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CAEPR Indigenous Population Project

2011 Census Papers

Paper 3

Indigenous housing need

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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 like 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 was funded by the Commonwealth Department of Families, Housing, Community Services and Indigenous Affairs (FaHCSIA) through the Strategic Research Project as well as FaHCSIA and State/Territory governments through the Indigenous Populations Project.

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

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Abstract

This paper provides an update of the evidence on different aspects of the housing situation of Indigenous Australians. By using a regional approach, it is possible to get a sense of how the housing circumstances of the population vary across our cities, regional and remote areas. Data for the analysis is drawn mainly from the 2006 and 2011 Censuses and the paper examines variation across aspects of housing use and overcrowding, housing tenure, homelessness, and household income and housing costs. One of the main findings from the analysis is that although housing need is greatest in remote areas (with very high rates of overcrowding in some parts of the country) there are still large disparities with the non-Indigenous population in urban regions. Because of the number of Indigenous Australians living in these parts of the country, urban areas cannot be ignored when trying to meet government targets.

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List of Acronyms

ABS	Australian Bureau of Statistics
ACT	Australian Capital Territory
AIGC	Australian Indigenous Geographic Classification
ANU	Australian National University
CAEPR	Centre for Aboriginal Economic Policy Research
ERP	Estimated resident population
FaHCSIA	Commonwealth Department of Families, Housing, Community Services and Indigenous Affairs

1. Introduction and overview: The complexity of Indigenous housing need

The level of housing need for the Indigenous population is complex and multifaceted. The Standing Committee on Indigenous Housing endorsed the notion of 'dimensions of need', which have levels of interconnectivity. One level of need is often a cause or consequence of another (Australian Institute of Health and Welfare 2005). For example, homelessness may be a response in part to high levels of household overcrowding, which is in turn related to access to economic resources and affordability. The other two measures of need—dwelling conditions and connection to essential services—are likely to impact on the health and socioeconomic status of occupants.

Adequate housing is a fundamental human need for survival and protection from the environment (Human Rights & Equal Opportunity Commission 1996). Homelessness and overcrowding—in essence, the inability of the housing stock in a particular area to meet the needs of a community's usual residents—have significant negative impacts on a number of outcomes. The impact of inadequate housing on health outcomes has been identified historically (Gauldie 1974; Thomson, Petticrew & Morrison 2001), as well as more specifically for the Indigenous population of Australia (Bailie & Wayte 2006; Pholeros, Rainow & Torzillo 1993).

Indigenous Australians themselves express a greater level of dissatisfaction with their housing situation than non-Indigenous Australians. According to estimates from Wave 8 of the Household Income and Labour Dynamics in Australia survey, the average response out of 10 for how satisfied or dissatisfied Indigenous Australians were with 'the home in which they live' was 7.57. For the non-Indigenous population, the average response was 7.94. While this difference may not seem large, it is important to keep in mind that it is statistically significant, and that responses across the sample are concentrated at the upper end of the possible range (the standard deviation for the sample as a whole was only 1.81).

There is statistical evidence that overcrowding can have significant negative impacts on Indigenous outcomes. For example, Biddle (2007) showed a negative association between overcrowding and education participation amongst Indigenous youth, even after controlling for large households. That is, it was not the number of people living in a house per se which had an association. Rather, the effects come from an inadequacy of the housing stock to meet the needs of Indigenous Australians, whether they live in large households or small.

Different levels of government play a role in determining the size and composition of the housing stock. This may be through land releases and zoning laws, the decision of where and how to provide infrastructure and services, as well as the direct provision of public housing. Governments can also impact on housing circumstances for individuals and families through the provision of rent or mortgage assistance, as well as the way in which housing is treated through the tax system.

While all of these factors are generally true, the Commonwealth, State and Territory governments play a particularly large role in the housing circumstances of the Indigenous population. As will be shown later in this paper, a much higher proportion of the Indigenous population live in public housing than their non-Indigenous counterparts. While this public housing is often provided by State and Territory governments, such houses sit alongside a relatively large community housing sector, administered by different Indigenous or Aboriginal Housing Organisations. At the Commonwealth level, the major focus on Indigenous housing is through the National Partnership on Remote Indigenous Housing, administered by FaHCSIA, which includes the Strategic Indigenous Housing and Infrastructure Program.

In many ways, housing is the ultimate place-based policy issue for the Indigenous population. Most housing and related infrastructure is highly immobile, and in order to understand the complexities of Indigenous housing need, it is important to examine the issues at the regional and local levels. However, while houses are immobile, people are not. And, for the Indigenous population, adequate housing or the lack thereof is one of the main drivers of population mobility (Biddle 2012, Taylor & Bell 2012). For this reason, the next section of this paper looks at the size and changing geographic distribution of the Indigenous Australian population. This is followed by an update of the evidence on different aspects of the housing situation of Indigenous Australians using a regional approach. More specifically I examine variation across aspects of the following:

- housing use and overcrowding;
- housing tenure;
- homelessness; and
- household income and housing costs.

Data for the analysis is drawn mainly from the 2006 and 2011 Censuses. Although there is a reasonably detailed amount of housing and related information in the Australian census (especially by international standards), there is

very little information on Indigenous-specific notions of wellbeing. For this reason, I intersperse the census results with analysis from the 2008 National Aboriginal and Torres Strait Islander Social Survey.

2. Data and geography

In order to understand trends in Indigenous housing circumstances, it is necessary to appreciate the dynamics of the population. This is especially an issue when looking at the last intercensal period when the Indigenous population count grew by 20.5 per cent. There are a few potential reasons for this very rapid population growth. As shown in the second paper in this series (Yap & Biddle 2012), Indigenous females have a relatively high fertility rate compared to non-Indigenous females. Furthermore, a large minority of children born to a non-Indigenous mother with an Indigenous father are likely to be identified as being Indigenous. There are, therefore, structural reasons for a rapidly growing Indigenous population. There are two additional reasons for why the Indigenous population count might be growing relatively quickly. Either more Indigenous people are being captured as part of the census process (changes in enumeration), or a number of people who did not identify as being Indigenous in 2006 changed their response in 2011 (changes in identification).

The question used in the census to identify whether a person is Indigenous or not has stayed reasonably consistent over the last decade. In 2011, those filling out the household form were asked the following about each individual in the household—'Is the person of Aboriginal or Torres Strait Islander origin?' Three options were given for the response: 'No'; 'Yes, Aboriginal'; or 'Yes, Torres Strait Islander'. Instructions on the form also indicated that 'For persons of both Aboriginal and Torres Strait Islander origin, mark both "Yes" boxes'.

While the question may have stayed the same, people's response to it may differ. This is likely to occur across an individual's lifecourse anyhow as they begin to fill out census forms on their own behalf (as opposed to appearing as a child on a household form) and get a better sense of their own identity. One-off events may also have an impact, with some suggesting that the apology to the Stolen Generations made by the former Prime Minister Kevin Rudd made some Indigenous Australians who did not identify as such more comfortable in doing so in the most recent census.

Another potential source of unexplained growth in the Indigenous population is the decrease in the number of people who did not state their Indigenous status. Around 4.9 per cent of the total Australian population did not respond to the Indigenous status question at all in 2011, down from 5.7 per cent in 2006. There were also significant changes to the Indigenous Enumeration Strategy between 2006 and 2011, with an increased focus on urban areas and a greater level of ongoing engagement with Indigenous communities in remote areas between censuses.

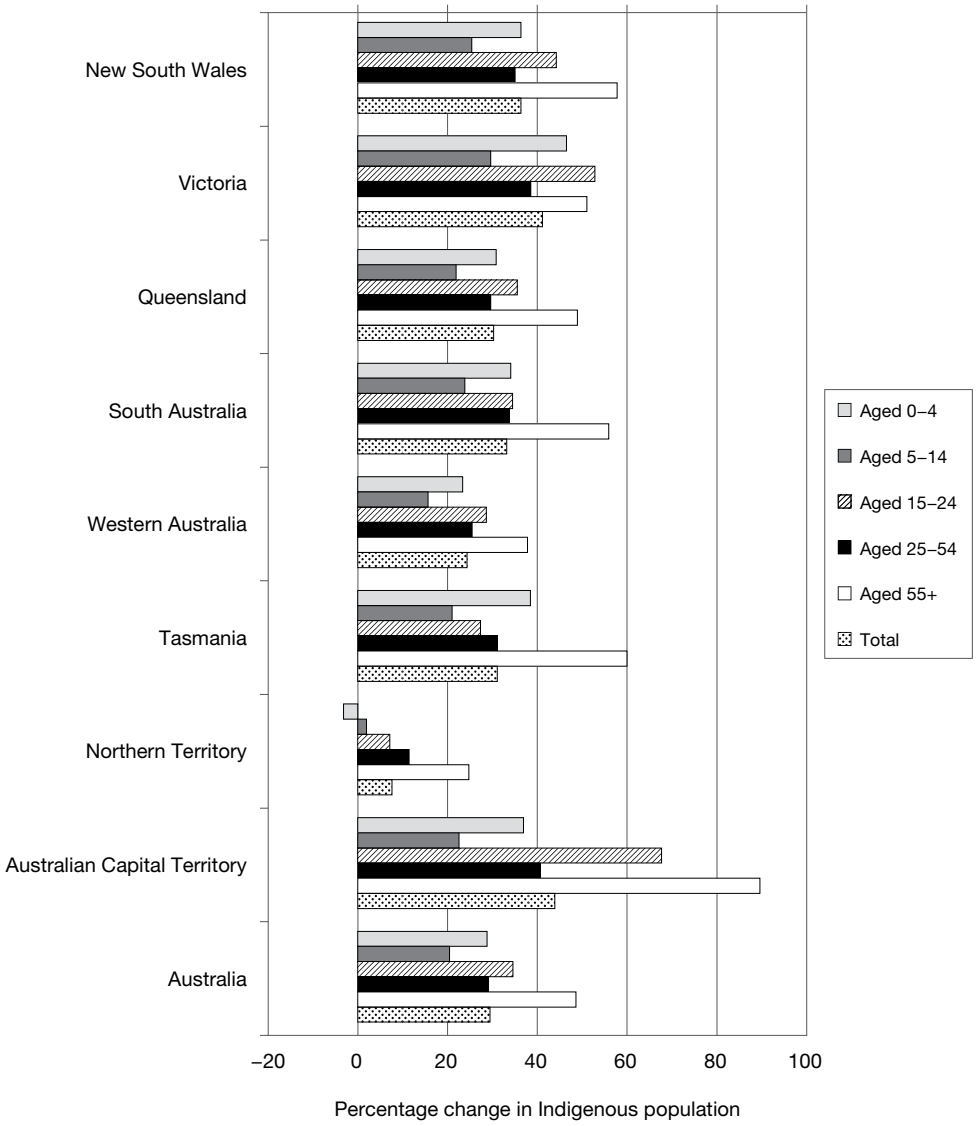
The Australian Bureau of Statistics (ABS) attempts to control for some of these errors through the estimated resident population or ERP. In 2006, the ERP for the Indigenous population was around 517,000 or 13.6 per cent higher than the number of people who identified as being Indigenous in the census. By 2011, the preliminary ERP had increased to around 670,000, which was 22.1 per cent higher than the population count. It might initially appear that a significantly higher proportion of Indigenous Australians were missed from the 2011 Census compared to the 2006 Census. It is equally plausible, however, that the 2006 Census counts should have been adjusted upwards to a much greater extent.

Whatever the reason, the ABS's best estimate of the number of Indigenous Australians in 2011 is 29.5 per cent higher than the best available estimate of the population in 2006. However, as shown in Figure 1, the change in population estimates has not been consistent across age groups or across jurisdictions. The figure looks at the change in the Indigenous population estimate between 2006 and 2011 for five age groups (as well as the total Indigenous population) across the eight Australian States and Territories. The final set of results looks at the change in the count for Australia as a whole, which includes Other Territories.

Looking by State or Territory, the fastest rate of growth was in the Australian Capital Territory (44.0% over the period), Victoria (41.2%), New South Wales (36.5%), South Australia (33.3%), Tasmania (31.2%) and Queensland (30.4%). Western Australia (24.4%) grew at a slightly slower rate than the Australia average, with the Northern Territory (7.6%) growing very slowly over the period.

For all jurisdictions, it was the population group aged 55 years and over that grew the fastest (in relative terms) over the period. Nationally, there were 48.7 per cent more Indigenous Australians aged 55 years and over in 2011 than in 2006. The Australian Capital Territory, and to a lesser extent New South Wales and Tasmania, all saw an even more rapid ageing of the Indigenous count. Growth in the other age groups was not as consistent. In Victoria, there was a 46.6 per cent increase in the population aged 0–4 years. In the Northern Territory, on the other hand, there was actually a decline in this age group (–3.2% over the period).

Figure 1. Percentage change in Indigenous population estimates, 2006–11



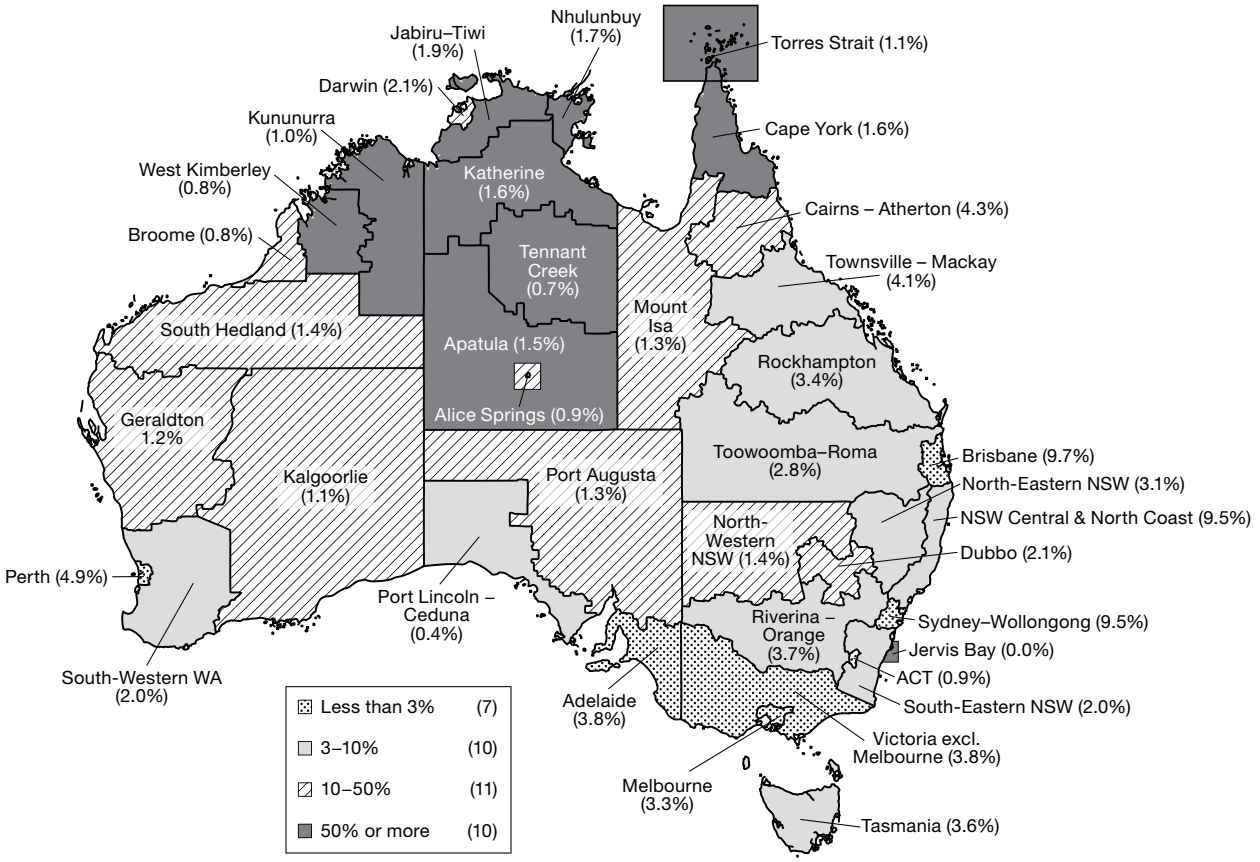
Source: Customised calculations based on the 2006 and 2011 Censuses.

Two general trends emerge from Figure 1. In 2011, the population who identified as being Indigenous was older and more likely to live in the eastern coastal states than the population who identified as being Indigenous in 2006.

While the trends identified at the jurisdictional and regional level are important for broad policy settings, the reality is that many Indigenous policies are delivered locally to individual regions or communities. There is also significant variation in a number of outcomes within jurisdictions and even within smaller regional classifications. For example, in an analysis of 2006 Census data, Biddle (2009) showed that there were a number of suburbs within Sydney that had socioeconomic outcomes that were as disadvantaged as a number of remote or regional towns. For this reason, analysis in this series also looks at changes in outcomes at the regional and community level.

To undertake analysis at the regional and local level, the papers in this series utilise the Australian Indigenous Geographic Classification (AIGC). The AIGC is a four-level structure that builds up from the Statistical Area Level 1, which is common to both the AIGC and the Australian Statistical Geography Standard. The next level above the Statistical Area Level 1 in the AIGC is Indigenous Locations, of which there were 1,116. The next level above Indigenous Locations are Indigenous Areas, of which there were 429. This number lowers to 411 substantive

Figure 2. Percentage of Indigenous Region census who were estimated to be Indigenous (shading) and percentage of total count of Indigenous Australians (text), 2011



Source: Customised calculations using the 2011 Census.

areas after excluding administrative codes representing those in a particular State or Territory who did not give any additional detail on their place of usual residence, or who were migratory on the night of the census.

The most aggregated level of geography in the AIGC is Indigenous Regions. There were 57 of those in the 2011 version of the AIGC. After excluding administrative regions and the Christmas–Cocos (Keeling) Island Region (which has very few Indigenous Australians), this leaves 38 Indigenous Regions used in the analysis for this series. Figure 2 gives the name and location of each of these regions. The shading for the regions refers to the percentage of the population in the region who were estimated to be Indigenous, ranging from less than the national average (3.0%) in the dotted areas to more than half of the population (the darkest shading). The numbers after the Indigenous Region name refer to the percentage of the total Indigenous population count who identified that region as their place of usual residence on the night of the census.

There are two key points that emerge from Figure 2. First, it is in relatively remote regions that the share of the population who identify as being Indigenous is highest. There are 10 regions where more than half of the population counted in the 2011 Census identified as being Indigenous, with the Torres Strait (84.8%), Apatula (80.5%) and Jabiru–Tiwi (79.3%) all having more than three out of every four usual residents being Indigenous.

While it is remote regions in north, central and western parts of the country that have the highest percentage of the population being Indigenous, the regions with the greatest absolute number of Indigenous Australians are in the south and the east of the country. The Brisbane, New South Wales Central and North Coast, and Sydney–Wollongong regions all have an Indigenous population estimate of 60,000 or more, whereas most of the remote regions have populations of around 10,000 Indigenous Australians or less. In essence, the Indigenous population in 2011 was estimated to be relatively remote (in comparison to the non-Indigenous population), but in absolute terms quite urban.

It is often overlooked that the full name of the Australian census is the 'Census of Population and Housing' and that the aim is not only to count the number of people in Australia at a particular point in time, but also the number of dwellings or households. These dwellings are classified into two broad types—private dwellings and non-private dwellings. The latter includes hotels or motels, boarding schools, hospitals and corrective institutions.[1] According to the 2011 Census, 26,124 Indigenous Australians (or 4.8% of the Indigenous population) were counted in non-private dwellings. This is somewhat higher than the 3.0 per cent of the non-Indigenous population who live in such dwellings.

There are not only differences by Indigenous status in the proportion of the population in non-private dwellings, but also differences in the age distribution. For both populations, the proportion of the population aged 0–14 years in non-private dwellings is quite low—1.6 per cent for the Indigenous population and 0.7 per cent for the non-Indigenous population. However, while the proportion for the non-Indigenous population increases consistently across the lifecourse, reaching a peak of 5.3 per cent for those 55 years and over, for the Indigenous population the highest proportion is amongst those aged 25–54 years (6.7%). Although there is only are small decline into the group aged 55 years and over (6.4%), the different age distribution highlights the different reasons for living in a non-private dwelling, with boarding schools and corrective institutions taking on much greater importance for the Indigenous population.

The ABS classifies private dwellings into those that have at least one usual resident who identifies as being Indigenous (identified in this paper as being an 'Indigenous household') and those without any Indigenous usual residents ('other households'). The 522,247 Indigenous Australians in a private dwelling at the time of the 2011 Census were spread across 209,050 Indigenous households, with the remaining 7,551,275 households not having any Indigenous usual residents.

Unfortunately, it is not possible to identify the housing characteristics of Indigenous Australians using the publically available census data. One can only look at the characteristics of Indigenous households. This is a significant limitation (which I will return to in the concluding section), as Indigenous people tend to live in houses with a much greater number of usual residents. Outputting data by households will therefore tend to understate the number of people who are exposed to things like overcrowding and income-related housing stress.

1. See <http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/2901.0Chapter7402011>.

3. Housing utilisation and overcrowding

One of the difficulties in measuring variation in overcrowding across population subgroups (for example Indigenous compared to non-Indigenous Australians) or across different regions in Australia is that standards and preferences are unique to individuals and the households in which they live. That is, measures of housing utilisation that may be relevant in one context may not be relevant in other contexts. Compared to specially targeted housing surveys or qualitative interviewing techniques, measures of overcrowding derived from pre-existing statistical collections like the census are likely to only give partial measures of overcrowding. A measure that is used consistently across populations and regions will include people who may subjectively feel that their housing situation does not constitute overcrowding despite being measured as such. Equally, a proportion of the population are likely to subjectively feel that they are living in an overcrowded household because of their particular circumstances but may not be captured in standard measures.

These important caveats aside, the most comprehensive and widely used measure of overcrowding available in the census is a specially constructed variable of housing utilisation that is derived from a number of census variables, including the age and sex of occupants and their relationship within the household. Following this Canadian National Occupancy Standard, it is assumed that the bedroom requirements of a household are such that:

- there should be no more than two persons per bedroom;
- children less than five years of age of different sexes may reasonably share a bedroom;
- children five years of age or older of opposite sex should have separate bedrooms;
- children less than 18 years of age and the same sex may reasonably share a bedroom, and
- single household members 18 years of over should have a separate bedroom, as should parents or couples (ABS 2003).

In this paper, households that were estimated to not meet these requirements were deemed to be overcrowded. According to the 2011 Census, 11.8 per cent of Indigenous households were estimated to live in a dwelling that needed one or more extra bedrooms, substantially higher than the rate for other households (3.2%). The rate for the

Table 1. Overcrowding of Indigenous households, levels, change through time and comparisons with the non-Indigenous population, 2006–11

Indigenous Region	Overcrowded Indigenous households in 2011			Change in overcrowding from 2006–11	
	Number	Per cent	Ratio	Per cent	Ratio
Dubbo	352	8.2	5.5	–10.2	15.9
North-eastern New South Wales	588	8.9	4.9	–19.0	–13.1
North-western New South Wales	297	11.0	6.1	–28.7	–7.5
New South Wales Central & North Coast	2,165	9.4	4.3	–10.7	–5.4
Riverina–Orange	671	7.9	4.6	–10.9	–1.0
South-eastern New South Wales	364	7.8	4.3	–10.8	–6.1
Sydney–Wollongong	2,315	9.6	1.7	3.1	–6.6
Melbourne	740	8.2	2.2	–8.5	–14.7
Victoria exc. Melbourne	762	8.2	4.1	–12.3	–6.9
Brisbane	2,176	8.9	3.4	–10.2	–14.7
Cairns–Atherton	1,340	17.6	7.0	–19.4	–2.7
Cape York	625	32.7	7.8	–2.4	13.1
Mount Isa	448	22.3	6.4	–14.1	–13.5
Rockhampton	785	10.6	4.4	–17.9	–5.7
Toowoomba–Roma	613	10.5	5.3	–14.7	–2.8
Torres Strait	286	20.4	5.1	–16.1	–25.6
Townsville–Mackay	1,096	13.9	5.6	–16.1	–3.4
Adelaide	752	8.0	3.5	–11.7	–17.1
Port Augusta	356	16.1	10.1	–21.6	–19.9
Port Lincoln–Ceduna	112	15.4	9.1	–10.7	–2.7
Broome	253	21.1	4.0	–18.9	–13.3
Geraldton	262	13.6	7.2	–11.7	–1.0
Kalgoorlie	285	19.0	9.0	–8.6	–14.2
Kununurra	417	36.9	8.0	–16.8	–0.9
Perth	906	9.3	4.7	–5.7	–27.7
South Hedland	352	19.0	5.6	–20.4	–29.9
South-western Western Australia	346	8.8	6.3	–12.9	–7.1
West Kimberley	280	32.9	10.6	0.4	2.3
Tasmania	565	6.0	2.9	–16.4	–9.2
Alice Springs	237	16.3	4.1	–24.2	–51.7
Apatula	646	50.1	11.4	–9.6	6.3
Darwin	567	13.5	2.8	–16.0	–22.5
Jabiru–Tiwi	888	56.1	10.2	1.5	–20.6
Katherine	663	42.5	10.4	–17.1	3.1
Nhulunbuy	740	66.2	34.8	–3.3	73.2
Tennant Creek	294	42.8	22.5	11.4	24.7
Australian Capital Territory	156	6.4	3.0	16.4	1.3
Jervis Bay	7	12.7			
Australia (total)	24,668	11.8	3.7	–13.2	–17.8

Source: Customised calculations based on the 2006 and 2011 Censuses.

Indigenous households represents a significant decline compared to 2006 data (13.6%). Furthermore, as there was a slight increase for the non-Indigenous population (up from 3.0%), the gap between the two populations declined over the last intercensal period from being 4.5 times as high in 2006 to 3.7 times as high in 2011. While this still represents a significant level of housing disadvantage, at least the rate is moving in the right direction.

For a number of reasons though, this national picture obscures rather than enlightens with regards to Indigenous housing need. First, housing policy tends to be managed at the State or Territory, regional and local level. For that reason, when evaluating the potential effects of government policy with regards to housing, it is necessary to disaggregate the data even further. Second, the previous section of the paper showed that the Indigenous population grew substantially over the 2006–11 intercensal period and that this growth occurred primarily in the east and south of the country. If the regions with large population increases (due to changes in identification) were those with relatively low levels of overcrowding, then improvements in relative overcrowding may reflect more people identifying in the areas where need is lowest, rather than need being reduced for the existing Indigenous population. For these two reasons, I look in more detail at measures of housing utilisation and overcrowding at lower levels of geography than simply for Australia.

I undertake the analysis by looking at the level of overcrowding at the level of Indigenous Region. For each of the 38 Indigenous Regions presented earlier in Figure 2, I give the number of Indigenous households which were deemed to be overcrowded based on the Canadian Occupancy Standard, as well as the percentage of total Indigenous households that these represent. The third column in the table looks at the ratio of the percentage of Indigenous households to other households deemed to be overcrowded. The final two columns of the table look at the change in the percentage of Indigenous households deemed to be overcrowded between 2006 and 2011, as well as the change in the Indigenous/other household ratio respectively.

There are three main results of interest from Table 1. First, the regions with the highest absolute number of Indigenous households needing additional bedrooms were in the east and south-east of the country. Together, 27.0 per cent of all Indigenous households that were deemed to need an additional bedroom were in the three regions running from Sydney–Wollongong to north-eastern New South Wales and up to Brisbane. That is about 1.65 times as many households as in the whole of the Northern Territory, and 0.8 times as many as the whole of the Northern Territory, South Australia and Western Australia combined.

The policy response to overcrowding will be quite different in urban compared to regional or remote parts of the country. In urban areas, reductions in Indigenous overcrowding will probably need to come from improved access to the existing housing stocks, either through improvements in household income or targeted assistance. In regional areas and even more so in remote areas, improvements will probably need to come from additions to the housing stock itself. Nonetheless, the results presented in Table 1 clearly show that Indigenous housing need is not confined to remote Australia or the Northern Territory.

Despite the high level of absolute need for additional houses in urban parts of the country, Table 1 demonstrates that relative need is greatest in remote regions. This is true both in terms of the percentage of Indigenous households requiring additional bedrooms and those percentages relative to other households. Around two-thirds of Indigenous households in Nhulunbuy were deemed to require additional bedrooms to meet the occupancy standard, with more than half of Indigenous households in Jabiru–Tiwi and Apatula also identified as being overcrowded. In these regions, overcrowding is the norm, rather than an isolated incident. The latter is the case for the total Australian population. The Northern Territory was not the only jurisdiction with high concentrations of overcrowding—more than a quarter of houses in Cape York, Kununurra and West Kimberley were estimated to require additional bedrooms.

The third and final point to note from Table 1 is that most regions experienced a decline in overcrowding over the last intercensal period. In some regions, like north-western New South Wales and Alice Springs, the declines were quite substantial, with the gap in overcrowding between Indigenous and other households declining in 29 of the 37 regions. There were some exceptions to this general trend. In Sydney–Wollongong, West Kimberley, Jabiru–Tiwi, Tennant Creek and the Australian Capital Territory a greater percentage of Indigenous households were deemed to be overcrowded in 2011 than in 2006. In other regions (in particular Nhulunbuy), overcrowding was reduced for other households at a faster rate than for Indigenous households, meaning that the ratio of the two worsened. Nonetheless, nationally and for most regions, things do appear to be moving in the right direction in terms of overcrowding.

While insightful, there are a number of limitations to the data on housing need in the census, especially with the data made publicly available. First, we do not know the full scale of the issue or how it varies by region. The number of people usually resident in a private dwelling is top-coded at eight or more people. This is probably a reasonable restriction for the non-Indigenous population. However,

other sources of data (like the Longitudinal Study of Indigenous Children) show that there is a sizeable minority of households with more than eight usual residents. Apart from the convenience of processing, it is unclear why it is possible to identify dwellings with 30 or more bedrooms, but not how many usual residents there are in the most overcrowded of Indigenous households.

Related to this limitation, the only information on overcrowding is in the Indigenous Community Profiles[2] through the percentage of a given area requiring at least one additional bedroom. It is not possible to identify the number of additional bedrooms required. It is likely that this additional information would be useful for planning purposes, especially at the local level.

A final limitation is that overcrowding data is only available (publicly at least) at the household level. There is clearly benefit in knowing the number of dwellings that are overcrowded. However, it is also important to know the number and characteristics of people who live in the overcrowded dwellings. It is this type of information that captures the experience of Indigenous overcrowding.

4. Housing tenure

The previous section showed substantial differences across Indigenous Regions in terms of the extent of overcrowding experienced by Indigenous Australians. Clearly, there is a disparity in terms of access to adequate housing for the Indigenous population. On average though, there was improvement between 2011 and 2006 in the level of overcrowding for the population identified as being Indigenous, both in absolute terms and relative to the non-Indigenous population.

There was also significant change in the housing market to which Indigenous Australians had access in 2011. Leaving aside those in 'other' housing tenures and those who did not state their tenure type, the most common tenure type for households with an Indigenous usual resident was owning or purchasing the home. Around 39.4 per cent of Indigenous households lived in this tenure type, a slight increase from 2006 (38.2%). The next most common tenure type was those who rented in the private rental market, which made up 31.9 per cent of Indigenous households in 2011, a significant rise from the 29.8 per cent who recorded that tenure type in 2006.

Of those who were living in public or community housing, the most common tenure type was State or Territory housing. Around 23.6 per cent of Indigenous households lived in this tenure type in 2011, somewhat higher than the 22.3 per cent in 2006. The only tenure type that declined over the last intercensal period was community housing, which went from 9.7 per cent of the Indigenous population in 2006 to 5.2 per cent of the population in 2011.

Unlike the data in the previous section where reductions in overcrowding can for the most part be interpreted as a positive change, it is a little bit more difficult to place a normative interpretation on changes in housing tenure. While home ownership is seen by many as the ideal form of housing tenure, there are potentially a number of positive aspects to the other tenure types. That is not to say there are no potential positive benefits of home ownership. For example, Boehm and Schlottmann (1999) found a significant association between parents' home ownership and the educational attainment of children in the household. Importantly, these results hold using longitudinal data and after controlling for other factors. These and other social benefits (summarised in Dietz & Haurin 2003), generally ascribed to more stable housing tenure, are of course in addition to the wealth-generating effects from potential capital gains.

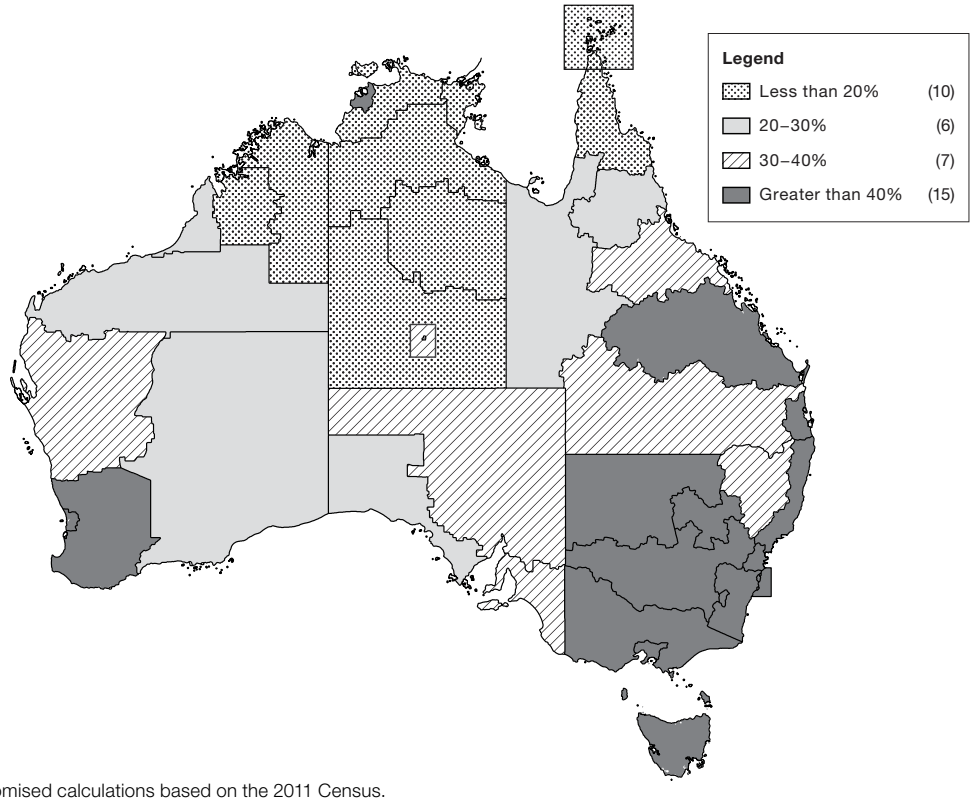
While there are no longitudinal data yet available for the Indigenous population on the links between home ownership and Indigenous educational attendance, Biddle (2007) found an association between these variables in Indigenous youth aged 15–17 using non-longitudinal data. While it is not possible to establish causation with cross-sectional information, any increases in home ownership may be associated with education participation, whether it be directly or indirectly. These and other social benefits must also be weighed against the benefits that a number of people report from communal land holdings, especially in the more remote regions in which this type of tenure dominates. This notwithstanding, home ownership can be used as an indicator of wealth for the Indigenous population, especially in cities and other urban or regional areas.

Figure 3 shows the geographic distribution of Indigenous households that either own or are purchasing their own house. These household types are presented as a proportion of all Indigenous households in the area after excluding those that do not state their tenure type or those that are in an 'other' tenure type.

This figure shows a very clear geographic distribution of Indigenous home ownership. The Indigenous Regions with the greatest level of home ownership (more than 40%) were those in New South Wales, Victoria, Tasmania, the Australian Capital Territory, south-east Queensland and southern

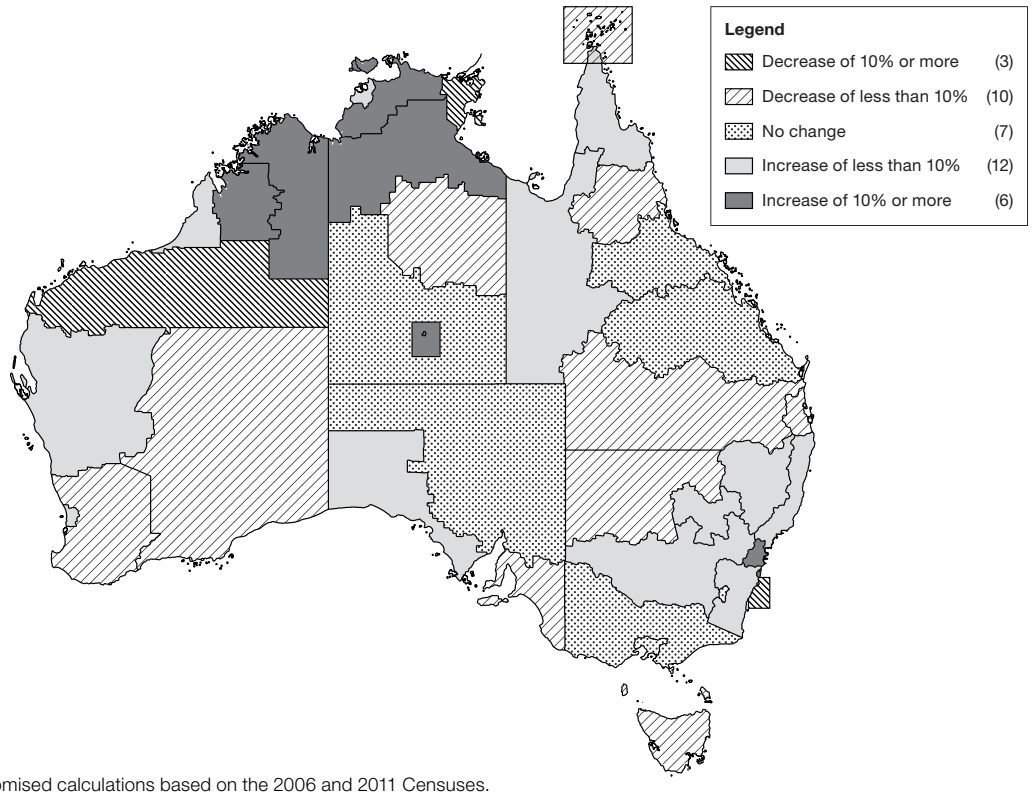
2. See <http://www.censusdata.abs.gov.au/CensusOutput/copsub.NSF/All%20docs%20by%20catNo/2011~Community%20Profile~0/$File/IP_0.zip?OpenElement>.

Figure 3. Percentage of Indigenous households in owner-occupied dwellings



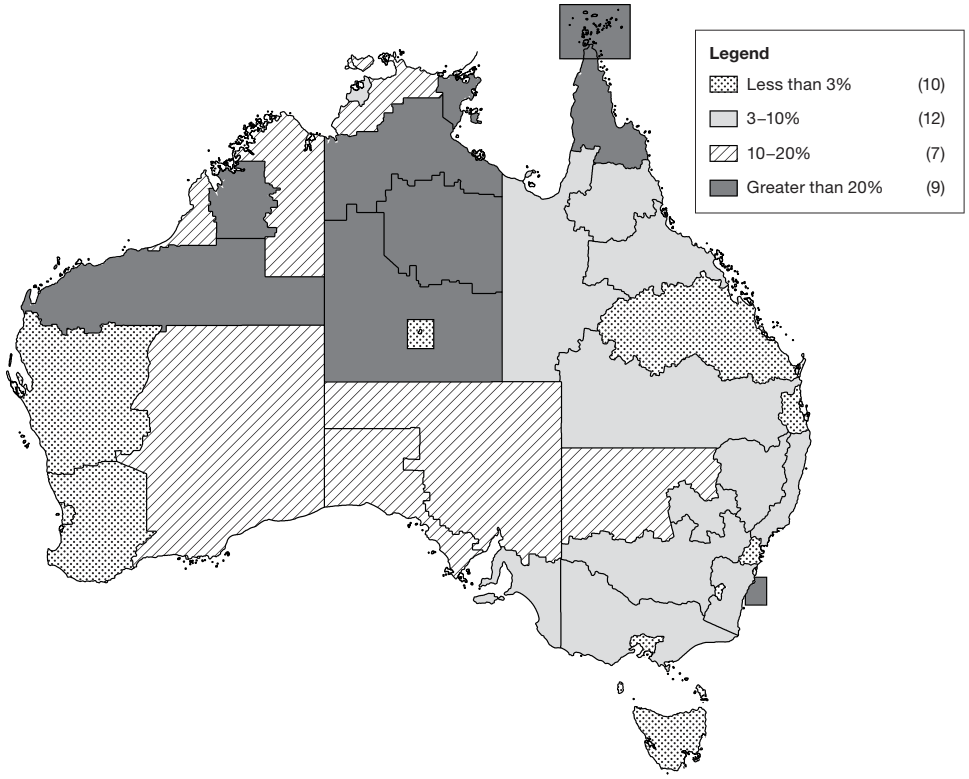
Source: Customised calculations based on the 2011 Census.

Figure 4. Change in the percentage of Indigenous households in owner-occupied dwellings between 2006 and 2011



Source: Customised calculations based on the 2006 and 2011 Censuses.

Figure 5. Percentage of Indigenous households in community housing



Source: Customised calculations based on the 2011 Census.

Western Australia. Most of the Northern Territory, on the other hand, had relatively low levels of home ownership, with Darwin being the major exception.

While there was a distinct pattern of home ownership across Australia, this hides a more diffuse pattern of change through time. This is demonstrated in Figure 4, which gives the change in the percentage of Indigenous households in the region who lived in an owner-occupier dwelling between 2006 and 2011. Dark shaded regions are those with the greatest increase (more than 10% increase) whereas dark hatched regions experienced the greatest decrease (more than 10% decline). Lighter shaded and hatched regions experienced a more moderate increase or decrease (respectively) over the period, whereas dotted regions experienced only a negligible change (between –1 and +1%).

Results presented in Figure 4 show that, with the exception of Sydney, the regions with the most rapid increase in home ownership over the last intercensal period were in the Northern Territory (including Alice Springs) and northern Western Australia. There were, however, exceptions in both jurisdictions. There was a significant decline in home ownership in Nhulunbuy (albeit from quite a low base) and in South Hedland. While not as large in percentage terms, there were also declines in a number of urban areas including Adelaide and Brisbane.

Biddle (2011) considered the relationship between a range of housing variables and two measures of subjective wellbeing—whether or not a person felt happy in the last four weeks all or most of the time (happiness), and whether or not they felt so sad that nothing could cheer them up at least a little bit of the time over the same period (sadness). In that analysis, it was shown that, after controlling for a range of demographic and socioeconomic characteristics, those Indigenous Australians who lived in overcrowded households or in houses with major structural problems or facilities that were not working had relatively low levels of subjective emotional wellbeing. These findings are not surprising. Nor was it surprising that those who lived in a house that was owned or being purchased by the usual residents had higher levels of wellbeing (based on the aforementioned measures).

What is a little surprising from the analysis in Biddle (2011) is that those Indigenous Australians who lived in a house rented from a community organisation were significantly more likely to report that they were a happy person all or most of the time in the previous four weeks than owner-occupiers. Importantly, these results were found

after controlling for age, sex, remoteness, marital status, employment, education, self-assessed health and the experience of physical or threatened violence. While the difference is not large and community renters are more likely to report intense feelings of sadness than owner-occupiers, the results presented in Biddle (2011) do point to some potential positive benefits of community housing. This is especially the case when compared to private rental or renting from a State or Territory agency. Chief amongst these potential benefits is a more stable housing situation and dealing with landlords that are more sensitive to Indigenous needs (Sanders 2005).

Figure 5 demonstrates a distribution of community housing that is in many ways the reverse of the home ownership distribution shown in Figure 3. Once again, the percentage of Indigenous households in the region with that particular tenure type is given. However, to show variation across the regions, lower cut-offs are used for the region groupings in the case of community housing than for the home ownership that was presented in Figure 3.

This figure shows that the regions with the highest level of community rental were in remote Northern Territory as well as Cape York and the Torres Strait Islands in Queensland, and South Hedland and West Kimberley in Western Australia. Mirroring the national trends, most regions experienced a decline in community housing. However, there were a few regions that experienced a significant positive increase. All of these were in relatively urban parts of the country and from a reasonably low base. Renting from a community organisation was a much more common occurrence for Indigenous households in 2011 than it was in 2006 in places like Sydney–Wollongong, Victoria (excluding Melbourne), Perth, Tasmania and the Australian Capital Territory.

5. Homelessness

Perhaps even more than the measures of housing utilisation outlined in Section 3 of this paper, one of the most acute measures of housing need in a region or area is the number of people who are currently homeless. However, while those who at a particular point of time are without adequate shelter constitute one aspect of being homeless, the term is usually used more broadly. The ABS in their 'Statistical Definition of Homelessness' use the following definition:

> When a person does not have suitable accommodation alternatives they are considered homeless if their current living arrangement:
>
> - is in a dwelling that is inadequate; or
> - has no tenure, or if their initial tenure is short and not extendable; or
> - does not allow them to have control of, and access to space for social relations (ABS 2012a: 8).

Based on this conceptual definition, the ABS has developed a set of six 'Operational Groups' for those enumerated in the census who could be classified as being homeless. These are:

- Persons living in improvised dwellings, tents, sleepers out;
- Persons in supported accommodation for the homeless;
- Persons staying temporarily with other households;
- Persons living in boarding houses;
- Persons in other temporary lodging; and
- Persons living in 'severely' crowded dwellings (ABS 2012a: 9).

Unfortunately, the way in which data is currently made available makes it very difficult to assess the number of Indigenous people in these categories. Not only is there no data on the last of these categories, the second through to the fifth categories refer to non-private dwellings. Dwelling information is only available at the household level and it does not make conceptual or practical sense to categorise a non-private dwelling as an Indigenous or other household. In the absence of housing information at the individual level, researchers are therefore required to purchase customised data from the ABS as opposed to being able to construct and manipulate the data themselves.

Even using the first of the operational groups, there is no doubt that homelessness is underestimated in the census. Those Indigenous (and other) Australians who are most likely to be missed from the count are precisely those who are likely to be experiencing one of the these forms of homelessness. Despite the best efforts of ABS collectors, many people who are homeless are likely to be missed in the census.

These limitations notwithstanding, according to the 2011 Census, there were 561 Indigenous households that were identified as living in improvised homes, tents or sleepers out. Although some of the people in these

households are likely to be non-Indigenous, multiplying the number of households by the number of people in the household gives an upper estimate of the number of Indigenous people in such dwellings that were counted in the census. Doing so leads to an estimate of 1,223 people in Indigenous households that were (on the night of the census) living in improvised homes, tents or sleepers out.

The majority of these people counted in this type of homelessness in Indigenous households were living in the Northern Territory (720 in total). In particular, Darwin (321 people), Alice Springs (105 people) and Katherine (99 people) had a high number of homeless people by this definition. Outside of the Northern Territory, estimates were high in Cairns–Atherton (104 people) and South Hedland (88 people).

The above estimate of 1,223 people in Indigenous households is substantially lower than the estimates for 2006 of 2,094 Indigenous people in improvised dwellings, tents or sleeping out (ABS 2012b). This decline more than likely represents limitations in the publicly available data rather than any real change through time (though this may also have occurred). We will not know for sure until the 2011 homelessness estimates are made available on 12 November 2012.

The ABS (2012a: 16) notes that, in addition to homeless youth and those displaced due to domestic and family violence, 'census variables provide limited opportunity to estimate' those Indigenous Australians who are likely to be homeless. Part of this is due to high levels of underenumeration, whereby many Indigenous Australians are missed from the census. However, the ABS (2012a) also notes that there are conceptual issues in the way in which homelessness is viewed in some Indigenous communities compared to the rest of the population. In the further research that the ABS is conducting in terms of the definition of homelessness and its relevance for Indigenous Australians, they should also consider the way in which the data is output.

6. Household income and housing costs

Even those who live in dwellings that are not overcrowded and occupied under an individual's preferred tenancy arrangement may be considered potentially disadvantaged if, in order to do so, they need to spend a large proportion of their income on housing costs. While policymakers are likely to be relatively unconcerned about high income households that spend a large proportion of income on housing (under the assumption that this is a consumption choice they are making), there is likely to be more concern about those households with relatively low incomes but relatively high housing costs. Such households are often classified as being under housing stress.

While the concept of housing stress has intuitive appeal, it is quite difficult to operationalise. In the absence of direct questions on a person's subjective view of their housing situation, it is necessary to make assumptions about the cut-off for low income and for high housing expenditure as a proportion of income. This is particularly difficult when using the census, as both income and housing costs are measured in ranges. Nonetheless, I follow the strategy outlined in Harding, Phillips and Kelly (2004)—with some modifications—to take into account the limitations of census data. Where needed, these modifications err on the side of including people as being under housing stress rather than excluding them.

Specifically, I define 'low income' as any household with an income that is in or below the income category ($1,000–$1,249 per week) that contains the median household income in 2011 ($1,234). This is slightly higher than the cut-off used by Harding, Phillips and Kelly (2004), who used the bottom 40 per cent of the income distribution as the cut-off. However, they had access to disposable income as opposed to gross personal income. It was felt that although disposable income and gross income are highly correlated, there is still some variation around the edges. In order not to exclude individuals who might otherwise be classified as having low income, a more inclusive cut-off was used.

Table 2. Mortgage and rental categories for which households are classed as being potentially under housing stress, by household income

Gross household income range ($ weekly)	Mortgage payment range ($ monthly)	Rental payment range ($ weekly)
Negative	$1–149	$1–74
Nil	$1–149	$1–74
$1–199	$1–149	$1–74
$200–299	$300–449	$75–99
$300–399	$450–599	$100–124
$400–599	$600–799	$150–174
$600–799	$800–999	$200–224
$800–999	$1,000–1,199	$250–274
$1,000–1,249	$1,400–1,599	$325–349

Source: Customised calculations based on the 2006 and 2011 Censuses.

Having identified those in the low income census categories, the next step was to identify those who spent 30 per cent or more of their income on housing costs (including rent or mortgage). To do this, 30 per cent of the mid-point of each of the income categories was identified. The next step was to identify the range for the mortgage repayment (adjusted to make it weekly) or rent that included that value. All households that fell within that range or had a higher mortgage or rental payment were deemed to be in housing stress. Table 2 gives the lowest mortgage and rental category for which a household with a particular income range would be classified as being potentially under housing stress.

Clearly, calculations of housing stress using the census are very imprecise. Alongside a lack of data on subjective notions of financial stress, it is also necessary to use grouped household income data that is itself a summation of grouped individual data. Furthermore, although continuous mortgage and rental payment data is available on the census, due to the way in which data on small populations is confidentialised in census outputs, it is necessary to use grouped data for housing costs as well. As such, more attention should be paid to the relative rates of housing stress (between Indigenous and other households or by geography) as opposed to the levels.

Looking first at income, median gross household income for Indigenous households was $991 per week compared to $1,241 for other households. Quite clearly, there are more Indigenous households with low income relative to other households (the first threshold for housing stress). However, median mortgage repayments were slightly lower for Indigenous owner-occupier households compared to other owner-occupier households ($1,647 per month compared to $1,800), as were rental payments for households who were in a rental house ($195 per week for Indigenous households compared to $290 per week for other households).

Despite these somewhat lower housing payments for the Indigenous population (and with the caveats mentioned earlier kept in mind), data from the 2011 Census nonetheless shows a relatively high level of housing stress amongst Indigenous households. Of the roughly 144,000 Indigenous households with sufficient information on household income and housing costs, 32.9 per cent were estimated to be potentially under housing stress. This is substantially higher than the 26.7 per cent of other households who fall into this category.

There are some differences across tenure type. Amongst Indigenous households that are renting, 36.8 per cent were estimated to be potentially under housing stress. This is actually a little bit lower than the estimate for other households (37.9%). Those Indigenous households that are owner-occupiers had a lower estimated rate of housing stress (22.8%) than Indigenous households that are renting, but a higher rate than other households that were owner-occupiers (17.2%). The high rates of Indigenous housing stress are mainly driven by the fact that Indigenous households are more likely to be renters

Table 3. Potential housing stress for Indigenous and other households by tenure type and Indigenous Region

Indigenous Region	Renters		Owner-occupier		All households	
	Indigenous	Other	Indigenous	Other	Indigenous	Other
Dubbo	35.4	28.9	28.1	17.3	33.8	22.6
North-eastern New South Wales	40.9	34.0	25.3	17.5	37.7	25.6
North-western New South Wales	26.6	21.0	31.7	15.4	27.8	18.4
New South Wales Central & North Coast	49.3	47.0	21.6	19.7	40.6	32.3
Riverina–Orange	40.0	34.0	19.0	17.5	34.6	25.2
South-eastern New South Wales	46.2	41.6	27.8	19.0	41.7	28.8
Sydney–Wollongong	42.5	37.9	15.0	16.4	34.4	26.7
Melbourne	41.9	38.0	18.2	18.5	34.5	27.0
Victoria exc. Melbourne	41.6	37.3	20.3	20.0	35.9	27.2
Brisbane	42.7	41.4	17.6	16.3	35.3	28.3
Cairns–Atherton	35.9	40.3	29.2	20.5	35.0	30.8
Cape York	9.5	13.4	45.3	33.3	15.5	20.5
Mount Isa	15.2	11.6	28.9	12.1	18.9	11.8
Rockhampton	37.5	34.3	21.5	16.7	33.9	25.8
Toowoomba–Roma	34.9	37.5	27.3	19.6	33.4	28.3
Torres Strait	7.4	6.5	43.1	43.8	15.8	28.1
Townsville–Mackay	30.2	32.2	21.0	13.0	28.2	22.5
Adelaide	41.6	39.6	19.8	18.7	35.6	27.8
Port Augusta	27.2	25.7	36.1	16.2	29.6	21.3
Port Lincoln–Ceduna	26.4	28.0	35.8	20.2	30.8	24.4
Broome	19.4	16.0	42.0	25.8	27.1	18.6
Geraldton	30.7	27.9	33.9	15.9	31.6	22.4
Kalgoorlie	21.0	17.3	40.7	9.9	27.4	13.9
Kununurra	9.6	6.6	42.1	31.3	18.5	14.4
Perth	40.1	35.5	14.3	13.8	32.1	22.7
South Hedland	12.3	3.9	33.3	14.6	17.3	5.4
South-western Western Australia	38.8	34.9	32.8	17.2	37.3	25.5
West Kimberley	10.8	4.6	38.2	41.1	19.9	21.9
Tasmania	41.8	41.5	20.1	18.6	33.5	28.6
Alice Springs	30.3	20.9	30.0	13.9	30.2	17.6
Apatula	9.2	2.6	40.2	36.0	17.8	16.5
Darwin	25.3	20.8	20.2	10.6	23.9	16.0
Jabiru–Tiwi	7.5	2.4	46.6	38.4	14.4	15.6
Katherine	9.0	7.0	31.1	29.4	14.3	14.0
Nhulunbuy	3.2	0.6	43.9	36.8	14.5	8.6
Tennant Creek	11.9	6.8	40.5	37.2	24.9	24.3
Australian Capital Territory	27.0	25.0	26.0	7.1	26.7	15.0
Jervis Bay	12.2	0.0	40.0	34.7	36.7	33.6
Australia (total)	36.8	37.9	22.8	17.2	32.9	26.7

Source: Customised calculations based on the 2011 Census.

than other households, as opposed to Indigenous renters having a higher rate of potential housing stress than other households.

Table 3 shows that potential housing stress varies substantially by Indigenous Region. The table contains six columns of results in total—three for Indigenous households and three for other households. For each of these household types, the rate of potential housing stress is given first for renters, then for owner-occupiers and finally for all households.

The region with the highest rate of potential housing stress was south-eastern New South Wales, followed by New South Wales Central and North Coast. In both of these regions, more than 40 per cent of households have a combination of low income and relatively high housing costs. In general, it would appear that non-remote regions outside of capital cities have the highest level of potential housing stress. In addition to the aforementioned regions, this includes north-eastern New South Wales, south-western Western Australia, Jervis Bay, Victoria exc. Melbourne, and Cairns–Atherton, all of which have a rate of 35 per cent or more. The large capital cities also have relatively high rates, while relatively remote regions have relatively low rates of potential housing stress.

Despite the diversity in rates of potential housing stress within Indigenous households, there are still higher rates of potential housing stress in the vast majority of regions. There are some exceptions. For example, the rate in the Torres Strait amongst Indigenous households is only a little over half of the rate of other households, with Cape York also having a relatively low ratio. Nonetheless, despite living in relatively cheap housing, relatively low household income means that, across most regions, housing stress falls more heavily on Indigenous households than other comparative ones.

7. Discussion

The analysis presented in this paper is in many ways an update to Biddle (2008). Some of the results indicate that the housing situation of the Indigenous population in 2011 had improved relative to the Indigenous population in 2006. A smaller proportion of Indigenous households were estimated to live in an overcrowded dwelling than Indigenous households in 2006. There were also significant increases in the percentage of Indigenous households that owned or were purchasing their own home. Unfortunately though, this increase has come at the expense of community housing as opposed to some of the other tenure types that were shown in Biddle (2011) to be associated with low levels of subjective wellbeing.

Despite these improvements—which it should be noted were also present relative to the non-Indigenous population—Indigenous households continue to experience a high degree of housing need. Compared to other households, Indigenous households were 3.7 times as likely to live in an overcrowded dwelling but only 0.52 times as likely to own or be purchasing their own homes. Furthermore, despite having lower rental and mortgage repayments, Indigenous households were estimated to be substantially more likely to be potentially under housing stress.

The geographic analysis in this paper showed that, perhaps even more so than in previous censuses, while levels of housing need were higher in remote regions, the weight of population means that it is in urban areas where the greatest number of overcrowded Indigenous households can be found. Any policy response to housing need would clearly reflect the fact that, for example, 66 per cent of Indigenous households in Nhulunbuy were living in an overcrowded dwelling. However, it would need to also reflect the fact that there were 1.65 times as many Indigenous households that were overcrowded in Sydney–Wollongong, north-eastern New South Wales and Brisbane as in the whole of the Northern Territory. Furthermore, in terms of potential housing stress, it is in regional parts of the country where rates are highest.

Ultimately, any response to Indigenous housing need will need to take into account the different circumstances in remote, regional and urban Australia. To do so, however, will require the best available data. It is a shame, therefore, that housing circumstances for individual Indigenous Australians are only available through customised tabulations from the ABS. These are both costly to the researcher and take up valuable time at the ABS to produce. In order to understand the interaction between demography, socioeconomic status and housing, the ABS should consider making data on the housing circumstances of individuals more widely available.

References

Australian Bureau of Statistics (ABS) 2003. *Australian Social Trends*, cat. no. 4102.0, ABS, Canberra.

—— 2012a. *Information Paper – Methodology for Estimating Homelessness from the Census of Population and Housing*, cat. no. 2049.0.55.001, ABS, Canberra.

—— 2012b. *Census of Population and Housing: Estimating Homelessness, 2006*, cat. no. 2049, ABS, Canberra.

Australian Institute of Health and Welfare (AIHW) 2005. *Indigenous Housing Needs 2005: A Multi-Measure Needs Model*, cat. no. HOU 129, AIHW, Canberra.

Bailie, R.S. and Wayte, K.J. 2006. 'Housing and health in Indigenous communities: Key issues for housing and health improvement in remote Aboriginal and Torres Strait Islander communities', *Australian Journal of Rural Health*, 14: 178–83.

Biddle, N. 2007. Does it Pay to Go to School? The Benefits of and Participation in Education of Indigenous Australians, PhD Thesis, ANU, Canberra, available at <http://thesis.anu.edu.au/public/adt-ANU20071008.152249/index.html>.

—— 2008. 'The scale and composition of Indigenous housing need, 2001–06', *CAEPR Working Paper No. 47*, CAEPR, ANU, Canberra.

—— 2009. 'Ranking regions: Revisiting an index of relative Indigenous socioeconomic outcomes', *CAEPR Working Paper No. 50*, CAEPR, ANU, Canberra.

—— 2011. 'Housing and households', Lecture 8, *Measures of Indigenous Wellbeing and Their Determinants Across the Lifecourse*, 2011 CAEPR Lecture Series, CAEPR, ANU, Canberra.

—— 2012. 'Longitudinal determinants of mobility – New evidence for Indigenous children and their carers', *Journal of Population Research,* 29 (2): 141–155.

Boehm, T.P. and Schlottmann, A.M. 1999. 'Does home ownership by parents have an economic impact on their children?', *Journal of Housing Economics*, 8: 217–32.

Dietz, R.D. and Haurin, D.R. 2003. 'The social and private micro-level consequences of home ownership', *Journal of Urban Economics*, 54: 401–50.

Gauldie, E. 1974. *Cruel Habitations: A History of Working Class Housing, 1780–1918*, Allen and Unwin, London.

Harding, A., Phillips, B. and Kelly, S. 2004. 'Trends in housing stress', Paper presented at the National Summit on Housing Affordability, 28 June 2004, Canberra, available at <http://www.housing.infoxchange.net.au/library/ahin/housing_policy/items/2004/07/00091-upload-00001.pdf>.

Human Rights and Equal Opportunity Commission 1996. 'Housing as a human right', Address by Chris Sidoti, Human Rights Commissioner, at the National Conference on Homeless Council to Homeless People, 4 September 1996, Melbourne.

Pholeros P., Rainow, S. and Torzillo, P. 1993. *Housing for Health: Towards a Healthy Living Environment for Aboriginal Australia*, Healthabitat, Newport Beach.

Sanders, W. 2005. 'Housing tenure and Indigenous Australians in remote and settled areas', *CAEPR Discussion Paper No. 275*, CAEPR, ANU, Canberra.

Taylor, J. and Bell, M. (forthcoming). 'Mobile people, mobile measures: Limitations and opportunities for mobility analysis', in B.H. Hunter and N. Biddle (eds), *Survey Analysis for Indigenous Policy in Australia: Social Science Perspectives*, CAEPR Research Monograph No. 32, ANU E Press, Canberra.

Thomson, H., Petticrew, M. and Morrison, D. 2001. 'Health effects of housing improvement: Systematic review of intervention studies', *British Medical Journal*, 323: 187–90.

Yap, M. and Biddle, N. 2012. 'Indigenous Fertility and Family Formation', Paper No. 2, *CAEPR Indigenous Population Project 2011 Census Papers,* CAEPR, ANU, Canberra.

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