**US Census Data Investigation**

1. **First insight:**

**Link:** <https://public.tableau.com/app/profile/abdelrhman.gamal/viz/Averageincomeandpovertypecentageineachstate/Dashboard1?publish=yes>

**Summary:**

This dashboard shows us information regarding the average income and the average poverty percentage in each state.

The map shows us the average income and the relative average poverty percentage in each state, as we can see the state with highest average income is New Jersey with average income of 73,014 and the relative average poverty percentage is 10.53% while the state with the lowest average income is Puerto Rico with average income of 17,920 and average poverty percentage of 49.37%.

From the bar chart we notice that the highest poverty percentage is in Puerto Rico (49.37%) and the least percentage is in Connecticut (9.4 %), but also to be clear this percentage is relative to the total population of the state.

Here I choose to go with a bar chart as I am trying to relate categorical data (state) to the percentage of poverty in each state.

**Design:**

Here the choice of a map is a good fit as it gives us general look at the insight under investigation.

Here I choose to go with a bar chart as I am trying to relate categorical data (state) to the percentage of poverty in each state.

The choice of color should be appropriate to all who review this dashboard with regard to avoiding distracting colors and the use of red and green colors should be limited to avoid any cases of color blindness.

Also, I used a filter based on the state to reveal every state under investigation to make everything much clearer.

1. **Second insight:**

**Link:** <https://public.tableau.com/app/profile/abdelrhman.gamal/viz/Totalnumberofunemployedineachcounty/Totalnumberofunemployedineachcounty?publish=yes>

**Summary:**

This chart represents the number of unemployed-portion of the total population in each county (“which I calculated by multiplying the unemployment percentage by the total population”) and its relative state. Every data point on the graph gives us insight regarding the poverty percentage in this county, the total population and the number of unemployed people in each county.

**Design:**

Here I choose to go with the dot chart as I want to represent the distribution of the number of unemployed-portion of the total population in each county within the state. So, I added a state filter to reveal the state under investigation and a county filter to reveal only the county we want to investigate about. Here I rejected the use of colors as there are many data points and representing all of these data points with color will be distracting.

1. **Third insight:**

**Link:** <https://public.tableau.com/app/profile/abdelrhman.gamal/viz/Comparingthedifferenttravelmethodthepopulationuse/Story1?publish=yes>

**Summary:**

This story shows us a comparison between the different travel methods used by the population. As we explore the story, we notice that the most common travel method used by the population is driving their own personal cars followed by carpool then walking. In the first slide, I draw the relationship between those who use the public transport and those who walk and found that there was little portion of the population either walking or using transit. In the second slide, I found that most of the population used their personal cars for transport compared to using transit. In the third slide, I found that there was a good portion of the population were carpooling in comparison with using transit. And finally in the last slide, I found that there was a small portion of the population using other methods of transport compared to the methods mentioned before.

**Design:**

Here I choose to go with a scatter plot as because I want to draw the relationship between two variables. For making all the charts in my story much clearer I had to exclude the state of (District of Columbia) as it acts as an outlier data point so excluding it removes the compactness of the data points and makes investigating the chart more feasible. In this story, the color for every data point represents a state.