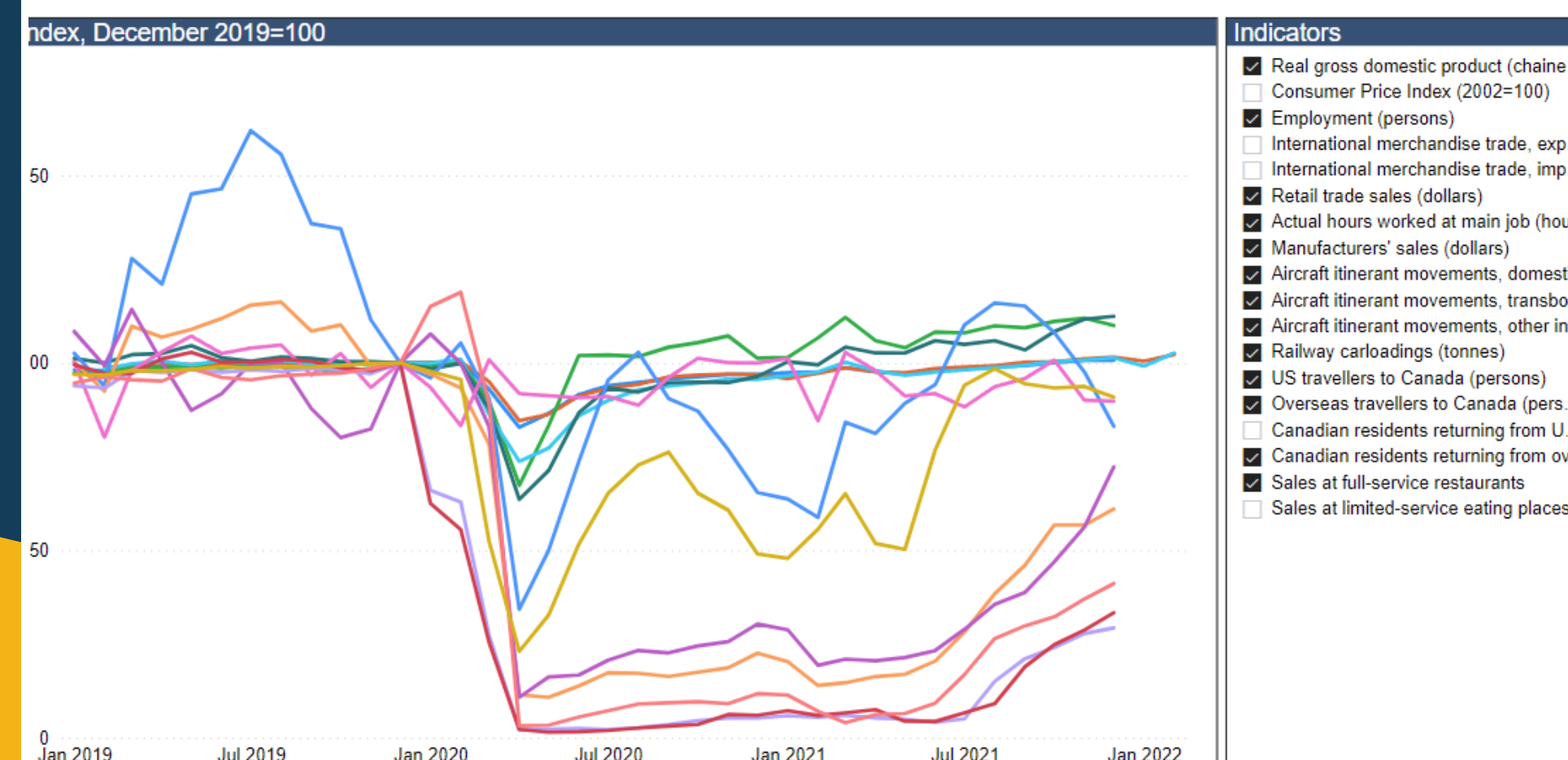


Context

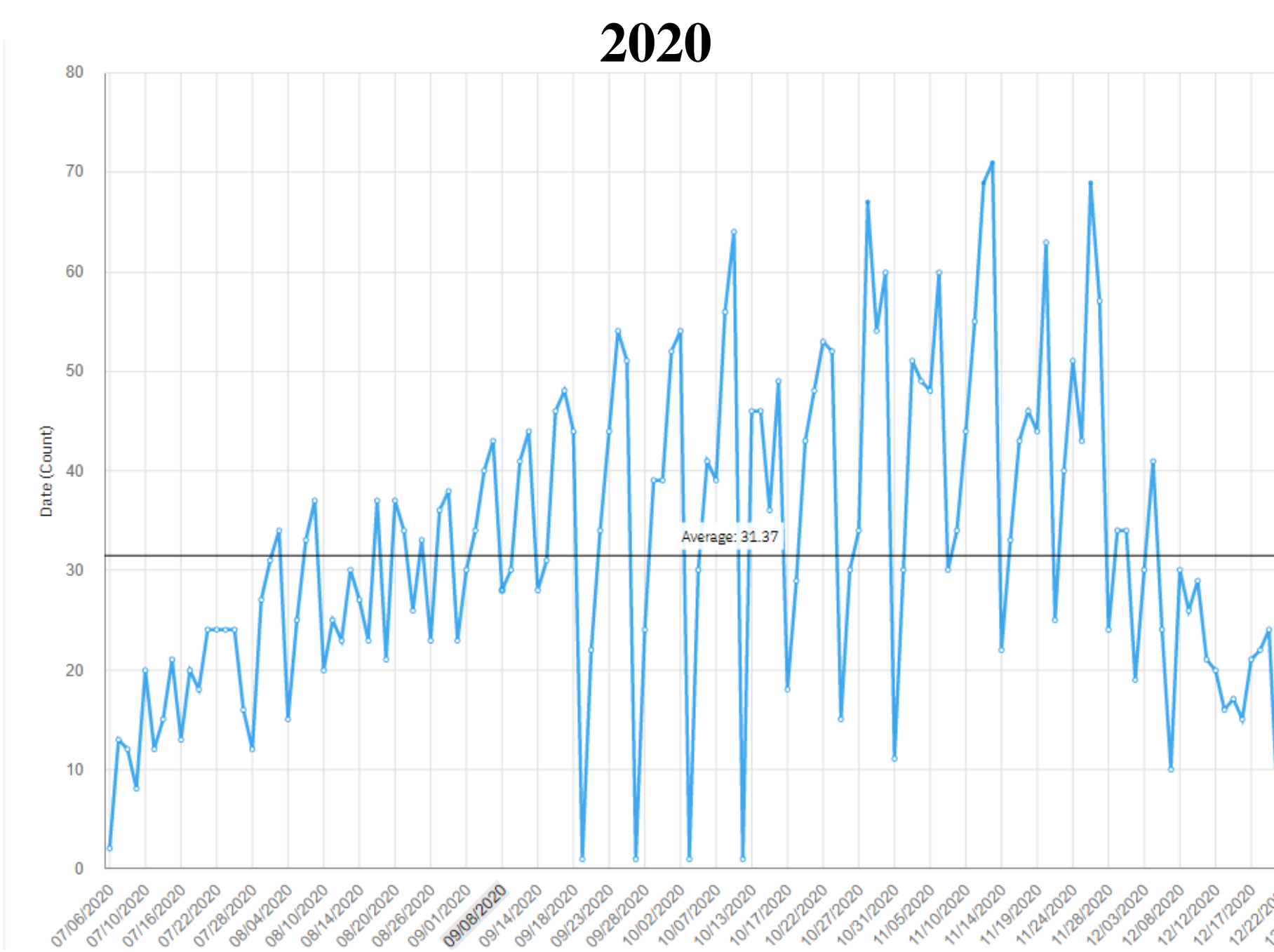
In March of 2020, most of the world was just entering lockdown. Ontario entered lockdown during this period, and there was a gradual transition to remote/online work and learning for many people.

This had a major impact on the parking data provided, when comparing 2020 data to 2021 data, there are noticeable differences that will be outlined.

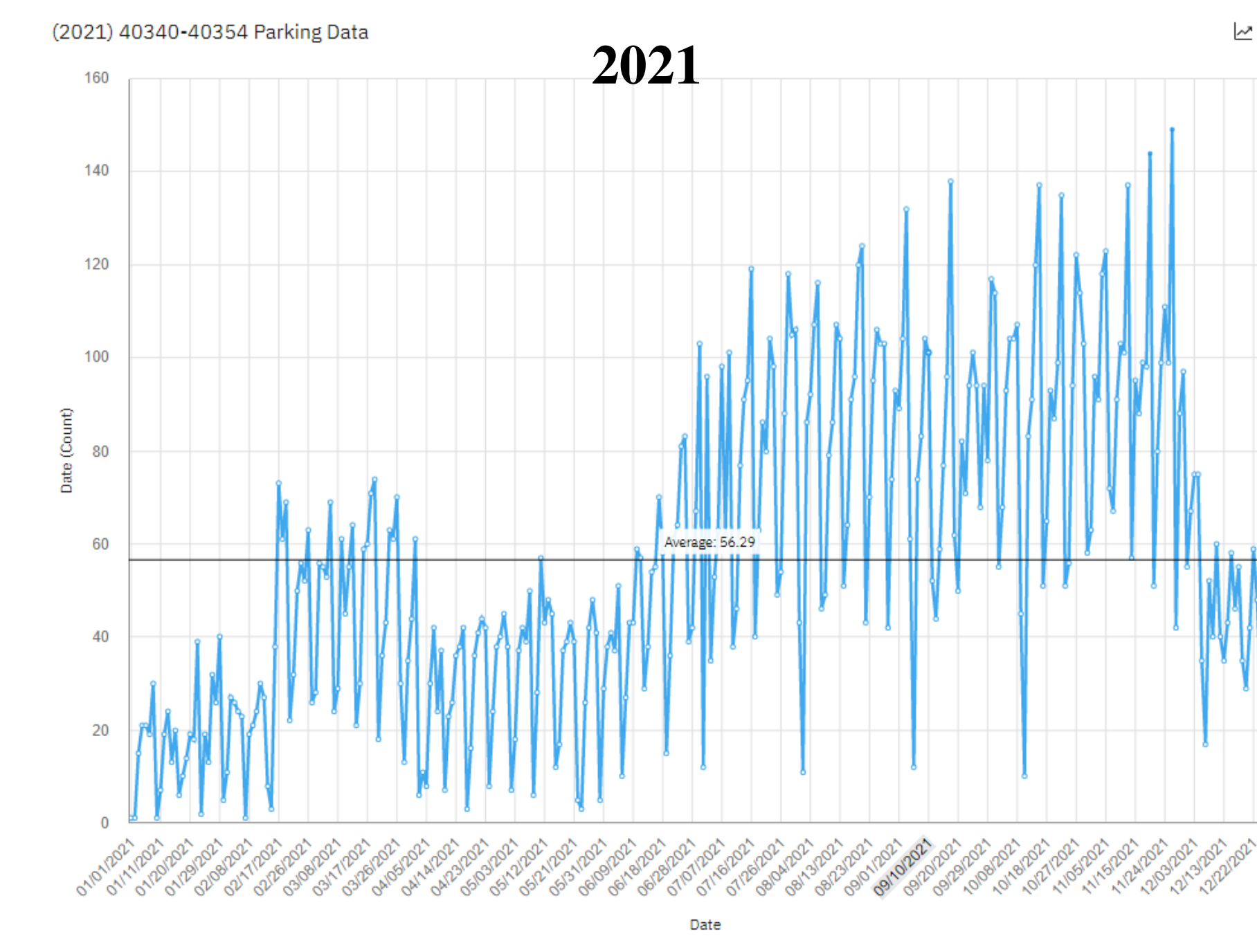


The areas that were most impacted by the decrease in total active users were mostly located around commercial or community buildings. Many commercial buildings were shutdown during the lockdowns, or had to close their doors entirely, resulting in a massive decrease in total active users across most parking lots.

COVID-19



The developments and pitfalls during the process of eliminating COVID-19 directly correlate to the data provided. Key points over the past 2 years can be seen when analyzing the data, for example the "Highs" of 2020 were around Black Friday and before the transition to the "Red" Zone for COVID-19 Countermeasures.



Again, in 2021 we can also see key points at which COVID-19 measures were being lifted or new measures are put in place. The average users increased by over 20 users daily, and by Black Friday 2021, The total users had doubled the previous year, at 149 compared to the previous years 69 total users.

66% of the parking zones saw an increase of almost double the average active users, with one key exception.

Our Recommendations

After analyzing the data provided, we came up with some recommendations that provide value to both the business and the consumer, they are as follows:

- Our first major recommendation would be to implement a subscription styled service that offers customers the ability to park at any Hamilton municipal parking lot.
- Decreasing the rates during "Off-Peak" hours to generate increased interest in utilizing municipal parking services.
- Updating the app

Now the questions stands: Why?

As previously stated, our goal is to provide value to both the customers and the organization. Our suggestions aim to provide both parties, which we will further break down:

- Creating a subscription based service promotes value to customers, giving them the ability to park anywhere in the city, while this also incentivizes utilizing the municipal parking service over competitors.
- Something we noticed during our time analyzing the data provided was the clear "low points" in the data. These usually were around the weekend. While you cannot directly force people to park, you can lower the rates during these "Off-peak" times to try and bring in more business.
- Our final suggestion was updating the app. Some of the information we were provided during this project allowed us to see all locations, implementing that system into the application could help users find parking locations.

Conclusion

The COVID-19 pandemic played a key role in hindering the total active users utilizing the municipal parking services.

We believe the best outcome for Hamilton's municipal parking services would be to hit the ground running by offering new innovative products/services during the reopening phases. This should help steer market share towards the cities services, and generate value to both the customers and the organization.

As COVID-19 restrictions are continually being lifted as of 2022, There should be a further increase in users parking in municipal parking zones.