

# Homelessness and Inequality in Shelby County

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## Introduction

There are several social factors that impact public mobility such as socioeconomic and housing status which has an impact on mental and bodily health (1). Not only do these factors lead to poverty and displacement, they could have a long-lasting impact on our quality of life (1). The conditions that promote economic inequality uphold a societal hierarchy that limits access to adequate medical treatment (3). Recently, Memphis neighborhoods have been experiencing a rapid growth in the cost of living which has impacted the rate of displacement in low-income communities (2). With a rise in the income disparity, the social conditions for low-income communities has been impacted. For example, there has been an increase in gun violence in Memphis neighborhoods. The rate of displacement has disrupted the proximity to mental health services.

## Methods

Throughout the data collection and editing, I converted the data in Excel. After imported to ArcGIS Pro, I joined the shapefiles and tables to display household income by civilian noninstitutionalized population in Shelby County. In order to showcase Figure 1 data range, I represented the data using graduated symbols and calculations. For Figure 2, I repeated the previous steps and represented the teen birth by population size using dot density. Figure 3 was represented using dot density and graduated symbols. The geographic coordinate system is NAD 1983 for all figures.

## Conclusion

Homelessness by state population is greater than or equal to 2,115,878 in Tennessee with a lower-population of mental health providers in the region. The highest income range in Shelby County has a lower rate of 2-person households in comparison to the lower-income ranges. One of the households with high-income land within the poverty line for 2-person households, 38109. Shelby County has an income inequality rate of 5.12-5.60% and the value of total teen births is lower than most counties. The Shelby County firearm fatalities are between 19.55 and 36.3 which is over 30% of the state's total.

Data Sources:  
[www.census.gov](http://www.census.gov) (1), The University of Memphis Shelby County, Data Services (2), County Health Rankings, 2022 Health Data (3)

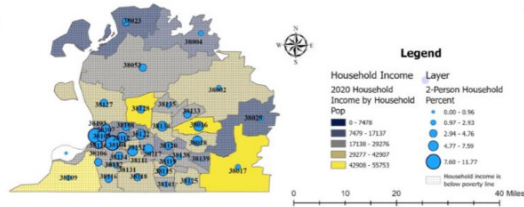


Figure 1

Household Income based on 2020 data and the percent of 2-person households in Shelby County zip codes.

**Results:** The 2-person households with a range of 7.60-11.77% are the same zip codes as the number of 2-person household incomes that falls below the poverty line. There are less than four zip codes that fall within the highest household income for 2022.

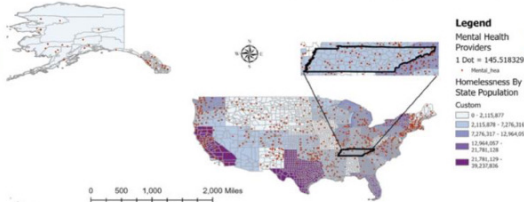


Figure 2

The total number of mental health providers represented by dot density in US States and rate of homelessness by state population.

**Results:** Texas and California have the highest rate of homelessness in comparison to the other 50 states, between 21,781,129 and 39,237,836. Tennessee has a lower rate of homelessness with the highest value being 7,276,316. The number of mental health providers in Tennessee is lower than other states, New York and California.

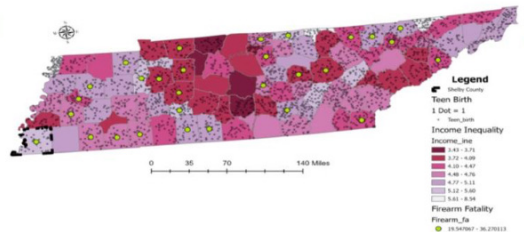


Figure 3

The rate of teen births and firearm fatalities in Shelby County represented by dot density.

**Results:** The income inequality between cities indicates that Shelby County has a higher inequality than the other in Tennessee, 5.12-5.60%. The number of firearm fatalities for Shelby County is no less than 19.55 of the total for Tennessee. The dot density for teen births is lower for Shelby County than the other counties in the state.