Data Visualization Tableau (Udacity)

Link to the Story :

https://public.tableau.com/views/MasterschoolDataVisualizationUnemploymentAnalysis/Story1?:language=en-US&publish=yes&:display_count=n&:origin=viz_share_link

The above story includes three dashboards:

1. Unemployment and Employment Rate Comparison of Top N states

   Link : Inside the link of the story

   Summary: This specific dashboard in the story indicates the Unemployment and Employment percent of top N states of United States of America. The dynamic filter sets the top 10 states for both bar charts. It can be seen that Puerto Rico has the highest Unemployment percentage. One of the reasons for such rate could be because of its geographical location away from the US mainland. The unemployment rate refers to the share of the economically active population currently without work but in search of employment. The unemployment rate does not include economically inactive persons such as the long-term unemployed, children, or retirees.It can also be seen that New Hampshire has the highest employment rate.

   Design: Two bar charts has been created for the visualizing the employment and unemployment rates across different states. A dynamic filter has been added to show the top N states and compare the rates. Bar charts are useful charts to show numerical values and categories. The second average was created by calculated field to obtain the values. The charts were given orange-red colour to recognize the extent and difference.

   Resources : N/A

2. Ethnicity Analysis by State related to Unemployment and Poverty

   Link : Inside the link of the story

   Summary : In this second dashboard, a map analysis has been used and the comparison with the ethnicity in each state has been shown. The ethnicities that were chosen are : Asian, Black, Hispanic, Pacific,Native and White. The distribution of unemployment in the states related to ethnicity has been shown.

   The map highlights that the states with the highest unemployment rates are located in the southeast, southwest of the country. Taking into account the poverty and ethnicity Puerto Rico and Mississippi has a major Hispanic population and high percentage of poverty as well as unemployment. Mississippi as the second in unemployment rate has a rate almost half of that of Puerto Rico and the same goes in the poverty rate. Connecticut with the least rate at 9.4% .

   The Scatter plot shows the relationship between the average Poverty and Unemployment rates. The correlation coefficient of 0.64 indicate a positive and

moderate relationship between the two variables. This suggests that as Unemployment rate increases, poverty rates increase and vice-versa.

Design : To show the distribution of unemployment in each state the pie chart was created and the cluster of states with similar properties could be seen. Then, the map was created and designed. Using the ethnicity in the tooltip for the pie chart, the ethnic breakdown has been presented. To compare the ethnicity of each state to the entire amount of ethnicity in the US it was needed to have a square chart was created in the new sheet. This square chart is interactive and it changes from state to state with the scatter plot in the right (relationship between average Poverty and Unemployment rates) and the map. Finally, the poverty value was added to the sheet to have a better idea of unemployment, ethnicity, and poverty.

Resources: N/A

3. Correlation Analysis between Unemployment- Income Per Capita and Unemployment-Work at home

Link : Inside the link of the story

Summary: In this dashboard, we focus on the probable reasons of unemployment.The first dashboard, one is about the correlation between average income per capita and unemployment rate , they do not show a strong correlation to analyze. The second one is about the correlation between averages of working at home and unemployment. It is quite visible that the correlation shows a negative effect when working at home decreases the rate of unemployment increases.

Design: To show the correlation between two values and averages the scatter plot is the best tool to analyze. Applying to the scatter plots, we could decide about the relation between the factors and their effect on the specific phenomenon.

Resources: N/A