Build Dashboard Project

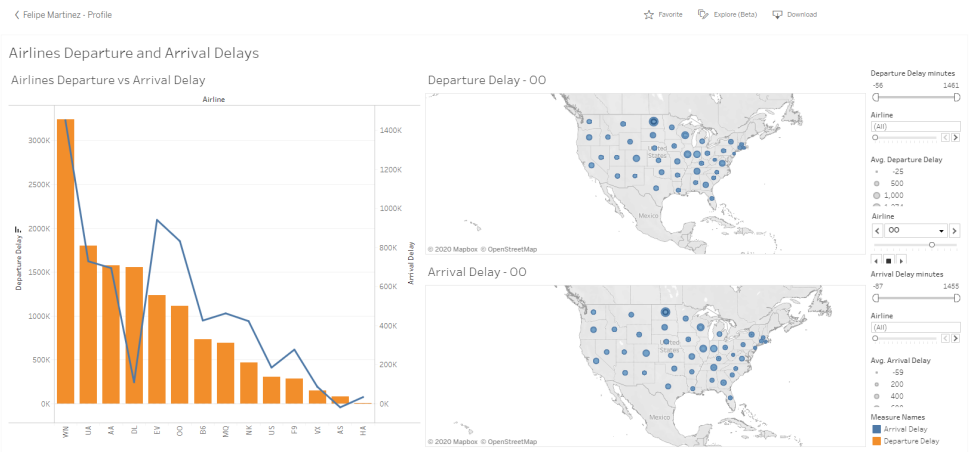
Telling Stories with Data

Insight 1
Airlines Departure and Arrival Delays

https://public.tableau.com/profile/felipe.martinez7281#!/vizhome/AirlinesDepartureandArrivalDelays/AirlinesDepartureandArrivalDelays?publish=yes

WN Airline is the company that appears with the longest flight delays. With a total of 3,242 million accumulated minutes of delay in 2015. This is just over 50% over the UA Airline, which has a total of 1,803 million accumulated minutes occupying the second Airline with the most delays in the year. On the map, you can see the States with the worst delays greater than 1000 minutes that the airlines have had in the flights' Departures and arrivals.

The graph shows a comparison between departures vs. arrivals. Use an orange bar graph to display the outputs where the “y” axis on the left side is its scale of values. The last ones' visualization uses a line graph in blue color, highlighting the comparison where its scale of values is on the "y" axis on the right side. On the "x" axis are the airlines. To add information about the geographic location where the delays occurred, I included two maps comparing departures vs. arrivals. The circles are in different sizes within the states where the airline delays occurred. The smaller size of the circle indicates the level of delay in minutes for the airline. The size of the largest circle indicates the highest level of delay in minutes per airline. Within each circle, it is slightly marked in levels. This means that when you move the mouse, you can see different data in which each level in the circle includes the information of the Name of the Airline, the Flight number, the Country and State, and the average delay in minutes. The maps' layout includes a filter where you can view the map, including all airlines, or you can view a single airline. There is also a filter with the title Departure Delay minutes that ranges from -56 to 1461. This filter indicates the values in minutes that the data set has that if it moves from the left side to the right side, it could be adjusted to a value> 1000. You will be able to appreciate the information in which the worst delays in the flights occurred.

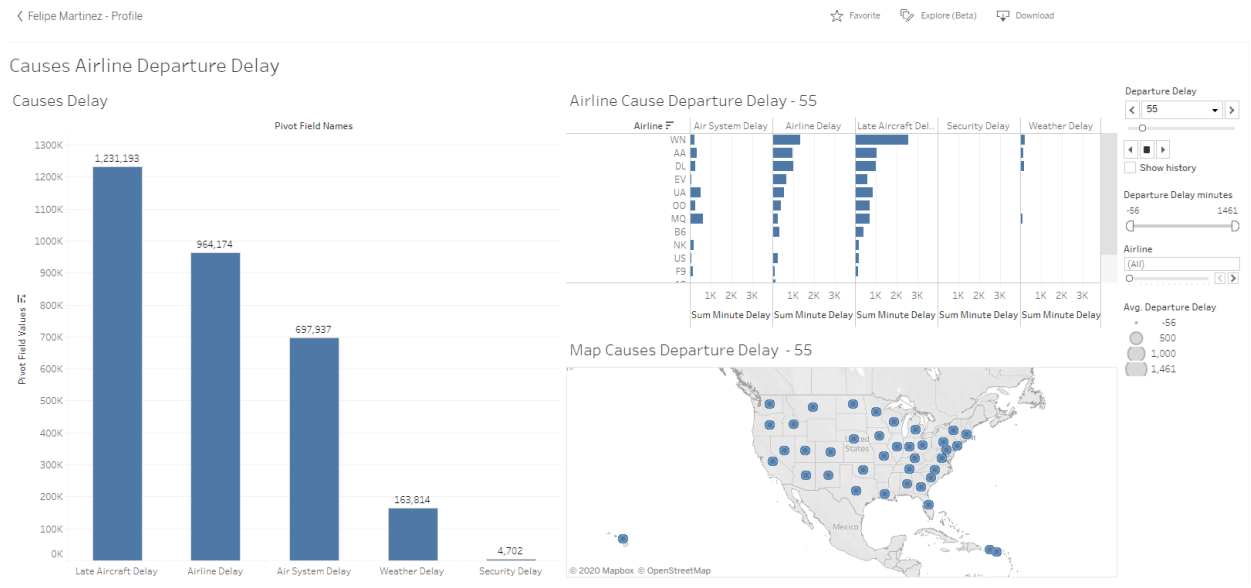


Insight 2
Causes Airline Departure Delay

https://public.tableau.com/profile/felipe.martinez7281#!/vizhome/CausesDelay_16049490161840/CausesAirlineDepartureDelay?publish=yes

There are several causes of flight delays, the main one being the Late Aircraft Delay cause, accumulating 1,231 million minutes of delay. Following the second Airline Delay case with 964 thousand minutes of delay. The cause that least contributes to the delay is Security.

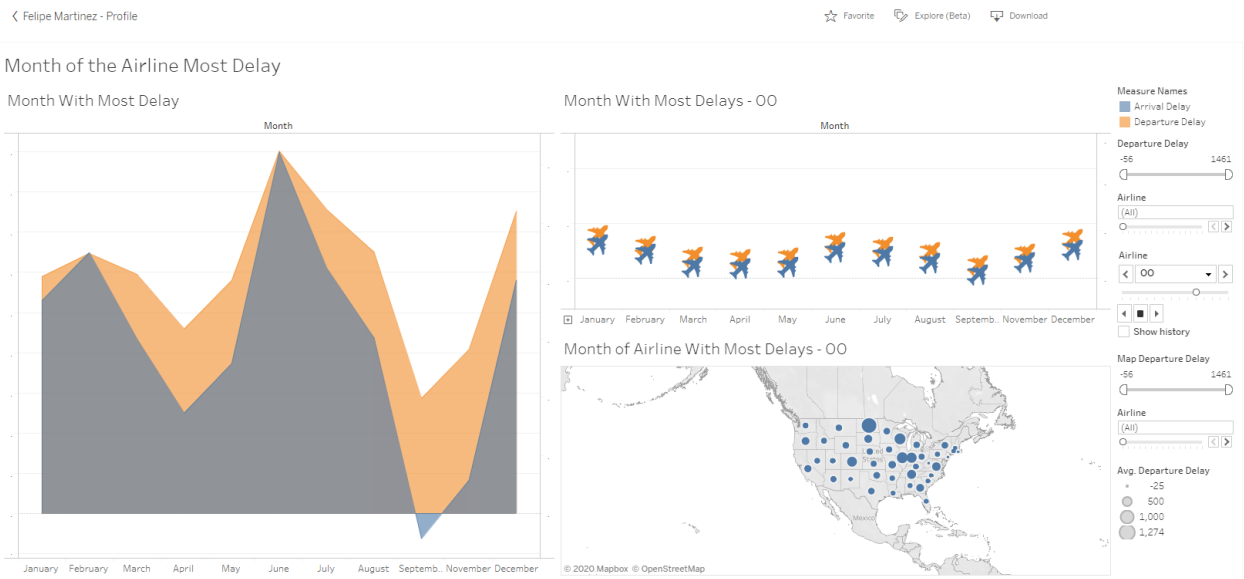
To make a comparison of the different causes of delays, a bar chart was used. The "y" axis describes the total value in minutes of the causes, and the "x" axis causes the delays. At the top of each bar, the total value of the cause was included. This is to highlight the information on the value accumulated in minutes of that cause. A single color was used to fix the attention only on the bars' length to immediately distinguish which was the main cause and which contributed the least. A panel was also included where the column on the right side lists the airlines following 5 columns with each cause that caused the delay. This panel shows individually by the airline the different causes at a given time according to the filter that was included to display this information.
The filter includes -20 to 1461 minutes and is synchronized with a map that better perceives the geographic location where the delays occurred. In addition to including information on the airline's names, minutes of delay, flight number, Reason for the cause, and State where the event occurred. You can also set a filter on the left side with the title “Departure Delay minutes” with this filter, you can see which flights and which airline had the worst delays> 1000 minutes.



Insight 3
The month of the Airline Most Delay

https://public.tableau.com/profile/felipe.martinez7281#!/vizhome/MonthoftheAirlineMostDelay/MonthoftheAirlineMostDelay?publish=yes

The month with the greatest delay occurred in June, accumulating a total of 1,802 million minutes of delay in both departures and arrivals. And the month with the least delay in departures was the month of April, accumulating 344 thousand minutes of delay. In the case of arrivals, the month of September was the one with the least delay, accumulating 571 thousand minutes of delay.
To show the months in which the departure and arrival flight delays developed during the year, an area graph was chosen. The "y" axis on the left side describes the accumulated values in minutes of the departure delays. Simultaneously, the "y" axis on the right side indicates the values of the arrival delays. On the "x" axis are the months.
The visualization attempts to provide a perception of different magnitudes. Showing the month with the greatest delays in departures and arrivals and the month with the least delays. A panel is included that describes each airline's behavior per month synchronized with a map to give an idea of the geographic location where each delay occurred in the airlines. There is also a filter that can be adjusted to see the months when the worst airline delays occurred.



sources

https://www.youtube.com/watch?v=GcnqhqZgb0Y
https://medium.com/@mosesandersonong/data-visualisation-of-flight-delays-with-tableau-40aa6abf676b
https://www.youtube.com/watch?v=ckQNNhCfUW4
https://help.tableau.com/current/pro/desktop/en-us/maps_howto_origin_destination.htm
https://community.tableau.com/s/question/0D54T00000C5nGw/is-there-a-way-to-rename-month-of-date