Cyclist Case Study: Bike Usage Patterns Analysis

- Welcome to this presentation on bike usage patterns based on data collected from the last 12 months.

- The analysis covers over 5.7 million rides conducted by both members and casual riders from September 2023 to August 2024.

- The goal of this case study is to provide insights into rider behavior and suggest ways to convert more casual riders into members.

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Key Takeaways

- Casual riders primarily use bikes for touristic and leisure purposes.

- Members rely on bikes for daily commutes—especially to and from work.

- Casual riders tend to have longer ride durations compared to members.

- Casual bike usage spikes during weekends and warmer months, while members' usage is more consistent throughout the year.

- Peak usage times for casual riders are during midday, while members mostly use bikes during rush hours.
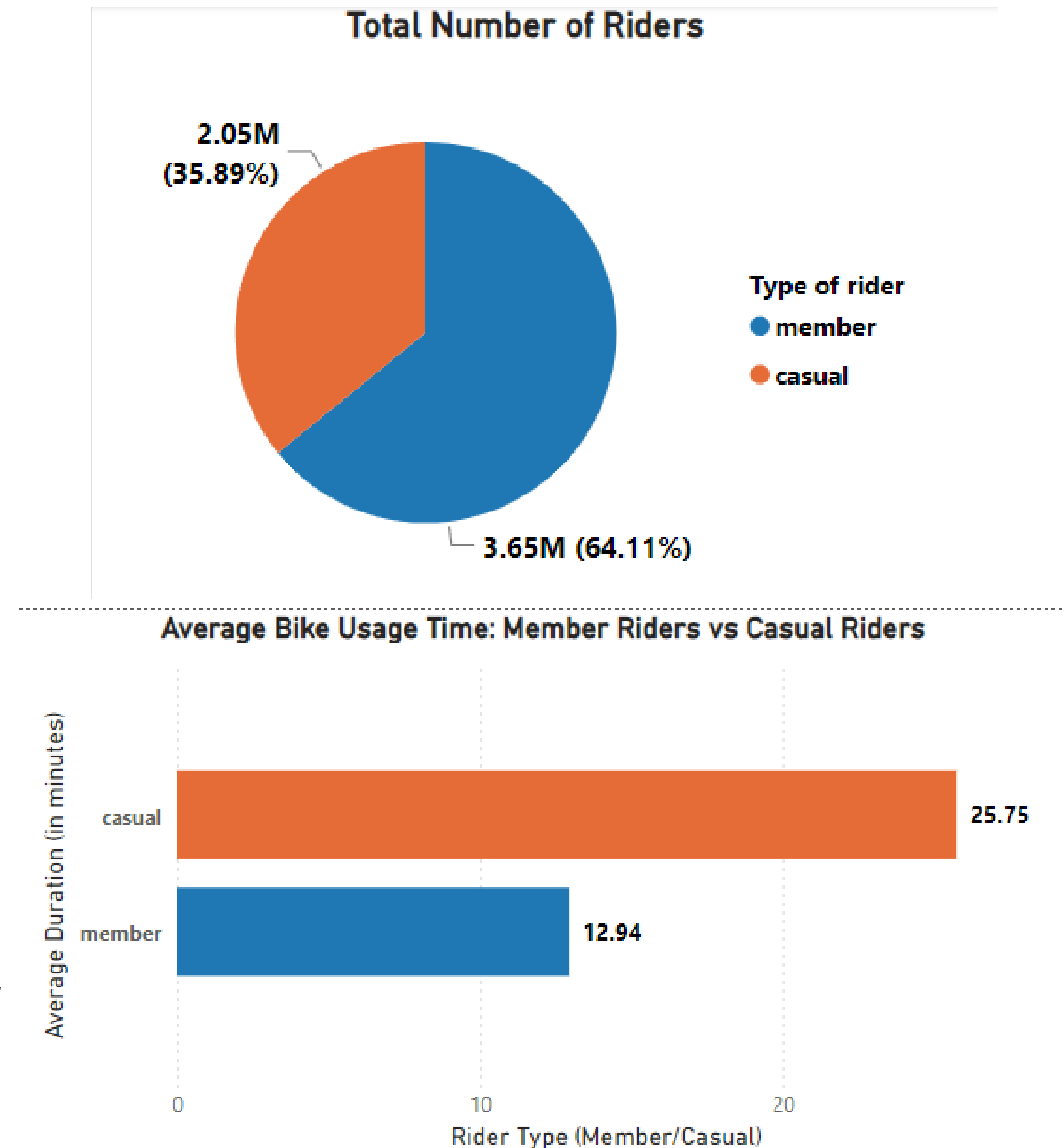
Total Riders and Ride Duration

Total Rides Breakdown

- Members conducted 3.65 million rides (64.11% of total rides).

- Casual riders accounted for 2.05 million rides (35.89% of total rides).
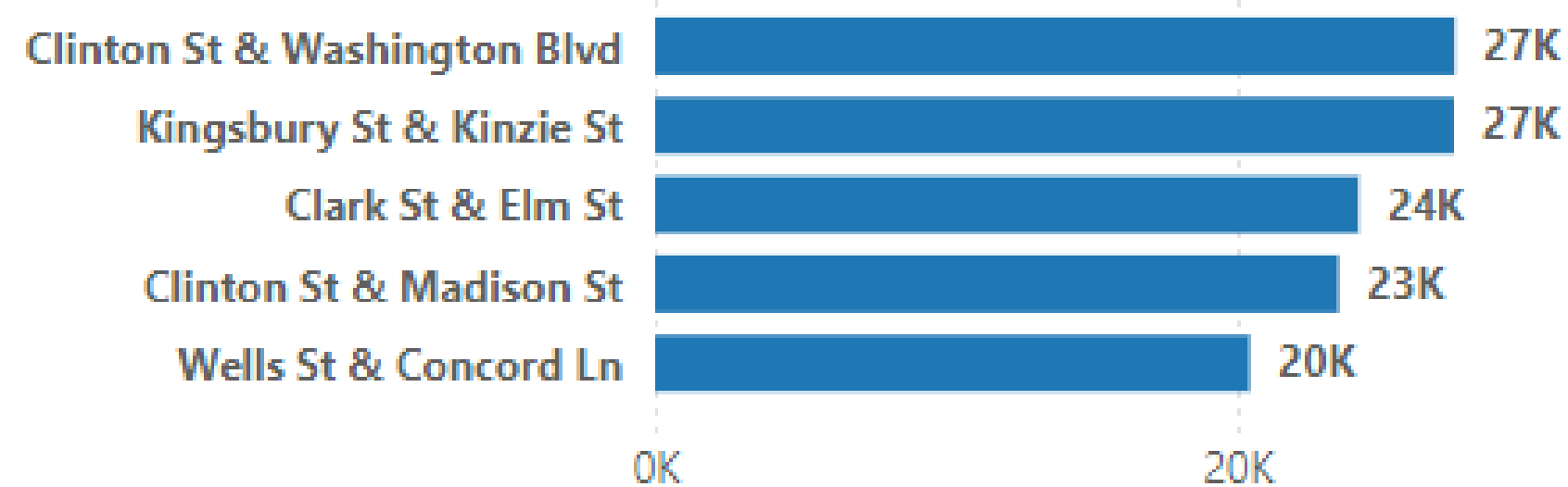
Average Ride Duration

- The average ride duration for casual riders is 25.75 minutes, almost double that of members who average 12.94 minutes.

- This suggests that casual riders tend to use bikes for more leisurely and longer trips, while members use them for quicker commutes.

Total Number of Riders

2.05M (35.89%)

3.65M (64.11%)

Type of rider
- member
- casual

Average Bike Usage Time: Member Riders vs Casual Riders

Average Duration (in minutes)

casual — 25.75

member — 12.94

Rider Type (Member/Casual)

Popular Start and End Locations

Top 5 Starting Locations of Member Riders

Starting Location Name	Number of Rides
Clinton St & Washington Blvd	27K
Kingsbury St & Kinzie St	27K
Clark St & Elm St	24K
Clinton St & Madison St	23K
Wells St & Concord Ln	20K

Top 5 Starting Locations of Casual Riders

Starting Location Name	Number of Rides
Streeter Dr & Grand Ave	49K
DuSable Lake Shore Dr & Monroe St	32K
Michigan Ave & Oak St	24K
DuSable Lake Shore Dr & North Blvd	22K
Millennium Park	21K

Top 5 Ending Locations of Member Riders

Ending Station Name	Number of Rides
Clinton St & Washington Blvd	28K
Kingsbury St & Kinzie St	27K
Clinton St & Madison St	25K
Clark St & Elm St	24K
Wells St & Concord Ln	21K
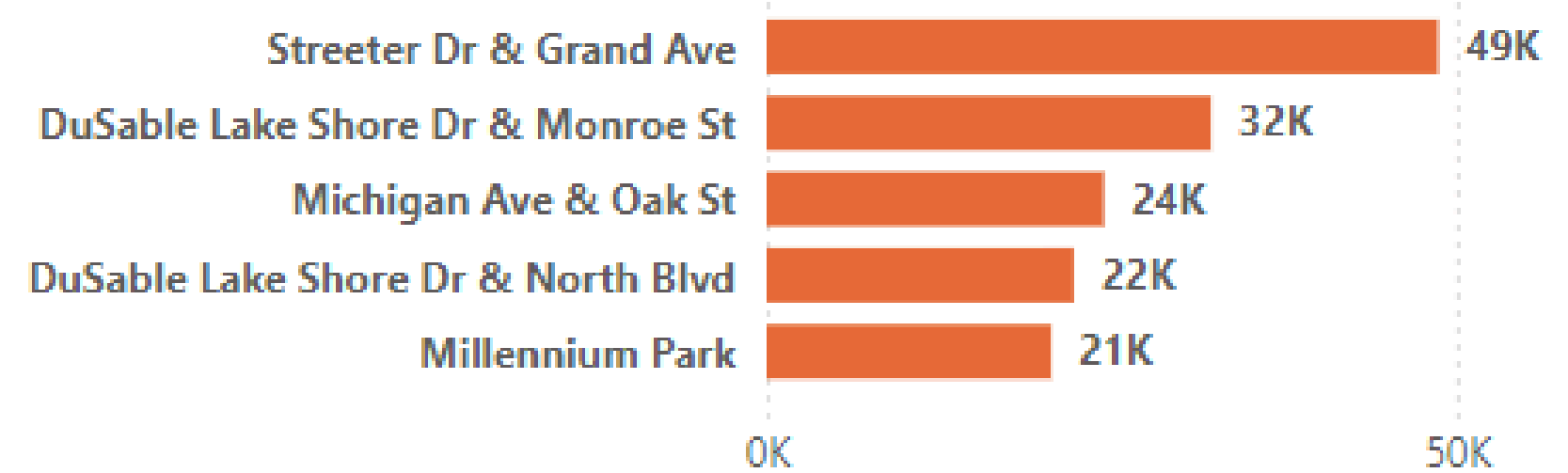
Top 5 Ending Locations of Casual Riders

Ending Station Name	Number of Rides
Streeter Dr & Grand Ave	52K
DuSable Lake Shore Dr & Monroe St	30K
DuSable Lake Shore Dr & North Blvd	25K
Michigan Ave & Oak St	25K
Millennium Park	22K
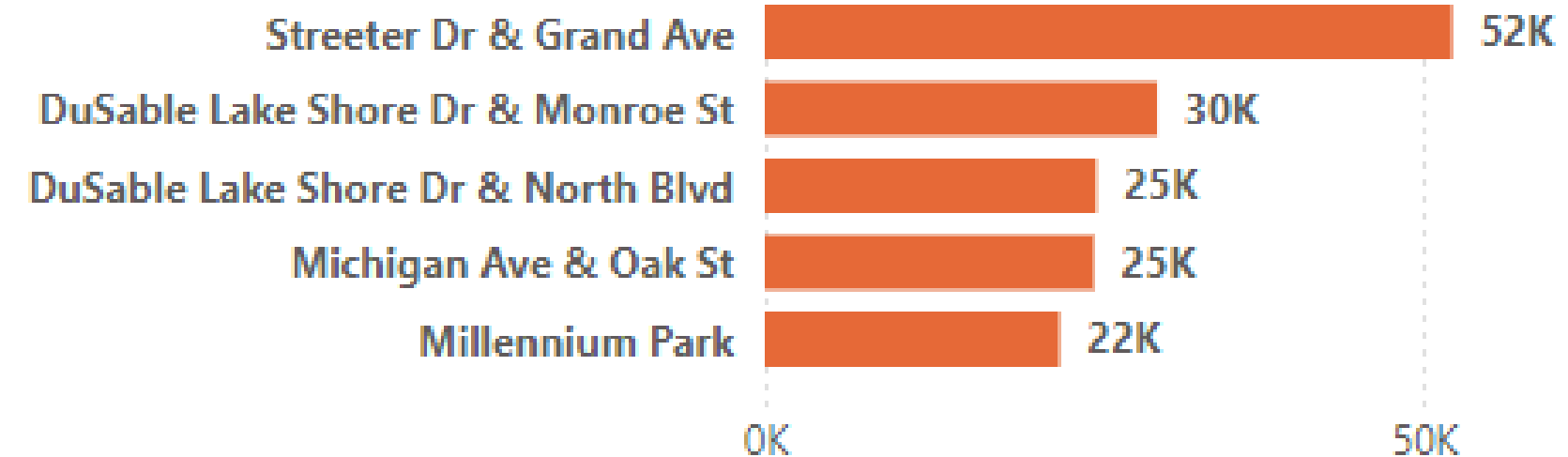
- Members start and end their rides at locations near business districts, transportation hubs, and office buildings.
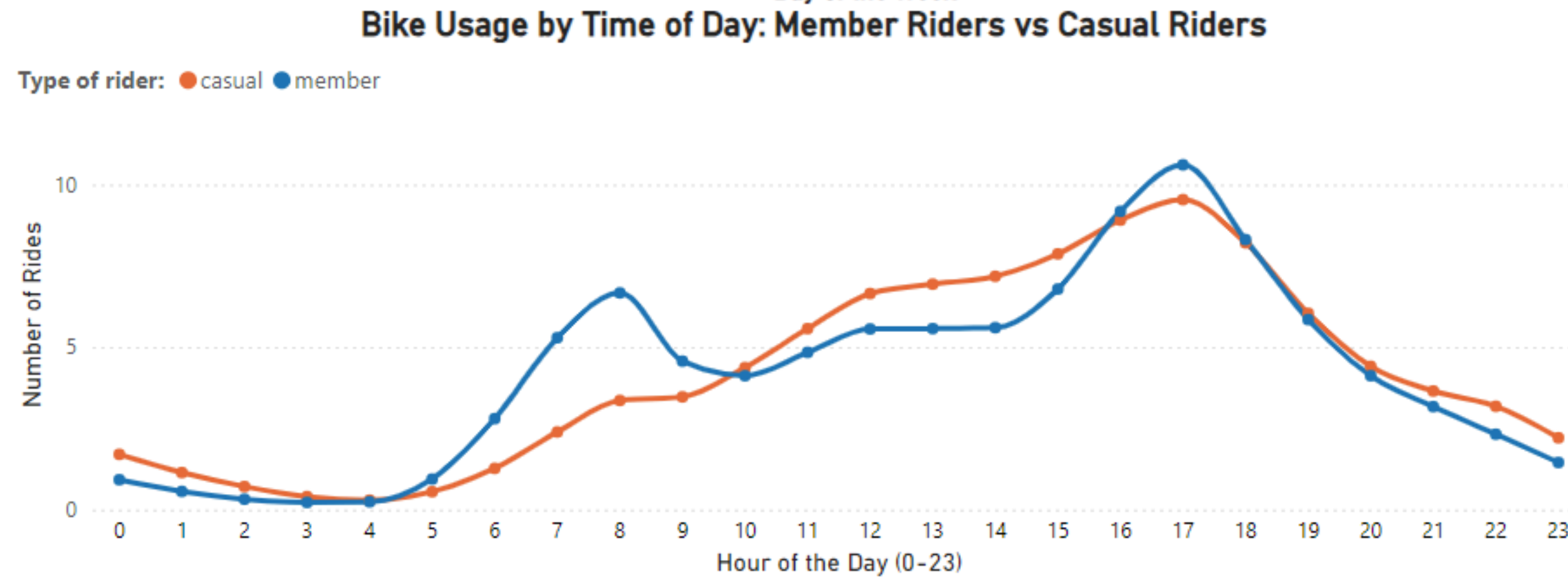- Casual riders, on the other hand, prefer locations near tourist attractions.
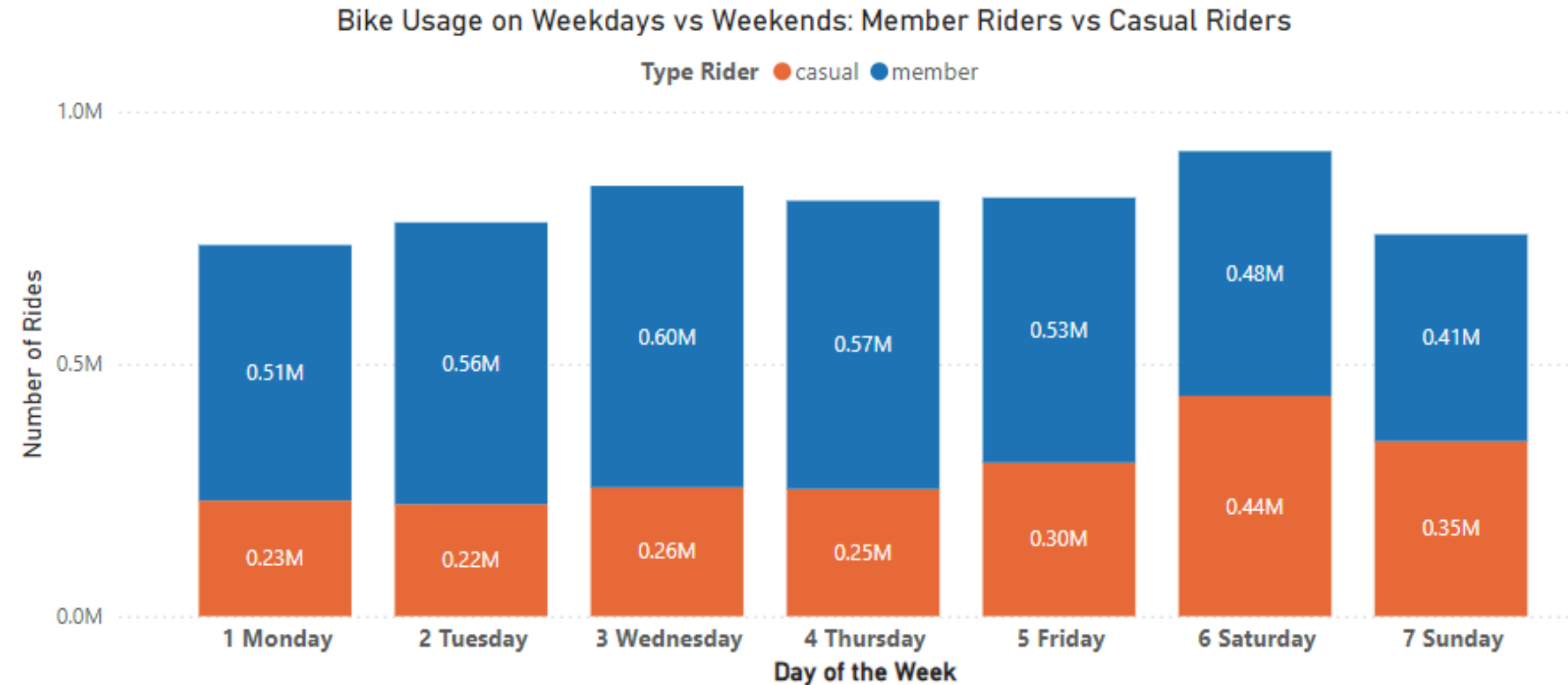
Usage Patterns

Weekday vs Weekend

Member rides drop significantly on weekends, while casual riders have more rides on Saturdays and Sundays.

Time of Day

- Members use bikes mostly during commuting hours (8:00 AM and 5:00 PM).
- Casual riders are more active during the daytime (10:00 AM to 4:00 PM).

Bike Usage on Weekdays vs Weekends: Member Riders vs Casual Riders

Type Rider ● casual ● member

Day	casual	member
1 Monday	0.23M	0.51M
2 Tuesday	0.22M	0.56M
3 Wednesday	0.26M	0.60M
4 Thursday	0.25M	0.57M
5 Friday	0.30M	0.53M
6 Saturday	0.44M	0.48M
7 Sunday	0.35M	0.41M

Number of Rides / Day of the Week

Bike Usage by Time of Day: Member Riders vs Casual Riders

Type of rider: ● casual ● member

Number of Rides / Hour of the Day (0-23)

Usage Patterns

Seasonal Trends

Casual riders tend to ride during warmer months (May to September), while member usage remains steady throughout the year.

Percentage of Riders by Month of year
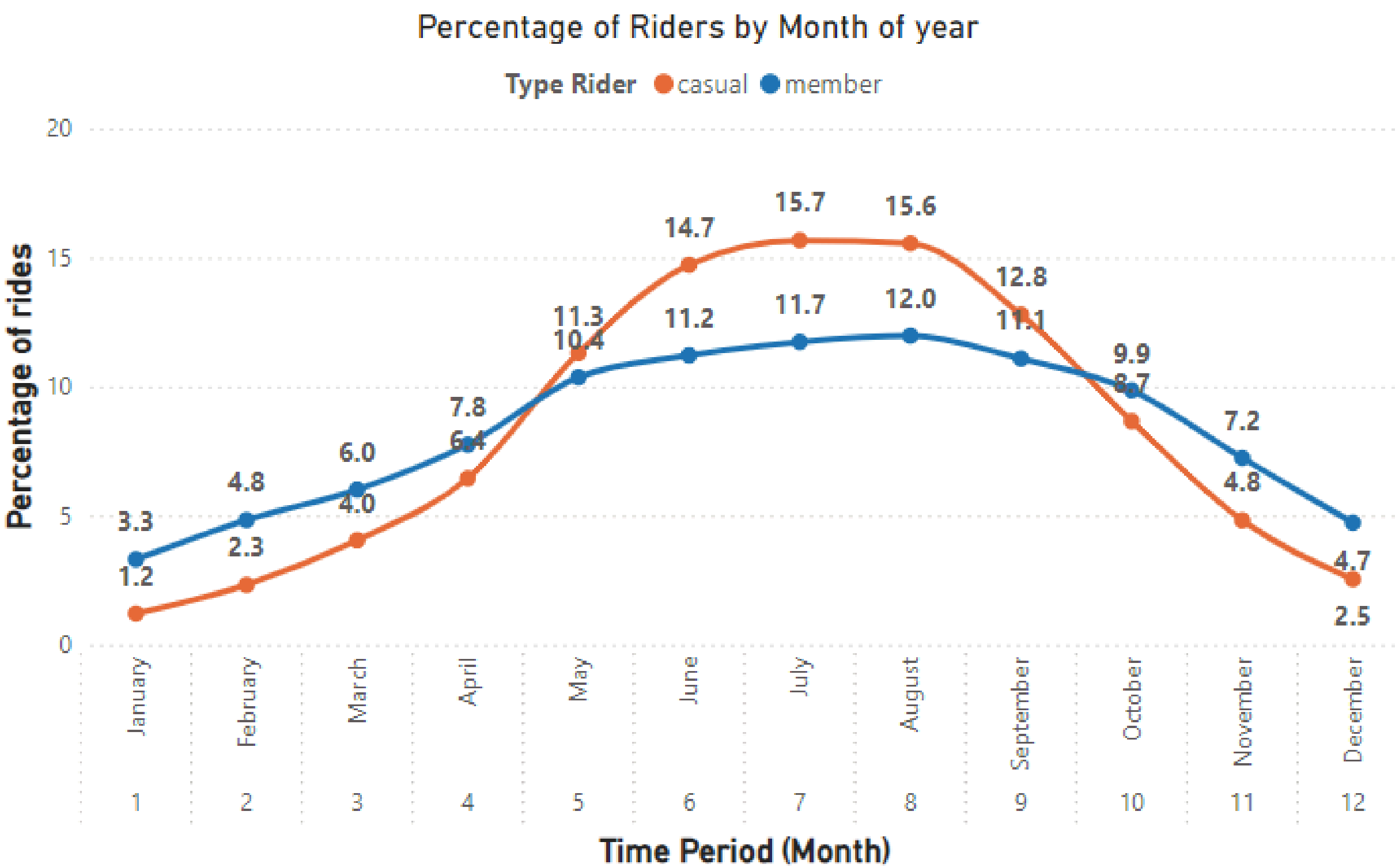
Key Insights

Usage Differences:
Members use bikes for short, daily commuting trips, while casual riders use bikes for longer, touristic rides.

Behavior Patterns:
Casual rider behavior is influenced by tourist seasons and weekends, while member behavior is driven by work routines.

Time and Location Usage:
- Casual riders focus on tourist attractions and ride in the daytime.
- Members prioritize efficient travel between office areas during commuting hours.

Ride Duration:
Casual rides take almost double the time compared to member rides.

Recommendations

Convert Casual Riders to Members:
- Offer seasonal discounts or limited-time offers for casual riders during peak summer months.
- Introduce loyalty programs for frequent casual riders.

Expand Tourist-Focused Services:
- Create specific tourist packages that encourage casual riders to upgrade to memberships.

Improve Member Experience:
- Provide incentives for weekend usage to encourage more members to use bikes on weekends.

- Partner with local businesses to offer discounts for bike usage during certain times of day or events.