Mobility Study of Toronto City

Background: As per the projection of City of Toronto, its population will increase by 25% in next 8 years. City wants to improve the ridership to tackle the traffic congestion problem.

Problem Statement: Find the current status of Bike share Ridership Program in anticipation of increasing the overall ridership in the city.

Bike Share Ridership Program

Question:

1. What is yearly trend of usability of Bike share program?
2.What is the total number of bikes, parking stations in this program?
3.Current status of bike path network?
4.Find the high volume bike stations.
5.Which are rush hours of the day?

Bike Share Ridership Program

Year

2020 | 2021 | 2022

Month

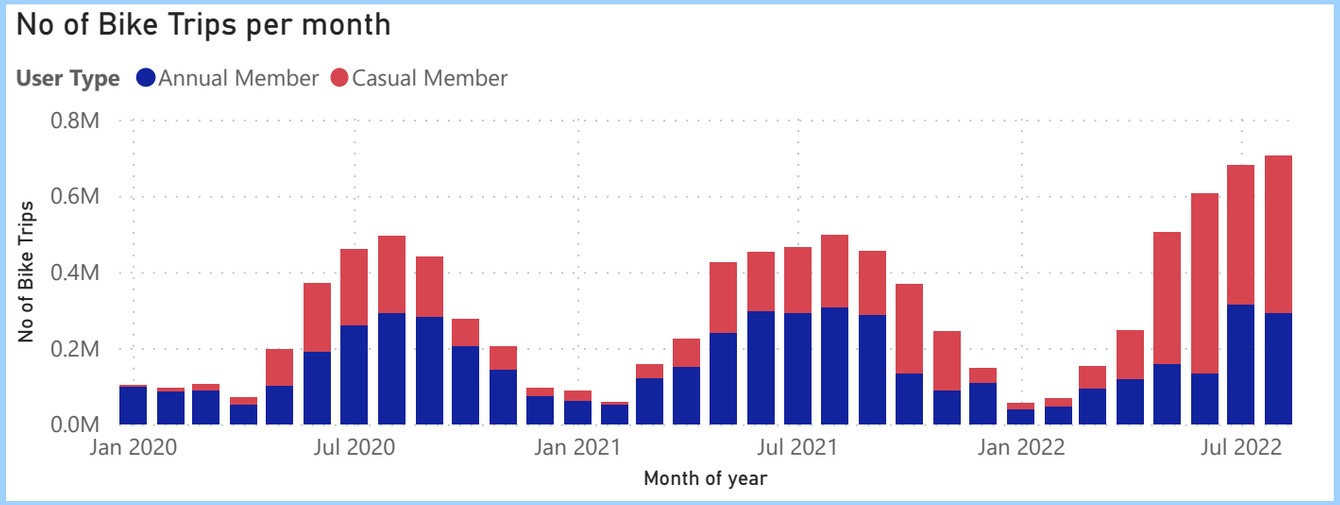
January | February | March | April | May | June | July | August | September | October

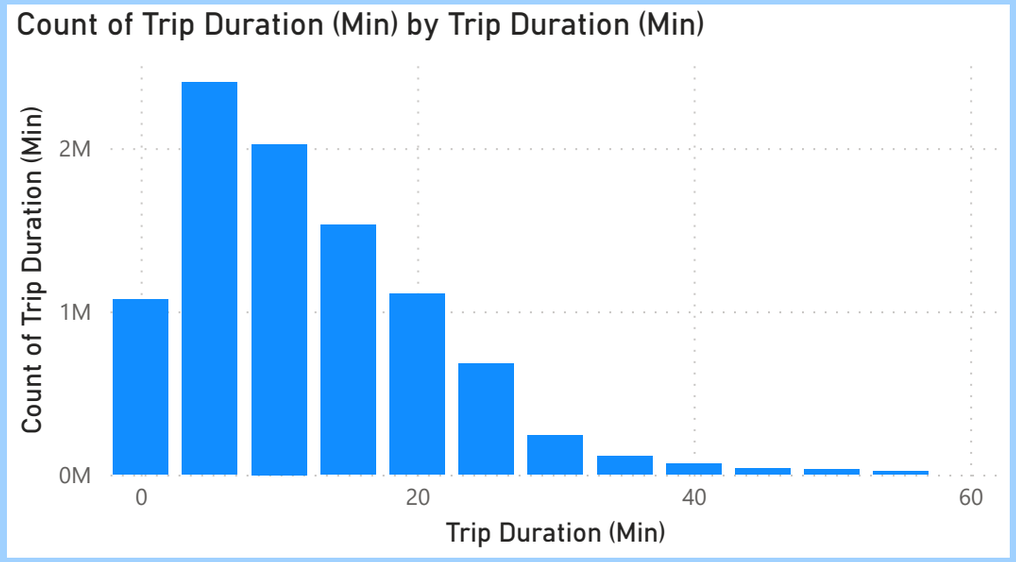
7106
Number of bikes

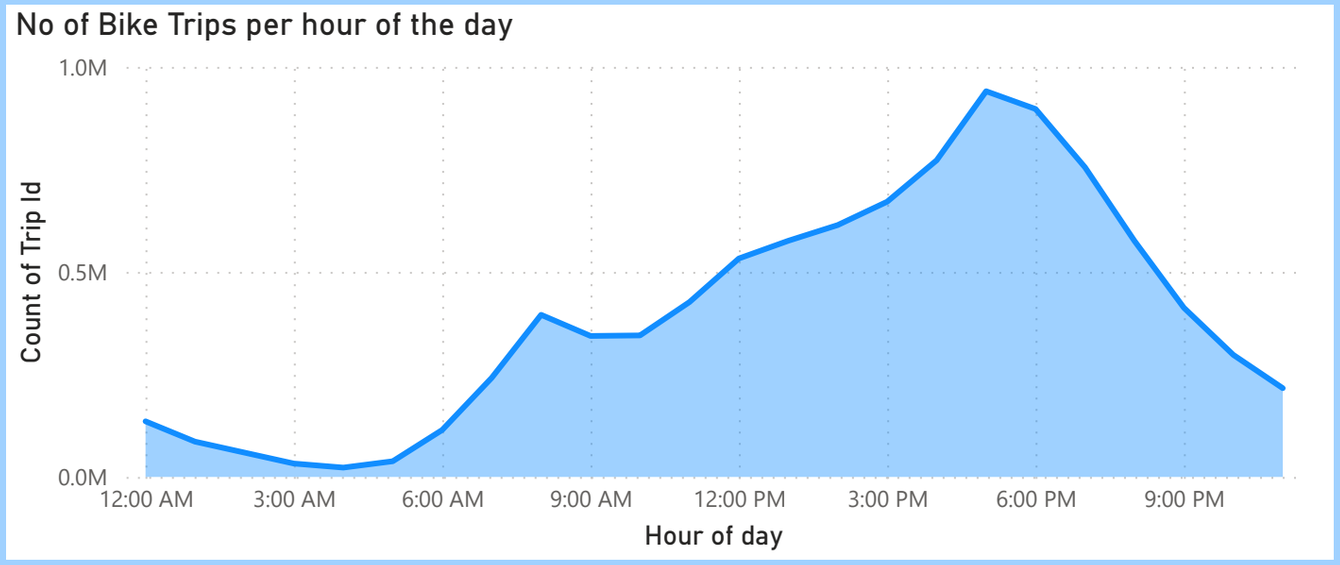
10.70
No of bikes per station

664
Number of Stations

17.78
Avg Trip Duration Min







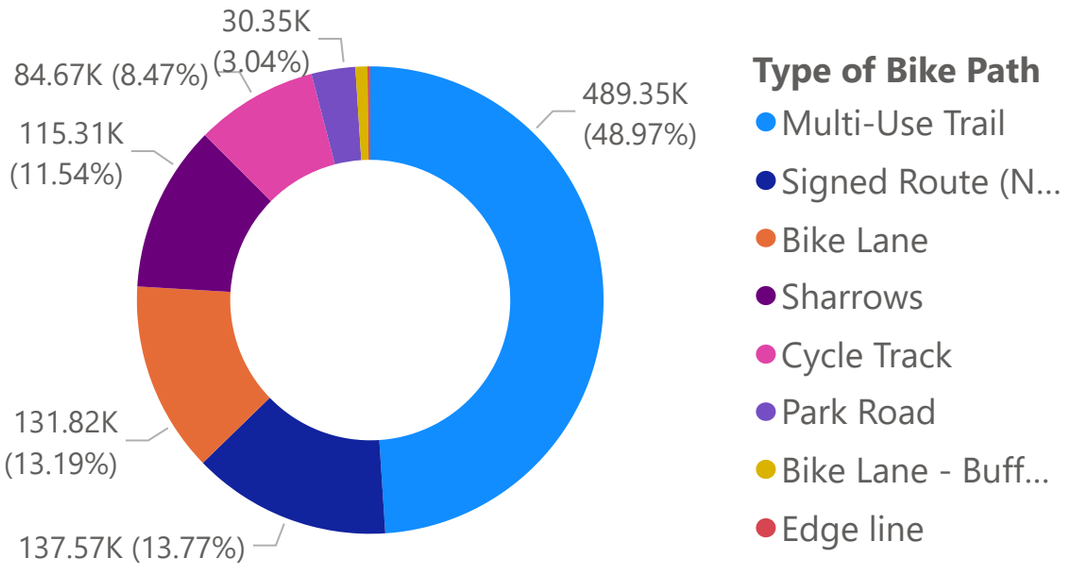
1,058

Sum of Path length KM

0.79

Average of Path length KM

Path Length by Type of Bike Path



Start Station Id	End Station Id	No of Trips	Average of Trip Duration Min
7000	7083	1	61.75
7000	7085	1	52.37
7000	7088	1	33.05
7000	7095	1	403.40
7000	7137	1	21.87
7000	7138	1	41.68
7000	7146	1	27.87
7000	7221	1	23.62
7000	7237	1	27.13
7000	7262	1	25.95

Key Summary:

1. Year over year use of bike share program is increasing. However, the annual membership is flat. Opportunity is to increase yearly memberships through campaigns and incentives.

2. Though usage of bike is increasing, the number of bikes is steady. City could invest in adding more bikes to the high density bike stations to improve ridership further.

3. During the winter season, least usage of bike share program is observed. City can investigate potential of enclosed or underground bike lanes for connecting high density stations.

4. Only 49% of the bike lanes have high order infrastructure. Improving the quality and safety of bike lanes will increase use of bike share program.