

# Citi Bike

Main	Stations	Trips	Riders	Station Map
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A comprehensive analysis of Citibike data from 2022 and 2023. These interactive dashboards provide insights into Citibike stations, trips, ridership, and geographic locations of stations.



Citigroup Inc. "Lady holding balloons with a citibike; pink helmet." <https://citibikenyc.com/>. Accessed March 3, 2024.

# Citi Bike

[Main](#)[Stations](#)[Trips](#)[Riders](#)[Station Map](#)

## Total Bike Trips

1,884,336

YEAR  
All

Number of  
Start Station

356

YEAR  
All

Number of  
End Stations

620

YEAR  
All

Top 10 Start  
Station Bike  
Trips

538,555

Top 10 End  
Station Bike  
Trips

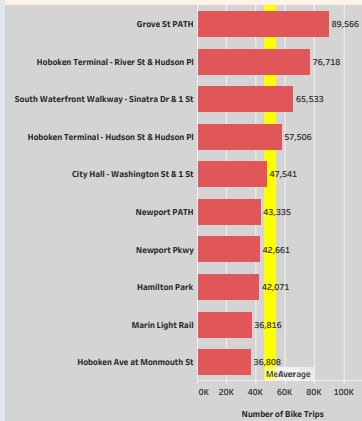
547,548

## Station Bike Trip Percentage

Top 10 Start Station Percentage	28.6%
Top 10 End Station Percentage	29.1%

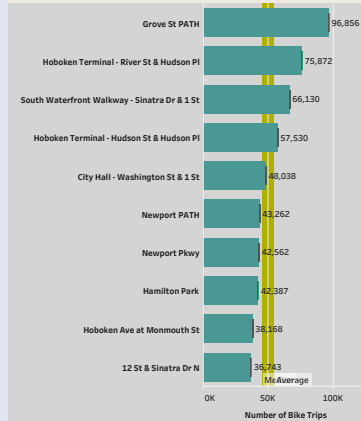
## Stations

### Top 10 Start Stations



The bar graph shows the top 10 start stations used by riders in the 2022 and 2023 combined. Grove St Path being the most used station.

### Top 10 End Stations



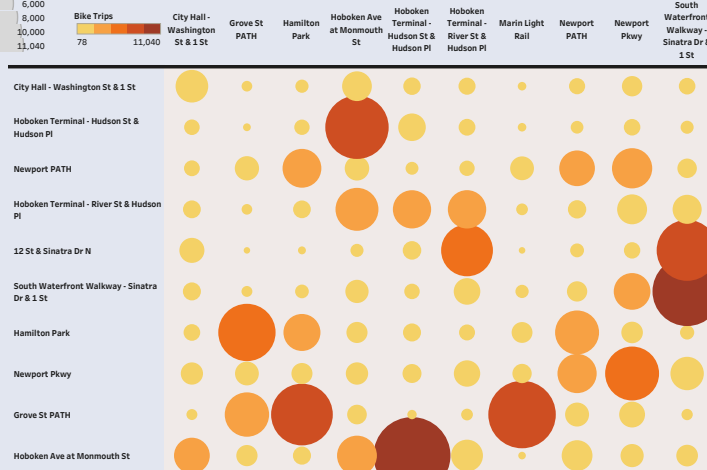
The bar graph shows the top 10 end stations used by riders in the 2022 and 2023 combined. Grove St Path being the most used station. The top 10 end stations is very much in line with the 10 top start stations with the exception of 12 St & Sinatra Dr N.

The high usage of stations from start to finish is resulting in left-skewed data. The majority of trips to the top 10 stations originate and terminate at the same locations, with the top 3 stations accounting for a significant portion of these trips. These stations require increased attention in terms of maintenance. This necessity becomes even clearer when examining the Heat Map of the Top 10 Start to End Stations below. Notably, Grove St Path, Hoboken Terminal, and South Waterfront Walkway witness the highest volume of trips between them.

Bike Trips Amount



### Top 10 Start to End Stations



# Citi Bike

Main

Stations

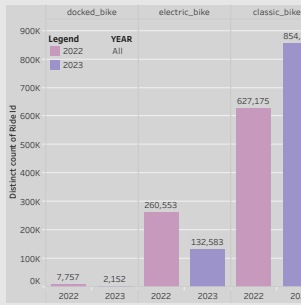
Trips

Riders

Station Map

## Trips

Number of Trips per Ridertype (year)



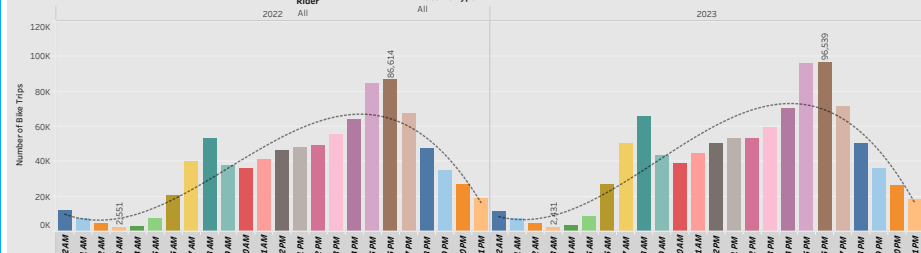
Number of Trips by ride type per 2022 and 2023 shows a decrease in the usage of electric bike by 49.1% from 2022 to 2023. An increase for classic bikes by 36.2% rider usage. There is overall increase of Citi bike usage by 10.4% from 2022 to 2023. The term docked bike is associated with electric and classic bikes. Seems the term is used when data is collected, and the type of bike is not specified.

Number of Trips per Ridertype (monthly)



When looking at the breakdown over 24 months. The graph shows that between the months June to September are the most usage. These bikes will require more maintenance during these months. When looking at electric bikes' usage from month to month, A sharp decline in electric bikes happens after September 2022 with a slight increase in April and May of 2023. Starting in August 2023, the term docked is not used, as all bikes used are specified.

Bike Trips Per Hour



Looking at the correlation between the hour of the day and number of bike trips taken for each year, 2022 and 2023 to see if there is constant trend that between both years. Also, to see which hour of the day gets the most usage. This can assist in knowing what time of the day customers could need the most assistance, issues, or have questions about the bikes or emergency maintenance need. A p-value of less than 0.0001 indicates that there is highly significant relationship between hours of the day and number of bike trips. The R-squared values suggest that hour of day is a strong predictor of bike trips count. It is an especially stronger indicator when looking at casual riders using classic bikes.

Heat Map of usage per weekday



The heat map allows us to see which hour of each day of week are member and casual riders using the bikes. The hour of the week at 8am; 5pm to 7pm has the most volumes from Monday to Friday. When looking at casual riders using classic bikes, there is significant increase in bike trips between 11am to 7pm on Saturday and Sunday.

# Citi Bike

Main

Stations

Trips

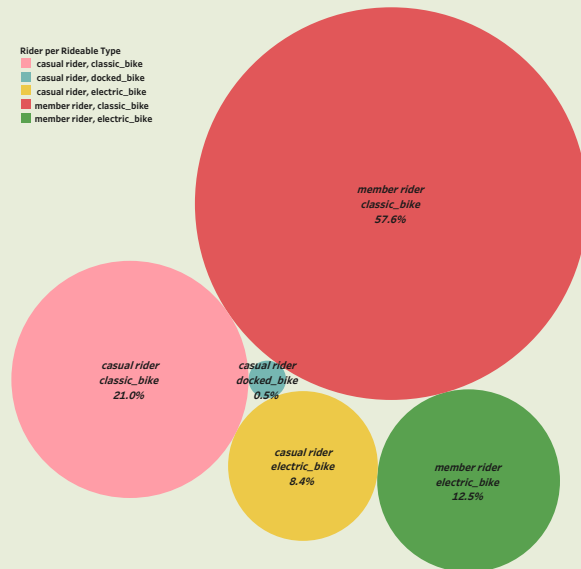
Riders

Station Map

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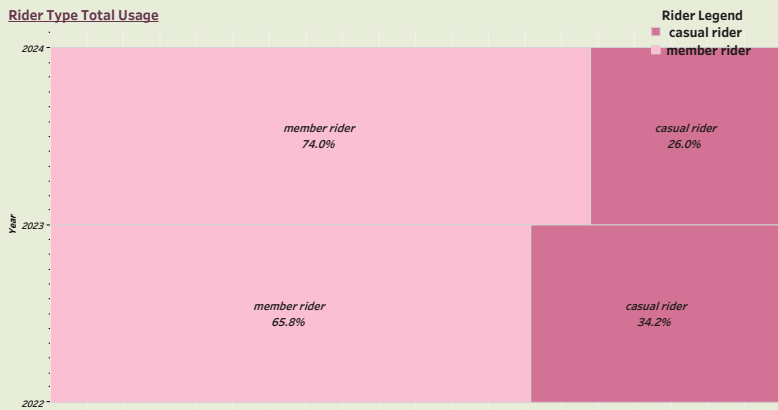
Rider Type Usage per Ridetypes

Rider per Rideable Type  
casual rider, classic\_bike  
casual rider, docked\_bike  
casual rider, electric\_bike  
member rider, classic\_bike  
member rider, electric\_bike



This shows the Rider type ( Member or Casual), based on Rideable Type and percentage of Total Bike trips for 2022, 2023 combined. 57.6% of trips were member rider using a classic bike. Once again whether its a member rider or casual rider, the preference rideable type is classic bike

Rider Type Total Usage



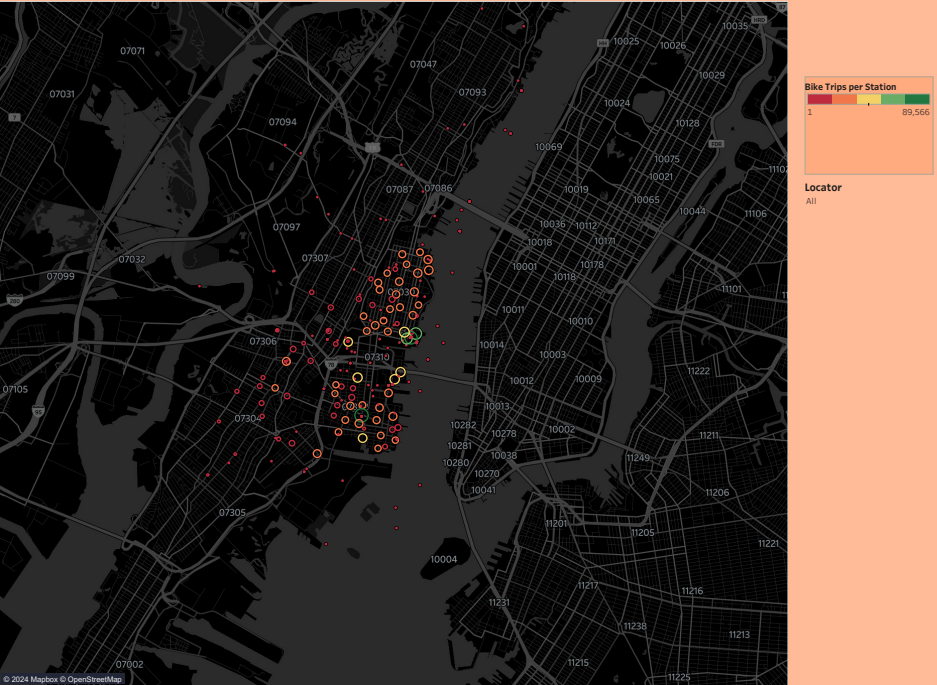
This is a plot of % of Total bike trips by Rider type (member or casual) per year. This shows that membership increased from 2022 to 2023.

# Citi Bike

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## Station Map

Map: Start Station Bike Trips



Map: End Station Bike Trips

