Build Data Dashboards: Flight Delays and Cancellations

Dashboard URL:

https://public.tableau.com/shared/FXJ4JRR2P?:display_count=y&:origin=viz_share_link

Insight # 1: Cancelled Flights per State

URL:

https://public.tableau.com/views/Delays_15964854279750/CancelledFlightsperState?:language=en&:display_count=y&publish=yes&:origin=viz_share_link

Summary:

As shown by the color coding, states with higher number of cancelled flights are represented by darker shades of blue compared to the ones with less number of flights delayed. Moreover, a tooltip is also used to show the %total of cancelled flights per state. Therefore, from the first sheet it can be concluded that Texas (TX) had the highest number of cancelled flights (661 cancelled flights) with a % total of cancelled flights of 14.91%. However, Delaware (DE) had 0 number of cancellations in the same year of 2015.

Design:

For this insight, a map has been used as it is an effective way to visualize geographic data. The total sum of cancelled flights per state is indicated by color coding such that the color changes to darker shades of blue as the number of cancelled flights increases per state.

Resources:

N/A

Insight # 2: Cancelled Flights per Airport

URL:

https://public.tableau.com/views/Delays_15964854279750/TotalofCancelledFlightsperAirport?:language=en&:display_count=y&publish=yes&:origin=viz_share_link

Summary:

A bar chart is used to show the total number of cancelled flights per airport. The data is also filtered by state such that the number of cancelled flights per state and airport can be easily traced. For example, by filtering the data to represent the state of Texas, Dallas/Fort Worth International Airport had the highest number of cancelled flights (311 flights).

Design:

A bar chart has been used as it is the fastest and easiest way to interpret and compare categorical data. One colour has been used (blue) as using other colours is not necessary and might distract the analyzer.

Resources:

N/A

Dashboard: (Reasons of Flight Cancellation & Average Number of Delayed Departure Flights per Month)

URL:

https://public.tableau.com/shared/FXJ4JRR2P?:display_count=y&:origin=viz_share_link

Summary:

The dashboard consists of two worksheets: one representing the reasons of flight cancellation and the other showing the average number of delayed departure flights per month, where both are filtered by state.

A bar chart is used to show the reasons of flight cancellation per state. For example, when filtering the data to Texas, most of the flights were cancelled due to weather conditions. While 415 flights were cancelled due to weather conditions, only 52 flights were cancelled due to national air system.

Moreover, A line chart is used to show the average number of delayed departure flights per month. The data is also filtered by state. For example, in Texas, the highest average number of delayed departure flights was in the month of May (Avg: 17.4 flights). On the other hand, the lowest number of delayed flights was in the month of September (Avg: 3.84 flights).

Design:

A bar chart has been used to represent the reasons of flight cancellation per state as it is the fastest and easiest way to interpret and compare categorical data. One colour has been used (blue) as using other colours is not necessary and might distract the analyzer.

On the other hand, a line chart has been used to represent the average number of delayed flights per month as it is the most effective way to represent change over time.

Resources:

N/A