Flight Delay - Analysis

Summary: The given flight data has been analyzed to identify the pattern in arrival delay for different carriers in the year 2008. The data has been categorized based on arrival delay window and number of flights delayed in each window. Further analysis is done to identify what type of delay (Carrier Delay, Late Aircraft Delay, NAS Delay, Security Delay, Weather Delay) causes the most arrival delays, which Airline gets delayed the most and in what category. The idea is to identify appropriate measure an Airline can take to avoid Carrier and Late Aircraft Delays (if more data can be gathered specific to Carrier and Late Aircraft Delay).

- **Design:** The data is first categorized by arrival delay into delay by number of hours. Bar chart and Tabular format with color coding is used to show types of delays and delay by hour. The design helps in identifying the outliers or causes of the delay. Creating the hourly window so that data can be grouped together and then identify top 60% - 70% delay, which gets addressed can control the Arrival Delays. These kind of delays are under the control of Unique Airlines who can take actions to reduce these delays.

- **Feedback:**

    - My first version of analysis had Flight Delay analysis showing categorization of arrival delay and the type of delay majorly contributing in that window of arrival delay.
    - My first feedback was to also highlight the Unique Carriers that are main reason for Carrier and Late aircraft delay as they are under the control of Unique Carriers
    - My second feedback was ob design to use of parameters so that the top 'N' can be selected dynamically. It will be helpful when there is lot of data.

- **Resources:** Mainly the Tableau training gave me a good idea about how to create different types of visualizations.

Initial Version: Flight Delay Analysis (Only)
https://public.tableau.com/profile/priya.khanchandani#!/vizhome/FlightDataAnalysis_1/FlightDelayAnalysis

Final Version: Added two more Dashboard in order to address the top 10 (this can be changed dynamically using parameters) Carriers and city of origin:

https://public.tableau.com/profile/priya.khanchandani#!/vizhome/FlightDataAnalysis_1/FlightDelayAnalysis

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