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PROGRAM: UDACITY BUSINESS ANALYTICS NANODEGREE (BAND)

PROJECT: BUILDING A DATA VISUALIZATION PROJECT (TELLING STORIES WITH DATA)

DATA USED: 2015 US Census Demographic Data

Insight 1
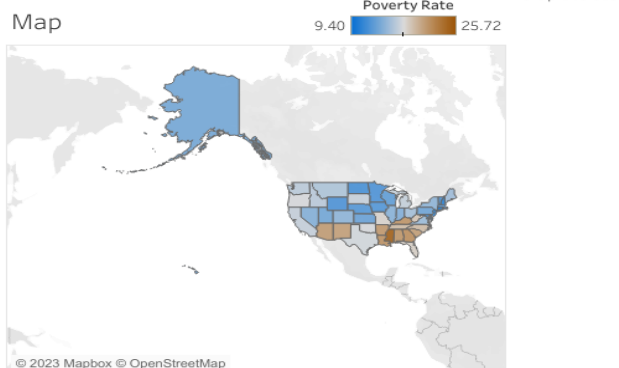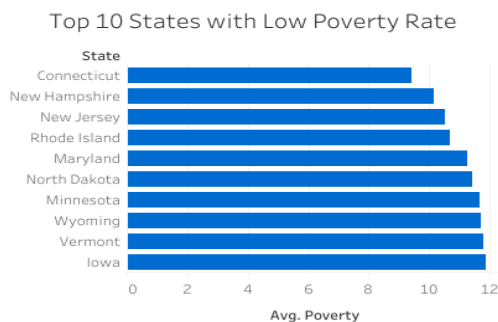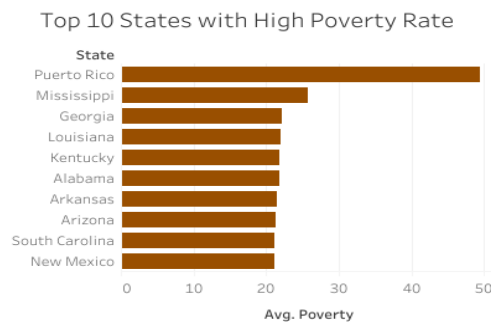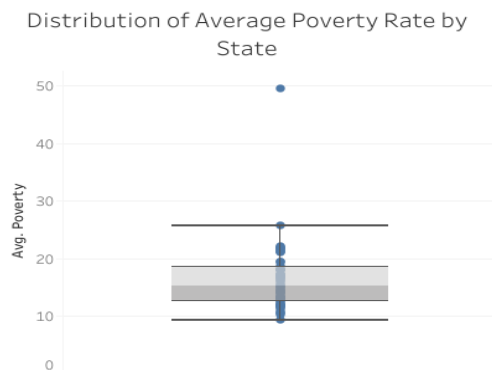
How is poverty distributed throughout the United States?

Link

https://public.tableau.com/app/profile/rebecca.agyei2132/viz/2015USPovertyRatebyState/2015USPovertyRatebyState

Summary

From the dashboard, the box-and-whisker plot displays the spread of data and identifies an outlier, which is Puerto Rico with a poverty rate of 49.37. The median however is 15.22.

The dashboard also shows the top ten states with high poverty rates and the top ten with low poverty rates. Puerto Rico tops the chart as the state with the highest poverty rate (49.37) followed by Mississippi (25.72) then Georgia (22.2). Also with the states with the lower poverty rates, Connecticut tops the chart with a poverty rate of 9.4 followed by New Hampshire (10.17) then New Jersey (10.53).

For the Map chart, Puerto Rico was filtered out because it's an outlier and was preventing the map from displaying the colors (blue for lower poverty rate and dark brown for higher poverty rate) as expected. Looking at the map chart, most of the states with high poverty rates are located in the southern part of the US.

Design

The visualization is interactive as it includes a States filter where one can filter out the states in the Map. Colors that work for colorblindness were also used.
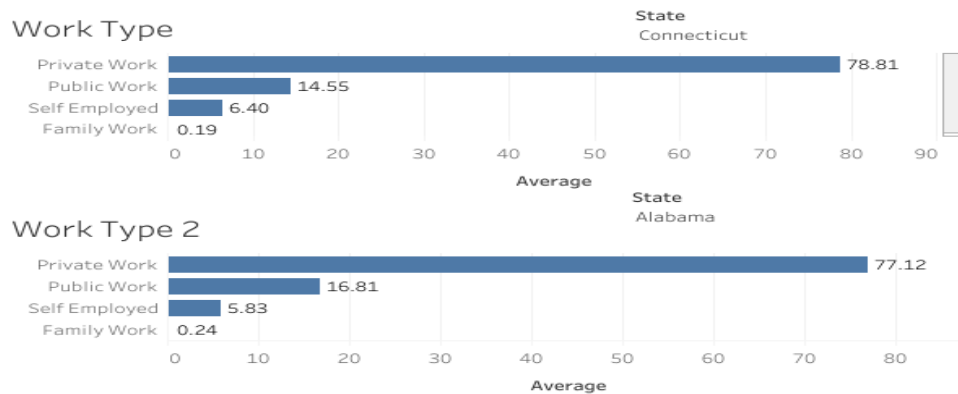
Resources

N/A

Insight 2

What are the most common work types across states?

Link

https://public.tableau.com/app/profile/rebecca.agyei2132/viz/2015USWorkTypeComparisonbyState/Dashboard2

2015 US WorkType Comparison by State

Work Type

State
Connecticut

Work Type	Average
Private Work	78.81
Public Work	14.55
Self Employed	6.40
Family Work	0.19

(x-axis: 0 10 20 30 40 50 60 70 80 90 — Average)

Work Type 2

State
Alabama

Work Type	Average
Private Work	77.12
Public Work	16.81
Self Employed	5.83
Family Work	0.24

(x-axis: 0 10 20 30 40 50 60 70 80 — Average)

Summary

From the dashboard, the bar charts display the Work or Employment types. The most common employment type in the US is Private Work followed by Public Work. This dashboard will help a user compare the employment types of 2 different states.

Design

The visualization is interactive as it includes a States filter where one can filter out and compare the employment type of 2 different states at the same time. A color that works for colorblindness was also used.

Resources

N/A

Insight 3

What is the average income for Puerto Rico and Connecticut?

Link

2015 US Employment by Income

Summary

After noticing that Puerto Rico and Connecticut had the highest and lowest poverty rate respectively, this plot probed further to look at the Average Income of both states.

From the plot, Puerto Rico has more counties than Connecticut but their income is lower. Connecticut starts ranges between $59,392 and $84,233 whiles Puerto Rico ranges between $10,499 and $34,719 (the income of most counties are within $10,000 and $20,000)

This goes ahead to confirm the Poverty rate levels.

Also, the correlation between the Avg. Employment and Avg. Income is also more positive. The higher the number of employed persons, the high the income.

Design

The visualization is interactive as it includes a County filter where one can filter out and compare the counties in both states. A color that works for colorblindness was also used.

Resources

N/A