A person wearing a blue suit is riding a green road bicycle on a city street. The background shows a stone wall with arched windows and a parked motorcycle. The image is partially obscured by a white circular graphic on the left side.

# Cyclistic – Differences Between Casual Riders and Annual Members.

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June 2026

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# Agenda

|    |  |
|----|--|
| 01 | Explore how our annual members and casual riders differ      |
| 02 | Identify why casual riders would buy a membership            |
| 03 | Assess how digital media could affect our marketing tactics. |

***Disclaimer:*** This case study was completed as part of the Google Data Analytics Certificate program. In this project, I assumed the role of a data analyst working for a fictional company, Cyclistic, a Chicago-based bike-share service. The objective of the analysis is to examine the differences between annual members and casual riders.

Even though Cyclistic is a fictional company, the data is real and comes from Lyft Bikes and Scooters, LLC and has been made available by Motivate International Inc. under this [license](#).

# Phase 1 Objectives

- **Define** key differences between casual riders and annual members
- **Analyze** historical Cyclistic trip data to identify usage trends across both groups
- **Answer** the core business question: How do annual members and casual riders use Cyclistic bikes differently?



Then, we'll use our findings to develop a marketing strategy to convert casual riders into annual members.

Short on time? Click **HERE** to view our recommendations and takeaways.

# Defining Our Users

**Casual riders** are customers who purchase single-ride or full day passes.

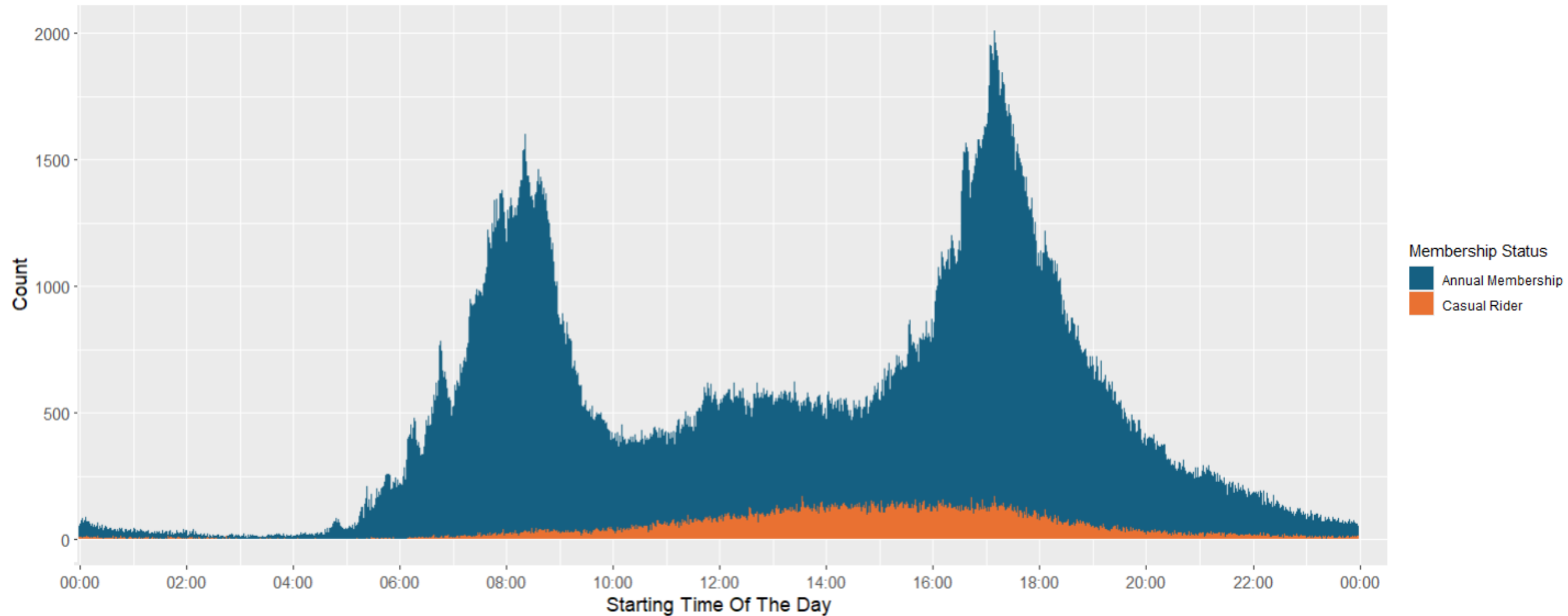
**Annual members** are customers who purchase memberships that last the full year.



# Data Scope and Key Metrics

- Analyzed Quarter 1 data from 2019 and 2020
- Identified **trends** across the following areas:
  - Ride start and end times (time of day)
  - Ride start and end days (day of week)
  - Trip duration
  - Start and end stations
  - Membership status
  - Rider demographics (gender and birth year)

# Rides Throughout The Day (Based on start time)



# Rides Throughout The Day (Based on start time)



OUR **ANNUAL RIDERS** TEND TO RIDE THEIR BIKES FROM 7:30AM – 9:00 AM, AND 4:30PM – 6:00PM

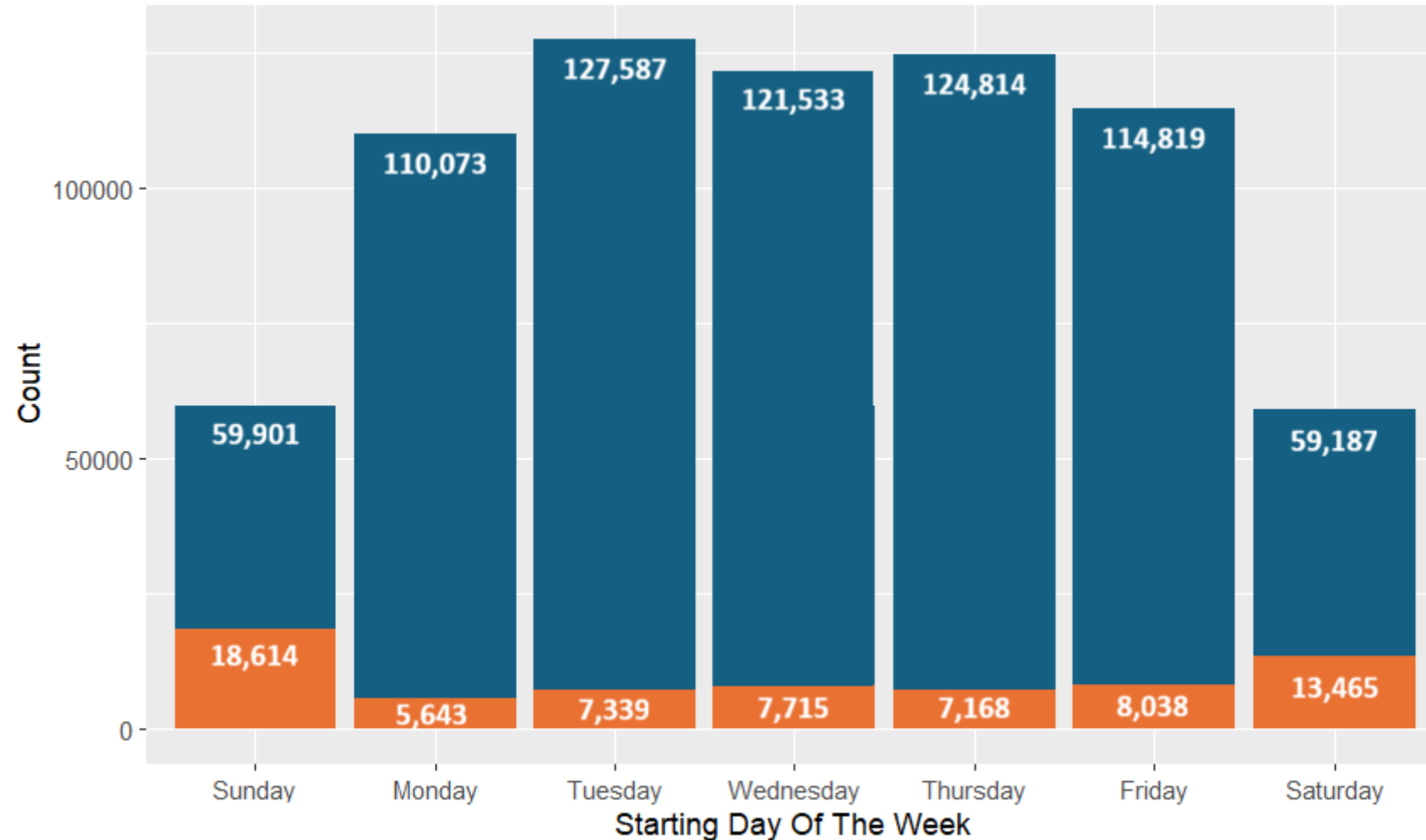


OUR **CASUAL RIDERS** TEND TO RIDE THEIR BIKES FROM 12:15PM – 6:00PM



*FURTHER ANALYSIS IS NEEDED TO CONFIRM WHY THESE ARE THE PREFERRED RIDING TIMES.*

# Rides Throughout The Week (Based on start time)

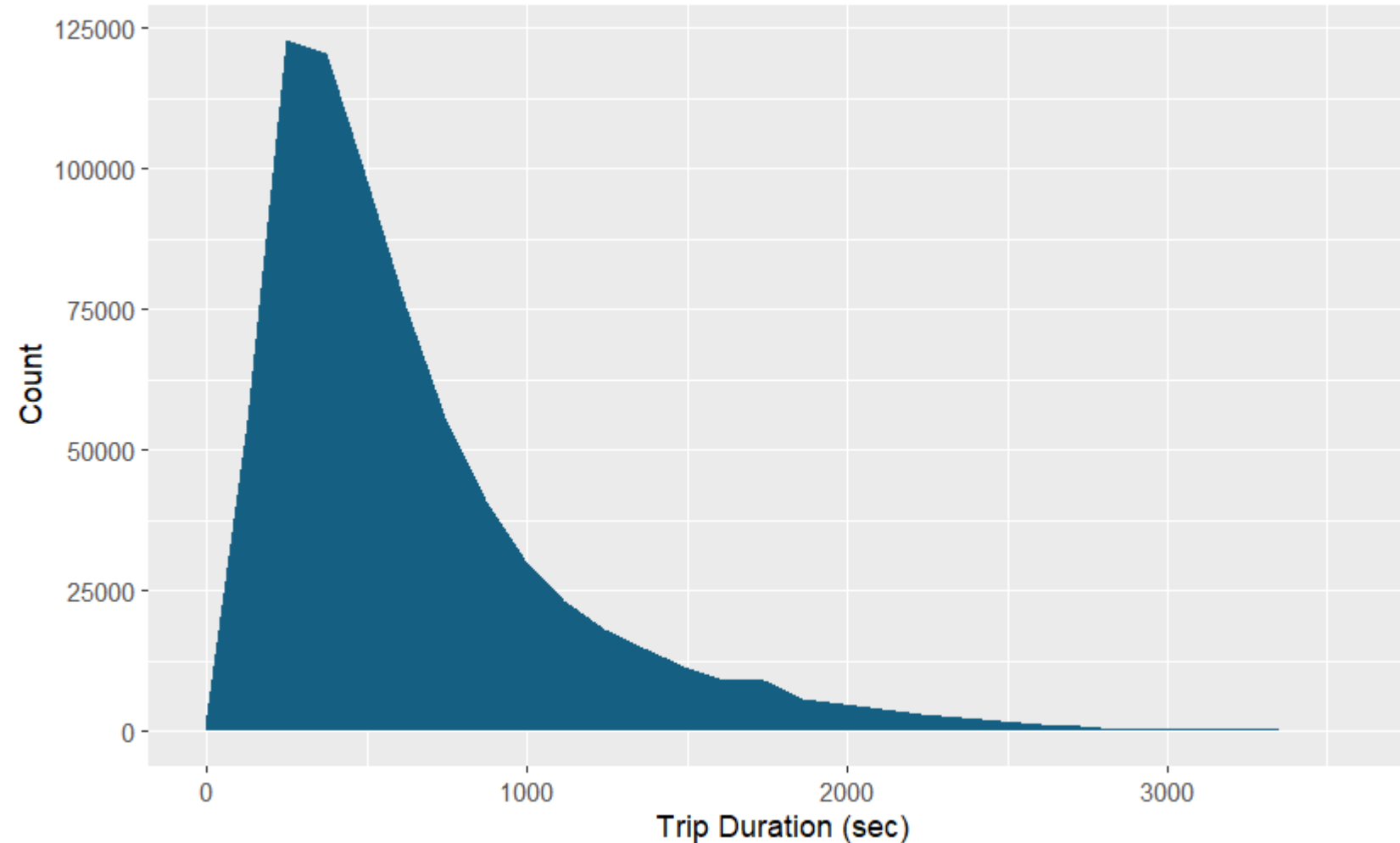


- Our **annual riders** tend to ride their bikes during the **week**.
- Our **casual riders** tend to ride their bikes during the **weekends**.
- *Further analysis is needed to confirm why these are the preferred riding days.*

Membership Status

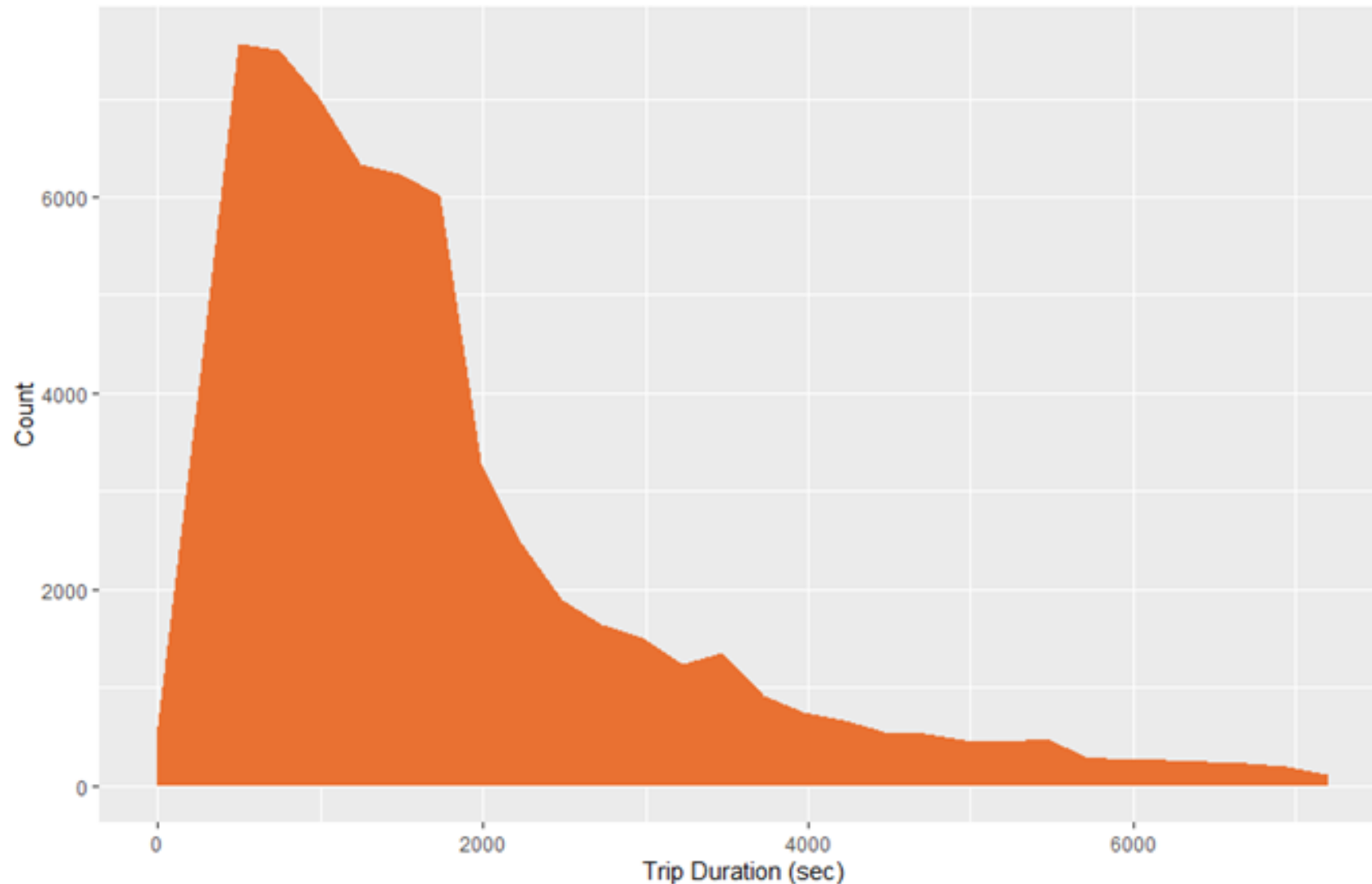
- Annual Membership
- Casual Rider

# Trip Duration (Annual Members)



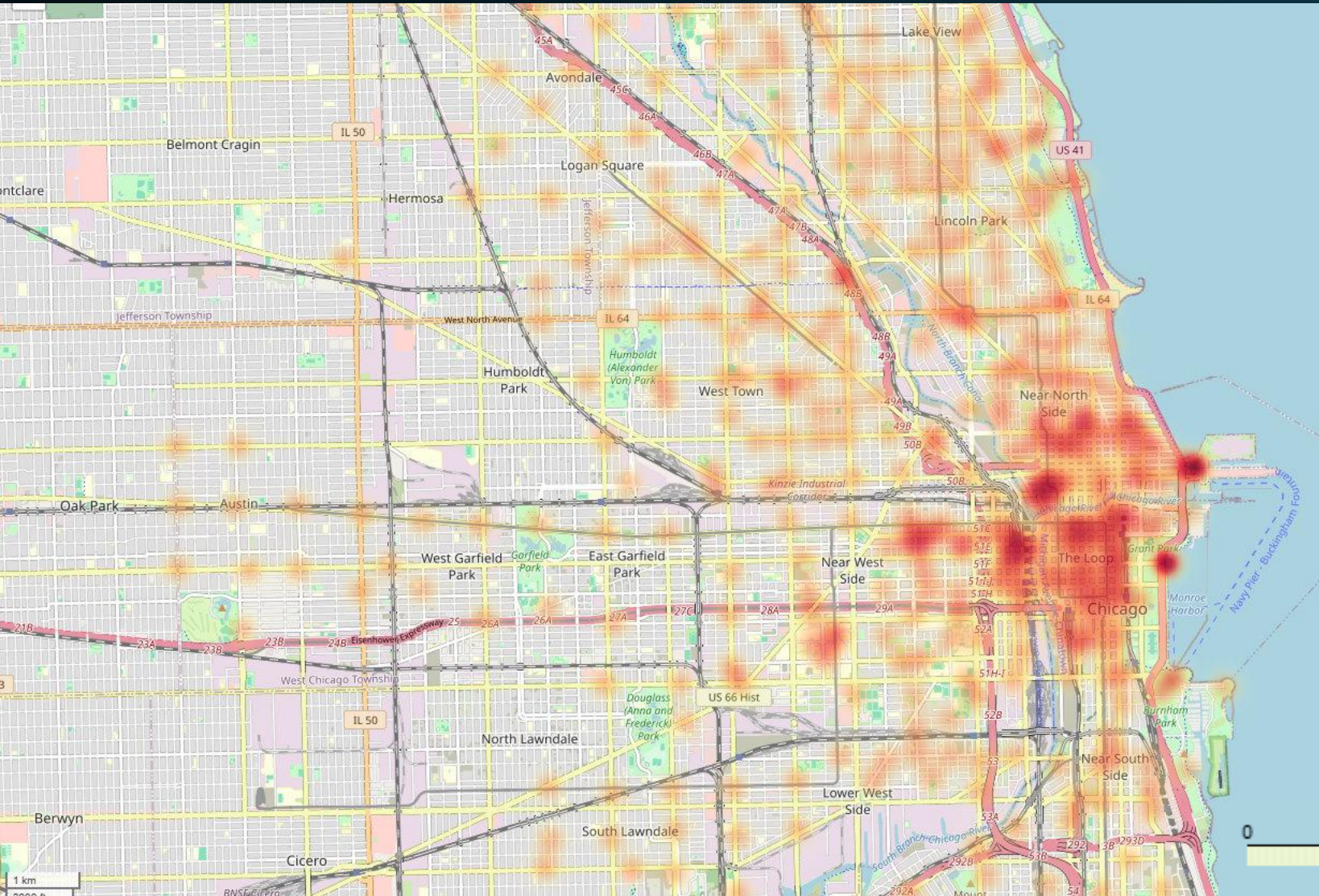
- The top 80% of **annual riders** ride their bikes from 2 to 15 minutes. (120s to 900s)
- *Trips longer than an hour began reaching double-digit counts, which were too small to be effectively represented in this visualization.*
- *Further analysis is needed to confirm why these are the preferred trip durations.*

# Trip Duration (Casual Members)



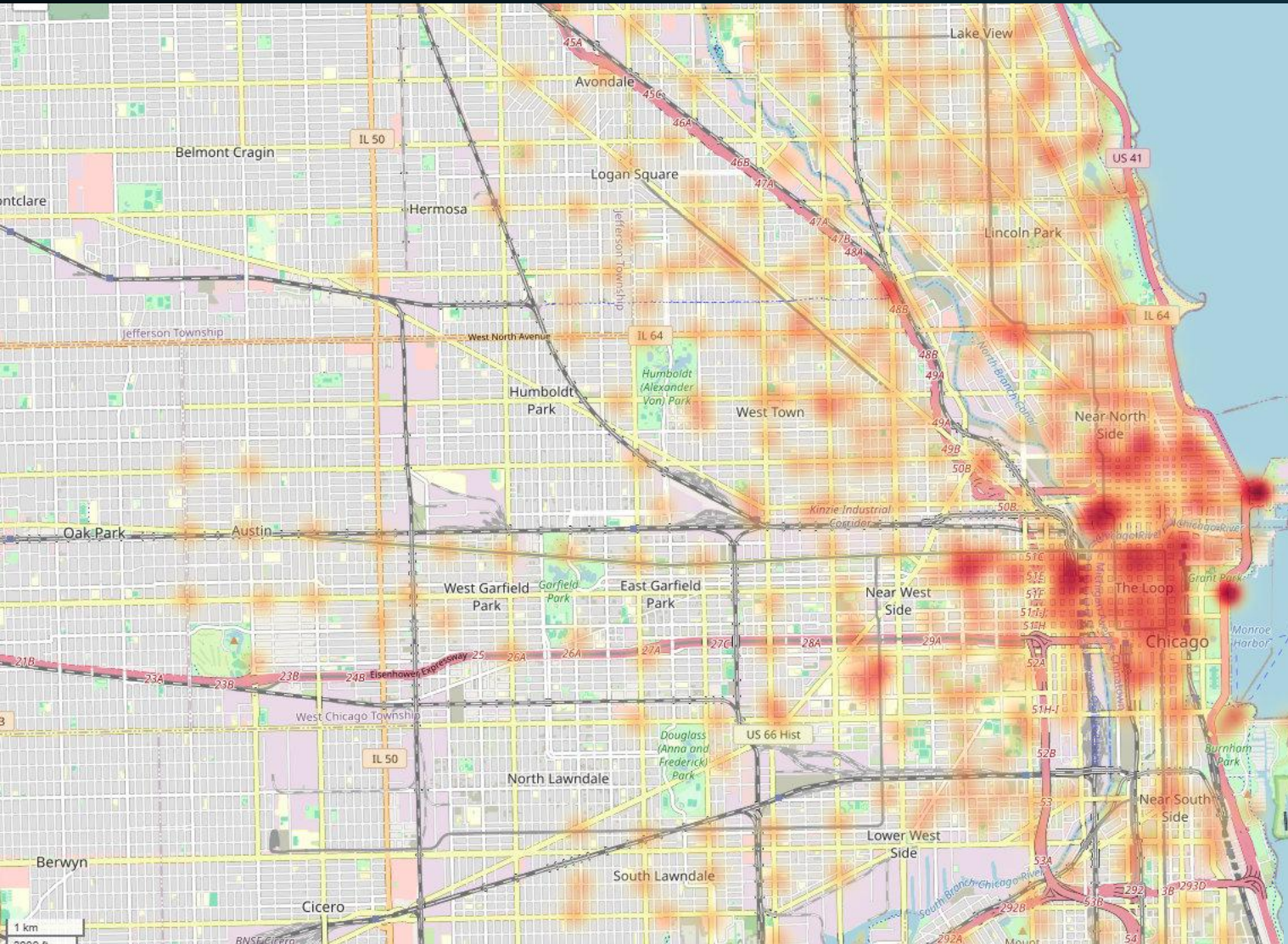
- The top 80% of **casual** riders ride their bikes from 3 to 48 minutes. (180s to 2880s)
- *Trips longer than an hour and a half began reaching double-digit counts, which were too small to be effectively represented in this visualization.*
- *Further analysis is needed to confirm why these are the preferred trip durations.*

# Casual Rider Start Locations



- Compared to all Chicagoland locations, **casual riders** tend to start their rides throughout the Chicago Loop. Additionally, riders tend to start near the Ogilvie Transportation Center, Monroe Harbor, and Navy Pier.
- *Further analysis is needed to confirm why these are the preferred areas.*

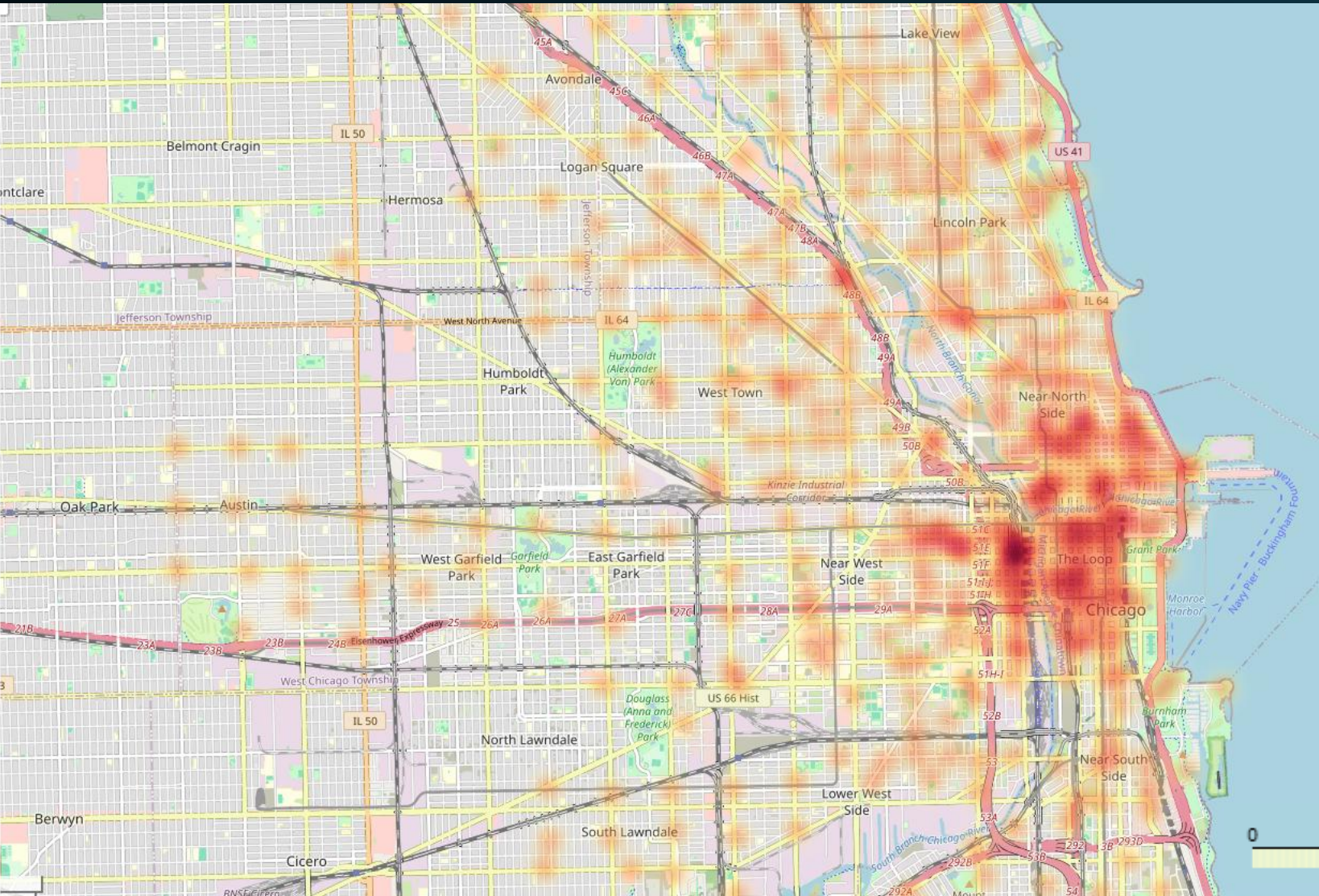
# Top 10 Casual Rider Start Locations



| Starting Station ID | Rides |
|---------------------|-------|
| 35                  | 2745  |
| 76                  | 2731  |
| 3                   | 1830  |
| 90                  | 1405  |
| 85                  | 1016  |
| 43                  | 839   |
| 6                   | 832   |
| 341                 | 826   |
| 177                 | 794   |
| 268                 | 606   |



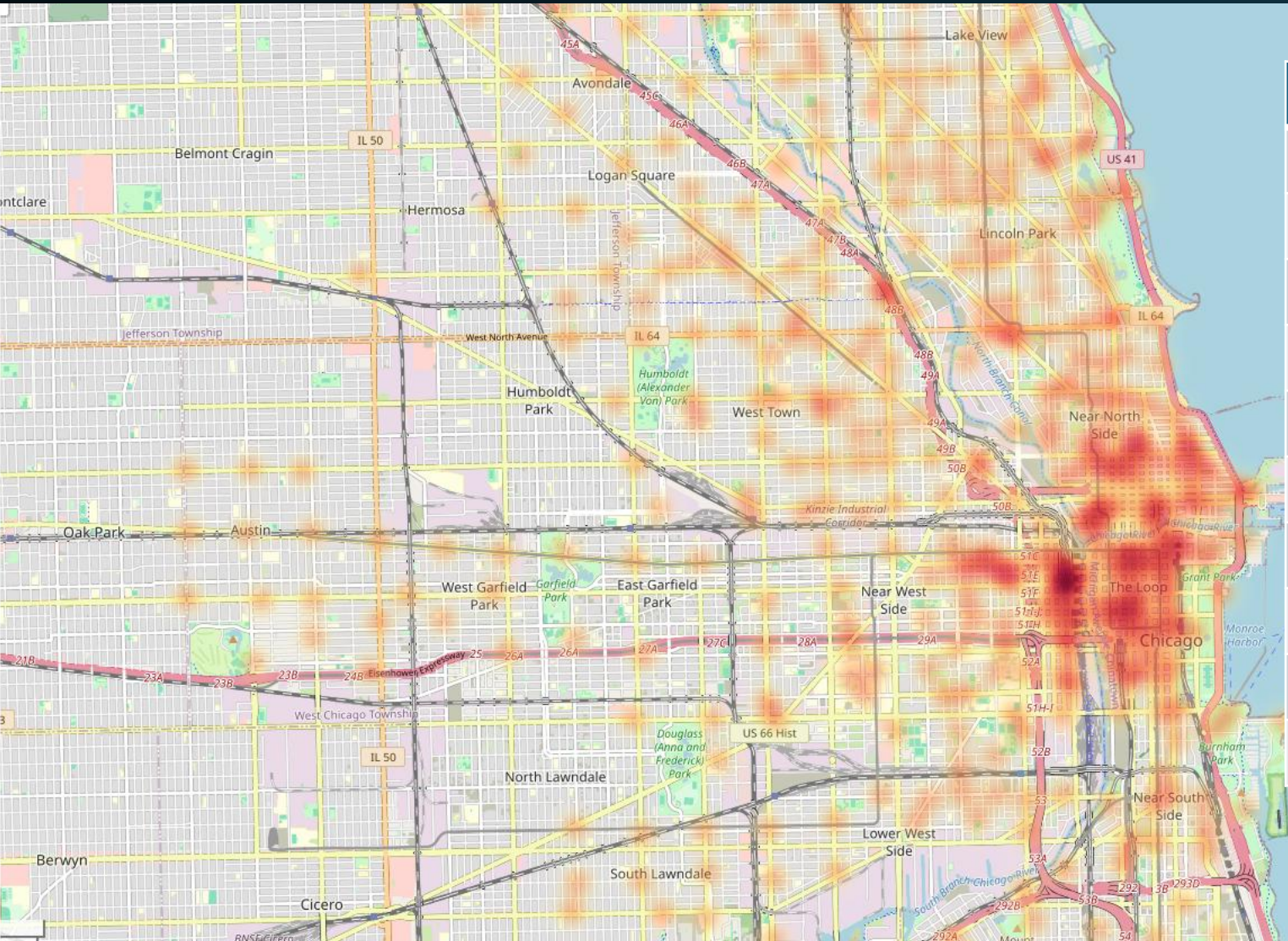
# Annual Rider Start Locations



- Compared to all Chicagoland locations, **annual riders** also tend to start their rides throughout the Chicago Loop. However, these riders tend to start near the Ogilvie Transportation Center and Union Station.
- *Further analysis is needed to confirm why these are the preferred areas.*
- *Rides with unrecorded station IDs were removed from this list*



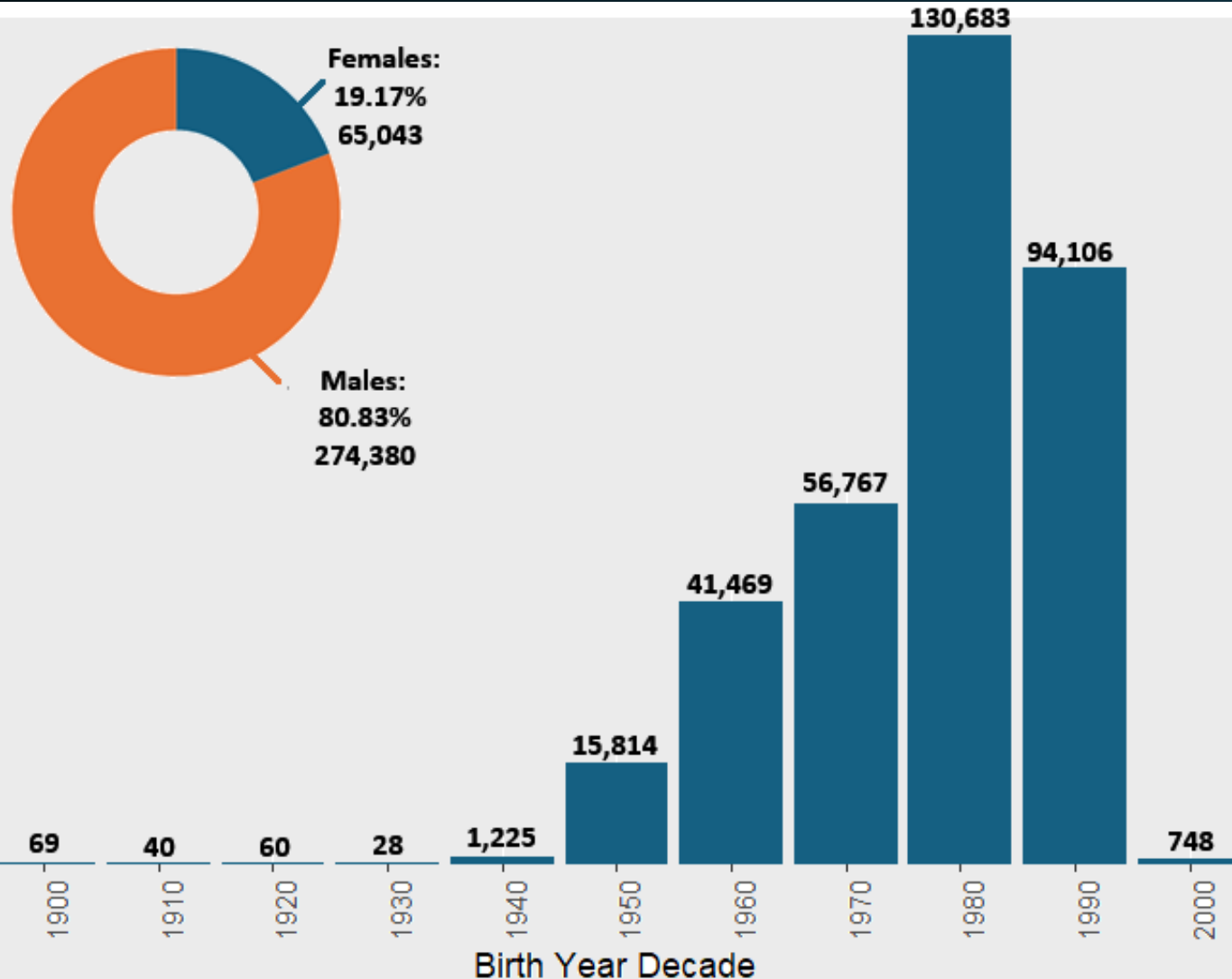
# Top 10 Annual Rider Start Locations



| Starting Station ID | Rides |
|---------------------|-------|
| 192                 | 13767 |
| 91                  | 13407 |
| 77                  | 12851 |
| 133                 | 8697  |
| 195                 | 8482  |
| 174                 | 7929  |
| 287                 | 6985  |
| 43                  | 6679  |
| 48                  | 6456  |
| 66                  | 6426  |

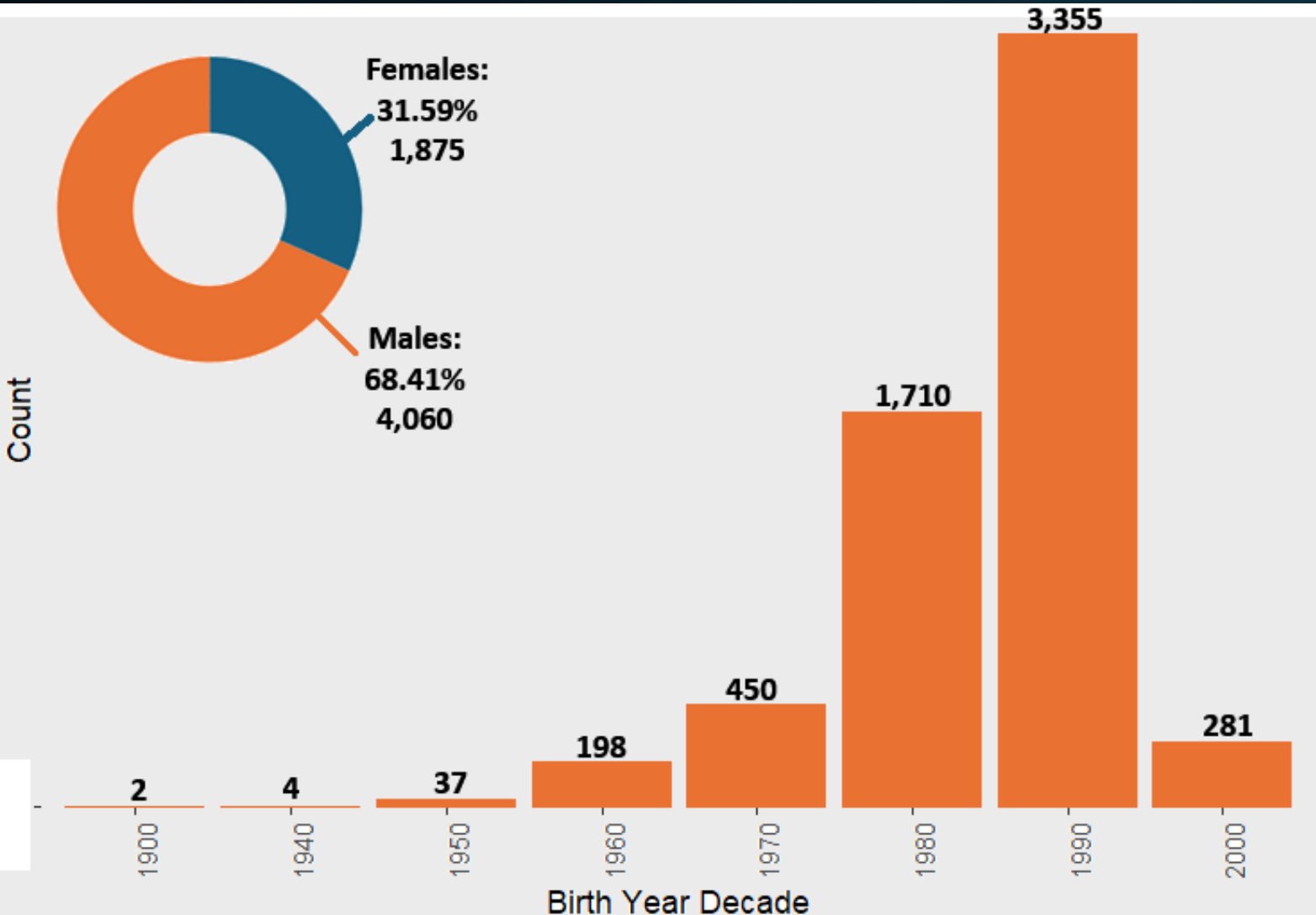


# Annual Rider Demographic (2019)



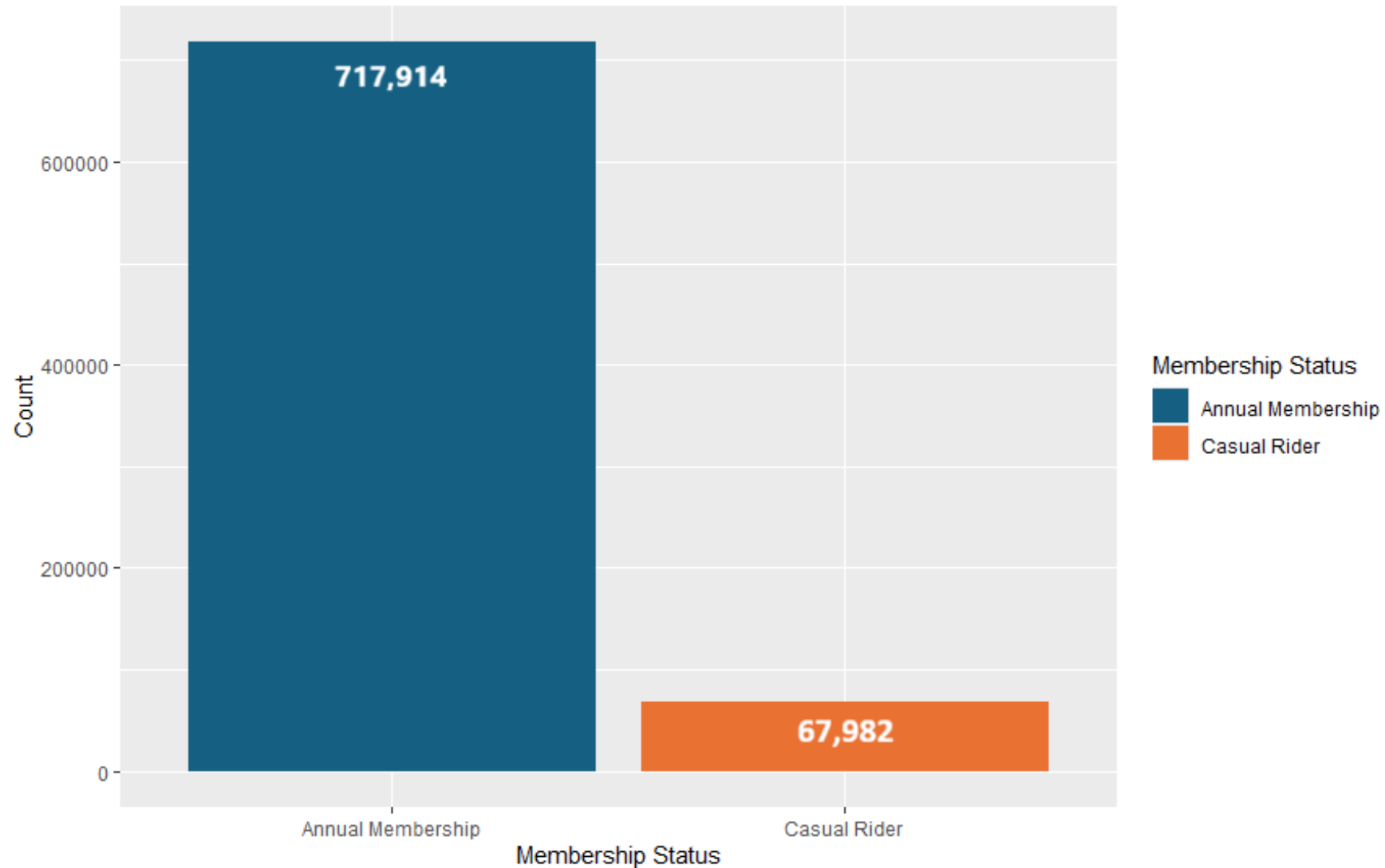
- Based on 2019 data where riders volunteered their demographic data, we identified 80.83% of **annual riders** were male and 19.17% of riders were female.
- Our **annual riders** tend to be born from 1960 to 1990. 1980 and 1990 had the **highest number of riders**.
- *This data is from the 2019 data set. Demographic data stopped being collected in 2020.*

# Casual Rider Demographic (2019)



- Based on 2019 data where riders volunteered their demographic data, we identified 68.41% of **casual riders** were male and 31.59% of riders were female.
- Our **casual riders** tend to be born from 1980 to 1990. 1980 and 1990 had the **highest number of riders**.
- *This data is from the 2019 data set. Demographic data stopped being collected in 2020.*

# Membership Status



While our annual riders make up 91.34% of our total user base, there's an **opportunity** to convert 67,982 riders to annual memberships.

## Summary:

### How our annual members and casual riders differ?

|  | Casual Riders   | Annual Riders   |
|--|---|---|
| <b>Rides Throughout The Day</b>                  | Prefer 7:30-9:00AM and 4:30-6:00PM  | Prefer 12:15PM – 6:00PM   |
| <b>Rides Throughout The Week</b>                 | Prefer Weekend rides  | Prefer Weekday rides  |
| <b>Trip Duration</b>                             | Prefer longer rides from 3 min to 48 min  | Prefer shorter rides from 2 min to 15 min   |
| <b>Start Location</b>                            | Frequents the Loop, starting near the Ogilvie Transportation Center, Monroe Harbor, and Navy Pier.  | Frequents the Loop, starting near the Ogilvie Transportation Center and Union Station.  |
| <b>Age</b><br><i>Based on 2019 data only.</i>    | <ul style="list-style-type: none"><li>• Usually born from: 1980 – 1990.</li><li>• The highest demographic were for users born 1980 – 1990</li></ul> | <ul style="list-style-type: none"><li>• Usually born from: 1960 – 1990.</li><li>• The highest demographic were for users born 1980 – 1990</li></ul> |
| <b>Gender</b><br><i>Based on 2019 data only.</i> | <ul style="list-style-type: none"><li>• <b>Males:</b> 68.41%</li><li>• <b>Females:</b> 31.59%</li></ul>   | <ul style="list-style-type: none"><li>• <b>Males:</b> 80.83%</li><li>• <b>Females:</b> 19.17%</li></ul>   |
| <b>Membership Share</b>                          | 8.66% of users with 67,982 membership opportunities   | 91.34% of users with 717, 914 memberships   |

# Our Recommendations

- Based on the 2019 and 2020 ride data, we found there are 67,982 opportunities to convert Casual Riders to Annual Riders.
- **To create the highest return on investment, we recommend building our marketing strategy towards:**
  - Riders who frequent high traffic areas, like the Ogilvie Transportation Center, Monroe Harbor, and Navy Pier.
  - Riders who ride on weekends and between the hours of 7:30-9:00AM and 4:30-6:00PM
  - Riders who were born between 1980 – 1990.

# Next Steps

 01

Today we explored how our annual members and casual riders differ and where we should direct our marketing efforts.

02

The next step in the process is identifying why casual riders would buy a membership

03

Assess how digital media could affect our marketing tactics.