

Create a Tableau Story

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Links to Story

First Version:

https://public.tableau.com/profile/darren.chiu#!/vizhome/Flights_Delay_Analysis_v1/Story_1

Final Version:

https://public.tableau.com/profile/darren.chiu#!/vizhome/Flights_Delay_Analysis_v2/FlightsDelayAnalysis

Summary

The story aimed at analyzing the relationship between travel period and delay time, i.e. does a specific period in the year having more flight delays. After some brief investigations, we found that there are significant more delay for flights in December and we thus further analyse the data and found out the delay is mainly due to weather instead of a higher travel frequency in December.

We also identified that coast city airports are more impacted by the winter weather compare to inland city airports.

We also come up with some holiday season travel tips for readers on dates and airlines to avoid.

Design

The story was designed to follow the investigation thought process to facilitate understanding of readers. Each visualization was following the logic of the previous one.

To further investigate the reason of the delay, the delay was plotted on a map, encoded by color and size. Comparing to using chart of airport code again delay time, this allow us to pinpoint the relationship between geographical locations and the delay time. As a result, we could conclude that coast city airports are more impacted by weather.

Several filters were also shown on the visualization, including map visualization, airline comparison and month comparison visualization. This allow readers to do their own investigation with the visualization. We only investigate one of the three delay peaks throughout the years and hopefully the readers could make use of the interactive features of the filter to do their own analysis on other periods.

After feedback from the readers, a few changes were also made including adding a timing (hours) analysis page, add filtering for average Dep Delay time on the map and better title and labelling. These are further discussed in the next section.

Feedback

Several feedbacks were received from my friends:

1. Add timing selection page
Feedback mentioned that it would be nice if I can add a page for analyzing the delay time distribution across the time within a day. It would be a nice addition to the airline and dayOf Month analysis
2. Add filtering for average Dep Delay on the map
On the map, there are no way to filter the Dep Delay time so the conclusion that coast city airports are more prone to weather impact are not well-argued.
3. Better title and labeling
It would be nice to add more labelling or title on the visualization, e.g. showing the airport code on the map.

Resources

Airlines Code

<https://www.tvlon.com/resources/airlinecodes.htm>

Tableau Usage

http://onlinehelp.tableau.com/current/pro/desktop/en-us/maps_geographicroles.html

<https://www.interworks.com/blog/ccapitula/2015/04/15/tableau-essentials-calculated-fields-date-functions>