**Create a Tableau Story**

By: Allie Margolis

[Initial Visualization](https://public.tableau.com/views/UdacityTableauprojectPREFEEDBACK/Story1?:language=en-US&publish=yes&:display_count=n&:origin=viz_share_link)

[Final Visualization](https://public.tableau.com/views/UdacityTableauproject_16351058691200/Story1?:language=en-US&:display_count=n&:origin=viz_share_link)

**Summary**

These visualizations look at flight and delay data taken from the Bureau of Transportation Statistics. I will be focusing on delays, causes of delays, and how these delays change over time. The overall goal of this project is to look at which of the most popular airlines are the most reliable.

A flight is considered delayed if it arrives 15 or more minutes later than expected. When delays have multiple causes each cause is prorated based on the estimated minutes it was responsible for.

The story looks to see which of the ten most popular airlines are the most reliable. The final page of the story shows this in more detail, however the answer changes depending on what metric you use. Delta Airlines has the lowest proportion of delayed flights, at 16.00%. Alaska Airlines, on the other hand, has the shortest average delay per flight. So Delta would be the airline of choice if you want to avoid delays, while Alaska Airlines would be the airline that handles delays the fastest.

**Design**

I initially used solely bar charts to explore this data but I received feedback indicating that it felt somewhat monotonous. I then added a stacked bar chart and a line graph to help diversify the story. Bar charts are good at displaying differences between two carriers such as the first page of the story. It is clear at a glance that Southwest Airlines has many more flights than other carriers.

I added the line graph to show how each carrier’s delays change over time on the second page. Also, to compare how long each delay lasts on average, I used a stacked bar chart on the fourth page. I feel like the stacked bar chart helps illustrate the difference between the types of delays and how long they last.

Finally I added a fifth page to help create a clearer answer to the question this story after reviewing the rubric. Again, I felt like simple bar charts would work well with each carrier having a synchronized color across both charts to help differentiate them.

**Feedback**

One reviewer mentioned that using only a single type of bar graph made the story feel one dimensional and monotonous. They also mentioned that the axis on the graphs were not descriptive enough, were too lengthy, or just didn’t make sense to them. So I went through and updated those as well.

I was also told that there were too many titles on each page. There were titles for the story, for each page, for each graph, and so on. I removed the excessive titles leaving only enough to describe the data without cluttering the screen.

I also changed some of the legends to help clarify the data as well as to maintain consistency across each page, which was mentioned by two of my reviewers. For example, “NAS” or the National Aviation System, was not always fully capitalized on some legends.

Finally, after I asked my reviewers if the findings of the story were clearly portrayed and receiving luke-warm answers, I added the fifth page with a clearer summary.

**Resources**

Data was extracted from here: <https://www.transtats.bts.gov/OT_Delay/OT_DelayCause1.asp>

The data is explained here: <https://www.bts.gov/topics/airlines-and-airports/understanding-reporting-causes-flight-delays-and-cancellations>

I used this resource to help with sheet actions: <https://help.tableau.com/current/pro/desktop/en-us/actions_sets.html>