

An analysis of Geographic trends in Greater Sydney from 2016

Report created by Mark Richards for Geography unit GEOS1002

Introduction

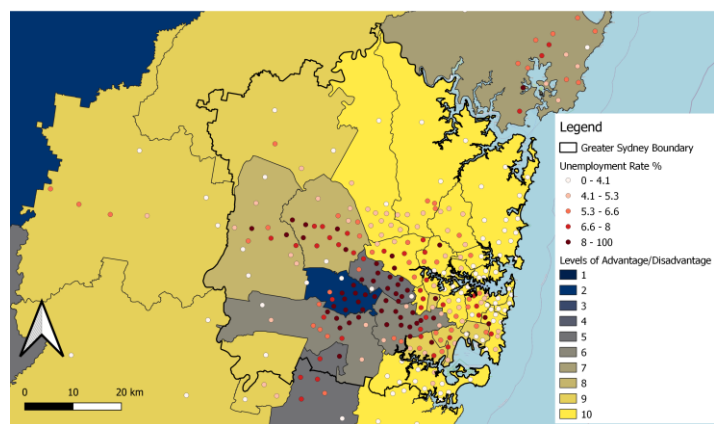
This project investigates spatial patterns via maps we've created via 2016 Greater Sydney data provided for the unit of study, particularly from a social lens analyzing the effect of factors such as employment, education and transport on advantage/disadvantage of populations in those local government areas (LGAs). These maps will be supplemented with discussions to note trends and will draw reference to various articles, offering insights by reputable sources to further explore the potential reasons behind these trends.

Results

Exploring the relationship between unemployment and levels of advantage and disadvantage

As seen in the map above, it appears in general there is a moderately strong relationship between employment rate % of suburbs and disadvantage of suburb, and the closer suburbs are to those disadvantaged suburbs the more likely they are to have more unemployment. In addition, it appears coastal suburbs are the most advantaged and seem to almost always have 0 - 4.1% unemployment rate. This points to one form of a perpetuating cycle of existing uneven levels of advantage where those already with advantage further cement it through employment whilst large proportions of those in disadvantaged suburbs continue to struggle to find it.

Map of Greater Sydney regions unemployment rates and levels of advantage/disadvantage



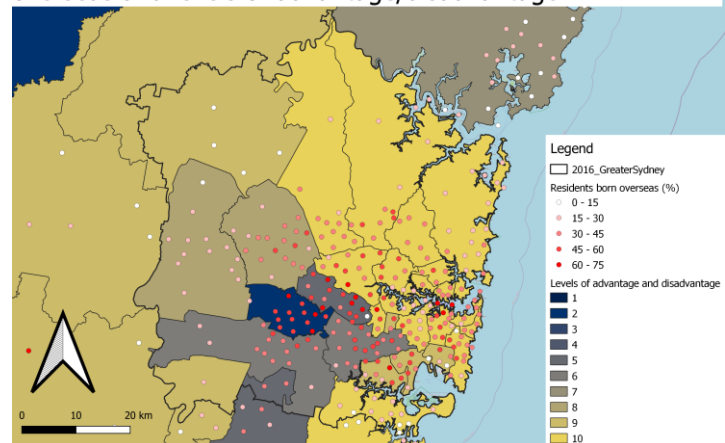
This agrees with the finding from [1] which really emphasized the growing concentration of unemployment in lower status suburbs. Interestingly, it discussed how this intensifying exclusion of lower income populations from inner cities is compounding settlement patterns detrimental to

city productivity as well as to individual welfare for those directly concerned. Clearly these spatial patterns are a two-way issue which it appears is incredibly difficult to overcome.

Exploring the relationship between residents born overseas and levels of advantage and disadvantage

While there is a wide distribution of residents born overseas across Sydney, it appears the highest proportions of them are in and around the most disadvantaged LGAs. This provides some evidence that people who immigrate to Australia experience higher probability of finding themselves at a disadvantage; they generally seem to only be able to choose likely due to affordability the disadvantaged suburbs. This again points to the perpetuation of the cycle where those at an advantage are in a better position to continue to pass that advantage onto their families, this time from a birthplace perspective. But its a very case-dependent phenomenon of course, the distribution is still wide; those at disadvantage certainly need to be supported.

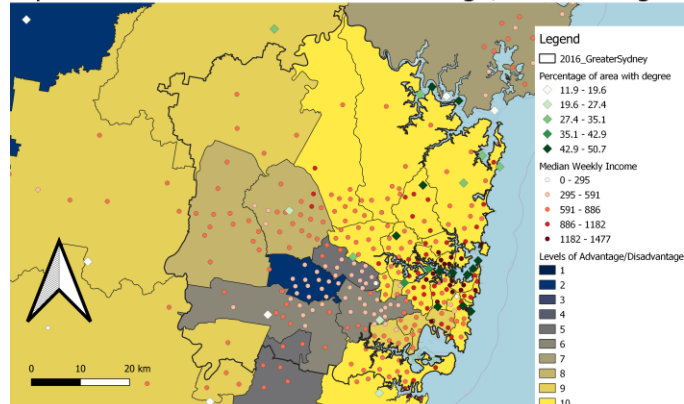
Map of Greater Sydney regions percentages of residents born overseas and levels of advantage/disadvantage



Exploring the relationship between degree representation, personal income and levels of advantage/disadvantage

As seen on this map, degree representation is certainly concentrated around the city center, and the levels of it are higher around there compared to outside areas as seen, again pushing this theme of the perpetuating cycle of advantage / disadvantage. Median weekly income seems to also show this with quite significantly less median weekly income in the most disadvantaged suburbs in Sydney (~\$300-\$600 compared to ~\$600-\$900 for practically everywhere else except the city center). The common phrase “the money is in the city” seems to ring true here with those inner-city suburbs seeming to have a median weekly salary of \$900+ with most being ~\$1200-\$1500.

Map of Greater Sydney regions weekly income, degree representation and levels of advantage/disadvantage

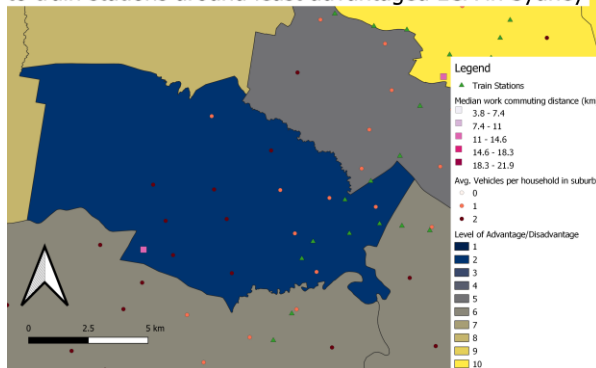


In terms of degree representation, this is a hugely significant result; and this is not just a mere thought. According to [2], undergraduate graduates median pay is \$71,000 more than the Australian median annual salary of \$65,000, and this is for someone presumably lacking any experience in their degree industry. This share is statistical backing that this degree lack of representation in the least advantaged LGA further cements this disadvantage.

This is significant, because as seen in [3] for instance, because it made clear that households in lower income groups face greater financial difficulties in housing debt in particular, and are less likely to have a mortgage, referencing the prior: “Of households with housing debt, those in lower income quintiles were also more likely to have financial difficulties than those on higher incomes, highlighting the disadvantage for those in lower-level LGA’s.

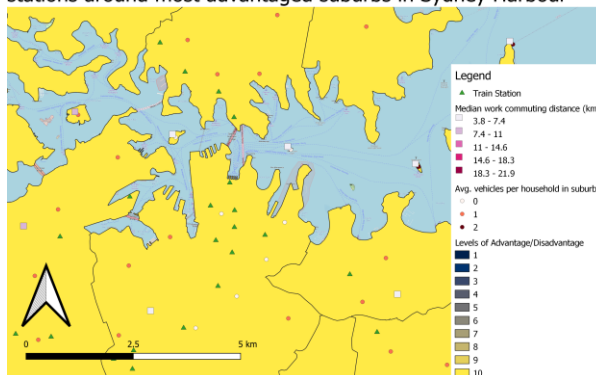
Exploring the average household number of vehicles, commuting distance and train stations in the most advantaged LGAs in Sydney Harbor vs most disadvantaged LGA in Sydney

Number of vehicles, commuting distance to work, access to train stations around least advantaged LGA in Sydney



The most clear reading perhaps here is the abundance of 2 vehicle houses in those suburbs around Greenfield Park in the disadvantaged LGA map, likely due to around a 5-10km distance to the nearest train station. The median commuting distance within this area being 11-14.6km showing commuters have to travel quite a distance to get to work.

Number of vehicles, commuting distance to work, access to train stations around most advantaged suburbs in Sydney Harbour



Comparing that to the advantaged suburbs map, there is this perpetuation theme at work again where people have many train stations available, very little distance to work, so there is no need for two cars, and the average in the CBD is 0. Not to mention, there are many public transport options other than trains too.

The result above is quite telling

This finding is particularly significant in relation to article [4] which consisted of predominantly a self-administered surveys in two stages which was used for structural equation modelling to reveal relationships between many variables particularly in relation to transport, social exclusion and well-being. The article emphasized the

knock-on effects of transport disadvantage, showing through their findings links to social exclusion, lower physical, mental health and subjective wellbeing. It is clear this phenomenon likely reinforces this disadvantage where those in less advantaged areas like Greenfield Park in terms of transport have links to these troubles and essentially have to start from behind. Interestingly, the study found that those at transport disadvantage are more likely to engage in political or civic engagement, where the study suggested their “unmet needs” light a stronger motivation to influence decision-making.

Although not directly linked to mobility, article [5]’s statement of transport being a “social policy” rings true in this case fittingly for me; people in these areas require access to all amenities such as hospitals, income support, employment, and without offering options for these people unethical exclusion occurs further reinforcing the cycle.

More of these implications for the sake of complete include as of [6] reduced employment opportunities, increased travel costs, social disconnectedness, reduced access to support services (much like those in [4] showing the issues are clear).

Conclusion

Through this report, I’ve explored various spatial patterns through maps of Greater Sydney. These patterns were reflected upon, and potential reasons for the findings or implications were written on.

As a whole it felt the wealth was spread out but disadvantage tended to be concentrated around western Sydney in particular. The resounding theme going into the future it felt throughout the five maps was of perpetuation of a seemingly to-be reinforced cycle of advantages / disadvantages. This was first seen when analyzing the unemployment levels with levels of advantage / disadvantage, where those already at a disadvantage tended to have greater proportions of unemployment. A trend was reflected upon in the next map indicating the vast majority of people in these areas were immigrants, who have to essentially start from scratch while those already with resources in more advantaged areas can further utilise their “head-start”. Further variables indicated the cycle as discussed such as those in disadvantaged areas having lower degree representation and lower income jobs. This was also demonstrated in transport disadvantages for those in disadvantaged areas; it’s severity highlighted with reference to academic article [4] with this circumstance's profound impacts on other factors like subjective wellbeing and mental health.

Clearly strong action is required to regain control over distribution of resources to overcome these negative loops.

References

- [1] Pawson, H., Hulse, K., and Cheshire, L., 2015. Addressing concentrations of disadvantage in urban Australia. Melbourne: Australian Housing and Urban Research Institute, AHURI Final Report No. 247
- [2] Ministers' Media Centre (2024). New survey highlights benefits of getting a degree. [online] Ministers' Media Centre. Available at: <https://ministers.education.gov.au/clare/new-survey-highlights-benefits-getting-degree>.
- [3] Dodson, J. and Sipe, N., 2008. Shocking the suburbs: urban location, homeownership and oil vulnerability in the Australian city. *Housing Studies*, 23(3), pp.377-401.
- [4] Ma, L., Kent, J.L. and Mulley, C., 2018. Transport disadvantage, social exclusion, and subjective well-being. *Journal of transport and land use*, 11(1), pp.31-47
- [5] Kenyon, S., Rafferty, J. and Lyons, G., 2003. Social exclusion and transport in the UK: a role for virtual accessibility in the alleviation of mobility-related social exclusion? *Journal of Social Policy*, 32(3)
- [6] Burke, T. and Stone, J. and Glackin, S. and Scheurer, J. 2014. Transport disadvantage and low-income rental housing. AHURI Positioning paper. 157: pp. 1-62