City Bike Data Analysis

By Tulasi Vaindam

Project goal

- To better understand the Citi Bike customers on how they use the bikes.

- This will help us to identify:

  1. Identify where more bikes to be installed

  2. Create targeted marketing campaigns that will appeal to different customer
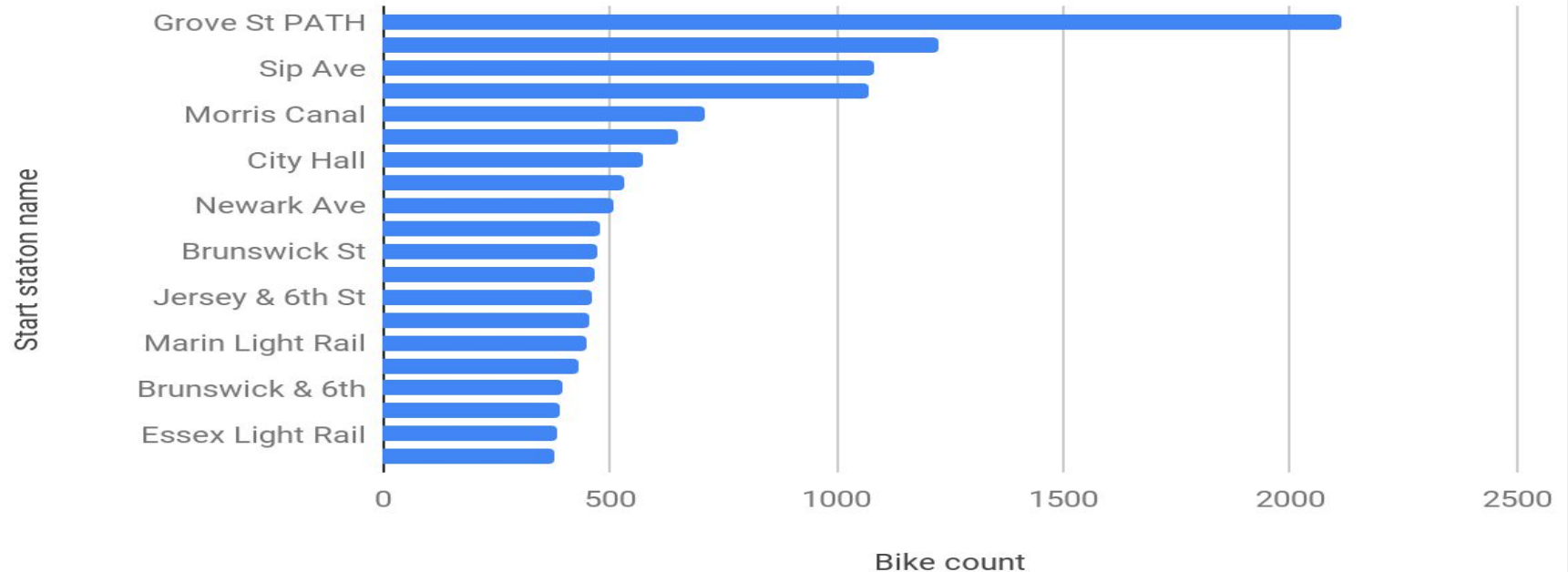
Key questions

- What are the most popular pick-up locations across the city for NY 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 user age impact the average bike trip duration?

Findings and Insights

1. What are the most popular pick-up locations across the city for NY Citi Bike rental?

Top pickup bike station names

Horizontal bar chart titled "Top pickup bike station names". The y-axis is labeled "Start staton name" and the x-axis is labeled "Bike count" (0 to 2500).

| Start staton name	Bike count (approx.)
Grove St PATH	~2100
(unlabeled)	~1220
Sip Ave	~1060
(unlabeled)	~1050
Morris Canal	~700
(unlabeled)	~650
City Hall	~560
(unlabeled)	~520
Newark Ave	~500
(unlabeled)	~480
Brunswick St	~470
(unlabeled)	~470
Jersey & 6th St	~460
(unlabeled)	~455
Marin Light Rail	~450
(unlabeled)	~420
Brunswick & 6th	~390
(unlabeled)	~390
Essex Light Rail	~380
(unlabeled)	~370

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

Average trip duration by. Age group
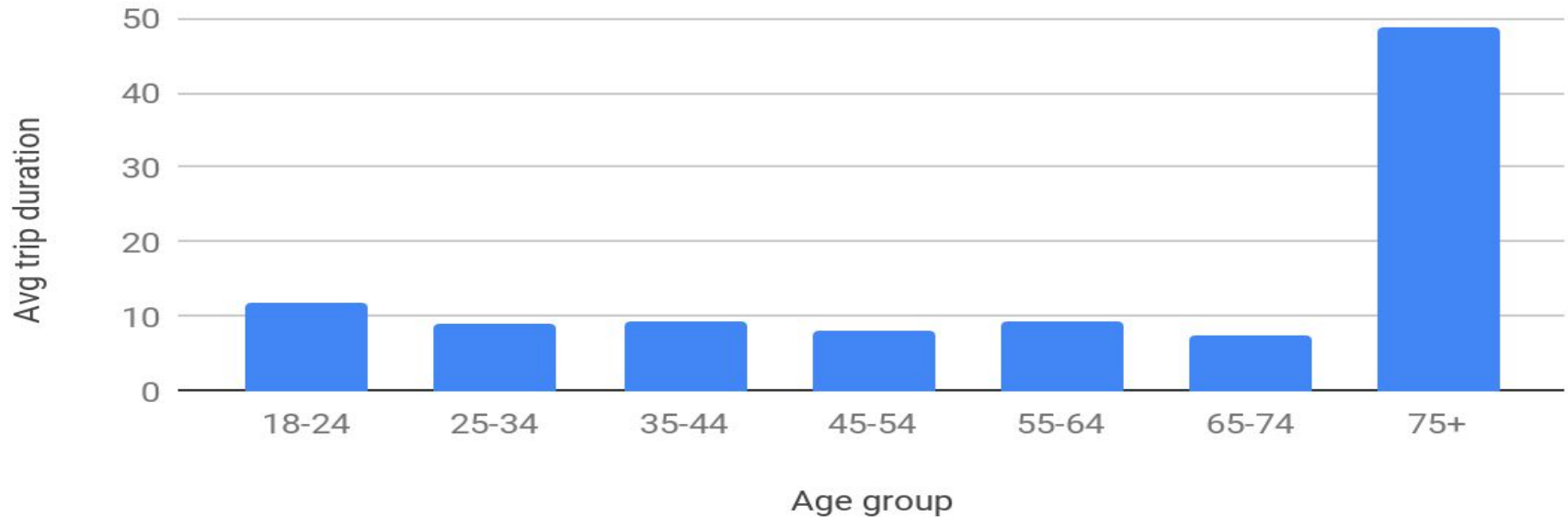
3. Which age group rents the most bikes?

Bikes rented across different age groups

- 8.6%
- 17.7%
- 45.7%
- 23.8%

Legend:
- 35-44
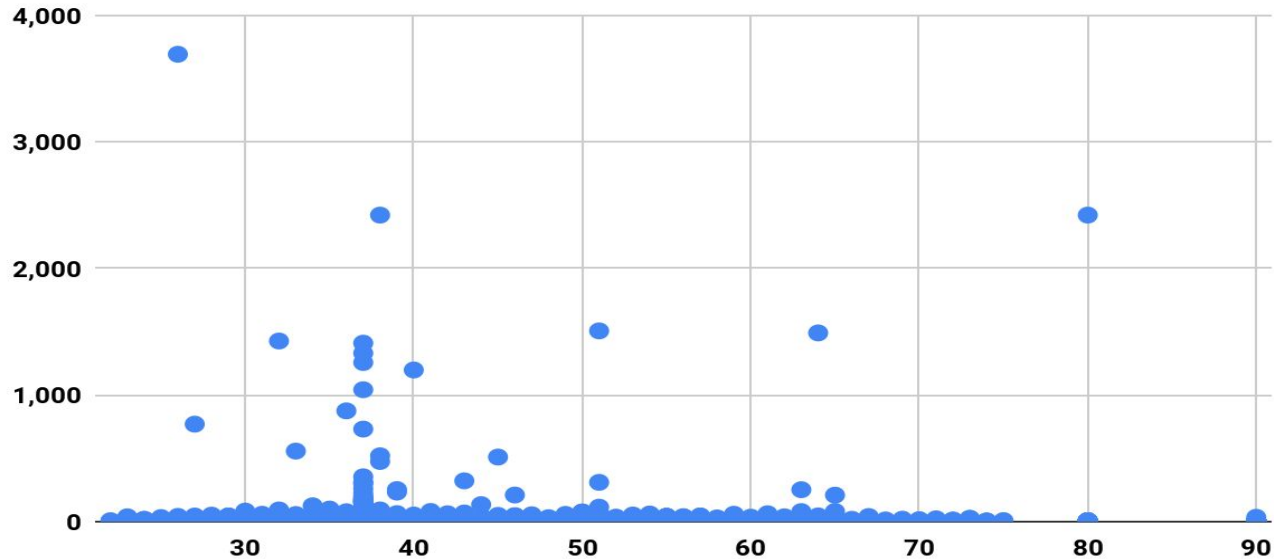- 25-34
- 45-54
- 55-64
- 65-74
- 75+
- 18-24
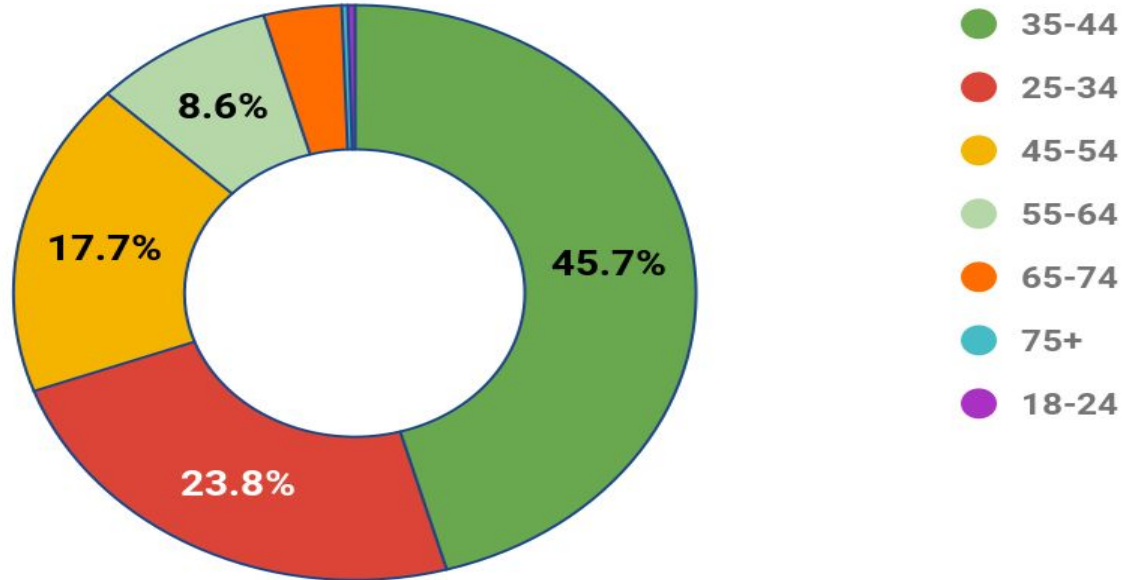
4. How does bike rental vary across the two user groups (one-time users vs long-term subscribers) on different days of the week?

Bike users based on user type

■ subscriber   ■ one time user

	4000
	3000
	2000
	1000
	0

Friday   Monday   Saturday   Sunday   Thursday   Tuesday   Wednesday

day
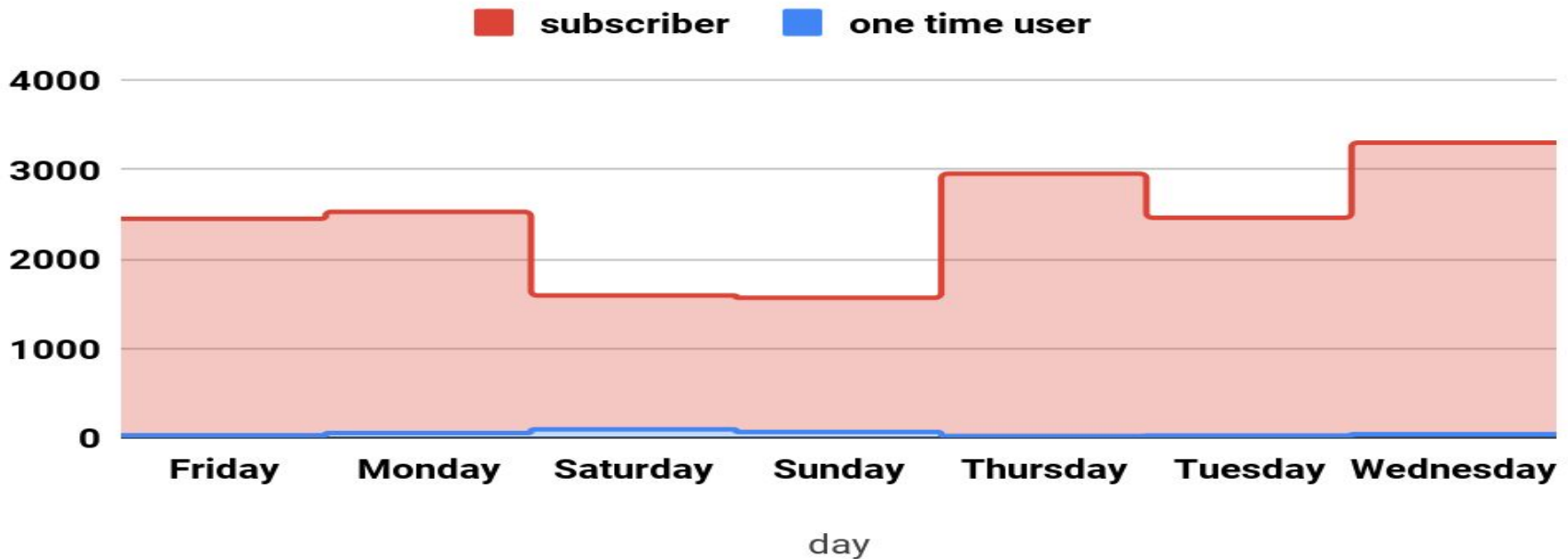
5. Does user age impact the average bike trip duration?

Age vs Bike trip duration

As we can see, there is no relation between age and trip duration.

INFERENCES

Findings:

- **Top 5 pickup locations are:**

  Start staton name, Grove St PATH, Exchange Place, Sip Ave,Hamilton Park

- **Time duration of rides:**

  75+ years old people were taking the most time duration trips and less rental among all age groups.

  25-34 and 65-74 age group people were taking short trips.

- **Customer bike usage on days of the week:**

  One time users were taking more rides on weekends.

  Subscribers were more active on weekdays especially wednesday and less active on saturday and sunday.

- **Most bikes are rented by 35-44 age group people.**

Actions and Recommendations

Recommended actions:

Product recommendations:

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

Marketing recommendations:

- *The Citi Bike customer base is mostly long-term subscribers aged between 35-44, who are most active during the week. This tells us that they are probably people who live in New York and use NY Citi Bikes to commute. Marketing and advertising campaigns should therefore target this particular demographic.*

Thank You

Presented by,
Tulasi Vaindam