# Write up: Flight delays Visualization

Adittya

Initial Version:

https://public.tableau.com/profile/adittya#!/vizhome/Flights_1_1/Story1?publish=yes

Updated Version:

https://public.tableau.com/profile/adittya#!/vizhome/Flights_2_0/Story1?publish=yes

## Summary

The dataset contains information on United State flight delays and performance from 2012 until July, 2018. There are 5 main reasons of delay: air carrier, National Aviation System (NAS), weather, late arriving aircraft and security. This project shows how average of delay changes with time, carrier and size of the airport. The airports are grouped according to airport size and number of delays to see how size of airport influence the delays of flights, and to check if the any factors influence the number of delays.

## Design

The Project uses line plots, bar plots, maps and scatter plots. The bar plot is used to display the distribution of flight delay causes. The line plots are used to display how the variables change over time and are interactive. I used a map to show the locations of the airports and delays for the different locations. Finally, I used a scatter plot to differentiate the small airports apart from the big airport and divide them into a group called 'Airport Sizes'.

Visual Encoding: The charts use color and size to highlight the message and separate different groups of variables. I used eye-friendly colors instead of the automatic colors selected by tableau after receiving the feedback.

Layout:  In each story points, there are bar plots, map diagrams and line plots. Readers can use the legends and charts to interact with the visualization. A legend which was not functioning as intended was corrected after receiving feedback.

## Feedback

Color: I initially went with the automatic color selection, which was not pleasing to the eyes. I have updated the sheets to rectify this issue.

Year of Data filter for the last part of the story did not affect the scatter plots and only worked on the line plots. I have now rectified this issue in the updated version.

## Resources

Data downloaded from: https://www.transtats.bts.gov/OT_Delay/OT_DelayCause1.asp