Noise Level Rates from Service Complaints in given Toronto Neighborhoods

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Abstract

The following study has taken the number of noise requests made by different wards in neighborhoods located in Toronto. Datasets were taken from the City of Toronto's Open Data portal containing service complaints recorded by the city from the years 2010 to 2019 and plotted using an R-script. The highest number of noise complaints was found to be the University-Rosedale region and the lowest complaints were found more towards the Scarborough area. This provided some insights as to which regions have a high probability of noise complaints and can provide those looking for homes within Toronto a sense of the areas with high noise complaints which may potentially lead to their avoidance.

Introduction

The datasets graphed consists of two parts. The first contains the names of all 25 wards in the city of Toronto, and the second contains the service types requested from the corresponding ward. We are interested in finding the noise level in the neighborhoods of Toronto. Here the datasets from the years 2010 to 2019 were plotted and graphed using R studio.

The city of Toronto is divided into 25 wards numbered generally in a pattern from left to right (**2). The City keeps track of citizen complaints by Ward through a 311 hotline and is stated on the City's website (**3). The City of Toronto's Open Data Portal provides datasets on service complaints the city has recorded from 2010 to 2019 (**4). We chose to investigate the dataset for 2019, looking specifically at the number of logged complaints regarding noise and provide a sample of the 2010 dataset in Figure 1.

The paper focuses on graphing all service requests due to noise and whether they have been canceled or are still in progress. This is because the data does not indicate how or why the status of the service request changed. However, it is presumed that there must have been some reason for the complaint.
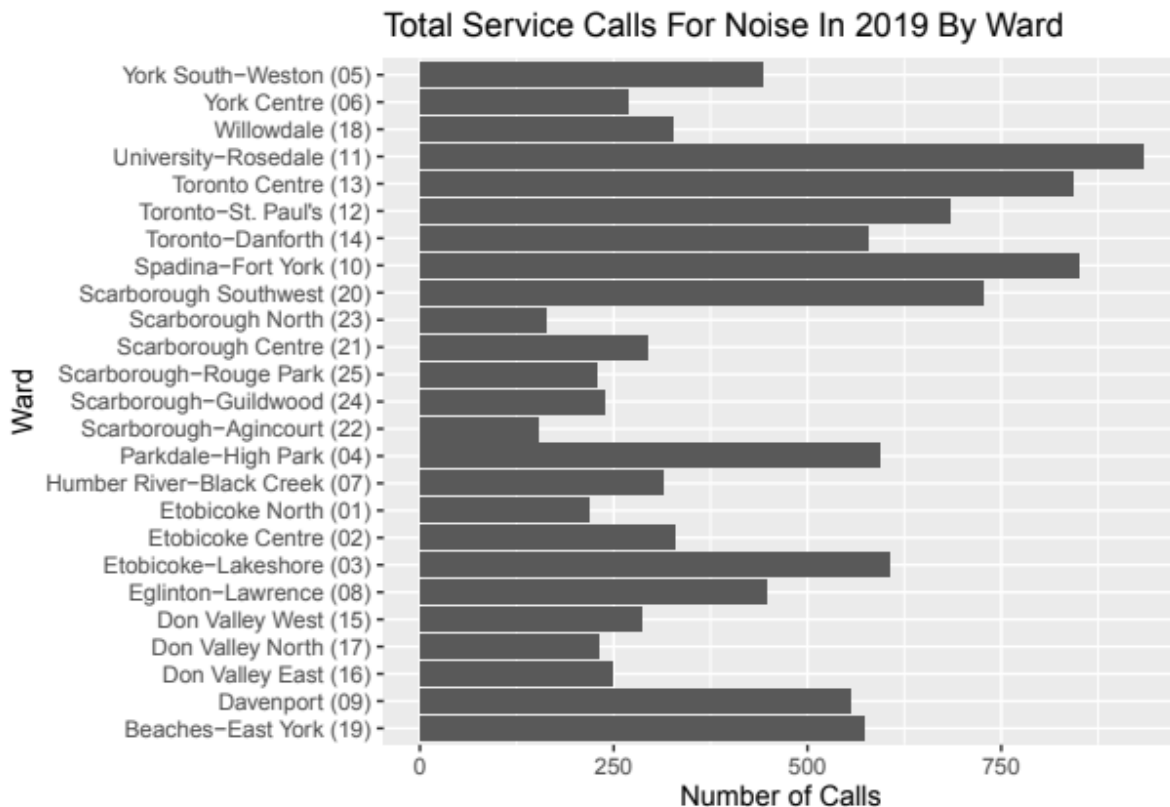
Figure 1. Total Service Calls for Noise Requests in 2019. The following bar graph depicts the number of calls with respect to each Ward in Toronto.

Discussion

The ward with the highest number of requests to the City regarding noise is University-Rosedale, whereas 2 wards that are more towards Scarborough had the lowest amount of requests.

Weaknesses

Periodicity of the noise level was not indicated, this was the reasoning behind the noise levels which would help in terms of the usefulness of the analysis. We have no indication of what the noise request was due to which would help in determining whether or not these noise levels are long-term or short-term and could cause a potential noise-sensitive resident to determine which Ward to avoid.

Certain individuals are more sensitive to noise than others and some calls may be unreasonable, thereby reducing the validity of our results. From here, this is no way of precisely determining validity based on the dataset. If the city started tracking service requests with regards to noise

levels with additional details including the comparison to a benchmark, the results could provide higher levels of significance.

References

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