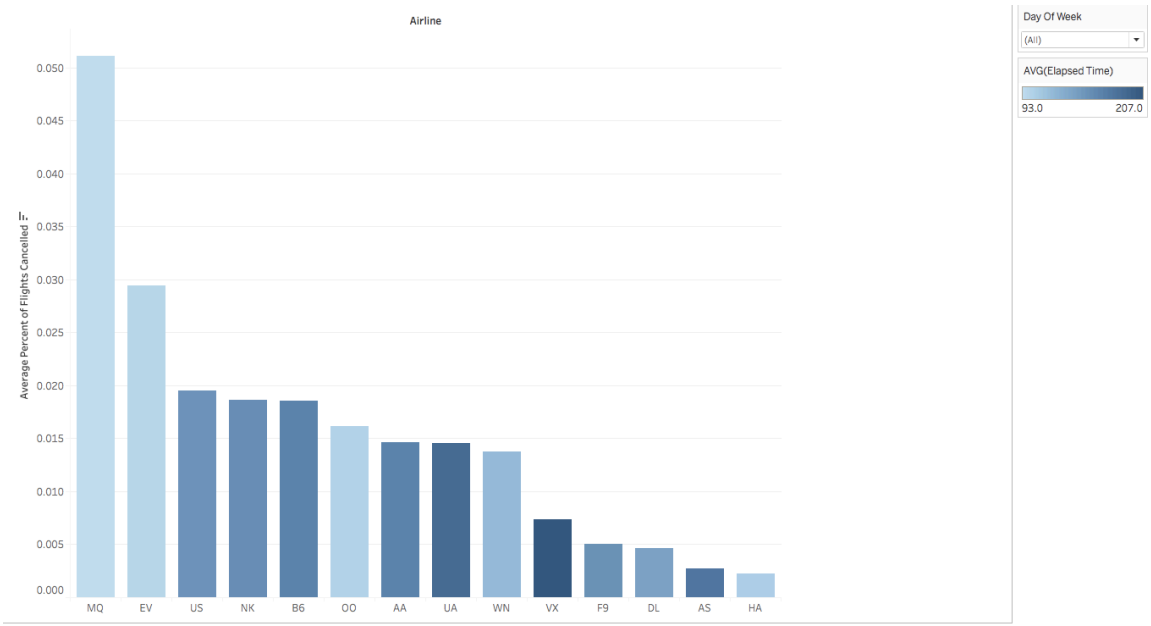
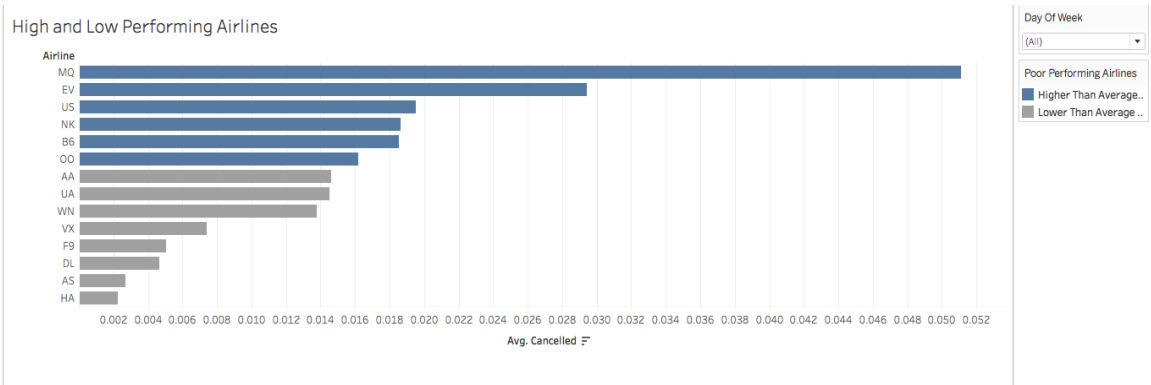
My goal in completing this project was to look at the data from the point of view of one who travels quite frequently. In analyzing the data I hoped to find ways in which a traveller might avoid some of the headaches of flying.

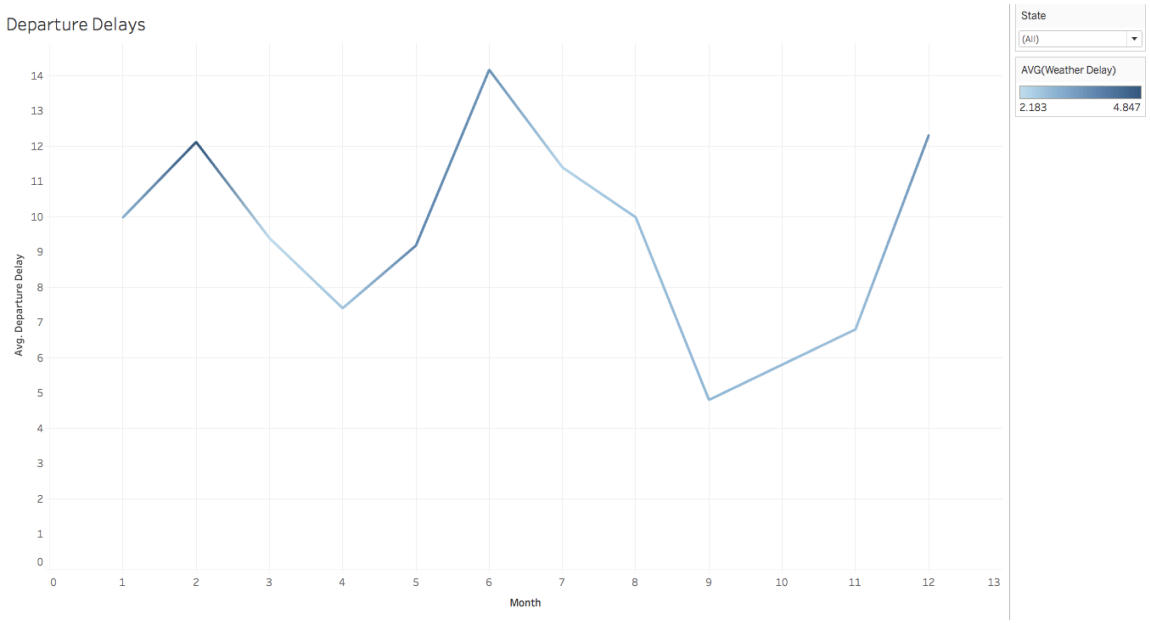
In my first analysis, shown below, I took a look at the percentage of flights that are cancelled, on average, for each airline. The data can be filtered by day of the week. The variances in color give further information regarding the average elapsed time when flights are delayed, also given by airline. This gives a more complete picture of problems that a traveller might encounter with each airline, showing information about cancelations and flight delays in the same graph. The graph shows that there is not necessarily a relationship between the average cancelation rate and the average flight delays for each airline, suggesting that they have different causes.



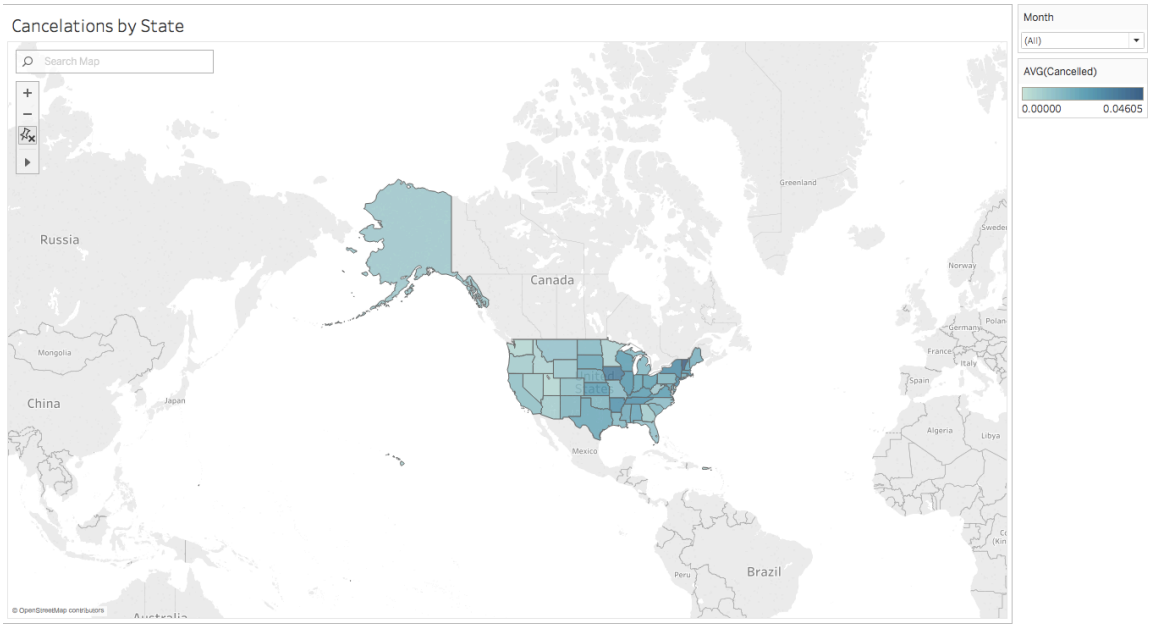
Next, I used a calculated field to categorize airlines as either high or low performing based on their cancelation rate compared to the average rate for all airlines. This data can also be filtered by day of the week. This graph would give travellers a way to determine 'good' airlines at a quick glance for the day of the week on which they wish to travel.



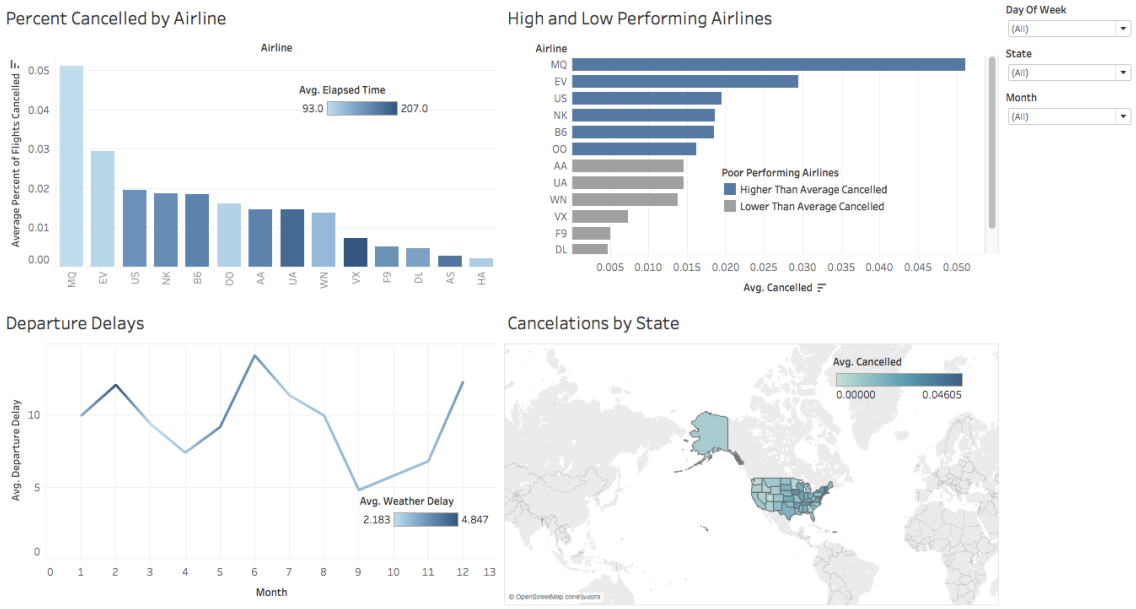
In the next visualization, I plotted average departure delays by month. I added a color dimension showing the average weather delay in each month. Not surprisingly, as the delay rises in general, the average weather delay is larger as well.



In my final analysis, I plotted the average cancelation rate by state. The data can be filtered by month to give travellers a view of how cancelation rates change over the course of the year.



In the dashboard, the previous reports are combined to give travellers a more complete picture of when and where they are most likely to encounter both flight delays and cancelations. The data can be filtered in any combination of day of the week, month or state. The filters affect all worksheets.



My report can be found at:

https://public.tableau.com/profile/christina3774#!/vizhome/DataFoundationsFinalProject/Dashboard1?publish=yes

In looking at the data, I used the following website to gain a better understanding of the definitions of the variables I'd be using:

https://www.bts.gov/archive/publications/federal_register/2001/bts_20011227