

A Case Study for Cyclistic, Chicago's Bike-Share Company

By Siddharth Lanke

Analyzing User Behavior to Boost Annual Memberships

Cyclistic

- ❖ **Cyclistic**, a renowned bike-share company in Chicago, has carved a niche for itself with a fleet of over 5,800 bicycles and 600 docking stations.
- ❖ Cyclistic ensures inclusivity for people with disabilities and those seeking alternative options like reclining bikes, hand tricycles, and cargo bikes .
- ❖ With an emphasis on leisurely rides, Cyclistic also serves as a daily commuting option for around 30% of its users.
- ❖ **Lily Moreno**: The director of marketing and my manager, Moreno is responsible for the development of campaigns and initiatives to promote the bike-share program.

Cyclistic

- ❖ In this case study, I delve into Cyclistic's historical bike trip data to unravel the patterns and behaviors of annual members and casual riders.
- ❖ By understanding these differences and identifying potential conversion opportunities, the marketing team aims to craft targeted marketing strategies that can sway casual riders to become loyal annual members.
- ❖ The success of this endeavor will be critical to Cyclistic's future growth and continued success in the competitive bike-share industry.
- ❖ The executive team, known for their attention to detail, will determine whether to give their approval for the proposed marketing program.

Data Source

I will use Cyclistic's historical trip data to analyze and identify trends.

Datasets are fictional and have been made available by Motivate International Inc. under this [license](#).

Dataset

Python is a versatile programming language and was used for tasks like data cleaning, filtering, transforming, manipulation, visualization, data blending, and sharing.

Business Task

How can we transform casual members, referred to as customers, into annual members known as subscribers?

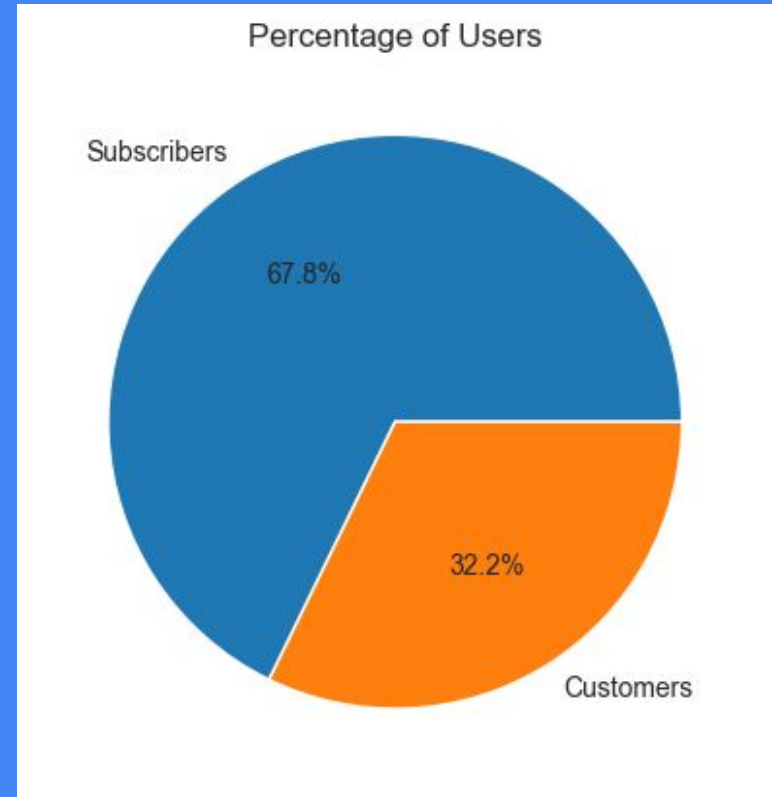
Customer is a rider who purchased a 24-Hour Pass.

Subscriber is a rider who purchased an Annual Membership.



Photo by [Kelly Sikkema](#) on [Unsplash](#)

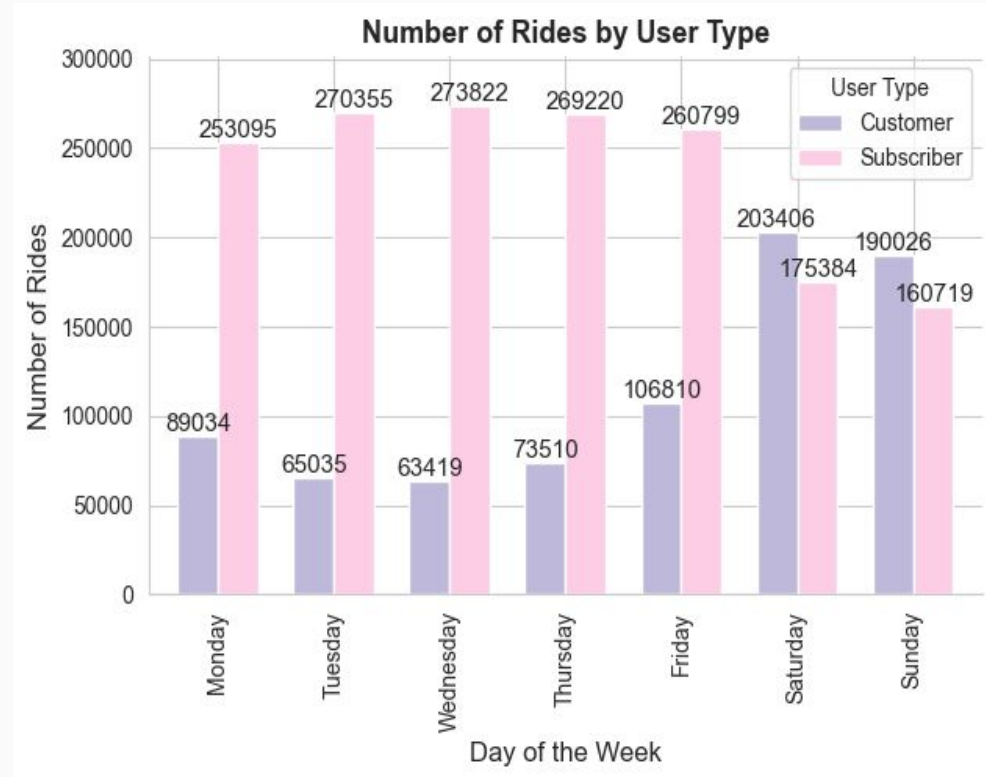
In the past year, **Subscribers** made up about **68%** of all rides taken, while **Customers** accounted for approximately **32%** of all rides taken.



Ride count categorized by user type and day of the week

On average, subscribers take approximately 265,458 rides during weekdays and 168,051 rides during weekends.

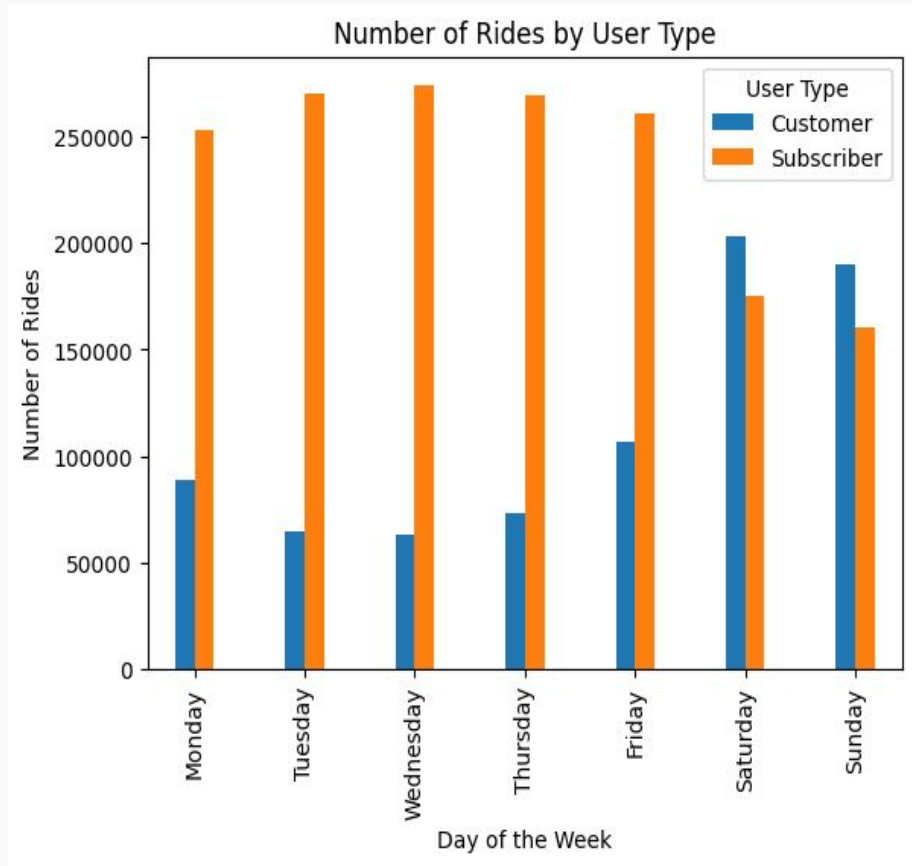
On the other hand, customers take around 79,561 rides during weekdays and significantly more, approximately 196,716 rides, during weekends.



During weekdays, subscribers tend to take more rides compared to customers, but as the weekend approaches, the number of rides taken by customers gradually increases.

During weekends, customers only marginally outnumber subscribers in the total number of rides.

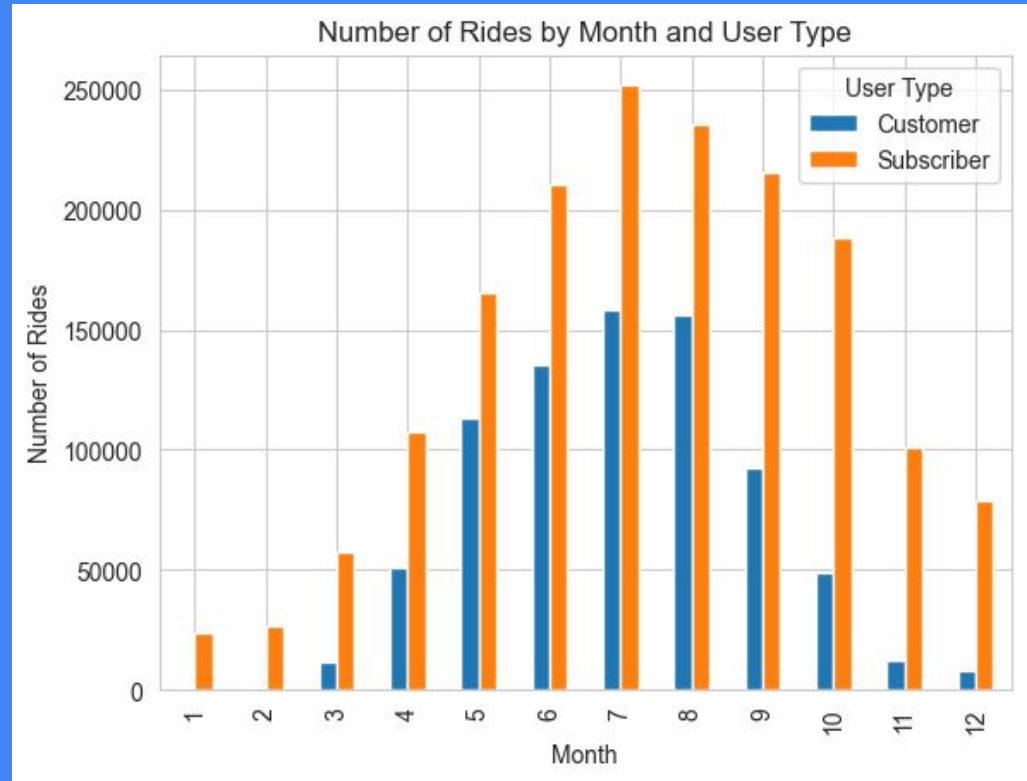
Interestingly, the number of rides taken by customers almost triples during weekends compared to weekdays.



Number of rides grouped by user-type and Month

Regarding monthly trips, both customers and subscribers exhibit comparable patterns, showing increased trip numbers during the spring and summer months and reduced trips during winter.

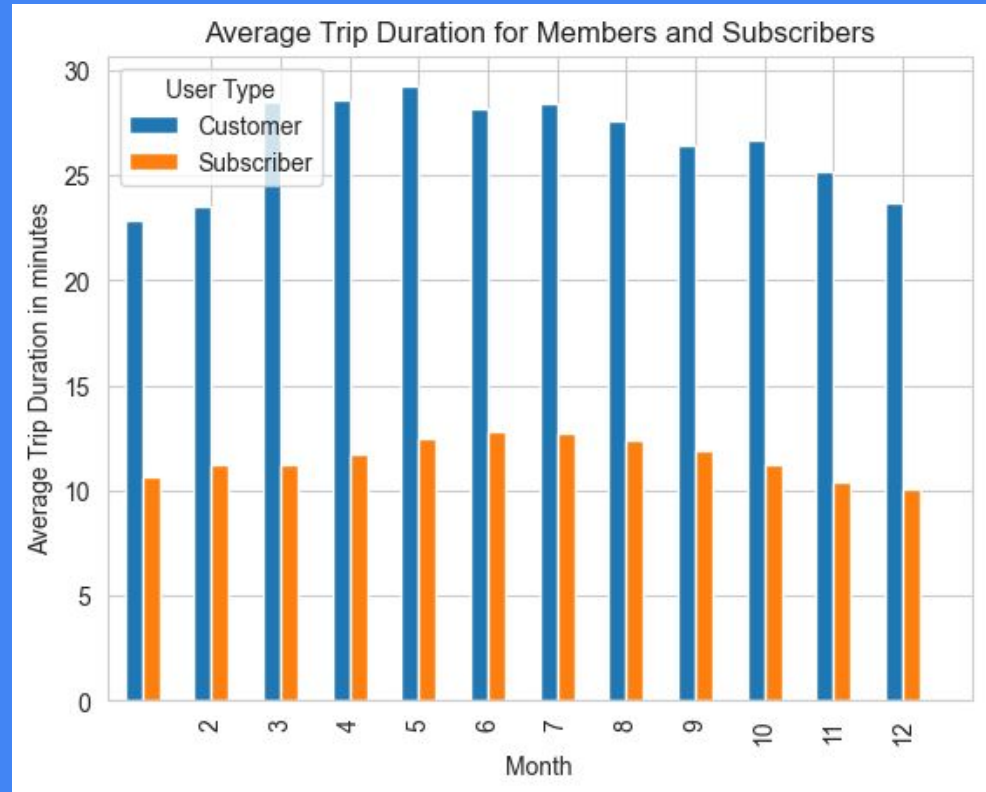
The distinction between customers and subscribers is minimal in June, suggesting a closer similarity in their behavior during the summer season.



Average journey time for customers and subscribers

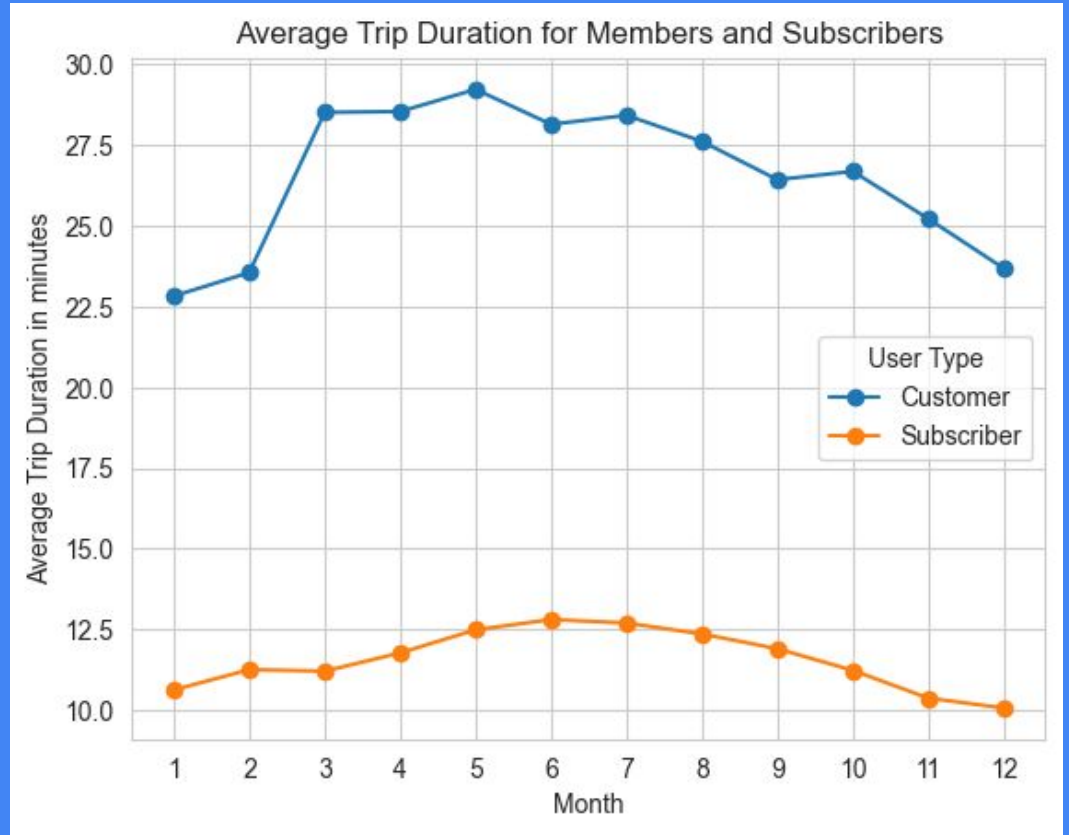
The average trip duration for **customers** is approximately **28 minutes**, while for **subscribers**, it is around **12 minutes**.

During **December** and **January**, the average trip duration for customers and subscribers is at its **lowest**, while it reaches its **highest** point in **May** and **June**.

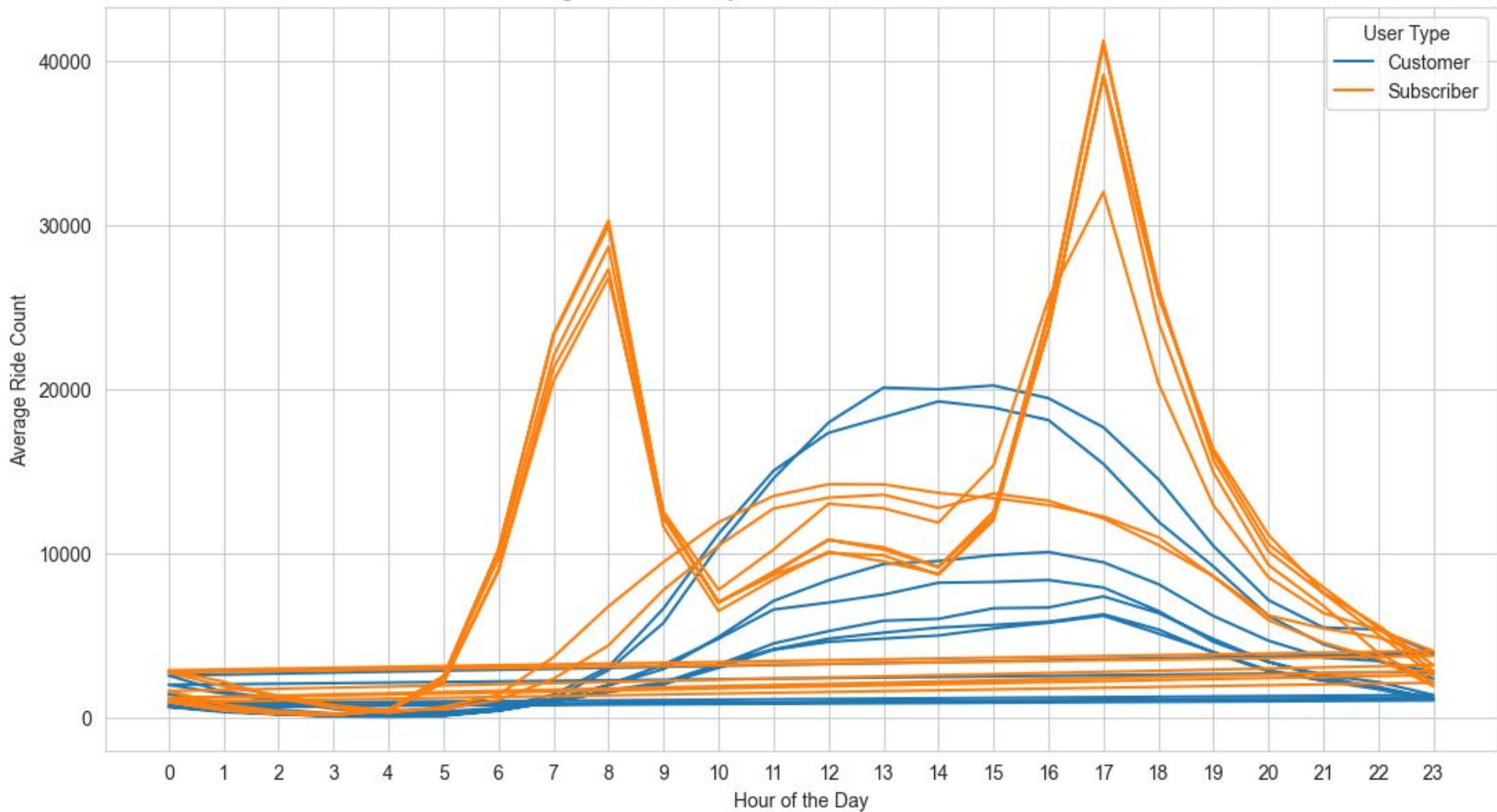


The average trip duration for **customers** exhibits **abrupt spikes** during **March**, followed by a gradual decline towards the end of the year.

Conversely, the average trip duration for **subscribers** experiences a **steady increase** until July, followed by a **gradual decrease**.



Average Ride Count by hour for Members and Subscribers



The average number of rides for **subscribers** experiences sharp **increases** around **8 am** and **5 pm**, suggesting that they likely use the bikes for their daily commutes to work.

On the other hand, for **customers**, the average ride count gradually **rises** from **9 am** to **3 pm**, implying that they may use the bikes for leisure activities or running errands.



Photo by [Annie Spratt](#) on [Unsplash](#)

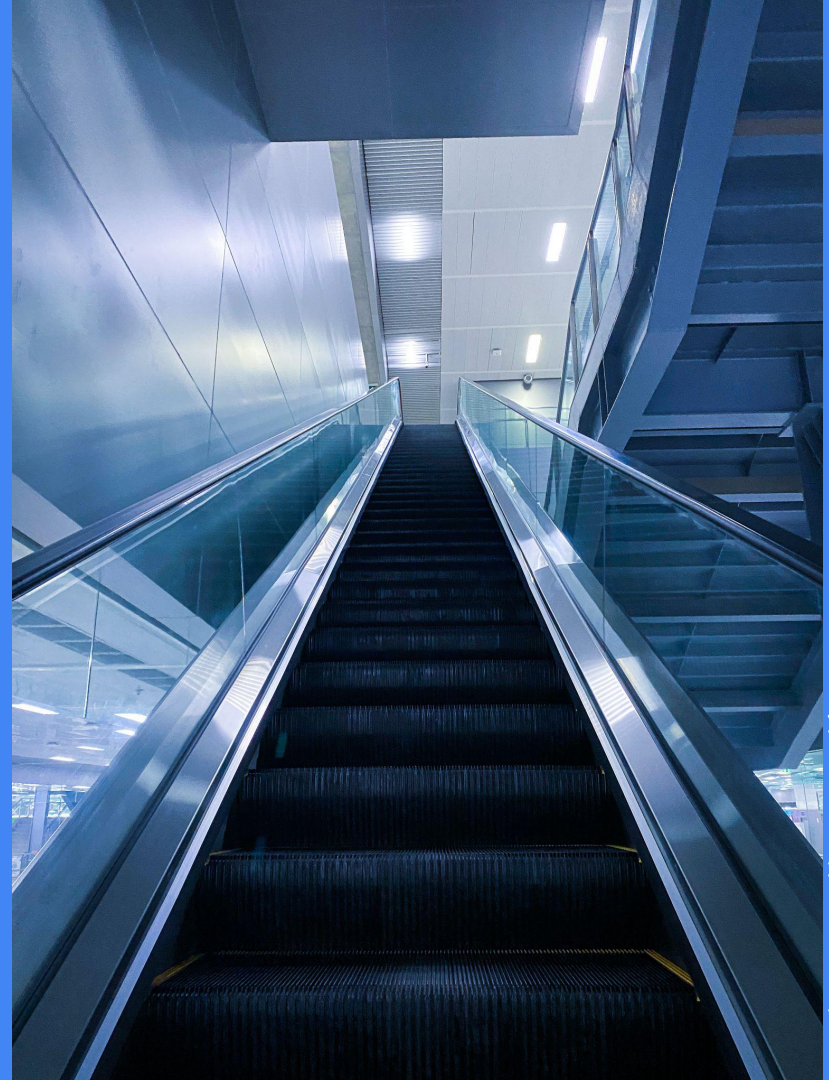


Photo by [VENUS MAJOR](#) on [Unsplash](#)

Top stations

Stations exhibiting frequent usage are:

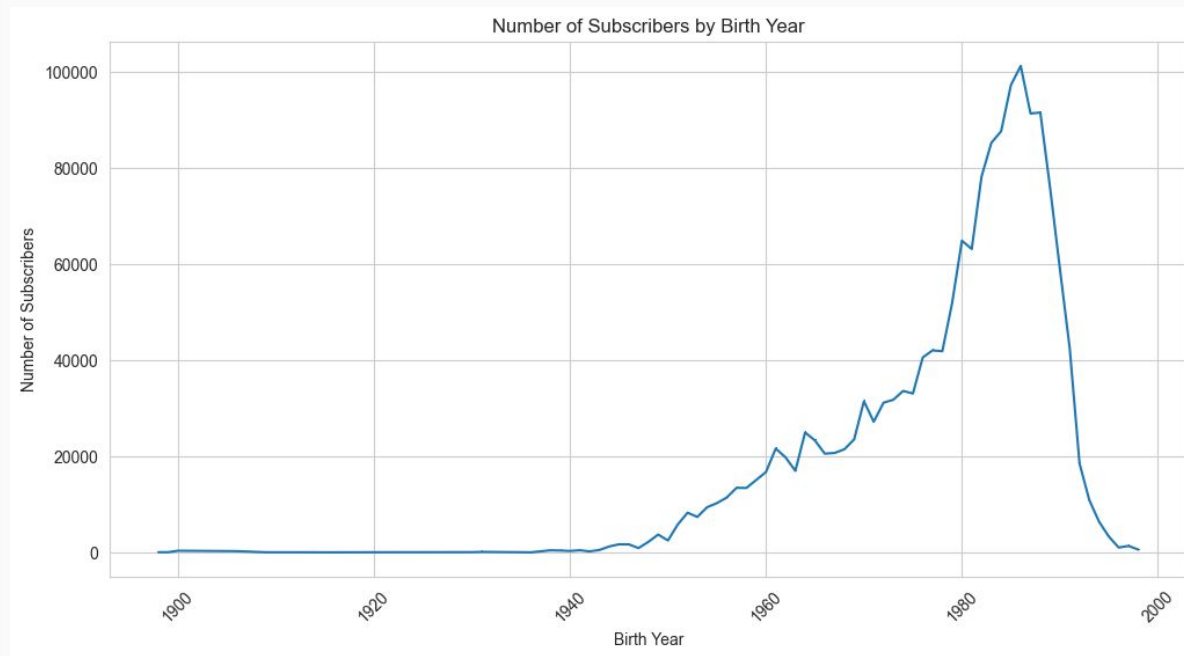
- ❖ Streeter Dr & Illinois St
- ❖ Lake Shore Dr & Monroe St
- ❖ Theater on the Lake
- ❖ Clinton St & Washington Blvd
- ❖ Michigan Ave & Oak St
- ❖ Millennium Park



Extraneous Data

Many **subscribers** were **born** around the **1980s**. If we had access to customer age data, we could efficiently target customers born within that particular time period.

However, since we lack access to customer age data, this information becomes less valuable for targeted marketing purposes.



Recommendations

- ❖ **Promote Annual Subscription Benefits:** Highlighting the benefits of becoming an annual subscriber to encourage more casual customers to convert. Emphasizing features such as cost savings, priority bike access, and exclusive perks that subscribers enjoy over customers.
- ❖ **Target Weekend Users:** Since customers tend to take more rides during weekends, we can focus on marketing efforts during these days to attract more customers to subscribe. We can offer special weekend promotions or discounts to entice customers into becoming subscribers.
- ❖ **Seasonal Promotions:** Creating seasonal marketing campaigns to attract both customers and subscribers during peak times, such as spring and summer. Offering time-limited deals or packages that encourage customers to upgrade to an annual subscription.

Recommendations

- ❖ **Flexible Subscription Options:** Consider offering flexible subscription options, such as quarterly or semi-annual plans, in addition to the annual subscription. This could appeal to customers who are not ready to commit to an annual subscription but still want more benefits than the pay-as-you-go option.
- ❖ **Educational Content:** Creating educational content that showcases the benefits of cycling and the impact on health, the environment, and overall well-being. This can help attract more customers who might be interested in a healthier lifestyle and may be more inclined to subscribe.
- ❖ **Age-Based Marketing** (If Data is Available): If customer age data is made available in the future, leveraging this information we can target marketing efforts towards specific age groups. Since many subscribers were born around the 1980s, we can tailor marketing campaigns to attract customers within that age range.

Thanks!

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