

# Data Visualization Project (Tableau)

## Insight 1

Link:

[https://public.tableau.com/app/profile/omarzaid/viz/1\\_AirlinesDepatureDelays/Dashboard1?publish=yes](https://public.tableau.com/app/profile/omarzaid/viz/1_AirlinesDepatureDelays/Dashboard1?publish=yes)

### Summary:

In order to see which airline has the worst and best delays, I found the departure delay column makes the most sense. As the airline is in complete control of his departure prior to any external delays during the flight.

Spirit Airlines is the worst.

Hawaiian Airlines is the best.

### Design Comment:

Creating a bar chart helped determine the relationship between the categorical variables (Airlines) and the numerical variables (Average departure delay).

The orange dots on the scatter plot represent the sum of the departure delays.

The sum was needed to clarify the delays even more; to indicate that the worst average departure delays didn't add up to a huge sum (which is logical: more delays= less traffic)

## Insight 2

Link:

[https://public.tableau.com/app/profile/omarzaid/viz/2\\_Howdistanceaffectarrivaldelay/ArrivaDelaybasedondistance?publish=yes](https://public.tableau.com/app/profile/omarzaid/viz/2_Howdistanceaffectarrivaldelay/ArrivaDelaybasedondistance?publish=yes)

### Summary:

It seems like the shorter the distance the more likely of a longer delay. Is it because longer trip delays are intolerable?

We notice from the color distribution that the longer the distance the more blue the visualization gets

There also is a filter by day of the week: where we'll still find that on each day the shorter the flight the more expected the delay.

### Design Comment:

A Gantt view was automatically generated and I liked the representation alot. This chart plots the distances as a dimension and the arrival delay gets more orange on the chart as it increases.

A scatter plot was used to visualize this finding in a similar fashion. We notice that not only do most flights have the shortest distances we also notice that the longer the flight the closer the delay to 0.

### Insight 3

Link:

[https://public.tableau.com/app/profile/omarzaid/viz/3\\_StateFlightsCancellationRatio/Dashboards1?publish=yes](https://public.tableau.com/app/profile/omarzaid/viz/3_StateFlightsCancellationRatio/Dashboards1?publish=yes)

#### **Summary:**

So I first divided the Summation of the canceled flights to the count of the rows to get a new column with a ratio.

This visualization represents how many flights were canceled in the states in respect to the total number of flights.

The darkest orange represents the state with the highest cancellation rate; while the darkest blue represents the state with the lowest cancellation rate.

We can filter by days of the week.

#### **Design Comment:**

Creating the map was the most suitable representation to compare the categorical states to the ratio of flight cancellations; as you can see the map and deduce how Vermont state has the highest cancellation rate.