Toronto Child Care Study Shiny Application Project

Mustafa Koroglu

NYC Data Science Academy New York, NY

July 19, 2017

Outline

- Motivation
- 2 Data
- Visualization
- 4 Future Work

Why do we care about child care fee subsidy program?

- This program is for families with both mom and dad not available to care for their child and cannot afford to pay for the full amount for the child care.
- I mainly question the effectiveness of child care fee subsidy program provided by the City of Toronto.
- The core aspect of this question is related to the number of children on the wait list for fee subsidy and the total number of spaces.
- For this purpose, I looked at the following relationships:
 - Child spaces vs child care centre type in each district for each child class.
 - Number of child care centres vs centre type in each district.
 - Total child spaces vs total number of children on the wait list in the City of Toronto from 2013 to 2017.

Data

- Source: City of Toronto open data collection.
- 3 datasets. Main dataset has the following information for the child care centres:
 - name: 1007 child care centres,
 - type: city-operated, commercial, and non-profit,
 - address, building type,
 - district: Etobicoke York, North York, Scarborough, Toronto East York,
 - location,
 - subsidy: yes or no,
 - \bullet number of spaces for infant, toddler, preschooler, kindergarten, and grade 1+.

Visualization-Part I: Interactive Map







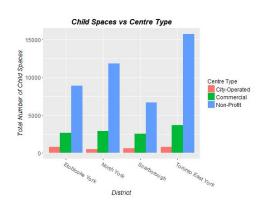




Visualization-Part II: Data Explorer



Visualization-Part III: Key Insights





Future Work

- In key insights tab, I will expand the selection panel including the proportions, which will provide better comparison across types and districts.
- I will use National Household Survey Census 2006, 2011 and 2016, which is partly available, to examine the demographic features of wards, and in general districts, and obtain more insights on available fee subsidy contracts and child spaces across districts.
 - These demographic features include number of people who have certain income ranges for each ward.
 - Number of people for each education level grouped by wards.
 - Number of people for different occupation at each ward.
- I will color the wards using income ranges and education level.