

# CitiBike Usage Trends Analysis for 2023

## RIDE ANALYSIS

### **Member and Bike Type Usage**

In 2023, CitiBike usage demonstrated a clear preference in user types and bike selections. A substantial majority, 74%, of users were registered members, while casual users comprised the remaining 26%. This could indicate a strong loyalty to the service or a cost-benefit advantage for frequent users to register as members.

Regarding the bike type preferences, classic bikes overwhelmingly dominated the usage at 86.37%, while electric bikes accounted for a modest 13.41%. Docked bikes, although available, were used in an almost negligible proportion, at 0.22%. The preference for classic bikes might be attributed to a variety of factors such as cost, availability, or user comfort with the technology.

### **Monthly Usage Patterns**

The monthly member usage chart revealed several trends throughout the year.

- There was a noticeable growth in member usage from January to July, peaking in July.
- This trend sharply declined towards the winter months, with November and December showing the lowest usage rates.
- The pattern suggests seasonality in bike usage, likely influenced by weather conditions, with a peak in summer months when conditions are more conducive to outdoor activities.
- Casual usage also followed a similar seasonal pattern, although starting at a lower base and not exceeding the member usage at any point in the year.
- The highest difference in usage between member and casual users was seen in the warmer months, notably from May to July, indicating that member users are possibly using the service more consistently throughout the year.

### **Bike Usage by Type**

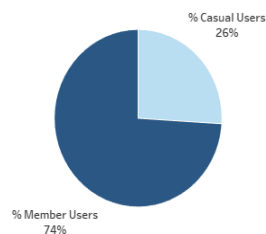
- The monthly breakdown by bike type complements the usage patterns seen in member types.
- Classic bikes were used most frequently throughout the year, with a peak in July, similar to the peak seen in member usage.
- Electric bike usage also showed a peak in July but was significantly lower compared to classic bikes.
- Docked bikes remained consistently low throughout the year, suggesting that users prefer the flexibility of non-docked options.

To conclude Ride Analysis,

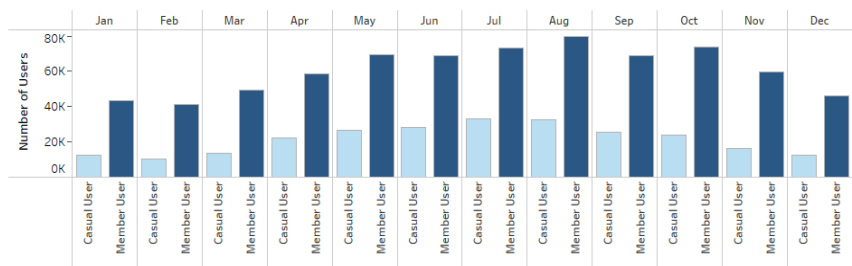
- The 2023 CitiBike data presents a clear preference for membership over casual usage, a strong inclination towards classic bikes, and a pronounced seasonal variation in usage with summer months experiencing the highest activity.
- The data also suggests opportunities for target marketing for member conversion, potential for growth in electric bike usage, and the need for strategic placement and promotion of docked bikes.

## Ride Analysis

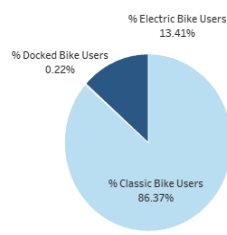
Usage by Member Type - 2023



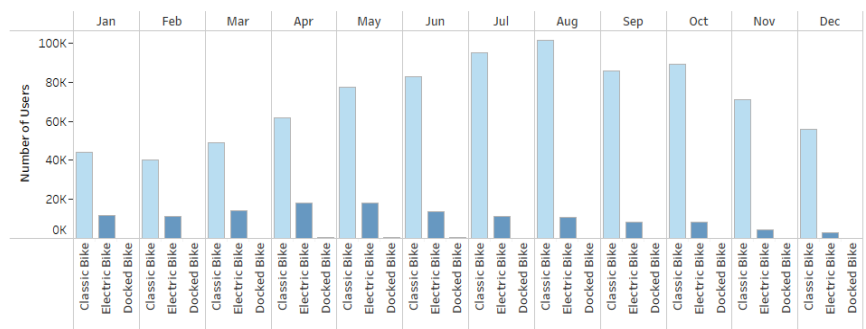
Member Usage - 2023



Usage by Bike Type - 2023



Bike Usage - 2023



## ROUTE ANALYSIS

The route analysis for CitiBike in 2023 highlights several key geographical trends in bike usage across the city. The concentration of high traffic start and end stations suggests that certain areas are focal points for bike activity. These are likely to be zones with a high degree of connectivity, commercial activity, or tourist attractions.

### Top Start and End Stations

- Stations like "Grove St Path", "Hoboken Terminal", and "South Waterfront Walkway" are among the top start stations, indicating their strategic importance as central hubs. These locations are situated near major transit stations and within bustling neighbourhoods, facilitating easy access for commuters and casual riders alike.

- End stations such as "Grove St Path", "Hoboken Terminal", and "South Waterfront Walkway" mirror some of the start stations, which could indicate popular routes for round trips or high demand for one-way trips to these areas, possibly due to work commutes or leisure activities in these locations.

## Usage Patterns

The route analysis suggests distinct usage patterns that may correspond to daily commuting habits, leisure rides, or tourist activities. For example, the consistency in start and end stations implies a routine in the usage, likely linked to daily work commutes.

To conclude Route Analysis,

- Based on the data, CitiBike may need to understand and re-structure their resource allocation. High-traffic areas might require a larger number of bikes available to meet demand, especially during peak hours. Conversely, underperforming stations might need to be evaluated for relocation or improved with better infrastructure and connectivity.
- There is potential for targeted marketing. Understanding the high-traffic routes can guide targeted marketing campaigns, such as promotions for tourists in high-traffic areas or outreach to local communities near underused stations to boost awareness and usage.
- There could be opportunities for partnerships with businesses or attractions near high-traffic stations to offer joint promotions, enhancing the value proposition for users to choose biking as a mode of transportation.

For CitiBike, leveraging these insights could drive more efficient operations, improve user experience, and contribute to the overall growth and sustainability of the bike-sharing program.

### Route Analysis

