# All industries across all years

## Transport distances

* **Dist to port**: Predominantly negatively correlated (max 0.0005678)
* **Dist to airport**: Predominantly negatively correlated (3rd Q and Max pos)
* **Dist to railway**: Predominantly negatively correlated (max 0.0004389)
* **Hwy per area**: Predominantly positively correlated (only min neg)

In general, business facilities are located away from major “ugly” transport infrastructures like ports, airports and railways, but close to highways. The affinity for highways can be described from two angles: commuters and truck traffic. Most tonne-km (transport activity) in NZ is in tonne-km.

**Follow-ups thoughts**:

What is the sector split for “total industries” – how many facilities are in freight moving sectors (primary and secondary) and how many are in tertiary sector (predominantly service).

## People

* **Total people**: Predom positive (from median up positive)
* **Perc affluence**: Predom positive (only min neg)
* **Perc Maori**: ONLY negative
* **Perc Immigrant**: Predom positive (from median up)

In general, more business facilities occur in more highly populated areas, presumably due to proximity to the labour force. It seems that business facilities are also collocated in more affluent areas. The direction of the causality is not known. Could it be because communities who are more affluent tend to establish more businesses? Or can wealthier people afford to live closer to economic centres? Or do affluent communities represent a better workforce / better customer base? There are many facets to the affluence-all industry question that could be further explored.

The relationship with perc Maori and Pasifika is noteworthy. Fewer businesses are located in communities that have higher percentage of Maori/Pasifika populations. Contrast this with the predominantly positive correlation with immigrant communities. Is this an intersection with the employment question? Could the immigrant relationship be explained by the fact that most immigrants “come for work” and “cannot stay without work”, whereas Maori and Pasifika are NZ citizens and therefore do not need to leave when they don’t have work?

**Follow-up thoughts**

Correlation of unemployment and percM and percImmigrant categories, contrast with correlation of “everyone else”

There are many more questions here…. This raises a troubling question.

## 2006-2018 changes

## Transport distances

* **Dist to port**: No change in sign. Broadest distrib of values in 2018. Is that significant?
* **Dist to airport**: No change in sign. Broadest distrib of values in 2018
* **Dist to rail**: No change in sign. Broadest distrib of values in 2018
* **Hwy per area**: No change in sign. Shift to “more positive” coefficients over time. Meaning that this relationship is becoming MORE important.

## People changes

* **Total people**: The distribution did move a bit over time. In 2006, Median was actually negative. In 2013 and 2018 only the 1st Q is negative, but the longest left tail is in 2018. The 2013 distribution is more positive than the 2018 distribution on all quartiles. Could this indicate a move of the population “towards” business facilities between 2006 and 2013 and then slightly “away” again between 2013-2018? Could that be because of land prices around business facilities? Urban sprawl?
* **Perc affluence**: Broadest distribution in 2018. Even though the right tail stretches out from 2006-2013-2018, other quartiles are far less positive in 2013 and 2018 is more positive than 2013 but lower than 2006. Does this mean that although the relationship is always positive, it seems to have less of an influence in 2018 than 2006 and much less of an influence in 2013 than 2006 and 2018 for most of the population. What does that mean ito demographic trends? Is this an effect of “as things get more crowded and available space less, the relationships have less of an influence”?
* **Perc Maori**: This is becoming decidedly more negative over time for all quartiles. So the negative relationship is strengthening over time.
* **Perc Immigrant**: 2013 decidedly more positive than 2006 on all fronts. 2018 shifted more negative than 2013 but still more positive than 2006. Only exception is the right tail (max). What does that mean? Nadia continue here…

**Follow-up questions**:

* What has urban sprawl been compared to facility sprawl?