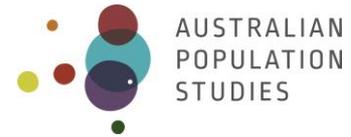


## Residential concentration patterns of immigrant groups in Australia's major cities



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Paper received 7 September 2019; accepted 17 October 2019; published 18 November 2019

Immigration is a global process that stems from a range of personal motivations including the prospect of higher income, better access to education and health, and improved living conditions (UNDP 2009). This is reflected in Australia's migrant profile where, as of the 2016 Census, almost half of the population were either born overseas or had at least one parent born overseas (ABS 2017a). Ethnic diversity is continuously rising in Australia; however, migrants remain overwhelmingly concentrated in the major Australian cities of Sydney, Melbourne, Brisbane, and Perth. This concentration extends to the suburb scale, as specific neighbourhoods are home to large numbers of co-ethnic communities. An extensive literature (e.g. Burnley 2005; Edgar 2014; Forrest and Sheshkin 2015; Portes and Zhou 1993) indicates that concentration can be involuntary (e.g. ghetto formation) or voluntary, where community members benefit from proximity to others speaking their language or sharing their cultural and social values.

This DemoGraphic shows the changing residential concentration of the largest immigrant groups in Australia's four most populous cities between 2006 and 2016. It includes both migrants settled in Australia and those who immigrated during the five years prior to the 2006, 2011, and 2016 censuses. The immigrant groups were selected as those comprising Australia's ten largest migrant stocks in 2016 (concerned with the birthplace of current immigrants living in Australia) and those with the ten largest migrant flows in 2016 (the number of immigrants entering Australia). Stocks were based on ABS estimated resident populations by country of birth in 2016 (ABS 2017b) and flows were based on data from the Department of Home Affairs (Department of Home Affairs 2018). When combined, these yielded a total of 13 selected countries of birth: China, England, India, Ireland, Italy, Malaysia, Nepal, New Zealand, Pakistan, Philippines, Scotland, South Africa, and Vietnam.

Country of birth data were extracted from the 2006, 2011, and 2016 censuses based on a harmonised geography and extracted by Statistical Areas Level 2 (SA2) for each Greater Capital City Statistical Area (GCCSA). These data were used to calculate the Index of Dissimilarity for each

immigrant group in comparison to the Australian-born population. The Index of Dissimilarity is defined as:

$$I_D = \frac{1}{2} \sum_i |x_i - y_i|$$

where  $x$  is the percentage of Australian-born population in category  $i$  (SA2) and  $y$  is the percentage of immigrant-group population in category  $i$  (SA2). Values close to zero indicate that little dissimilarity exists while high values denote high levels of dissimilarity. Plotting dissimilarity against the absolute population of each group reveals the progression of residential concentrations between groups

The DemoGraphic in Figure 1 represents the progression of each immigrant group's residential concentration as a series of plotted lines. The colour of each line represents the immigrant group, and the shape of the first data point represents the city (circle = Brisbane; triangle = Melbourne; diamond = Perth; square = Sydney). The arrows signal the directionality of absolute population change for each group, as well as the degree of relative concentration, as measured by the Index of Dissimilarity. All groups, except for Italy-born and the Scotland-born (Melbourne and Sydney) grew between the 2006 and 2016 Census. Over this same period, most groups became more dissimilar, with only the Italy-born (Brisbane and Sydney); South Africa-born (Brisbane and Melbourne), Vietnam-born (Brisbane, Perth and Sydney) and Nepal-born (Brisbane), becoming less concentrated. The latter reflects rapid population growth from a low base. From Figure 1, it appears that immigrant groups disperse into two modes of settlement, with one converging towards dissimilarity of around 10-20 (England, Ireland, New Zealand, Scotland, and South Africa) and the other converging towards dissimilarity of around 50 (China, India, Malaysia, Nepal, Pakistan, Philippines, and Vietnam). Italian immigrant groups depart from this trend, fluctuating between dissimilarities of 30 and 40 for all cities, with group size remaining stagnant or decreasing. For groups converging around dissimilarity of 10-20, there is an observable increase in dissimilarity over the three Census years as group size increases (excluding Scotland). Groups located in Sydney, Melbourne, and Perth increase in dissimilarity as they increase in size until 2011. After this point they continue to increase in size, but their dissimilarity decreases. Brisbane is an exception to this pattern, with the majority of groups maintaining a steady directionality. The results show that with the exception of very small groups (e.g. Nepal-born in Perth, Vietnam-born in Brisbane and Perth), the residential patterns of the largest non-Australian born groups are becoming more dissimilar over time.

When other research is consulted (Burnley 2005; Edgar 2014; Forrest and Dandy 2018), these results suggest that factors surrounding ethnicity – particularly English language proficiency – can influence the level of segregation experienced by immigrant groups in Australia. It also suggests immigrant groups will not necessarily become completely 'assimilated' into Australian society (i.e. dissimilarity = 0) after a certain period, as shown by early-immigrant groups such as those born in Italy. As the DemoGraphic shows, dissimilarity can increase as group size grows, suggesting that group size may be one variable affecting co-ethnic residential preference.

The results presented suggest the need for new models of urban residential settlement to better reflect Australia's ever-changing immigration profile. Understanding how group-level characteristics

(such as size) determine residential concentration is critical as Australian cities become increasingly diverse in numbers and origins of immigrant groups.

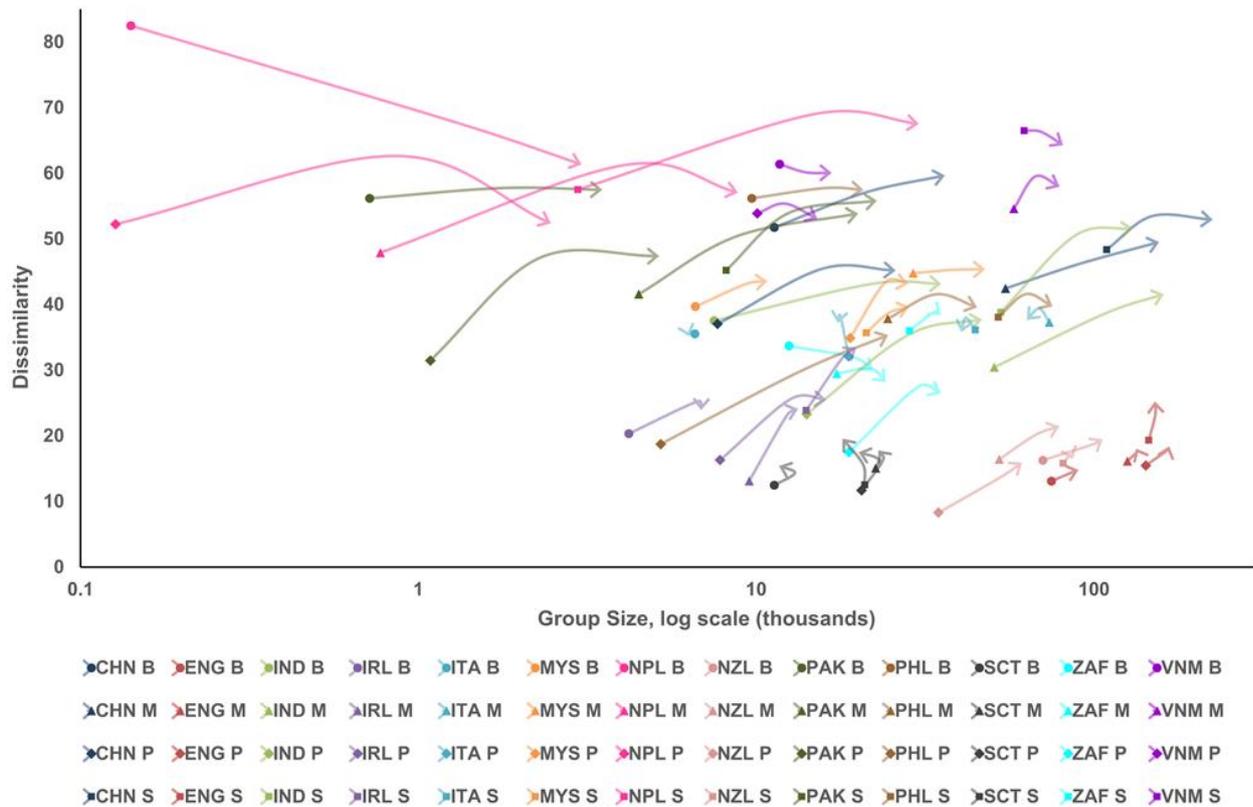


Figure 1: Residential concentration patterns of the largest immigrant groups in Australia’s major cities, 2006-16

Source: Australian Bureau of Statistics 2006, 2011, and 2016 census data

Notes: ‘Dissimilarity’ values represent the index of dissimilarity for each immigrant group. ‘Group Size’ is the total populations of immigrant groups represented on a logarithmic scale. Country abbreviations: China (CHN), England (ENG), India (IND), Ireland (IRL), Italy (ITA), Malaysia (MYS), Nepal (NPL), New Zealand (NZL), Pakistan (PAK), Philippines (PHL), Scotland (SCT), South Africa (ZAF), Vietnam (VNM). The letter preceding the country abbreviation corresponds to Brisbane (B), Melbourne (M), Perth (P), or Sydney (S).

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