## **Hexit Data Tricks**

This document gives the sources of data, and the “tricks” we used to make them sound good. All links pertain to a post on social media that we’ve researched. To see a more concise break-down, see the bottom of our project page at:

<https://2016.hackerspace.govhack.org/content/hexit>

**BioScience:**

*http://www.stats.govt.nz/browse\_for\_stats/industry\_sectors/science\_and\_biotechnology/Bioscience\_HOTP2011.aspx*

Although Waikato does has the highest BioScience organizations per capita in NZ both Auckland and Canterbury beat it out in actual employees.

**Injury:**

*http://www.stats.govt.nz/browse\_for\_stats/health/injuries/InjuryStatistics\_HOTP14.aspx*

Intentionally reported the proportion of workplace injuries claims in NZ to paint the picture that Aucklanders are increasingly becoming reckless and we need to fence them out now. Overall the number of workplace injuries is steadily decreasing but by using the proportions of injuries per region over all of New Zealand we are able to give the perception that Aucklanders are getting progressively worse when they’re not. While using two y-axis make it looks like Hamilton and Auckland had the same proportion to being with this scale allows the slope of Auckland’s increase in proportion look steeper and worse.

**Internal Migration:**

*http://www.stats.govt.nz/browse\_for\_stats/population/Migration/internal-migration/trends-in-migration.aspx*

There are many places over NZ that have higher internal migration than Waikato but we can conveniently cut these off by using the definition of a ‘large city’ which requires a populations of over 300,000. This way we can ignore the bay of plenty which has just less than enough population to classify as a large city even though it has more internal migration.

**Mean Rent**

*http://www.mbie.govt.nz/info-services/housing-property/sector-information-and-statistics/rental-bond-data*

**& Average Weekly Income:**

*http://nzdotstat.stats.govt.nz/wbos/Index.aspx?DataSetCode=TABLECODE7467#*

Spurious correlation. Though we receive an R-sq of over 95% in the linear regression the coefficient is meaningless due to similar trends.

The mean rent was available for Auckland and Waikato Region whereas the mean weekly incomes come from Auckland and Hamilton. Hamilton is likely to have a higher rent than the broader Waikato area. Also income distributions are highly skewed and therefore medians are a more accurate choice of central measurement than mean/average as are influenced less by outliers.

**Consents**

*http://www.stats.govt.nz/browse\_for\_stats/industry\_sectors/Construction/BuildingConsentsIssued\_HOTPJun16.aspx*

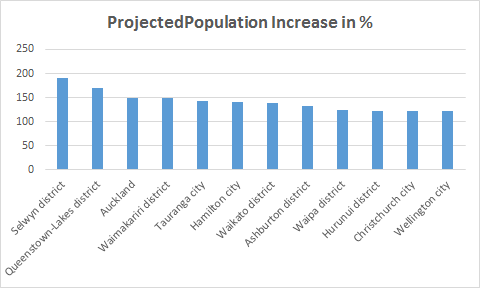
Canterbury has the highest rate of building consents per capita, but this is largely due to the reconstruction after the earthquake. By saying in the North Island we can conveniently ignore this.

**ProjectedPopulation Increase**

*[http://www.stats.govt.nz/tools\_and\_services/nzdotstat/tables-by-subject/population-projections-tables.aspx#SFHP](http://www.stats.govt.nz/tools_and_services/nzdotstat/tables-by-subject/population-projections-tables.aspx" \l "SFHP)*

700,000 is truly an impressive number. The data is projected using as base the 2013 data. When comparing the growth in percentage other regions show similar or greater growth than Auckland.

Also, ugly hand drawings should possibly be avoided in professional charts.



**Hay, Silage and Balage harvested per region**

*http://www.stats.govt.nz/browse\_for\_stats/industry\_sectors/agriculture-horticulture-forestry/AgriculturalProduction\_HOTPJun07final.aspx*

It should have also been mentioned that the data is from 2007. With the development in the dairy farming industry, Waikato’s dairy cows are quite likely fed with more additional feeds like corn and palm kernel and will depend, not on supplies from Auckland but from corn etc. from the South Island or the overseas sources of palm kernel.

We left the data from the South Island out where the Canterbury region had a higher number for their Hay, Silage and Balage harvest than the Waikato.

**Less Crime in the Waikato**

[*http://www.police.govt.nz/about-us/publication/crime-statistics-calendar-year-ending-31-december-2014*](http://www.police.govt.nz/about-us/publication/crime-statistics-calendar-year-ending-31-december-2014)

Auckland had 2014 per 10000 population 8.9 robberies and 160.7 burglaries (total), the Waikato district much less, only 4.5 but 158.9 burglaries (total). We had cherry picked the crimes where the Waikato does well. Dwelling assaults the Waikato is double to Auckland.

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| Offences per 10,000 population (2014) | Auckland | Waikato |
| Dwelling Assaults | 32.0 | 73.0 |
| Robberies | 8.9 | 4.5 |
| Burglaries (total) | 160.7 | 158.9 |
| Vehicles stolen | 95.2 | 35.8 |
| Theft ex car | 134.0 | 47.9 |

**Auckland water supply**

<https://www.watercare.co.nz/about-watercare/our-services/waikato-river-water/Pages/default.aspx>

Waikato river did supply (almost) 30%... but only during the 2013 drought. And this was less than 1% of the river’s volume.