



Project 4:

Build Data Dashboards – Flight Delays

Insight 1. Flight cancellation per state.

Link:

https://public.tableau.com/profile/beatriz.ovejero#!/vizhome/FlightDelaysProject_1/FlightCancellationperState

This dashboard shows which state has the most flight cancellations. The darker colour, the more cancellations occurred in that state.

According to the map, Texas (668) and Illinois (563) are the states with the biggest number of flight cancellations.

The bar chart shows the data for ten states: Texas and Illinois, followed by the other eight states that have the most flight cancellations. If we check the bar chart, we can see that Massachusetts is the state with the least flight cancellations of this top 10, but if we return to the map, we can find that Delaware has 0 cancellations.

In the dashboard I have also added a filter in the map that allows to get more accurate information. The aim of the filter is to see which day of the week has the most cancellations. For example, if we filter by Monday we can see Illinois has 162 cancellations, followed by Texas with 140 cancellations, or if we filter by Wednesday, Texas has 81 cancellations followed by California with 67 and Illinois only has 44.

Insight 2. Top Ten of airports with the most flights cancellation in America.

Link:

https://public.tableau.com/profile/beatriz.ovejero#!/vizhome/FlightDelaysProject_1/TopTenairportsflightcancellation

I have chosen a bubble chart to show relational values without axes. To ease visualization and to emphasize data, I have decided to create a Top Ten, so only ten bubbles are shown. The size of the bubbles is conditioned by the number of flights cancellation that an airport has, so, the bigger the bubble is, the highest number of cancellations an airport has.

As shown in the graphic, the airport with the most flight cancellation in America is the Chicago O'Hare International Airport (454) followed by the Dallas/Fort Worth International Airport (342) and quite far by the LaGuardia Airport (Marine Air Terminal) (222). The bubble chart allows us to check easily which is the airport with the less flight's cancellation, the San Francisco International Airport (114).

Insight 3. Most delayed airlines by month.

Link:

https://public.tableau.com/profile/beatriz.ovejero#!/vizhome/FlightDelaysProject_1/Mostdelayedairlines

In this line chart we can see which the most delayed airlines are for each month. The reason why I have chosen this kind of graph is because it allows me to visualize clearly a trend in data over intervals of time, in this case, 12 months.

I have added a filter that allows to get more detailed information about delays because it's possible to see what happen in a specific month or in an interval, for example from February to April, for all airlines or only for one.

American Eagle Airlines Inc. is the airline with the most delays in February (203), followed by Atlantic Southeast Airlines (177) in the same month.

In general, Alaska Airlines Inc., Frontier Airlines Inc., Hawaiian Airlines Inc. and Virgin American follow a linear trend with very similar data for the whole year. For example, Hawaiian Airlines Inc. has no delays in February, April, July, August, November and December and its month with more delays is September with three delays.

Other airlines, like Delta Air Lines Inc., have irregular results depending on the month, for example in February has 92 delays while in September has no delays.

Resources.

- **Dataset:** <https://www.kaggle.com/usdot/flight-delays/data>
- **Project walkthrough:** <https://www.youtube.com/watch?v=9xqHA732LMA>