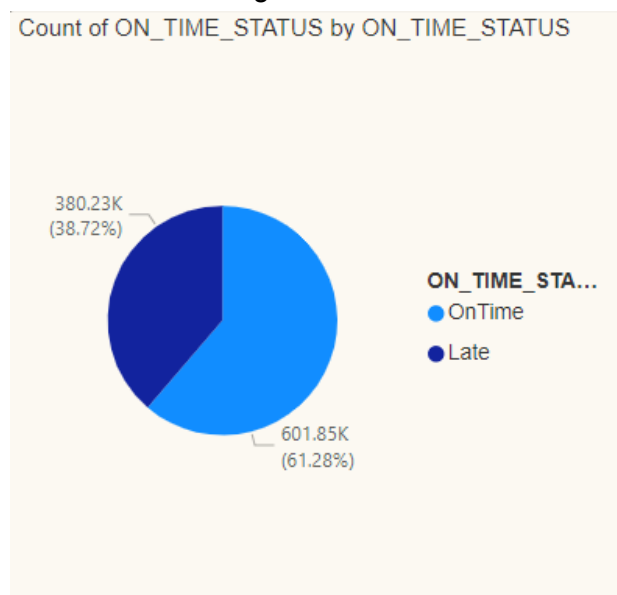


## What Factors Determined the On Time Status or Late Status of Flights?

The purpose of this analysis is to better understand how flights performed across the United States in the year 2015. At first you might think it's totally random and there's too many variables to determine the above statement. However, below are some of the important variables that could help determine how many flights are getting in late, which airlines are the most late, and which airports cause the most late flights.

### Overall On Time/Late Status of Flights Regardless of Airline

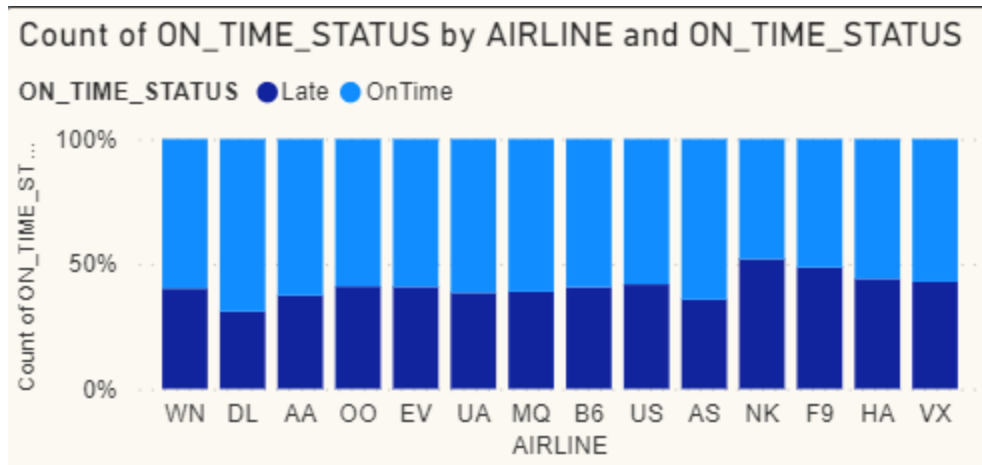
The graph below shows a pie chart. The legend to the right of the pie chart shows that the dark blue color represents the late status of a flight and the light blue color represents the on time status of a flight. The numbers in the parentheses right next to the pie chart show the percentage of flights that were on time or late and the number above the parentheses shows the actual number of flights that were either late or on time.



The graph above clearly shows that overall for the entire data set including all airlines, 39% of the flights were late and about 61% of the flights were on time. Pretty straightforward, not too much information on this graph explaining why flights are getting in late, but this is a pretty good starting point for now. We'll get into the details more below as to why the flights are coming in late.

### On Time/Late Status of Flights by Airline

The graph below is a "100% stacked column chart". How the graph works is that within each airline shown on the x axis is the total on time or late status count up to 100%. This allows us to easily determine which airline(s) had the most on time or late flights.

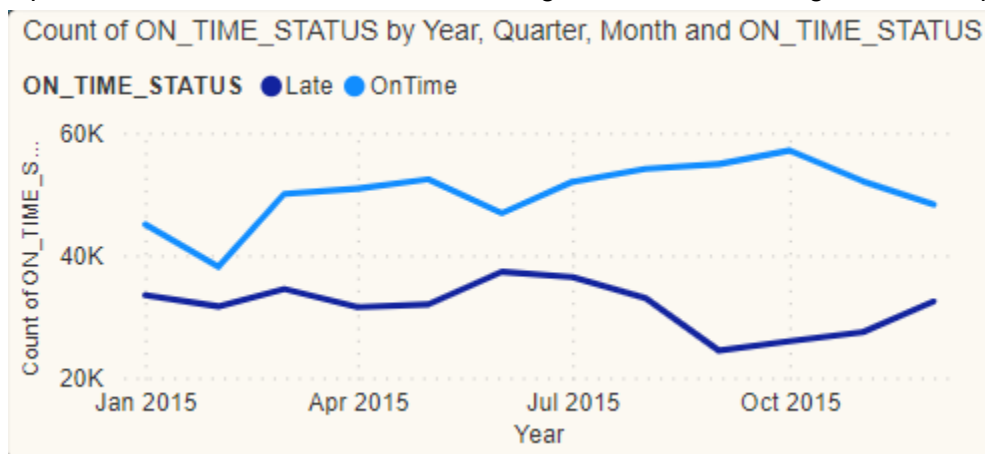


The graph above shows that airline “NK” also known as “Spirit Airlines” had the most number of late flights at 51.92%. “DL” however, also known as “Delta Airlines” had the least number of late flights at 30.89%. F9 and HA had the second and third most amount of late flights. AS and AA had the second and third amount of on time flights.

According to the results of the graph above it seems that if you want to have the best chances of having an on time airline then maybe the best airlines to choose from would be delta, AS, or AA. On the contrary maybe some airlines to stay away from if being late is an issue to the passenger would be spirit airlines, F9 and HA.

### On Time/Late Staus of Flights by Month

In the graph below the light blue line represents the on time status of flights by each month. And the dark blue line represents the late status of flights by each month. This graph is a representation of the overall data including all of the airlines together not separately.



The graph above shows that the October month had the most on time flights and a relatively low number of late flights associated in the month of October as well. February however had the least number of on time flights and a relatively higher number of late flights in comparison to the other months.

According to the results of the graph above it seems that the best month to travel relative to if you don't want to be late is in October. And vice versa the worst month to travel relative to if you don't want to be late would be in the month of February. You can also see a slight increase with the "ontime" line from the months June to October. Perhaps these would be the best months to travel.

## Conclusion

In the analysis we looked at the overall on time and late status of flights. We looked at the on time/late status of flights relative to the separate airlines. And we looked at the on time/late status of flights relative to the months January through December of 2015. According to the graphs we were shown that 39% of the flights were late. However if we were wanting to minimize those chances, then perhaps it would be best to travel with Delta, AS, or AA in the months of June through October. Also February may not be a great time to travel, nor are airlines NK, F9, or HA. Of course all of these conclusions are based on the data given. As usual perhaps there needs to be more data to draw better conclusions, but with the data given these are the insights that I came to. I also want to mention the presentation will go into further detail with how the slicers and drill downs work.