**Finding patterns in policing data**

*Proposed by Louise McMillan, 8/7/2020*

This project is about finding patterns in the publicly available data from the New Zealand Police:

<https://www.police.govt.nz/about-us/publications-statistics/data-and-statistics/policedatanz>

The NZ police have posted numerous datasets which contain data for several different types of incident, over a period of a few years. The datasets are also arranged in different ways, by individual or by incident. Most of the datasets are also labelled by territorial area and meshblock.

StatsNZ also have a wide range of datasets describing different aspects of New Zealand, including population numbers, geographical information and business, economic and cultural indicators:

<https://www.stats.govt.nz/all-topics/>

These datasets can be combined to look for geographical and temporal patterns in crime statistics, and potentially to predict future patterns.

Students will need to

* Integrate multiple large datasets, some fine-grained and some wide-scale
* Plot geographical data and/or analyse time series data
* Carry out an exploratory analysis, choosing a subset of variables and features to report
* Determine which datasets need to be integrated to answer specific questions and/or make specific predictions
* Carry out the analyses required to answer specific questions, and display the chosen model(s) and results
* Consider any ethical aspects when reporting the results