2020

[Tableau NYCitiBike Link](https://public.tableau.com/views/NYCitiBike_16897583939400/Story1?:language=en-US&publish=yes&:display_count=n&:origin=viz_share_link)

Using data collected in 2020, the newly created graphs and dashboards will provide insights into citi bike’s performance. These tools will enable informed decisions to be made to determine resource allocation for future success of the program.

To determine if the program is reaching the target market, we need to establish who the Average user was for 2020.

This will provide valuable insights for future marketing direction.

**Average User**

[***"Riders Dashboard"***](https://public.tableau.com/app/profile/r.drayton/viz/NYCitiBike_16897583939400/AvgUser)

The Riders dashboard is made up of the User – Type and Start Time Hour graphs.

The dashboard shows the Total Subscriber and Total Customer Trips and the breakdown by month by count and percentage, and the peak Start Time Hours. The “View Avg User” and “View Trip(mins)” buttons provide quick navigation to these visualisation pages.

Usertype and Gender filters allow the user to select groups to be reflected on the Usertype: Trip Count & % graphs and the Start Time Hour.

The unfiltered Usertype graph shows 105,271 Customer & 231,531 Subscriber Rides for 2020.

**336,802 citi bike rides were taken in 2020**.

By using the “View Avg User” button navigating to the ***["Avg User"](https://public.tableau.com/views/NYCitiBike_16897583939400/AvgUser?:language=en-US&publish=yes&:display_count=n&:origin=viz_share_link)*** visualisation, it is clear that the 2020 average user is a **male subscriber, aged between 38-41.**

Returning to the “Riders Dashboard” and filtering the dashboard to display only the average user: a **male subscriber**, the following data displays:

**Total Trips: 166,976**

**Peak Start Time Hours: 5 & 6pm.**

Using the “View Trip(mins)” button navigating to the [***"Trip Duration(min)"***](https://public.tableau.com/app/profile/r.drayton/viz/NYCitiBike_16897583939400/AvgUser) , the left graph displays the Average Trip Duration and Average by Start Station and right graph displays the Average Total Trip Duration and Total by Start Station.

The user can filter the data by Gender, Usertype and specific Ride Start Time Hour/s.

Filtering the graphs to display only the average user: a **male subscriber** and **Peak Start Time Hours: 5 & 6pm** the graphs display the following data:

**Average Trip Duration: 14.59mins**

[***"Rides Dashboard"***](https://public.tableau.com/app/profile/r.drayton/viz/NYCitiBike_16897583939400/AvgUser)

The Rides dashboard is made up of the Ride Start, Ride End and Top 10 Rides visualisations.

The dashboard shows the Total Ride number & percentage of Ride Starts and Ends in order of rank of popularity.

Hovering over the count or percent will also display the running information up to the rank of that station.

Additionally the Top 10 Rides count and percentage of all rides is shown.

Usertype and Gender filters allow the user to select groups to be reflected on the Ride Start and Ride End visualisations.

Ride Start and Ride End Stations can also be simultaneously filtered by Ride count.

Individually the Ride Start and Ride End can filter their stations by Rank.

The following information can be obtained from this dashboard:

Of the 52 Start Stations:

**26.15% / 88,088** rides began at the **TOP 5** Start Stations

**44.74% / 150,696** rides began at the **TOP 10** Start Stations

Of the 131 End Stations/Docks:

**27.27% / 91,831** rides ended at the **TOP 5** End Stations

**45.65% / 153,737** rides ended at the **TOP 10** End Stations

**The same 10 stations make up the most popular Start AND End Stations.** (Not in rank order)

1. Grove St Path
2. Newport Pkwy
3. Liberty Light Rail
4. Hamilton Park
5. Sip Ave
6. Marin Light Rail
7. Newport PATH (not in Top 10 Rides)
8. Harbourside
9. Columbus Dr at Exchange Pl (not in Top 10 Rides)
10. JC Medical Center

**And 8 of these same stations are listed in the Top 10 Rides**

By filtering by Ride count the following information was obtained:

46 Stations/Docks had 1 ride end at the location for 2020

19 Stations/Docks had 2 rides end at the location for 2020

13 Stations/Docks had 3-10 rides end at their location for 2020

**In total, 78 Stations/Docks were used to end a ride less than once a month.**

NB. Stations/Docks with 0 rides ending at their location are not listed.

* **Underperforming Stations/Docks require further investigation, specifically ROI, to determine future viability.**

**["2020 Station / Docks"](https://public.tableau.com/app/profile/r.drayton/viz/NYCitiBike_16897583939400/AvgUser)**

The "2020 Station / Docks" dashboard is made up of the Start & End Locations, Start Map and End Map visualisations.

The dashboard displays End Station count and % Pie charts by Start Station popularity.

Hovering over a slice of the pie will display: Start Station, End Station, Trip Count, % of Count.

The 2 maps - Start Station and End Station/Dock display the locations rides start and end.

The larger the circle, the more popular the location is to start/end a ride.

Hovering over a circle will display: Station Name, ID and Start/End Count

Start Station and Month filters allow the user to select a station and/or month to be reflected on Start Station and End Station/Dock Maps and the legend will display only the End Station/Docks which Riders used from the selected Start Station.

Selecting a slice of the pie will show the End location on the End Station/Dock Map.

* **Obtaining Riders home Zip would provide data to allow additional “Customer” user analysis, focusing on the number of tourists/visitors using citi bikes. And can be used to monitor ROI on marketing campaigns.**

**Average User** *“Riders” Dashboard*

1. **Who was the average citi bike rider in 2020? Usertype / Gender / Age** *Refer to “Avg User”*

Gender: Male (199,807/59.3% of all Riders)

User Type: Subscriber

Male Subscribers (166,976/72.1% of all Subscribers)

Avg Age: 38 – 41

1. **Which hours are most popular to start a ride?** *Refer to “Start Time Hour” visual*

Ride Start Hr: 5 & 6pm - All Riders Total: 67,734 / Male Subscribers: 33,491

20.1% of each group (All Riders & Male Subscribers) begin their ride at 5 & 6pm.

1. **What is the average trip duration for rides beginning at 5 & 6pm?** [***"Trip Duration(min)"***](https://public.tableau.com/app/profile/r.drayton/viz/NYCitiBike_16897583939400/AvgUser)

Av Trip: All Riders: 31.9mins / Male Subscribers: 14.59mins

**Station/Dock** *”Rides” Dashboard*

1. **Do all Start Stations perform equally?**

No, of the 52 Stations: **26.15% / 88,088** rides began at the **TOP 5** Start Stations

**44.74% / 150,696** rides began at the **TOP 10** Start Stations

1. **Do all End Stations/Docks perform equally?**

No, of the 131 End Stations/Docks: **27.27% / 91,831** rides ended at the **TOP 5** End Stations

**45.65% / 153,737** rides ended at the **TOP 10** End Stations

1. **Do any Stations/Docks consistently underperform?**

**YES**

46 Stations/Docks had 1 ride end at the location for 2020

19 Stations/Docks had 2 rides end at the location for 2020

13 Stations/Docks had 3-10 rides end at their location for 2020

**In total, 78 Stations/Docks were used to end a ride less than once a month.**

NB. Stations with 0 rides ending at their location are not listed.

|  |  |  |
| --- | --- | --- |
| **Rank** | **Start Station** | **End Station/Dock** |
| **1** | Grove St Path | Grove St Path |
| **2** | Newport Pkwy | Newport Pkwy |
| **3** | Liberty Light Rail | Liberty Light Rail |
| **4** | Hamilton Park | Hamilton Park |
| **5** | Sip Ave | Marin Light Rail |
| **6** | Marin Light Rail | Newport PATH |
| **7** | Newport PATH | Columbus Dr at Exchange Pl |
| **8** | Harbourside | Harbourside |
| **9** | Columbus Dr at Exchange Pl | Sip Ave |
| **10** | JC Medical Center | JC Medical Center |