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**Residential Segregation: Income
and Housing Dimensions**

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In July 2012, the Australian Bureau of Statistics began releasing data from the 2011 Census of Population and Housing. One of the more important results contained in the release was the fact that the number of people who identified as being Aboriginal and/or Torres Strait Islander (Indigenous) had increased by 20.5 per cent since the 2006 Census. There were also significant changes in the characteristics of the Indigenous population across a number of key variables including language spoken at home, housing, education, and other socioeconomic variables.

In this series, authors from the Centre for Aboriginal Economic Policy Research (CAEPR) document the changing composition and distribution of a range of Indigenous outcomes. The analysis in the series is funded by the Commonwealth Department of Social Services (DSS) (formerly the Department of Families, Housing, Community Services and Indigenous Affairs (FaHCSIA)) through the Strategic Research Project as well as DSS/ FaHCSIA and State/Territory governments through the Indigenous Population Project.

The opinions expressed in the papers in this series are those of the author alone and should not be attributed to DSS or any other government departments.

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Content

Acronyms	ii
Abstract	ii
Acknowledgements	ii
Introduction and overview	1
Data and methods	2
Residential segregation by housing and income characteristics	5
Summary and concluding comments	6
References	8

Abstract

Where a person lives has the potential to shape their choices and outcomes. It is reasonably well established that Aboriginal and Torres Strait Islander (Indigenous) Australians are more likely to live in remote areas than the non-Indigenous population and that this has implications for their ability to maintain important aspects of their life whilst, at the same time, constraining the services and jobs available to them. However, this paper demonstrates that even within an urban area, there is a large degree of residential segregation. Furthermore, the income and housing circumstances of the Indigenous population are a key determinant of their location. Indigenous Australians in urban areas are much more likely to live in areas where their neighbours have a low income or live in community rental. This residential segregation may lead to less social interaction between Indigenous and non-Indigenous Australians than might otherwise be the case.

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Acronyms

ABS	Australian Bureau of Statistics
ARC	Australian Research Council
ASGS	Australian Statistical Geographic Standard
CAEPR	Centre for Aboriginal Economic Policy Research
CBD	central business district
FaHCSIA	Department of Families, Housing, Community Services and Indigenous Affairs
NATSIHS	National Aboriginal and Torres Strait Islander Health Survey
NATSISS	National Aboriginal and Torres Strait Islander Social Survey
NPARSD	National Partnership Agreement on Remote Service Delivery
OECD	Organisation for Economic Co-operation and Development
SA1	Statistical Area Level 1
SUA	Significant Urban Area

Introduction and overview

Where a person lives can be quite important in shaping opportunities and constraints. This is the underlying rationale for place-based initiatives in Australia like Communities for Children (evaluated by Edwards et al. 2009) or the National Partnership Agreement on Remote Service Delivery (NPARSD).¹

For the Aboriginal and Torres Strait Islander (Indigenous) population, geography has tended to enter into policy discussions and formulations primarily through remoteness. This is perhaps not surprising as Indigenous Australians are much more likely to live in remote areas where labour markets are weaker; government services are scarcer and more difficult to provide; and infrastructure is lacking. According to the most recent estimates by the Australian Bureau of Statistics (ABS 2013) for the distribution of the population in 2011, 2.4 per cent of the non-remote population of Australia were identified as being Indigenous, whereas this rises to 27.6 per cent for the remote population.

Despite this relative concentration of Indigenous Australians in remote areas, it is still the case that the majority of Indigenous Australians live in non-remote parts of the country. Specifically, it is estimated by the ABS (2013) that in 2011 around 34.8 per cent of Indigenous Australians lived in major cities, 22.0 per cent in inner regional areas and 21.8 per cent in outer regional areas. Furthermore, Biddle (2013) demonstrates that even in non-remote parts of the country, the Indigenous population has worse socioeconomic outcomes than the non-Indigenous population in the area in which they live.

One of the potential reasons for worse socioeconomic outcomes for the Indigenous population in urban or non-remote parts of the country is a different geographic distribution by neighbourhoods. According to Ioannides (2013: 451) in his dense but fascinating *From Neighbourhoods to Nations*, 'Social interactions are fundamental in the functioning of economies at many scales', and although new technologies 'have facilitated new ways to interact ... face-to-face contacts remain strikingly important to us.' Cities or large regional towns where Indigenous Australians are concentrated in certain neighbourhoods are likely to lead to much less interaction between the Indigenous and non-Indigenous population or, at the very least, a different type of interaction.

Bolt, Burgers and van Kempen (1998) identify and summarise the potentially negative effects of this residential segregation on the way people access economic resources and information. These reasons can be grouped as follows:

- Concentration of economic disadvantage—If one population group is isolated from another then these groups may also be isolated from certain jobs that require inside knowledge or information. For example, the concentration of those who are chronically unemployed can have negative impacts on the strength of the job networks of those in the area.
- Norms and values—The clustering of individuals and households with high levels of socioeconomic disadvantage and social exclusion can lead to a climate that generates attitudes and practices that further the isolation of the local residents. Alternatively, social isolation can lead to the development of identities that are in direct opposition to the dominant culture (Akerlof & Kranton 2002).
- School interaction—As the majority of students attend schools in close proximity to where they live, residential segregation can also lead to school-level segregation. As school participation and completion in Australia is strongly associated with socioeconomic background (for Indigenous Australians see Biddle 2007), school-level segregation can lead to those with relatively disadvantaged backgrounds not interacting with high-achieving role models.
- Amenities and political power—To the extent that neighbourhood amenities are funded either directly by residents or indirectly through taxes and council rates, concentration of low income or low-wealth individuals can lead to those neighbourhoods missing out on the amenities (playgrounds, school facilities, health care etc.) that are taken for granted in other areas. This may be exacerbated by the fact that those with the ability to demand better services from their local representatives are those with higher levels of education and status.
- The development of stereotypes—The residents of neighbourhoods or areas with high concentrations of individuals with low socioeconomic status may have a negative image amongst the rest of the population of the city. This could lead to discrimination that disadvantages these residents when they apply for jobs, school places or other positions.

1. For details on the NPARSD see <http://www.fahcsia.gov.au/sites/default/files/documents/06_2013/national_partnership_agreement_on_remote_service_delivery_0.pdf>

The consequences of certain population subgroups being concentrated in a small set of suburbs or neighbourhoods are not all negative. For populations who receive specific services from the government, geographic concentration can result in significant economies of scale. Furthermore, the literature on social capital (summarised in an Indigenous context in Biddle 2012) highlights the potential for interaction within a particular group (bonding social capital) to have positive benefits for the individuals involved. Unfortunately, the data that would help identify these positive and negative consequences is not available due to confidentialising of survey results by the ABS. Nonetheless, it is still important to understand the distribution of Indigenous Australians within urban areas, not just between remote and non-remote Australia. The aim of this short paper is to provide such an analysis.

Data and methods

The analysis in this paper focuses on 54 selected large urban areas in Australia. These are constructed using Significant Urban Areas (SUAs), a new geographical classification introduced as part of the 2011 Australian Statistical Geographic Standard (ASGS). Specifically, I select 43 SUAs that have a total population of between 10,000 and 250,000, of whom at least 1,000 are Indigenous. These have been defined previously (Biddle & Markham 2013) as regional centres. These centres are analysed alongside 11 major cities with a population of 250,000 usual residents or more.

In total, there were around 18 million Australians living in these 54 large urban areas at the time of the 2011 Census, some 80.6 per cent of the total Australian population. Of those living in the urban centres, around 384,000 were estimated to be Indigenous, or 2.1 per cent of the relevant population. While this percentage is somewhat lower than for Australia as a whole (3.0%), it is worth noting that these 54 urban areas contain 57.3 per cent of the total Indigenous population.

Broadly speaking, a segregated urban area is one in which a member of a particular population sub-group is more likely to live in neighbourhoods where other members of that population sub-group live. There are many measures of segregation, which focus on different aspects of the geographic distribution of the population (Massey & Denton 1988). One of these measures—the dissimilarity index—measures how evenly a population sub-group is spread across urban neighbourhoods.

I begin the analysis with a comparison of the distribution of the Indigenous and non-Indigenous population using the dissimilarity index. Using the Statistical Area 1 (SA1)—

the lowest level of geography in the ASGS—as a proxy for neighbourhoods, the dissimilarity index measures the degree of departure from a completely even distribution where every SA1 has the same proportion of Indigenous and non-Indigenous Australians as the urban centre average. The dissimilarity index ranges from 0 to 1, with higher values representing greater level of residential segregation. It can be interpreted as the proportion of Indigenous (or non-Indigenous) Australians who would hypothetically need to move SA1s to result in a perfectly even distribution across a city or across all urban areas combined.

Having identified the distribution of the Indigenous population relative to the non-Indigenous population, I then extend the analysis to look at variation within the Indigenous population. In particular, I consider the extent to which income or the housing market explains the Indigenous geographic distribution. Due to small cell size in the underlying data and the confidentialising process undertaken by the ABS, the income and housing data is analysed separately rather than concurrently.

For the broad comparisons between Indigenous and non-Indigenous Australians, I use individual place of usual residence data based on answers to Question 8 of the 2011 Census; ‘Where does the person usually live?’ For the analysis of income and housing I also use individual data, rather than the census construct of Indigenous households (any household with at least 1 Indigenous usual resident). This is done for two main reasons. Firstly, social interaction occurs between individuals, not between households. Secondly, a large number of non-Indigenous people live in Indigenous households or, perhaps more accurately, a large proportion of people living in Indigenous households are non-Indigenous. Specifically, of the approximately 697,000 people who were at home on the night of the 2011 Census in a household with at least one Indigenous person, 188,000 or 26.9 per cent were non-Indigenous.

As the analysis is done for individuals, it is necessary to link household-level information to each individual on the census. Conceptually and practically, this is only possible to do for those who were at their private place of usual residence on census night. It is therefore necessary to exclude the 5.4 per cent of the population who were away from their place of usual residence on the night of the 2011 Census.

In order to measure income or access to economic resources, I use household equivalised income. This is found by first summing the individual incomes within the household to obtain total household income. However, this total income needs to be shared across the household members. Rather than using a per capita measure (dividing total income by usual residents) equivalisation takes into

TABLE 1 Residential segregation in major urban areas, Australia, 2011

Urban Area	Number of neighbourhoods	Total population	Indigenous percentage of population	Dissimilarity index
Melbourne	9,286	3,973,727	0.51	0.649
Sydney	9,895	4,184,521	1.28	0.548
Geelong	438	180,533	1.08	0.508
Perth	3,933	1,761,655	1.85	0.486
Broome	36	13,250	27.35	0.484
Adelaide	2,936	1,230,574	1.54	0.472
Geraldton	89	38,149	11.29	0.451
Wagga Wagga	136	55,371	5.41	0.432
Ballarat	219	95,401	1.55	0.418
Brisbane	4,885	2,056,159	2.31	0.413
Sunshine Coast	693	280,976	1.69	0.398
Cairns	335	136,219	10.86	0.398
Albury—Wodonga	211	85,979	2.59	0.398
Mildura—Wentworth	131	49,079	5.92	0.397
Bendigo	215	89,937	1.85	0.396
Canberra—Queanbeyan	1,001	403,844	1.83	0.395
Hobart	552	206,621	3.87	0.393
Taree	75	26,688	8.39	0.391
Gold Coast—Tweed Heads	1,333	570,086	1.86	0.387
Armidale	54	23,438	7.73	0.386
Shepparton—Mooroopna	115	47,824	4.72	0.367
Orange	93	38,097	6.28	0.366
Bunbury	160	69,139	3.09	0.356
Wollongong	688	283,440	2.71	0.354
Albany	80	32,787	4.29	0.354
Townsville	412	166,938	7.5	0.353
Tamworth	102	40,634	11.16	0.345
Darwin	237	113,421	10.82	0.341
Newcastle—Maitland	1,029	421,066	3.53	0.332
Launceston	232	85,103	3.33	0.328
Bathurst	80	34,187	5.46	0.328
Alice Springs	71	27,297	20.61	0.328
Nowra—Bomaderry	87	34,458	8.28	0.326
Toowoomba	273	110,331	4.35	0.325
Kalgoorlie—Boulder	82	30,776	8.73	0.318
Lismore	74	29,995	6.07	0.31
Central Coast	782	318,827	3.38	0.306
Maryborough	71	27,189	4.85	0.306
Port Hedland	40	12,740	20.14	0.301
Port Macquarie	105	43,872	3.65	0.299
Bundaberg	171	69,537	4.29	0.296
Dubbo	82	36,190	15.96	0.296
Grafton	51	19,404	8.77	0.296
Coffs Harbour	179	67,460	4.83	0.294
Mackay	193	79,107	5.61	0.284
Hervey Bay	120	50,575	3.92	0.276
Rockhampton	189	75,342	7.45	0.27
Cessnock	53	21,001	5.98	0.266
Port Augusta	36	13,761	21.17	0.263
Gladstone—Tannum Sands	105	42,359	4.56	0.256
Devonport	78	29,980	6.21	0.226
Mount Isa	51	19,743	18.8	0.223
Burnie—Wynyard	82	27,852	7.37	0.207
Broken Hill	52	19,190	8.92	0.206
All urban areas	42,708	18,001,833	2.13	0.529

Source: Customised calculations using the 2011 Census.

account the fact that although some additional resources are required, an additional person in the household costs less than the first because of the potential to share resources. One of the most obvious examples of such sharing is the heating or cooling of an entire house, which costs much more to do for the first person compared to subsequent people. By contrast, and despite some economies of scale, food is consumed in an exclusionary way. Following ABS conventions, the analysis in this paper uses the OECD equivalence scale which assumes an additional adult costs 0.5 times as much and an additional child costs 0.3 times as much as the first adult.

Individuals are broken into three groups based on the income of the household in which they live relative to the Australian median. Some 50.8 per cent of individuals at home in a private dwelling on the night of the 2011 Census lived in a household with an equivalised weekly income below \$800. We can use this as a rough measure of median income. A standard relative poverty line is people who live in households with less than half median income. Around 19.2 per cent of individuals live in such households (labelled in this paper as low income households). At the other end of the distribution, around 23.7 per cent of the population live in households with an equivalised weekly income of \$1,250 or more, roughly one-and-a-half times the median, and these are labelled in this paper as high income households. This leaves 57.0 per cent of the population in middle income households.

Because of the size of the non-Indigenous population, it is not surprising that their distribution across low, middle and high income households is similar to that of the total population (18.5%, 57.3% and 24.2% respectively). This was not the case for the Indigenous population. At the bottom end of the distribution, 42.1 per cent of Indigenous Australians lived in a low income household, 2.3 times as high a proportion as for the non-Indigenous population. By contrast, only 8.7 per cent of Indigenous Australians live in a high-income household, 0.4 times the proportion of the non-Indigenous population.

With regards to housing, individuals are also broken into three groups.² The first of these represents the population that lives in a house that is either owned or being purchased by the usual residents. Around 33.5 per cent of Indigenous Australians live in such a house, compared to 73.1 per cent of non-Indigenous Australians. The second category is those who live in a house that is being rented privately, either from a real estate agent or from a person not in the same household. Around 27.2 per

cent of Indigenous Australians live in such a household, slightly higher than the 23.4 per cent of non-Indigenous households. There is a much larger disparity between the two populations in the third category— those who live in a house that is rented from a state or territory housing authority or from a housing co-operative, community or church group. Around 39.3 per cent of Indigenous Australians live in such a house compared to only 3.4 per cent of non-Indigenous Australians.

Residential segregation for individuals

Results from the analysis of residential segregation patterns are summarised at **Table 1**. The first column gives the number of neighbourhoods in an urban area, as proxied by SA1s. In total, there were 42,708 neighbourhoods included, or 77.9 per cent of all SA1s in Australia. The next column gives the total population in the urban centre, with the third column giving the estimated percentage of that population who are Indigenous. The final column (which the table is sorted by) gives the level of residential segregation in that area which, as mentioned previously, ranges from 0 (each neighbourhood having the same proportion of Indigenous Australians as the urban centre average) to 1 (every Indigenous Australian living in an Indigenous-only neighbourhood).

Across all urban centres combined, the level of residential segregation was equal to 0.529. What that means is that around 52.9 per cent of Indigenous (or non-Indigenous) Australians would need to move neighbourhoods for there to be a completely even distribution. This is roughly comparable to the level of residential segregation in the United States between the Black and non-Black population (Glaeser & Vigdor 2012), but substantially below the peak level of residential segregation experienced in that country between 1950 and 1970, which was around 0.8.

Much of this segregation is due to the fact that Indigenous Australians have a different distribution across urban centres compared to non-Indigenous Australians (as shown by the variation in the Indigenous percentages in the third column). Because of this, there are only two urban centres (Sydney and Melbourne) which have a level of residential segregation above the urban centre total. When compared to the Black/non-Black segregation in the United States (in Glaeser & Vigdor 2012), Melbourne would rank behind Chicago, but above the remaining 9 of the top 10 largest metropolitan areas.

Larger urban centres tend to have larger levels of segregation. Both the number of people in the urban centre and the number of neighbourhoods have a correlation with the dissimilarity index of 0.66. This might be because of greater variation in property and rental

2. Excluded from the analysis are those who live in a house that is: being purchased under a rent/buy scheme; being occupied rent free; being occupied under a life tenure scheme; or rented from an employer.

TABLE 2 Characteristics of the neighbourhood in which a person lives conditional on their own characteristics—Equivalised income, all urban areas (%), Australia, 2011

Characteristic of individual	Indigenous (%)	Percentage of population in neighbourhood with...		
		Low income	Middle income	High income
Total population	1.8	18.0	56.3	25.7
Indigenous	7.9	24.0	57.9	18.1
Indigenous low income	10.1	30.1	55.6	14.3
Indigenous middle income	6.9	21.6	60.0	18.4
Indigenous high income	5.3	15.2	55.5	29.3
Non-Indigenous	1.6	17.6	56.5	25.9
Non-Indigenous low income	2.1	23.9	56.6	19.5
Non-Indigenous middle income	1.7	17.7	58.5	23.9
Non-Indigenous high income	1.2	13.3	52.0	34.7

Source: Customised calculations using the 2011 Census.

prices in large cities due to the presence of a central business district (CBD) that has a relatively large number of skilled and high paying jobs, as well as social and cultural amenities, but is geographically distant in terms of travel times for many of its suburbs.

With a correlation of -0.29 , the relationship between the percentage of the population in the area that is Indigenous and the level of residential segregation in **Table 1** is less clear. This is because there are urban centres with large Indigenous percentages and relatively large levels of segregation (like Broome and Geraldton), as well as a number of areas with small Indigenous percentages and high segregation (like Sydney and Melbourne).

Residential segregation by housing and income characteristics

One of the potential reasons for the high rates of residential segregation documented in **Table 1** for many urban centres is disparities in income and wealth between Indigenous and non-Indigenous Australians. Housing, and more specifically land, is often of relatively fixed supply. This means that neighbourhoods or areas with good access to strong labour markets or favourable amenities such as well-regarded schools, beaches and waterways, shops, and public transport are more expensive to live in. This is true for those wishing to purchase a property or those who would like to rent through the private rental market. Furthermore, governments with a fixed budget are (all else being equal) likely to provide public housing in areas that are relatively inexpensive.

In order to understand the way in which an Indigenous person's income or housing interacts with their residential location, we can look at the characteristics of the areas in which an Indigenous person lives, conditional on their own individual characteristic. **Table 2** summarises such an analysis based on the equivalised income of a person's household, whereas **Table 3** is based on their housing tenure.

In order to help understand **Table 2**, it is worth carefully examining the first column of numbers. Specifically, the average person living in an urban area (for whom we know the income of their household) lives in a neighbourhood where Indigenous Australians make up 1.8 per cent of the total population. For the average urban Indigenous Australian, on the other hand, 7.9 per cent of the neighbourhood in which they live is Indigenous. Not surprisingly given the high rates of residential segregation presented in **Table 1**, an Indigenous Australian is likely to live in an area that is disproportionately Indigenous. However, the next three numbers in the first column show that this is particularly the case for Indigenous Australians who live in low income households. Specifically, 10.1 per cent of those who live in the neighbourhood of the average low income Indigenous Australian is Indigenous, compared to 6.9 per cent and 5.3 per cent for middle and high income Indigenous Australians respectively.

For the non-Indigenous population, residential exposure to Indigenous Australians is also determined to a large extent by their income. In an urban area, the average non-Indigenous Australian lives in a neighbourhood where 1.6 per cent of the population are Indigenous. This, however, rises to 2.1 per cent for non-Indigenous Australians with low income, but falls to 1.2 per cent for non-Indigenous Australians with high income.

TABLE 3 Characteristics of the neighbourhood in which a person lives conditional on their own characteristics – Housing tenure, all urban areas (%), Australia, 2011

Characteristic of individual	Indigenous per cent	Percentage of population in neighbourhood in...		
		Community rental	Private rental	Own home
Total population	1.9	4.4	24.5	71.1
Indigenous	8.2	12.4	25.6	62.0
Indigenous community rental	13.1	26.7	22.6	50.7
Indigenous private rental	6.2	6.4	32.2	61.4
Indigenous home owner	5.8	5.7	22.3	72.0
Non-Indigenous	1.7	4.0	24.7	71.4
Non-Indigenous community rental	4.2	25.7	23.5	50.8
Non-Indigenous private rental	1.8	3.8	34.3	61.9
Non-Indigenous home owner	1.5	2.9	21.4	75.7

Source: Customised calculations using the 2011 Census.

Not only is the Indigenous share of the population different depending on a person's Indigenous status and the equivalised income of their household, but so too is the level of income of those in their neighbourhood. This is illustrated by looking at the last column of **Table 2**. The discussion above gave several reasons why living in a neighbourhood with high income usual residents might be beneficial. For the average person living in an urban area, 25.7 per cent of the rest of the people in their area had a high income. However, this falls to 14.3 per cent for low income Indigenous Australians, showing that for this group in particular high incomes are definitely not the norm for the neighbourhoods in which they live.

Examining **Table 3** we see that, based on their tenure type, there is clearly a large difference in the percentage of the population in a person's neighbourhood who identifies as being Indigenous. For the Indigenous population, 13.1 per cent of those living in the neighbourhood of the average Indigenous Australians who lives in a dwelling rented from the government or community organisation identify as being Indigenous. This falls to 5.8 per cent for Indigenous home owners and 1.5 per cent for non-Indigenous home owners.

One of the interesting findings from **Table 3** is that 25.7 per cent of those who live in the neighbourhoods of non-Indigenous community renters are also renting from the government or community organisation. This is only slightly smaller than the percentage for Indigenous community renters.

Summary and concluding comments

In her recent book *The Imperative of Integration*, Elizabeth Anderson has the following to say on segregation:

Segregation of social groups is a principal cause of group inequality. It isolates disadvantaged groups from access to public and private resources, from sources of human and cultural capital, and from social networks that govern access to jobs, business connections, and political influence. It depresses their ability to accumulate wealth and gain access to credit. It reinforces stigmatizing stereotypes about the disadvantaged and thus causes discrimination. (Anderson 2010: 2)

There has been relatively little work on this topic with regards to Indigenous Australians, and most of the work that has been done has looked at concentrations in remote parts of the country. However, this paper has shown that even within an urban area, there is a large degree of residential segregation. In Australia's two largest cities, more than half of the Indigenous population would have to move neighbourhoods for there to be an even distribution. It is difficult to establish causality with one instance of census data. This limitation notwithstanding, the analysis in this paper has also shown that the income and housing circumstances of the Indigenous population is a key determinant of their location. Indigenous Australians in urban areas are much more likely to live in areas where their neighbours have a low income or live in community rental.

There are a number of limitations of the analysis covered in this paper. First, because of changes in the geographic structure used in census collection, it was not possible to compare segregation in 2011 with 2006. A careful consolidation of the previous and current geographic structure might enable such an analysis, which would be further enhanced by a comparison with the residential segregation patterns of other minority groups in Australia. Second, there is limited spatial information used in the analysis, with an important unanswered question being whether the neighbourhoods with a large Indigenous concentration are spatially aligned.

Third, there is no information on the effect of residential segregation on Indigenous Australians nor, for that matter, the effect of non-Indigenous Australians of living in areas and neighbourhoods with few or no Indigenous Australians. While it would be very difficult to identify these effects equivocally, if the ABS were to enable the linking of neighbourhood-level information from the census to individual data from the National Aboriginal and Torres Strait Islander Social Survey (NATSISS) or the National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) it might shed further light on the topic.

Despite these limitations, there are three potential implications of the analysis presented in this paper. Firstly, this residential segregation may lead to less social interaction between Indigenous and non-Indigenous Australians than might otherwise be the case. This could negatively impact on inter-cultural understanding between Indigenous and non-Indigenous Australians. Secondly, it is also quite possible that Indigenous Australians are missing out on interactions with high income non-Indigenous Australians, including those who own their own home. Finally, to the extent that amenities and services like parks and public transport are concentrated in areas where the usual resident population has a greater capacity to demand or pay due to their high income or a longer term attachment to the area due to home ownership, Indigenous Australians may potentially be missing out from access to such resources.

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