



# Crime Rates by Socioeconomic Status in Winnipeg

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COMP 4710 Project Proposal

## Motivation

Winnipeg has a reputation of being a city with one of the highest levels of crime in Canada, and this is not without warrant. Data shows that Winnipeg is among the highest for violent and nonviolent crime. We aim to extrapolate the underlying reasons for this disparity, relating to income, education, overall socioeconomic status etc. to predict what leads to the highest rates of crime in the neighborhoods of Winnipeg and where you can expect it to happen the most.

A study was done in 2004 using 2001 census data about how socio-economic status and city zoning correlated to crime. (Fitzgerald et al. 2004

<https://www150.statcan.gc.ca/n1/en/pub/85-561-m/85-561-m2004004-eng.pdf?st=VDmL37DK>) We plan to not only use more recent data to see how things are now as well as use the data to make some predictions.

## Out Groups Contributions

We plan to correlate across data the many economic factors of neighborhoods in Winnipeg, including but not limited to income, education, housing price etc. with their rates of crime and come up with an algorithm that predicts where and when you can most likely expect crime in the city of Winnipeg. Relating all of these factors to the crime rates we are hoping that we can get a better understanding of what factors are leading to this crime and where you can expect it.

We are hoping that this algorithm will give a better insight into what areas of Winnipeg are considered the safest to live in or visit and which ones will be the most dangerous. The algorithm will tell you the chance of crime happening on a certain day in a certain area and likely what kind of crime it will be.

## Datasets

### I. Crime Maps Based on Neighbourhood

This dataset is from the WPS showing the crime that happens over time based on where in the city it happened and what kind of crime it was.

[https://public.tableau.com/app/profile/winnipeg.police.service/viz/CrimeMaps\\_16527244424350/Disclaimer](https://public.tableau.com/app/profile/winnipeg.police.service/viz/CrimeMaps_16527244424350/Disclaimer)

### II. 2021 Census Data

We will be using the datasets from the City of Winnipeg's website for each neighbourhood to cross reference the socioeconomic factors we want to look at with the crime rates from the first dataset.

<https://legacy.winnipeg.ca/census/2021/Alpha/default.asp>