Jack Sechler Project 4: Data Visualizations

Insight 1: Breakdown of Median Self-Employment Rate across top 10 States and Counties

https://public.tableau.com/views/StatesCountieswithHighestMedianSelfEmployedRates/Dashboard4?:language=en-US&publish=yes&:display_count=n&:origin=viz_share_link

From this dashboard we can see the top 10 states where the median self-employment rate is the highest. I chose to use a blue-orange gradient on the maps so to be easy for all readers to view. The darker blue represents the lowest of the 10 states in terms of median self-employment rate while colors that move towards orange represent those with higher median self-employment rates. The drop-down menu allows the user to pick a state and see which counties have the highest percentage of self-employed residents. From the map, it is clear that South Dakota has the highest median self-employed rate coming in at 14.9%. Next is North Dakota (14.2%) and Nebraska (13.2%).To do this, I found the states with the highest median income and grouped them. I used this group to filter down to the specific states I wanted to include. I chose to include only relevant values to prevent any issues coming up with the non-grouped states. Given that we're working with State/County/Geographical data, I felt that the best way to represent this was through a few maps and a bar chart to show the distribution across the respective counties. Although the map representation of the specific counties was not necessary here, I chose to include it because I really liked how it geographically broke down each state by its bits and pieces, and I thought the reader would too.

Insight 2: Which US region has the highest median income?

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

From this dashboard, we can see that the East Coast just barely beat the West Coast on this measurement. It's understandable, but something tells me that it has to do with the populations that exist in this concentrated region. I chose to create & exclude the "Other" region that included Alaska, Puerto Rico, and Hawaii as I wasn't sure how they would fit in with the map of the contiguous United States. To do this, I created a few distinct groups to illustrated different regions in the US. I color coded them so one can easily see the differences on the map and in the bar charts. By selecting a given region, you can see the breakdown of Median incomes for those included states, and it will adjust the rest of the dashboard accordingly. Really proud of this one and I think it showcases my Tableau capabilities well.

One takeaway that I thought was particularly interesting here was that the median income of the central region, despite its massive size and volume, was smaller than the East and West Coast. This makes a lot of sense given the financial concentration on the coasts, but it's just an interesting visualization to take in. The cost of living on the coasts is higher than that of the

central or southern regions and this plays into the higher median income of those coastal regions.

Insight 3: What is the breakdown of transportation preferences for each state? Did this play into the average commute time for the given state?

https://public.tableau.com/views/ShortestCommuteTimesMethodsofTransportation/Dashboard3?:language=en-US&:display_count=n&:origin=viz_share_link

For this one, I wanted to see what the breakdown of preferred transportation methods looked like for each state. I was also curious if this played into the average commute time. We can easily see that the shortest average commute time was in Alaska – where the average commute time was 11 minutes. This is particularly interesting because driving is less preferred in Alaska and there is a larger number of residents walking and using other forms of transit here. From this, it seems as though there are less people driving and due to that, shorter commute times across the board. To truly figure the differences in commute times for each state, I think it would be crucial to add the distance because that plays into the total commute time.

Overall, for most states, the preferred method of transportation is Driving, followed by Carpooling, then Transit, and some residents even working from home. You can click on any state, and you'll get the breakdown information, the average commute time, and also the region it belongs to.

In the map, we can very easily see that Alaska has the shortest commute time, that it is in the "Other" region, as well as the breakdown for Transportation method preference. In Alaska, the distribution of preferences is much more distributed, with Driving taking the top spot, followed by Walking, Carpooling, other transportation methods, and lastly working from home.

This can also be filtered by state to drill down and get the answers quickly.