

FLIGHT DELAY STORY

SUMMARY:

I obtained the data set from the Bureau of Transportation Statistics website: https://www.transtats.bts.gov/OT_Delay/OT_DelayCause1.asp.

I have data from 2003 to 2017. This dataset has aircraft delay data of carriers in USA.

My visualization consists of a story with an interactive dashboard. The main questions I asked during the creation of this visualization were:

- What is the main cause of inconvenience for passengers? Aircraft delay, Aircraft cancellation or Aircraft diversion?
- Can I see the number of aircraft delays in a airport for a particular year then observe its delay trends throughout the year?
- Is there any pattern observed between the delay types?

My story can be viewed at

<https://public.tableau.com/profile/prithwish.ganguly#!/vizhome/UdacityprojectFlightsnew/FlightDelayStory>

My initial visualization was

<https://public.tableau.com/profile/prithwish.ganguly#!/vizhome/UdacityprojectFlightsinitial/FlightDelayStory>

The initial visualization contains issues which I fixed and documented.

DESIGN:

My initial design was to create 3 story points. The first page only had the Inconvenience plot.

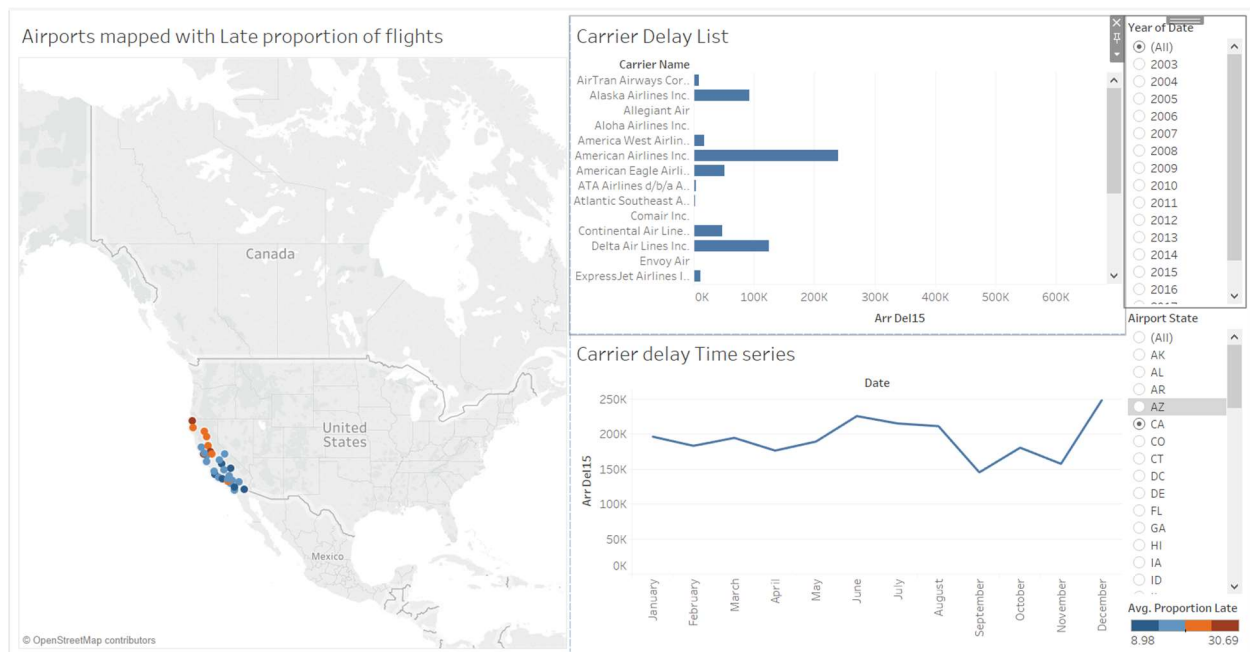
Flight Delay Study



This was received poorly due to the huge blank space below it and the viewer wanted to have an idea of how much the overall average of flight delays were. This led me to add an additional plot on this page.

Next, I created a dashboard to explore the flight delays of carriers in different airports, but I only made the choice of year as a single value. I

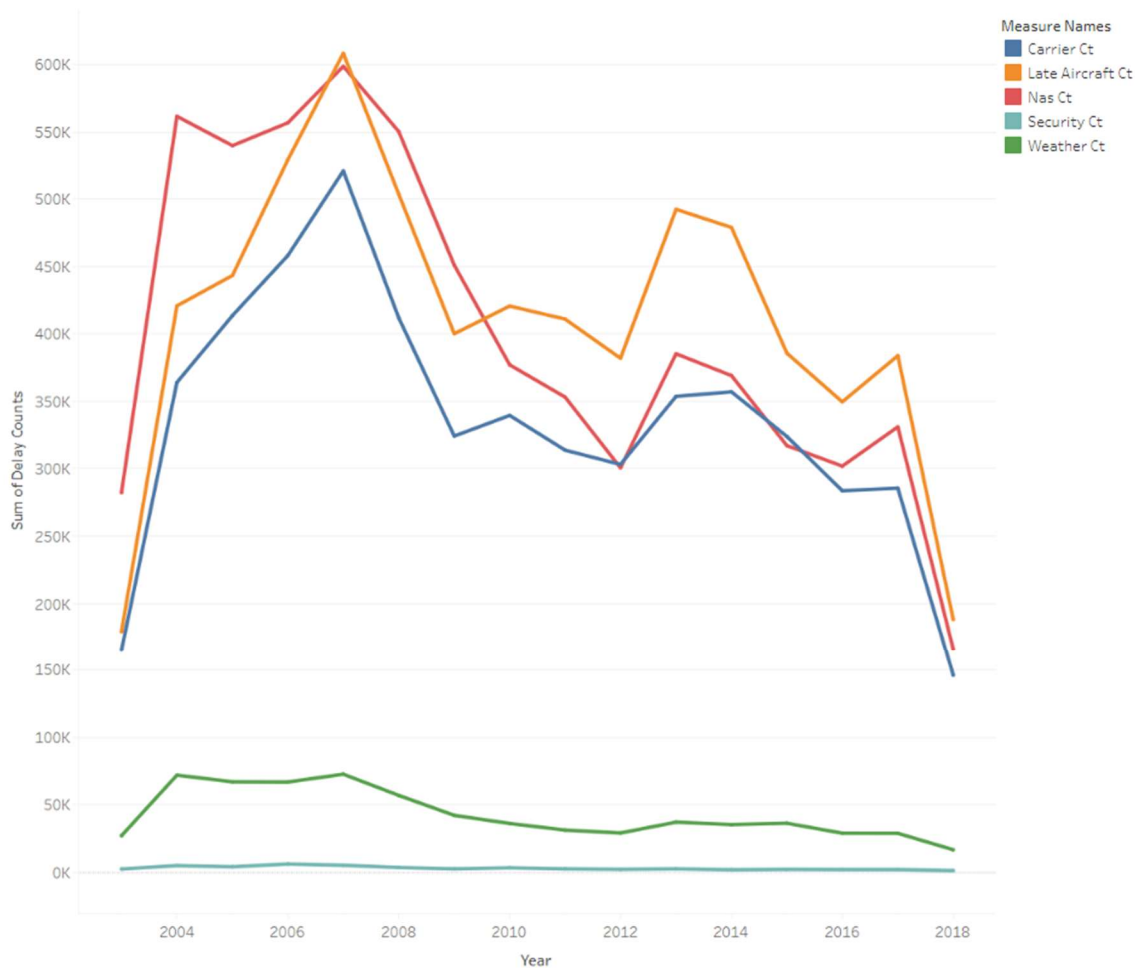
received feedback that this is not a good choice because it hinders exploration choice, so I changed it to a list format.



I also had the heatmap legend on the bottom right corner which was not easily noticeable, so I moved it below the map.

I also had misleading headings for the 2 plots as seen above which I fixed.

I had created a line plot next plotting down the Delay counts over the years, but my color scheme wasn't inherently allowing the readers to focus on the main parts of the plot which were Carrier delay and Late Aircraft delay as shown below.



I then chose darker colors for the main features of the plot and lighter colors for other features.

My visualization originally ended at this story point with the line plot, but the readers felt that was not enough concrete proof to follow through with my theory. This led me to create a scatterplot and show the correlation.

FEEDBACK:

- Show average count of delayed aircrafts over all the carriers on first page.
- Change year selection to list type to allow multiple year selection, and fix dashboard headings.
- Visualization did not show concrete proof of theory about relation between Late Aircraft delay and Carrier delay so was motivated to show that with a scatterplot and correlation.

RESOURCES:

<https://www.tableau.com/learn/training>