

Have public transport delays in toronto gotten worse over time? An Analysis of the TTC Street Car Delays*

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The TTC (Toronto Transit Commission) has been a core part of all residents of the city for decades - keeping each part of the city connected. That being said, the TTC is under constant scrutiny and criticism, especially in recent years regarding delays worsening - inconveniencing people's commutes. This paper examines the TTC Delays, using data from OpenDataToronto, and disproves the notion that delays have been getting increasingly worse over the past few years.

1 Introduction

As the COVID-19 pandemic died down, riders returned to the TTC, making the public transit around the city active once more. However, with their return came rampant criticism about the delays regarding the TTC. Pseudo-studies claim confidently that the TTC is deteriorating as time passes (sources) and adding to the commutes of residents of the city.

However, these are empty claims yet to be strongly supported or disproved. This study looks more closely at TTC data - specifically at streetcar delays, to reveal whether these claims are truly founded or not.

This paper is organized in the following sections: Data, Results, Conclusion...

*Code and data are available at: <https://github.com/sid19arya/TTC-Delay-Analysis.git>

Date	Line	Time	Day	Location	Incident	Min Delay	Min
2021-01-01	501	03:15:00	Friday	QUEEN AND MCCAUL	Operations	19	
2021-01-01	504	03:37:00	Friday	BROADVIEW AND QUEEN	Operations	15	
2021-01-01	504	04:00:00	Friday	BROADVIEW STATION	Cleaning	15	
2021-01-01	504	04:03:00	Friday	DUNDAS WEST STATION	Cleaning	15	
2021-01-01	506	05:37:00	Friday	MAIN STATION	Mechanical	10	
2021-01-01	555	06:00:00	Friday	TORONTO TRANSIT COMMIS	General Delay	0	

Date	incidents	total_delay
01/21	934	9382
02/21	865	11819
03/21	1036	11708
04/21	1107	10847
05/21	1059	15955
06/21	955	11471

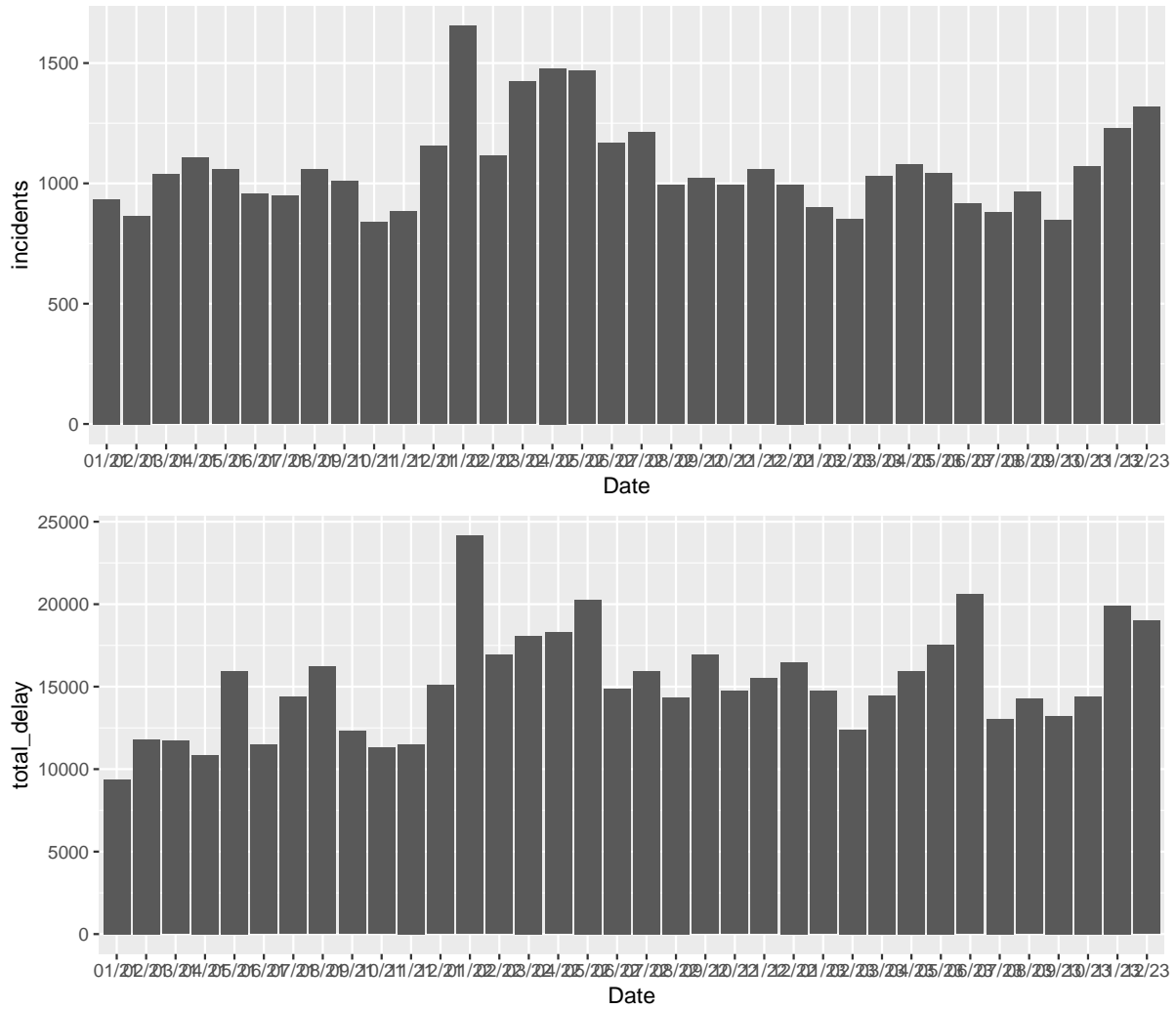
2 Data

The data utilized in this paper is from OpenDataToronto Library, the Datasets used are entitled: “TTC-Streetcar-Delays”. The data was collected, sorted and analyzed through the help of ... (Cite all the packages).

The data in its raw form includes all these values (table 1)

We clean the data, and join the data sets for all 3 years to get a table that looks like this (table 2) Important part to note is we grouped over all the incidents for a particular month and aggregated to get the incidents and total_delay values.

From this we can create visualizations that are able to clearly indicate the change in number of incidents and total delay time over the months of 2021, 2022, 20223, as seen in graph 1 and 2 respectively.



3 Results

Clearly, there is no such trend, there is no evidence that the delays have been getting worse for the past 2 years.

4 Discussion

5 Conclusion

This paper investigated TTC delays spanning the years 2021, 2022, 2023 to see if a trend over time could be spotted. The paper concluded that there was no noticeable

6 References