Project: Build data dashboards

Visualization 1

https://public.tableau.com/profile/monika6382#!/vizhome/Visualization1_15873124204640/income_state?publish=yes

Q: How does the income look across United States?

On my first visualization I presented total income per each state. I applied the data to the map of the country, through the use of colour marks, which allows quick identification of how the incomes are distributed throughout the country (the higher is the income, the darker is the shade of the given field of state). I also added filter that allows us to quickly find the state we are interested on the map.

Moreover I created new calculated field for income per citizen for each state, to give for the reader information what is the average income per citizen in each state (added as tooltip mark). By adding filter for "Income per citizen" by moving the slider we can select states where income per citizen is low/high.

Insight:

From this visualization we can easily see that state with the highest income is Texas with 11 826 682 $. Texas is also state with the highest income per citizen, and right after other stets with high income per citizen are Nebraska and Kansas.

Visualization 2

https://public.tableau.com/profile/monika6382#!/vizhome/Visualization2_15873160380590/income_state1?publish=yes

Q: How does the income look across individual states and counties?

On my second visualization I also presented total income per each state. I showed the data using bar chart, which allows accurate identification income of each state from the highest to the smallest in order. Moreover, the visualizations can be extended to include data not only on the state but also on the county. So we can check income of each county in the state. Including counties on the first visualization would make it unreadable. I also added two filters, the first which allows searching for data for individual states, the second which allows searching for data for individual counties.

Insight:

From this visualization we can see that Texas has the highest income (11 826 682 $) and that Fort Bend is the county with the highest income in Texas. Also state with the lowest income is District of Colombia with the income 70 848 $.

Visualization 3

https://public.tableau.com/profile/monika6382#!/vizhome/Visualization3_15873267742240/Income vs_Employed?publish=yes

Q: Whether the number of people employed in a given state has an impact on income?

In my third visualization I presented data about the number of employed people and income in every state. I used bar chart and colour marks to make the data clear to see. By presenting these two values side by side, you can see if the number of employed people is connected with income (if there is more employed people if the income is also higher). I also added filer which allows to check the data for individual states.

Insight:

From this visualization we can see that in many cases (states) income and number of employed people are correlated with each other (the higher the number of employees, the higher the income). On the other hand you may notice that this is not a rule, there are some outliers, in some states e.g. **California, Florida**, **New York**- income is relatively low compared to the number of employees and in some states e.g. **Nebraska, North Dakota, Iowa, Kansas** – is the opposite, income is relatively high compared to low number of employed people.

Dashboard/ Visualization 4

https://public.tableau.com/profile/monika6382#!/vizhome/Dashboard1_15873275247740/dashboard_income?publish=yes

Forth visualization is a dashbord which contains visualizations 1, 2 and 3. We can have a full turnover of how incomes across states are shaped and how the relationship between the number of employed persons and the incomes is shaped across states. In the right corner of dashboard I added "highlight" function for states, we can type name of the state which we want to see the data, so we can see separate information about a given state.

Visualization 5

Q: In what states mean commute time is the highest?

https://public.tableau.com/profile/monika6382#!/vizhome/Visualization5_15873300466310/state_county_meancommute?publish=yes

In the fifth visualization I presented the mean commute time in every state. I used side-by-side circles chart for this, as they are easy to read and clearly communicate the data I wanted to provide. I also provided drop-down list for states, to easily to easily get data on the state we are looking for.

Insight:

New Yersey is the state with the highest mean commute time 30,06 min, also Maryland and District of Columbia mean time to commute is almost 30 min.