

A photograph of the Montreal skyline during autumn, featuring numerous skyscrapers and colorful trees in the foreground. A large, stylized red 'Bixi' logo is overlaid across the top half of the image.

**Bixi**

**NOV  
OCT  
SEP  
AUG  
JUL  
JUN  
MAY  
APR  
MAR  
FEB  
JAN**

**Bixi  
Progress Report  
Sri Casper**

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# Introduction

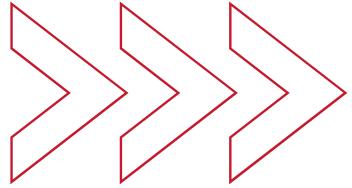
Bixi is a Quebec based non-profit organization offering bike rental services that allows people to rent regular bikes and electric bikes from over 800 stations around the Montreal area. The organization was founded in 2014 by the city of Montreal to manage its bike-sharing system. Today, there are more than 9,600 bikes available making it the largest fleet of bikes in North America.

Reporting on Bixi is important in communicating to stakeholders the company's commitment to contributing to be recognized as a key player in Montreal's public transit system; claiming accountability and responsibility to take the necessary actions; and measuring progress over time.

In this business report, there are overall view of the volume usage of Bixi bikes and what factors influence it, and the data regarding the status of the users along with insights and suggestions.



# Business Intelligence



860,732

Trips in July 2017

July & August

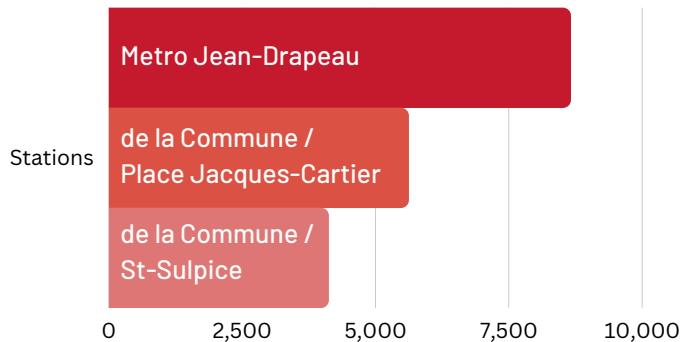
The Highest Monthly  
Percentage of Trips  
Per Year

- There are more users in 2017 than 2016. However, both years are busiest during the summer, which are June, July, August, and September. There are approximately 100,000 users more during those four months in 2017.
- Moreover, in figure 2, it shows that July and August are the two months with the highest percentage of trips of the year for both 2016 and 2017 while November is the month with the lowest usage.



Up to 92.46% of users in  
November are members

- However, in 2017, the data shows that November is when members use the service the most. Up to 92.46 % of users in November are members.
- In contrast, July is when the percentage of members is at the lowest although it is the month with the most users. In my opinion, this does not mean that our members use the service less. There are just more non-members using the service compared to other months. And this group of people could be tourists visiting the area during that time of the year.

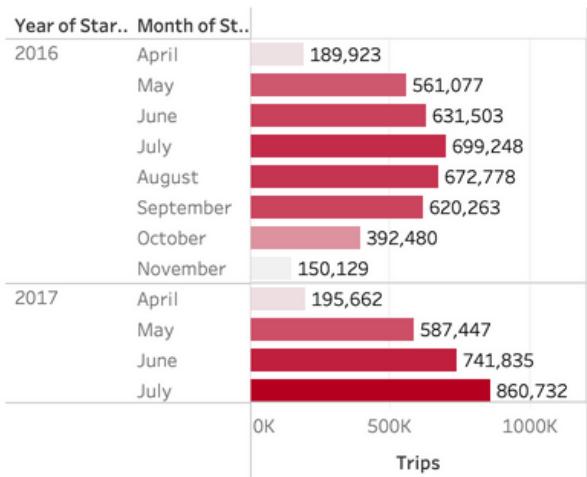


- Metro Jean-Drapeau is the station with the highest percentage of round trips of 30.2%. Additionally, the station is in a prime location. Besides being a metro station, it is also surrounded by tourist attractions, such as The Biosphere Environment Museum, Parc Jean-Drapeau, Complexe aquatique du Parc Jean-Drapeau, and Espace 67.

# Dashboard 1

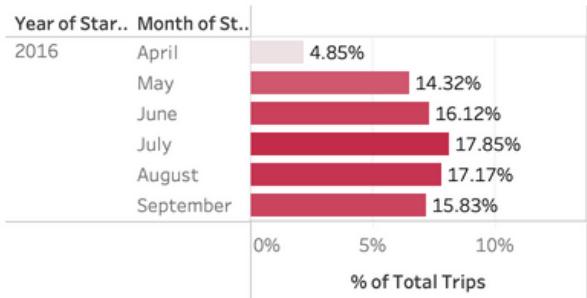
## Monthly Trips by Year

2016 - 2017



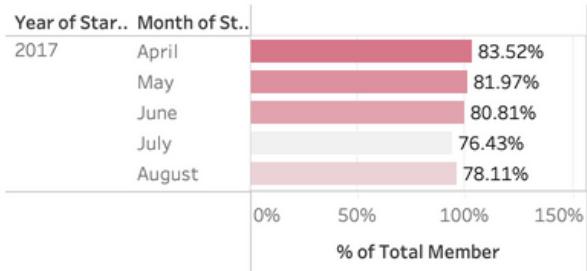
## Monthly Percentage of Trips per Year

2016 - 2017



## Monthly Percentage of Trips by Member in 2017

April - November



## Top 10 Stations by Percentage of Round trips

Rounded Trips  
 Not Rounded  
 Rounded

In / Out of Top10  
 In  
 Out

% of Total Count..  
 1.745003533% ..  
 and Null values

Count of trips  
 150K  
 861K

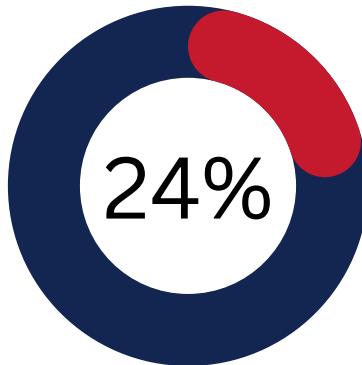
Member  
 76.43  
 92.46

Name	
Métro Jean-Drapeau	4.859%
de la Commune / Place Jac..	3.155%
de la Commune / St-Sulpice	2.314%
de la Commune / Berri	1.454%
de la Commune / McGill	1.225%
Square Sir-Georges-Étien..	1.042%
Mackay / de Maisonneuve	0.950%
de la Commune / King	0.929%
Parc Jeanne Mance (monu..	0.928%
Marché Atwater	0.887%
Pierre-de-Coubertin / Aird	0.741%
Parc Plage	0.643%
Berlioz / de l'Île des Soeurs	0.602%
Métro Place-des-Arts (de ..	0.583%
Métro Laurier (Rivard / La..	0.579%
Place du Commerce	0.520%
Bloomfield / Bernard	0.509%
Rachel / de Brébeuf	0.508%
Métro Mont-Royal (Rivard..	0.506%
Métro Peel (de Maisonneu..	0.501%
Calixa-Lavallée / Rachel	0.501%
Quai de la navette fluviale	0.496%
Casino de Montréal	0.495%
Métro Papineau (Cartier / ..	0.492%
Gary Carter / St-Laurent	0.484%
Square St-Louis	0.478%
Métro St-Laurent (de Mais..	0.436%
du Mont-Royal / Clark	0.429%
Prince-Arthur / du Parc	0.424%
Berri / de Maisonneuve	0.424%
du Mont-Royal / du Parc	0.401%
Chomedey / de Maisonneu..	0.390%
Murray / William	0.377%
St-André / Duluth	0.375%
Milton / University	0.375%
Bernard / Jeanne-Mance	0.369%
Square Sir-Georges-Etien..	0.368%
Gatineau / Swail	0.363%
Gauthier / Papineau	0.360%
Ann / William	0.354%
Métro Place-d'Armes (Vig..	0.346%
Notre-Dame / de la Monta..	0.345%
LaSalle / 4e avenue	0.337%
Laval / Duluth	0.336%
St-Mathieu/Ste-Catherine	0.332%



# Marketing

- Metro Jean-Drapeau is the station with the highest percentage of round trips of 30.2%. It also has the lowest percentage of trips by members at just under 24%.



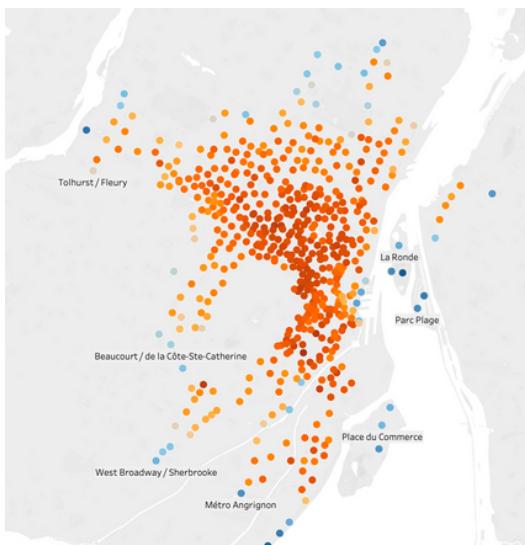
- Stations with a high percentage of round trips have a significantly higher number of non-member users.
- Three of the top 10 stations (in terms of percentage of round trips) have less than 25% of trips by members.



- While members usually take 3-7 minute trips, non-members tend to take 9-13 minute trips. Also, there is a drastically difference between the amount of member and non-member users.
- For example, in the 5 minute trip, there are 496,612 members while there are only 42,192 non-members.



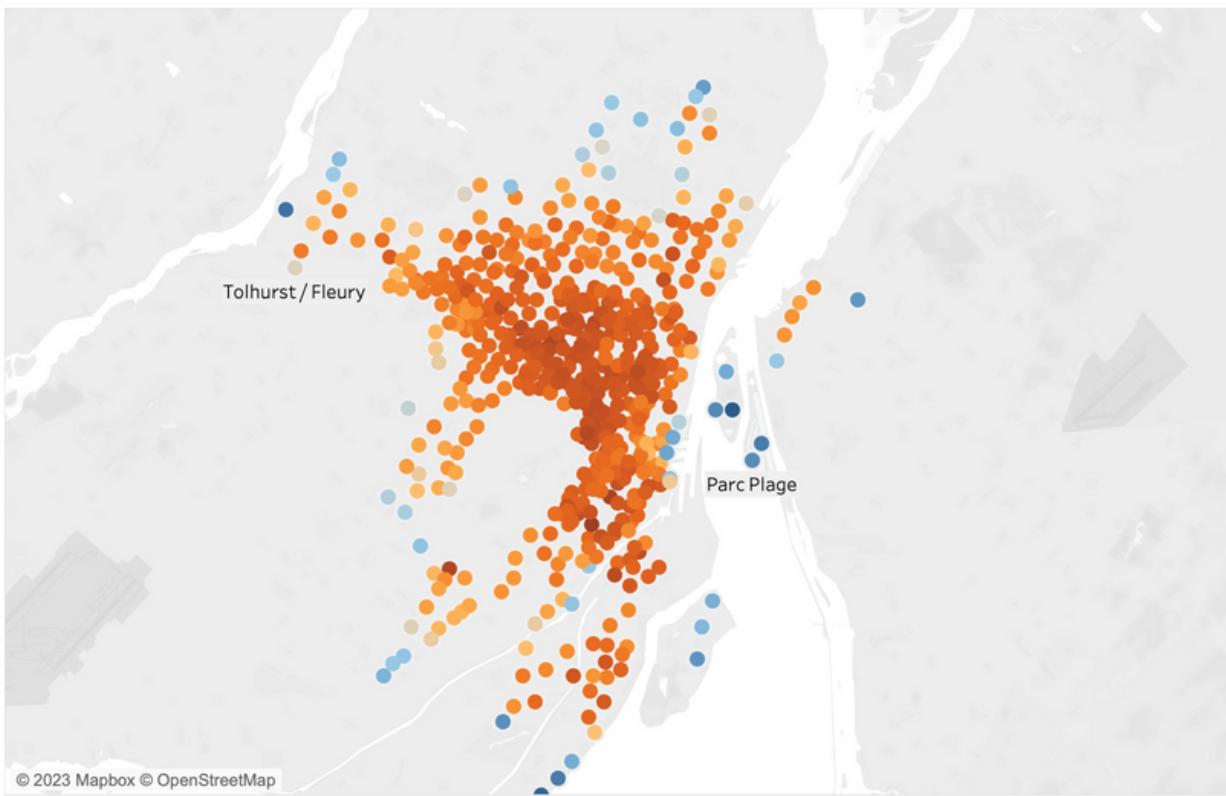
- However, the gap between member and non-member users is smaller after 45 minutes. Moreover, the amount of non-members tend to be more for longer trips.
- For example, there are only 621 members and 1,745 non-members in 60 minute duration which is almost triple of the amount of members.



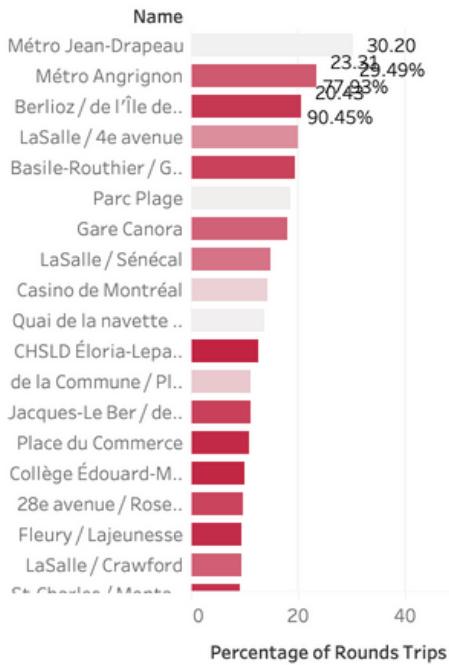
- The pattern of the map shows that the average trip duration per station is lower in the center and higher in the area located further away from the city/downtown. This is reasonable because the stations in the downtown area are more dense.



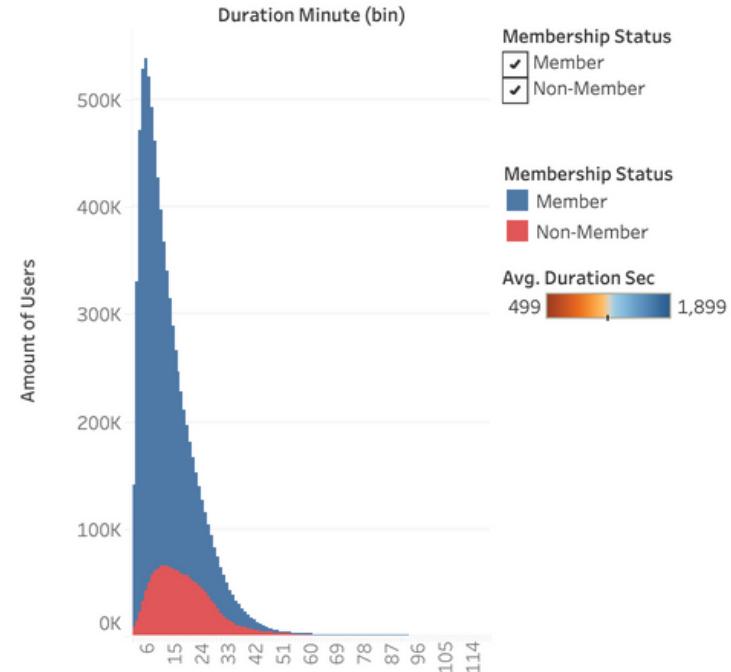
## Average Trip Duration by Station



## Percentage of Round Trips & Member Trips by Stations

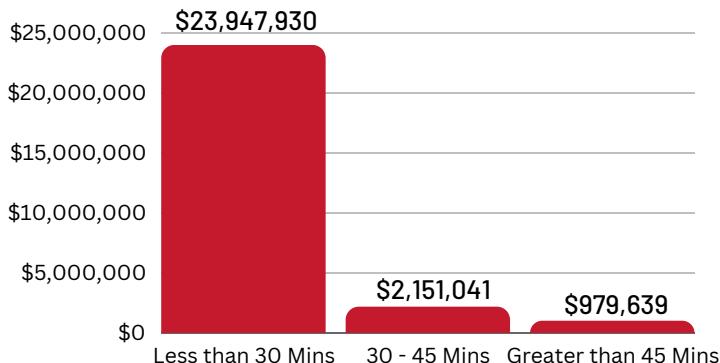


## Members vs. Non-Members Trip Length



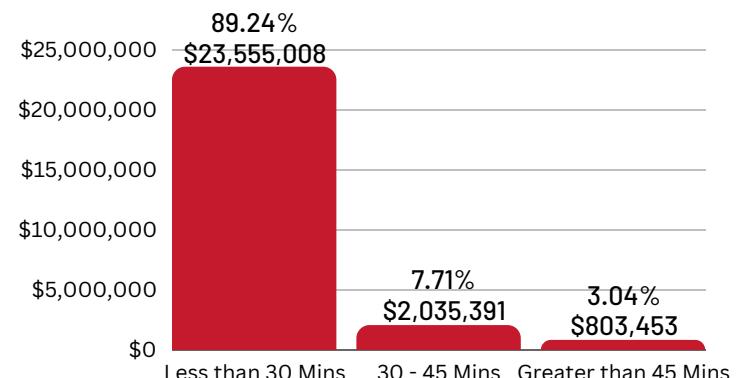
# Pricing Model

Less than 30 Mins	30 - 45 Mins	Greater than 45 Mins
\$2.99	\$2.99	\$2.99
	\$1.80	\$1.80
		\$3.00
<b>\$2.99</b>	<b>\$4.79</b>	<b>\$7.79</b>



- The highest revenue is \$23,947,930 from trips that are less than 30 minutes. The revenue of the other two groups combined are only 13.07% of the less than 30 minutes group.

- The highest revenue for single trips is \$23,555,008 for trips that are less than 30 minutes, or 89.24% of total revenue. The revenue of the other two groups combined are only 10.75% of the less than 30 minutes group.



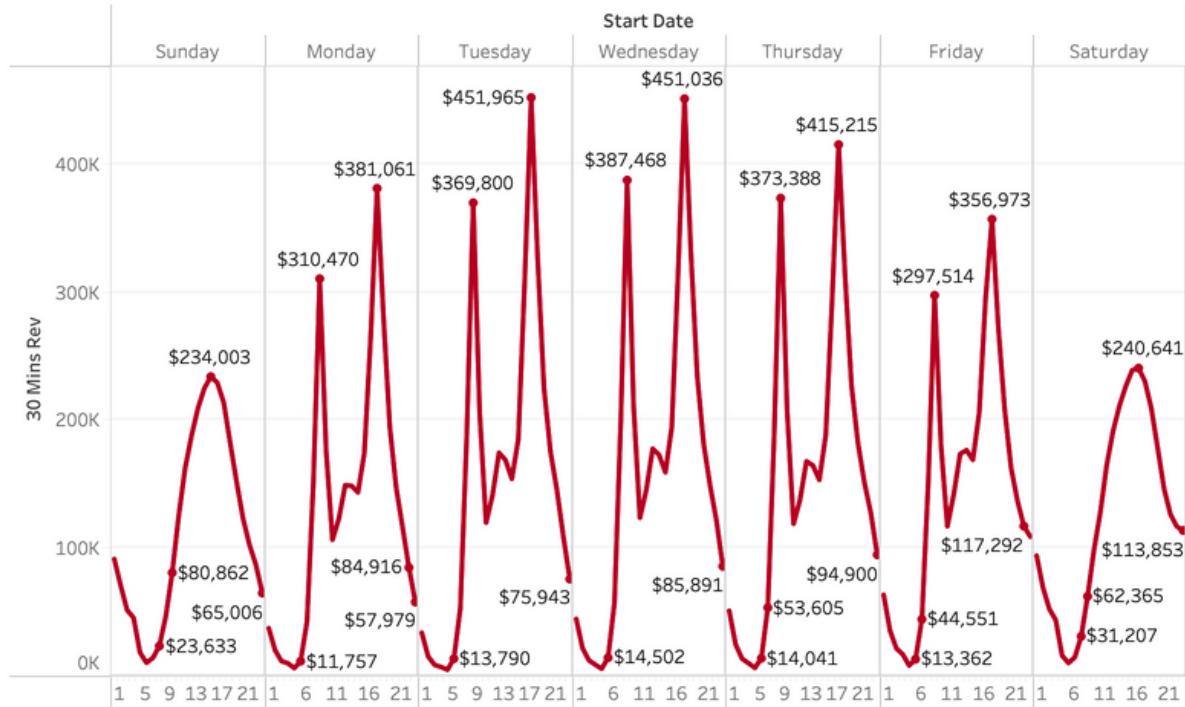
- Bixi generates the most revenue from their flat rate charge at 8 am and 5 pm on weekdays, which are the commute hours, and around 3 - 4 pm on weekends, which are the recreational hours.
- However, the revenue that the company generates on the weekdays is much higher than on the weekends.



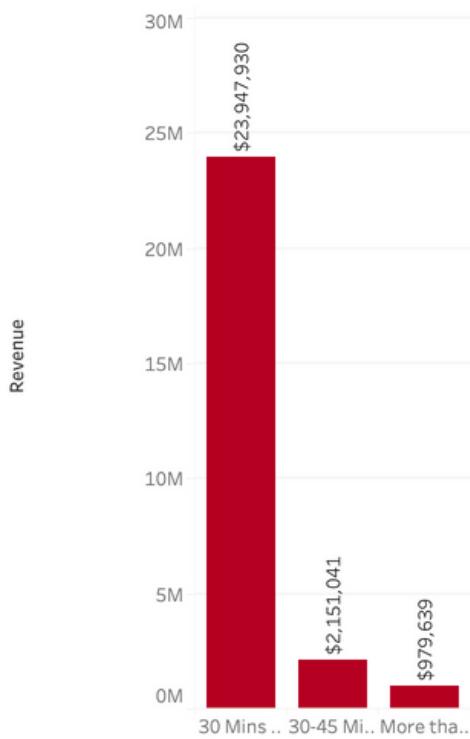
Ro..  
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## Flat Rate Revenue

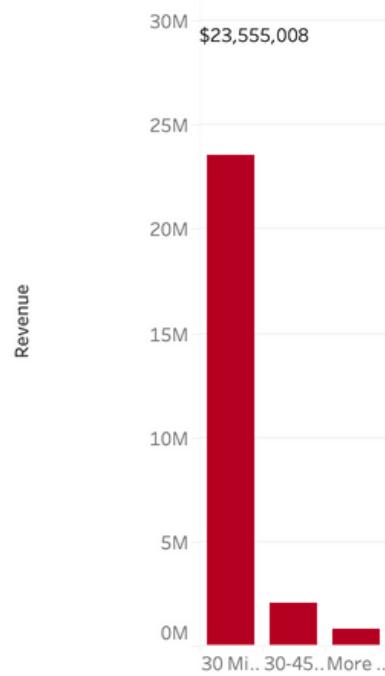
for each **hour** and each **day of week**



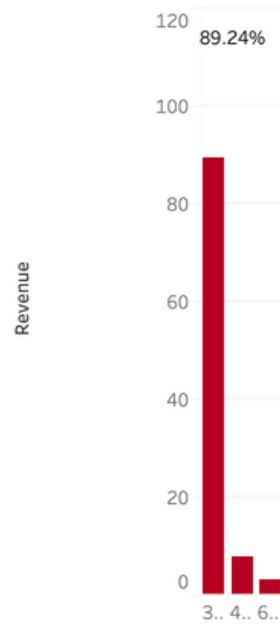
### Revenue by Pricing Model



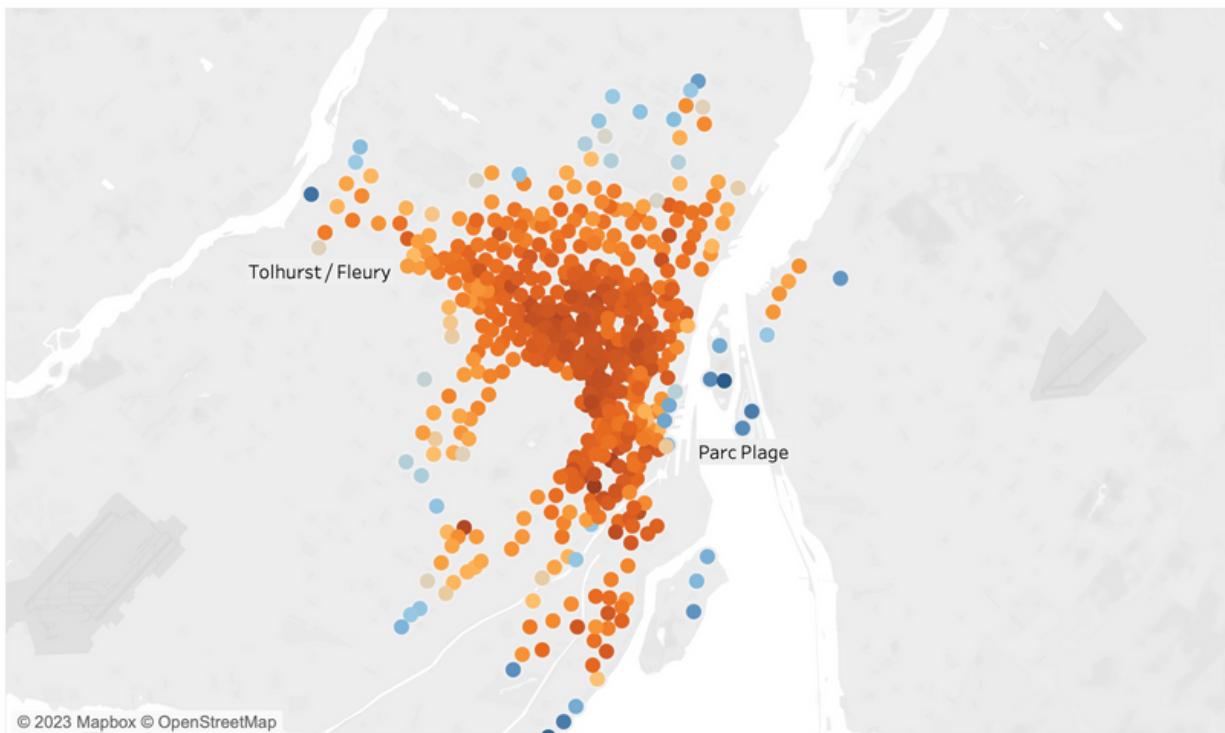
### Revenue Percentage from One Way Trips



### Revenue Percentage from One Way Trips

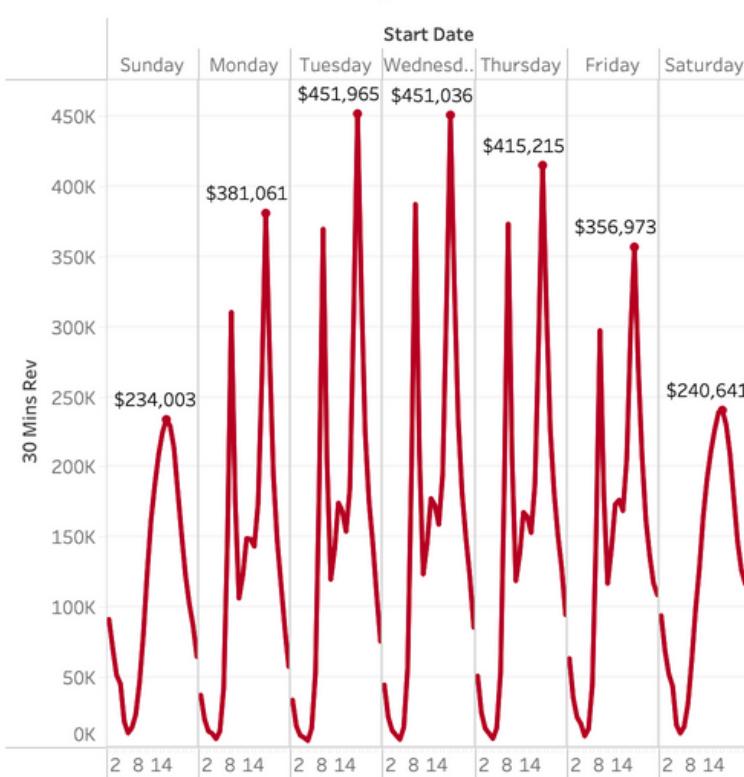


## Average Trip Duration by Station



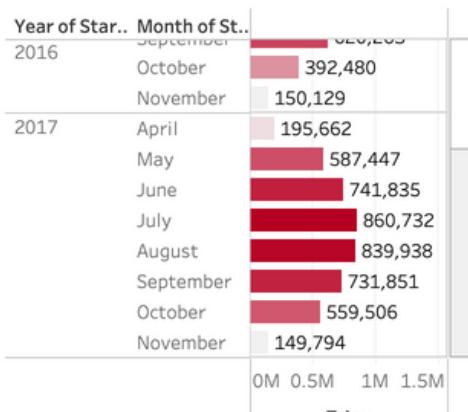
## Flat Rate Revenue

for each hour and each day of week



## Monthly Trips by Year

2016 - 2017



% of Total.. 1.745003533% to 10.026972917%  
and Null values

Count of tri.. 149,794 860,732

Rounded Tr..  Not Rounded  
 Rounded



# Conclusion



## Business Intelligence

- July 2017 is when Bixi has the highest trips of 860,732 trips. Also, the highest monthly percentage of trips per year are in July and August for both 2016 and 2017.
- Although July is when the percentage of members is at the lowest, it is still the month with the most users.
- Metro Jean-Drapeau is the station with the highest percentage of round trips of 30.2%.



## Marketing

- Metro Jean-Drapeau is the station with the highest percentage of round trips of 30.2%. It also has the lowest percentage of trips by members at just under 24%.
- While members usually take 3-7 minute trips, non-members tend to take 9-13 minute trips.
- The pattern of the map shows that the average trip duration per station is lower in the center and higher in the area located further away from the city/downtown.



## Pricing Model

- The highest revenue is \$23,947,930 from trips less than 30 minutes.
- The highest revenue for single trips is 89.24% of total revenue.
- The company generates the most revenue from their flat rate charge at 8 am and 5 pm on weekdays.

## Contact

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