

Citi Bike Data Analysis

Understanding customer behavior and optimizing bike usage

Analysis 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:

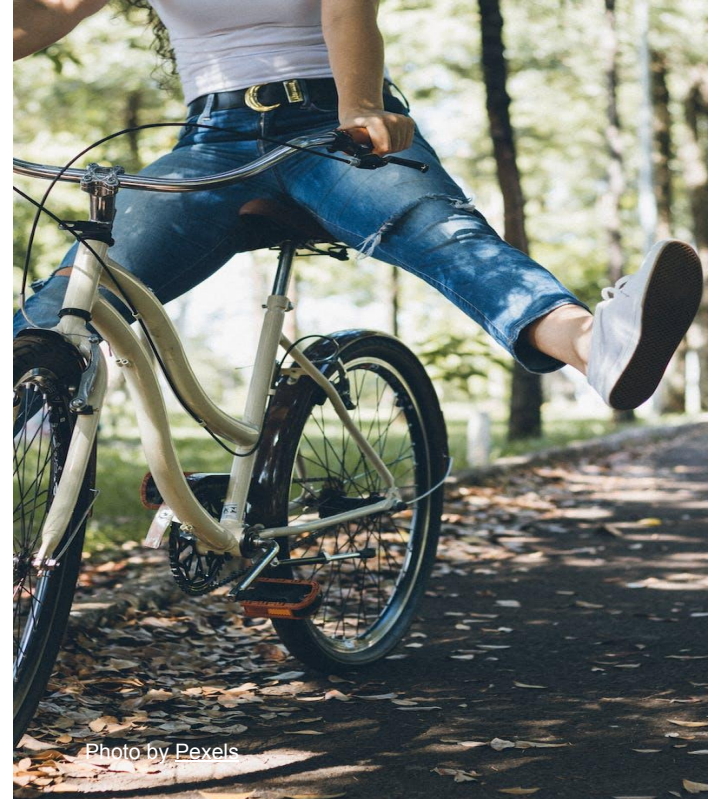
- Identify where more bikes should be installed
- Create targeted marketing campaigns that will appeal to different customer segments



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Key questions:

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

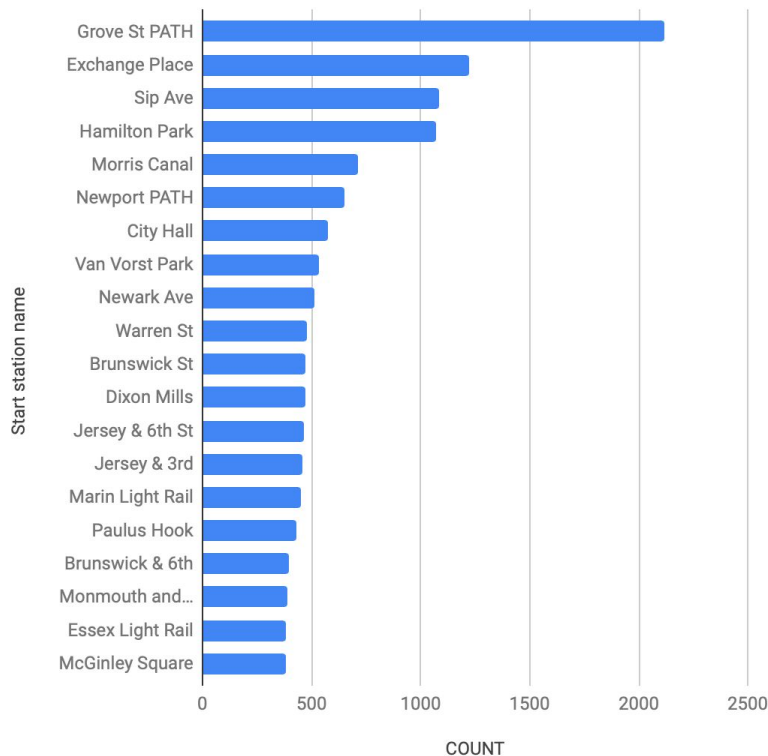


Popular Pick-up Locations

City's Top Spots

- Central Park and Times Square are among the most popular pick-up locations for Citi Bike rental.
- Other hot spots include the Brooklyn Bridge and the High Line, attracting tourists and locals alike.
- These locations offer convenient access to popular attractions, shopping areas, and scenic routes.
- The popularity of these pick-up points highlights the demand for bike rentals and the city's bike-friendly infrastructure.

The most popular pick-up station for Citibike

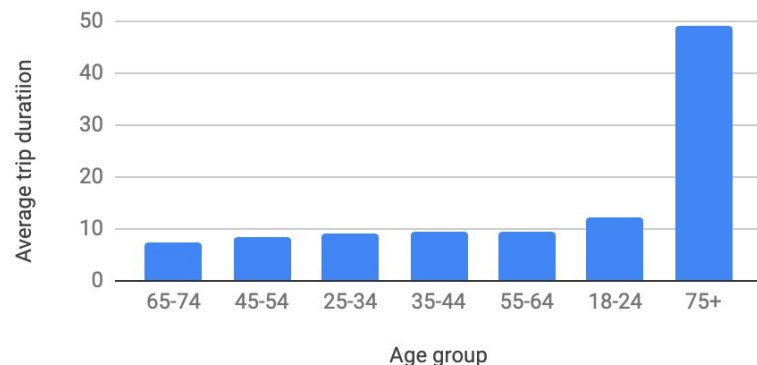


Average Trip Duration

Age Group Analysis

- Younger age groups have shorter trip durations compared to oldest age groups, while others it doesn't varies that much at all
- The average trip duration almost every age group is around 10 minutes.
- In contrast, the average trip duration for 65+ year olds is around 45 minutes.

average trip duration across different age groups

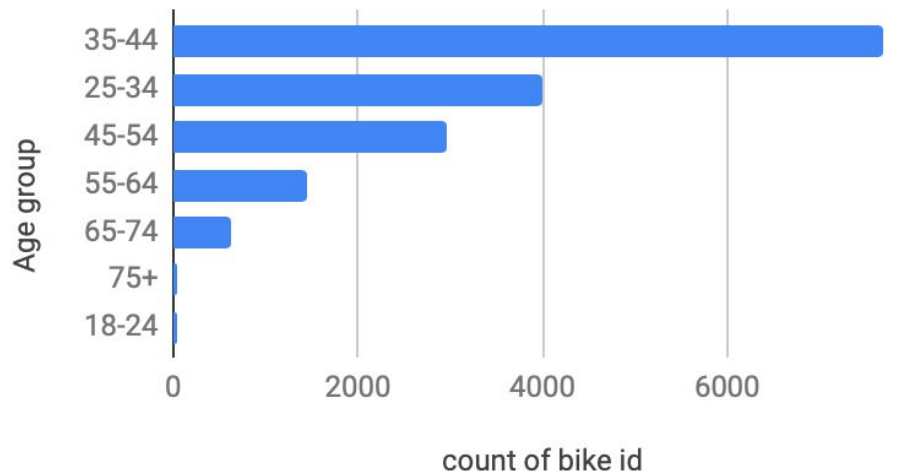


Bike Rentals by Age Group

Most Frequent Renters

- The age group between 25-34 rents the most bikes.
- This group accounts for over 50% of all bike rentals.
- They are predominantly young professionals and students.
- Factors like affordability and convenience drive their rental choices.

count of bike id vs. Age group

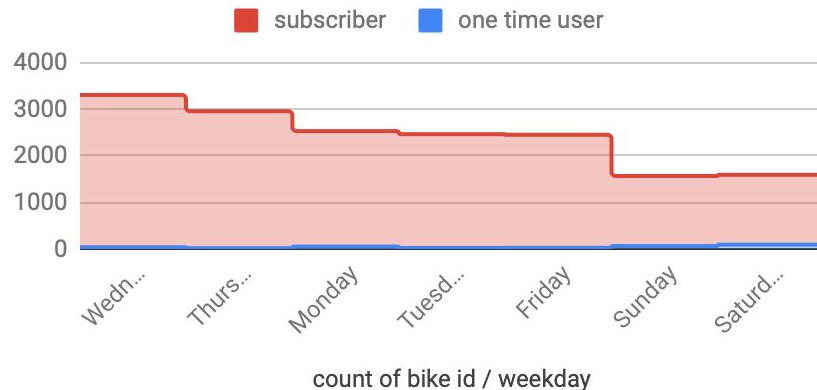


Bike Rental Variations

User Groups and Weekdays

- Bike rental patterns differ between one-time users and long-term subscribers.
- Long-term subscribers tend to rent more bikes on weekdays than weekends
- One-time users rent more bikes on weekends compared to weekdays.

number of bikes rented by onetime users and subscribers on different week days



Summary of findings:

1. **Top 5 pick-up locations for bikes:**
Grove St Path, Exchange Place, Sip Ave, Hamilton Park, & Morris Canal
2. **Duration of the bike trip:** The average trip duration almost every age group is around 10 minutes.
3. **The bike renting frequency:** Age group between 25-34 rents the most bikes, while the age group 18-24 the least bikes
4. **Customer base:** Long-term subscribers tend to rent bikes more on weekdays, while one-time users rent more bikes on weekends. The most popular day for bike rental is Wednesday.



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Actions & Recommendations

Product recommendations:

- Install more bikes at top 5 pick-up locations: Grove St Path, Exchange Place, Sip Ave, Hamilton Park, & Morris Canal

Marketing recommendations:

- The Citi Bike customer base is mostly subscribers aged between 35-44, who are most active on weekdays so the first target is demographically NYC people at this age group who use bikes to commute.
The age group 18-24 are using the bikes least so the marketing and advertising campaigns should therefore target also this particular age group to make the bike using more popular to them as well



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Thank You!

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