UDACITY

# Project 4: Build Data Dashboards – Flight Delays

## Insight 1 – Flight Cancellation Per State

**Tableau link:**
https://public.tableau.com/profile/nick.zwart#!/vizhome/FligtCancellationPerState/Dashboard

From this dashboard we can see which state has the most flight cancellations. The darker the color, the more cancellations occurred in that state. From the map we can see that Texas (668) and Illinois (563) have the most flight cancellations.

After those two states it gets kind of hard to see which state has the most cancellations after that. To see which state has the most cancellations after Texas and Illinois I added a bar chart to the dashboard so it's clearer to see which state has a high amount of cancellations. I limited the bar chart only to the top 15 states with the highest cancellations. Adding all of the states would be detrimental to the quality of the visual.

The state with the least amount of cancellations is Washington with only 22 cancellations.

I also added a filter so you can dive deeper into the data and see which day of the week has the most cancellations. Texas has the most cancellations daily except on Monday. Illinois (162) surpasses Texas (140) on Monday.

Another thing that I noticed by looking at cancellations on a daily level is that California (46) surpassed Illinois (40) but stayed behind Texas (73) on number of cancellations on Friday.

## Insight 2 – What Causes The Most Delays

**Tableau link:**
https://public.tableau.com/profile/nick.zwart#!/vizhome/Whatcausesthemostdelays/Dashboard?publish=yes

From this dashboard we can see what part of a flight causes the most delays on the top five most busy airports in the US. The line chart shows if there is a particular month of the year where there are more delays than other.

I looked at data from the top five busiest airports (Hartsfield-Jackson Atlanta International Airport, Los Angeles International Airport, Chicago O'Hare International Airport, Dallas/Fort Worth International Airport and Denver International Airport). I decided to make a bar chart to quickly see what caused the most delays. It was clearly visible that Departure Delays were the biggest cause of delays on all these airports. Security Delays caused the least delay on these airports.

The line chart also shows a clear trend. It shows an increase in delays around month five and six (June, July). This is the summer holiday period so it can be caused by all the people flying around or out of the country to go on holiday. There is also an increase in delays in month 12 (December). This growth of delays can be caused by Christmas and New Year's because a lot of people travel that period to see their family and close friends.

I decided to use a line chart to point this out since it's one of the most useful tools to show any abnormalities in the amount of delays spread over the year.

I used this link to see what the top five of busiest airports in the US was:
(https://www.airport-technology.com/features/feature-busiest-airports-in-the-us-passengers/)

# Insight 3 – Which flight was delayed the most

**Tableau link:**
https://public.tableau.com/profile/nick.zwart#!/vizhome/Whichflightwasdelayedthemost/Whichflighthadtheworstdelays?publish=yes

From this story we can see that flight number 50 had the biggest delay. This can be seen from the first bar chart. But I wanted to have more information about flight number 50 so I made a new bar chart to find out some more information about flight number 50.

In the second slide on the story we can see that flight number 50 is operated by Hawaiian Airlines. This flight departure form Honolulu International Airport and arrived on John F. Kennedy International Airport.

The reason why I chose a bar chart was because it made it easier to see which flight number had the biggest delays. It was clear to see because the bar was significant bigger than the rest. The same applied when I was looking for more information about flight number 50.