

The following visuals were made from data provided by a previous Udacity course that came from Kaggle. It tracks the on-time performance of US domestic flights operated by large air carriers in 2015. I was primarily interested in what days of the week, type of delay and airports had the most impact on whether flights were on time.

Insight 1

<https://public.tableau.com/profile/cari.nelson#!/vizhome/TypesofFlightDelaysbyDayoftheWeek/Sheet1?publish=yes>

There seems to be a pattern as far as the amount of delays based on each day of the week regardless of whether it was an air system delay, airline delay, arrival delay, departure delay, late aircraft delay, or weather delay.

Each type of delay had the most delays on Mondays, meanwhile the least delays were on Saturdays.

Insight 2

<https://public.tableau.com/profile/cari.nelson#!/vizhome/TypesofFlightDelays/Sheet2?publish=yes>

Despite each day of the week clearly having an impact on the amount of delays, departure delays caused the most at 2,649,459. That is over twice the amount of arrival delays (1,322,517), with almost every other type of delay following continuously behind (late aircraft - 1,231,193; airline - 964,174; air system - 697,937), other than weather delays (163,814) and security delays (4,702).

Insight 3

<https://public.tableau.com/profile/cari.nelson#!/vizhome/PossibleCauseofDepartureDelays/Dashboard1?publish=yes>

This graph focuses solely on departure delays, it is not the sum of every type of delay. Since departure delays seem to be the main reason there are delays at all, it is helpful to narrow down which airports contribute the most when it comes to this type of delay. Chicago O'Hare is the largest contributor at 161,133 and followed closely behind by Hartsfield-Jackson Atlanta (147,109). The next airports to focus on would be Dallas/Forth Worth (112,167), Denver (105,691), Los Angeles (105,142) and San Francisco (104,737).

Notice that John F. Kennedy/New York International Airport is quite a bit behind these airports (67,581). I'm not sure why as I would expect the number of departure delays to be nearly as much as at least Los Angeles, if not Chicago and Atlanta.

The number of airports in each state could be a factor when it comes to Chicago and Atlanta as they each only have seven airports listed in this dataset. However, California has 22 and Texas has 24, granted, they are much larger states as well. Although, it is something to consider when you compare smaller states such as Illinois, Georgia, and New York (which has twice as many airports.)

Design

I tend to prefer using the color blue in most of my charts, however I did need to change the color scheme for the multi-line chart displaying the types of delays. Originally, Tableau defaulted to using colors that those who are color blind couldn't see, so I changed it to the default color blind appropriate scheme. I think it still offers enough color variation to see the differences between each line in this chart.

I did not change any of my charts due to the feedback. After talking over any potential confusion or questions it was agreed that it could be cleared up by simply addressing the question in the summary and/or explanation of the chart in question. As far as Insight 1, the main problem was that when the person giving me feedback viewed the graph on his end, the key was far away from the graph

itself and it was more of an inconvenience than an issue that prevented him for understanding the visual. It basically took him a bit longer to look over the graph to understand what the colors represented.