

# Flight Data Analysis - Sri Chaitanya

## Summary

My visualization about the flight data set mainly communicates about the cancelled flights among all the airlines with a cancellation reason such as Security, NAS, Weather, Carrier delays. It has also the arrival/Departure delay times which explains for different airlines.

## Design

For the data to be cleaned - there was lot of data wrangling has been done- here are those

1. Data field was created
2. Multiple data files have been blended to get the names of airlines and airports
3. Data extracts are created
4. Changed the fields to numbers from integer data types in the tableau.

For the initial structure of the visualization here is the link -

[https://public.tableau.com/profile/sri.chaitanya.sanaboina#!/vizhome/Story\\_v1\\_6/Story\\_V1](https://public.tableau.com/profile/sri.chaitanya.sanaboina#!/vizhome/Story_v1_6/Story_V1)

I have analyzed with the multiple charts but finally selected the heat map for the cancellation of the flights because that is best way to compare the cancelled flights with the other airlines by showing the matrix size.

I decided to show the cancellation reason on the bar chart with a interactive filter with each other which shows whenever you click the airline button it will drill down to the individual airline and shows the numbers in the barchart.

For the arrival/departure delay, I have selected bubble chart due to the fact the point shows the arrival delay and departure delay on the same chart. It also included the interactive filter with the all the other charts. The legends are placed at the right bottom of the story so that a user can refer whenever an airline is selected.

After getting the feedback from my friend I've added the percentages of flights cancelled in the heat map.

Here is the link of the final dashboard.

[https://public.tableau.com/profile/sri.chaitanya.sanaboina#!/vizhome/finaltest\\_14/FinalStory](https://public.tableau.com/profile/sri.chaitanya.sanaboina#!/vizhome/finaltest_14/FinalStory)

## Feedback

### 1. What do you notice in the visualization?

This visualization helps the target audience to get details about the cancelled flights and their delay timings along with the reason for cancellation and their average delay time. The heat map representing the cancelled flights based on the airlines and each matrix corresponds to a specific airline. While the stacked bar chart gives a nice comparison across different airlines with the reasons for the cancellations. And, the bubble chart gives the average arrival and departure delay time for each of the airlines.

### 2. What questions do you have about the data?

None

### 3. What relationships do you notice?

The relationship between the cancelled flights and the reason for the cancellation along with their average flight delay time.

### 4. What do you think is the main takeaway from this visualization?

The main takeaway would be is giving all the information to the user about the airline performance in the year 2008.

5. Is there something you don't understand in the graphic?

The percentage would be better in the heat maps to understand the cancelled flights percentage. For the average arrival/delay time corresponding to the airlines, it's not clear why bubble chart is preferred over other charts. I mean are there any advantages of using bubble chart over other graphical representations?

## Resources

N/A