Udacity Data Visualization Nanodegree

Data Visualization in Tableau

Building a Data Visualization Project

1. Link to Dashboard

https://public.tableau.com/app/profile/kay.sun/viz/flight_delays_16972121755340/Dashboard2

https://public.tableau.com/app/profile/kay.sun/viz/flight_delays_by_month/TotalDelaysbyMonthin2015

https://public.tableau.com/app/profile/kay.sun/viz/flight_cancellations_16972360561110/TotalCancelledFlightsbyStatein2015

2. Summary

There are 6 types of delays, air system delay, airline delay, arrival delay, departure delay, late aircraft delay and security delay.

Which airlines have the worst delays?

Aggregating all the 6 different types of delay by airline and ranking the total delays by airline shows WN Southwest as the worst in delays, mostly due to departure delays.

Which airports have the worst delays?

Aggregating all the 6 different types of delay by origin and departure airport and ranking the total delays by airport shows ORD Orlando FL as the origin airport and destination airport with the worst in delays. DFW Dallas TX and ATL Atlanta GA are the next top delays. Most delays are due to departures.

Which months are the worst delays?

Aggregating all the 6 different types of delays by month in 2015 shows June as the worst month.

What causes the most delays?

Departure delay is the cause of most delays.

State with most cancellations?

TX.

3. Design

Grouped delay type by colorblind-friendly colors helps to quickly visualize the differences between. Ranking of the bar charts helps to immediately identify the highest total delay times. Stacking the area charts visually aggregates the worst month. Use of treemaps to easily visualize state with the largest number of flight cancellations.

4. Resources

Data source from https://www.kaggle.com/datasets/usdot/flight-delays/data