Data Visualisation with Tableau

Nasser Aloqayli

July 8, 2017

Links to all Versions

Version_1: https://public.tableau.com/profile/nasseroq#!/vizhome/TitanicV2_1/Story1

Version_2: https://public.tableau.com/profile/nasseroq#!/vizhome/Titanic_v2/TitanicStory

Summary

The Tableau Workbook **Titanic (used to save on Tableau Public) of Titanic workbook here** contains visualisation of data about the Passengers of the ill-fated RMS Titanic. The RMS Titanic was a British passenger ship that sank in the morning of 15 April 1912, after a collision with an iceberg on her first journey after entery into service, from Southampton to New York City.

The data contains details of passengers aboard the boat and the workbook tries to explore the different factors (like gender, passenger class, amount of fares paid and ages) that influenced survival of passengers.

Design

The following design choices were made in creating the visualisations:

1. Bar charts were used to check the distribution of passengers across class of passengers, Gender, Class, Survival and Port of Embarkment. This is because of the class of passengers, Gender, Class, Survival and Port of Embarkment are dimensions and we would like to see the number/percentage of passengers belonging to each level of each dimension. Pie charts were initial candidates but changed from initial feedback.
2. Histograms were used to see the distribution of continuous measures like Age and the number of fares paid.
3. Color encoding and small multiples were used to check how the distribution of Age and Fares paid varied across Class, Gender and how these affected survival. Females in the first class section survived the most while survivors on the average paid higher fares.

Feedback

Below are some feedback that influenced design choices and changes:

1. Pie charts should be less favoured/used. So more bar charts were used in visualising the distribution of dimension variables.
2. More dashboards were requested so as to group related visualisations together so that a story with a sequence of dashboards can be created. These were added in the final version as the initial version didn't have a story of dashboards.

3. An overview of the data was requested at the beginning of the story. This was added in the final version (at the first page of the story) and filters based on survival, Gender of passengers, Port of Embarkment and Passenger class were included to get a better feel of the data.
4. More consistent color encoding and usage on survival and passenger class variables. Thus different colour pallets were used to decode the levels of survival (died and survived) and the levels of passenger class (First, Second and Third class) to avoid confusion.
5. Some other relationships and ideas were given which helped me to extend the visualisation.

Resources

The following resources were consulted:

1. Titanic dataset description on Kaggle webpage found at **https://www.kaggle.com/c/titanic/data**
2. The RMS Titanic Wikipedia Page at **https://en.wikipedia.org/wiki/RMS_Titanic**
3. Tableau tutorials [**https://www.tableau.com/learn/training**]
4. Tableau tutorials [**https://www.tutorialspoint.com/tableau/**]
5. Ideas for Tableau users [**https://www.tableau.com/new-features/10.0**]
6. Some new features in Tableau [**https://www.tableau.com/about/blog/2016/8/ten-features-it-will-love-tablea**