# Tableau Assignment - Citi Bike Analytics

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Here is the location of my story:

<https://public.tableau.com/profile/ghassan2357#!/vizhome/almost-done/storyofbikeanalysis?publish=yes>

This file (Tableau-Assignment.docx) and the file (Tableau-Assignment-2.docx) are supporting documents to the

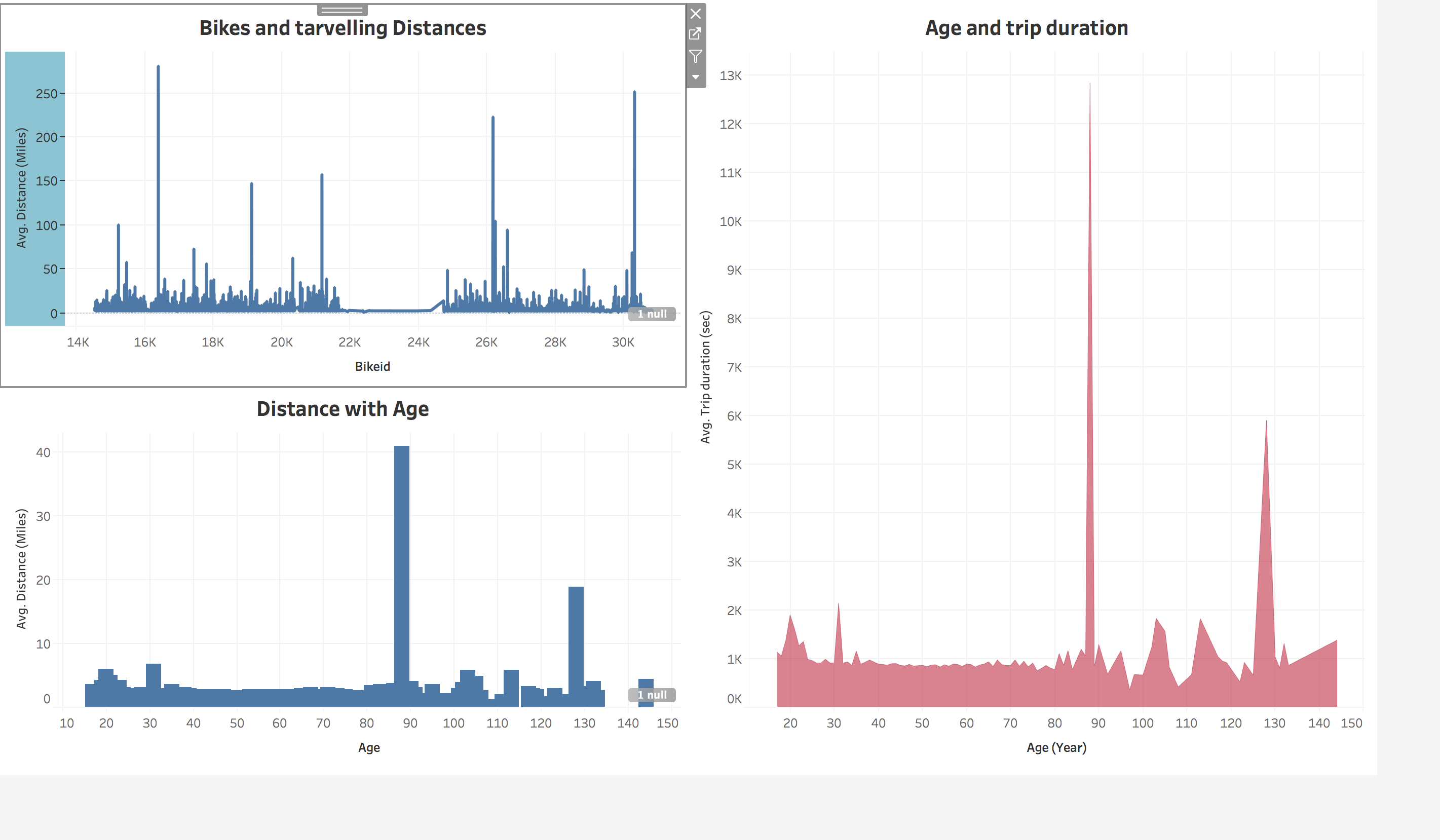
Story file:

\* By what percentage has total ridership grown?

Ridership is increasing within less than 4% and mostly during July (weather related)

\* How has the proportion of short-term customers and annual subscribers changed?

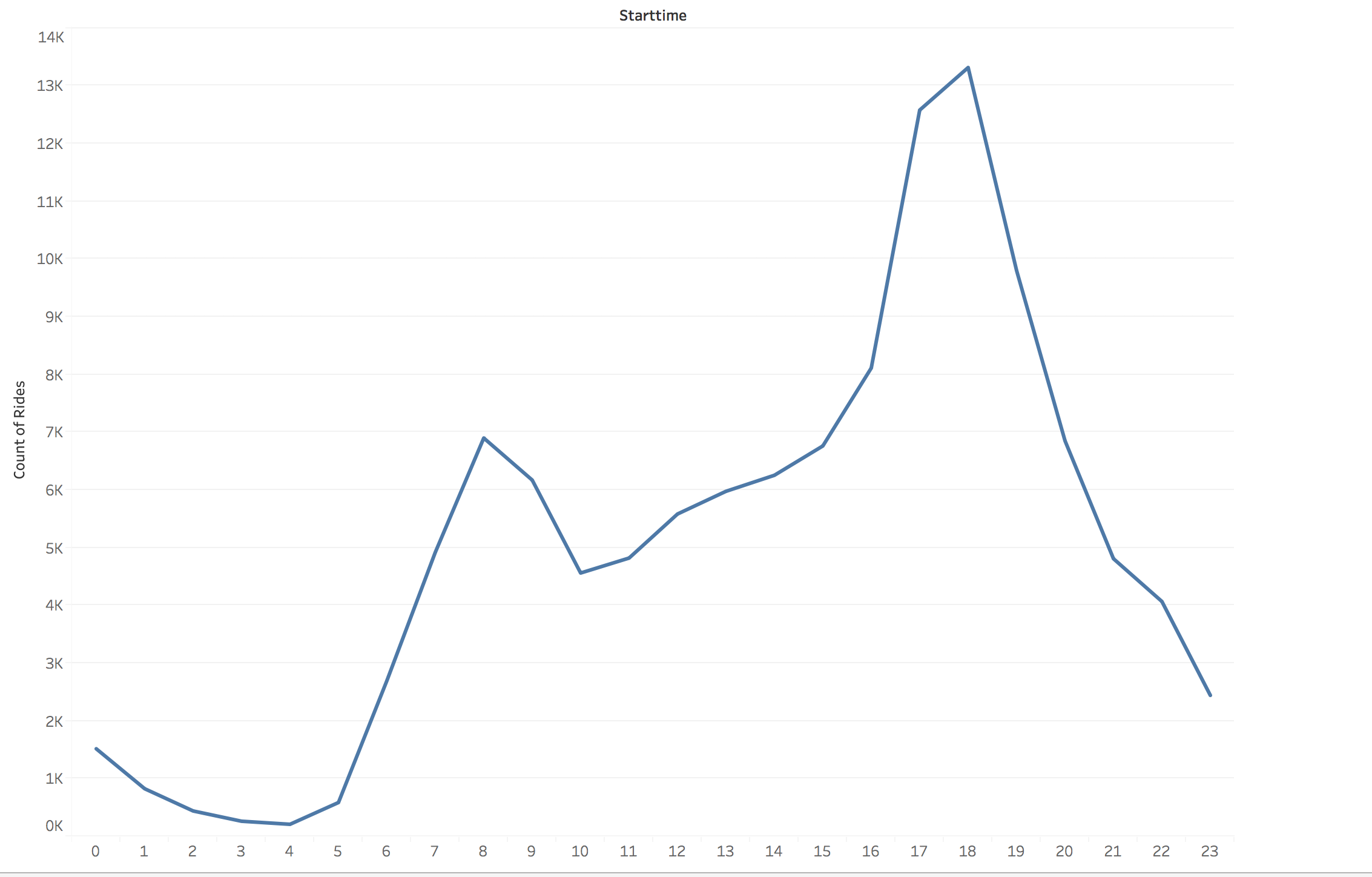
Below dashboard covers some of the analysis.



\* What are the peak hours in which bikes are used during summer months?

It seems a **bimodal** distribution with two peaks describe peak hours; 7-9 in the a.m. and

4 to 6 in the p.m. Also the weekend show a small increase in the bikes usage (Figure attached)

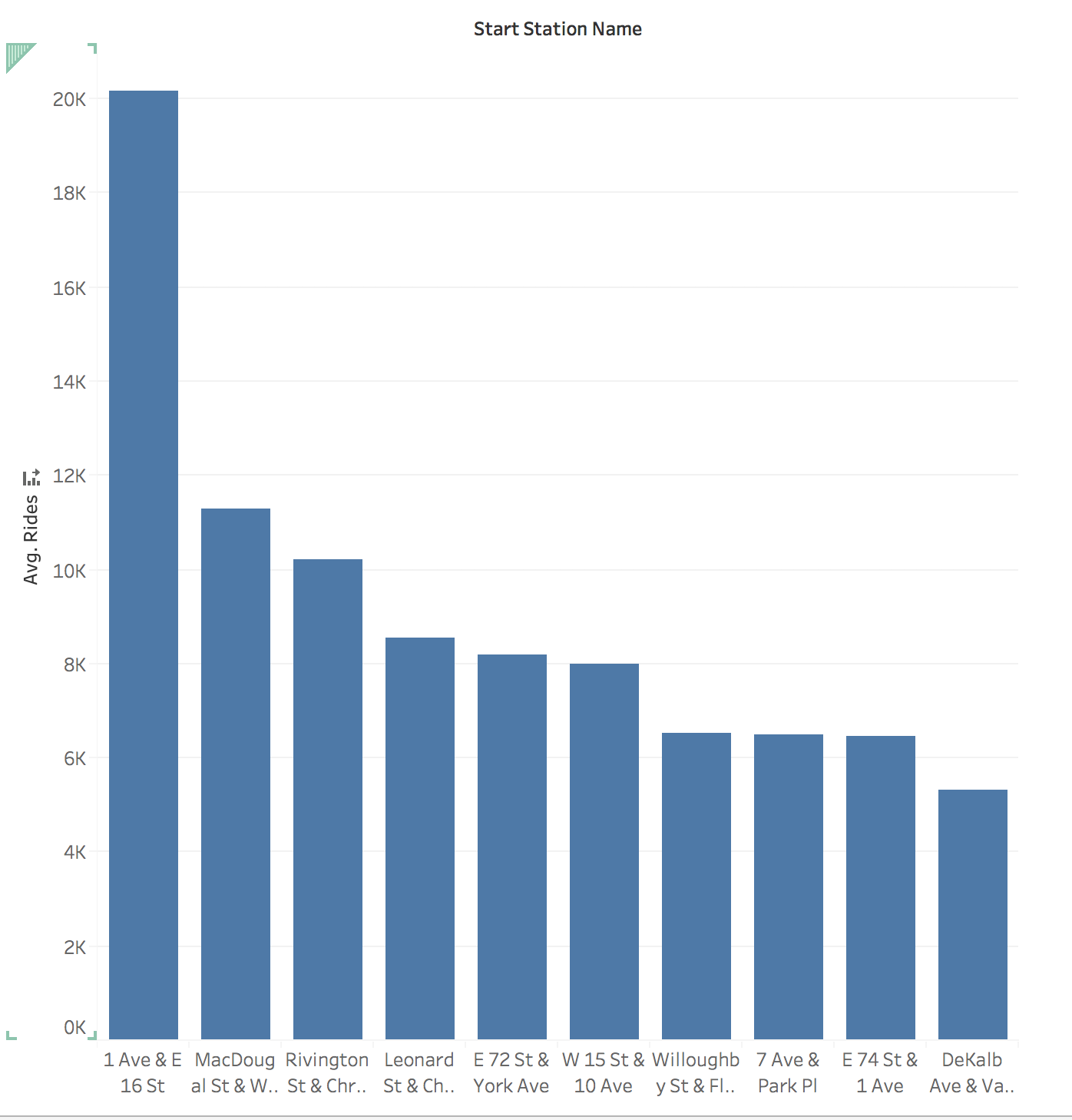


\* What are the peak hours in which bikes are used during winter months?

Winter months were not considered in this analysis.

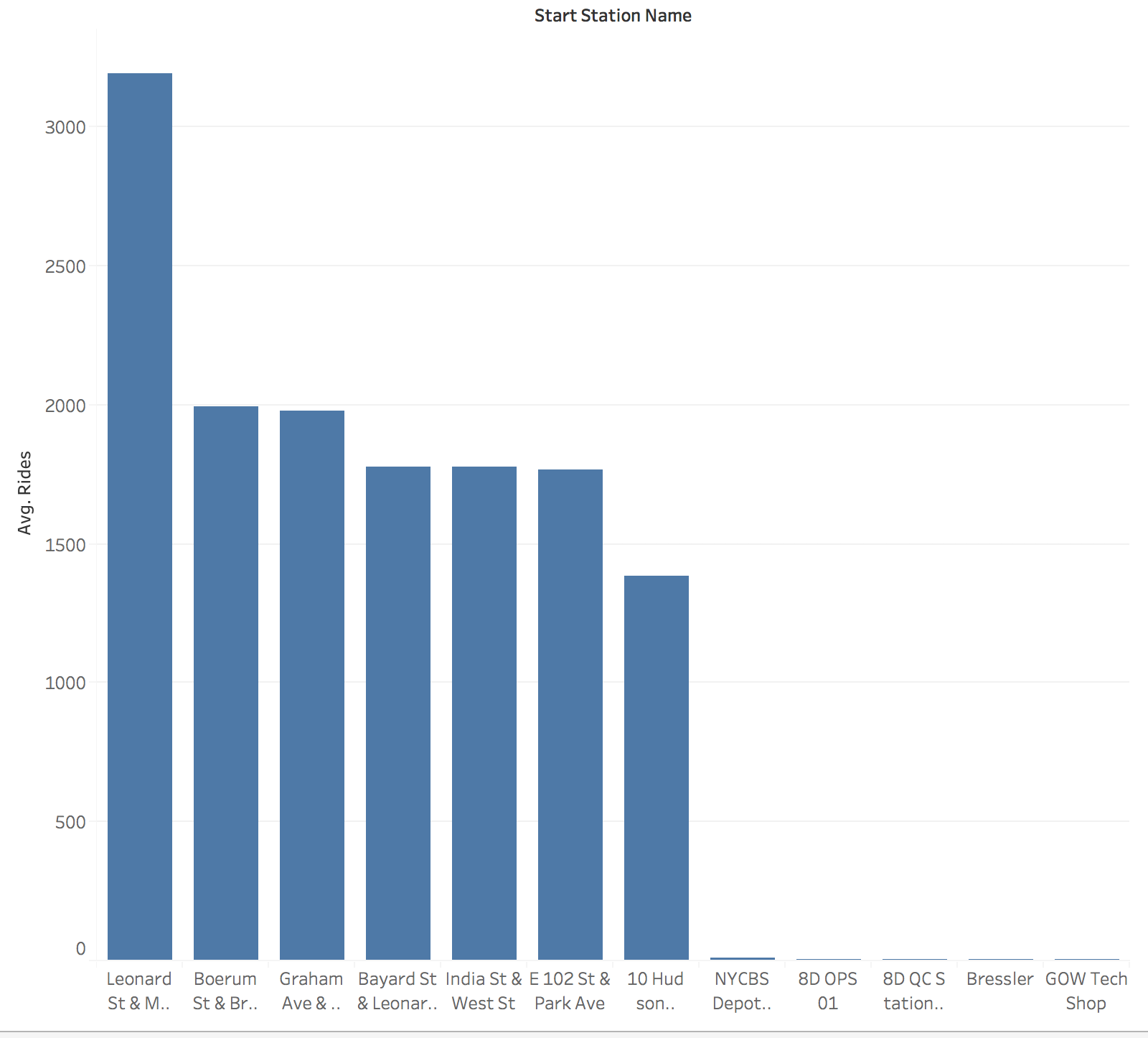
\* Today, what are the top 10 stations in the city for starting a journey? (Based on data, why do you hypothesize these are the top locations?) I believe those stations are within the heart of the

New York City boroughs.



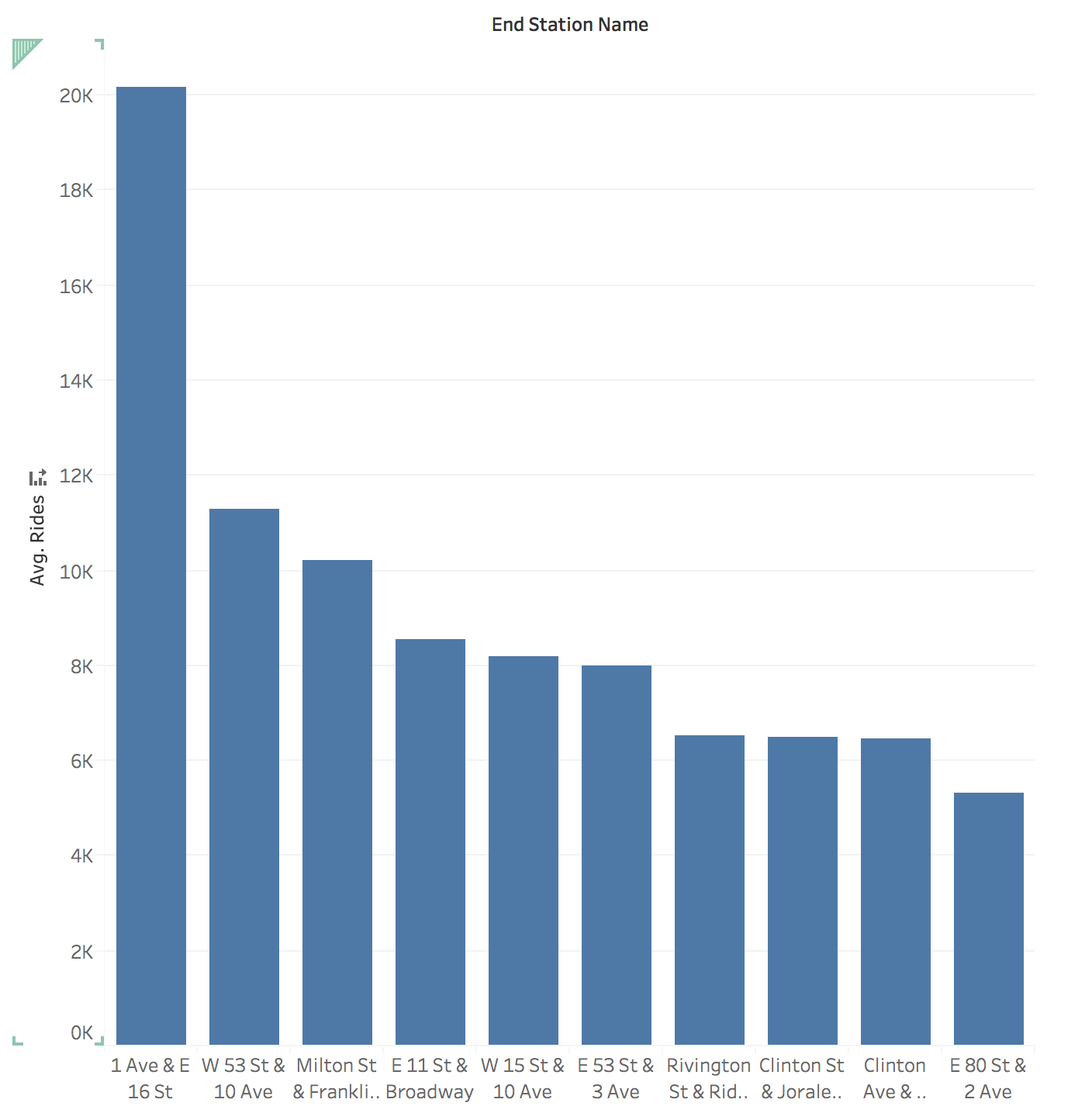
\* Today, what are the top 10 stations in the city for ending a journey? (Based on data, why?)

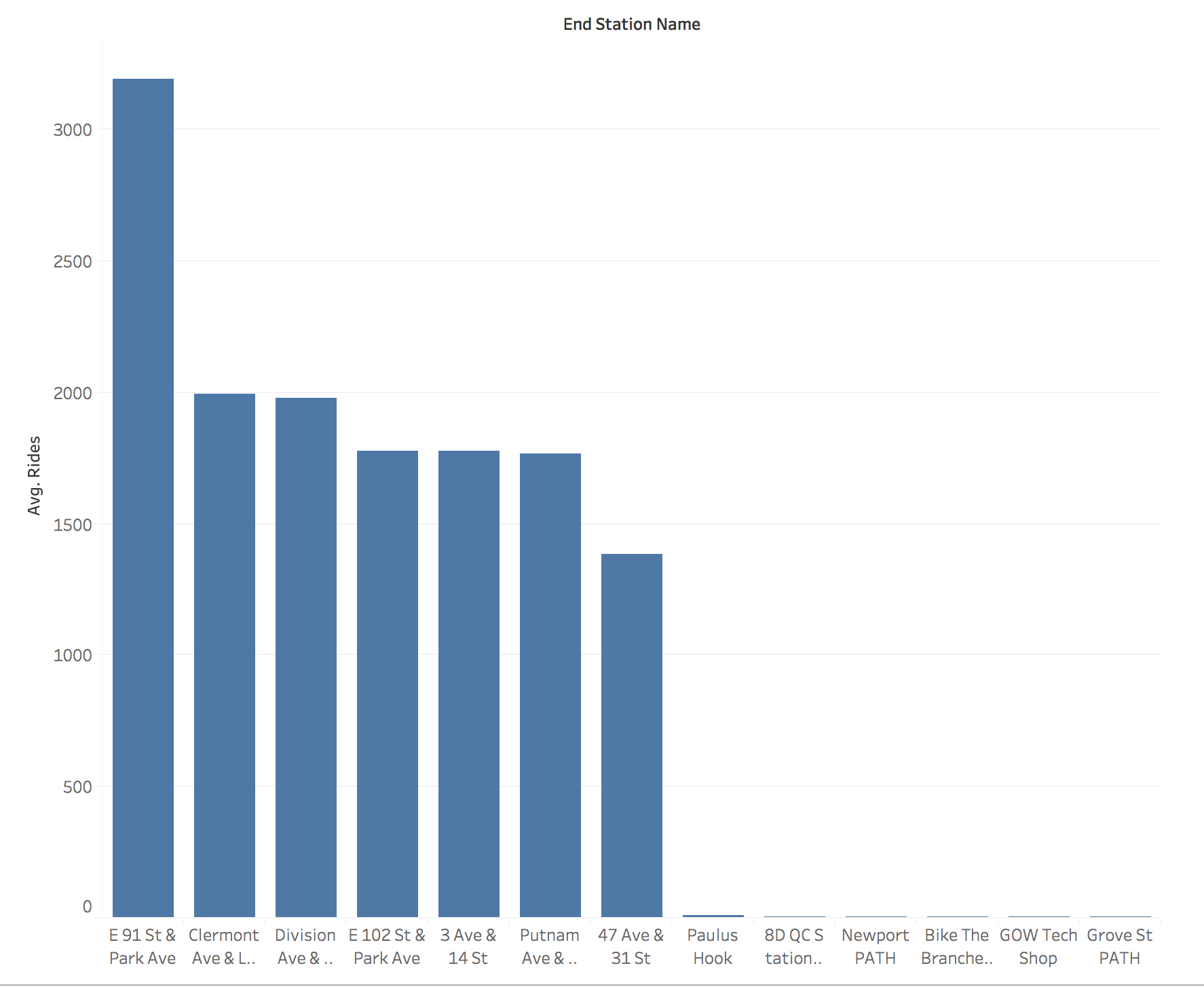
\* Today, what are the bottom 10 stations in the city for starting a journey? (Based on data, why?)



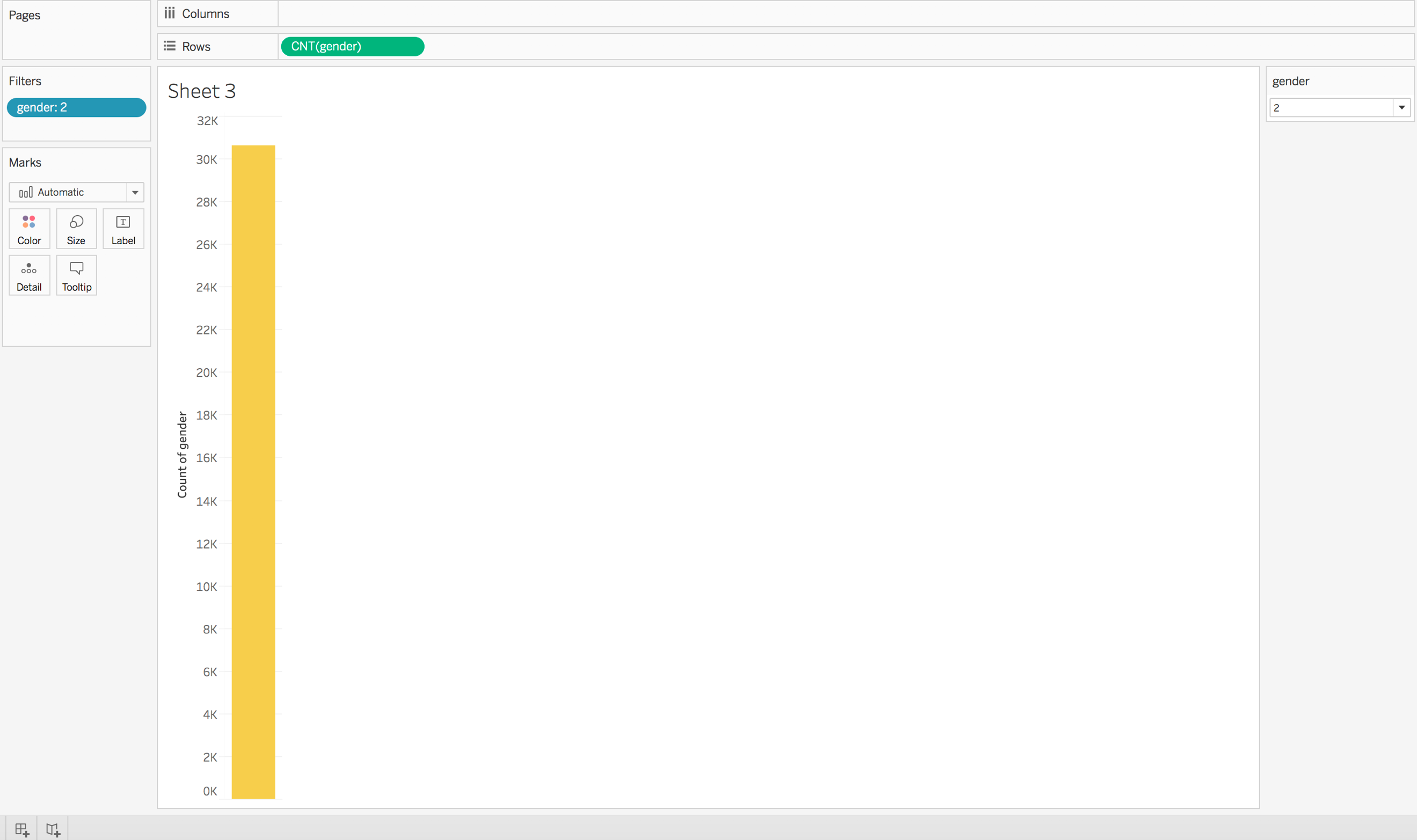
\* Today, what are the bottom 10 stations in the city for ending a journey (Based on data, why?)

Those station are visited for reason other than tourist or recreational and probably more industrial locations than parks.

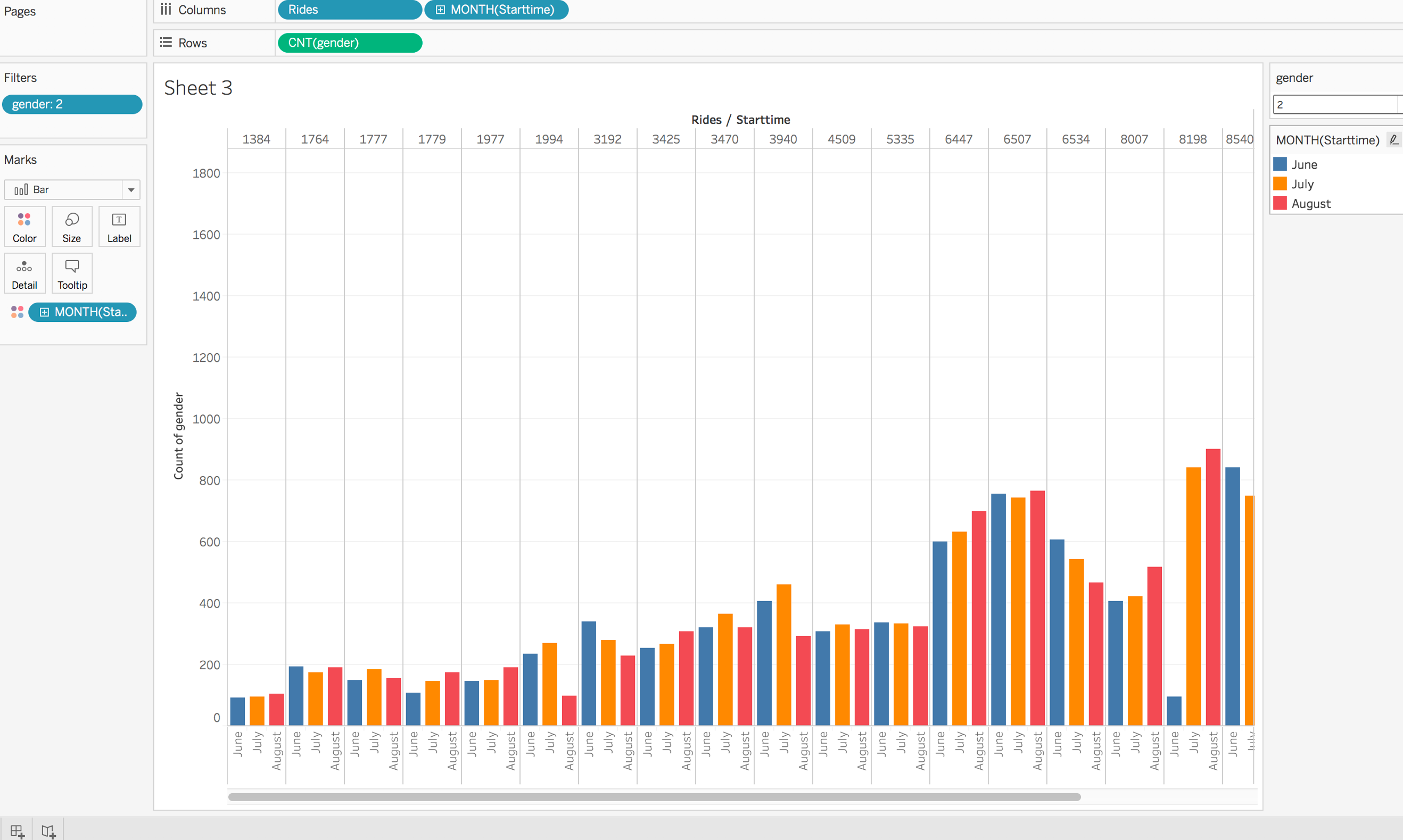




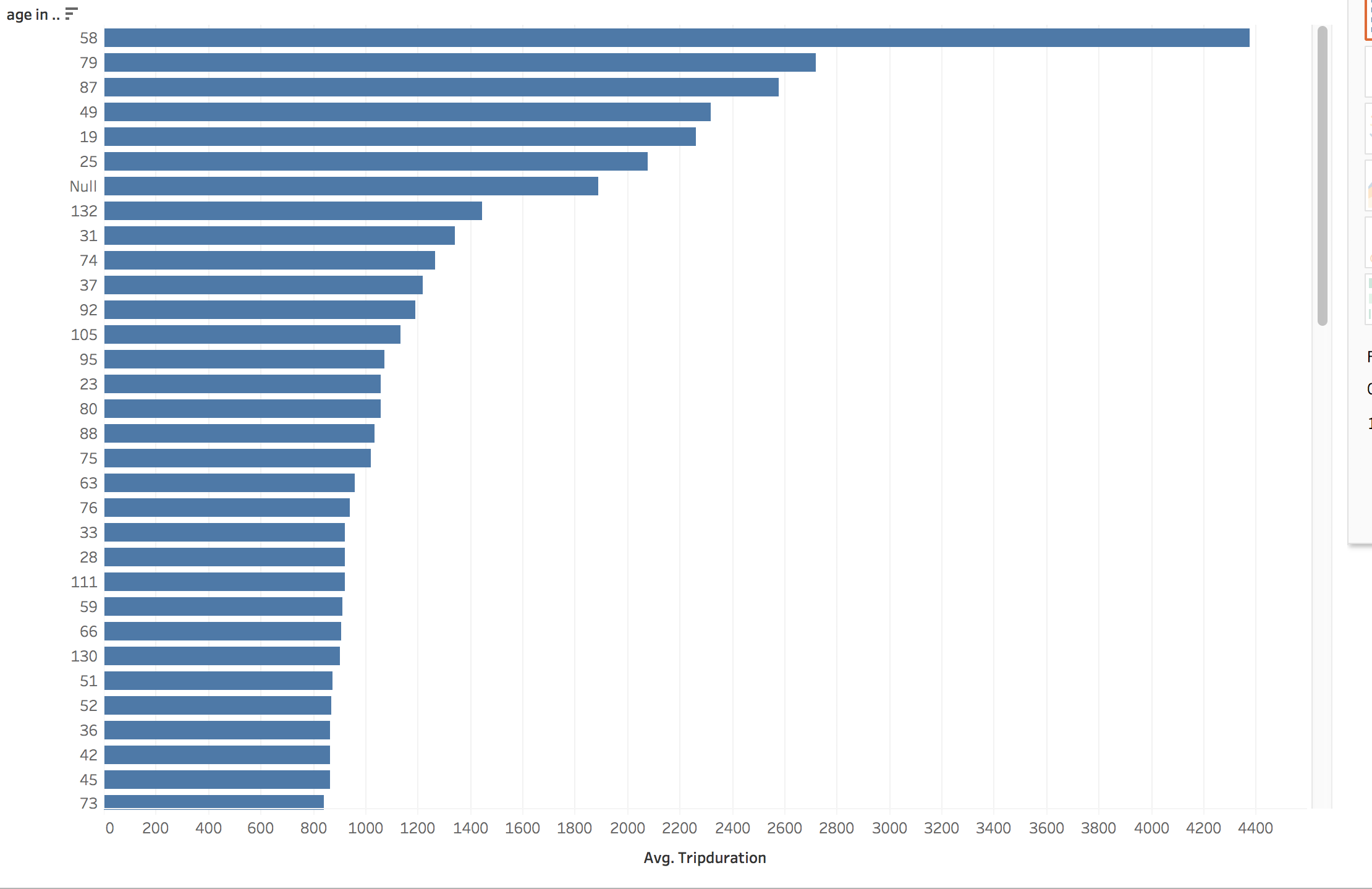
\* Today, what is the gender breakdown of active participants (Male v. Female)?



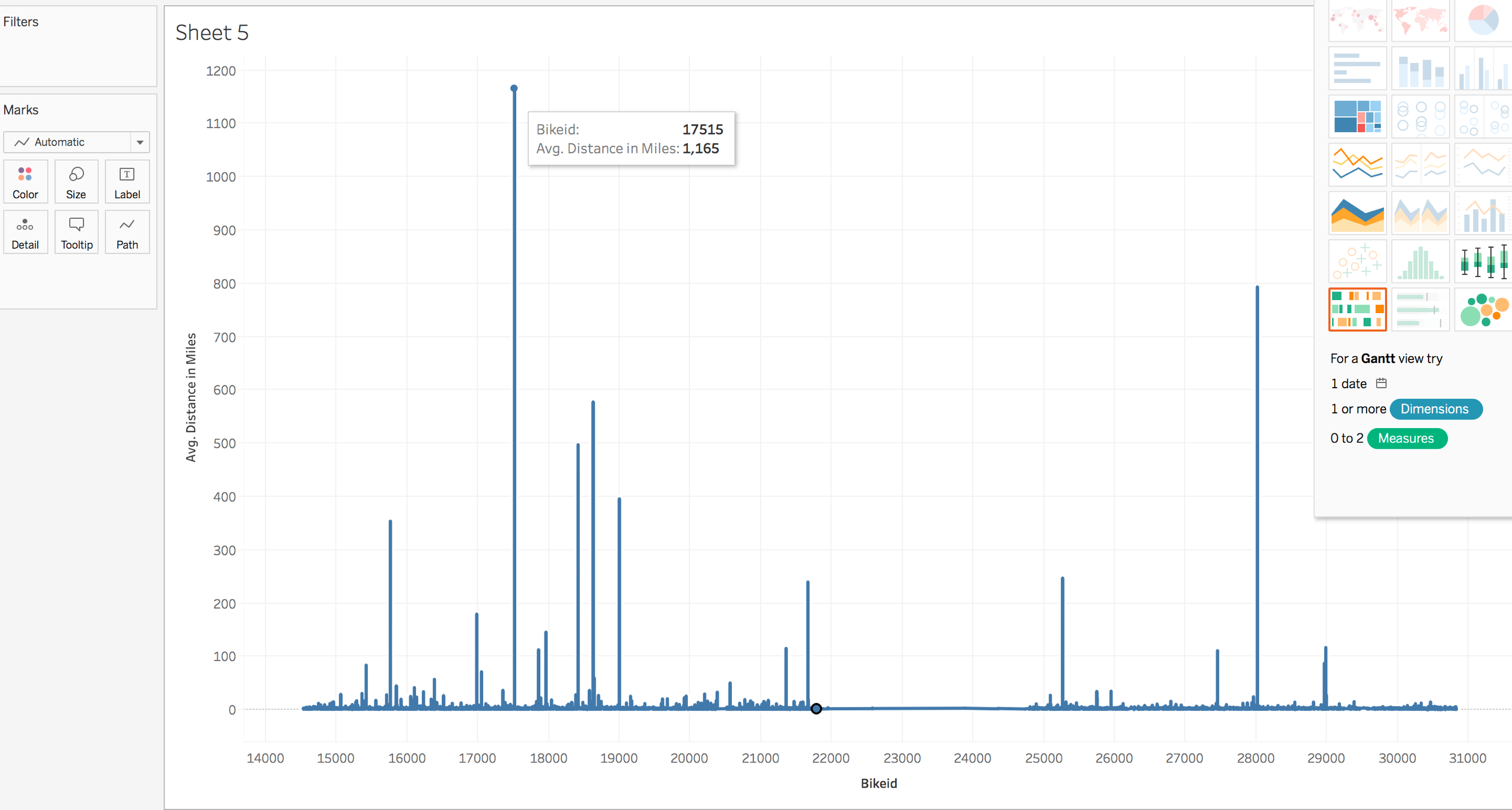
\* How effective has gender outreach been in increasing female ridership over the timespan?



\* How does the average trip duration change by age?



\* What is the average distance in miles that a bike is ridden?



\* Which bikes (by ID) are most likely due for repair or inspection in the timespan?

Bikes with ID between 21692 and 24849 potentially out of service during this period.

\* How variable is the utilization by bike ID?

Bike ID as a variable is limited in utilization as it describe the bike only and technically it is a

Static variable does not change during bike rental operations.

\*\*Additionally, city officials would like to see the following visualizations:\*\*

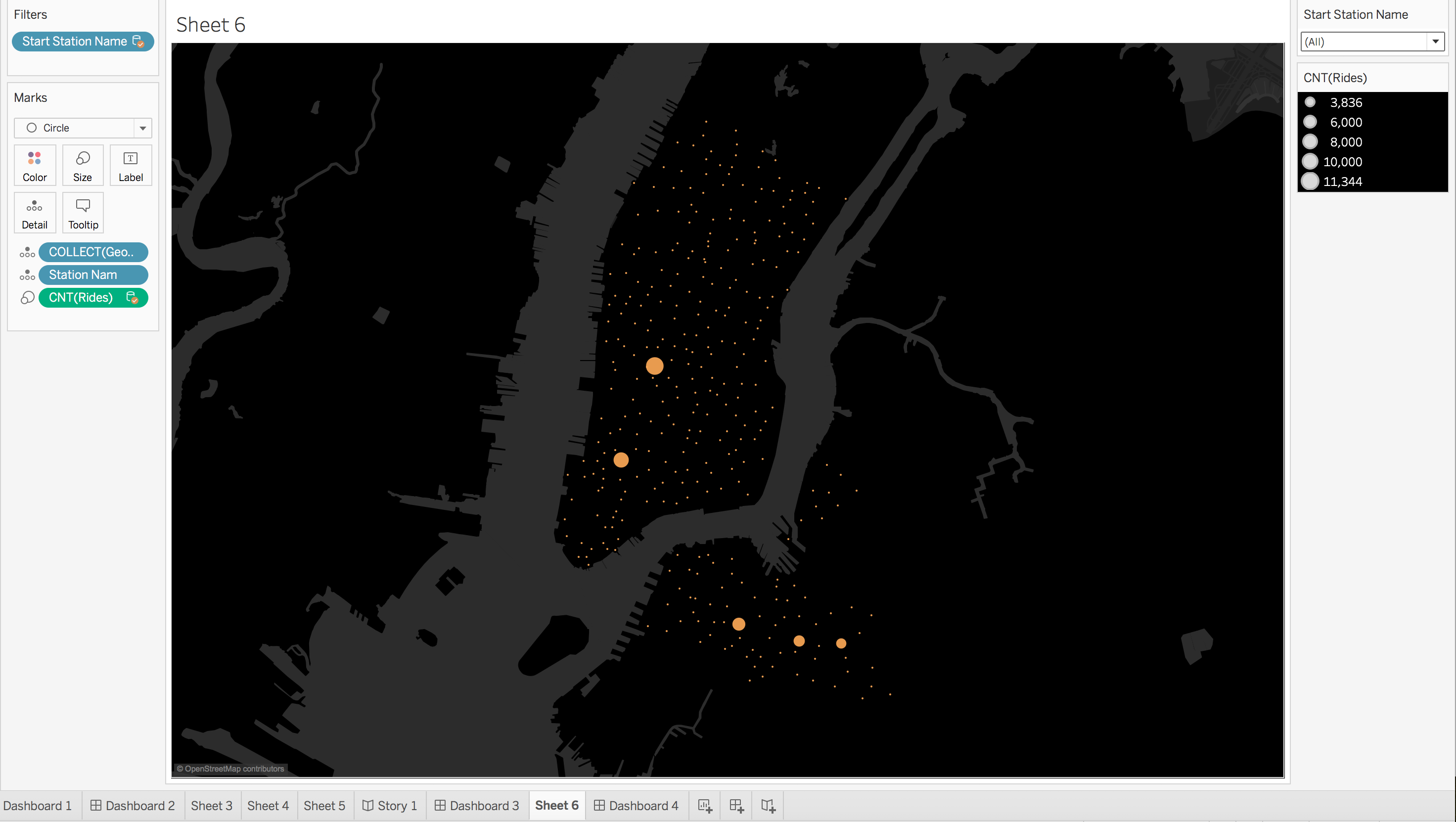
\* A static map that plots all bike stations with a visual indication of the most popular locations to start and end a journey with zip code data overlaid on top.

<https://public.tableau.com/profile/ghassan2357#!/vizhome/Book1_39787/Dashboard4?publish=yes>



\* If you're working with a merged dataset: a dynamic map that shows how each station's popularity changes over time (by month and year) -- with commentary pointing to any interesting events that may be behind these phenomena.

<https://public.tableau.com/profile/ghassan2357#!/vizhome/Book1_39787/Dashboard5?publish=yes>



\*\*Lastly, as a chronic over-achiever:\*\*

\* Find at least two unexpected phenomena in the data and provide a visualization and analysis to document their presence.

Potentially, both females and senior citizens will keep stacking the number of bike ridership.

