

Data:

3 inner joins were performed:

1. Flights to airlines
2. Flights to airports (origin only)
3. Flights to airports (destination only, using a copy of the airports csv file)

Cancellation reasons were replaced (A = Airline/Carrier , B = Weather , C = National Air System)

Insight #1:

Which airlines have the most delays? [Link to visual](#)

- The airline with the most delay is Southwest Airlines Co. with a total departure delay of 648K minutes and total arrival delay of 290K minutes.
- A scatter plot was used for this insight as 2 quantitative variables are being compared.

Insight #2:

How do departure delays vary by month? And which airports typically have the most departure delays?

[Link to dashboard](#)

- The line chart shows that on average, June has the highest average departure delay, followed by December and February.
- Line chart was used as a quantitative variable was being investigated through time. A filter for month was also added.
- Throughout 2015, Chicago O'Hare international airport had the most departure delays, followed by Hartsfield-Jackson Atlanta International Airport and Dallas/Fortworth International Airport.
- A map was used for the second insight, since geographical locations of the departure airports are investigated. The total departure delays as circles of varying sizes. A filter for the airport name is also added.

Insight #3:

Which airlines have the most cancellations? [Link to visual](#)

- The top 3 airlines with cancellations are Southwest Airlines Co. (818 cancellations) followed by Atlantic Southwest Airlines (800 cancellations) and American Eagle Airlines Inc. (723 cancellations).
- However, another way to look at this is by a calculated field (% of Cancelled) , by dividing the sum of cancellations by total number of flights. The outcome is that the top 3 are American Eagle Airlines Inc. (5.11%) followed by Atlantic Southeast Airlines (2.94%) and US Airways Inc. (1.95%).
- The different outcomes are due to the fact that some airlines have more flights than others, so probability of cancellations also increase. Looking at the percentage of cancelled flights out of all flights makes more sense.
- A bar chart was used as there was a categorical variable (airline) that was being investigated. The height of the bars demonstrated the number or percentage of cancellations.

Resources:

N/A