Assignment #6: Tableau

Part 1 (6 points)

Multiple Choice questions – Airbnb and Tennis

FILE TO USE: Airbnb_Chicago.twbx

1. How many Airbnb listings in Chicago have a price of more than $3000?
    a. 0
    b. 1
    c. 2
    d. 3
    e. 4

2. What Chicago neighbourhood(s) contain Airbnb listings with a price of more than $3000?
    a. only Near North Side
    b. only Lincoln Park
    c. both Near North Side and West Town
    d. both Lincoln Park and Avondale
    e. both Lincoln Park and Uptown

3. Which Chicago neighbourhood receives the highest average number of reviews per month?
    a. West Town
    b. Lake View
    c. Ohare
    d. Roseland
    e. None of the Above

4. How many Shared Rooms are available in Chicago for a price of over $300?
    a. 1
    b. 2
    c. 3
    d. 22
    e. 32

5. What is the Room Type and Price of the Airbnb listing that is immediately to the west of MDW airport?
    a. Private Room for $50 per night
    b. Private Room for $70 per night
    c. Private Room for $75 per night
    d. Entire Home/Apt for $110 per night
    e. Entire Home/Apt for $136 per night

FILE TO USE: ATP_Tennis.twbx and ATP2015.xlsx

***NOTE**: Refer to the ATP2015.xlsx file for data legend.*

6. How many players had more than 50 wins in this dataset?
    a. 0
    b. 3
    c. 8
    d. 11
    e. None of the Above

7. Consider the 11-month stretch consisting of Jan-Nov 2015. In how many of these 11 months did Federer win more Completed matches than Berdych? Do not include wins that are described as Retired, Sched, or Walkover – only Completed matches.
    a. 5
    b. 6
    c. 9
    d. 10
    e. 11

8. Which three players had the most wins on hard courts in this dataset?
    a. Djokovic, Berdych, and Murray
    b. Djokovic, Nadal, and Murray
    c. Djokovic, Federer, and Isner
    d. Djokovic, Murray, and Federer
    e. Federer, Djokovic, and Wawrinka

9. How many players in this dataset won only one set in the BMW Open?
    a. 9
    b. 11
    c. 13
    d. 15
    e. 16

10. How many sets did Isner lose in the month of May?
    a. 0
    b. 7
    c. 9
    d. 12
    e. None of the Above

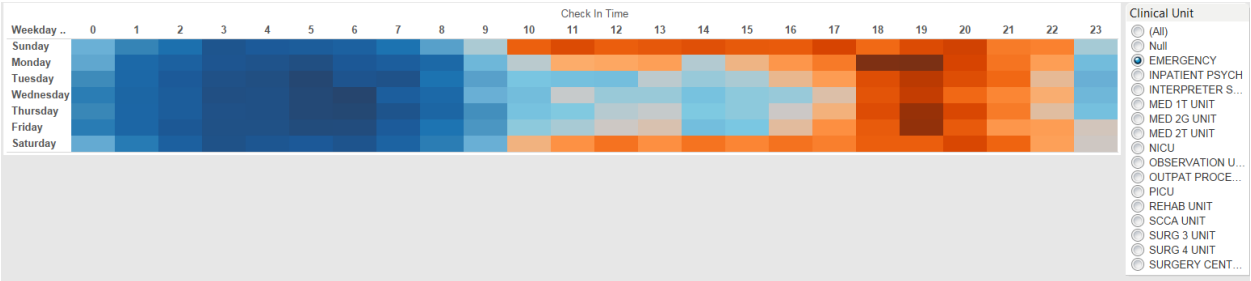
Part 2 (9 points)

Recreate the following visualizations in Tableau.

Emergency Department

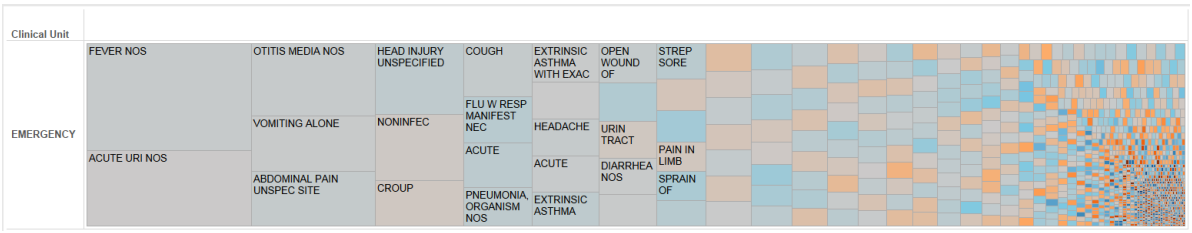
FILE TO USE: Emergency_Department.xlsx

1. Read the dataset in Tableau and create calculated fields to determine the number of patients as well as wait times. Create the following viz:

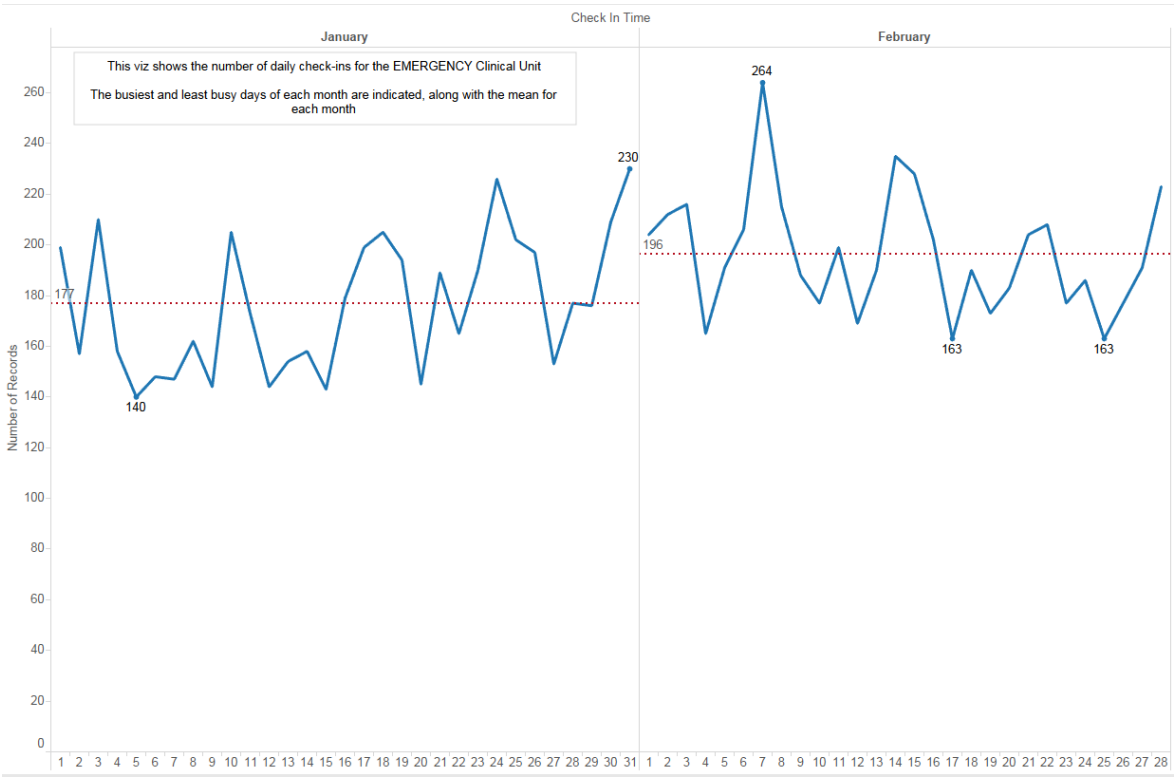


In this viz, color indicates the number of patients arriving to the unit selected on the right

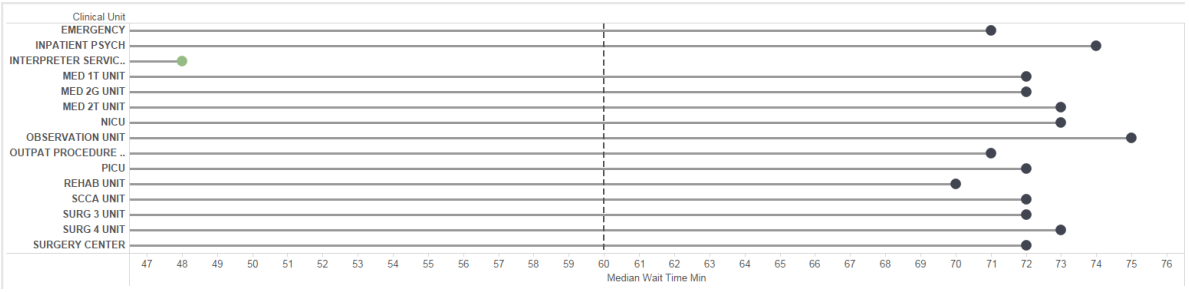
2. This viz shows the most common diagnoses in the Emergency Clinical Unit (the larger the box, the more common the diagnosis). Color depicts the average wait time for that diagnosis.



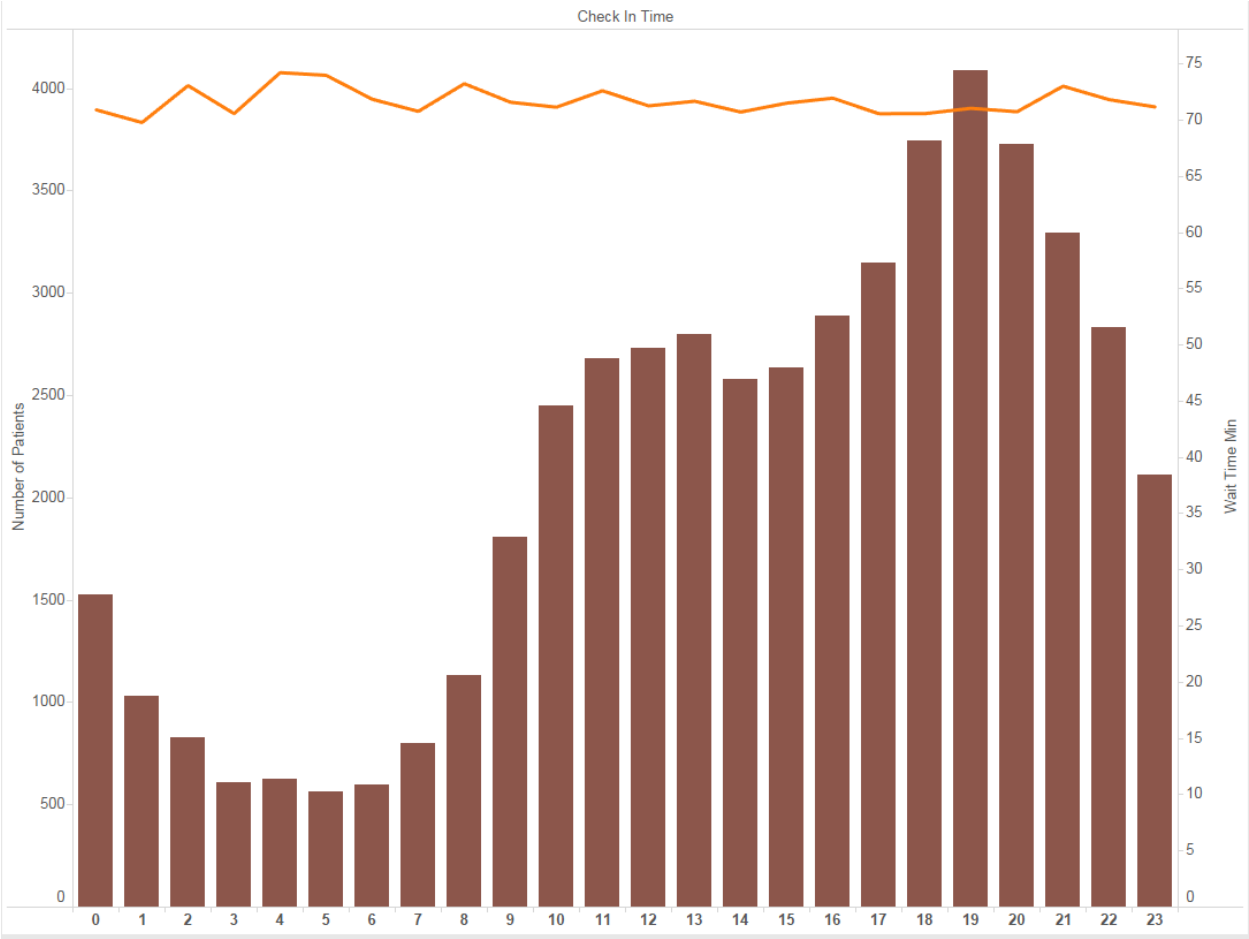
3. Recreate the following visualization of emergency check-ins exactly (including the text box!)



4. In this viz, note that departments with a median wait time over the goal of 60 minutes are a different color than departments under the goal.



5. Recreate another view of the waiting times:

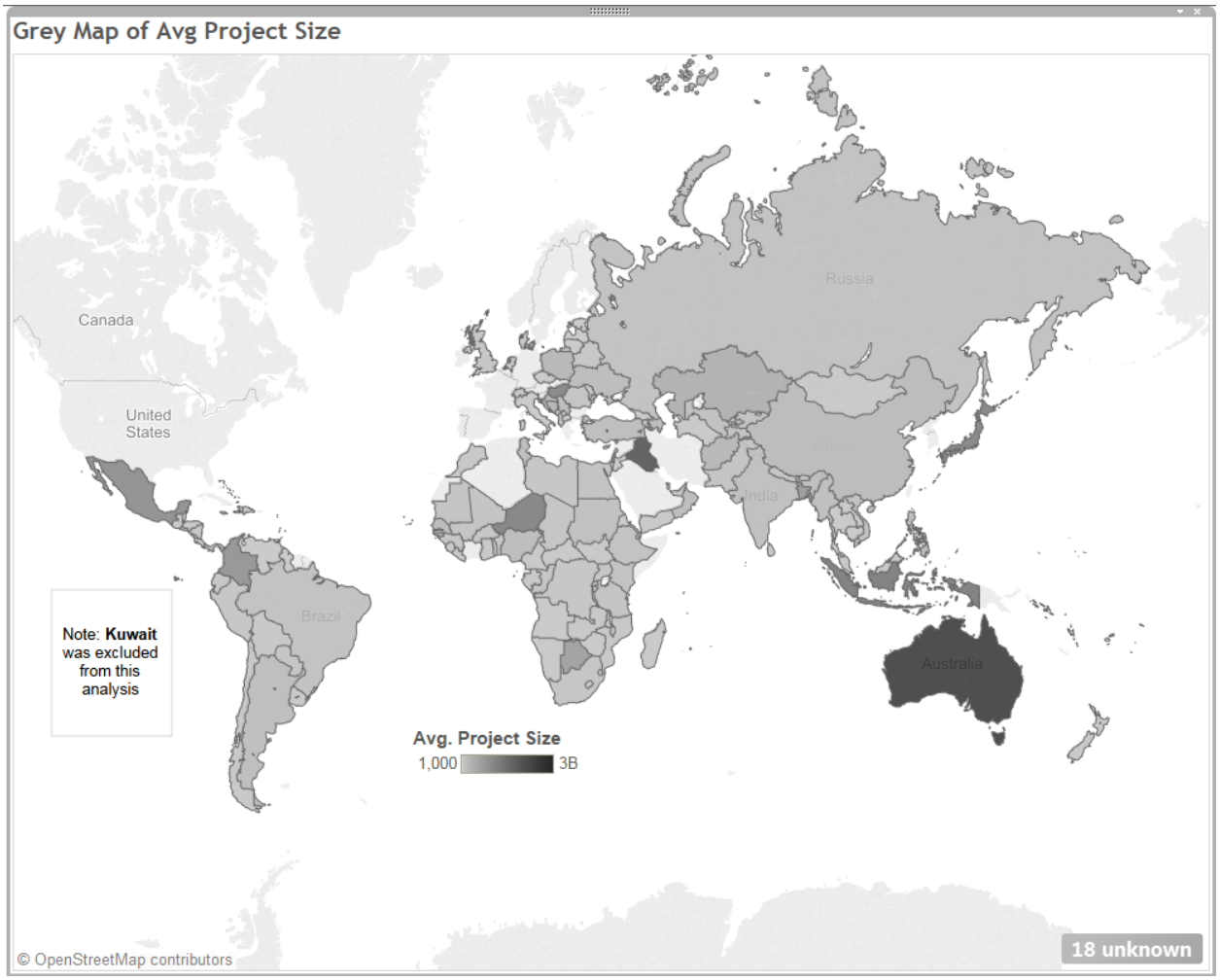


State Department

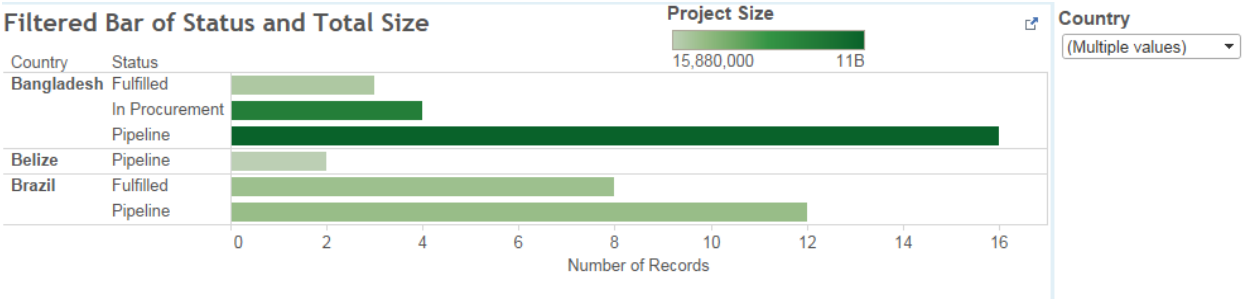
FILE TO USE: State_Dept_DATATABLE.csv

***Data Source**: The U.S. State Department's global list of contracts.*

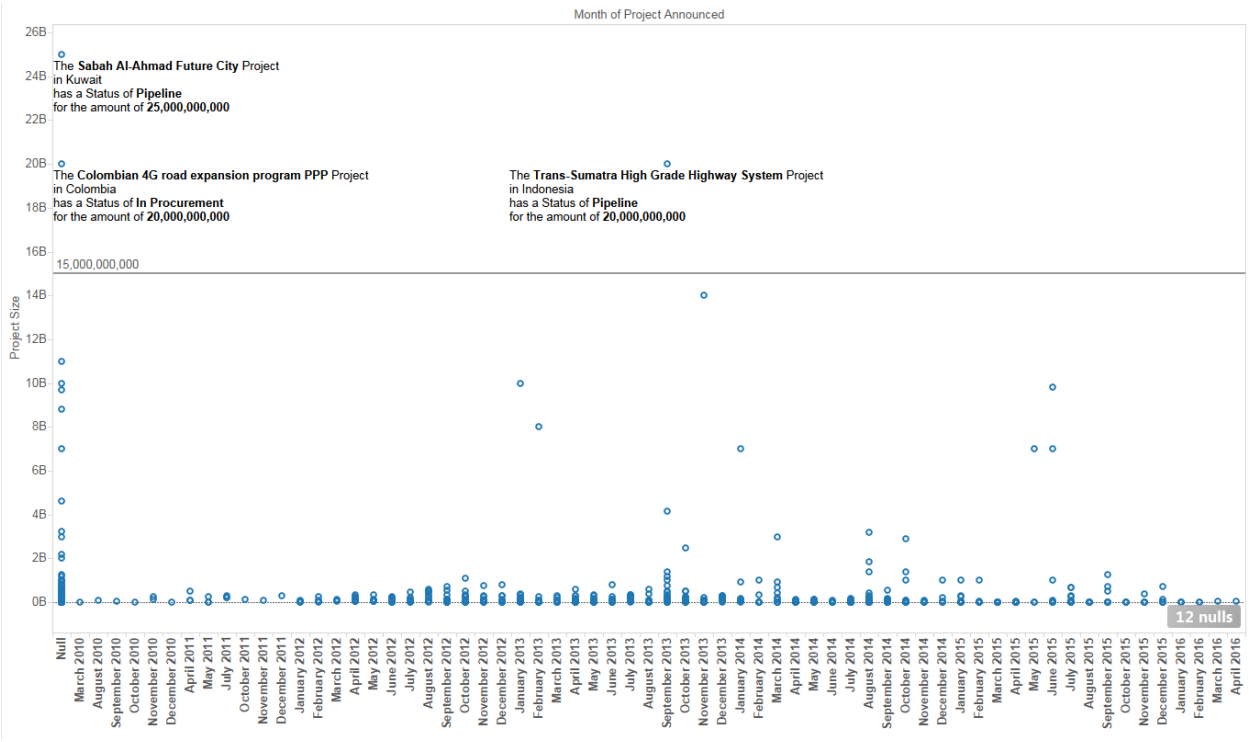
1. Exactly recreate this grey-scale map of average project size by country:



2. Exactly recreate this filtered Bar Chart (using the color ramp of your choice):



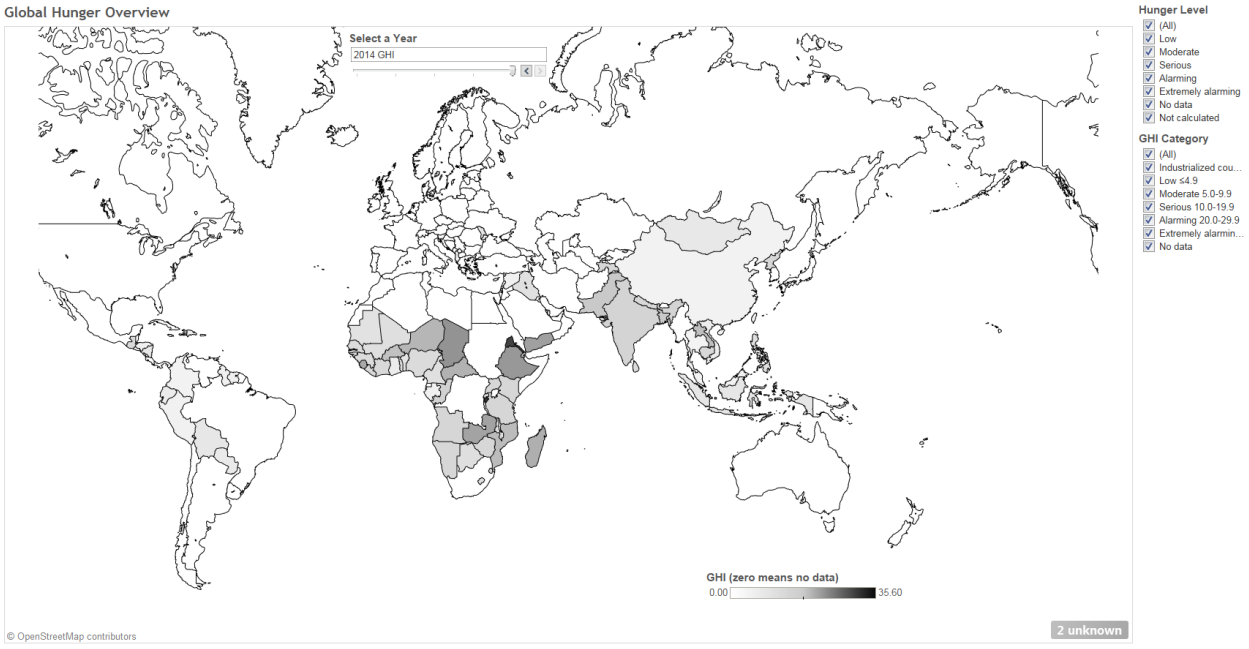
3. Exactly recreate this visualization of project size over time, including the details regarding projects over $15B (using the color of your choice):



Global Health

FILE TO USE: Global Health Data.xlsx

1. Exactly recreate this grey-scale map of Global Hunger Index by country:



Part 3 (Optional 2 points - *Extra Credit*)

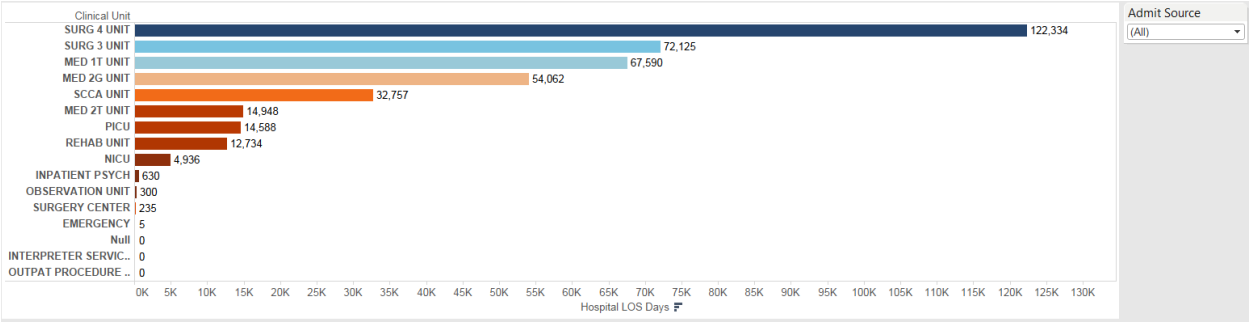
Recreate the following visualizations in Tableau.

Healthcare data

FILES TO USE: **healthcare.xlsx** and **Clinical Unit Costs.csv**

1. For the following questions, connect Tableau to the two files listed above to create a data blend (not a join) and create extracts of both data sets rather than connecting live.

2. Exactly recreate this overview of LOS (length of stay) by Clinical Unit, with an option to filter by Admit Source:



Note: color indicates the total cost for that Clinical Unit.

3. Exactly recreate this scatterplot depicting the relationship between cost and average days before discharge, broken down by gender.

Notes:

- This graph includes a dot for each MRN Number. To make this work, you will need to link the datasets using MRN Number. Do this by clicking the small link icon next to the MRN Number field in the data window (it looks like a chain link).
- Color indicates gender (each gender has its own trendline)
- The size of each dot indicates the total length of the stays (Hospital LOS Bed Days) for that MRN.
- The y-axis is the average number of days between the “Episode Start” and the “Discharge.” (Note that this is not the same thing as the length of stay.)