison made plans to build in the downtown area a multiblock

justice center complex—an unpopular plan. Although the number of downtown residents were small, they were vocal enough to garner enough support to kill the development, which in turn empowered a new constituency. In Knox County, a scandal involving fraudulently elected commissioners (known as Black Wednesday) galvanized residents and prompted needed government reforms.

With the decline of the old guard as well as the implementation of term limits in both the city and county, new leadership came in who were less reliant on one power base and were more willing to cooperate across geographical and department lines. And with Bill Haslam's election to city mayor in 2003, the vision of downtown that had long been imagined for decades became a reality through the collective buy-in from the public.¹²⁰

In all, these changes over the course of the 2000s brought many voices to the table who soon cultivated a local public culture of government accountability and transparency. Although Knoxville and Knox County still have many challenges today, its commitment to more public openness has made local government more effective, more cooperative, more accountable, and importantly more inclusive in overcoming those obstacles.

APPENDIX B

Decision Matrix

COMMUNITY AND DATA PRIORITIES MATRIX

WHAT THE COMMUNITY SAYS	Higher Community Priority	HEALTHY PEOPLE -Drug Addiction -Longevity (Premature Death) -Maternal Health	SAFE -Safety
	Lower Community Priority	BEAUTIFUL -Parks ENTREPRENEURIAL / INNOVATIVE -Small Business Employment	EDUCATED -Child Literacy -College Readiness CREATIVE, FESTIVE, ARTISTIC -Arts Employment
		SUSTAINABLE -Clean Air SOCIALLY / PHYSICALLY CONNECTED -Mobility POLITICAL / CIVIC ENGAGEMENT -Voting EQUITABLE -Inequality	PROSPEROUS -Employment
		Community Weakness	Community Strength
WHAT THE DATA SAYS			

Decision Matrix Method

What the Data Says

The quantitative method used in the decision matrix put the Knoxville region statistics in national context (or state context when national comparisons were not available). We pulled the information for the major cities or counties across the country (or state, where necessary) and broke the distribution of the data into deciles. A Knoxville Metropolitan area statistic was given a rank based on closeness to one of the 10 deciles. Where national data was not available, for example child literacy or safety, we used Tennessee State data to construct the deciles. Issues above the midpoint of the deciles were labeled as “community strengths” while those below the midpoint were labeled as “community weaknesses.”

Data sources included:

- U.S. Census Bureau
- Tennessee Department of Education
- Tennessee Bureau of Investigation
- Robert Wood Johnson Foundation County Health Rankings
- ParkScore
- Centers for Disease Control
- Environmental Protection Agency

What the Community Says

The qualitative method used in the decision matrix used the resident responses on the Connect Knox Community Survey conducted by Survature in the Summer of 2017.

APPENDIX C

Consulted Knoxville Reports

The True

Greater Knoxville Community Research. Cornerstone Foundation of Knoxville. 2012. J. Laurens Tullock, Chris Haretos Bollinger, Alex Lavidge, Bradley Green and Mark McComas. www.cornerstoneofknoxville.org

Plan East Tennessee (PlanET) Playbook. Plan East Tennessee. 2014. Knoxville Regional Transportation Planning Organization and Metropolitan Planning Commission. www.planeasttn.org

Great Schools Partnership 2015 Annual Report. Great Schools Partnership. 2015. www.greatschoolspartnership.com

Excellence for Every Child: Five-Year Strategic Plan 2014-2019. Knox County. 2014. www.knoxschools.org.

Disparities in Educational Outcomes Taskforce Final Report and Recommendations. Disparities in Educational Outcomes Taskforce. 2016. www.knoxschools.org.

Youth Services Gaps in the Urban Core: A Study of Inner City Knoxville 2013. Emerald Youth Foundation. 2013. Chrisi Bollinger. www.emeraldyouth.org.

ET Index: Livability Report Card 2015. PlanET. 2015. www.etindex.org.

The Beautiful

Arts and Economic Prosperity 5: The Economic Impact of Nonprofit Arts & Cultural Organizations & Their Audiences, Greater Knoxville. Americans for the Arts and Arts & Culture Alliance. 2017. www.knoxalliance.com.

Knoxville-Knox County Park, Recreation, and Greenways Plan. Knoxville-Knox County Metropolitan Planning Commission. 2011. www.knoxmpc.org.

Urban Land Institute Advisory Service Panel: City of Knoxville Briefing Book. 2014. Urban Land Institute and city of Knoxville. www.knoxvilletn.gov.

ET Index: Livability Report Card 2015. PlanET. 2015. www.etindex.org.

The Good

Greater Knoxville Community Research. Cornerstone Foundation of Knoxville. 2012. J. Laurens Tullock, Chris Haretos Bollinger, Alex Lavidge, Bradley Green and Mark McComas. www.cornerstoneofknoxville.org.

Salt & Light: A Guide to Loving Knoxville 4th Edition. Compassion Coalition. 2017. www.compassioncoalition.org.

The Just

Greater Knoxville Community Research. Cornerstone Foundation of Knoxville. 2012. J. Laurens Tullock, Chris Haretos Bollinger, Alex Lavidge, Bradley Green and Mark McComas. www.cornerstoneofknoxville.org

Plan East Tennessee (PlanET) Playbook. Plan East Tennessee. 2014. Knoxville Regional Transportation Planning Organization and Metropolitan Planning Commission. www.planeasttn.org

Mobility Plan 2040 Connecting People and Place. Knoxville Regional Transportation Planning Organization. 2017.<http://www.knoxmobility.org>

State of Transportation in East Tenn 2015 Annual Report. Knoxville Regional Transportation Planning Organization. 2015. www.knoxtrans.org

Knoxville-Knox County General Plan 2033. Knoxville-Knox County Metropolitan Planning Commission. 2010. www.knoxmpc.org

Knoxville Area Urban League 2016 Annual Report. Knoxville Area Urban League. 2016. www.thekaul.org.

City of Knoxville FY 2017/2018 Proposed Operating Budget. City of Knoxville. 2017. www.knoxvilletn.gov.

ET Index: Livability Report Card 2015. PlanET. 2015. www.etindex.org.

Diversity Champions 2012 Report on Workplace and Marketplace Economic Inclusion. Innovation Valley. 2012. <http://www.innovationvalleyinc.net>.

The Prosperous

Greater Knoxville Community Research. Cornerstone Foundation of Knoxville. 2012. J. Laurens Tullock, Chris Haretos Bollinger, Alex Lavidge, Bradley Green and Mark McComas. www.cornerstoneofknoxville.org.

Plan East Tennessee (PlanET) Playbook. Plan East Tennessee. 2014. Knoxville Regional Transportation Planning Organization and Metropolitan Planning Commission. www.planeasttn.org.

Knoxville-Oak Ridge Innovation Valley: Lifestyle & Culture Report. Innovation Valley. 2017. www.knoxvilleoakridge.com.

Diversity Champions 2012 Report on Workplace and Marketplace Economic Inclusion. Innovation Valley. 2012. <http://www.innovationvalleyinc.net>.

Blueprint 2.0. Knoxville Chamber of Commerce and Innovation Valley. 2017. www.knoxvillechamber.com.

Technical Report Series: Workforce Housing Report. Metropolitan Planning Commission. 2017. www.knoxmpc.org.

Economic Potential of South Knoxville's Urban Wilderness. The Howard H. Baker Jr. Center for Public Policy. 2015. Charles Sims, Becky Davis, and Bongkyun Kim. bakercenter.utk.edu.

ET Index: Livability Report Card 2015. PlanET. 2015. www.etindex.org.

The Sustainable

Plan East Tennessee (PlanET) Playbook. Plan East Tennessee. 2014. Knoxville Regional Transportation Planning Organization and Metropolitan Planning Commission. www.planeasttn.org

2016 – 2019 Community Health Improvement Plan. 2016. Community Health Council. www.healthyknox.org

2014-2015 Community Health Assessment: Health Priorities. Together Healthy Knox and Knox County Health Department. 2015. www.healthyknox.org

Knoxville-Knox County Food Policy Council Spring 2013 Research Findings and Recommendations. Knoxville Knox County Food Policy Council. 2013. www.knoxfood.org.

ET Index: Livability Report Card 2015. PlanET. 2015. www.etindex.org.

APPENDIX D

Peer Cities Comparison Data

This appendix provides the comparisons, where possible, of how the Knoxville Metropolitan Statistical Area (MSA) stacks up against the peer cities. The peer cities, as chosen by the Knoxville Chamber of Commerce, are:

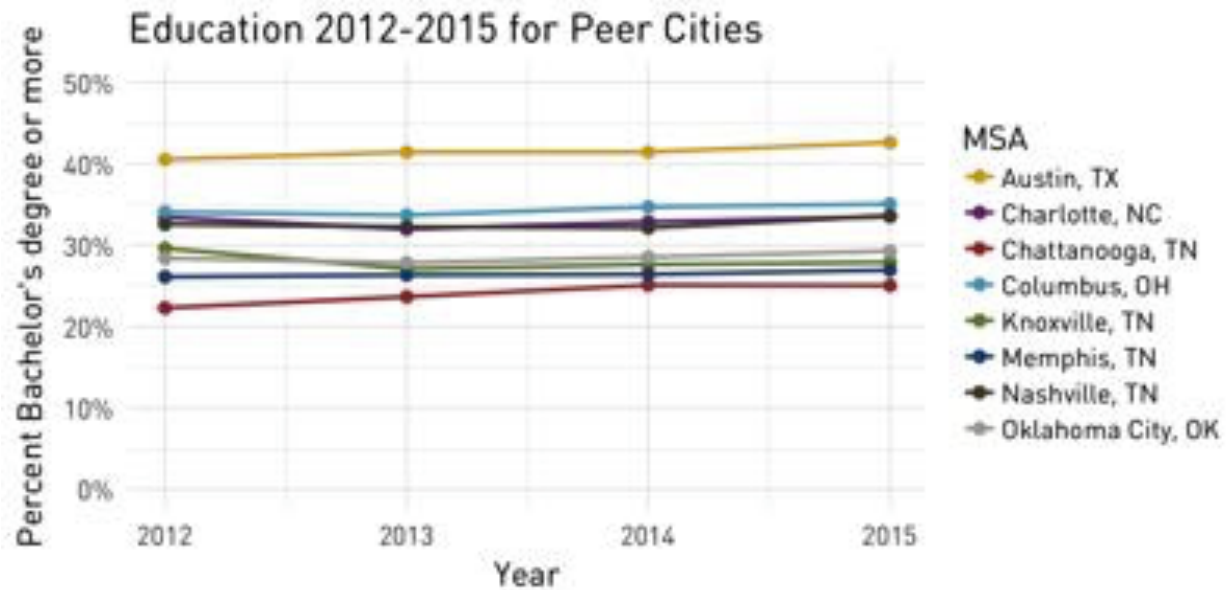
- Austin, TX
- Charlotte, NC
- Chattanooga, TN
- Columbus, OH
- Memphis, TN
- Nashville, TN
- Oklahoma City, OK

Peer cities provided by Joe Riley, Research Specialist for the Knoxville Chamber of Commerce.

For the context and interpretation of each of these charts, see the full text in the report in each section.

The True

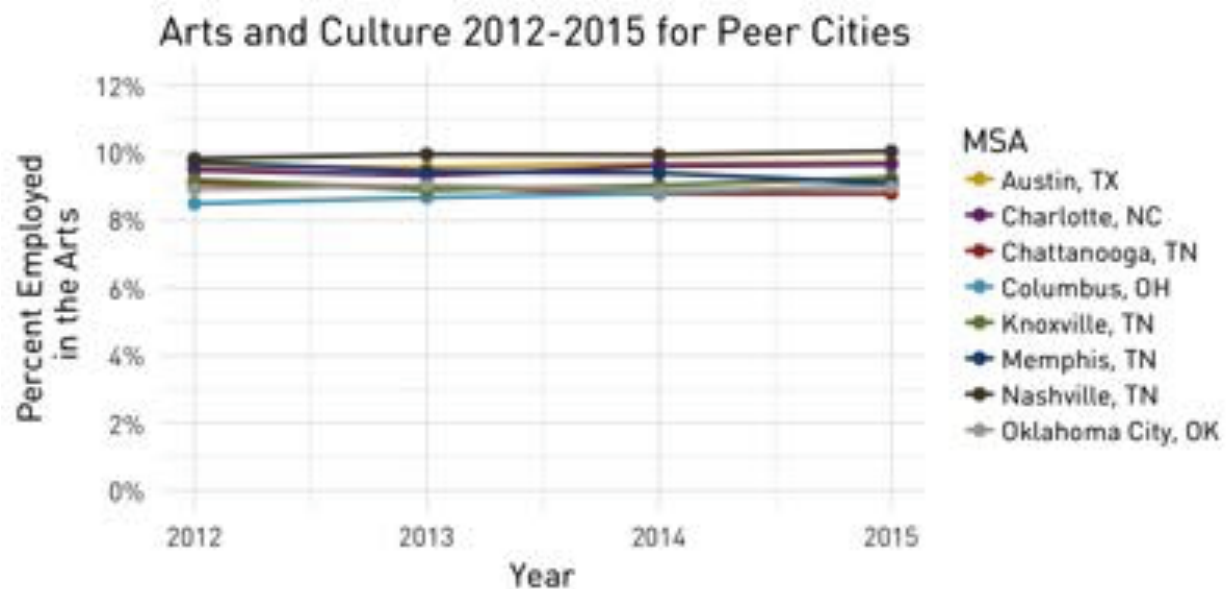
Percent of the 25 and older population with a bachelor's degree or more.



[Source: U.S. Census Bureau. American Community Survey 1-Year Data. 2012 - 2015. Table B06009. API: American Community Survey 1-Year Data (2011 - 2015) Accessed: 13 July 2017].

The Beautiful

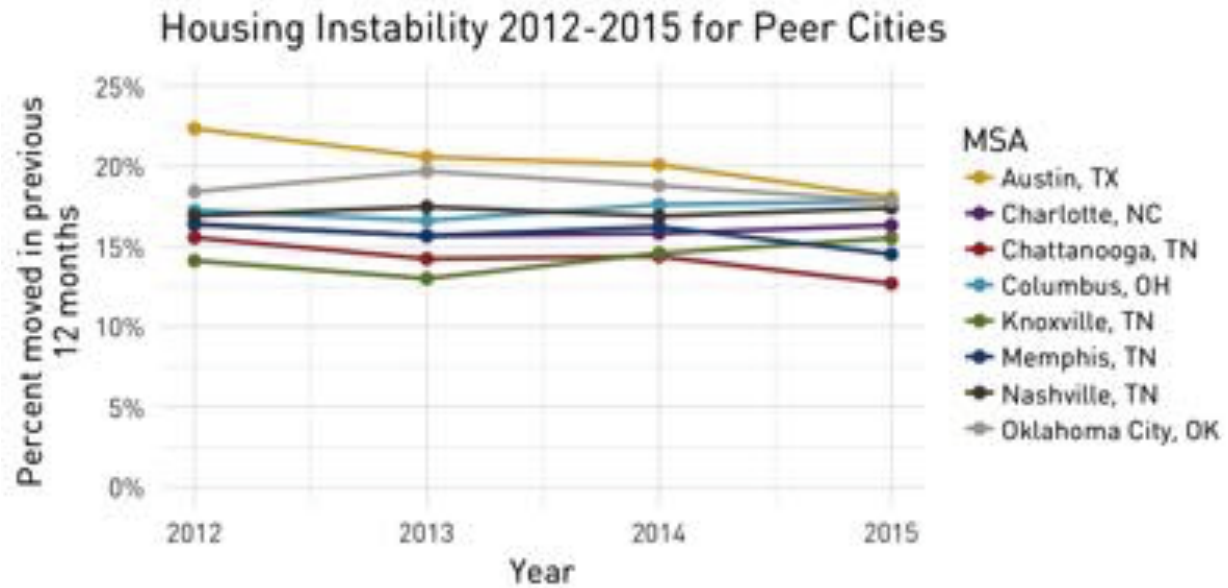
Percent of employed adults (16 years and older) employed in an arts-related field (including Arts, entertainment, and recreation, and accommodation and food services industry)



[Source: U.S. Census Bureau. American Community Survey 1-Year Data. 2012 - 2015. Table Bo8126. Accessed: 13 July 2017. API: American Community Survey 1-Year Data (2011 - 2015)].

The Good

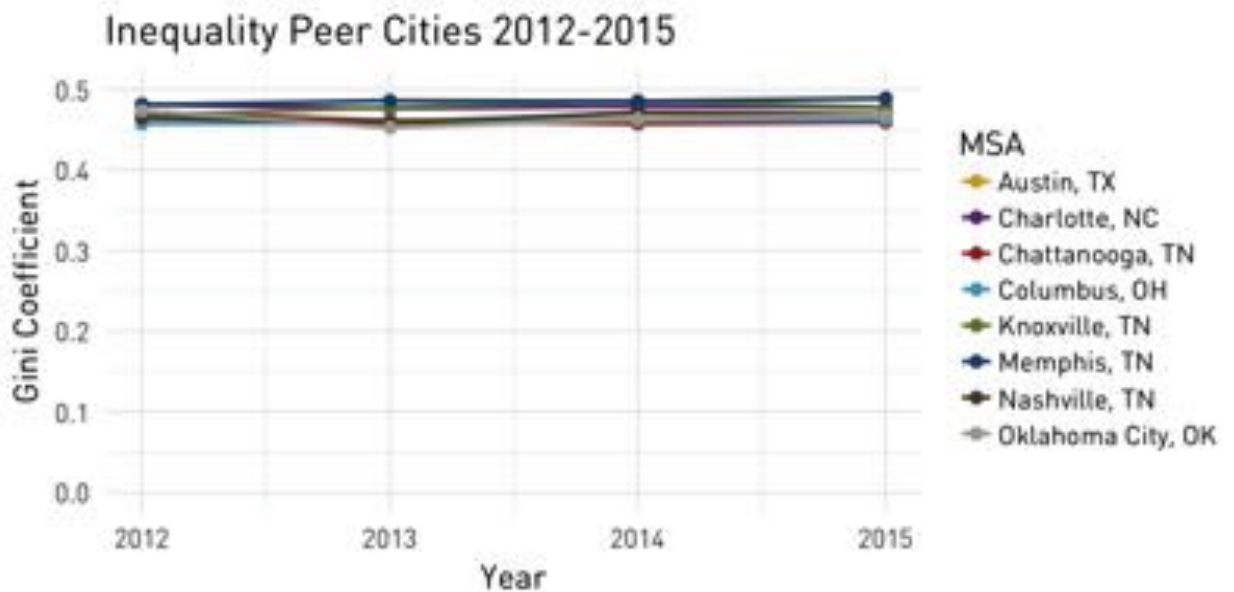
Percent of residents who have moved in the last 12 months.



[Source: U.S. Census Bureau. American Community Survey 1-Year Data. 2012 - 2015. Table B07001. Accessed: 13 July 2017. API: American Community Survey 1-Year Data (2011 - 2015).]

The Just

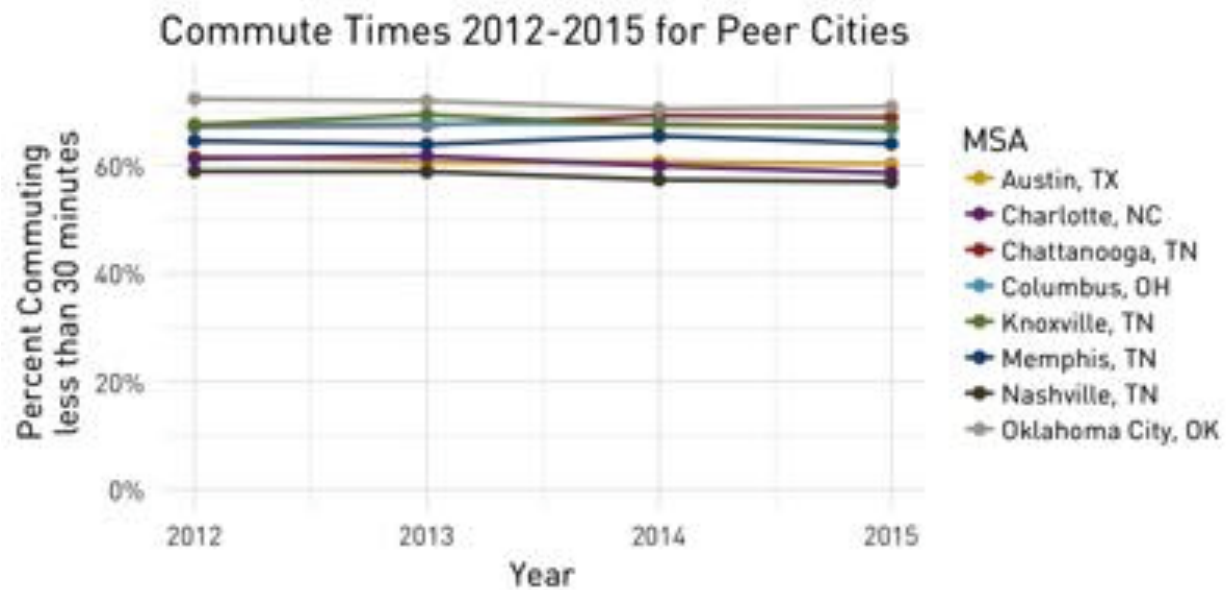
The Gini Coefficient



The Gini Coefficient is a measure of income distribution in a community where 0 represents perfect equality and 1 extreme inequality.

[Source: U.S. Census Bureau. American Community Survey 1-Year Data. 2012-2015. Table B19083. Accessed: 28 August 2017. API: American Community Survey 1-Year Data (2011 - 2015).]

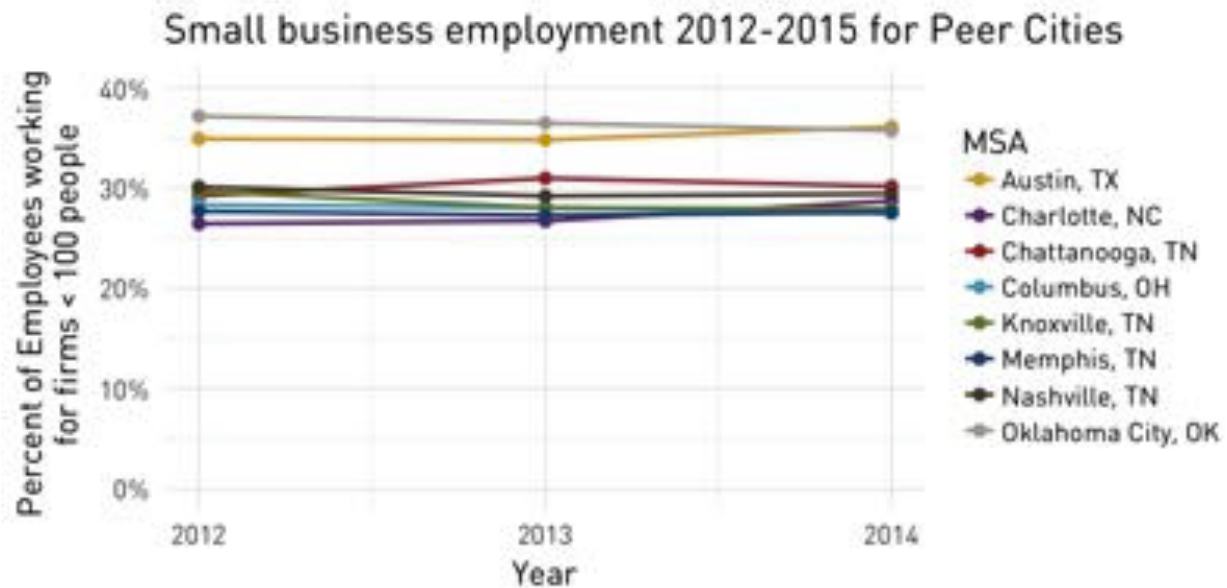
Percent of employees commuting less than 30 minutes



[Source: U.S. Census Bureau. American Community Survey 1-Year Data. 2012 - 2015. Table Bo8012. Accessed: 13 July 2017. API: American Community Survey 1-Year Data (2011 - 2015).]

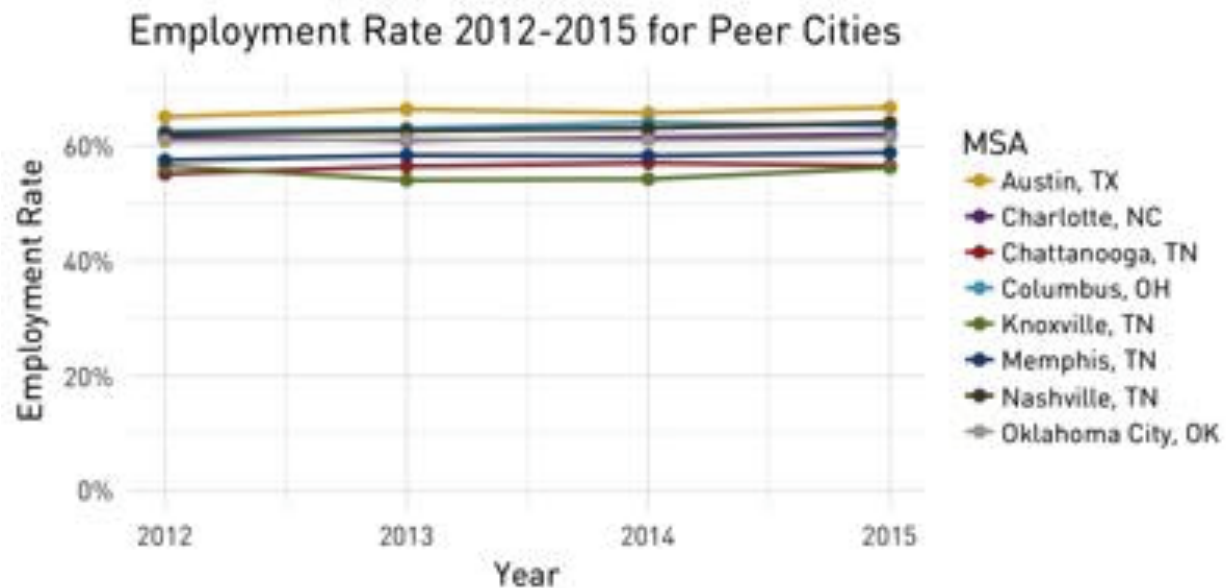
The Prosperous

Percent of employees working for a firm that less than 100 employees



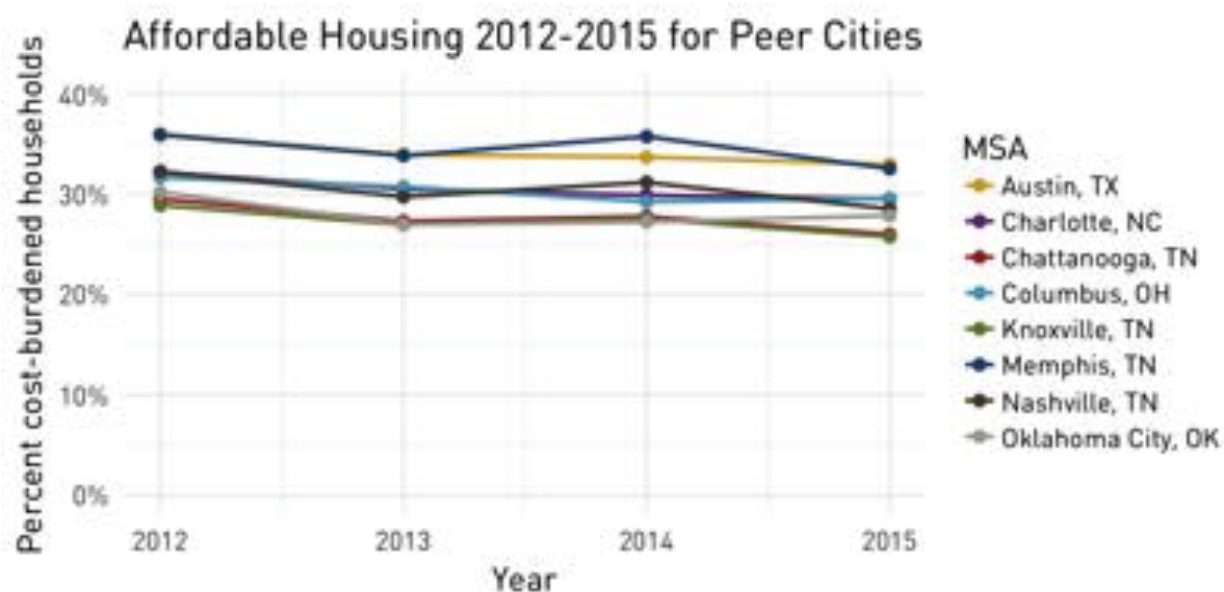
[Source: U.S. Census Bureau. Business Dynamics Statistics. 2012-2014. Variables: ifsize, fsize, fage4, emp. Accessed: 18 July 2017. API: Business Dynamics Statistics (Time Series: 1976-2014).]

Percent of adults (16 years and older) employed



[Source: U.S. Census Bureau. American Community Survey 1-Year Data. 2012 - 2015. Table B23025. Accessed: 13 July 2017. API: American Community Survey 1-Year Data (2011 - 2015).]

Percent of cost-burdened households (households spending 30 percent or more of their income on housing).



[Source: U.S. Census Bureau. American Community Survey 1-Year Data. 2012 - 2015. Table B25016. Accessed: 13 July 2017. API: American Community Survey 1-Year Data (2011 - 2015).]

¹ This and the following quotes from residents or community members are pulled from comments from Connect Knox Community Survey conducted by Survature in the Summer of 2017..

² Dreier, Peter, John H. Mollenkopf, and Todd Swanstrom. *Place matters: metropolitics for the twenty-first century*. Lawrence, Kan.: Univ. Press of Kansas, 2014.

³ Dreier, et al. *Place Matters*. Chapter 3.

⁴ See Wheeler, William Bruce, and Michael J. McDonald. *Knoxville, Tennessee: a mountain city in the new South*. Knoxville: University of Tennessee Press, 2005.

⁵ U.S. Census Bureau. American Community Survey 1-Year Data. 2015. Table B01001. Accessed: 13 July 2017. API: American Community Survey 1-Year Data (2011 - 2015); U.S. Census Bureau. 2000 Census. Table Census 2000 Summary File 1 (SF 1) 100-Percent Data. Accessed July 2017.

⁶ U.S. Census Bureau. American Community Survey 1-Year Data. 2015. Table B02001. Accessed: 13 July 2017. API: American Community Survey 1-Year Data (2011 - 2015); U.S. Census Bureau. 2000 Census. Table Census 2000 Summary File 1 (SF 1) 100-Percent Data. Accessed July 2017.

⁷ 2016 Higher Education Profile: Knox County. 2017. Accessed June 2017. <http://driveto55.org/county/Knox.pdf>.

⁸ 2016 Higher Education Profile: Union County. 2017. Accessed August 2017. <http://driveto55.org/county/Union.pdf>.

⁹ 2016 Higher Education Profile: Knox County. 2017. Accessed June 2017. <http://driveto55.org/county/Knox.pdf>.

¹⁰ State Report Card: Knox County. 2016. Accessed June 2017. <https://www.tn.gov/education/topic/report-card>.

¹¹ Youth Service Gaps in the Urban Core: a Study of Inner City Knoxville. Report. 2013. Accessed August 2017. http://www.emerald-youth.org/assets/emerald/pdfs/YouthServiceGapsStudy_Website.pdf.

¹² State Report Card: Knox County. 2016. Accessed June 2017. <https://www.tn.gov/education/topic/report-card>.

¹³ Hernandez, D. et al. "Double Jeopardy: How Third-Grade Reading Skills and Poverty Influence High School Graduation." 2011. Accessed June 2017. <http://www.aecf.org/m/resourcedoc/AECF-DoubleJeopardy-2012-Full.pdf>.

¹⁴ State Report Card: Knox County. 2016. Accessed June 2017. <https://www.tn.gov/education/topic/report-card>.

- ¹⁵ Bureau of Labor Statistics. (2016) Employment Projections, 2015. United States Department of Labor. http://www.bls.gov/emp/ep_chart_001.htm.
- ¹⁶ Freudenberg N, Ruglis J. Reframing school dropout as a public health issue. Report. Centers for Disease Control. 2007. <http://www.cdc.gov/pcd/issues/2007>.
- ¹⁷ Florida, R., C. Mellander, and K. Stolarick. "Inside the black box of regional development—human capital, the creative class and tolerance." *Journal of Economic Geography* 8, no. 5 (2008): 615-49.
- ¹⁸ Salt & Light: A Guide to Loving Knoxville, 4th edition. 2016. Accessed June 2017.
- ¹⁹ See Wheeler, *Knoxville, Tennessee*.
- ²⁰ Internal Revenue Service. Exempt Organization Business Master File Extract. State of Tennessee. Accessed July 2017.
- ²¹ *Ibid*. Internal Revenue Service.
- ²² Wilson, John. "Volunteerism Research." *Nonprofit and Voluntary Sector Quarterly* 41, no. 2 (2012): 176-212.
- ²³ Bureau of Labor Statistics. (2015) Volunteering in the United States. Accessed July 2017.
- ²⁴ U.S. Census Bureau. American Community Survey 1-Year Data. 2015. Table B08126. Accessed: 13 July 2017. API: American Community Survey 1-Year Data (2011 - 2015)
- ²⁵ Coulton, Claudia, Brett Theodos, and Margery Turner. "Residential Mobility and Neighborhood Change: Real Neighborhoods Under the Microscope." *Cityscape* 14, no. 13 (November 2012): 55-90.
- ²⁶ *Arts & Economic Prosperity 5: The Economic Impact of Nonprofit Arts & Cultural Organizations & Their Audiences in the Greater Knoxville Region*. Americans for the Arts. 2017.
- ²⁷ U.S. Census Bureau. American Community Survey 1-Year Data. 2015. Table B08126. Accessed July 2017. API: American Community Survey 1-Year Data (2011 - 2015).
- ²⁸ *Arts & Economic Prosperity 5: The Economic Impact of Nonprofit Arts & Cultural Organizations & Their Audiences in the Greater Knoxville Region*. Americans for the Arts. 2017.
- ²⁹ U.S. Census Bureau. 2000 Census. Table Census 2000 Summary File 1 (SF 1) 100-Percent Data. Accessed July 2017.
- ³⁰ U.S. Census Bureau. American Community Survey 1-Year Data. 2015. Table DP05. Accessed July 2017. API: American Community Survey 1-Year Data (2011 - 2015).
- ³¹ U.S. Census Bureau. American Community Survey 1-Year Data. 2015. Table S1501. Accessed July 2017. API: American Community Survey 1-Year Data (2011 - 2015)

- ³² ReferenceUSA U.S. Historical Business Database. Census Tract 1. All Business Codes. ReferenceUSA. Accessed June 2017. www.referenceusa.com.
- ³³ Currid-Halkett, Elizabeth. *The sum of small things: a theory of the aspirational class*. Princeton: Princeton University Press, 2017, 153.
- ³⁴ Rushton, Michael. *Creative communities: art works in economic development*. Washington, D.C.: Brookings Institution Press, 2013.
- ³⁵ Sims, Charles, Becky Davis, and Bongkyun Kim. Economic Potential of South Knoxville's Urban Wilderness. White Paper. Howard H. Baker Jr. Center for Public Policy, University of Tennessee, Knoxville. 2015.
- ³⁶ Metropolitan Planning Commission. 2016. Knoxville Area Facts & Figures 2016. <http://archive.knoxmpc.org/locldata/facfig16.pdf>. Accessed 15 August 2017.
- ³⁷ State of Transportation in East Tenn 2015 Annual Report. 2016. Accessed June 2017. https://knoxtrans.org/news/2016/0427/State%20of%20Transportation_2015%20Annual%20Report.pdf
- ³⁸ Seaton, A., D. Godden, W. Macnee, and K. Donaldson. "Particulate air pollution and acute health effects." *The Lancet* 345, no. 8943 (1995): 176-78.
- ³⁹ Correspondence with Tim Kuhn, August 2017
- ⁴⁰ Environmental Protection Agency. Air Quality Index Report. Knox County, TN. Accessed July 2017.
- ⁴¹ Kuhn, Tim. 2017. Personal Calculations. Data Source: Regional Haze Rule Data. <http://vista.cira.colostate.edu/Improve/rhr-summary-data/>. Accessed through personal correspondence. 16 August 2017.
- ⁴² Environmental Protection Agency. Air Quality Index Report. Knox County, TN. Accessed July 2017.
- ⁴³ State of Transportation in East Tenn 2015 Annual Report. 2016. Accessed June 2017. https://knoxtrans.org/news/2016/0427/State%20of%20Transportation_2015%20Annual%20Report.pdf
- ⁴⁴ Seaton, A. et al. "Particulate air pollution and acute health effects."
- ⁴⁵ Florida, Richard L. *The rise of the creative class: revisited*. New York: Basic Books, 2014.
- ⁴⁶ Florida, Richard. *The new urban crisis: How our cities are increasing inequality, deepening segregation, and failing the middle class - and what we can do about it*. New York, NY: Basic Books, 2017.
- ⁴⁷ Wheeler, Knoxville, Tennessee, 77.
- ⁴⁸ Crime Rates by Jurisdiction. TIBERS Crime Data. Tennessee Bureau of Investigation. Accessed August 2017. <http://tncrimeonline.com/public/Browse/browsetables.aspx>.

⁴⁹Duncan, S. Heather. "Amid Rising Gang Violence, Can KPD Overcome the Doubts of Knoxville's Black Community." *Knoxville Mercury*, January 2013. Accessed July 2017. <http://www.knoxmercury.com/2016/01/13/equal-protection-amid-rising-gang-violence-can-kpd-overcome-the-doubts-of-knoxvilles-black-community>.

⁵⁰ Ellen, I.G. "Crime and Community Development." Open Forum: Voices and Opinions from Leaders in Policy, the Field and Academia. 2012.

⁵¹ Jung, Haeil. "The Long-Term Impact of Incarceration During the Teens and 20s on the Wages and Employment of Men." *Journal of Offender Rehabilitation* 54, no. 5 (2015): 317-37.

⁵² Western, Bruce and Pettit, Becky. Incarceration & social inequality. *Dædalus*, Summer 2010.

⁵³ Wilson-Genderson, Maureen, and Rachel Pruchno. "Effects of neighborhood violence and perceptions of neighborhood safety on depressive symptoms of older adults." *Social Science & Medicine* 85 (2013): 43-49.

⁵⁴ See Save our Sons webpage, accessed August 2017. http://www.knoxvilletn.gov/government/city_departments_offices/community_relations/save_our_sons

⁵⁵ U.S. Census Bureau. American Community Survey 1-Year Data. 2015. Table B19013B. Accessed July 2017. API: American Community Survey 1-Year Data (2011 - 2015).

⁵⁶ U.S. Census Bureau. American Community Survey 1-Year Data. 2015. Table B19013A. Accessed July 2017. API: American Community Survey 1-Year Data (2011 - 2015).

⁵⁷ The data on median household income for Hispanic families has a large range due to the small sample size in the community. The median for Hispanic families in 2015 could be as little as \$34,000 or as much as \$43,000. See U.S. Census Bureau. American Community Survey 1-Year Data. 2015. Table B19013I. Accessed July 2017. API: American Community Survey 1-Year Data (2011 - 2015)

⁵⁸ U.S. Census Bureau. American Community Survey 1-Year Data. 2015. Table B19083. Accessed: August 2017. API: American Community Survey 1-Year Data (2011 - 2015).

⁵⁹ Benner, Chris, and Manuel Pastor. *Equity, Growth, and Community: What the Nation Can Learn from America's Metro Areas*. Oakland, CA: University of California Press, 2015.

⁶⁰ Dreier, et al. *Place Matters*. Chapter 3.

⁶¹Kneebone, Elizabeth. *The Growth and Spread of Concentrated Poverty 2000 to 2008 - 2012*. Report. June 2014. Accessed July 2017. <https://www.brookings.edu/interactives/the-growth-and-spread-of-concentrated-poverty-2000-to-2008-2012/>.

⁶² Chamberlain, Alyssa W., and John R. Hipp. "Its all relative: Concentrated disadvantage within and across neighborhoods and communities, and the consequences for neighborhood crime." *Journal of Criminal Justice* 43, no. 6 (2015): 431-43.

⁶³ Brenner, Allison B., Marc A. Zimmerman, Jose A. Bauermeister, and Cleopatra H. Caldwell. "The Physiological Expression of Living in Disadvantaged Neighborhoods for Youth." *Journal of Youth and Adolescence* 42, no. 6 (2012): 792-806.

⁶⁴ Martin, Paul S., and Michele P. Claibourn. "Citizen Participation and Congressional Responsiveness: New Evidence that Participation Matters." *Legislative Studies Quarterly* 38, no. 1 (2013): 59-81.

⁶⁵ Hannon, L. "Voter Turnout and Neighborhood Violent Crime Rates" Paper presented at the annual meeting of the American Society of Criminology (ASC) (2013) from http://citation.allacademic.com/meta/p126923_index.html.

⁶⁶ Cumulative Report — Knox County, Tennessee — City of Knoxville Regular Election — November 03, 2015. Report. Accessed June 2017. https://www.knoxcounty.org/election/results/cumulative_11032015.pdf

⁶⁷ Cumulative Report — City of Knoxville Primary and State Senate Special Primary Election — September 27, 2011. Report. Accessed June 2017. https://www.knoxcounty.org/election/results/cumulative_9-27-2011.pdf

⁶⁸ Cumulative Report — State Primary and County General Election — August 04, 2016. Report. Accessed June 2017. https://www.knoxcounty.org/election/results/cumulative_08-04-2016.pdf

⁶⁹ Maciag, Mike. 2014. "Voter Turnout Plummeting in Local Elections." *Governing: The States and Localities*. October. <http://www.governing.com/topics/politics/gov-voter-turnout-municipal-elections.html>. Accessed 16 August 2017.

⁷⁰ *Ibid.* "Voter Turnout Plummeting in Local Elections."

⁷¹ Gorham, R. (2002) Air Pollution from Ground Transportation: An Assessment of Causes, Strategies, and Tactics and Proposed Actions for the International Community. The Global Initiative on Transport Emissions: A Partnership of the United Nations and the World Bank. <http://www.un.org/esa/gite/csd/gorham.pdf>

⁷² Citi. "Citi ThankYou Premier Commuter Index Reveals U.S. Consumers Spend An Average Of \$2,600 Per Year On Their Commute." *Cision PR Newswire*, June 2015. Accessed July 2017. <http://www.prnewswire.com/news-releases/citi-thankyou-premier-commuter-index-reveals-us-consumers-spend-an-average-of-2600-per-year-on-their-commute-300095179.html>.

⁷³ U.S. Census Bureau. American Community Survey 1-Year Data. 2015. Table B08012. Accessed July 2017. API: American Community Survey 1-Year Data (2011 - 2015).

⁷⁴ U.S. Census Bureau. American Community Survey 5-Year Estimates (2005-2009). Table B08303. Accessed July 2017.

⁷⁵ Plan East Tennessee (PlanET) Playbook. Report. 2014. Accessed June 2017. <http://www.planeasttn.org/GrowStronger/RegionalPlaybook.aspx>.

⁷⁶ Mobility Plan 2040: Connecting People and Places. Report. 2017. Accessed June 2017. <https://knoxmobility.org/wp-content/uploads/2017/03/Draft-Mobility-Plan-2040-March-2017.pdf>.

⁷⁷ City of Knoxville FY 2017 / 2018 Proposed Operating Budget. Report. 2017. Accessed June 2017. http://www.knoxvilletn.gov/UserFiles/Servers/Server_109478/File/Finance/Budget/2017/20172018budgetsummary.pdf.

⁷⁸ Wheeler, Knoxville, Tennessee, 83.

⁷⁹ Wheeler, Knoxville, Tennessee, 111.

⁸⁰ U.S. Census Bureau. Business Dynamics Statistics. 2014. Variables: ifsize, fsize, fage4, emp. Accessed July 2017. API: Business Dynamics Statistics (Time Series: 1976-2014).

⁸¹ "Etsy Maker Cities." Maker Cities. 2016. Accessed August 2017. <https://www.etsy.com/makercities>.

⁸² Smart Growth America. "Announcing the Recipients of Our Small-Scale Manufacturing and Place-Based Economic Development Technical Assistance." News release, February 2017. Accessed August 2017. <https://smartgrowthamerica.org/announcing-recipients-small-scale-manufacturing-place-based-economic-development-technical-assistance/>.

⁸³ Nijhuis, Austin. "Using the ACS to Track Economic Performance of U.S. Inner Cities." Presentation at American Community Survey Data Users Conference. May 11, 2017. Alexandria, VA. https://acsdatacommunity.prb.org/p/2017_acs_conference

⁸⁴ U.S. Census Bureau. American Community Survey 1-Year Data. 2015. Table B23025. Accessed July 2017. API: American Community Survey 1-Year Data (2011 - 2015).

⁸⁵ *Ibid.* U.S. Census Bureau. Table B23025. Accessed July 2017.

⁸⁶ The employment rate is out of the entire adult population (16 years and older). Where Labor Market Participation looks only at those who are currently employed and those who are actively looking for work. It doesn't take into account those who may be willing to work but have given up on finding employment. There are also other reasons why people would be out of work including schooling, disability, parenting responsibilities, etc. As a result, the employment rate will always be lower than the labor force participation rate.

⁸⁷ Schofield, Deborah, Rupendra Shrestha, Richard Percival, Megan Passey, Emily Callander, and Simon Kelly. "The personal and national costs of CVD: Impacts on income, taxes, government support payments and GDP due to lost labour force participation." *International Journal of Cardiology* 166, no. 1 (2013): 68-71.

⁸⁸ Stevens, Ann Huff, and Jessamyn Schaller. "Short-run Effects of Parental Job Loss on Children's Academic Achievement." 2009. *Economics of Education Review*, Elsevier, vol. 30(2), pages 289-299.

⁸⁹ Heinrich, Carolyn J. "Parents' Employment and Children's Wellbeing." *The Future of Children* 24, no. 1 (2014): 121-46.

⁹⁰ Granovetter, Mark S. "The Strength of Weak Ties." *American Journal of Sociology* 78, no. 6 (1973): 1360-380.

⁹¹ Bulut, Elif. "The labor force participation of Arab women in the United States." *Women's Studies International Forum* 55 (2016): 10-17.

⁹² Innovation Valley Blueprint 2.0. 2017. Accessed June 2017. <http://www.knoxvilleoakridge.com/about/strategic-blueprint/>

⁹³ Salt & Light: A Guide to Loving Knoxville, 4th edition. 2016. Accessed June 2017. <https://www.compassioncoalition.org/saltandlight-4th-ed>

⁹⁴ Dreier, et al. *Place Matters*. Chapter 1.

⁹⁵ Bureau of Labor Statistics. *Real Personal Income for States and Metropolitan Areas*, 2015. https://www.bea.gov/newsreleases/regional/rpp/rpp_newsrelease.htm

⁹⁶ U.S. Census Bureau. American Community Survey 1-Year Data. 2015. Table B25016. Accessed July 2017. API: American Community Survey 1-Year Data (2011 - 2015)

⁹⁷ Ault, Mindy. et al.. Housing Landscape 2015. Center for Housing Policy. Report. 2015. Accessed August 2017. http://docs.wixstatic.com/ugd/19cfbe_52f8e36faabb4c26a2c50080f8f52c2c.pdf.

⁹⁸ 2015 Regional Livability Report Card. 2015. Accessed June 2017. http://www.etindex.org/sites/default/files/Livability_Report_2015_final_reading_position.pdf.

⁹⁹ Technical Report Series: Workforce Housing. 2017. Accessed August 2017. http://knoxmpc.org/news/2017/229/Technical-Report-Series-Workforce-Housing_2017.pdf

¹⁰⁰ State of Transportation in East Tenn 2015 Annual Report. 2016. Accessed June 2017. https://knoxtrans.org/news/2016/0427/State%20of%20Transportation_2015%20Annual%20Report.pdf

¹⁰¹ Benner, Chris, and Manuel Pastor. *Equity, Growth, and Community: What the Nation Can Learn from America's Metro Areas*. Oakland, CA: University of California Press, 2015.

¹⁰² Williams, Florence. "This Is Your Brain on Nature." *National Geographic*, January 2016. Accessed June 2017. <http://ngm.nationalgeographic.com/2016/01/call-to-wild-text>.

¹⁰³ Swedish NGO Secretariat on Acid Rain. *Air and the Environment*. By Per Elvingson and Christer Ågren. Göteborg,, Sweden: Swedish NGO Secretariat on Acid Rain, 2004.

¹⁰⁴ Williams, F. "This Is Your Brain on Nature." 2016.

¹⁰⁵ Cawley, John. "The Labor Market Impact of Obesity." *Obesity, Business and Public Policy*, Spring 2004, 451-474.

¹⁰⁶ 2014-2015 Community Health Assessment. Report. 2015. Accessed June 2017. http://healthyknox.org/CHA_print_2015.pdf.

¹⁰⁷ Knox County Health Ranking. Report. 2017 Accessed June 2017. <http://www.countyhealthrankings.org/app/tennessee/2017/rankings/knox/county/outcomes/overall/snapsh>

¹⁰⁸ Centers for Disease Control. 500 Cities Project. 2014. Accessed 17 August 2017. <https://www.cdc.gov/500Cities/>

¹⁰⁹ JD Schaefer, et al. "Enduring mental health: Prevalence and prediction." *Journal of Abnormal Psychology*. Vol. 126, February 2017.

¹¹⁰ Knox County Health Ranking. Report. 2017 Accessed June 2017. <http://www.countyhealthrankings.org/app/tennessee/2017/rankings/knox/county/outcomes/overall/snapsh>

¹¹¹ Fiscella, K. "Does prenatal care improve birth outcomes? A critical review." *Obstetrics & Gynecology* 85, no. 3 (1995): 468-79.

¹¹² Aarnoudse-Moens, C. S. H., N. Weisglas-Kuperus, J. B. Van Goudoever, and J. Oosterlaan. "Meta-Analysis of Neurobehavioral Outcomes in Very Preterm and/or Very Low Birth Weight Children." *Pediatrics* 124, no. 2 (2009): 717-28.

¹¹³ North, John, writer. "The OD Epidemic: WBIR highlights drug overdose crisis." WBIR. August 1, 2017. Accessed August 2017. <http://www.wbir.com/news/local/od-epidemic/the-od-epidemi-why-wbir-is-highlighting-drug-overdose-crisis/453868342>.

¹¹⁴ 2014-2015 Community Health Assessment. Report. 2015. Accessed June 2017. http://healthyknox.org/CHA_print_2015.pdf.

¹¹⁵ 2014-2015 Community Health Assessment. Report. 2015. Accessed June 2017. http://healthyknox.org/CHA_print_2015.pdf.

¹¹⁶ Wheeler, *Knoxville, Tennessee*, 8.

¹¹⁷ Booker, Robert J. *Two Hundred Years of Black Culture in Knoxville, Tennessee: 1791-1991*. Virginia Beach, VA: The Donning Company/Publishers, 1993. Pg. 64

¹¹⁸ *Ibid.* Wheeler, 72.

¹¹⁹ *Ibid.* Wheeler, 123.

¹²⁰ Information obtained from an interviews with Jesse Mayshark, Director of Communications, City of Knoxville and William Lyons, Deputy to the Mayor, Chief Policy Officer, City of Knoxville, and Professor Emeritus, Department of Political Science, University of Tennessee. July and August, 2017.