

Citi Bike Data Analysis

By Daniel Wilkinson

Project Goal:

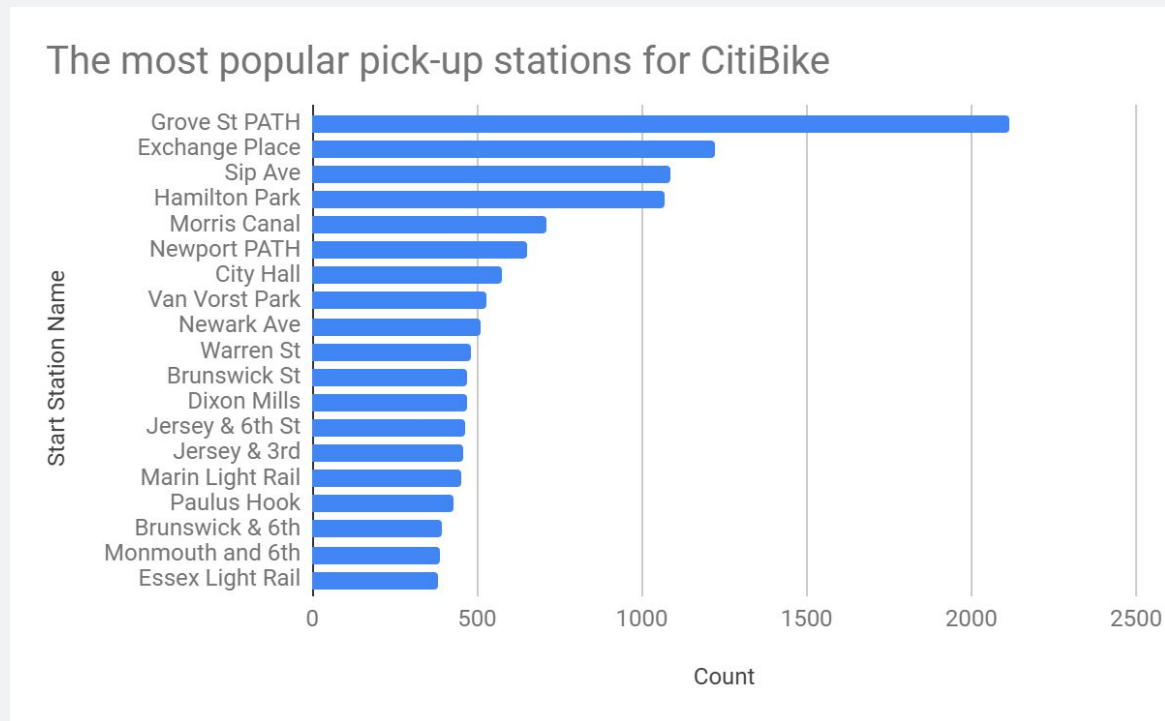
- *To better understand the behavior of Citi Bike's customer base (both one-time users and subscribers) and how they use Citi Bikes*
- *This will help us to:*
 - *Identify where more bikes should be installed*
 - *Create targeted marketing campaigns that will appeal to different customer segments*

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?

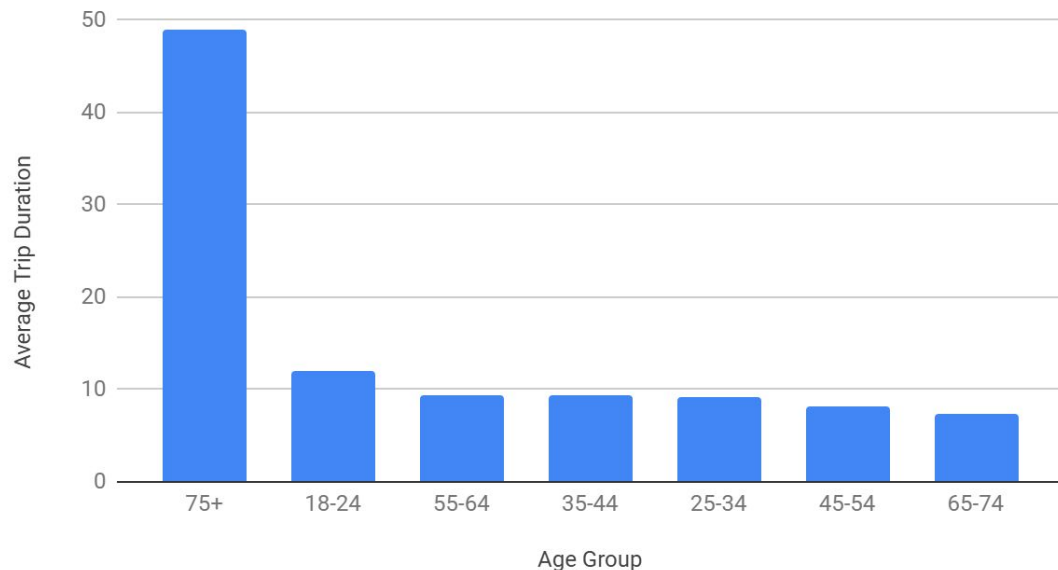
Findings & Insights

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



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

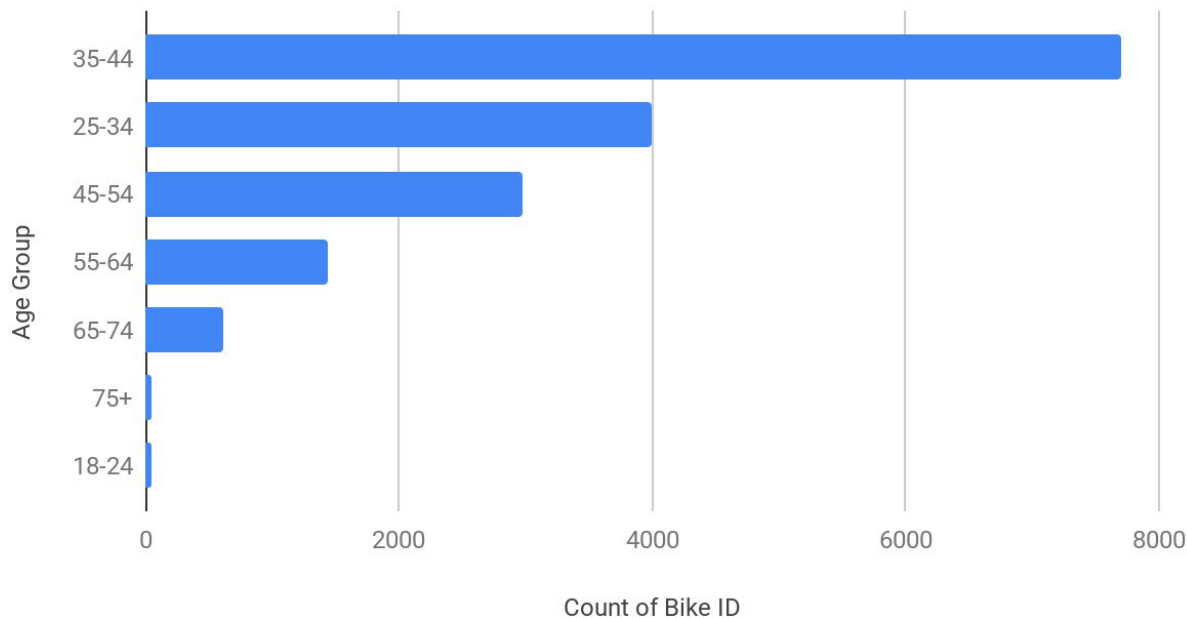
Average Trip Duration (min) per Age Group



- Longest trips (on average) are taken by the oldest users (75+), followed by the youngest (18-24). The shortest trips are by 65-74 year olds.

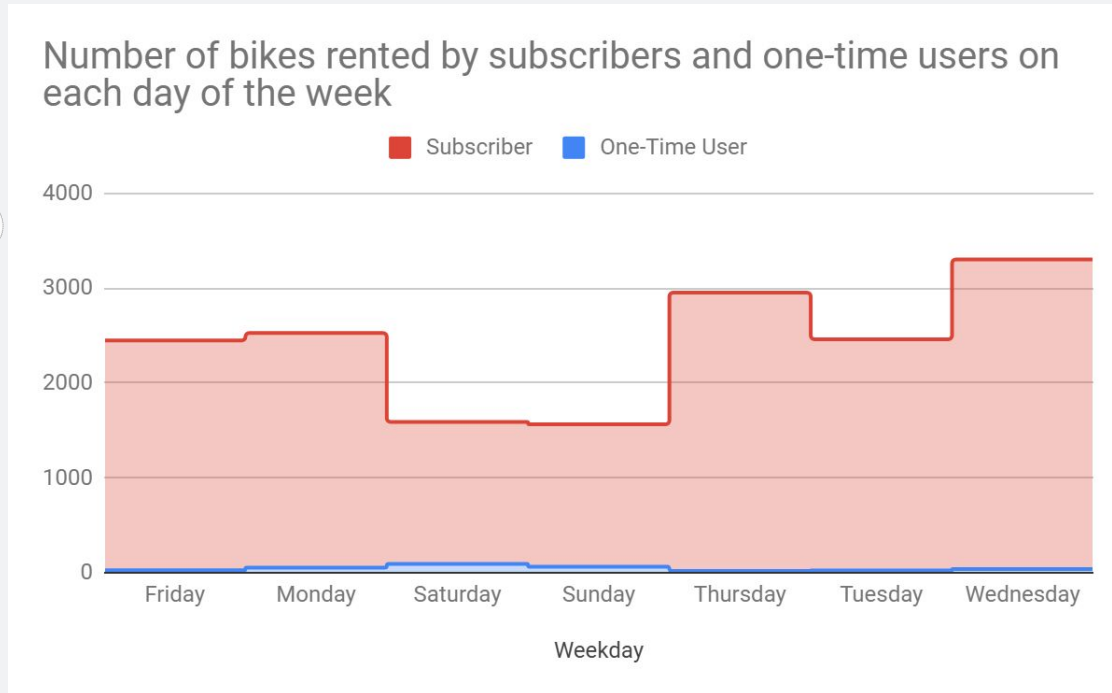
3. Which age group rents the most bikes?

Number of bikes rented across age groups



- *Most bikes are rented by 35-44 year olds. The fewest bikes are rented by the youngest (18-24) and oldest (75+) age groups.*

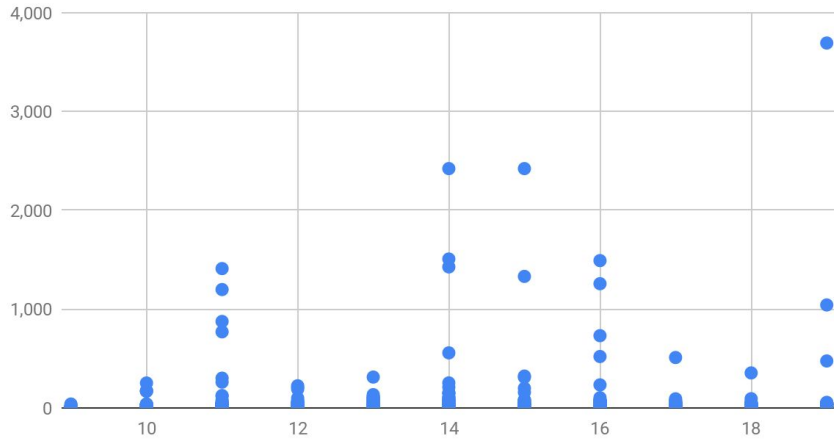
4. How does bike rental vary across the two user groups (one-time users vs long-term subscribers) on different days of the week?



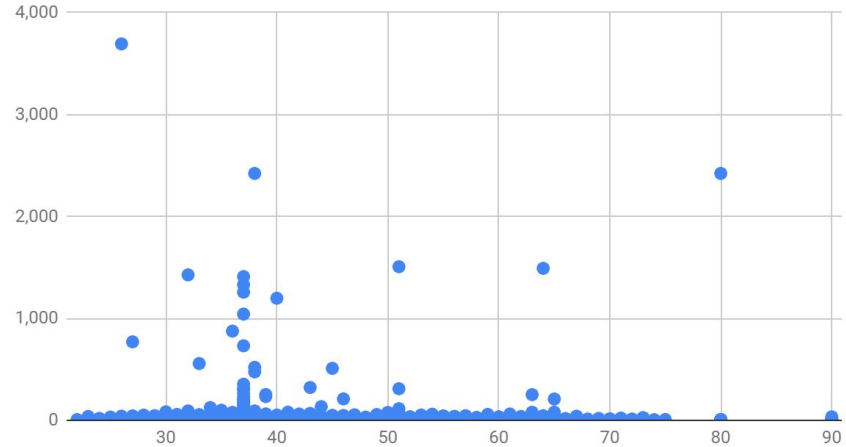
- *One-time users rent much less often than subscribers.*
- *One-time users rent most often on weekends.*
- *Subscribers rent more often on weekdays.*

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

Trip Duration (min) vs Temperature (°C)



Trip Duration (mins) vs User Age



- *There is no clear relationship between temperature and trip duration.*
- *There is no clear relationship between age and trip duration*

Summary

Summary of findings:

- **Top 5 pick-up locations for bikes:**

- *Grove St Path, Exchange Place, Sip Ave, Hamilton Park, & Morris Canal*

- **Customer base:**

- *The most common customer is a subscriber of working age.*

- **Citi Bike customer behavior:**

- *On average, the longest trips are taken by seniors (75+) and the shortest trips are taken by 66-74 year olds.*

Actions & Recommendations

Recommended actions:

Product recommendations:

- *Install more bikes at Grove St Path, Sip Ave, Newport Path, Newark Ave, and Van Vorst Park.*

Marketing recommendations:

- *The Citi Bike customer base is mostly subscribers aged between 34 and 44, who are most active on weekdays. This tells us that they are probably people who live in New York and use Citi Bikes to commute. Marketing and advertising campaigns should therefore target this particular demographic.*

Thank you!