1. **Which states have the best transportation?**
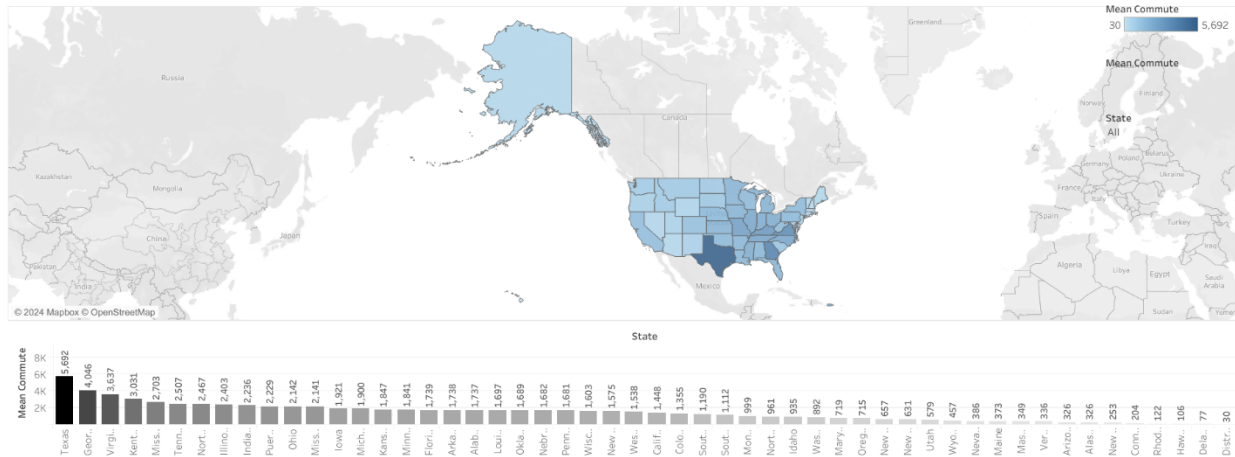
Link:

Explore the dashboard for more details using the following link: **Dashboard 1**

Summary:

The visualization highlights the states with the longest average commute times. For instance, **Texas** State has the highest mean commute time of **5,692** minutes, while **Georgia** State follows with **4,046** minutes. Conversely, states with shorter commute times, such as the **District of Columbia** State with an average commute time of **29.70** minutes, may indicate better transportation systems.

Design:

The dashboard integrates two charts with Interactive tooltips and filters for States and Commute Times:

• A **Bar Chart** was used to rank the states, based on their mean commute times.

• A **Heat Map** was included to show the geographic distribution of states with higher commute times, using a gradient color scale where darker shades represent longer commutes.

• **Interactive Tooltips** show exact values for mean commute times and a horizontal Bar Chart for Transportation Modes, enhancing user engagement and understanding.
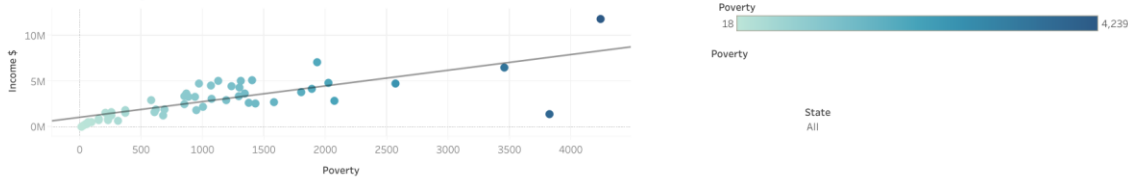
Resources: US Census Demographic Data 2015

2. **How does income and poverty look across America?**

Employed vs Unemployed with Poverty Level Across States
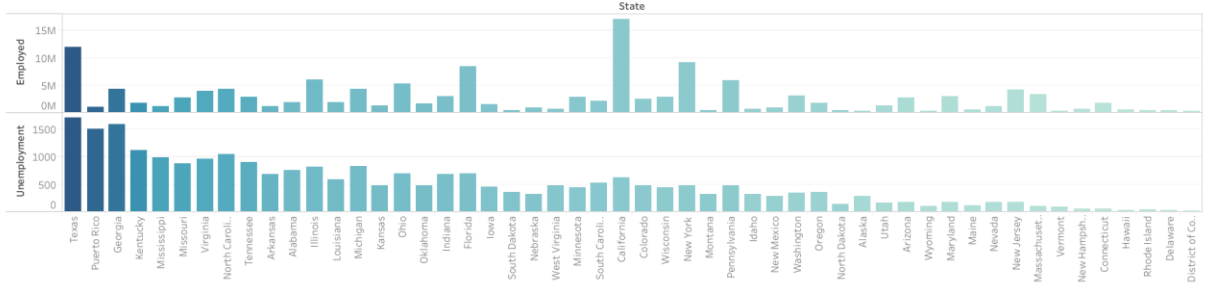
Income vs. Poverty Across US States

Link:

Explore the dashboard for more details using the following link: **Dashboard 2**

Summary:

The **Scatter Plot** reveals a positive relationship between poverty rates and median household incomes across states, For instance, **Texas** stands out as the state with both the highest median income **11,826,682 $** and the highest poverty rate **4239**. Another state, **Georgia**, shows a high poverty rate **3,455** and a median income of **6,472,081 $**. This trend suggests complex economic disparities where some states exhibit high incomes yet struggle with poverty.

 A **Bar Chart** shows **California** State as first in the number of employees, with more than **17 million**, and a poverty rate in the middle range of **938**. **Texas** State follows with more than **12 million** employees, but it also has the highest poverty rate of **4239**. **Texas** State ranks first in the number of unemployed with **1712**.

Design:

The dashboard uses two charts to present the data effectively:
• **A Scatter Plot** visualizes the relationship between income and poverty, highlighting how poverty correlates with income levels. A positive trend line was added to emphasize the relationship between the variables.
• **A Bar Chart** compare the number of Employed vs. Unemployed individuals across states, using color gradients to indicate poverty levels.
• **Color Coding**: Color-coded by Poverty rates, with darker colors signifying higher poverty levels.
• **Tooltips:** Detailed information for each state, including poverty rate, median income, and the number of employed and unemployed is available for further exploration.
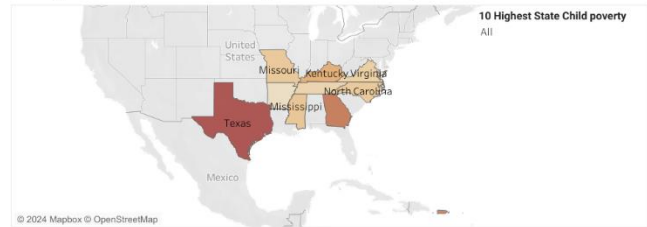
Resources: US Census Demographic Data 2015

3. **Which 10 states have the highest percentage of children living below the poverty line?**
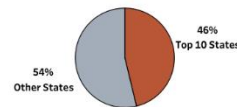
10 Highest States of Child Poverty
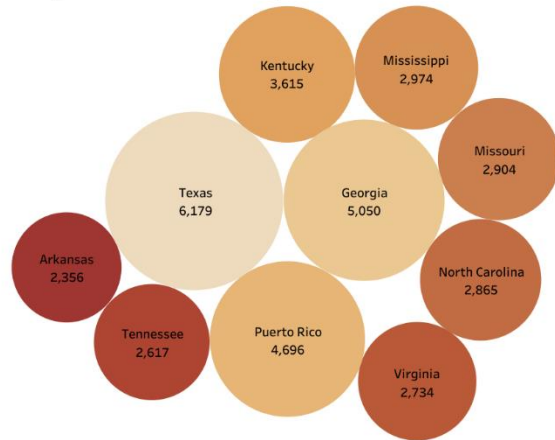
Map of U.S. States with the Highest Child Poverty

Child Poverty: Top 10 States vs. All Other States

Link:

Explore the dashboard for more details using the following link: **Dashboard 3**

Summary:

The analysis identifies the top 10 states with the highest numbers of children in poverty. **Texas** State ranks highest with **6,179** children, followed by **Georgia** State with **5,050**. The **Heat Map** shows a clear concentration of these states in the southeastern region of the U.S. The **Pie Chart** reveals that these 10 states account for **46%** of children in poverty nationwide, while the remaining **54%** is distributed across other states. Nearly half of the total number of children living in poverty is represented by these 10 states.

Design:

The dashboard integrates three charts with Interactive tooltips and filters:

• **A Bubble Chart** compares and display the top 10 states, with bubble sizes corresponding to the number of children in poverty. The chart includes clear labeling and tooltips for interactivity.

• **A Heat Map** illustrates the geographic distribution of these 10 states, showing their concentration in the southeastern U.S. using a gradient color scale where darker shades represent higher child poverty levels.

• **A Pie Chart** provides a proportional view, comparing the number of children in the top 10 states to the rest of the U.S.

Resources: US Census Demographic Data 2015