

# Exploratory Analysis on the Number of Playgrounds in Toronto by Property Type

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01/26/2020

## Abstract

In this document we attempted to explore the availability of playgrounds based on three different property types stated in the Apartment Building Registration Dataset from Toronto's Open Data Portal. We found that there are a higher number of playgrounds concentrated in Private Properties than Social Housing or Toronto Community Housing. This may be indicative of deeper social issues with regards to children's accessibility to outdoor recreation facilities dependant on their housing situation.

## Introduction

The Apartment Building Registration Dataset was created as a part of the Apartment Building Standard Program to evaluate the maintenance of housing units and their facilities. The data was collected from property owners and building managers. The Dataset contains all rental apartment buildings in Toronto with three or more storeys and 10 or more units.

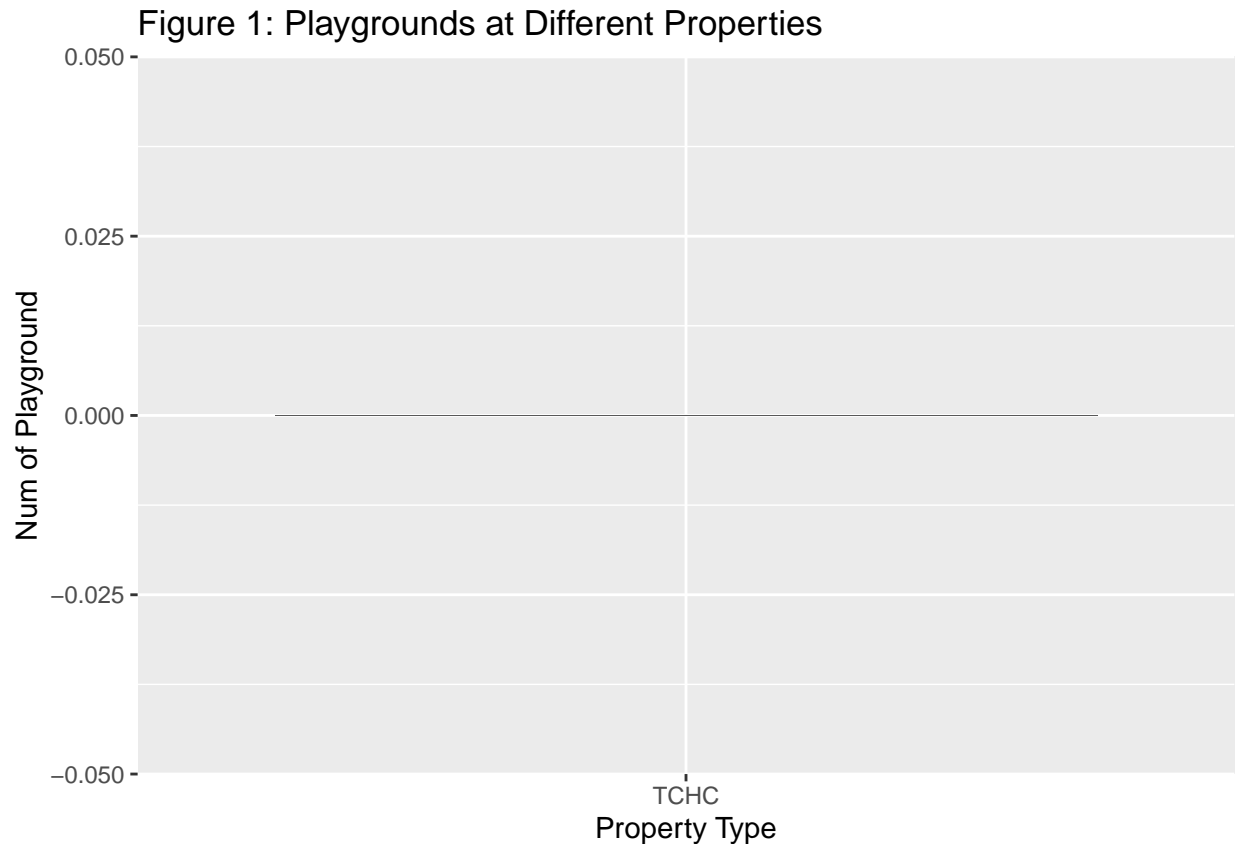
## Discussion

After skimming through the dataset, we came across three different property types, namely Social Housing, Private Housing and Toronto Community Housing Corporation (TCHC). Most of the data was of qualitative nature and focused on the existence or description of certain facilities. We decided to compare the existence of playground facilities across the three property types.

```
playground <- subset(Apartment_Building_Registration_statistics,
                     Apartment_Building_Registration_statistics
                     $DESCRIPTION_OF_CHILD_PLAY_AREA == "PLAYGROUND")
playground_count <- table(playground$PROPERTY_TYPE)%>%
  cbind.data.frame()

c <- rbind(data.frame(Var1 = 'TCHC', Freq = 0), playground_count)
```

```
ggplot()+
  geom_col(data = c,aes(x= Var1, y = Freq)) +
  labs(title = "Figure 1: Playgrounds at Different Properties",
        x = "Property Type",
        y = "Num of Playground")
```



As shown in Figure 1, Private Housing have the highest number of playgrounds compared to TCHC and Social Housing. TCHC was hardcoded into the code block as there were no “PLAYGROUND” values listed with in the dataset for TCHC. A distinction is made between social housing and TCHC in that social housing refers to property owners who have partnered with the city to provide rent subsidies to qualified people and TCHC is an agency of the city of Toronto. A weakness in our approach is that “PLAYGROUND” was only one of many entries into the column “DESCRIPTION OF CHILD’S PLAY AREA”. Other entries included “SWINGS”, “SLIDES”, “SWING,SLIDE,JUNGLE GYM”, etc. As the data was of qualitative nature, the description of the play area was very much subjective. So it is more likely that TCHC properties described their play areas differently than private and social housing properties.

## References

Wikipedia (2019) Toronto Community Housing. In: Wikipedia. [https://en.wikipedia.org/wiki/Toronto\\_Community\\_Housing](https://en.wikipedia.org/wiki/Toronto_Community_Housing). Accessed 23 Jan 2020

City of Toronto (2019) Social Community Providers. In: Toronto. <https://www.toronto.ca/community-people/community-partners/social-housing-providers/>. Accessed 23 Jan 2020