

Data Visualization Project

US Census Demographic Data

Dashboard 1: Best transportation in United States

Link:

https://public.tableau.com/app/profile/sarika.salunkhe/viz/USCENSUS_16664614515800/Dashboard1

Summary: The dashboard aims to highlight the best transportation in US. The best transportation is road transport, because percentage of population driving a private vehicle is very high as compared to the other means of transport. This clearly points towards Alabama state because more than 80% population chose to drive on the road that clearly mean that road transportation is reliable, fast, accessible, affordable and safe. In case of public transport District of Columbia stands out of the crowd. Further, when I reviewed the mean commute time, fairly it also depends on the area of the State, Alaska has the less record commute time. About the aggregation I want to mention that I found many counties in Puerto Rico state causing it as outlier in percent of population that is Hispanic/Latino and also outlier in percent under poverty level.

Design: I chose to use line chart for mean commute time representation as it's clean and clear without much dependencies. Further I chose dual axis bar chart with line charts to represent drive, carpool and other transit percentage in Top 10 States. Lastly to represent best transit state i.e., Best public transportation, I adopted tree map for ease of understanding. I used viz. in viz to get the all-relevant data in a glance.

Resources:1)

<https://www.usnews.com/news/best-states/rankings/infrastructure/transportation>

Dashboard 2: Analysis of Income and Poverty in United States

Link: https://public.tableau.com/app/profile/sarika.salunkhe/viz/USCENSUS_16664614515800/Dashboard2

Summary: This dashboard describes the correlation between income and poverty across the United States. There is a reverse relation observed as obvious. Higher the income lower is the poverty and vice versa. To confirm it more widely, I categorised counties from state and checked construction work that involves maintenance and natural resources employment options, which may affect the poverty. I found the relation. The counties aggregated in states with high construction jobs had low poverty because of more job opportunities for the uneducated and semiskilled population. Then in order to dig deeper, I have also crosschecked the relation between coastal counties and their average income. As coastal fisheries, tourism and recreation can increase the income sources and consequently the average income. As a total state, except some states in North East zone, New Jersey, Massachusetts, Rhode Island, Alaska and California, showing a high income being coastal states.

Design: To represent this visualization I used bar chart with dual axis line chart because I want to show the correlation between the income and poverty. I have used circle and bar chart to represent the relation of construction and poverty. In my third visualization I chose a map chart to visualize the income in coastal area. I have also used dynamic filter to select number of states /counties. In this visualization I applied the hierarchy to categorise county from state. I also want to mention that, the colour chosen in the viz. are appropriate for colour blind people.

Resources:1) <https://www.youtube.com/watch?v=ERw3Vm2dLSQ>

Dashboard 3: Analysis of Top poor states in United states

Link: https://public.tableau.com/app/profile/sarika.salunkhe/viz/USCENSUS_16664614515800/Dashboard3

Summary: The dashboard 3 highlights the causes behind the poverty within Top poor states. I made a set of Top poor states and tried to analyse the correlation of poverty. More unemployment rate is the one major correlation found. Further, the percentage of employed population over 16 years is less in 'Top poor states' as compared to the other states. I also represented the Avg. percentage of the different types of professions in the 'Top poor states' to view some correlation and found the percentage of professional jobs is less in Top poor states. In order to study the impact of race and ethnicity on the poverty I verified the percentage of White, Black, Hispanic and Asian in the population. Top poor states have much more black population. There is lack of good infrastructure and therefore more commute time. As transit i.e., percentage of public transport used is very less than less poor states. Without public transport, it may be next to impossible to get a good job. Infrastructure connects people to the services and resources they need to better their financial and life situation, and without it, things don't get better.

Design: I chose to use shape chart to form the set of Top Poor states. Then I have created a calculated field of the percentage of employed (16+) population from total. I used the horizontal bar chart to show the work distribution in different professions and chose the pie chart to show the race and ethnicity percentage in the 'Top poor states'. Then I made a text table of all the relevant parameters relating to the Top poor state's poverty.

Resources:

1. <https://www.humanrightscareers.com/issues/root-causes-of-poverty>
2. https://commons.wikimedia.org/wiki/File:Map_of_USA_with_state_names.svg