# Cyclistic Bike-Share Analysis Summary

## Overview

This analysis examines how annual members and casual riders use Cyclistic bikes differently, based on data from Q1 2019 and Q1 2020.

## Basic Statistics

### Overall Ride Statistics (in minutes)

count 784285.000000

mean 19.921240

std 556.242799

min 1.000000

25% 5.550000

50% 9.033333

75% 15.250000

max 177200.366667

### Ride Statistics by Member Type (in minutes)

count mean std min 25% 50% 75% max

member\_casual

casual 67692.0 89.790076 1668.852070 1.016667 13.083333 23.266667 39.400000 177200.366667

member 716593.0 13.321173 273.943219 1.000000 5.333333 8.500000 13.766667 101607.133333

### Key Findings

#### 1. Ride Duration Differences

* Average ride duration for members: 13.32 minutes
* Average ride duration for casual riders: 89.79 minutes
* Casual riders' trips are 574.0% longer on average than member trips

#### 2. Day of Week Patterns

Average Ride Length by Day of Week (in minutes)

member\_casual casual member

day\_name

Friday 101.727101 13.340293

Monday 79.359406 13.772820

Saturday 82.616519 16.328252

Sunday 84.652870 16.343304

Thursday 141.255042 11.844649

Tuesday 76.257797 12.881212

Wednesday 74.983094 11.920988

Number of Rides by Day of Week

member\_casual casual member

day\_name

Friday 7996 114624

Monday 5580 109873

Saturday 13456 59065

Sunday 18586 59716

Thursday 7127 124598

Tuesday 7289 127391

Wednesday 7658 121326

#### 3. Time of Day Patterns

Average Ride Length by Time of Day (in minutes)

member\_casual casual member

time\_of\_day

Afternoon (12-17) 77.957130 13.073247

Early Morning (5-9) 81.725192 11.598636

Evening (17-20) 89.445712 15.243564

Morning (9-12) 116.095878 11.991252

Night (20-5) 129.006385 15.513868

Number of Rides by Time of Day

member\_casual casual member

time\_of\_day

Afternoon (12-17) 35870 216880

Early Morning (5-9) 3509 173358

Evening (17-20) 13718 183039

Morning (9-12) 8899 89063

Night (20-5) 5696 54253

#### 4. Seasonal Patterns

Average Ride Length by Season (in minutes)

member\_casual casual member

season

Spring 63.709806 13.664990

Winter 128.493691 13.120538

Number of Rides by Season

member\_casual casual member

season

Spring 40441 264071

Winter 27251 452522

#### 5. Popular Stations

##### Top 10 Start Stations for Members

start\_station\_name number\_of\_rides

Canal St & Adams St 13754

Clinton St & Washington Blvd 13392

Clinton St & Madison St 12838

Kingsbury St & Kinzie St 8687

Columbus Dr & Randolph St 8467

Canal St & Madison St 7861

Franklin St & Monroe St 6973

Michigan Ave & Washington St 6673

Larrabee St & Kingsbury St 6443

Clinton St & Lake St 6420

Top 10 Start Stations for Casual Riders

start\_station\_name number\_of\_rides

Streeter Dr & Grand Ave 2741

Lake Shore Dr & Monroe St 2731

Shedd Aquarium 1829

Millennium Park 1404

Michigan Ave & Oak St 1015

Michigan Ave & Washington St 838

Dusable Harbor 832

Adler Planetarium 825

Theater on the Lake 793

Lake Shore Dr & North Blvd 603

##### Top 10 End Stations for Members

end\_station\_name number\_of\_rides

Canal St & Adams St 14762

Clinton St & Washington Blvd 14542

Clinton St & Madison St 13178

Kingsbury St & Kinzie St 8765

Canal St & Madison St 8243

Michigan Ave & Washington St 7661

Clinton St & Lake St 6690

Franklin St & Monroe St 6278

Daley Center Plaza 6272

LaSalle St & Jackson Blvd 6208

Top 10 End Stations for Casual Riders

end\_station\_name number\_of\_rides

Streeter Dr & Grand Ave 3782

Lake Shore Dr & Monroe St 2159

Millennium Park 1932

Shedd Aquarium 1458

Michigan Ave & Oak St 1183

Theater on the Lake 1078

Michigan Ave & Washington St 964

Lake Shore Dr & North Blvd 768

Wabash Ave & Grand Ave 743

Adler Planetarium 710

## Conclusions

Based on the analysis, there are several key differences in how annual members and casual riders use Cyclistic bikes:

1. **Ride Duration**: Casual riders take significantly longer trips on average compared to members.
2. **Usage Patterns by Day**: Members use bikes more consistently throughout the week, while casual riders show higher usage on weekends.
3. **Time of Day**: Members show peak usage during commuting hours, suggesting they use bikes for commuting to work, while casual riders show more distributed usage throughout the day.
4. **Seasonal Trends**: Both user types show seasonal variations, but the patterns differ.
5. **Popular Locations**: Members and casual riders tend to start and end their trips at different stations, indicating different usage purposes.

These insights can inform targeted marketing strategies to convert casual riders into annual members.