Tableau Project – 2008 Flight Data

Summary

This visualization contains flight data from 2008 and will allow comparisons of flight delays by airline, destination or origin.

Design.

Once I saw there was flight information, my first thought was to produce a route map as I thought it would require me to use many of the advanced features of tableau. When I performed a google search on how to create a route map, I came across this post on tableau site. My goal was to try to recreate this visualization. By recreating this visualization, I thought I would learn what advance techniques are available in Tableau. Due to the limited resources of my PC I choose to only use data from year 2008. Reproducing this visualization was extremely challenging and extremely rewarding. I was able to work with the advanced features of actions, create various calculated fields, adding images and text to the worksheet, filtering images and reformatting time.

In order to get more experience in tableau, I decided to perform all the data wrangling within tableau by performing unions, joins, renaming columns, changing datatypes and creating new columns.

This was my first shot at the flight data.

https://public.tableau.com/views/ArrivalsDepartures/PackALunch?:embed=y&:display_count=yes&publish=yes

The feedback I received form the slack group was excellent; the review was able to see a few items I overlooked which made the overall visualization much better. It made the airport selection a little easier by providing a name with the airport code and providing only those airports that actually depart or arrive from/to a particular airport. I originally wanted to use two tables, one for number of flights and one for average delays so that I could sort them both. After the feedback, there did not seem to be a real need to separate them and by putting them in one table seem to be a better fit since my main concern in this graph is average delays and not so much the number of flights. Also, removing the first page of the story made the overall graph less confusing.

This is my visualization after the feedback. I also added some detail for the delay types for each flight.

https://public.tableau.com/views/ArrivalsDepartures2/PackALunch?:embed=y&:display_count=yes&publish=yes

Visualization after 1st submission feedback.

https://public.tableau.com/views/ArrivalsDepartures3/PackALunch?:embed=y&:display_count=yes&publish=yes

Feedback

Hi Todd - I think the viz you put together is quite powerful! I have just a few suggestions from a viewer's experience point of view:

page 1 might be redundant - the text could be added to the captions or as story title since both are always visible when navigating. I waited a bit because I was expecting a chart to load.

page 2 and 3 - these are WOW charts! I really like them. You might want to consider to:

1. use airport labels (e.g. Albany, GA) instead of codes (e.g. ABY) in filters and legends.

2. do not include Null values on airline filter.

3. dynamically update the values in the "on airline" filter based on the "Leaving from" selection to avoid a blank map chart when the given airline is not present at that location.

4. Combine # of Arrivals and Average Delay into a single table

Feedback after 1st submission

Although the visualizations convey interesting information, the pie charts and colors make them a little cluttered. Please, add another page to show the information about the causes for the delays.

Resources: list any sources you consulted to create your visualization

https://www.youtube.com/watch?v=ckQNNhCfUW4

https://www.tableau.com/solutions/workbook/big-data-more-common-now-ever

https://onlinehelp.tableau.com/current/pro/desktop/enus/maps_howto_origin_destination.html

http://drawingwithnumbers.artisart.org/formatting-time-durations/

Data Files

2008 Flight data set linked to by Udacity.

http://stat-computing.org/dataexpo/2009/the-data.html

Airports.csv from Kaggle.

https://www.kaggle.com/miquar/explore-flights-csv-airports-csv-airlines-csv/data