PROJECT REPORT ON FLIGHT DELAY AND CANCELLATION
BY
OWOBU FAITH EBILOYANA

Insight One
2015 USA Flight Delay Dashboard

https://public.tableau.com/app/profile/faith.owobu/viz/FlightDelaysandCancellations1_16539176411580/2015USAFLIGHTDELAY?publish=yes

This dashboard combined insight 2, insight 3, 7, and 8 to enable the viewer to get a quick glance at flight cancellations in the United State of America in 2015.

I went with a dashboard since it tells a bigger story from a collection of data. To acquire an overall picture of the analysis, the user does not need to scroll through each visualization.

INSIGHT TWO
Cancellation Map

https://public.tableau.com/app/profile/faith.owobu/viz/FlightDelaysandCancellations1_16539176411580/CANCELLATIONMAPBYSTATE?publish=yes

The map shows the State where most cancellations occurred, Texas has the highest number of cancellations being 668, while California has the second-highest which is 408, on the other hand, Montana and West Virginia has the lowest cancellation which is just 3 respectively.

Drilling down to the day of the week Sunday has the highest cancellation number (Illinois = 162 and Texas = 140) Friday has the lowest cancellation numbers (Texas = 66, Illinois = 54).

I used a map because I had to plot geographical data (state). The color (brown) was chosen so as not to distract the intended audience from the message. The darker the brown color the higher the flight cancellation.

INSIGHT THREE
Cancellation Bar Chart

https://public.tableau.com/app/profile/faith.owobu/viz/FlightDelaysandCancellations1_16539176411580/CancellationBarbyState?publish=yes

The Bar Chart shows the sum of flight cancellations in the State. Texas has the highest total sum of cancellations which is 668, followed by Illinois which has 563. Because the observation was large I decided to bring out the top 10 for easy identification

I decided to use a bar chart to easily compare the number of categorical values. A single blue color was chosen because it does not interfere with the information on the chart.

Insight FOUR

Reason for Cancellation Pie Chart

https://public.tableau.com/app/profile/faith.owobu/viz/FlightDelaysandCancellations1_16539176411580/CancellationReason?publish=yes

The pie chart shows the reason for flight cancellations in the State. Weather is the major reason for flight cancellation (2,397), followed by airline carriers (1260) and National Air System ranked the least (776) for the airline cancellation.

The pie chart was chosen because it helps organize and show data as a percentage of a whole. The color blind was chosen for both pie charts so those who are color blind and those who are color sensitive can easily get the information.

Insight FIVE

Cancellation by Airline

https://public.tableau.com/app/profile/faith.owobu/viz/FlightDelaysandCancellations1_16539176411580/CancelledAirlineflight?publish=yes

The pie chart shows flight cancellations by Airlines. From the pie, we can see that Southwest Airlines co. has the highest number of canceled flights (818), Atlantic Southeast Airlines came second as theirs are 800 while the Airline that has the lowest cancellations is Spirit Airlines as they have 102 canceled flights.

The pie chart was chosen because it helps the user compare the relationship between different dimensions. The color blind was chosen for those with color blindness.

Insight SIX

Departure delay by Airport

https://public.tableau.com/app/profile/faith.owobu/viz/FlightDelaysandCancellations1_16539176411580/DepartureDelaybyAirport?publish=yes

The bar chart shows departure delays by Airport. The chart shows that Chicago O'Hare International Airport has 161,133 which is the highest number of departure delays in the State followed by Hartsfield-Jackson Atlanta International Airport with 147,109 departure delays. The least is East Texas Regional Airport which has just 3 departure delays.

The bar chart was used because it enables us to compare numerical values. The color that is used in this chart is blue because brighter colors would have distracted the readers from the message.

Insight SEVEN
Average Departure and Arrival Delay

https://public.tableau.com/app/profile/faith.owobu/viz/FlightDelaysandCancellations1_16539176411580/AvgDepartureArrivalDelay?publish=yes

This bar chart shows the average departure and arrival delay. From the bar chart, we can see that on the average departure delays are higher when compares to arrival delays. Departure delays have a total of 17.37 delays on average while arrival has the highest being 15.73 on average.

The bar chart was used because it enables us to compare numerical values. The color that is used in this chart is blue and orange, this is because this color is friendly to the colorblind.

Insight EIGHT
Average Arrival Delay

https://public.tableau.com/app/profile/faith.owobu/viz/FlightDelaysandCancellations1_16539176411580/AverageArrivalDelay?publish=yes

The treemap revealed the average top 10 States with arrival delays by Destination airport. The map shows Ithaca Airport in New York City has the highest average arrival delays, followed by Montrose in Colorado the lowest being Longview in Texas.

The treemap was used since it displays data in nested rectangles and also provides insight in a visually attractive format. The blue color was used because of those with color blindness in mind.

Resources

Yutube	Data Viz Project Walkthrough DAF Final By Udacity
Youtube	Tableau Dashboards	7 Practical Tips and Tricks	Tiled, Floating, Containers, Formatting, Colors By Tutorials (Point) India ltd
Yutube	How to in Tableau in 5 mins: Add Separate Colour Legends for Measure Values By Infomation Lab