

Citi Bike Data Analysis

By Benjamin Escatel

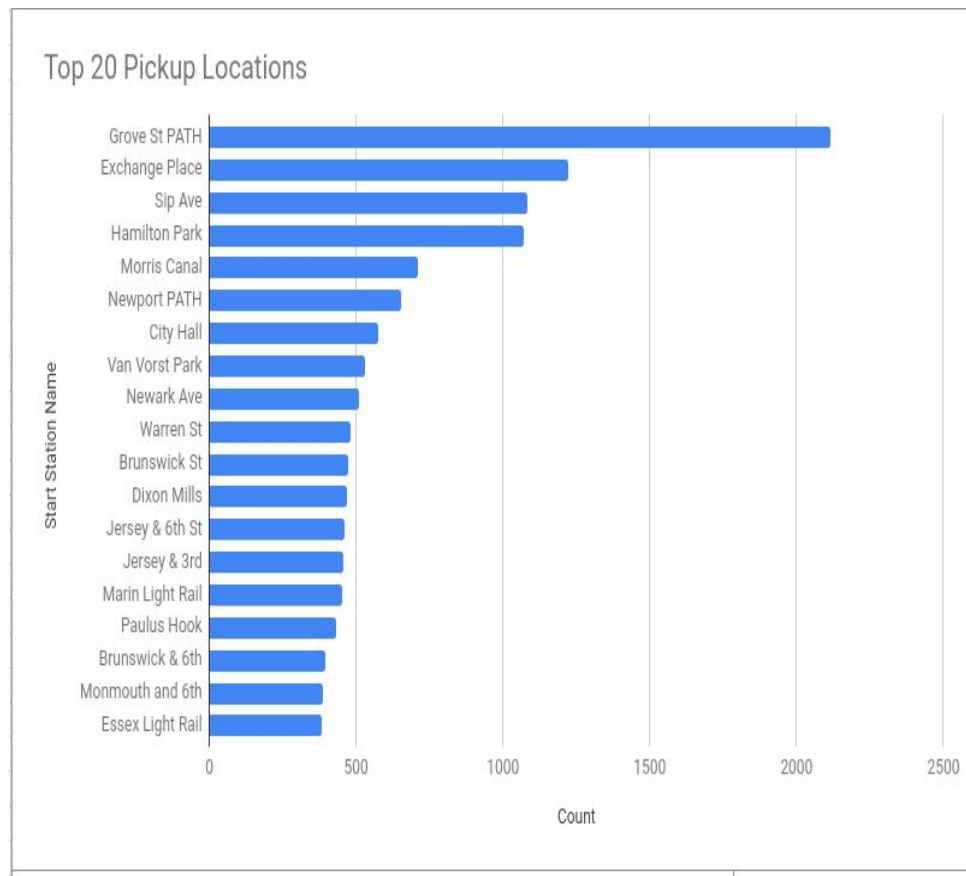
Project Goal:

- *Our main goal is to better understand the behavior of Citi Bike's customer base (both one-time users and subscribers) and how they use Citi Bikes*
- *This will help us to:*
 - *Establish where more bikes should be installed*
 - *Create targeted marketing campaigns that appeal to different demographics*
 - *Retain customers*
 - *Identify ways in which we could improve and streamline the customer experience*

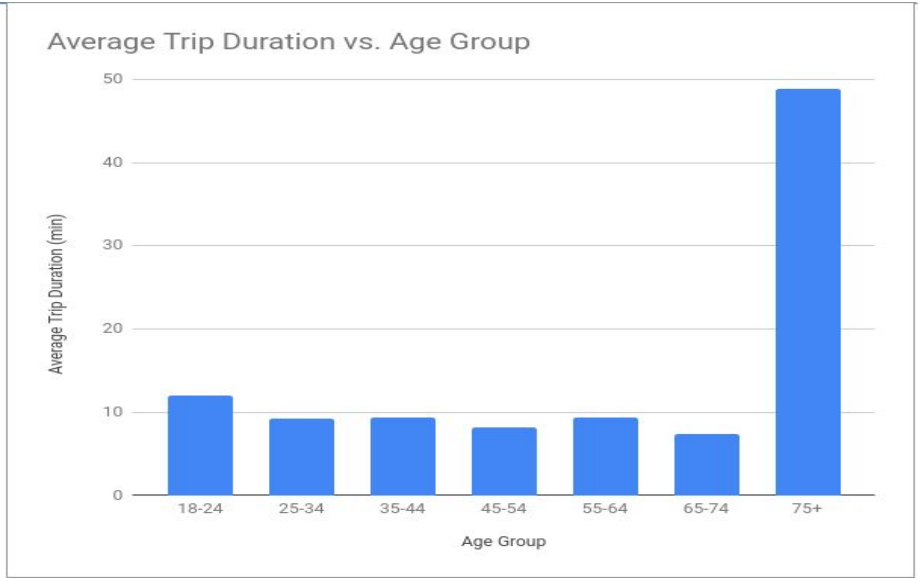
Key questions:

- What are the most popular pick-up locations across the city for Citi Bike rental?
- How does the average trip duration vary across different age groups?
- Which age group rents the most bikes?
- How does bike rental vary across the two user groups (one-time users vs long-term subscribers) on different days of the week?
- Does the factor of user age impact the average bike trip duration?

1. What are the most popular Citi Bike pick-up locations?

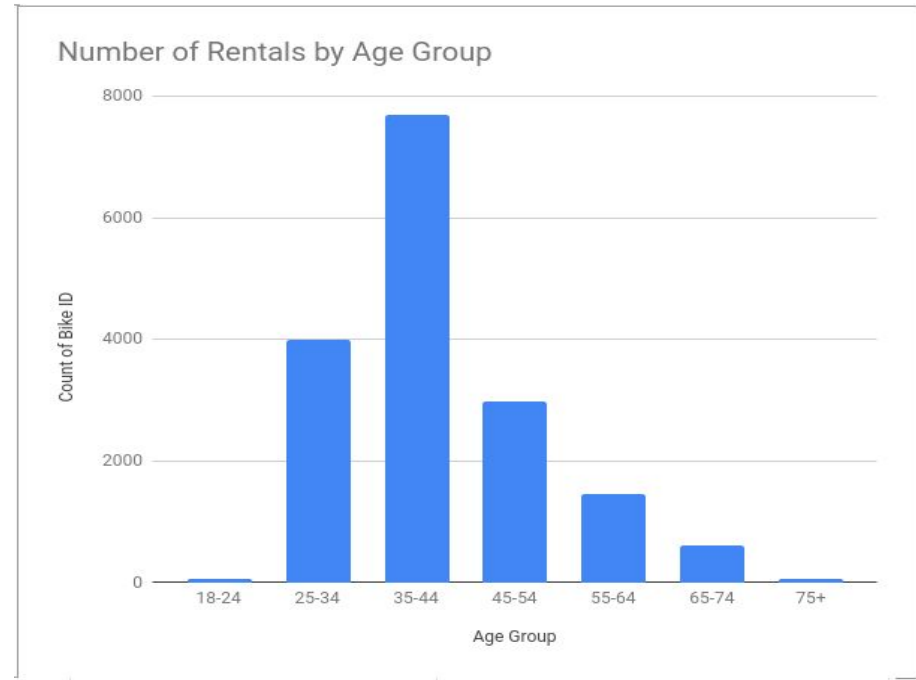


2. How does the average trip duration vary across different age groups?



- It appears that customers who are 75 and older, on average, take the longest rides
- 18 - 24 year olds come in second but ride less than half the time of 75+ individuals
- The shortest rides are taken by 65 - 74 year olds

3. Which age group rents the most bikes?



- 35 - 44 year olds, by far, rent the most bikes
- The groups with the least rentals are 18 - 24 year olds and 75+ year olds

4. How does bike rental vary across the two user groups (one-time users vs long-term subscribers) on different days of the week?

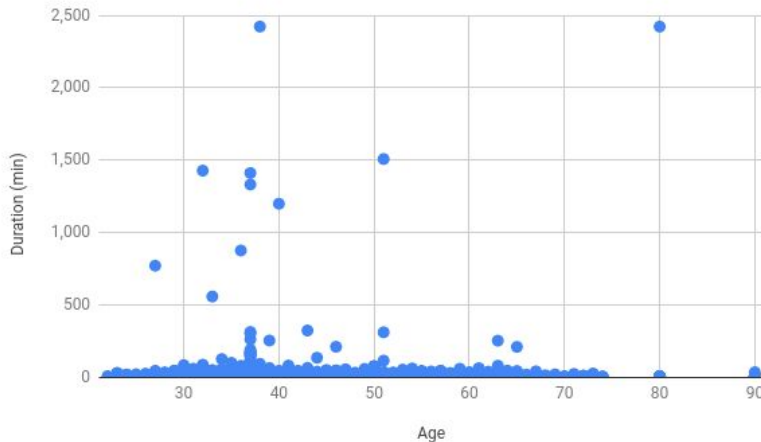


- Subscribed riders far outnumber one-time riders
- Most one-time riders peak on the weekends
- Subscribed riders mostly ride during the week with their numbers peaking between Wednesday and Thursday

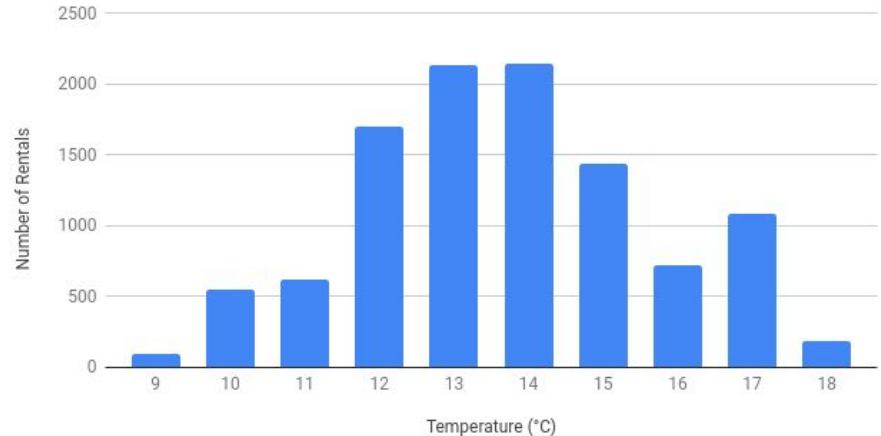
5. Do factors like weather and age impact the average bike trip duration?

- There is no particular age group that stands out when comparing trip durations. The majority of riders keep it under about 250 minutes (4 hours)
- As for temperature, it does not seem to affect ride time – not by a significant amount at least

Trip Duration vs Age



Rentals Based on Temperature



Summary of findings:

- **Top 5 pick-up locations for bikes:**
 - *Grove St Path, Exchange Place, Sip Ave, Hamilton Park, & Morris Canal*
- **Customer base:**
 - *The majority of our customer base is centered around middle-aged folks – most likely using our service as an affordable and sustainable way to commute to work*
- **Citi Bike customer behavior:**
 - *The numbers show that 75+ year olds take the longest rides, though 65 - 74 year olds seem to take the shortest ones. It seems that these folks are out to ride for leisure*

Recommended actions:

Product recommendations:

- Add more bikes to the following stations: Grove St Path, Exchange Place, Sip Ave, Hamilton Park, & Morris Canal. Additionally, we could consider revamping these stations to appear more fun and unique
- Improving the functionality of the mobile app (or creating one if it does not exist). This could potentially make the rental process much more streamlined and exciting – additionally we could implement a rewards feature as well as a community tab for all types of riders to connect across the city

Marketing recommendations:

- For our main demographic, 35 - 44 year olds, we should focus on advertisements that push a quick and affordable subscription with the added benefit of being a clean and lean option
- For our long ride customers, aka 75+ and 18 - 24 year olds, we could consider implementing a “senior” and “youth” rate to attract more business
- Overall, marketing should feel all inclusive as our customers span multiple age brackets and choose to ride CitiBike for many different reasons