Citi Bike Data Analysis

By Sharon Nelson

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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:*

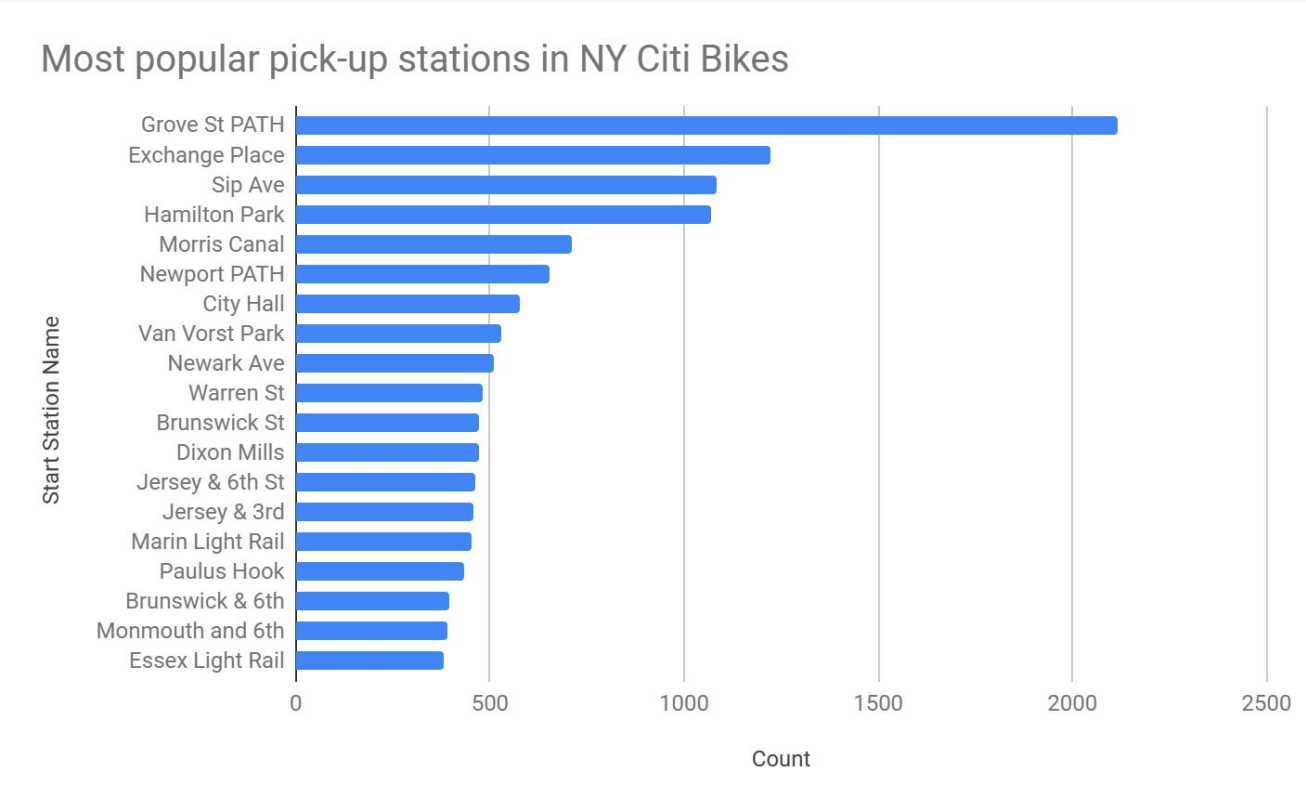
    - *Identify where more bikes should be installed*
    - *Create targeted marketing campaigns that will appeal to different customer segments*

Key questions:

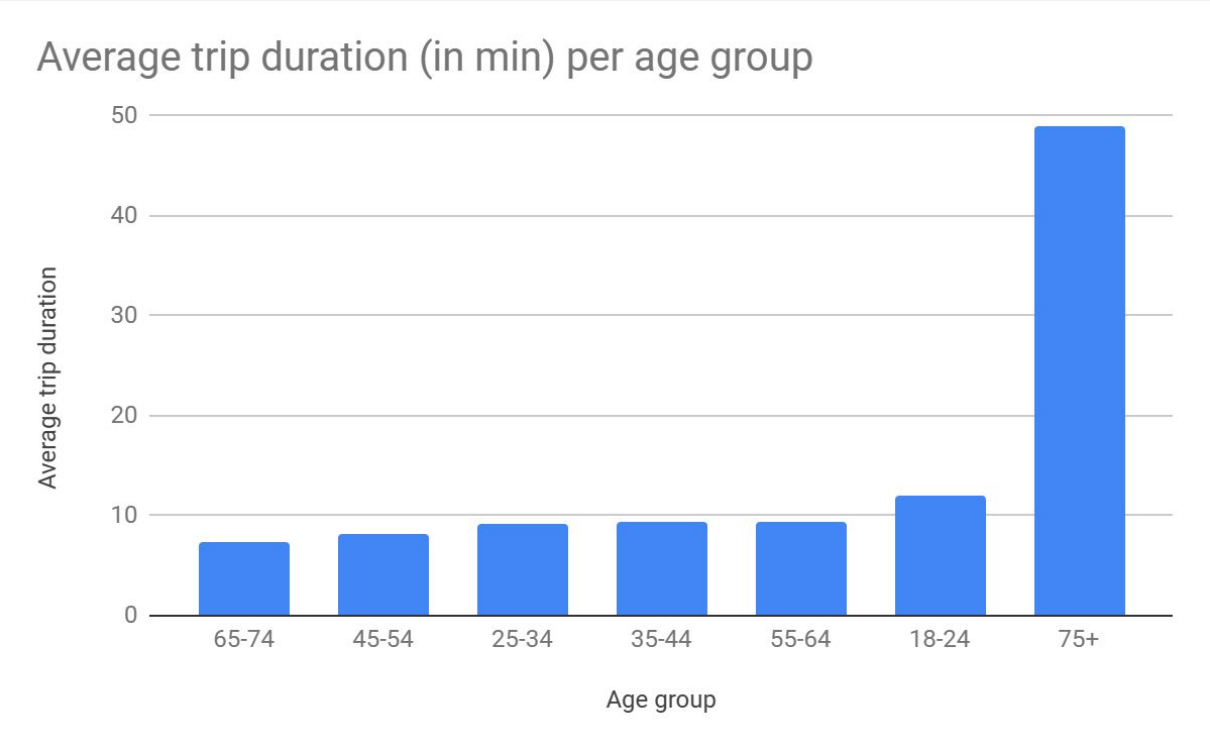
- What are the most popular pick-up locations across the city for Citi Bike rental?
- How does the average trip duration vary across different age groups?
- Which age group rents the most bikes?
- How does bike rental vary across the two user groups (one-time users vs long-term subscribers) on different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



Based on the chart, the average trip duration appear longest among 75+ year olds, with the lowest time duration being 65-74 year olds.

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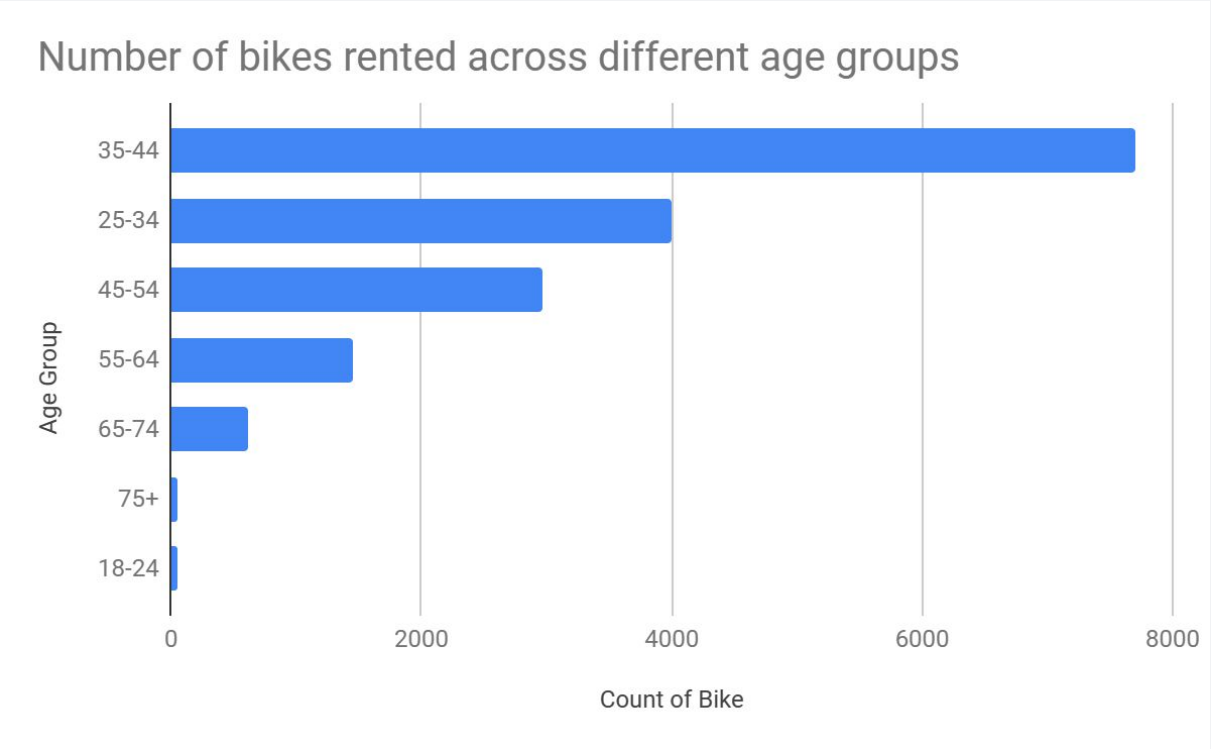
3. Which age group rents the most bikes?



Based on the chart, 35-44 year olds(including 25-34 year olds) rent the most bikes. In other words 20-40 year olds rent the most with the younger and older generations renting less.

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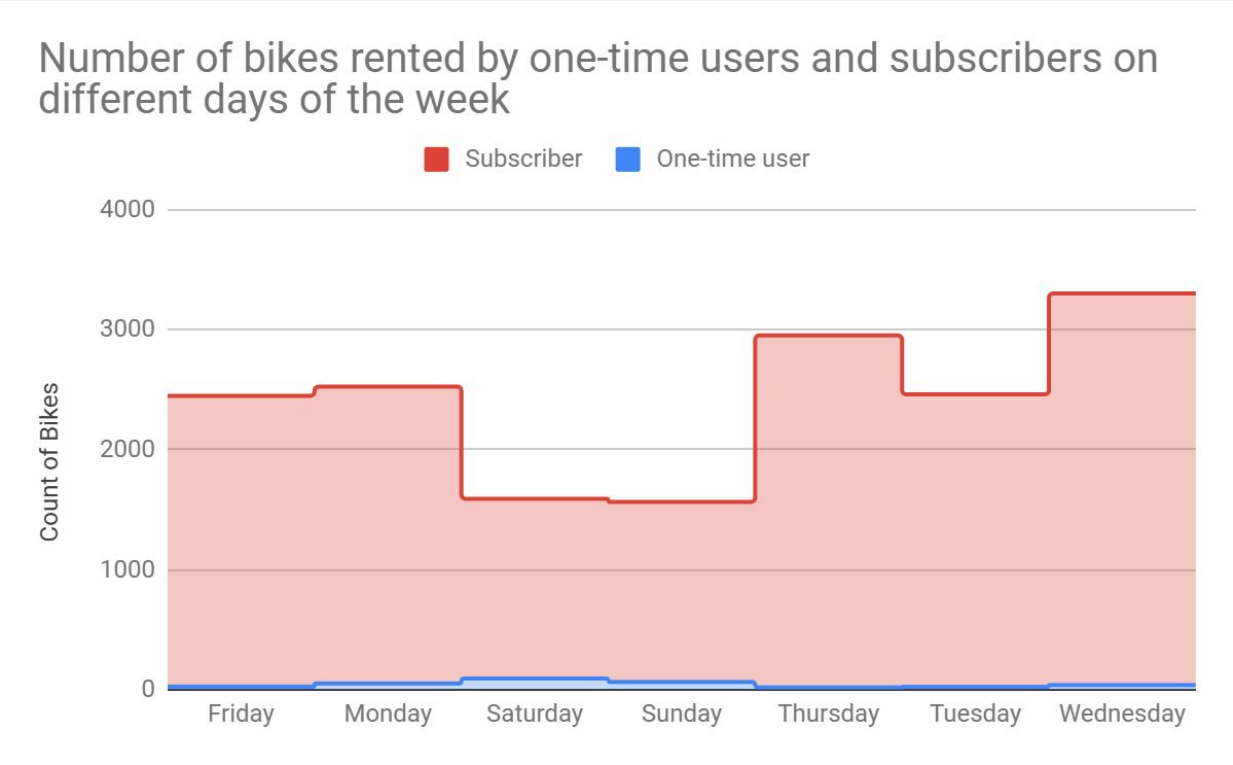
4. How does bike rental vary across the two user groups (one-time users vs long-term subscribers) on different days of the week?



Based on the chart, subscribers rent more on Mondays, Thursdays, and Wednesdays, while one-time users rent most during the weekends(particularly Saturdays).

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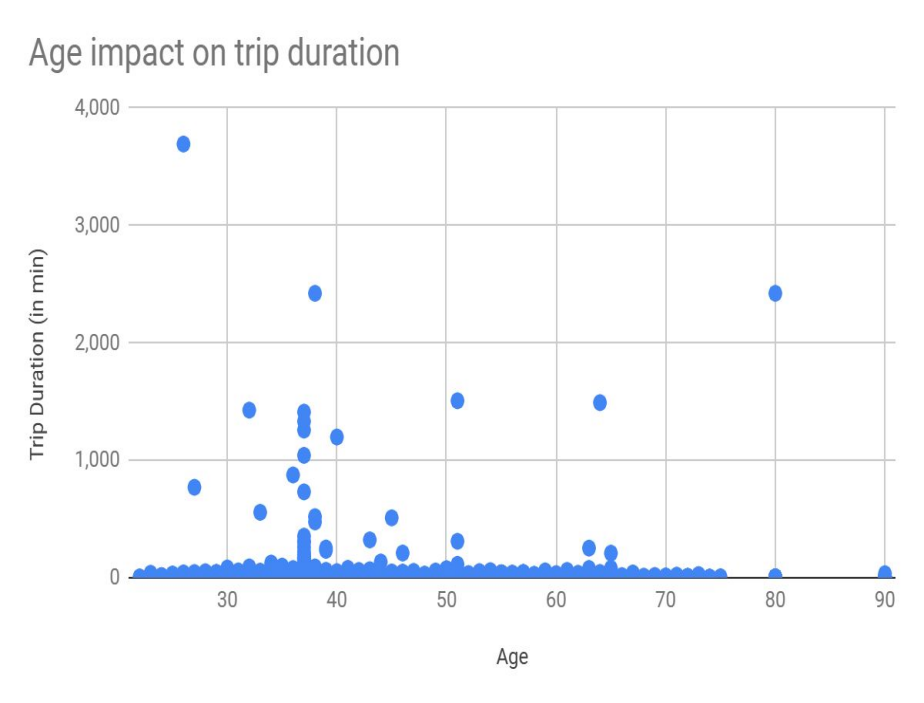
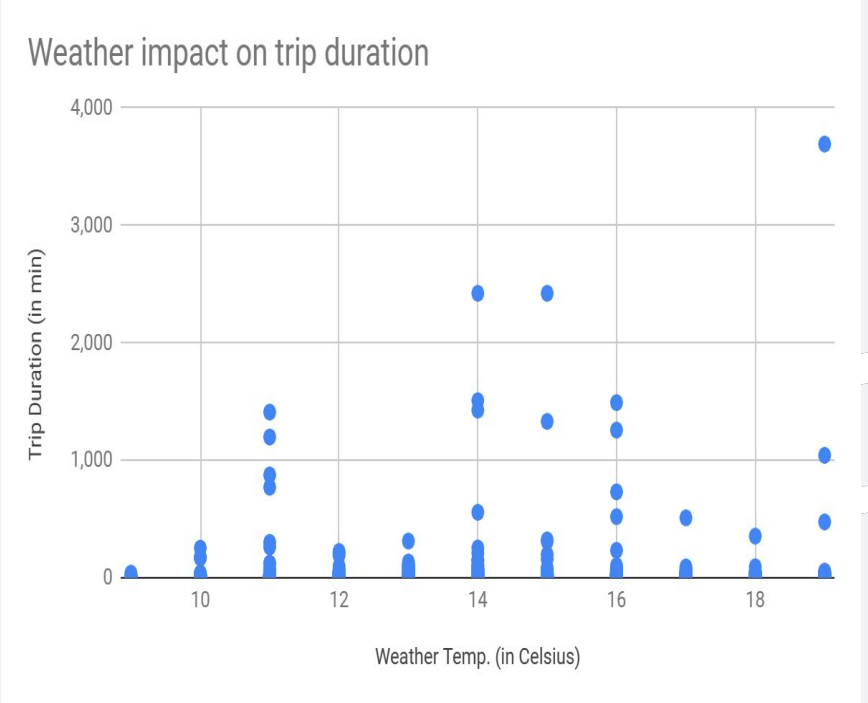
5. Do factors like weather and age impact the average bike trip duration?





It appears there's no notable correlation between users' age and trip duration.

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Summary

Summary of findings:

- ***Top 5 pick-up locations for bikes:***
    - *Grove St Path, Exchange Place, Sip Ave, Hamilton Park, & Morris Canal*
- ***Customer base:***
    - *Based on findings, Citi Bike's customer base appear to be* subscribers in their 20s-40s as they showed the most usage of service.
- ***Citi Bike customer behavior:***
    - *On average, 75+ year-olds take the longest trips followed by 18-24 year-olds, with the least being 65-74 year-olds.*

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Actions & Recommendations

Recommended actions:

Product recommendations:

- *Install more bikes at Grove St Path, Exchange Place, Sip Ave, Hamilton Park, & Morris Canal, since these are the top 5 places of bike pick-up.*

Marketing recommendations:

- *The Citi Bike customer base is mostly subscribers aged between 25-44, who are most active 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.*

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Thank you!

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