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Spatial segregation and neighbourhood change

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Executive summary

Key points

- This study develops indicators of neighbourhood change using residential mobility and employment data.
- Highly segregated cities show a high degree of spatial sorting. This sorting could be via income and socio-economic status, ethnic or minority population groupings, or other demographic or cultural criteria. It is widely acknowledged that spatial segregation—whether ongoing, maintained or accelerating—is detrimental to social cohesion and community wellbeing. Any segregation has negative effects, whether this segregation occurs at the affluent end (rich agglomerating in some areas) or at the disadvantaged end (the poor concentrated in other areas). At both ends, the potential for integration is lowered.
- Conversely, inclusive cities exhibit lower spatial segregation, which supports social cohesion and community wellbeing.
- This research studies the extent and patterns of spatial segregation by income bands and levels of neighbourhood deprivation across Australia's five largest capital cities: Sydney, Melbourne, Brisbane, Adelaide and Perth.
- The study develops indicators of neighbourhood change based on long-term residential mobility of people to and from neighbourhoods, and short-term journey-to-work-based mobility of people to and from neighbourhoods. In doing so, it establishes a distinct functional typology for each neighbourhood in terms of its housing market, social and economic deprivation, and employment connectivity to the rest of the city and the wider region.

- **By tracking these indicators over two census periods (2011 and 2016) for the five cities, the study shows which neighbourhoods are severely or moderately exclusionary or isolated from the rest of the city in their residential characteristics—that is, clustering of high-income or low-income earners over time—and which neighbourhoods are severely or moderately disconnected from the larger employment and labour markets of the city.**

- **The study finds that segregation in Australian cities is increasing over time, with respect to the spatial clustering of socio-economic classes. Affluent areas and advantaged neighbourhoods show the agglomeration of high-income earners. This drives segregation through exclusion, since low- and moderate-income earners face barriers to entering and living in advantaged areas, with good amenities and good connectivity to jobs.**

- **The study also fills a critical research and policy gap by characterising the changing, dynamic nature of neighbourhoods in terms of their connectivity to the wider citywide housing market and employment markets.**

- **In addition to detecting dynamic processes of social displacement within gentrifying areas that are becoming more segregated, the study also seeks to measure 'porosity', which is where neighbourhoods enable dynamic movements of people to and from other neighbourhoods in the city.**

- **The results provide an evidence-base for informing place-based and accessibility-based policies that work towards reducing spatial sorting and segregation in cities based on socio-economic differences.**

Key findings

Overall, this report finds that spatial sorting and segregation is increasing in Australia's five largest capital cities. Over time, spatial sorting and segregation in Australian cities is driven by income and economic class segregation, rather than, for example, other demographic criteria such as ethnic, linguistic or minority group characteristics, as is more common in US cities (Owens and Candipan, 2019; Candipan, 2019).

Segregation in Australian cities is driven by the upper end: high-income and very-high-income earners cluster into tight spatial groups. These neighbourhoods then become socially isolated and exclude moderate-income, low-income and very-low-income earners who cannot afford to live in expensive housing markets. This is despite the economic ties that lower-income workers often have to these areas.

In Australian cities, the most affluent areas—the high-value residential neighbourhoods—are closest in spatial proximity to the areas where the highest number of jobs are clustered. This results in a labour market where the highest-income earners also travel the least to access job opportunities, whereas lower-income and moderate-income earners are forced out to the peripheries of the cities and must therefore travel more to access these same opportunities.

Such residential exclusion and the employment connectivity and dis-connectivity profiles combine to create conditions that exacerbate spatial inequalities in cities. This is in addition to the inefficiencies brought about by the locational imbalance of jobs and housing caused by the higher-income areas agglomerating closest to the major employment centres and many lower-income or moderate-income areas being farther away from major job centres.

Policy development options

In revealing the extent of socio-spatial sorting and segregation in the nation's five largest capital cities, the findings of this study have important implications for Australian urban and housing policy. In seeking to address and reduce socio-spatial inequality through urban policy and housing interventions, key priorities and options include the following.

- Recognising the potential for infrastructure and planning interventions to exacerbate existing housing-market pressures, which reinforces processes of gentrification, displacement and exclusion of lower-income earners—including key workers and those with long-term connections to the location.
- Consequently, state and local governments should monitor housing markets for displacement, exclusion and porosity at the neighbourhood scale in order to measure the impact of—and need for—particular planning and policy interventions.
- To prevent displacement of lower-income residents, strategic infrastructure investment decisions intended to improve transport accessibility should be supported by policies that preserve and increase affordable housing opportunities.
- More broadly, strategic funding and planning interventions are needed to increase the supply of affordable rental housing in accessible jobs-rich areas to reduce socio-spatial segregation and exclusion.

Overall, spatial sorting and the resulting socio-economic inequities should be an active focus for policy and should be addressed by all levels of Australian government through infrastructure, housing assistance and planning responses.

The study

This research presents the results from a standalone data project on Measuring Neighbourhood Change using residential mobility and journey to work (JTW) data. Residential mobility within the city represents long-term, low-frequency changes to patterns of residential settlement. JTW within the city represents short-term, high-frequency daily patterns of travel to work and employment.

The project draws on internal migration data to measure residential mobility and JTW data to measure jobs-housing connectivity from the 2011 and 2016 ABS censuses. We have used this data to compute indices of neighbourhood change, identifying and focussing on deprived and affluent neighbourhoods based upon residential mobility and employment connectivity. These neighbourhood-change indices were used to develop a neighbourhood-level measure of housing exclusion and neighbourhood porosity.

The neighbourhood-change indices are based on expanding existing typologies of how deprived and affluent neighbourhoods are connected to the wider city region by both:

- long-term, low-frequency residential mobility flows

- short-term, high-frequency JTW flows.

The typology developed in this research expands the typologies defined by the 2016 Joseph Rowntree Foundation (JRF) report *Overcoming deprivation and disconnection in UK cities*.

Specifically, this study extends the JRF work in two significant ways.

First, while the JRF project looked only at deprived neighbourhoods, this AHURI project develops neighbourhood typologies for all neighbourhoods in the five largest Australian cities—including the most affluent neighbourhoods. This shows that while deprivation and segregation in the city can result from deprived areas continuing to be deprived or isolated, it is also critically dependent on affluent areas being exclusionary. By putting up barriers to entry into affluent areas, there is loss of porosity of movement of people throughout the city—which results in further deprivation and segregation.

Second, this understanding and insight led to the development of a 'neighbourhood porosity' indicator, which characterises the porosity–exclusion index for each neighbourhood, thus making it a relevant evidence-base for neighbourhood and place-level policy decision-making.

The data and indices produced in this work fill a critical research and policy gap by testing and describing how the changing nature of neighbourhoods—in terms of their connectivity to the larger city and region—can serve as indicators of ongoing exclusion or displacement processes, which result in spatially sorted or segregated cities.

Data from the 2011 and 2016 ABS censuses on five-year internal migration and JTW are employed in this work. The methods, analytical framework and indices developed are demonstrated for the five largest Australian capital cities: Sydney, Melbourne, Brisbane, Adelaide and Perth. The entire study is fully reproducible for future census periods, so this project thus enables a future longitudinal framework of tracking neighbourhood change.

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