

## **Income Disparity and Unemployment throughout the United States of America (USA)**

### 1) Total Percent of Unemployment by State (*first story point*)

- Link:
  - [https://public.tableau.com/views/DataStorytellingFinalProject/FinalProjectStory?:language=en-US&:display\\_count=n&:origin=viz\\_share\\_link](https://public.tableau.com/views/DataStorytellingFinalProject/FinalProjectStory?:language=en-US&:display_count=n&:origin=viz_share_link)
- Summary
  - These two visuals show the total and percentage of unemployed as it pertains to the total population of each state. Hover over the map to see both the total and percentage, whereas the bar chart lists each state in alphabetical order and with its rank (1 being highest unemployment, and 52 being lowest unemployment numbers). The top five states with the highest unemployment numbers are: Texas, Georgia, Puerto Rico, Kentucky, North Carolina. The top three highest unemployment states are in the South-Eastern United States.
- Design
  - I used both a map and a bar chart for my visuals in this dashboard / first story point so that we can compare the highest unemployment state(s) versus the lowest unemployment state(s). We can also use the bar chart to see the rank of each state compared to the rest of the country.
- Resources
  - No outside resources were used for this story point.

### 2) Average Median Household Income by State (*second story point*)

- Link:
  - [https://public.tableau.com/views/DataStorytellingFinalProject/FinalProjectStory?:language=en-US&:display\\_count=n&:origin=viz\\_share\\_link](https://public.tableau.com/views/DataStorytellingFinalProject/FinalProjectStory?:language=en-US&:display_count=n&:origin=viz_share_link)
- Summary
  - These two visuals show the average median household income by state. Hover over the map to see the average household income amount, whereas the bar chart lists each state in alphabetical order and average median household income with its rank (1 being highest average income, and 52 being lowest average income). The top five states with the highest average household income are: New Jersey, Connecticut, District of Columbia, Maryland, Massachusetts. The top five highest household income states are in the North-Western, or New England, area.
- Design
  - I used both a map and a bar chart, again, for my visuals in this dashboard / second story point so that we can compare the highest average income state(s) versus the lowest average income state(s). We can also use the bar chart to see the rank of each state compared to the rest of the country.
- Resources
  - No outside resources were used for this story point.

3) Comparing percent of unemployment to average median household income by state (*third story point*)

- Link:
  - [https://public.tableau.com/views/DataStorytellingFinalProject/FinalProjectStory?:language=en-US&:display\\_count=n&:origin=viz\\_share\\_link](https://public.tableau.com/views/DataStorytellingFinalProject/FinalProjectStory?:language=en-US&:display_count=n&:origin=viz_share_link)
- Summary
  - I have included a trend line in this scatterplot to show whether there is a strong, significant relationship between the average median household income and the percent of unemployed people within each state. As we can see, most points are within a reasonable distance from the trend line, indicating there is a significant relationship between the two: the higher the average income becomes, the lower the unemployment rate is. However, as with all data, we can see there are some outliers here. The biggest outliers are Texas and Georgia. They both have an average income over \$40,000, yet they are ranked in the top five highest unemployment state graphic in the second story point. In fact, Texas is number one, and Georgia is number two!
- Design
  - I decided to use a scatter plot with a trend line to compare the average household income to the rate of unemployment to show if there is a relationship (or correlation) between the two variables. We see a negative trend line with few outliers, a p-value of  $<0.0001$ , and a standard error of 0.0118819, indicating there is a strong, significant relationship between the two variables. I also decided to make the percent of unemployment by color and the average household income by size for each circle.
- Resources
  - No outside resources were used for this story point.