Project 4 – Data Dashboards

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Insight 1:

For this insight a tree map is used to show the number of cancelled airlines by month. From the tree map the American eagle airlines had the highest amount of cancellation in the month of February which accounts for 19.19% of the total flights cancelled that month it is followed closely by Atlantic Southeast airlines which accounts for 16.73% of the total cancelled flights in February. It can also be seen that Virgin America and Alaska airlines had the least amount of cancelled flights both accounting for 0.28% of total flights cancelled each in February. It can be concluded that Virgin America and Alaska airlines have better management as compared to American eagle airlines and Atlantic south east airlines.
I have used tree map because it is easier to represent hierarchical data in a tree-like structure. Tree map can drill down within the data to, theoretically, an unlimited number of levels. This makes the at-a-glance distinguishing between categories and data values easy

Link:

https://public.tableau.com/profile/aryan.batra#!/vizhome/Airlinecacellationbymonth/airlinecancellationbymonth

Insight 2:

This dashboard shows us the most affected states and the reasons due to which they were cancelled by different months. Looking at the dashboard we can see that the month of February had the highest number of cancellations in the state of Texas it accounts for total of 14.37% of the cancelled fights in the month of February, It can also be seen that most flights in Texas were cancelled because of weather(11.34%) and the least amount of flights in Texas were cancelled because of national air system(0.38%) in the month of February. It can also be seen that the least amount of flights were cancelled in the state of Maine in the month of February. We can also infer that in the month of February most flights in multiple states were cancelled because of the weather conditions. It can also be seen from the dashboard that in the month of October there were no cancellations of flights in any State. Therefore, it can be concluded that the month of October is the best choice to travel in flights.

I have used a bar chart because creating a bar chart allowed me to compare between a categorical variable and a numerical variable while choosing a colour-blind friendly palette so that every one of my audience can see and interpret my work and I have used the map because it easy to display the states and it looks visually appealing.
Link:
https://public.tableau.com/profile/aryan.batra#!/vizhome/Statewisecancellationreasonbymonth/statewisecancellationreasonbymonth

Insight 3:

For this insight a scatter plot is used to show the percentage of security delay and late aircraft delay for all airlines. From the graph American airlines had the most amount of delay due to security. They had the most delays due to security which is around 24.03%, this could be due to the lack of proper management regarding security. It can also be seen that Southwest airlines has the most amount delay due to late aircraft around 25.69%.This could indicate that most aircrafts of Southwest airlines could be old and require more maintenance. It can also be seen that frontier airlines had the least number of delays due to weather and security. They had 0% delay due to security as compared to American airlines which shows that frontier airlines had far better management regarding security and it can also be seen that Virgin America and Hawaiian airlines had the least amount of late aircraft delay which could show that their aircrafts and well maintained.
I have used a scatter plot because it is a visualization used to compare two measures, More aspects of the data set can be expressed through the use of shape, colour, and size within the scatter plot. Also reference lines can be added to express correlation.

Link:
https://public.tableau.com/profile/aryan.batra#!/vizhome/secritylateaircraftdelayperAirline/secritylateaircraftdelayperAirline?publish=yes