# Demography of Education in Toronto's neighbourhoods with Highest and Lowest Income

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**Abstract**

what was done, what was found, and why this matters. Descriptive, no prediction

## Wellbeing Toronto - Demographics: NHS Indicators

The data set package we delved into is *Wellbeing Toronto - Demographics: NHS Indicators*, which provides information from the 2011 National Household Survey (NHS) and presents a profile of Toronto. Data is broken down by the 140 neighbourhoods that make up the City of Toronto. With this data set package, we first identify the two neighbourhoods that have the highest income and the lowest income and then analysize the education demographics in these two neighbourhoods to understand difference of education attainment between these two neighbourhood. We also identify the median household income and the average education levels of the city to be compared with the two neighbourhoods.

There are two data sets in this package in which we combine into one single data set: *Demographics NHS Indicators 2011* and *Education NHS Indicators 2011*. *Demographics NHS Indicators 2011*, in order to create a combined dataset with income and education levels in one dataset.

Additionally, We incorporate the *Wellbeing Toronto - Housing* data set striclty for extracting the names of the neighbourhoods; no housing indicators are used in our analysis.

### Demographics NHS Indicators 2011 data set

*Demographics NHS Indicators 2011* shows the profile of each neighbourhood regarding population breakdown by ethnicity, household income, education level, employment, age and sex. The indicators we are interested in are *Median household total income* and *Median after-tax household income*. These two columns show the median household income of every neighbourhood before and after tax in Canadian dollars.

| Hood# | Median household total income $ | Median after-tax household income $ |
|---|---|---|
| ID | incprhh14 | incprhh58 |
| 1 | 66241 | 59703 |
| 2 | 49934 | 46986 |
| 3 | 62042 | 57522 |
| 4 | 56545 | 51194 |
| 5 | 50846 | 49425 |

### Education NHS Indicators 2011

*Education NHS Indicators* is provided for the population of age 15 and over living in private households. The data set presents the distrubution of people's most advanced education level in each neighbourhood.

The levels we selected in the analysis are presented as follow.

| x |
| --- |
| No certificate, diploma or degree |
| High school diploma or equivalent |
| College, CEGEP or other non-university certificate or diploma |
| Bachelor's degree |
| University certificate, diploma or degree above bachelor level |

## Wellbeing Toronto - Housing

*Wellbeing Toronto - Housing* data set is used in order to extract the names of the neighbourhood. The indicators of housing are not in the scope of our analysis.

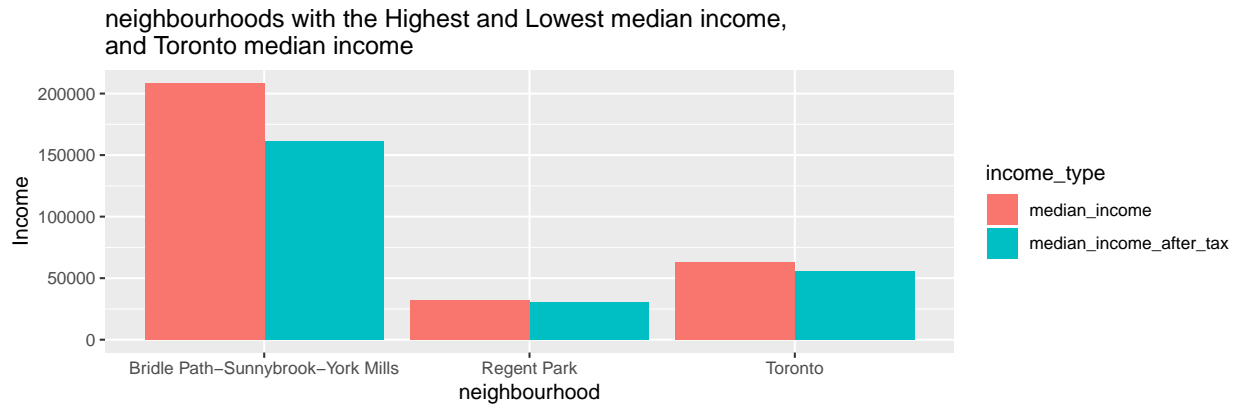| Neighbourhood | Neighbourhood Id |
| --- | --- |
| West Humber-Clairville | 1 |
| Mount Olive-Silverstone-Jamestown | 2 |
| Thistletown-Beaumond Heights | 3 |

# === Writing below this section is not yet started ===

## Merging all datasets

Explanation

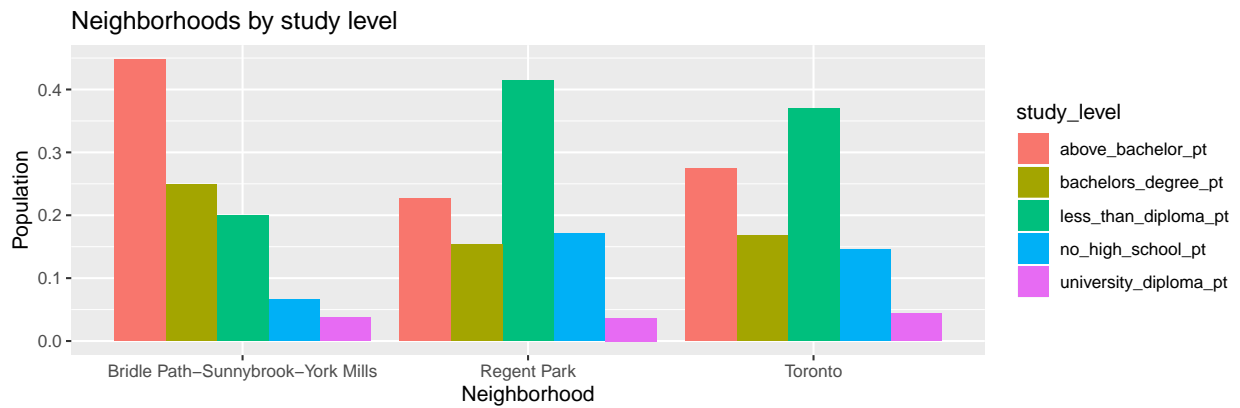| ID | neighbourhood | total_population | median_income_after_tax |
| --- | --- | --- | --- |
| 41 | Bridle Path-Sunnybrook-York Mills | 9585 | 161448 |
| 72 | Regent Park | 8605 | 30794 |
| NA | Toronto | 18662 | 55426 |

# Analysing the neighbourhoods with the highest and lowest income, and Toronto's median

Finally, the median total income is presented in a bar graph comparing the median for that neighbourhood as compared to the median for the entire city of Toronto.

neighbourhoods with the Highest and Lowest median income,
and Toronto median income



## Create graph2 dataframe

## Plotting Graph2

Neighborhoods by study level