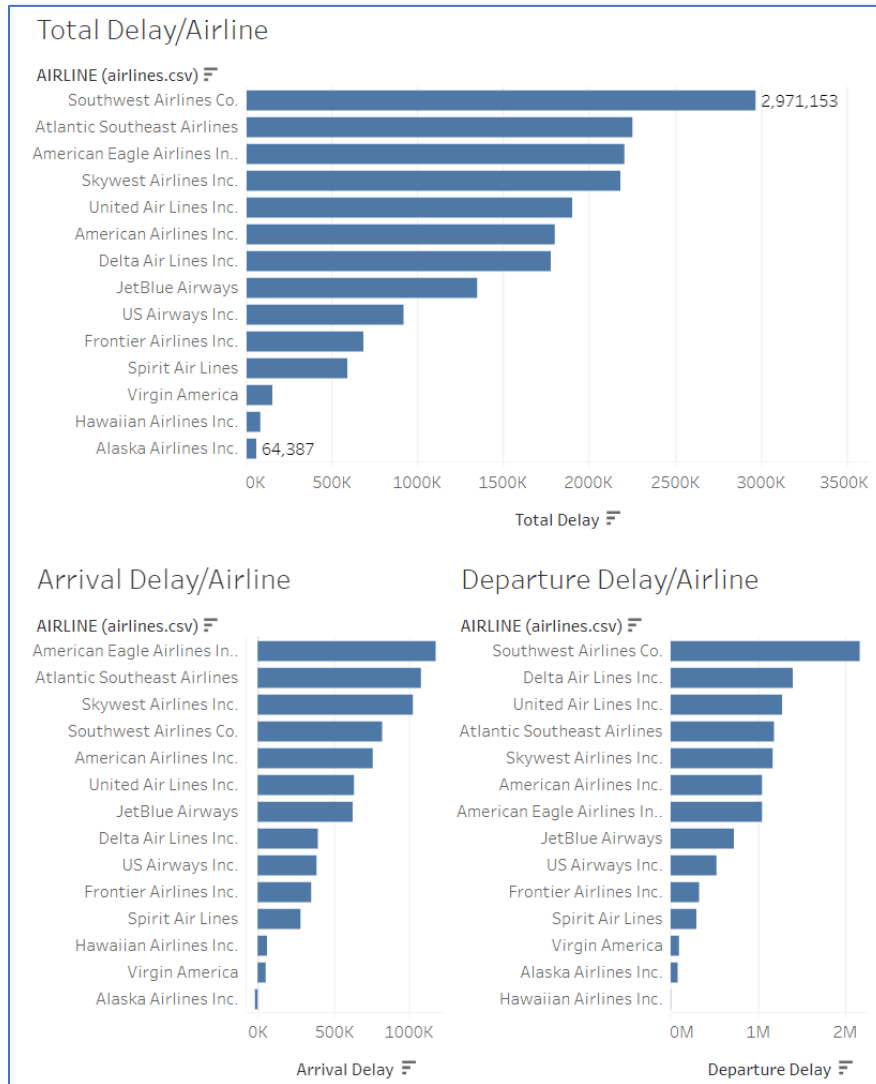


# US domestic flights performance 2015

## Insight 1:

**Question:** Which airline had the worst delays?

**Link:** <https://tabsoft.co/3Nt8a2D>



The above chart shows the sum of delays for each airline.

**Conclusion:** Southwest airlines had the worst delays with a total of 2,971,153 mins, while the least delays was for Alaska Airlines with a total of 64,387 mins of delay.

Drilling down into arrival and departure delays: the most delayed airline in arrival is American Eagle airlines with a total of 1,176,744 mins and the most delayed airline in departure is Southwest Airlines with a total of 2,164,339 mins. The least delayed airlines in arrival and departure are Alaska airlines with 18,002 mins ahead of schedule, and Hawaiian Airlines with 21,854 mins respectively.

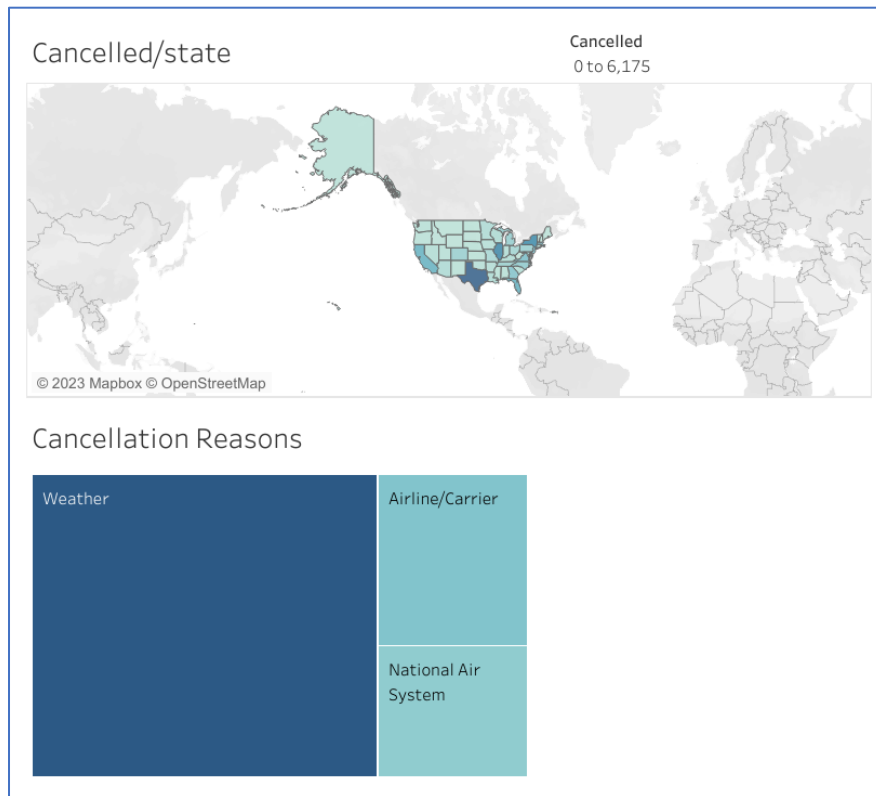
**Design:** I used a bar chart to show the number of delays per airline (Categorical Data). I chose the blue color only because it's color-blind friendly and lets the audience focus on the important information.

**Reference:** <https://tabsoft.co/4akmF2t>

## Insight 2:

**Question:** Which state had the most canceled flights?

**Link:** <https://tabsoft.co/41n8zZW>



The above diagram shows the map of the most cancelled flights / state, and the tree-map for the reasons.

**Conclusion:** the highest state with cancelled flights is Texas with a total of 6,175 flight cancelled, while Delaware is the least state in terms of cancelled flights with a total of 3 flights only.

The top reason for flight cancellation Weather reason with a total of 28,260 flight cancelled, followed by Airline/Carrier with a total of 6,974, National Air System with a total of 5,291 and Security with a total of 2 cancelled flights only.

**Design:** I used a map chart to demonstrate the geographical data “states”, I used a sequential blue color for the states as color blind friendly choice and to make the audience spot the difference easier, the darker the blue the higher the cancellation number is.

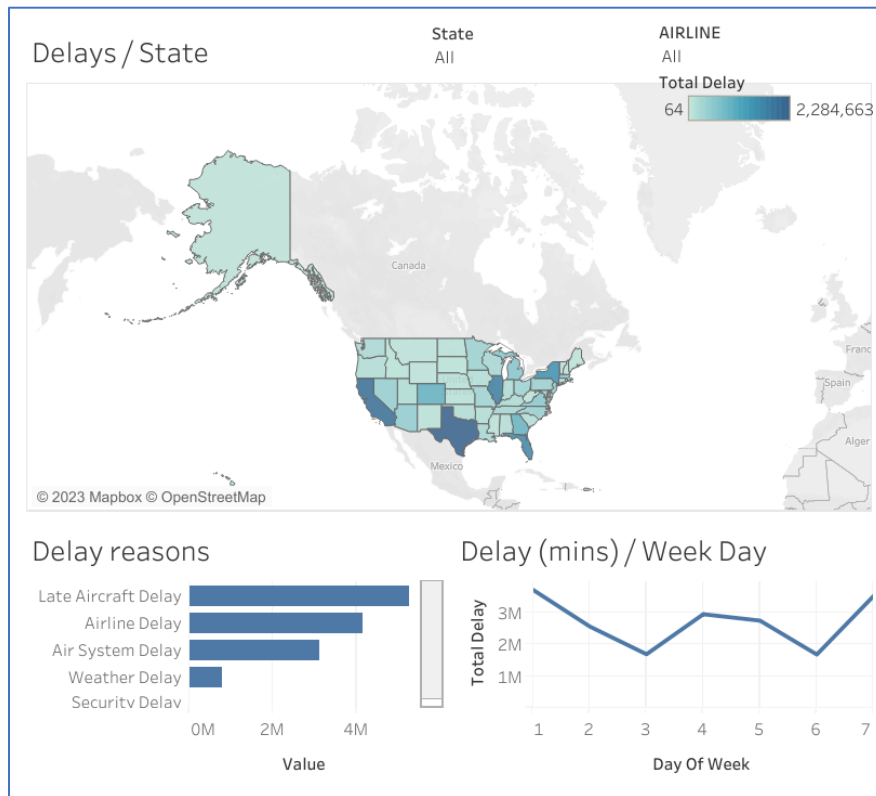
And for the second visual, I used a tree-map to depict the sum of cancelled flights per reason.

Reference: <https://tabsoft.co/48lA0pA>

### Insight 3:

**Question:** which state had the most delays? What were the delay reasons? And on what day did the most delays occur?

**Link:** <https://tabsoft.co/3TtLnay>



The above dashboard incorporates a map of the states with their respective delays, a bar chart for the main causes of delays, and a line chart representing the delays on which day of the week. All can be altered with two filters, one to select each state and the other to filter by the airline. All delays are calculated for both departure and arrival delays.

**Conclusion:** the state with the most delays is Texas with a total of 2.28M+ mins with a total of 129,232 flight, and the state with the least delays is American Samoa with a total of 64 mins and 21 flights in total.

The most delays reason is “Late Aircraft Delay” with a total of 5,238,195 mins while the least is “Security” with a total of 13,101 mins.

The highest delays occurred on the first day of the week with a total of 3,735,159 mins and the least delays occurred on the 6<sup>th</sup> day (weekend) with a total of 1,687,154 mins.

**Design:** I used a map chart to plot the geographical data “states”, I used a sequential blue color for the states as color blind friendly choice and to make the audience spot the difference easier, the darker the blue the higher the delay.

I demonstrated the reasons for delays using a bar chart (Categorical Data) and chose blue color as it is color-blind friendly. I used a line chart to show the variance in the total delays along the week “to show continuous data over time”.

The design of the dashboard aims to eliminate distraction and let the audience focus on the figures.