



PRIORITY POPULATIONS



TECHNICAL REPORT 2023



INTRODUCTION

We recognize that East Tennessee has equity challenges – research from an earlier regional planning effort demonstrated that areas of high opportunity tend to be separated from those of concentrated poverty; patterns of diversity still follow those set by segregation; and, health disparities are evident throughout the region.

This research seeks to quantitatively determine areas of concentrated stressors and areas of high opportunity to use as a predictor of quality of life, health, and vitality. Communities that experience highly concentrated stressors across four themes (Livability, Mobility, Opportunity, and Vulnerability) are considered Priority Populations.

These communities may be prioritized when planning for future local and regional investment, like transportation improvements or economic development initiatives.

THEMES

Twenty-seven socioeconomic indicators identify Priority Populations. Data for each measure are assembled at census tract geography to represent neighborhoods and small communities throughout a nine-county region (Anderson, Blount, Grainger, Jefferson, Knox, Loudon, Roane, Sevier, and Union counties). The indicators are organized in four themes and then compiled into one composite score – Priority.



LIVABILITY

Health, housing suitability, and safety of the built-environment.



MOBILITY

Ability to travel to education, employment, and other daily needs.



OPPORTUNITY

Income, education, and achievability of financial security.



VULNERABILITY

Demographic characteristics that make populations more vulnerable to economic fluctuation.

WHY THESE METRICS

Indicators were initially selected based on input from an Equity Team formed during the 2013 regional planning effort – named PlanET – and from references in Knox County’s Health Impact Assessment, released around the time of the PlanET work. The original collection of indicators has been expanded to make the Priority Populations model more informative and predictive.

In this report, **Livability** assesses how well a community can access the housing and services needed for a healthy and safe life. Access to physical activity centers, grocery stores, and internet help individuals live longer, healthier, more connected lives; this is reflected in the average life expectancy of the community. Housing unit conditions and costs illustrate whether the available options are adequate and affordable; many families are cost burdened or are living in structures with adverse conditions, like insufficient plumbing or overcrowding. Health insurance coverage is a predictor of overall physical well-being since those without it often forgo preventative services and wait until conditions are severe or chronic before seeking medical attention.

Mobility is an evaluation of how well a community’s infrastructure supports travel for all populations and what resources individuals must contribute for their own transportation. We can measure effectiveness of transportation resources with the share of public transportation commuters, distance to transit lines, and travel time to work. Most Knoxville area commuters drive alone in personal autos, so vehicle availability and transportation costs can challenge every day mobility.

The indicators used to derive **Opportunity** help us discern the difference between economic stress and prosperity across communities – high median home value, for example, can indicate how prosperous a community is, while low educational attainment is a strong predictor of stress. The share of the population with low household income, or with few workers holding living-wage jobs, illustrates everyday financial stress. Adults without high school education, who are working-age but not in the labor force, or who are college-age but not enrolled in college, have less opportunity for wealth generation and upward mobility. Similarly, the value of owner-occupied housing predicts economic mobility; the National Association of Realtors and Knoxville Area Association of Realtors call homeownership the “primary source of wealth creation for most families.” Finally, the Gini Index of income inequality describes how evenly wealth is distributed across communities.

The **Vulnerability** of a population, in this report, primarily reflects how much of the population will be sensitive to economic and societal changes. These groups are exposed to more social, physical, and economic challenges than the rest of the population and can have a more difficult time adjusting to changes to their communities. People with disabilities are the most likely to face physical challenges, including barriers to transportation, work, housing, and socializing. Children and seniors often need public services, such as school and transportation assistance. They are also a subset of the population that is usually not working, or, at least, not working full-time. Single-parents and grandparents responsible for their grandchildren often face financial challenges and may need greater access to affordable housing, childcare, and transportation. The population with limited English proficiency (LEP) can be difficult to contact for public outreach and will often face challenges highlighted in the other three themes, like obtaining living-wage jobs or accessing higher education. The population that comprises one or more racial-ethnic minorities may be confronted by cyclical stress that began decades ago during an era of social and economic segregation.

CALCULATIONS

There are many different units of measurement (percentages, dollars, distances) across the 27 indicators, so the data were standardized using z-scores – they show the amount of variation from an indicator’s average value for the region. For each of the four themes, z-scores for indicators were averaged to create a single priority value. Theme-specific maps show five levels of priority: Very High, High, Moderate, Low, and Very Low.



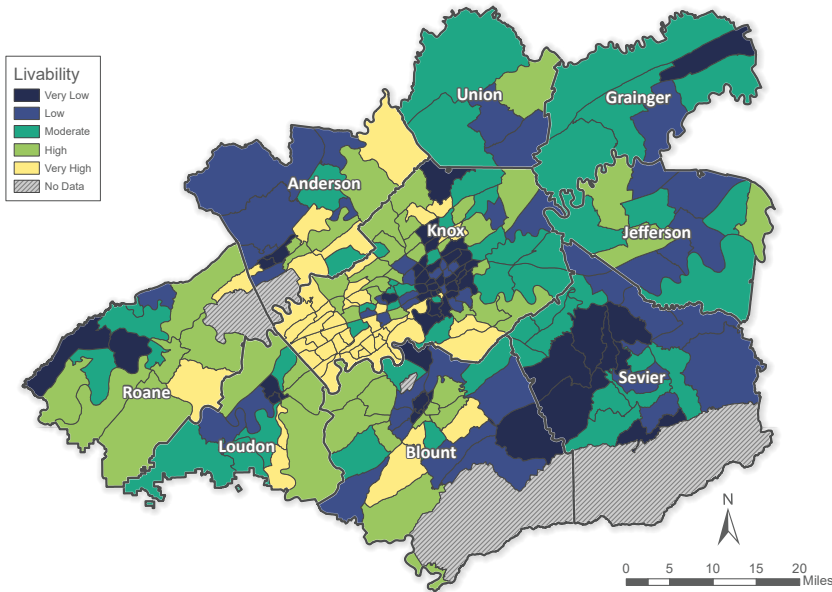
THEME MAPS & PATTERNS

CONCENTRATED
STRESS



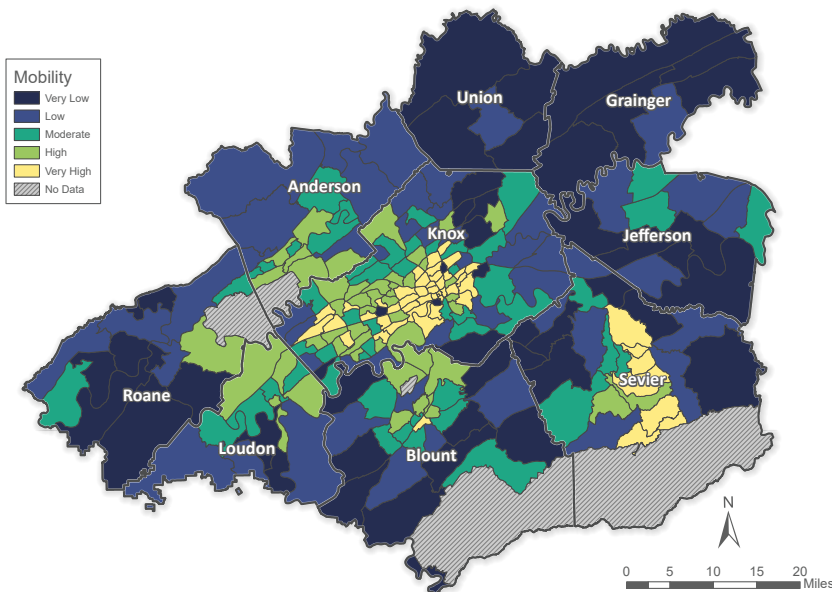
CONCENTRATED
OPPORTUNITY

Livability, 2022



- Knoxville, Alcoa, Sevierville, Rockwood, Lenoir City, part of Maryville, and several rural tracts make up the “Very Low Livability” range.
- Of the 10 census tracts with the lowest Livability scores, nine are within Knoxville city limits.
 - Qualities that these 10 tracts have in common include low access to grocery stores, high housing cost burden, and large share of households in residential units that may not be considered adequate, based on selected conditions.
 - All 10 tracts have greater than average access to physical activity centers.
- Most of the census tracts in Alcoa have limited access to internet, grocery stores, and physical activity centers.
- Tracts in Sevierville have low rates of insurance coverage and access to physical activity centers.

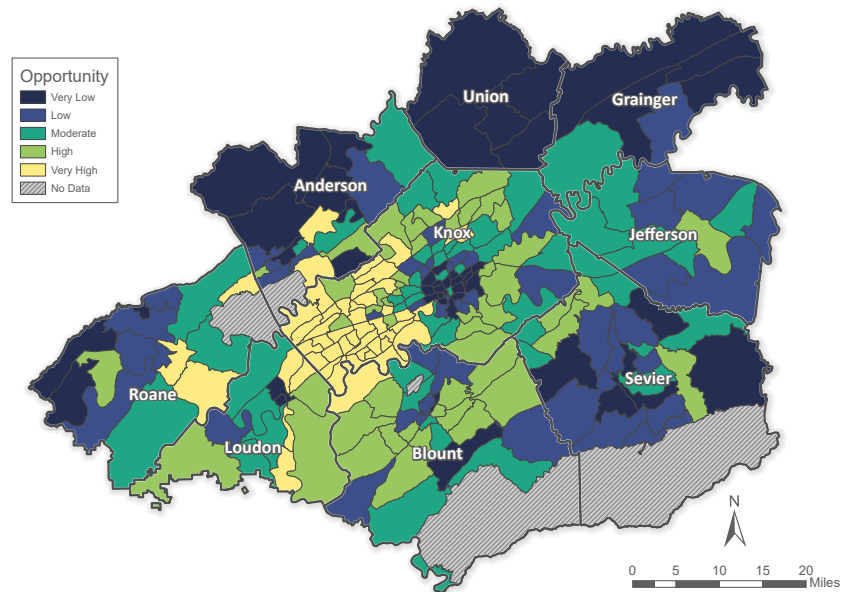
Mobility, 2022



- Each of the larger cities and towns throughout the region have “High Mobility” or “Very High Mobility” with the best scores around Knoxville, Farragut, Pigeon Forge, Sevierville, and Gatlinburg. Public transit service in Knoxville and Sevier County contributes to these outcomes.
- Rural areas tend to have the worst mobility scores, especially in Grainger and Union counties, where there is no access to public transportation, and travel time and costs of transportation are high. In both Grainger and Union counties, the overwhelming majority of workers commute to a different county for their jobs.
- Portions of Roane County have poor mobility ratings because of high commute times and lower-than-average vehicle availability.

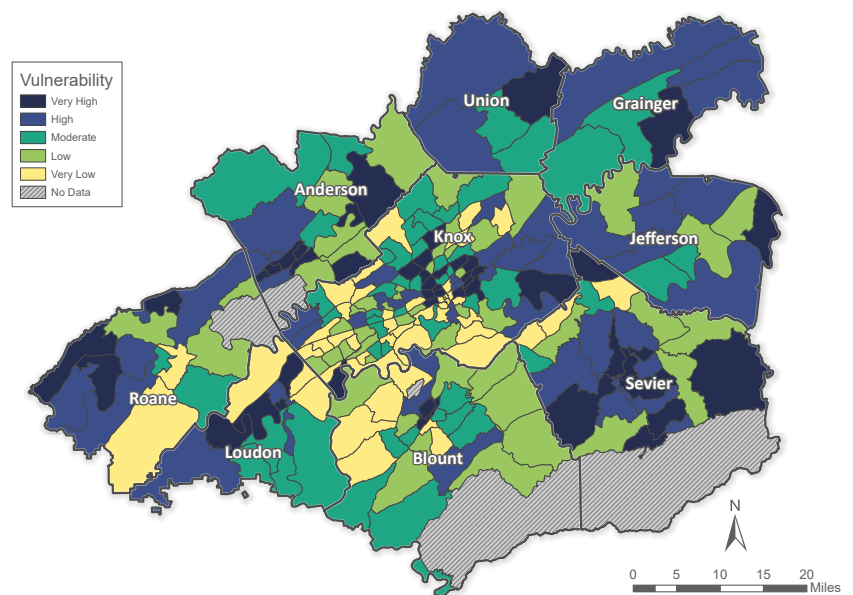
Opportunity, 2022

- West Knox County records most of the “Very High Opportunity” tracts.
- “Very High Opportunity” tracts beyond Knox are the result of high home value, near major employment centers (like Oak Ridge) and waterfront living (Tellico Village).
- Center city Knoxville, Lenoir City, and many rural tracts are rated “Very Low Opportunity.”
 - Tracts around central and east Knoxville have exceptionally high poverty, low access to living-wage jobs, and low home values.
 - Lenoir City tracts report below-average scores in nearly all Opportunity measures, especially in educational attainment, income, and income equality.
- All of Union County’s census tracts are in the “Very Low Opportunity” range. Its tracts score below average for almost every indicator in the category, with particularly low educational attainment and college enrollment.

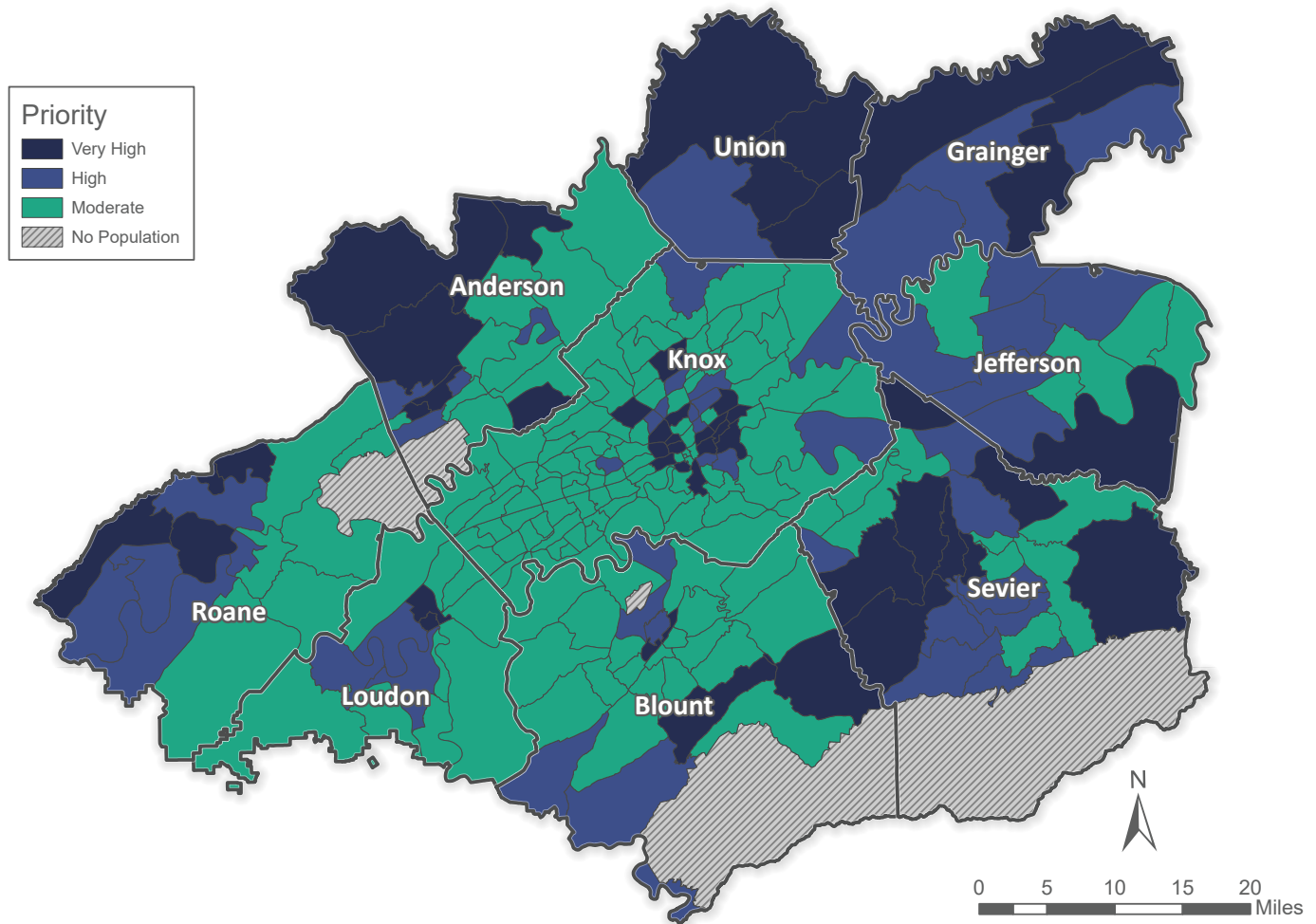


Vulnerability, 2022

- All tracts in Union and Grainger counties are rated “Moderate- to Very High-Vulnerability.” Both counties report many persons with disabilities and above-average shares of grandparents responsible for their grandchildren.
- The region’s urban areas tend to have high vulnerability scores, especially around Knoxville and the Sevierville-Pigeon Forge-Gatlinburg area. This is attributed to larger minority, LEP, and disability populations.
- Alcoa, Lenoir City, and Rockwood demonstrate higher vulnerability, the result of several factors:
 - Alcoa has tracts with high minority, LEP, and child populations, as well as an especially large percentage of single parents.
 - Lenoir City reports region-leading LEP population.
 - Rockwood records a sizable percentage of grandparents who are responsible for their grandchildren.



Priority Populations: Composite Score, 2022



Knoxville, all of Union and Grainger counties, and much of Jefferson and Sevier counties show High to Very High priority.



In general terms, then, priority issues are found across the region, primarily in urban and rural settings, with less stress in the suburbs. Urban areas tend to have larger vulnerable populations, though some of the stressors in urban areas are offset by the benefit of ease of access to resources like transit and employment centers. Many tracts in the rural periphery of the region are also high-scoring. Unlike urban areas, rural tracts are impacted by very low mobility. Many workers have to commute long distances to get to employment centers that may be in another county or even another state. Urban and rural tracts both tend to score poorly among the Opportunity metrics; low Opportunity scores occur for various reasons in different parts of the region, although high poverty is a driving factor.

A DEEP DIVE: THE CASE OF LENOIR CITY

Lenoir City is a “Very High Priority” area, scoring very low in Livability and Opportunity, and high to very high in Vulnerability. Lenoir City census tracts have negative z-scores in 18 out of 27 socioeconomic indicators, meaning two-thirds of the metrics for this community point to concentrated stress.

Lenoir City has especially low access to grocery stores, and, therefore, healthy food, as most stores are located on busy transportation corridors instead of near neighborhoods. This, combined with lower-than-average health insurance coverage, leads residents to report higher incidences of chronic health conditions. According to the CDC, Lenoir City residents have rates of obesity and diabetes that are higher than the national average while the share of adults who get an annual checkup is below the U.S. standard. These and other health factors contribute to Lenoir City residents having a life expectancy that is significantly lower than the regional average – 72.6 years compared to the region’s 76.1.

Lenoir City is also an area of concentrated poverty, defined by a high share of households with incomes below national poverty levels and limited access to living-wage jobs. Not only are local workers more likely to earn lower pay, they also have less opportunity for socioeconomic improvement, due to the area’s very poor educational attainment, below-average enrollment for college-aged adults, and low median home value. Despite low home values, three in 10 households in Lenoir City are housing cost burdened, meaning they spend 30 percent or more of their income on housing expenses, compounding their economic stress.

Loudon County and Lenoir City have a large Hispanic or Latino population, among the highest shares in the region, which contributes to the area’s diversity. However, a large number of residents have limited proficiency speaking or writing in English. LEP is a strong indicator of socioeconomic stress because it adversely affects access to health care, higher education, living-wage jobs, community resources, and more.

Lastly, while Lenoir City has challenges in livability, opportunity, and vulnerability, the community has moderate to high mobility scores. These are driven by below-average commute times and transportation costs, indicative of close proximity to work. In addition, most residents have ready access to physical activity centers.

Deep-dives like the Lenoir City review demonstrate how Priority Populations metrics can be used to identify and quantify specific difficulties that communities face, as well as mark conditions that contribute to health and prosperity. This can be a valuable tool when deciding how to allocate planning, infrastructure, and community service funds to improve local quality of life.





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Published March 2023