Decreasing Prevalence of COVID-19 Cases in Toronto from 2020 to 2023 Supports the Lifting of Related Regulations.*

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In 2020 the coronavirus disease caused worldwide panic due to its fast transmission rate and the health complications for its affected host. This study aims to investigate the trends in COVID-19 cases in the City of Toronto from 2020 to 2023, as well as the severity of each of these cases. Based on the exploration of the data, there is strong evidence to support the hypothesis that the coronavirus disease is not as relevant today as it was during the peak of the pandemic suggesting the safety of lifting related regulations. The results of this study are significant, as they impact the future directions of COVID-19 regulations for businesses, schools and governmental institutions.

1 Introduction

Toronto Islands one of the most touristic spots in toronto, lost of visitee bla bla bla (SOURCE) runs all year round following a pre-determined scheduled. BUT operating this touristic thing is quite costly (SOURCE) both on the funds to run the actual boat itself, but also on human resources (HR humans).

=> Basically, want to present TRT islands and then highlight that although it is convenient and accessible, great cost are attached to this, making it not at its most optimized way of working.

This paper explores tourist trends to optimize resource allocation and to better the Toronto Islands experience. We find that in season XYZ there are less people bla bla bla,

The following paper is structured as follow: (BLA BLA BLA)

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2 Data

The statistical programming language R (R Core Team 2023) is used to clean and process the raw data. Specifically, statistical libraries such as `tidyverse` (Wickham et al. 2019), `arrow` (**arrow?**) and `janitor` (Firke 2023) were used in the data cleaning process, while libraries such as `knitr` (Xie 2021) and `here` (Müller 2020) were used for loading and rendering tables and graphs in this analysis.

2.1 Data collection

The dataset used for this paper is titled "Toronto Island Ferry Ticket Counts" and is published by Toronto's Parks, Forestry & Recreation division. For the analysis, the dataset is retrieved from the City of Toronto Open Data Portal through the R package `opendatatoronto` (Gelfand 2022).

The data collected are the aggregated data of tickets redeemed and sold at the Jack Layton Ferry Terminal, where ferry departs from the City to one of the three islands: This dataset is updated at 15 minutes interval from 6:30AM to 11:30PM, which are the earliest and latest times where the ferry departs from the city to one of the islands.

The data used for this paper was retrieved on September 25 2024 at YYYPM, and was last refreshed on September 25 2024 at XYZPM.

say what date spans this dataset, what subset we used + why (compleeteness)

2.2 Variables of interest

2.2.1 Tickets Redeemed

One of the variables we are interested in is the average number of tickets redeemed by per month from 2022 to 2023. Tickets to use the Toronto Islands Ferry can be bought online by using the QR code at the ferry terminal or by buying it in advance on the website. Self-serve customers are then given a bar code that can redeem their ticket in person at the ferry terminal. The number of tickets redeemed are measured by the number of bar codes scanned in-person at the ferry gate. Many stations are opened to scan the bar codes, so the total amount is compiled in the Toronto Ferry's internal system.

Table 1: First Ten Rows of the Redeemed Tickets Data

Date	Number of Tickets Redeemed
2022-01-01	503
2022-01-02	345

Date	Number of Tickets Redeemed
2022-01-03	532
2022-01-04	475
2022-01-05	225
2022-01-06	358
2022-01-07	369
2022-01-08	543
2022-01-09	313
2022-01-10	224

2.2.2 Tickets Sold

3 Results

Putting it in graphs, what do I get? Where are there more, where are there less. SEPARATE THEM BY SEASON HERE.

(Maybe discussion?)

References

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