1st Visualization:

1- Link

https://public.tableau.com/views/USCensusDemographicData_16713182157250/CorrelationbetweenUnemploymentandPoverty?:language=en-US&:display_count=n&:origin=viz_share_link

2- Summary

- This visualization shows the relationship between the average of unemployment and average of poverty, we can see that there is a moderate positive relationship between them, with a correlation coefficient of nearly 0.64.

3- Design

- Choosing the scatter plot was to show the trend and the correlation between the two variables.
- Choosing the color here wasn't a factor that changes the interpretation of the visualization, but I preferred to use the blue, for the sake of the consistency with the rest of the visuals, where different colors will be used, while keeping all the visuals color-blind friendly.

4- Resources

- https://www.webdatarocks.com/blog/best-charts-to-show-correlation/

2nd Visualization:

1- Link

https://public.tableau.com/views/USCensusDemographicData_16713182157250/IncomePerState?:language=en-US&publish=yes&:display_count=n&:origin=viz_share_link

2- Summary

- This visualization shows the total income in each state along with the number of employed members of this state.
- We can see that for the most of the states, that the states with high number of employees, have high income and vice versa. But we can find an interesting finding here, that although California has the highest number of employers, it doesn't have the highest income, while Texas that has almost five million employees less than California, has the highest income across all states, which leads us to believe that there are other factors that affect the income, these can be the type of professions, type of work (private, public, self-employed) or other factors related to the demographics.

3- Design

- Choosing the bar chart was to clearly show the difference in number of employed people across the status, while using the color component to include the range of income across the states from the lowest represented in the lightest shade to the highest income represented in the darkest shade.
- Choosing the shades of blue here was to keep the visual color-blind friendly.

4- Resources

N/A

3rd Visualization:

1- Link

https://public.tableau.com/views/USCensusDemographicData_16713182157250/Dashboard1?:language=en-US&publish=yes&:display_count=n&:origin=viz_share_link

2- Summary

- From the "Mean Commute Time Per State" visual, we can find the mean commute time across state, oddly, we find that New Jersey has the highest mean commute time despite of its relatively small area comparing with the other states, on the other hand, we find Alaska with the lowest commute time, despite of its large area, which lead us to think of other factors that affect the commute time, such as type of transportation, the quality of road, the distance between homes and workplaces and of course the number of employees in the state.
- From the "Avg. of Transportation Type Per State", we can find that driving alone is the most used type of transportation across all states. Also, we find that transit percentage is very high in District of Colombia compared to the other states, while percentage of walking in Alaska is very high compared to other states.

3- Design

- For the "Mean Commute Time Per State" visual→ The map visual was chosen to be an abstract representation of the geographic regions (states), and using the intensity of the blue color was chosen to represent the increase of the mean of commute time from lighter to darker blue.
- For the "Avg. of Transportation Type Per State" visual → Using the different length of the stacks in the bar, clearly indicate the percentage of a specific type of the transportation, with respect to the other types of transportation in the same state. Also, Different colors from the color-friendly palate were chosen to indicate the different types of transportation.

4- Resources

- https://www.storytellingwithdata.com/blog/when-should-i-use-a-map