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Overcrowding and severe overcrowding: an analysis of literature, data, policies and programs

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Preferred citation:

Brackertz, N., Davison, J., Borrowman, L. and Roggenbuck, C. (2019) *Overcrowding and severe overcrowding: an analysis of literature, data, policies and programs*, report prepared by AHURI Professional Services for NSW Department of Communities and Justice, Australian Housing and Urban Research Institute Limited, Melbourne.

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Acronyms and abbreviations used in this report

ABS	Australian Bureau of Statistics
ACHA	Assistance with Care and Housing for the Aged
AHURI	Australian Housing and Urban Research Institute Limited
AIHW	Australian Institute of Health and Welfare
ARHSEPP	State Environmental Planning Policy 2009 (Affordable Rental Housing)
BME	Black and Minority Ethnic
CHIP	Community Housing and Infrastructure Programme (now abolished)
CNOS	Canadian National Occupancy Standard (see Pages 1 to 2 for definition)
CNOS 4+	Severe overcrowding as defined by the ABS (persons in households needing an additional 4 or more bedrooms to meet CNOS standard)
CNOS 3	Other overcrowding as defined by the ABS (persons in households needing an additional 3 more bedrooms to meet CNOS standard)
DCJ	NSW Department of Communities and Justice [On 1 July 2019, the Department of Families and Community Services merged with the Department of Justice to form the Department of Communities and Justice.]
FACS	NSW Department of Family and Community Services (see note for DCJ)
HILDA	Household Income and Labour Dynamics Australia
OECD	Organisation for Economic and Cooperation and Development
NATSISS	National Aboriginal and Torres Strait Islander Social Survey
NHAD	National Housing Assistance Data
SLA3	Statistical Local Area level 3
SOMIH	State Owned and Managed Indigenous Housing
TPVs	Temporary Protection Visas

Glossary of terms

American Crowding Index	Most commonly used density measure of overcrowding in the United States. Defined as the number of persons per room. (See Appendix A for definition.)
Bedroom standard	Commonly used occupancy standard in the United Kingdom. (See Appendix A for definition.)
Co-ethnic	Person who shares the same ethnicity (e.g. from similar country of origin).
Density measures	Measures of overcrowding that are based on the density of persons per room or bedroom in a house (for example, the American Crowding Index).
Gateway suburb	A 'major metropolitan area where large numbers of immigrants have settled' (Price and Benton-Short 2007: 103).
Homelessness	A lack of one or more of the elements that represent 'home'. The ABS define it as 'when a person 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:11). The ABS define it to include severe overcrowding. (See section 2.5 for the full definition)
Homelessness (excluding overcrowding)	Homelessness excluding those in severe overcrowding as defined by the ABS.
Informal dwellings	Dwellings 'that are illegally constructed, converted, or occupied dwellings as well as informal rental arrangements not subject to standard residential tenancy agreements, including share housing and room rentals' (Gurran et al. 2019: 9).
Migrant	Also termed overseas migrant, refers to a person from country other than Australia who intends to stay in Australia for at least one year.
Non-crowding homelessness	All homelessness excluding severe overcrowding (using the ABS definitions of homelessness and overcrowding).
Occupancy standards	Decision rules based on normative judgements about when overcrowding occurs. Examples include the Canadian National Occupancy Standard (CNOS).
Other overcrowding	Situation where the household requires three additional bedrooms to meet Canadian National Occupancy Standard (CNOS).

Overcrowding (general)	Situation where a household does not have enough space to accommodate all its members adequately or where this results in tenants experiencing stress of various kinds. In Australia, overcrowding is usually defined to occur where a household needs any number of additional bedrooms to meet the Canadian National Occupancy standard. (See section 2.2 for definitions of different forms of overcrowding).
Proxy Occupancy Standard	This is a measure of overcrowding. Each adult should have access to their own bedroom, and children have at least one room. Some sharing is assumed but no specifications around gender are made. A household is overcrowded when it needs two additional bedrooms to meet the requirements of the standard. (See Appendix A for definition.)
Rooflessness	Situation where a person is without shelter.
Severe overcrowding	Situation where the household requires four or more additional bedrooms to meet the Canadian National Occupancy Standard (CNOS).
Stress measures	Measure of overcrowding that uses subjective measures of the impact of overcrowding on health or wellbeing.
Vacancy rate	Percentage of all rental dwellings that are vacant at any one time (this is an indicator of the degree of slack in the rental housing market and ease by which renters might find a new property to rent).

Executive summary

What this research is about

This research examines overcrowding and severe overcrowding in private and social housing, with a focus on New South Wales. The purpose of the research is to understand the scale and scope of overcrowding and severe overcrowding, including trends, causes, impacts and what can be done to reduce its impact.

The context of this research

The 2016 Census showed a 37 per cent increase in homelessness in NSW since 2011, with severe overcrowding being a key driver of this increase. People living in severely overcrowded dwellings constituted 45 per cent of all homeless people in NSW on Census night 2016. This project is part of the implementation of the *NSW Homelessness Strategy 2018–2023*.

Key finding

Overcrowding is now the predominant form of homelessness in NSW and persons living in severely overcrowded dwellings constituted 45 per cent of all homeless people in NSW on Census night 2016. Recent migrants, tertiary students and Indigenous people are the cohorts most likely to experience overcrowding. The combination of housing market factors such as poor housing affordability and tight housing markets drive overcrowding. High rents are associated with severe overcrowding. Demographic factors are also important in explaining overcrowding; areas with high numbers of migrants, tertiary students, Indigenous people and large families are all significantly related to overcrowding.

What is overcrowding and severe overcrowding?

Overcrowding occurs when a household does not have enough space to accommodate all its members adequately. The Canadian National Occupancy Standard (CNOS) is the most commonly used measure of overcrowding in Australia and is used by the Australian Bureau of Statistics (ABS).

The measure assesses the bedroom requirements of a household by specifying 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 less than 18 years of age and of the same sex may reasonably share a bedroom

→ single household members 18 years and over should have a separate bedroom, as should parents or couples and

→ a lone person household may reasonably occupy a bed sitter.

Severe overcrowding is defined by the ABS as households that need four or more additional bedrooms and is considered a form of homelessness. Overcrowded households need three additional bedrooms; the ABS categorises them as being marginally housed and therefore at **risk** of homelessness. However, the CNOS is based on Western cultural norms and may therefore not be applicable to some key

groups experiencing overcrowding, such as migrants, overseas students and Indigenous people.

The overcrowding rate measures the incidence of overcrowding as the number of affected households per 10,000 of the population. It is an important measure of overcrowding as it compensates for any changes in overcrowding that may be due to population growth.

Severe and persistent overcrowding is most problematic and affects householder's control or ability to manage normal household functioning, reduces dwelling cleanliness, causes injury and property damage. It is more likely to result in greater anxiety or stress, poorer health and child development outcomes, household conflict and forced mobility or homelessness.

The link between persistent overcrowding and homelessness is not well understood. Migrants and tertiary students experiencing overcrowding do not tend to experience high rates of homelessness, while Indigenous people experience both high rates of homelessness and overcrowding. It is possible that that the former have access to family resources and social networks formed through living with relatives and friends, that protect from other forms of homelessness. Conversely, it is possible migrants and students have trouble accessing homelessness services.

How many people are experiencing overcrowding and severe overcrowding and where does this occur?

The number of people experiencing severe overcrowding and overcrowding in NSW and Australia is increasing

In Australia, the number of persons occupying severely overcrowded dwellings increased from 41,370 in 2011 to 51,088 in 2016 (23% increase). The number of persons in overcrowded dwellings increased by 32 per cent from 60,878 in 2011 to 80,908 in 2016.

Number of people experiencing overcrowding in NSW, by age, 2016

Age group	Severe overcrowding (CNOS 4+)	Per cent	Other overcrowding (CNOS 3)	Per cent	Proportion of NSW population
Under 12	2,264	13%	5,462	17%	
12–18	1,482	9%	3,483	11%	31%
19–24	3,929	23%	7,064	22%	
25–54	7,790	46%	13,961	43%	41%
55+	1,353	8%	2,534	8%	28%
Total	**16,818**	**100%**	**32,504**	**100%**	**100%**

Source: ABS 2016

Severe overcrowding has more than tripled in NSW, from 5,120 persons in 2001 to 16,818 persons in 2016 (see table above. In 2016, the rate of severe overcrowding in NSW (22.5 persons per 10,000 population) was marginally higher than in Australia (21.8 persons per 10,000 of the population, see figure below). However, the rate of overcrowding where households require three additional bedrooms was markedly higher in NSW (43.5 per 10,000 of the population) compared to Australia (34.6 per 10,000 of the population).

Rate of persons experiencing severe overcrowding per 10,000 of the population in NSW and Australia, 2011 and 2016

	Severe overcrowding (CNOS 4+)	
	2011	2016
Indigenous	32.4	24.7
Born overseas NSW	26.7	46.9
Tertiary students NSW	32.1	65.0
All NSW	14.0	22.5
All Australia	19.2	21.8
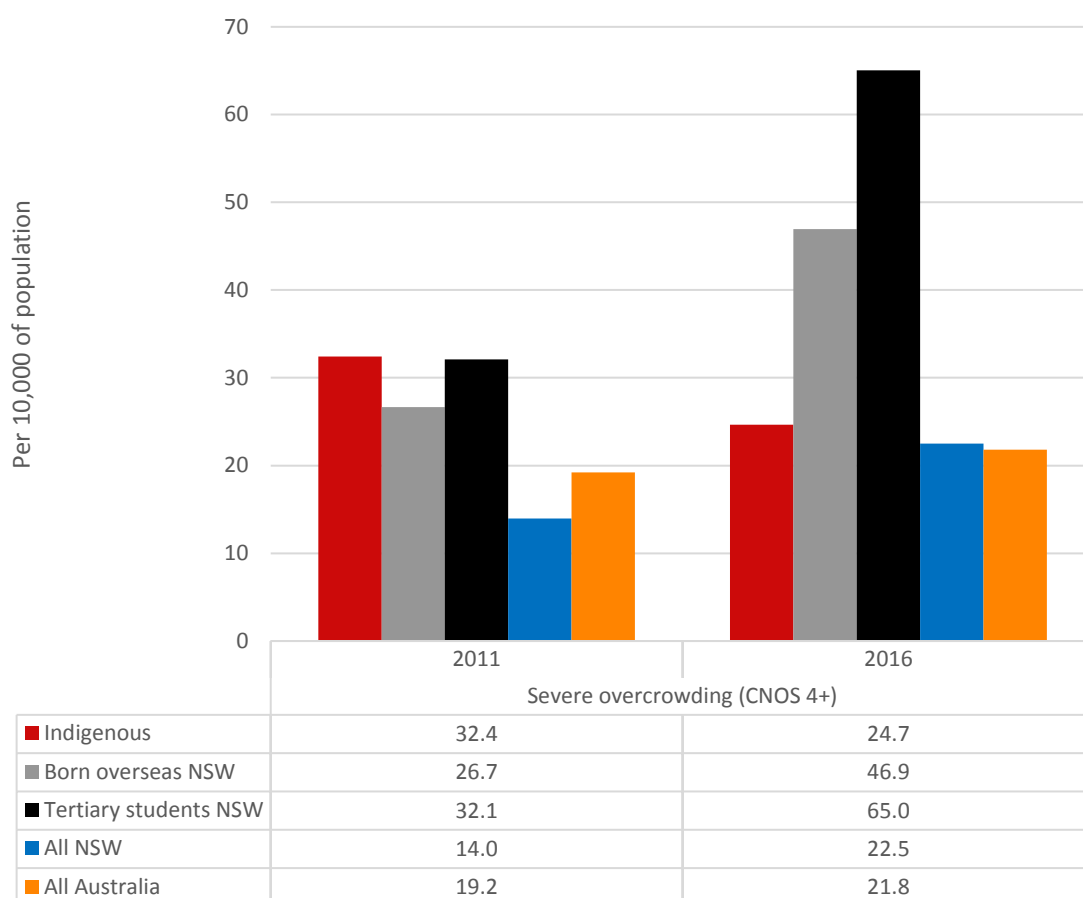
Source: ABS Census 2011 and 2016

Severe overcrowding is concentrated in Sydney, particularly in Auburn

Auburn and Inner Sydney recorded extreme increases in severe overcrowding between 2011 and 2016 (increases of 51 to 108 persons per 10,000). Severe overcrowding increased to a lesser degree in inner city and south western suburbs. National data shows that 71 per cent of all severely overcrowded dwellings are rented (private and social rental) and the majority (73%) are separate houses. In most areas of Sydney, the rate of severe overcrowding has been increasing.

Families and migrants make up the largest cohorts of overcrowded households

Most persons (83%) experiencing overcrowding live with their family or in multiple family households (table below). Young persons under the age of 25 made up 45 per cent of those experiencing severe overcrowding in NSW in 2016, which was well above the proportion of young people in the NSW population (31%) (see table above).

The rate of severe overcrowding among tertiary students more than doubled from around 32 persons per 10,000 in 2011 to 65 persons per 10,000 in 2016, which is much higher than for persons not attending educational institutions (11 and 18 persons per 10,000 of the population in 2011 and 2016 respectively) (see figure above.

Migrants are overrepresented in overcrowding. In 2016, in NSW, around 72 per cent of those in severe overcrowding and 63 per cent of those in other overcrowding were born overseas. Between 2011 and 2016 the rate of severe overcrowding among migrants in NSW rose from 84 per 10,000 to 130 per 10,000. Severe overcrowding is especially apparent among migrants from Asian countries. In 2016, one fifth of all persons in severe overcrowding came from Southern and Central Asia; another 19 per cent came from South-East Asia. Overcrowding affects migrants regardless of English proficiency. Note that there may be overlap between groups, e.g. a person can be a migrant and a tertiary student.

Indigenous overcrowding

While the absolute number of Indigenous people in severe and other overcrowding is increasing, rates of severe and other overcrowding for Indigenous people are decreasing. This is because the growth in numbers is offset by population growth; i.e. the number of overcrowded and severely overcrowded Indigenous households is declining as a proportion of the total population. In NSW, the rate of severe overcrowding in 2016 was on par with that for the non-Indigenous population (25 and 24 persons per 10,000 respectively); the rate of over overcrowding among Indigenous households was 65 persons per 10,000 in 2016 (45 persons per 10,000 for the non-Indigenous population).

Composition of households in severely overcrowded dwellings (CNOS +4), Australia, 2016

Household composition	Number of severely overcrowded dwellings	Number of persons in severely overcrowded dwellings	Percent of all persons in severely overcrowded dwellings
One family household	2,241	17,580	34%
Multiple family household	2,349	25,237	49%
Lone person household	0	0	0%
Group household	1,214	8,278	16%
Total	**5,806**	**51,088**	**100%**

Source: ABS Census 2011, 2016

Why does overcrowding occur?

Structural and individual factors drive overcrowding

Overcrowding is driven by the combination of high rents and low incomes. Overcrowding is more prevalent in locations of housing affordability stress (households on low incomes that face higher housing costs) and tight housing markets (low rates of rental vacancy). Locations with more social housing and higher rates of unemployment are significantly linked to severe overcrowding. However, overcrowded households are increasingly likely to reside in areas with lower unemployment, suggesting that people may live in overcrowded dwellings in order to access work or education. Availability of suitable housing stock (e.g. for large families) is a contributing factor for overcrowding.

Household circumstances such as family growth, the migration process, and high rates of temporary mobility (especially in Indigenous contexts) contribute to overcrowding. Economic drivers like low income, housing affordability pressures and landlord profit also play a significant role.

Individual and cultural factors also impact overcrowding. Locations with high numbers of Indigenous people, migrants, and large families are all significantly related to the incidence of overcrowding.

What is the impact of overcrowding?

Adverse impacts of overcrowding

Overcrowding and severe overcrowding can negatively affect households and individuals through a loss of privacy, reduced sociability, increase in conflict in the household and increased risk of forced exit into homelessness. It can adversely affect physical and mental health, as well as childhood development and educational outcomes. Overcrowding might also impact on property owners through property damage.

Households make a range of adaptations to manage overcrowding

Households respond to overcrowding with a range of measures, such as repurposing living space and garages for sleeping space or sacrificing privacy in bedrooms. Some leaseholders cope with these adaptations well, but others struggle, which can cause them additional stress and can affect their ability to retain the lease.

Benefits of overcrowding

Living together confers several benefits, such as pooled budgeting, reduced costs of accommodation and family and community connection. These positive impacts are often weighed up by individuals against the potential negative outcomes.

Exits from overcrowding

It is difficult to know how long an individual stays in overcrowded conditions due to a lack of good longitudinal Australian data. There are several pathways by which individuals and households exit overcrowding. Some exit into more suitable and less crowded accommodation, some remain in overcrowded conditions for long durations, while others exit overcrowding into other forms of homelessness.

Changes in severe overcrowding in the Greater Sydney Area, rate per 10,000 of the population 2011–2016
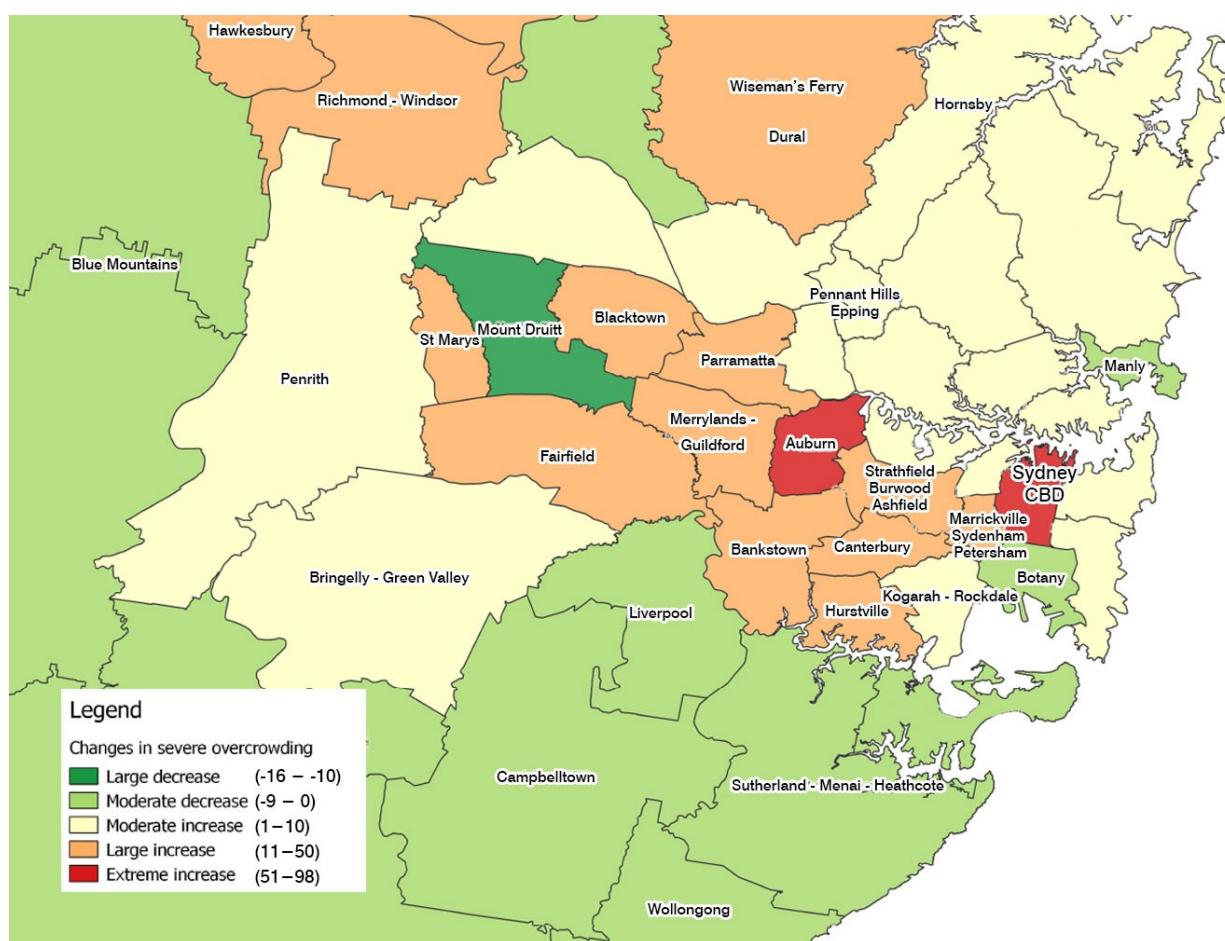
Source: Based on ABS Census 2011 and 2016

What can be done about overcrowding and severe overcrowding?

People experiencing overcrowding are not a homogenous group and nuanced policy approaches and interventions are required.

Working with key groups affected

Severe overcrowding could be addressed by working with key groups affected, such as migrants, Indigenous persons and tertiary students and those that are well placed to represent their interests. This should involve consultative approaches to working with organisations; working with existing social networks in order to preserve householders' social capital; and culturally appropriate measures of overcrowding.

Better access to housing

A lack of appropriate and affordable housing is a key driver of overcrowding. There is a need for more affordable and appropriately sized and designed social and private rental housing that can cope with higher numbers of residents (e.g. large families) and is appropriately designed for their needs. Discrimination in the private rental market contributes to poor housing accessibility for groups with higher rates of overcrowding. Programs that reduce discrimination against these groups would contribute to alleviating overcrowding.

Programs to enable people to transition out of overcrowding

Severe overcrowding could be addressed by **culturally tailored and targeted programs**, for example by providing support for migrants to navigate housing markets, and bonds or bond guarantees to assist migrants in accessing private rentals. This could include programs that provide homelessness related supports to overcrowded households.

Regulation

Revising laws and regulations to reduce overcrowding may be effective if done sensitively and in collaboration with affected groups. This will need to be combined with measures to address the underlying causes of overcrowding and increase the availability of alternative accommodation. Planning laws could be used to foster new affordable and safe forms of shared tenure like new generation boarding houses. There is a need to strengthen processes to enforce compliance with regulation, complaints and remedies processes.

Education

Some key groups experiencing overcrowding (e.g. international students and recently arrived migrants) lack knowledge of tenancy rights and the Australian rental market. Education campaigns for these groups and landlords would be a first step to remedy this. More intense interventions include the provision of outreach services with case management support for renters at risk and those with special needs.

Methodology

The research involved a review of the Australian and international literature on overcrowding, as well as tailored analysis of data from the Census of population and housing.

Further research needed

There are important gaps in the available research on overcrowding in Australia. Good data on overcrowding and the extent of its impact is lacking. The CNOS, which is the most widely used overcrowding measure in Australia is not equally applicable to all groups experiencing overcrowding (e.g. migrants with non-Western cultural backgrounds and Indigenous people).

It would be beneficial to undertake research into the persistence of overcrowding in social and other housing. Data linkage of administrative data sets on housing conditions (including in relation to overcrowding) and health, education, justice, and service use data would generate a better understanding of the long and short term impacts of overcrowding.

There is a need for qualitative research on the experience of overcrowding to better understand the drivers of overcrowding; factors shaping entries into and exits out of overcrowding; and the experiences key groups that experience overcrowding (migrants, students, Indigenous people, large families). This research would make a valuable contribution to developing nuanced interventions to address overcrowding.

1   Introduction

1.1   Purpose of this project

The NSW Department of Communities and Justice (DCJ), formerly the Department of Family and Community Services (FACS), have engaged the Australian Housing and Urban Research Institute (AHURI) to analyse the literature, data, policies and programs on overcrowding and severe overcrowding. The purpose of the research is to gain an understanding of the scale and scope of overcrowding and severe overcrowding, including trends, causes, impacts and what can be done to reduce its impact.

This project is part of the implementation of the *NSW Homelessness Strategy 2018–2023*.

1.2   Context

The 2016 ABS Census data showed a 37 per cent increase in homelessness in NSW since 2011, with severe overcrowding being a key driver of this increase. People living in severely overcrowded dwellings constituted 45 per cent of all homeless people in NSW on Census night 2016.

In response to this, the then NSW Department of Family and Community Services convened a Ministerial Forum on Overcrowding on Wednesday 19 September 2018. The purpose was to bring together experts and stakeholders to:

→   better understand the definitions, implications and impact of severe overcrowding and overcrowding as a form of homelessness
→   identify priority areas
→   generate an understanding of current good practice in this area
→   identify opportunities and strategies for stakeholders to work together on overcrowding
→   canvas potential areas for future policy and action.

One of the recommendations from the Ministerial Forum on Overcrowding and Homelessness, was to conduct research to improve the understanding of overcrowding in NSW. This report responds to the recommendation and provides information to inform policy and program development on overcrowding and severe overcrowding.

1.3   Background

In Australia, the most commonly used measure of overcrowding is the Canadian National Occupancy Standard (CNOS). However, the CNOS may not be an appropriate measure of overcrowding and severe overcrowding for all cohorts and in all situations.

Federal and state government housing policy makers presently use overcrowding measures to assess outcomes in relation to a range of issues. This includes efficiency in the allocation of social housing (a house might be underutilised if the dwelling has more bedrooms than required, and over-utilised or overcrowded when there are too many residents to accommodate appropriately). Policy makers are concerned about whether overcrowding has negative impacts in terms of health, safety and education, especially for children.

The Australian Bureau of Statistics (ABS) publish estimates of severe overcrowding and other overcrowding as part of their estimates of homelessness as part of the five yearly Census. They define severe overcrowding as a form of homelessness, and other overcrowding as a form of marginal housing (which places people at risk of homelessness).

This project analyses existing measures of overcrowding in detail for Australia and NSW, and explores available evidence in Australia and internationally about the nature, causes and impacts of overcrowding and what might be done to prevent or address it.

1.4 Scope of project

Key questions addressed by the research include:

1   What is overcrowding and severe overcrowding?

2   How many people are affected by overcrowding and severe overcrowding? Is the incidence of overcrowding and severe overcrowding increasing, decreasing, or staying at the same level?

3   Who experiences overcrowding and severe overcrowding?

4   Where does overcrowding and severe overcrowding occur?

5   Why does overcrowding and severe overcrowding occur?

6   What is the nature of overcrowding and severe overcrowding?

7   What are the impacts and risks of overcrowding and severe overcrowding?

8   How can overcrowding and severe overcrowding be prevented or addressed?

2 What is overcrowding and why does it matter?

Overcrowding occurs when a household does not have enough space to accommodate its members adequately. Overcrowding can be measured using density, occupancy standard and stress measures. In Australia, the Canadian National Occupancy Standard (CNOS) is most widely used. This report uses CNOS and focuses on severe and other forms of overcrowding.

Overcrowding matters because it can undermine tenant safety, lead to property damage, poor social, health and education outcomes (especially for children). Overcrowding also matters because it contributes to homelessness. The ABS categorises severe overcrowding as a form of homelessness, and recognises that overcrowding places people at risk of homelessness.

Overcrowding occurs when a household does not have enough space to accommodate all its members adequately. Measuring overcrowding involves, often normative, judgements about the adequacy of a dwelling in relation to the needs of a household.

2.1 What are the different approaches for measuring overcrowding?

There are three main measures for overcrowding:

→ density measures

→ occupancy standard measures

→ stress measures.

Overcrowding occurs when the number of persons in a household exceeds a threshold, or when a person in the household experiences a threshold level of stress because of the numbers in the household.

Table 1 summarises different approaches to measuring overcrowding, the jurisdictions where they are used and their advantages or disadvantages.

Each of these measures is described and discussed in more detail in the following sections.

Table 1: Comparison of overcrowding measures

Approach	Examples	Measures	Jurisdictions used	Advantages	Disadvantages
Density measures	American Crowding Standard	Number of persons per room, number of persons per bedroom, square foot/square meters per person	UK, USA, OECD	Simple to calculate; often used to link overcrowding with other social and health indicators; does not impose explicit cultural standards; easy to make comparisons across jurisdictions.	Cut off for overcrowding is arbitrary and lacks normative or cultural relevance.
Occupancy standard	Canadian National Occupancy Standard, Proxy Occupancy Standard, Eurostat definition (Eurostat 2019), UK Bedroom Standard (Shelter Legal England 2019)	Occupancy standards measure overcrowding in relation to a set of normative or cultural standards about the number of persons that can be accommodated per room / bedroom.	Canada, Australia, European Union, UK	Has explicit normative assumptions; relatively easy to calculate.	May lack relevance for some non-normative cultural groups.
Stress measures		Number of persons experiencing overcrowding or stress	Not widely applied	Able to be adapted to different cultural frameworks as it leaves normative framework to the respondent.	Subjective; requires more data.

2.1.1 Density measures

Density measures use the relative density of persons in the dwelling to determine overcrowding and include measures such as:

→ persons per room

→ persons per bedroom

→ square meters/square foot per person.

→ rooms per person.

The American Crowding Index (or persons per room) divides the number of residents in a dwelling by the number of rooms in the dwelling (United States Census Bureau 2000). It is a simple measure that does not consider the type of rooms in the dwelling, nor does it adjust for the age and sex of the usual residents. It classifies dwellings with more than one person per room as crowded and dwellings with more than 1.5 people per room as severely crowded.

Research for the US Department of Housing and Urban Development used the American Housing Survey from 2005 to estimate overcrowding and found that 2.4 per cent of all Americans lived in crowded dwellings and 0.63 per cent were in severely overcrowded dwellings (Blake et al. 2007). The research also applied a persons per bedroom measure, which classifies a household as crowded if it has more than 2 persons per bedroom. In 2005, 2.65 per cent of Americans lived in crowded housing using this measure. The same research identified 165 square feet per person as a threshold for overcrowding because it produced a similar overcrowding rate to the person per room measure as the American Crowding Index (2.4 per cent of Americans in crowded housing) (Blake et al. 2007).

The persons per room and persons per bedroom density measures have been used by the United States (Blake et al. 2007) and the United Kingdom (Office of the Deputy Prime Minister 2004).

The OECD (2017) have also used a rooms per person measure, which provides an inverse measure of overcrowding.

Advantages and disadvantages of density measures

Density measures are easy to calculate and can be easily compared across countries. For this reason, they are often used in large scale econometric studies relating overcrowding with a range of other social or health related variables. Because thresholds for overcrowding are arbitrarily determined, they do not impose specific cultural standards. However, the measurement model implicitly imposes a theory or understanding about overcrowding but the cultural assumptions are opaque.

2.1.2 Occupancy standards including the Canadian National Occupancy Standard (CNOS)

Occupancy standards measure overcrowding in relation to a set of normative or cultural standards. In Australia, the Canadian National Occupancy Standards (CNOS) is widely used. The CNOS assesses the bedroom requirements of a household based on the following criteria:

→ there should be no more than 2 persons per bedroom

→ children less than 5 years of age of different sexes may reasonably share a bedroom

→ children 5 years of age or older of opposite sex should have separate bedrooms

→ children less than 18 years of age and of the same sex may reasonably share a bedroom

→ single household members 18 years or older should have a separate bedroom, as should parents or couples (AIHW 2017a).

Based on this measure, the Australian Institute of Health and Welfare (AIHW) note that households that require at least one additional bedroom are considered to experience some degree of overcrowding (AIHW 2017a). The ABS define overcrowding more stringently and argue that only households needing three or more additional bedrooms are overcrowded and therefore considered to be marginally housed and at risk of homeless. Households needing four or more additional bedrooms are considered to be severely overcrowded, which the ABS counts as a form of homelessness (AIHW 2017a).

Using Census data, the ABS produce statistics on the number of severely overcrowded dwellings, the number of persons occupying dwellings that are severely overcrowded, and dwellings that are less severely overcrowded (requiring three additional bedrooms to meet the CNOS).

Other occupancy standards make different assumptions about sharing of dwellings, but have limited use in Australia:

→ The Proxy Occupancy Standard (once used by the AIHW) requires that each adult have access to their own bedroom, and children have at least one room. Some sharing is assumed but no specifications around gender are made. A household is overcrowded when it needs two more bedrooms to meet the requirements set out in the standard. The Proxy Occupancy Standard has fallen out of use in Australia (AIHW 2017b).

→ NSW uses its own definition of overcrowding to assess the adequacy of social housing—overcrowding is deemed to occur where there are three children in one bedroom or a couple is forced to share with child over age of 3. This definition is used by DCJ in the context of assessing households applying for social housing or present social housing households applying for a transfer (see Appendix A for full definition).

Several other standards used overseas are of note:

→ The standard adopted by the European Union (Eurostat 2019) requires that there be one room for the household; one room per adult couple in the household and one room for each adult single person (over 18). It assumes pairs of children under the age of 12 (of any sex) will share and sharing under 18 for those of same gender, but requires a separate bedroom for children of single person aged 12–17 years old if they are not same sex.

→ The standard preferred by Shelter in the United Kingdom is the Bedroom Standard. This standard is used by many local authorities to assess whether an applicant is overcrowded for the purposes of determining allocation for social housing. Under this standard, married or cohabiting couples, single people more than 21 years old, and pairs of children under 10 years old, regardless of gender,

require their own room. Similarly, pairs of children aged 10 to 21 years old of the same gender would share. Any unpaired person aged 10 to 20 is then paired, if possible, with a child under 10 of the same sex (if that is not possible, he or she is counted as requiring a separate bedroom, as is any unpaired child). (Shelter Legal England 2019).

The full definitions for CNOS and these other definitions for occupancy standards are compared in Appendix A.

Advantages and disadvantages of occupancy standards

Occupancy standards have several advantages—they are relatively easy to calculate using data collected either by a survey instrument or an administrative source and clearly articulate norms about household use which widely accepted in society. Occupancy standards are constrained in that they only measure use by persons occupying the house on a permanent basis—in actuality, overcrowding is often linked to people occupying housing on a temporary basis. Norms about bedroom usage are founded on a Western cultural perspective. These may not be relevant to Indigenous households experiencing overcrowding in Australia. For example, some Indigenous households have different norms around bedroom use, higher incidence of multi-generation households, rules around kinship and bedroom use, and fluctuating usage rates due to high rates of residential mobility and temporary visitation. A bedroom-based measure may also be not useful as in some remote Indigenous communities, some dwellings have high numbers of bedrooms but non-functioning health hardware such as toilets or kitchens. Memmott (2011: 3) state:

> …'without a knowledge of the Aboriginal constructs of crowding and the specific values and rules that, if broken, can generate stress and loss of control, policy-makers cannot readily guarantee the accuracy, efficacy or validity of their crowding measures.

Similar concerns apply to migrant households with different cultural norms about accommodating kin (Herath and Bentley 2018; Easthope et al. 2018). Each household might have a unique context and culture in framing what constitutes too many people in a house.

2.1.3 Stress measures

Unlike occupancy standards, stress measures do not rely on normative assumptions around space use and are applicable to a variety of cultural groups. Stress measures capture whether overcrowding causes stress to household members, which might lead to conflict or homelessness.

The most direct stress measures ask tenants whether their dwelling is overcrowded—the house might be overcrowded when one or more residents thinks it is overcrowded. More nuanced measures may be obtained by asking detailed questions about the nature and degree of stress experienced (e.g. the loss of personal control or social/informational overload they experience, or the experience of health problems). For example, a study by Campagna (2016) found that perceptions of stress were related to whether people could retreat to places apart from bedrooms in the house. As persons per room in the house increased, respondents in households using all rooms for sleeping 'had a steeper decrease in efficacy as well as a steeper increase in helplessness' (Campagna 2016: 252).

Advantages and disadvantages of stress measures

The subjectivity of stress measures means that they are adaptable to differing cultural understandings of overcrowding.

Stress measures might be criticised for being too subjective to apply in a policy context (e.g. for housing allocations). Health remains a problem in crowded environments that are nevertheless tolerable for some cultural groups. Because the subjective stress varies from one family to another, one group could, by claiming that they were more overcrowded, claim greater access to assistance. This could lead to inequitable treatment.

A practical issue is that implementation of stress measures would require new surveys and methodologies whereas the existing overcrowding measures use existing data collection instruments. Stress measures use qualitative information about what householders consider to be stressful.

Overcrowding may affect children's ability to study, the ability to maintain house rules and hygiene (e.g. inadequate access to toilet, bathroom and showers and lack of clean places to prepare food). Understanding the likely types of social impacts are therefore relevant to guiding stress measures of overcrowding.

Stress measures can be supplemented with measures of subjective wellbeing of the household (e.g. whether the household has people who are unemployed or experiencing mental health issues) to get a more nuanced understanding of the circumstances that might create further problems around overcrowding. It might also be possible to use existing data on household stress from existing surveys rather than having to initiate new data collection mechanisms.

2.1.4 Summary

The previous discussion highlights the trade-offs involved in formulating measures of overcrowding. Density measures are easy to derive from existing data sources, enable comparison and consistency over time, but do not account for household experience or cultural factors. Stress measures are more responsive to household experience and diverse cultural practices but are costly and time consuming to implement and cannot be standardised within or across groups. Occupancy standards, like CNOS, are favoured presently by policy makers, because they combine plausible normative assumptions about appropriate dwellings for households of different compositions, are easy to compute and practical to implement.

Even so, concurrent use of several measures of overcrowding might be relevant depending on the purpose. In the United Kingdom, a report by the Office of Deputy Prime Minister argued there are benefits of multiple definitions depending on the variables being evaluated (Office of the Deputy Prime Minister 2004).

2.2 What data sources are used to measure overcrowding in Australia?

Most density and occupancy standard measures can be calculated using existing Australian data sources.

→   The AIHW collect administrative data on overcrowding (using the CNOS) in the National Housing Assistance Data (NHAD) repository and publish this data each year through their *Housing Assistance in Australia* report (AIHW 2018); this data is used by the Productivity Commission in its *Report on Government Services* as

a performance measure of effectiveness (appropriateness) of social housing (PC 2019).

→ The ABS collect and publish data on overcrowding using the Census every five years as part of their estimation of homelessness.

→ Estimates of overcrowding have also been derived and used by researchers as part of larger studies examining the links between overcrowding and other social and health outcomes. Researchers have used surveys including the ABS's General Social Survey and the National Aboriginal and Torres Strait Islander Survey (NATSISS) and the Household Income and Labour Dynamics Australia (HILDA) survey (see for example Mallett et al. 2011).

The research was not able to identify published stress measures for Australia. Some state governments use their own definitions of overcrowding. For example, DCJ uses its own definition of overcrowding to the purposes of applying for social housing and for applying for transfers.

The Census provides consistent estimates of for NSW at a regional level and is the best source of information on severe overcrowding. NHAD data provide detail about overcrowding in particular tenures like social housing, while the NATSISS is good for Indigenous populations. Longitudinal sources like HILDA provide the opportunity to consider changes in overcrowding over time.

All data sources may have constraints in terms of accurately capturing overcrowding, especially where residents might fear that the information might be used by landlords – for example to increase rents or if they are breaching rules around occupancy. This might potentially result in underestimates of overcrowding.

A table summarising the different data sources that can provide overcrowding data are in Appendix B.

2.3 Definition of overcrowding used in this report

Overcrowding can be measured on a continuum, from households that experience low levels of overcrowding to severe overcrowding.

Using the CNOS measure, the ABS (2012b:1) identifies households needing four or more additional bedrooms as severely overcrowded and counts these as being homeless. This is because residents in severely overcrowded dwellings:

> *do not have control of, or access to space for social relations. In extremely overcrowded dwellings inhabitants are generally unable to pursue social relations, or have personal (i.e. family or small group) living space, or maintain privacy, nor do different family / groups within the dwelling have exclusive access to kitchen facilities and a bathroom. In such circumstances, if people had accommodation alternatives it would be expected that they would have exercised them'.*

Households requiring three extra bedrooms to meet the CNOS are classified as overcrowded by the ABS and categorised as a form of marginal housing, which carries a risk of homelessness. Households needing 1–2 extra bedrooms to meet the CNOS are not considered to be at risk of homelessness.

The ABS (2012b:1) notes that:

There are many situations of overcrowding which do not threaten the health and safety of the occupants. For example, the overcrowding may be slight, or for a short period of time. However, severe and sustained overcrowding can put the health and safety of the occupants at risk.

Because the CNOS is widely used and published, data using it is widely available. This paper uses CNOS as the basis for analysis and defines overcrowding as follows:

→ *All overcrowding*: the household requires at least one additional bedroom to meet CNOS standard (CNOS 1+)

→ *severe overcrowding*: the household requires four or more additional bedrooms to meet CNOS standard (CNOS 4+)

→ *Other overcrowding:* the household requires three additional bedrooms to meet the CNOS standard (CNOS 3)

→ *Non*-severe or other overcrowding: the household requires one or two additional bedrooms to meet the CNOS standard (CNOS 1 and CNOS 2)

Most of the analysis presented in this paper focuses on the severe overcrowding (CNOS 4+) and other overcrowding (CNOS 3) categories, but in some cases data on all overcrowding is included.

2.4   What is the difference between overcrowding and homelessness?

The ABS (2012a: 11) defines homelessness as follows:

A person is 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.'

Since overcrowding affects the latter of these issues, there is an overlap between overcrowding and homelessness definitions.

Further, the ABS identifies six main operational groups for homelessness in Australia, with severe overcrowding included as the sixth category of homelessness. These categories are:

→ 'persons living in improvised dwellings, tents or sleeping 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

→ severe overcrowding' (ABS 2012a: 9).

They all are included as homelessness because in each form of housing, the individual is deemed to not have control of or access to space or privacy.

It should be noted that some people experiencing severe overcrowding may not consider themselves to be homeless, e.g. due to differing cultural understandings of overcrowding in Indigenous and migrant communities (discussed in Section 1.2). For example, Beer and Foley (2003) found that many refugees who were staying with relatives met the Australian definition of homelessness but did not perceive themselves to be homeless.

2.5   Why does overcrowding matter?

Overcrowding is a concern for policy makers in three key domains:

→   resident safety and property damage

→   social and health policy (especially for Indigenous communities)

→   homelessness.

2.5.1 Overcrowding can undermine social and health outcomes

Medical researchers have identified clear links between overcrowded housing conditions and health outcomes (Blake et al. 2007; Colosia et al. 2012; Lisa 2007). Overcrowding is a factor in the spread of communicable diseases such as meningitis, hepatitis and tuberculosis, and impact on children's health and development (Blake et al. 2007; Office of Deputy Prime Minister 2004). Overcrowding has also been linked with adverse impacts on children's health, early development and their education (Dockery et al. 2013). This is why government health legislation regulate for a minimum amount of sleeping space (5.5 square metres) per person in each house (e.g. *Public Health Regulation 2012* NSW, Clause 46(a), see NSW Government 2012).

In Australia and NSW, similar policy concerns around overcrowding have centred on its role as a social determinant of poorer health outcomes among Indigenous households (see for example the DPMC 2017; NSW Department of Health 2010). Reflecting this, the *Housing for Health* Program in NSW has involved projects devoted to addressing overcrowding (amongst a range of other interventions) in Indigenous communities (NSW Government 2019).

2.5.2 Overcrowding can undermine resident safety and lead to property damage

Overcrowding can contribute to increased risk of family conflict, household dissolution and homelessness, and increased fire and safety risks and property damage where bedrooms are illegally partitioned (Herath and Bentley 2018).

Governments have, to some degree, already recognised this issue and introduced laws to prevent overcrowding through the construction codes, residential tenancy laws and laws governing owners' corporations in strata title. For example the NSW *Residential Tenancies Act 2010* requires that the tenant inform the landlord if they intend to sub-let the property to another person and give the landlord the right to refuse consent if 'subletting would cause more persons to occupy the premises than are permitted by the tenancy agreement or any relevant development consent or approval' (section

75(3)(a)).[1] Strata by-laws can be adopted by owners' corporations to limit overcrowding – limits on overcrowding are contained in a set of model by-laws as part of Strata Schemes Management Regulation 2016 (NSW Department of Fair Trading 2019). Owners corporations can impose fines on owners breaching these by-laws (Aston 2013).

2.5.3 Overcrowding can lead to, or be a form of, homelessness

Overcrowding puts pressure on household relationships, can lead to family conflict, tenancy dissolution and household members being forced to leave the house. This can precipitate homelessness.

Overcrowding in its most severe forms can also be experienced as a form of homelessness. This is because it undermines privacy and the qualities of housing that make it properly a home (ABS 2012b).

Severe overcrowding has been acknowledged as an emerging issue in the NSW homelessness strategy (NSW Government 2018) as an issue worthy of further investigation.

The impacts of overcrowding are examined in more detail in Chapters 5 and 6.

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[1] See State Library of NSW (2019) Tenants Rights Manual: a practical guide to renting in NSW https://legalanswers.sl.nsw.gov.au/tenants-rights-manual-practical-guide-renting-nsw/other-issues-during-tenancy Accessed 15 July 2019

3 How many people are experiencing severe and other overcrowding and where is it occurring?

Since 2001, severe overcrowding has almost tripled in NSW; over 16,800 persons were experiencing severe overcrowding in NSW in 2016. Severe overcrowding is concentrated in Sydney, particularly in the suburb of Auburn, and to a lesser degree inner city and south western suburbs. Overcrowding is also growing in some regional areas. Overcrowded households most commonly live in rented accommodation (both social and private rental) and in freestanding dwellings. Although severe overcrowding is contributing to higher rates of recorded homelessness in Sydney, it is largely not a factor in the high rates of homelessness in regional areas.

3.1 Measured rates of overcrowding in Australia and NSW are low by international standards but may under-count true levels of overcrowding

Compared internationally, Australian housing is not very crowded and the average size of Australian homes is relatively large. OECD data shows that on average, Australia has 2.3 rooms per person, and Australia is 4th out of 38 countries in relation to rooms per person (OECD 2019). By contrast, using the measure of rooms per person, rates of overcrowding are relatively high in Central and Eastern European countries (OECD 2017:4).

Even though by international standards density in housing is low in Australia, Census data show that around 282,335 non-Indigenous households (or 3.5% of all non-Indigenous households) experienced some form of overcrowding (requiring one or more bedrooms to meet the CNOS or CNOS 1+) in 2016 (AIHW 2014; AIHW 2019). Overcrowding was higher for Indigenous households (26,377 households or 10% of all Indigenous households) and Indigenous persons (117,090 persons or 18% of all Indigenous persons).

In NSW, around 123,233 non-Indigenous households are overcrowded using the CNOS 1+ measure. This proportion (4.9%) is much higher than in Australia more generally. However, overcrowding for Indigenous households (7,823 households or 8.2% of Indigenous households) and persons (26,401 or 12.2% of Indigenous persons) is lower than that nationally.

Some caution should be exercised when using the CNOS. Census estimates of overcrowding only count usual residents (and not temporary residents). This means that the measures are likely to understate the true level of overcrowding. Other measures of overcrowding (such as stress measures described in Chapter 1) might also reveal that those experiencing moderate levels of overcrowding are nevertheless under strain.

The analysis below focuses on the most severe and problematic forms of overcrowding using the ABS's CNOS measures.

3.2   Rates of severe and other overcrowding in NSW are higher than in Australia

This section focuses on ABS estimates of severe overcrowding, where households require 4 or more additional bedrooms to meet the CNOS (CNOS 4+) and other overcrowding, where the household needs an additional 3 bedrooms to meet the CNOS standard (CNOS 3) in Australia and NSW.

In 2016, there were 51,088 persons living in severely overcrowded dwellings in Australia (CNOS 4+). They occupied 5,806 dwellings, meaning that on average, each severely overcrowded dwelling had around 9 occupants (see Table 2). By contrast, the average household size in NSW was 2.6 persons per household. [2]

Because populations are of differing sizes, overcrowding rates use the number of persons in overcrowding per 10,000 persons in the usual resident population. In Australia, there were on average around 21.8 persons in severely overcrowded dwellings per 10,000 people (equivalent to 0.22 per cent of the population).

Table 2: Severe and other overcrowding in Australia and NSW, 2016

		Dwellings	Persons	Rate (persons per 10,000 population)
Australia	Severely overcrowded (CNOS 4+)	5,806	51,088	21.8
	Other overcrowded (CNOS 3)	na	80,908	34.6
NSW	Severely overcrowded (CNOS 4+)	na	16,821	22.5
	Other overcrowded (CNOS 3)	na	32,512	43.5

Source: ABS (2016a)

There were 16,821 persons in severe overcrowding (CNOS 4+) in NSW in 2016. Rates of severe overcrowding in NSW (22.5 persons per 10,000 population) were marginally higher than in Australia.

Rates of other overcrowding (CNOS 3) were higher in NSW (43.5 persons per 10,000 population) than in Australia (34.6 persons per population).

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[2] In NSW, of occupied private dwellings, 6% had 1 bedroom, 22.2% had 2 bedrooms and 37.2% had 3 bedrooms. The average number of bedrooms per occupied private dwelling was 3. The average household size was 2.6 people.

3.3   The number of people experiencing severe and other overcrowding in NSW and Australia is increasing

In Australia, the number of persons occupying severely overcrowded dwellings increased from 41,370 in 2011 to 51,088 in 2016 (23% increase). The number of persons in other overcrowded (CNOS 3) dwellings increased by 32 per cent from 60,878 in 2011 to 80,908 persons in 2016.

In 2016, there were 5,806 severely overcrowded households in NSW. Severe overcrowding has more than tripled in NSW, from 5,120 persons in 2001 to 16,821 persons in 2016. In 2016, rates of severe overcrowding in NSW (22.5 persons per 10,000 population) were marginally higher than in Australia. Other overcrowding (CNOS 3), doubled from 16,190 persons in 2001 to 32,512 persons in 2016. Rates for this form of overcrowding were higher in NSW in 2016 (43.5 persons per 10,000 population) than in Australia (34.6 persons per population).

Table 3: Number of persons in severely overcrowded and other overcrowded dwellings 2011 and 2016, NSW and Australia

	NSW			Australia	
	2001	2011	2016	2011	2016
Severe overcrowding (CNOS 4+)	5,120	9,655	16,821	41,370	51,088
Other overcrowding (CNOS 3)	16,190	22,138	32,512	60,878	80,908

Source: ABS (2016a)

Some of the growth in overcrowding is due to population growth; to compensate for this, the incidence of overcrowding can be measured as the number of overcrowded households per 10,000 of the population.

Figure 1: Rate of persons experiencing severe and other overcrowding (per 10,000 of the population) Australia and NSW, 2011 and 2016
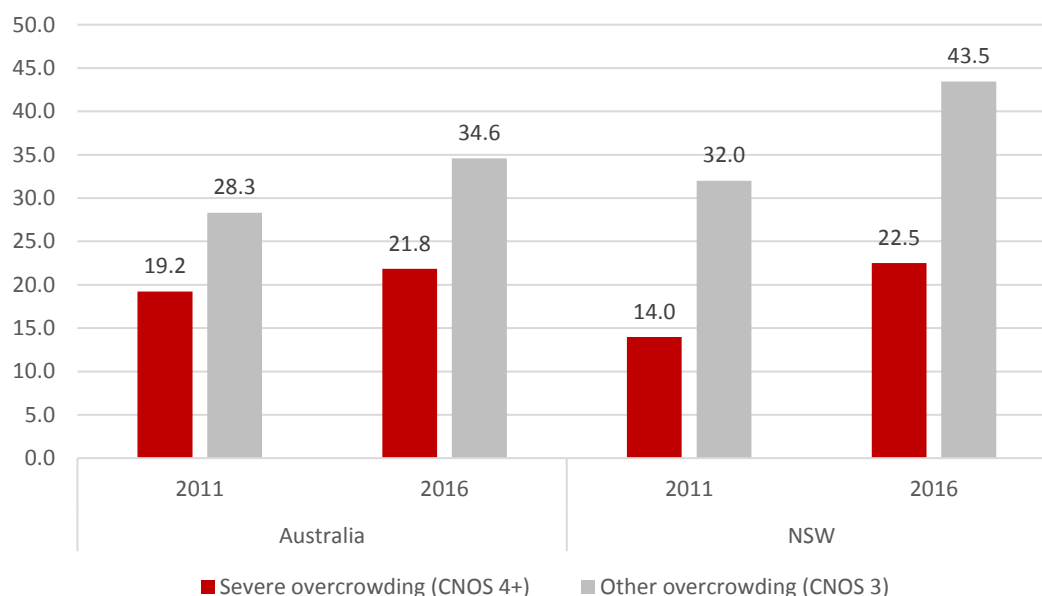
Source: ABS (2016a) Census of Population and Housing Estimating Homelessness, data cubes tables 1.1, 2.1 and 2.2 similar data from ABS (2011).

The rate of severe overcrowding in NSW increased from 14 persons per 10,000 of the population to over 22 persons per 10,000 over the period 2011 to 2016 (Figure 1). Similarly, the rate of persons experiencing other overcrowding (CNOS 3) increased from 32 persons per 10,000 to 43 persons per 10,000 over the same period (Figure 1).

3.4 Where is overcrowding concentrated?

3.4.1 Severe overcrowding is concentrated in Sydney

Figures 2 and 3 below show where in NSW severe overcrowding (CNOS 4+) was concentrated in 2016. The analysis was undertaken at the Statistical Local Area 3 (SLA3) level in relation to the following densities of severe overcrowding: low (0–10 persons per 10,000); moderate (11–24 persons per 10,000); high (25–46 persons per 10,000); very high (47–92 persons per 10,000); and extreme (93–168 persons per 10,000).

These maps shows that severe overcrowding is concentrated in Sydney but not the rest of NSW.

Figure 2: Rate of persons per 10,000 of the population is severe overcrowding in NSW, 2016
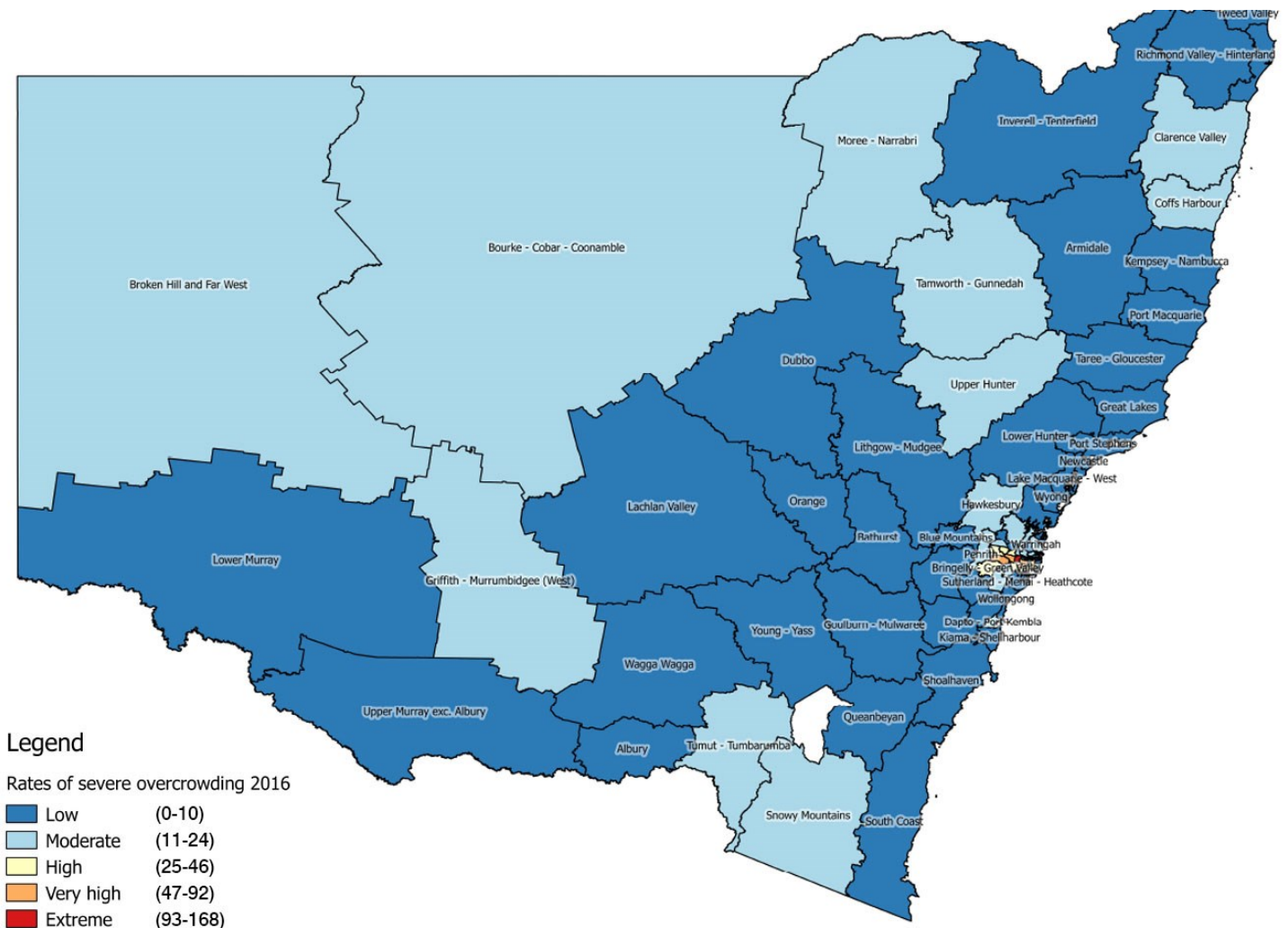
Source: ABS (2016) 2049.0 Census of Population and Housing Estimating Homelessness data cubes and usual resident population data from ABS Table builder. Classification (number of persons living in severe overcrowding per 10,000 of the total population): Low: 0–10, moderate 11–24, high 25–46, very high 47–92 and extreme 93–168)

Figure 3: Rate of persons per 10,000 of the population is severe overcrowding, Greater Sydney Area, 2016
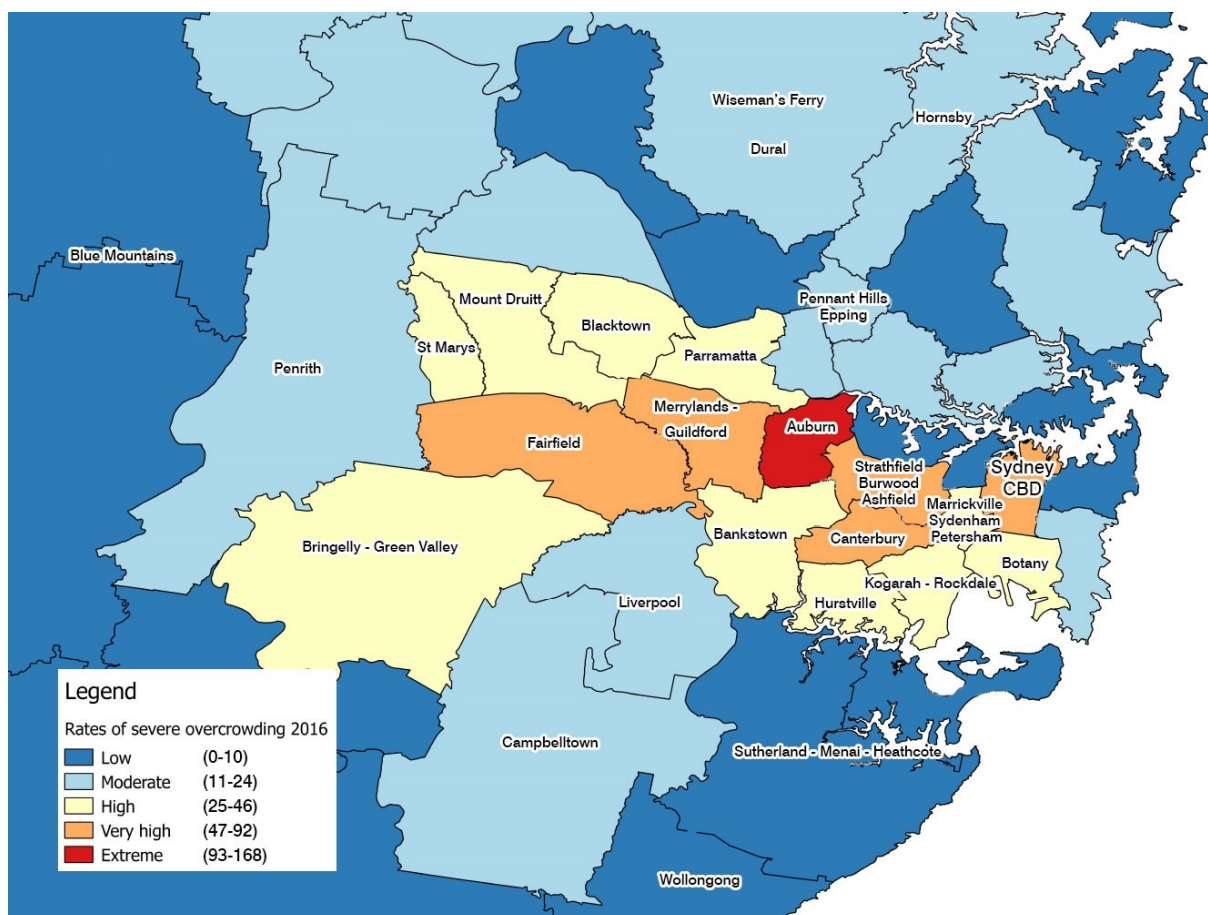
Source: ABS (2016) 2049.0 Census of Population and Housing Estimating Homelessness data cubes and usual resident population data from ABS Table builder. Classification (number of persons living in severe overcrowding per 10,000 of the total population): Low: 0–10, moderate 11–24, high 25–46, very high 47–92 and extreme 93–168)

The highest (rated extreme) rate of overcrowding was in the Sydney suburb of Auburn with 168 persons per 10,000 of the population living in severely overcrowded housing. Canterbury, Fairfield, Inner Sydney, Merrylands-Guildford and Strathfield-Burwood-Ashfield recorded very high rates of severe overcrowding, reaching or exceeding 46 persons per 10,000 of the population. High rates of overcrowding were in suburbs in the south and western parts of Sydney metropolitan area.

Several areas close to the inner city and north of Sydney (areas with high housing costs) nevertheless recorded low rates of overcrowding. In Canada Bay, Eastern Suburbs-North, Leichhardt and North Sydney-Mosman rates of severe overcrowding were below 10 persons per 10,000 of the population. Outside of the Sydney region all areas recorded low or moderate rates of severe overcrowding.

Levels of other overcrowding (CNOS 3) are spatially similarly distributed to levels of severe overcrowding. High to extreme rates of overcrowding are recorded in Sydney, but not in the rest of NSW, except for Bourke-Cobar-Coonamble.

3.4.2 Overcrowding is increasing in Sydney and in some areas of regional NSW

Error! Reference source not found. below shows how overcrowding rates have c hanged between 2011 and 2016 across all SLA3s in NSW. The analysis used the following categories: large decrease (declines of 10 to 15 persons per 10,000); moderate decrease (declines of 0 to 9 persons per 10,000); moderate increase (increases of 1 to 10 persons per 10,000); large increase (increases of 11 to 50 persons per 10,000); extreme increase (increases of 51 to 108 persons per 10,000).

These maps show that the rate of severe overcrowding has increased in more areas (62 locations) than it has decreased (30 areas).

Figure 4: Changes in rate of severe overcrowding per 10,000 of the population, NSW, 2011–2016
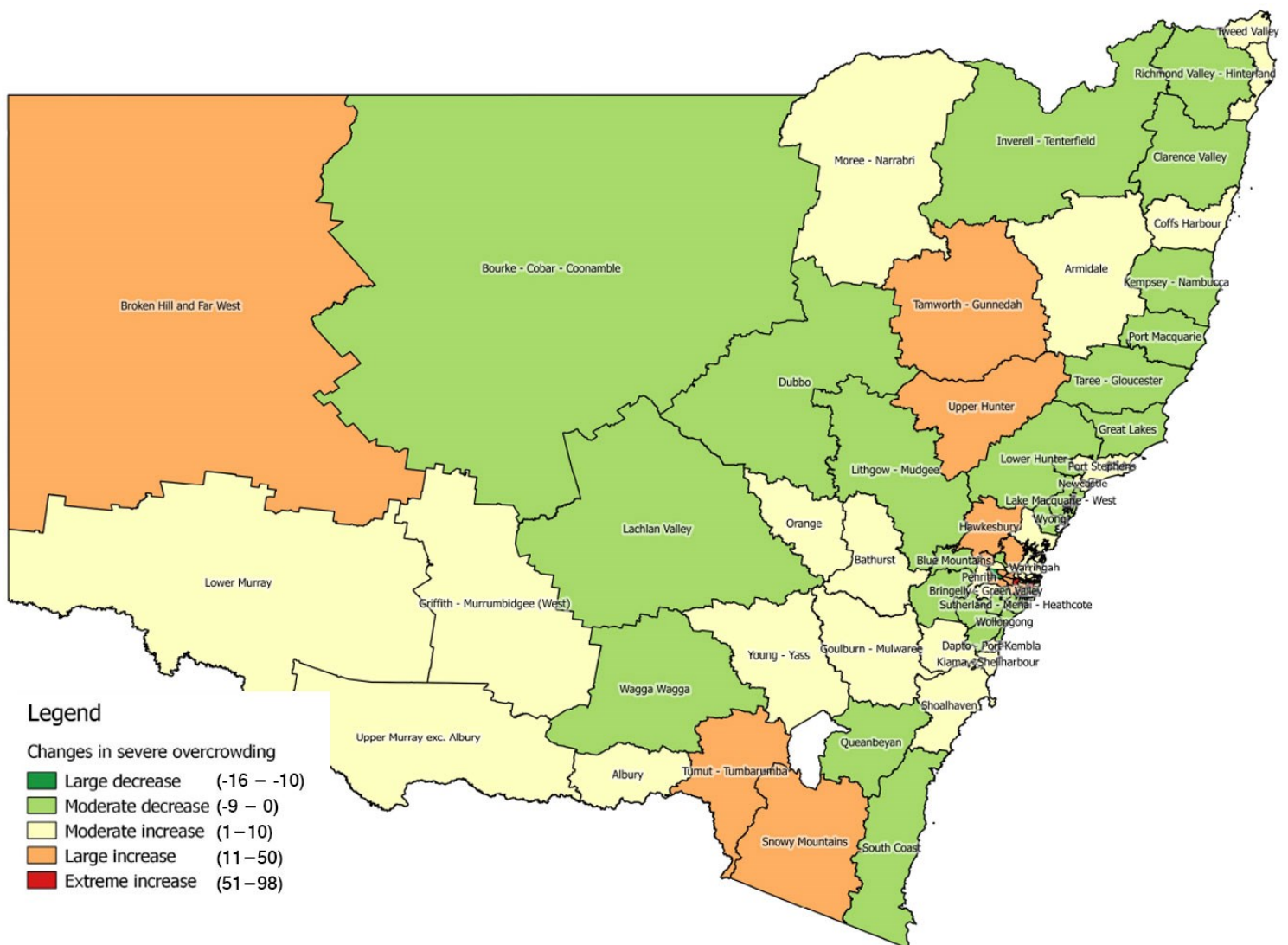
Source: ABS 2049.0 Census of Population and Housing Estimating Homelessness data cubes (2011 and 2016) and Usual Resident Population data from ABS Table builder

Figure 5: Changes in rate of severe overcrowding per 10,000 of the population, Greater Sydney Area, 2011–2016
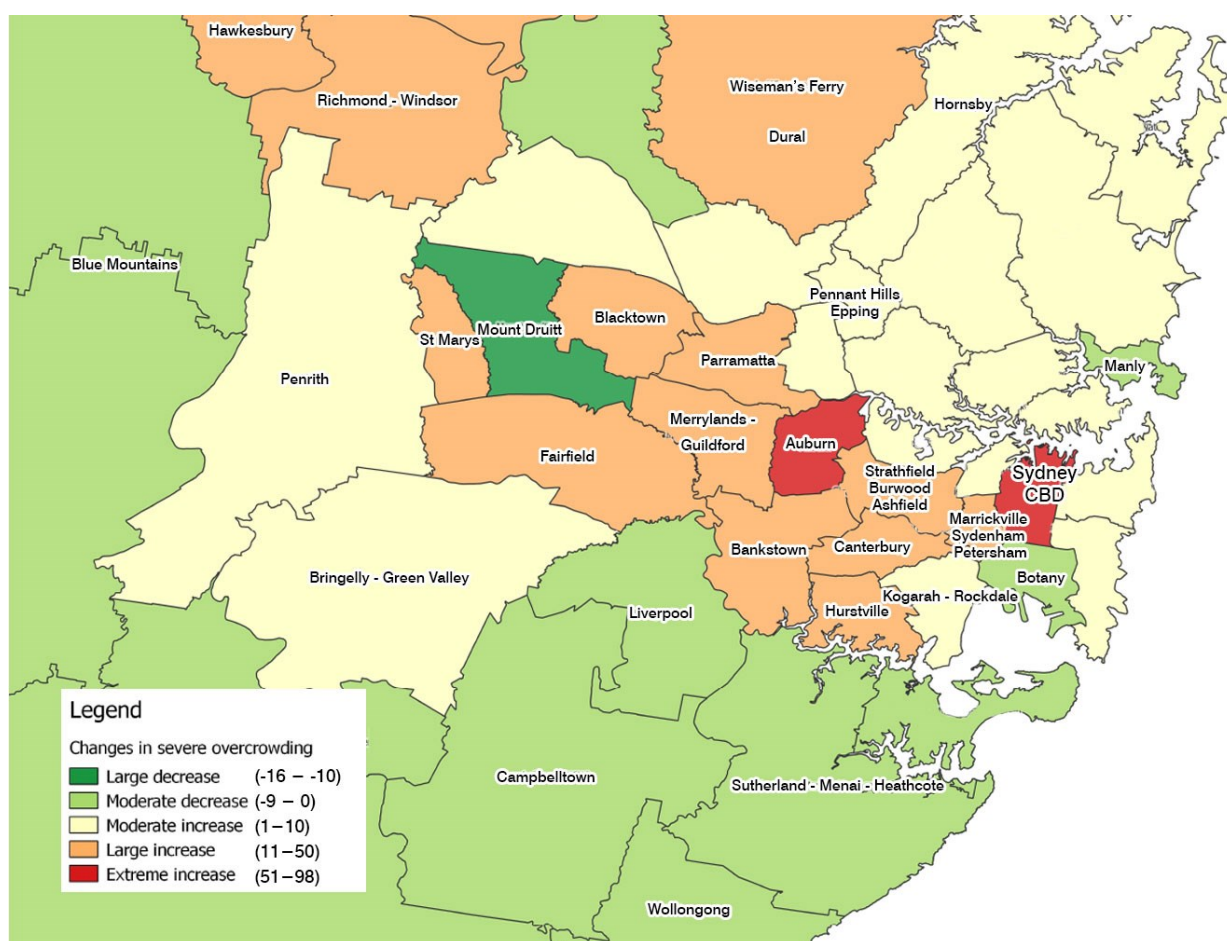
Source: ABS 2049.0 Census of Population and Housing Estimating Homelessness data cubes (2011 and 2016) and Usual resident population data from ABS Table builder

In most areas of Sydney, the rate of severe overcrowding has been increasing. Auburn and Inner Sydney recorded extreme increases in severe overcrowding. Large increases of overcrowding occurred in eleven areas in Sydney (mainly the south and west) and in seven areas located in the rest of NSW (including one remote NSW). Eight areas in Sydney experienced moderate decreases in severe overcrowding and Mount Druitt has experienced a large decrease in severe overcrowding, exceeding a decline of over 10 persons per 10,000 of the population.

3.4.3 Overcrowding is highest in rental tenures, including social rental

The ABS publishes data on the characteristics of Australian dwellings that are severely overcrowded (CNOS +4) is available nationally and is not disaggregated by state. Table 4 below shows that Australia wide, in 2016, 71 per cent of all severely overcrowded dwellings were rented. Around 21 per cent of all severely overcrowded

dwellings were owned or being purchased, suggesting that some householders are taking in lodgers as a means to generate income.[3]

Table 4: Tenure of severely overcrowded dwellings, Australia, 2016

Tenure	Number of severely overcrowded dwellings (CNOS +4)	Per cent
Owned outright	480	8
Owned with a mortgage	757	13
Being purchased under a shared equity scheme	31	1
Rented	4,121	71
Being occupied rent-free	149	3
Being occupied under a life tenure scheme	24	0
Other tenure type	109	2
Not stated	141	2
Total	**5,806**	**100**

Source: ABS (2016) 2049.0 Census of Population and Housing, Estimating Homelessness, 2016 Table 1.15 (NSW specific data was not available).

AIHW data on overcrowding in social housing applies a less stringent measure of overcrowding, where households are considered to be overcrowded if they require *at least* one extra bedroom (CNOS 1+). This data is published by the Productivity Commission (2018). The data show that overcrowding is a significant issue in social housing across Australia. Almost 3.8 per cent of all public housing, 4.3 per cent of community housing and 24 per cent of State Owned and Managed Indigenous Housing (SOMIH) is overcrowded (**Error! Reference source not found.** below).

Table 5: Proportions of overcrowded households in social housing tenures, 2018

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
Public Housing	3.5%	4.4%	4.3%	4.0%	2.1%	4.8%	4.5%	7.4%	3.8%
SOMIH	6.9%		12.3%		7.6%	5.1%		54.3%	24.2%
Community Housing	6.3%	4.1%	2.3%	1.7%	3.0%	3.3%	1.3%	na	4.3%
Indigenous Community Housing*	na	3.5%	24.0%	11.1%	32.5%	na		na	na

Source: Productivity Commission, *Report on Government Services*, attachment tables 18A.25–28 (* 2017 figures).

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[3] Data is available only for severely overcrowded dwellings; data does not distinguish between privately rented dwellings and social housing.

In NSW, proportions of overcrowded social housing dwellings are lower, with 3.5 per cent of public housing, 6.3 per cent of community housing and 6.9 per cent of SOMIH being overcrowded. On this basis, we estimate that approximately 3,900 public housing dwellings, 317 SOMIH and 2,230 community housing dwellings were overcrowded (requiring one or more bedrooms to meet standard) in NSW in 2018.

High rates of overcrowding in social housing are also evidenced overseas. A study in New Zealand used a database of social housing applicants and tenants and found that overcrowding was higher in social housing (38%) than for the country as a whole (10%), and was even higher among applicants for social housing (52%) (Michael et al. 2016). High levels of overcrowding were associated with the high representation of Maori and Pacific islanders in social housing (two thirds of all social housing tenants).

3.4.4 Severe overcrowding mainly occurs in separate houses

Table 6 below shows that 73 per cent of all severely overcrowded dwellings in Australia are separate houses; around 17 per cent are flats or apartments; and 9 per cent are semi-detached, row or terrace or townhouses. This means that efforts to regulate overcrowding in strata title might only affect a minority of severely overcrowded dwellings.

Table 6: Dwelling type of severely overcrowded dwellings (CNOS 4+), Australia, 2016

Dwelling type	Number of severely overcrowded dwellings	Per cent
Separate house	4,226	73
Semi-detached, row or terrace house, townhouse etc.	496	9
Flat or apartment	970	17
Caravan, cabin, houseboat	34	1
Improvised home, tent, sleepers out	17	0
House or flat attached to a shop, office, etc.	29	0
Not stated	35	1
Total	**5,806**	**100**

Source: ABS (2016) 2049.0 Census of Population and Housing, Estimating Homelessness, 2016 Table 1.15 (NSW specific data was not available.)

3.5   How does overcrowding affect rates of homelessness?

3.5.1 Homelessness is increasing in Australia and NSW

Homelessness has increased by 22 per cent in Australia over the period 2001 to 2016, with the number increasing from 95,314 to 116,427 persons. The growth was especially apparent in the recent period 2011 to 2016. Table 7 shows that growth in homelessness has been more rapid in NSW than in Australia. The number of homeless persons increased by 64 per cent (from 23,041 in 2001 to 37,715 in 2016).

The proportion of homeless persons in NSW has increased from 24 per cent in 2001 to 32 per cent in 2016. Even taking into account population growth, the incidence of homelessness in NSW has increased significantly from 36.4 persons per 10,000 of the population in 2001, to 50.4 per 10,000 in 2016.

Parkinson et al. (2019) found that homelessness is concentrated in the major cities and the most populous states, NSW and Victoria. In 2016, 20.6 per cent of all homelessness in Australia was in Sydney and 19.1 per cent in Melbourne (other capital cities comprised 25% of all homelessness).

Table 7: Numbers of homeless persons in Australia and NSW

	2001	2006	2011	2016	Per cent growth 2001 to 2016
Australia	95,314	89,728	102,439	116,427	32%
NSW	23,041	22,219	27,479	37,715	64%
NSW homelessness as a percentage of Australian homeless	24.2%	24.8%	26.8%	32.4%	

Source: ABS (2016a; 2001; 2006; 2011)

3.5.2 Severe overcrowding is driving increases in homelessness

Table 8 below shows that the large increases in homelessness in NSW are mainly due to the very rapid increase in severe overcrowding from 5,120 persons in 2001 to 16,821 in 2016 (an increase of almost 230%). By contrast, other forms of homelessness increased by 17 per cent over the same period. Severe overcrowding constituted 22 per cent of all homelessness in 2001, but was almost 45 per cent in 2016.

Table 8: Number of persons in severely overcrowded dwellings and total homeless, NSW

	2001	2006	2011	2016	Per cent change 2001 to 2016
Severely crowded	5,120	5,902	9,655	16,821	229%
Other homeless	17,921	16,317	17,822	20,890	17%
Total homeless	23,041	22,219	27,479	37,715	64%
Severely crowded as a % of homeless	22.2%	26.6%	35.1%	44.6%	

Source: ABS (2016a) 2049.0 Census of Population and Housing, Estimating Homelessness, Also ABS (2001) and ABS (2006) and ABS (2011). Tables 1.1, 2.2

Similar trends are apparent in Australia, with the number of persons in severe overcrowding growing from 33,430 in 2001 to 51,088 in 2016 (a growth of 52%). This growth has exceeded all other categories of homeless except supported accommodation for the homeless (58%) but is still more modest than the growth recorded over the same period in NSW.

Population growth does not explain this rapid rise. Figure 6 shows that the increasing incidence of persons living in severely overcrowded dwellings is the main contributor to the increase in the overall rate of homelessness in NSW. In 2001, NSW had a relatively low rate of severe overcrowding (8.1 per 10,000 persons), but this rose to 22.5 per

10,000 persons in 2016. This increase (14.1 persons per 10,000) matched the rise in homelessness more generally (14.0 persons per 10,000).

Figure 6: Rate of severe overcrowding per 10,000 of the population and total homelessness, NSW, 2001 to 2016
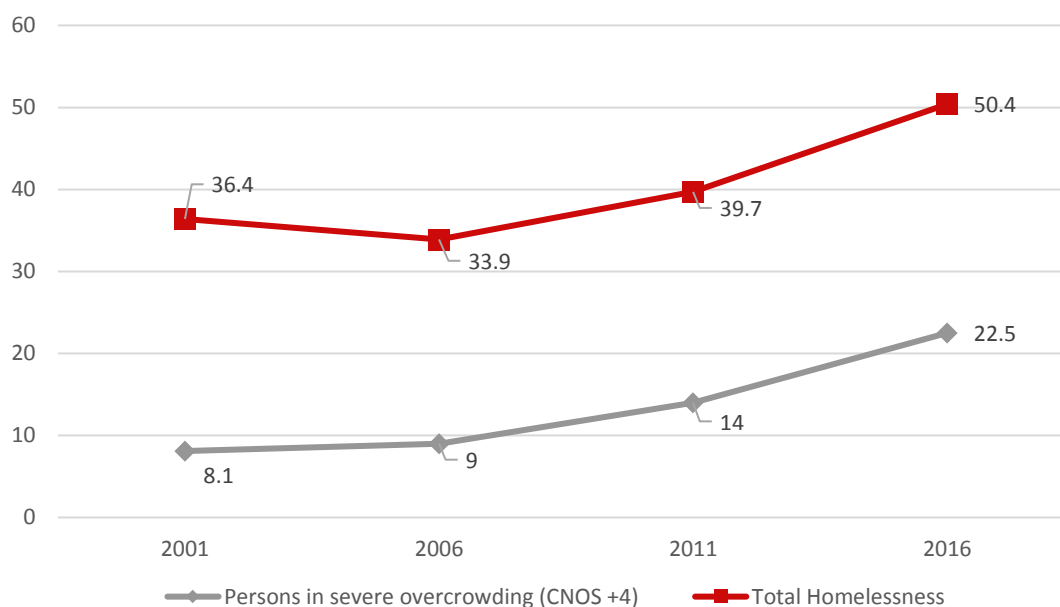
Source: (ABS 2016a; 2001; 2006; 2011)

3.5.3 Homelessness is highest in areas where overcrowding is acute but is also occurring in other locations

Error! Reference source not found. and 8 below show the rates of homelessness (number of persons homeless per 10,000 of the population) in different regions of NSW (SLA3 level). The analysis used the following categories: low (0 to 21 persons per 10,000 population); moderate (22 to 40 persons per 10,000); high (41 to 73 persons per 10,000); very high (74 to 135 persons per 10,000); and extreme (136 to 232 persons per 10,000).

Extreme rates of homelessness were recorded in Auburn, Inner Sydney and Marrickville-Sydenham-Petersham, where more than 104 persons per 10,000 of the population were homeless. Very high levels of homelessness were documented in Canterbury, Fairfield, Merrylands-Guildford and Strathfield-Burwood-Ashfield. Outside of the Sydney region, 13 areas in the rest of NSW recorded high rates of homelessness. These are very similar to the same areas that also recorded high rates of overcrowding.

Figure 7: Rates of homelessness per 10,000 of the population, NSW (2016)
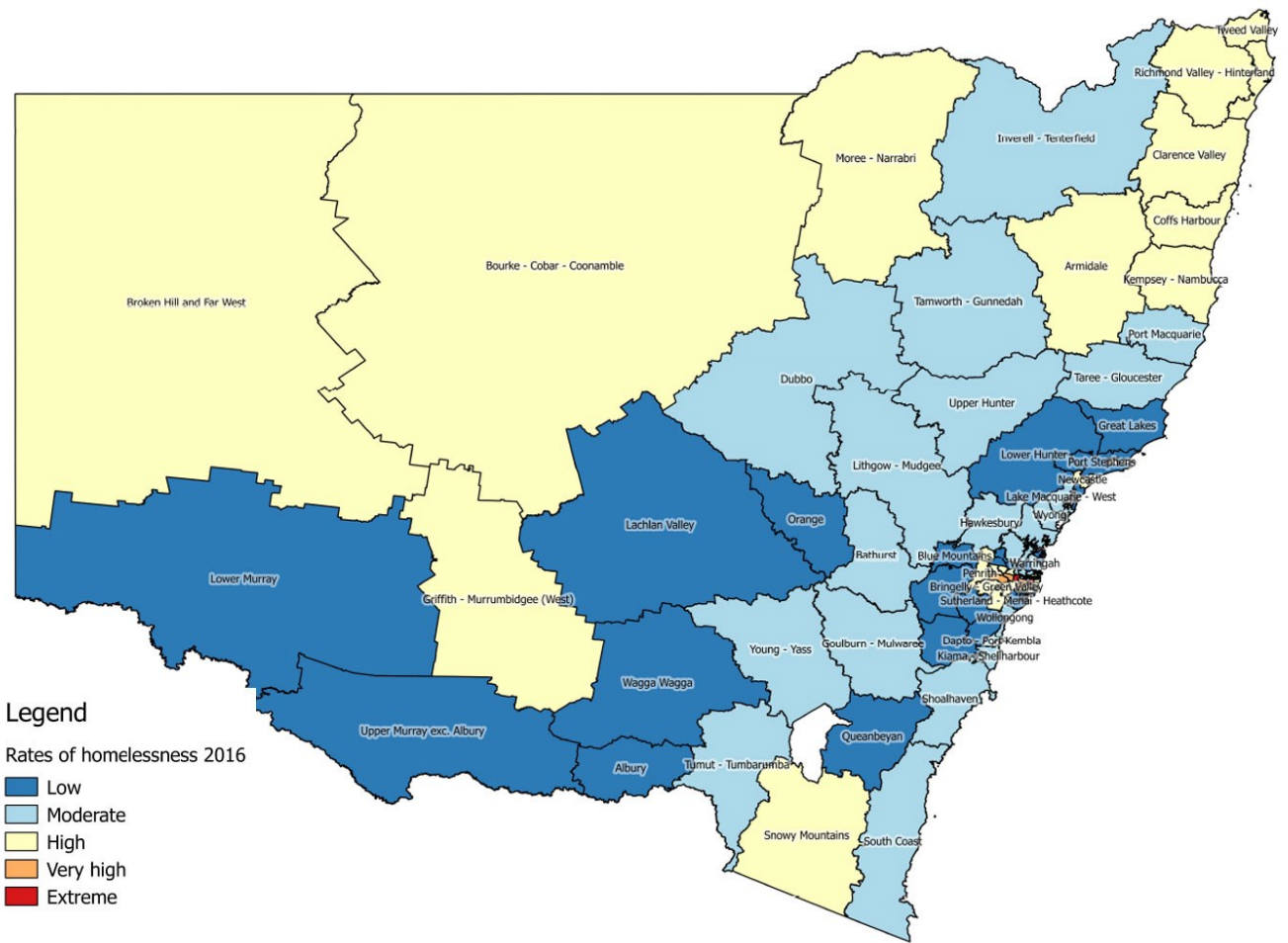
Source: (ABS 2016a)

Figure 8: Rates of homelessness per 10,000 of the population, Greater Sydney Area, 2016
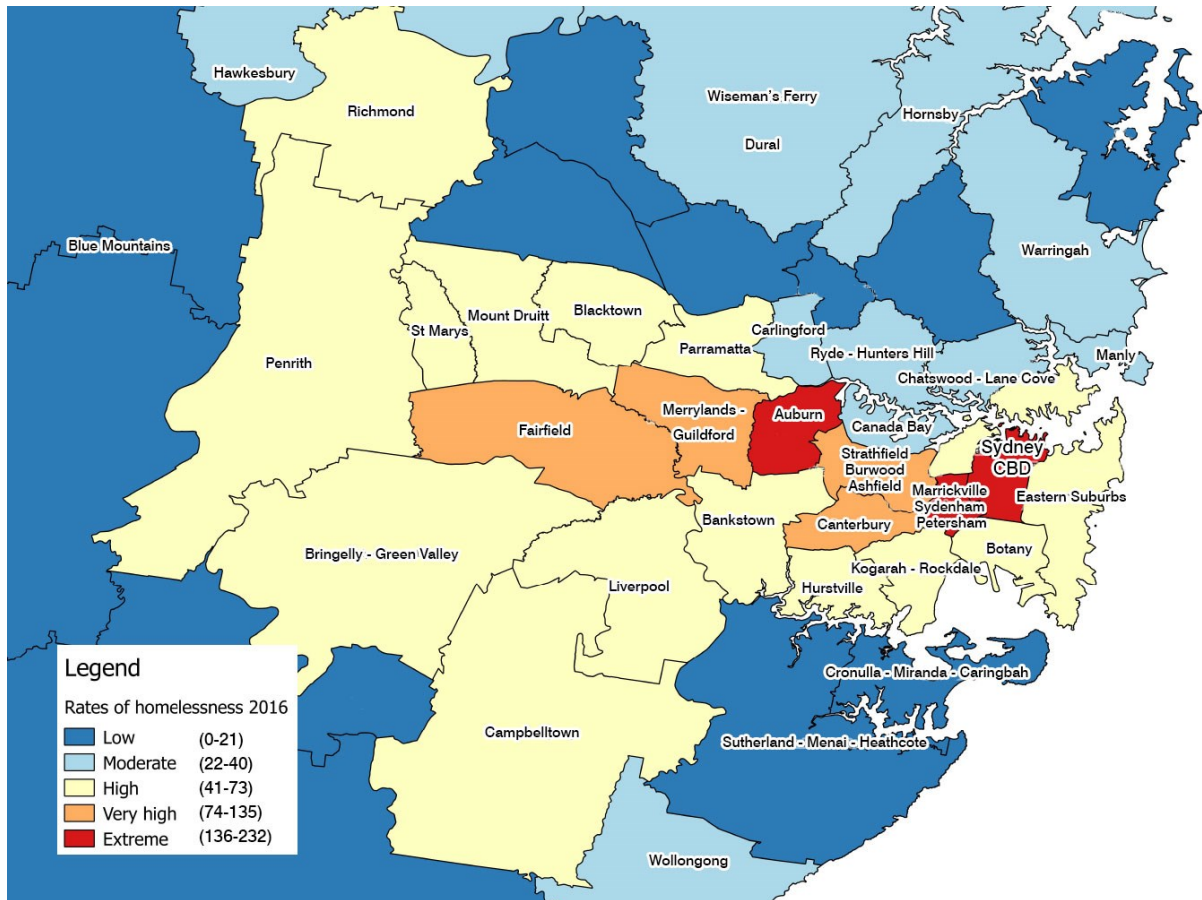
Source: (ABS 2001; 2006; 2011; 2016)

In NSW between 2011 and 2016, rates of homelessness increased in 70 areas and declined in 22 areas. An extreme increase in homelessness was recorded in Auburn and Inner City, where homelessness rose by more than 50 persons per 10,000 of the population. A further twelve areas in Sydney experienced a large increase in homelessness of more than 10 persons per 10,000 of the population. This is consistent with the findings of Parkinson et al. (2018) showing that homelessness in Australia's capital cities is growing disproportionally compared to regional areas.

Rates of homelessness also rose in the rest of NSW, with the majority of areas recording either a large or moderate increase in homelessness. Of the 22 areas experiencing a decrease in homelessness, eight were located in Sydney and 14 in the rest of NSW. A large decrease of homelessness of over 10 persons per 10,000 of the population was experienced in Botany, Blue Mountains, Mount Druitt, Kempsey-Nambucca and Taree-Gloucester.

The high levels of homelessness in Sydney reflect high rates of severe overcrowding. However, high levels of homelessness recorded outside of Sydney and in some parts of regional NSW reflect other forms of homelessness and are not primarily due to high levels of severe overcrowding.

4 Profile of people experiencing severe and other overcrowding

Most persons experiencing overcrowding live with their family or in multiple family households. In NSW, young persons, Indigenous people, tertiary students and migrants are more likely to experience overcrowding than the general population. Men are slightly more likely to experience severe overcrowding than women.

The profile of those experiencing severe overcrowding is different from those experiencing other forms of homelessness. While Indigenous people are present in both groups, non-crowding homelessness is mainly experienced by single people, men, Australian born persons, and is experienced more evenly across all age groups.

4.1 Persons experiencing overcrowding generally live in family and multiple family households

Table 9 shows that across Australia, people who experience severe overcrowding are found in three main types of households: multiple family households (49%), single family households (34%) and group households (16%). This suggests that over 80 per cent of all overcrowding occurs within families or extended family contexts. The presence of family connections is potentially important in providing protection and support for individual members. Group households may have looser social bonds, and so may provide fewer protections and supports for members experiencing overcrowding.

Table 9: Composition of households in severely overcrowded dwellings, Australia, 2016

Household composition	Number of severely overcrowded dwellings (CNOS 4+)	Number of persons in severely overcrowded dwellings (CNOS 4+)	Percent of all persons in severely overcrowded dwellings (CNOS 4+)
One family household	2,241	17,580	34%
Multiple family household	2,349	25,237	49%
Lone person household	0	0	0%
Group household	1,214	8,278	16%
Visitors only	0	0	0%
Total	5,806	51,088	100%

Source: (ABS 2016a)

4.2 Young people are disproportionately represented in overcrowded housing

Severe overcrowding is a significant issue among young persons. Table 10 below shows that of the 16,818 persons experiencing severe overcrowding (CNOS 4+) in NSW in 2016, 7,680 (45%) were children or young people:

→ 3,746 (or 22%) were children under 18 years of age

→ 3,929 (or 23%) were young people aged 19–24.

Young people were even more prevalent on other forms of overcrowding (CNOS 3):

→ 8,945 (or 28%) were children under 18 of age

→ 7,064 (or 22%) were young people aged 19–24.

In both cases, the proportion of young people and children in severe overcrowding (45%) and other overcrowding (50%) was well above the proportion of young people and children in the NSW population (31%). By contrast, only 8 per cent of people in overcrowding were aged over 55 compared to 28 per cent of the general NSW population.

Table 10: Number of people experiencing overcrowding by age, NSW, 2016

Age group	Severe overcrowding (CNOS 4+)	Per cent	Other overcrowding (CNOS 3)	Per cent	NSW population by age group
Under 12	2,264	13%	5,462	17%	
12–18	1,482	9%	3,483	11%	31%
19–24	3,929	23%	7,064	22%	
25–54	7,790	46%	13,961	43%	41%
55+	1,353	8%	2,534	8%	28%
Total	**16,818**	**100%**	**32,504**	**100%**	**100%**

Source: (ABS 2016a)

There has been particular growth in overcrowding among the 19–24 year age group. Figure 9 shows that in NSW, the rate of severe overcrowding per 10,000 of the population grew from 39.8 in 2011 to 67.5 in 2016; other overcrowded housing (CNOS 3) per 10,000 also increased from 85.2 in 2011 to 121.4 in 2016.

High increases in the rate of severe overcrowding also occurred among the 25–35 year age group (19.7 in 2011 to 44.3 in 2016). The rate of other overcrowding among this cohort increased from 47.0 (2011) to 73.9 (2016).

The rate of severe overcrowding in the 35–44 age group more than doubled (8.6 in 2011, 17.8 in 2016).

While overcrowding appears to be predominantly an issue for younger people, it is increasing as a problem for people aged over 55 in NSW. The number of older persons in severe overcrowding increased from 736 in 2011 to 1,353 in 2016, and other

overcrowding (CNOS 3) increased from 1,537 to 2,534 in 2016. There has been growth even if population growth is taken into account.

Petersen et al. (2014) found that overcrowding is an issue mainly among the 55–64 age group. This occurs because older people need to move in with their children due to the problems older people with low incomes have in accessing affordable and suitable private rental market housing. The study found that the lack of suitable housing was more acute if people had disabilities or physical access issues.

Figure 9 shows that the concentration of non-crowding homelessness (i.e. all homelessness excluding severe overcrowding) was more evenly distributed across the age groups, with minimal change between 2011 and 2016.

Figure 9: Severe overcrowding, other overcrowding and non-crowding homelessness per 10,000 of the population by age in NSW 2011 and 2016
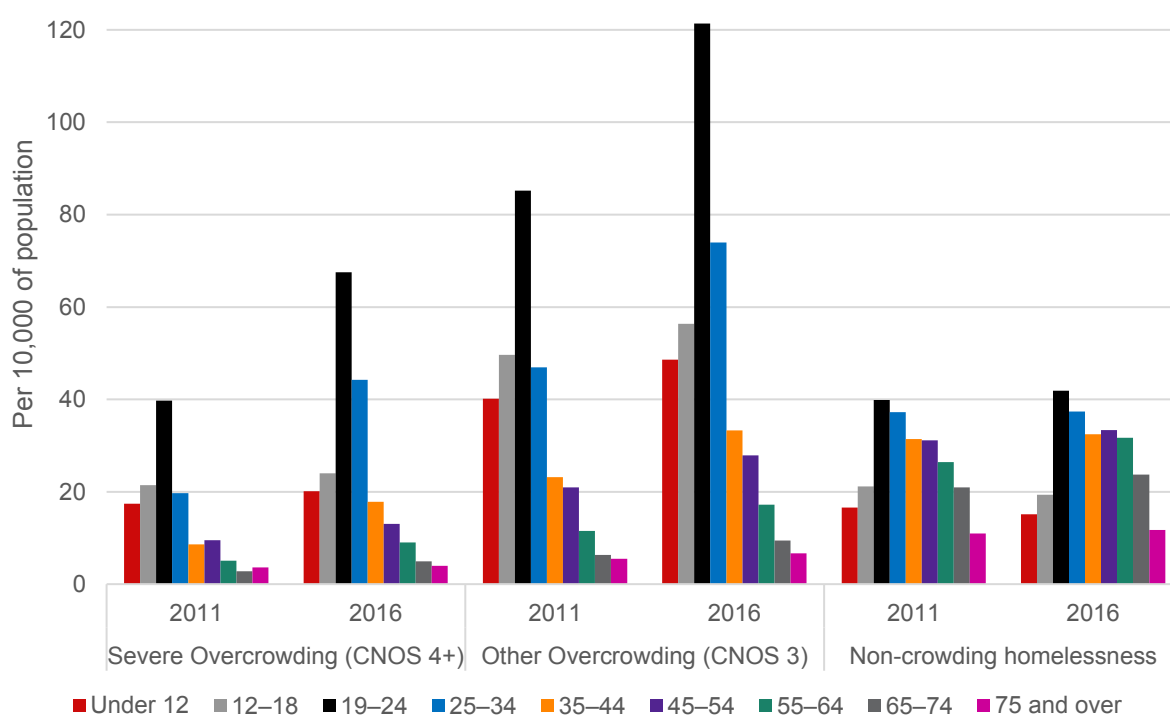
Sources: (ABS 2016a; 2011)

4.3 Similar proportions of men and women experience overcrowding

Similar proportions of men and women experience other overcrowding, but men are slightly more likely to experience severe overcrowding (Figure 10). Of all people in severe overcrowding in 2016, 57 per cent were males and 43 per cent were females. This contrasts with non-crowding homelessness, in which the majority are men (63%).

The tendency for males to experience severe overcrowding seems to have become more pronounced since 2011 (in 2011 the proportions of males and females experiencing severe overcrowding were more equal).

Figure 10: Homelessness and overcrowding by gender, NSW 2011 and 2016
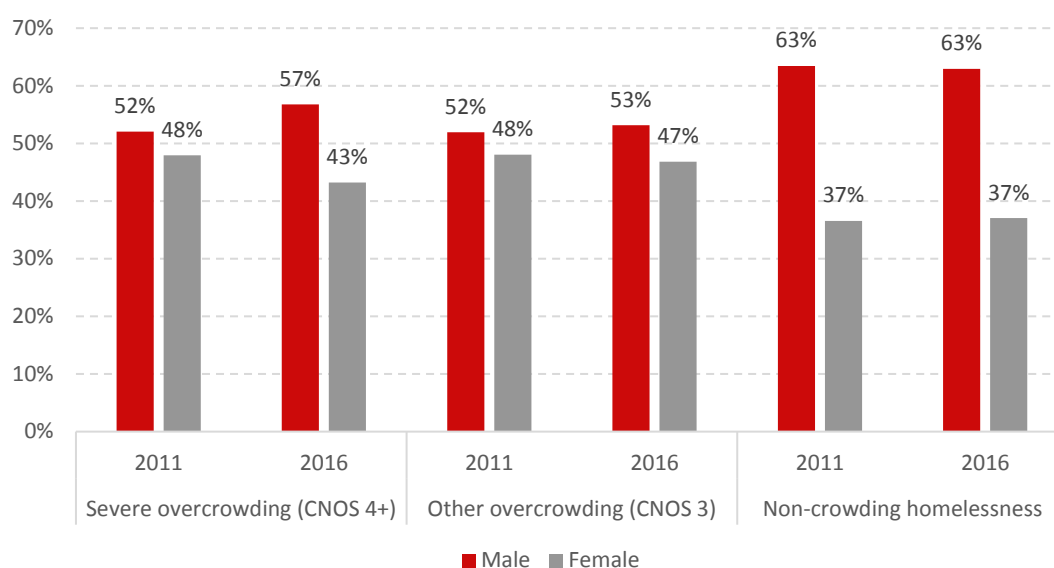
Sources: (ABS 2016a; 2011)

4.4 Indigenous households are more likely to experience overcrowding and homelessness though severe overcrowding is decreasing

The ABS estimate overcrowding in Indigenous households using the CNOS. As outlined in Chapter 2, the use of this measure is contested by some researchers as it is likely to under-estimate the true level of Indigenous overcrowding since many Indigenous persons in households are temporary rather than permanent residents.

In Australia, rates of Indigenous overcrowding using the CNOS have been much higher than for the non-Indigenous population. Using the broadest measure of overcrowding using the CNOS—where a household requiring at least one or more extra bedrooms (CNOS +1), Indigenous households are three times more likely to experience overcrowding compared to other households: 12.9 per cent of Indigenous households and 3.4 per cent of non-Indigenous households required one or more extra bedroom in 2011 (AIHW 2014).

However, rates of overcrowding among Indigenous households are declining. Using the CNOS 1+ measure, the National Aboriginal and Torres Strait Islander Social Survey (NATSISS) shows that the the proportion of Aboriginal and Torres Strait Islander people living in overcrowded dwellings NSW declined from 15 per cent in 2008 to 12 per cent in 2014 (ABS 2016b).

The Census provides estimates of Indigenous severe overcrowding (CNOS 4+). Table 11 shows that there has been an absolute decline in severe overcrowding in NSW. In 2016, there were 533 Indigenous persons in severely overcrowded dwellings, a 4.8 per cent decline from 2011 (560 persons).

The number of Indigenous people in other overcrowding (CNOS 3) increased from 1,267 in 2011 to 1,395 in 2016 (10.1% increase). The number of Indigenous people in non-crowding homelessness increased by 6.1 per cent to 1,745 in 2016.

Table 11: Number of Indigenous persons in severe and other overcrowding and non-crowding homelessness, NSW, 2011 to 2016

	Severe overcrowding (CNOS +4)	Other overcrowding (CNOS 3)	Non-crowding homelessness
2011	560	1,267	1,645
2016	533	1,395	1,745
Change	*-4.8%*	*10.1%*	*6.1%*

Sources: ABS 2016a; 2011

While the absolute number of Indigenous people in severe and other overcrowding is increasing, rates of severe and other overcrowding for Indigenous people are decreasing. This is because the growth in numbers is offset by population growth; i.e. the number of overcrowded and severely overcrowded households is declining as a proportion of the total population. Figure 11 below shows that in NSW, the rate of severe overcrowding was 25 persons per 10,000 in 2016 compared to 32 persons in 2011. By contrast, the non-Indigenous rate of severe overcrowding increased from 14 persons per 10,000 in 2011 to 24 persons per 10,000.

Figure 11: Severe overcrowding, other overcrowding and non-crowding homelessness per 10,000 of the population in NSW by Indigeneity, 2011 and 2016

	Severe overcrowding (CNOS 4+)		Other overcrowding (CNOS 3)	
	2011	2016	2011	2016
Indigenous	73.40	65	95.30	81
Non-Indigenous	31.85	45	22.79	22
Not stated	14.09	6	67.13	90
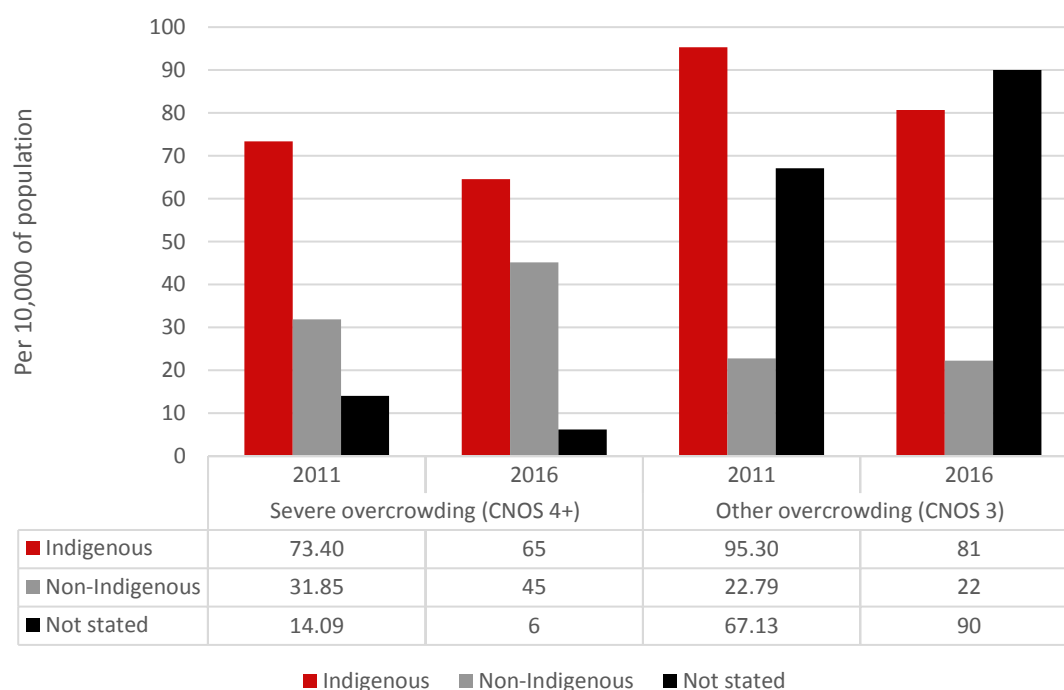
Sources: (ABS 2016a; 2011)

Similar declines have occurred in other overcrowding (CNOS 3): the rate for Indigenous persons was 73 persons per 10,000 in 2011, and this fell to 65 persons per 10,000 in 2016. The non-Indigenous rate increased from 32 persons per 10,000 in 2011 to 45 per 10,000.

From 2011 to 2016, the rate of non-crowding homelessness for Indigenous persons declined from 95 persons per 10,000 to 81 persons per 10,000. The non-Indigenous rate of homelessness remained at around 22 persons per 10,000.

There has been a long term decline in rates of overcrowding amongst Indigenous households. Census data shows that in NSW Indigenous overcrowding in NSW also declined in non-metropolitan areas (Banfield 2013). However, overcrowding was on the rise in Sydney-Wollongong (Banfield 2013). Even so, due to concerns about the appropriateness of using CNOS to measure overcrowding in Aboriginal dwellings due to temporary migration and cultural factors (see Chapter 1), it may be premature to suggest the issues are improving or solved.

A study of Indigenous people's housing in urban areas of NSW found that overcrowding was a problem, as were affordability, poor housing conditions, vermin, structural problems and damp and mildew (Andersen et al. 2017). While social housing was the main tenure for Indigenous people examined in the study (60%), overcrowding issues did not vary significantly by tenure type and were present across all tenures (Andersen et al. 2017).

4.5   Overcrowding is a significant issue for tertiary students

Compared to the NSW population, tertiary students are over-represented in overcrowded households. In 2016, tertiary students represented only 7 per cent of the NSW population, but 17 per cent of all persons in severely overcrowded housing, and 15 per cent of persons in other crowded housing (Table 12). Severe overcrowding is also concentrated in Sydney CBD and Strathfield-Burwood-Ashfield which also have high tertiary student populations (see Appendix D for maps showing the location and density of the student population in NSW).

Table 12: Numbers of persons in severe or other overcrowding by educational attendance, NSW, 2016

	Severe overcrowding (CNOS 4+)	Per cent	Other overcrowding (CNOS 3)	Per cent	Per cent of NSW population
Pre-school, infants/primary School	1,347	7	3,379	9	10
Secondary school	1,092	5	2,529	7	6
Tertiary institutions	3,364	17	5,952	15	7
Not attending	9,221	46	17,841	46	69
Other	1,801	9	2,808	7	8
Total	**20,190**	**100**	**38,458**	**100**	**100**

Source: (ABS 2016a)

The high rate of overcrowding among tertiary students is illustrated in Figure 12. The rate of severe overcrowding has been high and increasing from around 32 persons per 10,000 in 2011 to 65 persons per 10,000 in 2016. The rate of other overcrowding increased from 102 persons per 10,000 in 2011 to 115 persons per 10,000 in 2016. The rates of overcrowding among those not attending education are by comparison much lower than those attending educational institutions.

The rate of non-crowding homelessness amongst tertiary students is slightly higher than other groups but has declined from 30 persons per 10,000 in 2011 to 27 persons per 10,000 in 2016.

Figure 12: Incidence of severe and other overcrowding and non-crowding homelessness, NSW, 2011 and 2016
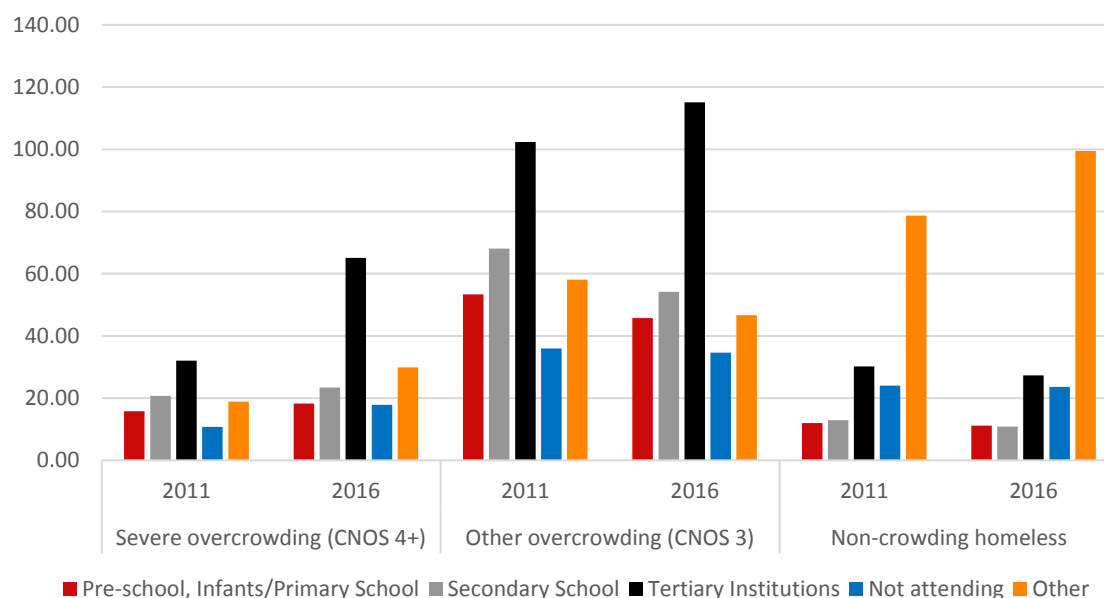
Sources: (ABS 2016a; 2011)

4.6 Migrants are over represented in overcrowding

A high proportion of persons in severe and other overcrowding are migrants. Table 13 below shows that in 2016, around 72 per cent of those in severe overcrowding and 63 per cent of those in other overcrowding were born overseas. By contrast, only 35 per cent of all of the NSW population was born overseas.

Almost half of all non-crowding homeless persons were born overseas, but most are born in Australia.

Between 2011 and 2016 the rate of severe overcrowding in NSW among migrants rose from 84 per 10,000 to 130 per 10,000. This has had a detrimental impact on overall homelessness rates—the homelessness rate for overseas-born migrants has increased by 40% (Wood 2018).

Table 13: Persons experiencing overcrowding by country of origin, NSW, 2016

Country of birth	Severe overcrowding (CNOS 4+)	Other overcrowding (CNOS 3)	Non-crowding homeless	NSW population
Country other than Australia	12,117	20,584	9,849	35%
Australia	4,709	11,925	11,044	65%
Total	**16,826**	**32,509**	**20,893**	**100%**
Percent migrants	72.0%	63.3%	47.1%	

Sources: (ABS 2016a)

Table 14 shows that overcrowding is especially apparent among migrants from Asian countries. In 2016, one fifth of all persons in severe overcrowding and 16 per cent of all persons in other overcrowding came from Southern and Central Asia. Almost another fifth (19%) of those in severe overcrowding and 15% in other overcrowding came from South-East Asia.

The proportion of persons from North-East Asia (mainly mainland China) in severe overcrowding increased from 8 per cent in 2011 to 15 per cent in 2016. By contrast, severe overcrowding amongst those from North Africa and Middle East has declined from 11 per cent of all severe overcrowded persons in 2011 to 6 per cent in 2016.

Table 14: Homelessness and overcrowding in NSW by country of birth 2011, 2016, ABS Census

	Severe overcrowding (CNOS 4+)		Other Overcrowding (CNOS 3)		Non-crowding homelessness	
	2011	*2016*	*2011*	*2016*	*2011*	*2016*
Australia	40%	28%	44%	37%	59%	53%
Oceania and Antarctica	9%	5%	6%	4%	5%	4%
North-West Europe	1%	1%	1%	1%	6%	4%
Southern and Eastern Europe	1%	1%	1%	1%	2%	2%
North Africa and the Middle East	11%	6%	8%	7%	2%	3%
South-East Asia	11%	19%	11%	15%	3%	4%
North-East Asia	8%	15%	8%	12%	3%	4%
Southern and Central Asia	14%	20%	14%	16%	2%	2%
Americas	1%	2%	1%	2%	2%	2%
Sub-Saharan Africa	1%	1%	2%	1%	1%	1%
Other	3%	2%	2%	2%	14%	21%

Source: (ABS 2016a)

Severe overcrowding is geographically concentrated in some of the areas that have high proportions of people born overseas. Areas with high proportions of persons born overseas (over 45%) are all in Sydney, and include Fairfield, Auburn, Strathfield-Burwood-Ashfield, Canterbury, Sydney CBD, Kogarah, and the southern part of the Eastern Suburbs (see Figures A3 and A4 in Appendix D). Severe overcrowding is high, very high or extreme in all but the last of these suburbs (see Figure 8).

Other evidence suggests that overcrowding has been high for refugees. A study of African refugees in Western Sydney found that overcrowding was a significant issue linked to high competition from other new arrivals in the private rental market (Evans and Gavarotto 2010). Banfield (2013) found that in NSW the locations which have high rates of severe overcrowding in 2011 were also areas with high numbers of humanitarian and family entrants and that there is anecdotal evidence of challenges for asylum seekers leaving immigration detention to enter suitable accommodation. Beer and Foley (2003) studied 434 migrants on Temporary Protection Visas, or who had entered under special humanitarian or offshore refugee programs in Perth, Brisbane

and Adelaide. They found that 17 per cent had experienced overcrowding in their housing at different points in their housing career since arrival. They also experienced issues also with poor location of housing and discrimination in the private rental market.

4.7 Overcrowding affects migrants regardless of English proficiency

In 2016, most people in overcrowded (84%) and severely overcrowded housing (82%) spoke English well or very well or only spoke English (**Error! Reference source not f ound.**). This indicates that overcrowding is not necessarily related to English proficiency.

However, there was a small increase in the number of people who do not speak English well, or who do not speak English at all in overcrowded housing (13% in 2011; 18% in 2016) and severely overcrowded housing (16% in 2011; 22% in 2016).

Figure 13: Crowding and homelessness by English proficiency, NSW, 2011, 2016
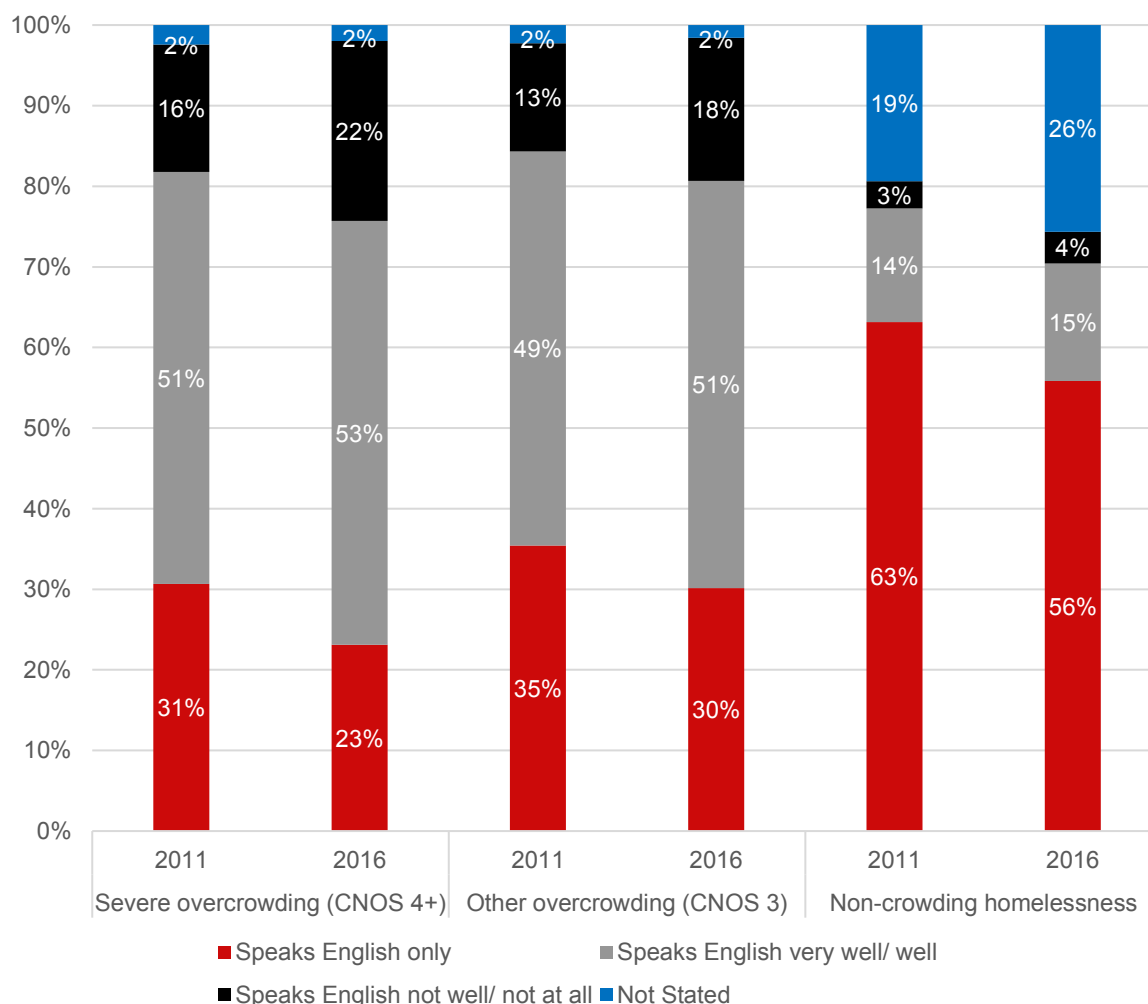
Source: (ABS 2016a)

5 Why do overcrowding and severe overcrowding occur?

Both economic and demographic factors are relevant in understanding why overcrowding occurs.

The combination of high rents and low incomes drives households into overcrowding. Overcrowding is more prevalent in locations of housing affordability stress (households on low incomes that face higher housing costs) and tight housing markets (low rates of rental vacancy). Locations with more social housing and higher rates of unemployment are also significantly linked to severe overcrowding. However, overcrowded households are increasingly likely to be in places with *lower* rates of unemployment suggesting that people may live in overcrowded dwellings in order to access work or education.

Demographic and cultural factors also appear to be relevant in explaining overcrowding. Locations with high numbers of Indigenous people, migrants, and large families are all significantly related to the incidence of overcrowding.

The risk factors that might explain overcrowding appear to be different from those of other homeless groups which are more likely to come from lower educational backgrounds and live in less expensive housing markets with higher rates of unemployment. While Indigenous groups are also overrepresented in the homeless population, this is not the case for migrants and students.

5.1 Housing market factors are significant in driving people into overcrowding

5.1.1 Housing markets drive homelessness

Research from the United States shows that housing markets are the most significant factor in explaining homelessness (Eliot and Krivo 1991; Honig and Filer 1993; Quigley and Raphael 2001). Australian studies have also sought to explain rates of homelessness considering structural factors like housing affordability (Batterham 2012; Wood et al. 2015; Johnson et al. 2015). The results suggest that housing markets play a significant role in precipitating homelessness, and that homeless persons tend to locate in less expensive housing markets:

→ Johnson et al. (2015) found that an increase in the median market rent of $100 (which is 30 per cent increase at the national median weekly rent) lifts the risk of entry into homelessness by 1.6 percentage points (or from a sample mean of 8 per cent to 9.6 per cent, a 20% increase in risk).

→ Batterham (2012) found that homelessness was concentrated in areas of disadvantage (which tended to be less expensive) rather than areas of housing unaffordability.

→ Parkinson et al. (2019) found that the over the period 2001 to 2016, the areas with rising rates of homelessness were in areas with shortages of affordable

private rental housing (as measured by the match between supply and demand for low-cost housing and median rents).

Because severe overcrowding is a component of the ABS's homelessness measure, recent research has started to examine how housing markets are influencing severe overcrowding. Parkinson et al. (2019) found that regional factors (like housing and labour markets) are relevant in explaining homelessness outcomes. For example, severe overcrowding was an important influence on driving higher homelessness in capital cities, but not in regional cities and regional remote areas.

5.1.2 Housing affordability drives overcrowding

The same housing factors that have driven high rates of homelessness in the United States appear also to be linked to higher rates of overcrowding. Some studies in the United States have found that housing markets are less important in driving overcrowding than ethnicity, age, immigration and poverty (Myers et al. 1996). But other studies have found that high house rents and low vacancy rates in major cities are significant drivers of overcrowding among people with low socioeconomic backgrounds (Matlack and Vigdor 2006). Johnston et al. (2016) found similar evidence for ethnic minorities in London, where incomes have not risen in line with housing prices and there has been high population growth including among low income households. The response to this is overcrowding, especially in neighbourhoods with high ethnic minorities. Similar effects of high rents in cities affecting overcrowding among vulnerable populations are in evidence in Auckland (Malva 2016).

It is likely that these findings would also apply to Sydney, where there is ample evidence of worsening housing affordability for those on low incomes (Hulse et al. 2015; Yates et al. 2007). However, there is limited published evidence on the links between housing, labour markets and overcrowding in Australia.

Parkinson et al. (2019) modelled changes in severe overcrowding and spatial patterns of homelessness over the period 2001 to 2016. They found that poor housing affordability is significantly linked to overcrowding at the national level and when focusing on capital cities. They also found that the relationship between housing unaffordability and severe overcrowding was stronger than that for housing unaffordability and homelessness more generally.

The analysis undertaken for this report of recent changes in overcrowding rates supports this finding. Following a methodology used in Australia by other researchers (Batterham 2012; Parkinson et al. 2019), a statistical analysis of disaggregated Census data for 2011 and 2016 (national data at the SLA3 level) was undertaken. The analysis explored whether there are statistically significant relationships between changes from 2011 to 2016 in overcrowding and a range of variables, including structural economic variables like the local housing and labour markets.

Separate models were run for severe overcrowding (CNOS +4) and other overcrowding (CNOS 3). These were then compared with the results for homelessness. Changes in the rate of severe and other overcrowding between 2016 and 2011 (persons per 10,000) were modelled against a range of housing and other variables (using data from regions at an SA3 level). Hence a positive rate would correspond with an increase in homelessness in that location over the time period 2016 to 2011.

The change in rate of overcrowding and homelessness is run against the change in the housing and other variables. Meaning a positive number means that the variable has

seen an increase between the two observations. The results then are about changes in the locations rather than the current level.

The analysis is summarised in Table 15. Statistically significant results are asterisked, and then explained in the sections below. Full results are in Appendix C.

Table 15: Housing market related characteristics relevant to explaining changes in overcrowding and homelessness between 2011 and 2016, Australia

	Severe overcrowding (CNOS 4+)	Other overcrowding (CNOS 3)	All homelessness
Rent difference ($ change, 2016–2011)	-1.54***	0.25	-1.19***
	(0.47)	(0.17)	(0.35)
Rent/income difference	1179.48***	-118.32	1027.15***
	(435.60)	(158.16)	(322.03)
Vacancy rate difference	4.20	-165.66**	244.20*
	(197.40)	(75.87)	(141.71)
Public house rate difference	1431.49**	1034.94***	1777.33***
	(636.71)	(227.49)	(461.46)
Cooperative housing difference	2259.94**	1810.77***	2548.68***
	(940.18)	(357.43)	(723.71)

Source: ABS 2049.0 Census of Population and Housing, Estimating Homelessness, 2016, 2011, modelling using data for all SLA3 in Australia. Statistically significant associations are reported, with three asterisks (***) denoting significance at 1 per cent level, two asterisks (**) denoting significance at the 5 per cent level and one asterisk (*) significance only at 10 per cent level.

Poorer housing affordability increases severe overcrowding

The most meaningful measure of housing affordability is the rent to income ratio. For example, if households in a local area spend on average 25 per cent of their income on rent, the rent to income ratio is 0.25. The analysis looked at how overcrowding is associated with changes in the rent to income ratio over the period from 2011 to 2016. It found that a decrease in rental affordability (i.e. an increase in the ratio) over that period predicts higher levels of severe overcrowding and homelessness (but not other overcrowding):

→ a one per cent increase in rent to income in that area (e.g. an increase in ratio from 0.25 to 0.26) predicts an increase of 11.8 people per 10,000 in severely overcrowded housing

→ a one per cent increase in rent to income predicts an increase of 10.3 people per 10,000 in homelessness.

Tighter housing markets increase overcrowding

The modelling shows that the tight housing markets are related to other overcrowding. A decrease in the vacancy rate is predicted to increase the occurrence of other overcrowding (but not severe overcrowding):

→ a one per cent decrease in vacancy rates between 2011 and 2016, would result in a predicted increase of almost 2 persons per 10,000 in other overcrowding (CNOS 3).

This is in line with expectations; a decrease in the number of vacant properties in the market would increase competition for rental properties and decrease options for potential renters.

Tighter housing markets were weakly associated with lower homelessness; this may be because homeless people avoid expensive housing markets.

Higher rents are associated with lower severe overcrowding

Modelling showed that increases in rents (positive increase in rent would mean that the average rent is higher in 2016 than in 2011 for that SLA3) are significantly associated with lower levels of severe overcrowding.

A $10 increase in rents is associated with a decrease of 15.4 per 10,000 level of severe overcrowding. This is similar to the outcomes for all homelessness, where a $10 increase in rents is associated with a decrease of 11.9 per 10,000 level of homelessness.

While these results seem counterintuitive, they are consistent with the results from Batterham (2012) who found that locations with high housing costs were not the critical factor in determining homelessness. People who are in overcrowded housing or homelessness rationally tend to avoid higher rental cost areas. Areas that have had the largest increase in rent tend to accommodate people with higher incomes that are better able to afford higher rents. These results suggest the same is the case for households experiencing overcrowding.

Overcrowding is linked with public and cooperative housing

Modelling showed that an increase in the number of public or cooperative houses as a per cent of all dwellings in a location is significantly associated with increases in the occurrences of severe and other overcrowding and homelessness. For example, if the rate of public housing increases by one percentage point, this predicts an increase of 14 persons per 10,000 in severe overcrowding.

This strong association is a finding that requires further investigation. The higher association of public or cooperative houses with overcrowding might reflect the higher incidence of overcrowding in this tenure, or that these tenures are in areas that have high rates of rental accommodation in overcrowding.

5.2 Homelessness and overcrowding are associated with poorer labour markets

5.2.1 Labour markets and homelessness

It might be expected that unemployment or concentrations of poverty might have an impact in lowering income levels and this might influence overcrowding.

Evidence from the United States has tended to find little evidence that concentrations of poverty or local labour markets matter in driving overcrowding or homelessness with housing markets being the main structural driver (see evidence summarised in Johnson et al. 2015). However, Australian studies (Batterham 2012; Wood et al 2015) have shown that homelessness rates are higher in locations with higher

unemployment. People moving to areas of higher unemployment or low rents tend to have higher rates of homelessness than those moving in the other direction (Bevitt et al. 2015). Johnson et al (2015:3) also found that poor labour markets are a significant cause of entries into homelessness, with a 1 per cent increase in the unemployment rates raising the likelihood of homelessness entry by one percent.

Parkinson et al. (2019) found that at both the national and city level, rates of unemployment were significantly linked to homelessness when supported accommodation was excluded from the analysis.

5.2.2 Labour markets and overcrowding

Parkinson et al. (2019) found that at a national level, and when focused only on capital cities, there is a significant positive association between overcrowding and rates of unemployment. They also found that low income households (lowest quintile) were linked to overcrowding rates. This suggests that overcrowding tends to be concentrated in areas with low income and higher unemployment.

Of all persons aged 15 and over in severely crowded housing in NSW, 59 per cent were employed in 2016 (by contrast, only 36 per cent of other non-crowded homeless persons were employed). Those employed were roughly split between part time (25%) and full time (22%). Most of those not employed were not in the labour force (39%) and only 9 per cent were unemployed (ABS 2016).

Most persons in severely overcrowded housing are on low incomes (roughly two thirds earn under $650 per week). However, because there are often multiple earners, few overcrowded households have low income. Table 16 below shows that most households (71%) experiencing severe overcrowding in 2016 in Australia had household incomes above $1,000 per week. While this household income is be shared with an average of 9 people, relatively few households (9%) had incomes less than $1,000 per week. Even so, further research on the employment status and household type of these households is necessary to understand whether the household was reliant on income support payments or whether income was shared.

Table 16; Household income distribution of households in severely overcrowded dwellings, Australia, 2016

Total household income (weekly)	Dwellings	Per cent
Under $650	304	5%
$650–$799	94	2%
$800–$999	140	2%
$1000 and over	4,139	71%
Partial income stated	944	16%
Not stated	174	3%
Total	**5,806**	**100%**

Source; ABS 2016a. We have not been able to source NSW specific data.

There is evidence that areas of increasing overcrowding (and overall homelessness) are associated with improved labour market conditions. Table 17 below shows labour market variables associated with changes in severe overcrowding and other overcrowding and homelessness that occurred from 2011 to 2016. This shows that:

→ Locations with increased severe overcrowding are significantly associated with reductions in unemployment and increases in income.

→ Locations with increased other overcrowding (CNOS 3) are significantly associated with lower unemployment and a modest reduction in incomes.

→ Locations with increased homelessness are significantly associated with reductions in unemployment and increased incomes.

Table 17: Labour market related characteristics relevant to explaining changes in overcrowding and homelessness between 2011 and 2016, Australia

	Severe overcrowding (CNOS 4+)	Other overcrowding (CNOS 3)	All homelessness
Unemployment difference	-1190***	-245.8**	-1410***
	(307.12)	(120.96)	(241.25)
Income difference	1.039***	-0.139*	0.755***
	(0.21)	(0.07)	(0.15)

Source: ABS 2049.0 Census of Population and Housing, Estimating Homelessness, 2016, 2011. Modelling used data for all SLA3 in Australia. Statistically significant associations are reported, with three asterisks (***) denoting significance at 1 per cent level, two asterisks (**) denoting significance at the 5 per cent level and one asterisk (*) significance only at 10 per cent level.

5.3 What are the demographic risk factors and pathways into overcrowding more generally?

5.3.1 Demographic risk markers for homelessness

Demographic markers for homelessness are not the same as for overcrowding, but there are some commonalities. Johnson et al. (2015) using Journeys Home longitudinal data found that men, older people (over 45), those with low education, and those unemployed (or those outside the labour market) were at higher risk of homelessness. Risk profiles of being in homelessness were linked to risk of entry into homelessness and whether they were quick to exit. Men were more likely to enter and less likely to exit, while older people had higher rates of non-exit.

Certain disadvantaged groups like those in state care and those recently incarcerated, (which includes those exiting juvenile justice, adult prisons or remand) were more at risk of entry into homelessness. Women and 21–44 year olds were more likely to enter homelessness if they were in areas with higher unemployment rates and expensive housing markets.

Risks of entering homelessness were increased if a person engaged in risky behaviours (drinking, smoking, drugs). Nevertheless, for those not engaging in risky behaviours, expensive housing markets or depressed labour markets increased the chances of entering homelessness. By contrast, for a person engaging in risky behaviours, housing and labour markets appeared to make no difference to the chances of homelessness. This means that those with behavioural issues would be best helped by programs to address those issues, while others would be better helped by relocating to areas with job opportunities and affordable housing.

Evidence from other sources supports these findings. The ABS General Social Survey (ABS 2015) shows that people who have experienced homelessness over the last 10 years are highly disadvantaged. They are:

→ more likely to have lower levels of educational attainment;

→ more likely to be unemployed

→ have disability or long term health conditions

→ report disability or restriction that was psychological

→ report having been a victim of violence in the last 12 months

→ more likely to live in disadvantaged neighbourhoods

→ experience cash flow problems

→ supported by government pensions and allowances.

Parkinson et al. (2019) related the changes in rates of homelessness in different locations in Australia between 2001 and 2016 to a range of individual factors. They found that aggregate rates of homelessness were strongly linked to the share of males in the area, Indigenous populations and rates of non-English speaking populations. They were negatively related to rates of marriage. They also found that homelessness was linked to adult populations. These patterns are also apparent when only focusing on capital cities but in those locations youth (aged 15–24) are also significantly associated with homelessness.

5.3.2 Demographic risk factors for overcrowding

Parkinson et al (2019) found that some demographic risk factors that are unique to severe overcrowding and were not apparent in homelessness when severe overcrowding is omitted ('non-crowding homelessness'). For example, severe overcrowding was significantly higher in younger populations (below age 14) but not in non-crowding homelessness. This suggests that overcrowding is more of a risk in families with young children while other forms of homelessness are more of a risk for youth and adults. These patterns are still apparent when only focusing on capital cities.

Similarly, non-English speaking background is also highly significant in explaining severe overcrowding, but only weakly (if at all) explains non-crowding homelessness.

Some other demographic features were also features of non-crowding homelessness. Regions with a higher share of males or Indigenous persons were associated with severe overcrowding but were also significant factors associated with non-crowding homelessness.

The analysis undertaken for this report looked at the changes in overcrowding and homelessness for the most recent period 2011–2016 across local areas (Statistical Local Area level 3) in Australia. Table 18 below shows how changes in severe and other overcrowding are linked to a range of demographic risk factors, such as the average age of people in the local area, the level of completion of education and levels of migration and Indigenous people. The findings are explained in the sections below.

Overcrowding is associated with younger age groups

Severe and other overcrowding (CNOS 3) is significantly negatively associated with age. This finding is consistent with previous findings by Parkinson et al (2019) that

overcrowding is more prevalent among younger demographics. By contrast there is no significant relationship between age and homelessness more generally.

Migrant status is significantly associated with all forms of overcrowding and homelessness

Table 18 shows that locations that have experienced increased rates of migration are predicted to have a higher level of overcrowding and homelessness for all three measures used. Modelling shows that an increase in the proportion of migrants (where both parents are born overseas) in the population, results in an increase in overcrowding. For example, if the migrant proportion of the overall population increases by 50 persons per 10,000, this would predict an increase in the rate of severe overcrowding of 1.5 persons per 10,000.

Table 18: Demographic risk factors for severe overcrowding, other overcrowding and homelessness 2011 to 2016

	Severe overcrowding (CNOS 4+)	Other overcrowding (CNOS 3)	All homelessness
Age difference	-12.00*	-7.98***	-3.39
	(6.55)	(2.34)	(4.36)
Migration rate difference	0.03***	0.01***	0.03***
	(0.01)	(0.002)	(0.01)
Rate of year 12 difference	0.086**	0.003	0.094***
	(0.04)	(0.01)	(0.03)
Rate of no school difference	-0.10	0.31***	-0.12
	(0.18)	(0.07)	(0.15)
Rate of bachelor or above difference	-0.01	0.01	-0.01
	(0.04)	(0.02)	(0.03)
Rate of Indigenous people difference	0.19***	0.12***	0.21***
	(0.06)	(0.02)	(0.04)
Rate of family with >=6 children difference	20,400***	5,064.14***	17,900***
	(4541.00)	(1694.86)	(3367.66)
Rate of family with <6 children difference	-386.82	-430.81***	-78.53
	(277.38)	(106.05)	(211.02)
Rate of married people difference	-0.08*	0.04**	-0.07**
	(0.04)	(0.02)	(0.03)

Source: ABS 2049.0 Census of Population and Housing, Estimating Homelessness, 2016, 2011, modelling using data for all SLA3 in Australia. Statistically significant associations are reported, with three asterisks (***) denoting significance at 1 per cent level, two asterisks (**) denoting significance at the 5 per cent level and one asterisk (*) significance only at 10 per cent level.

Areas with Year 12 completion are associated with higher levels of severe overcrowding

An increase in the proportion of persons who have attained Year 12 or equivalent level of education is predicted to increase the level of severe overcrowding and homelessness in an SLA3. Some of these individuals could be tertiary students. This would be consistent with the results in Section 4, which shows that those attending tertiary education are more likely to experience a high occurrence of severe overcrowding and homelessness.

Increases in Indigenous populations are associated with increases in all forms of overcrowding and homelessness

Our modelling shows that areas with increased proportions of Indigenous people (2011-2016) are predicted to have a higher level of overcrowding and homelessness for all three of the measures used. An increase in the proportion of Indigenous persons of 10 persons per 10,000 would predict an increase in the rate of severe overcrowding of 2 persons per 10,000.

Indigeneity is significantly associated with overcrowding at a national level, but its relative impact is greater in remote settlements (it is virtually the only significant factor in explaining overcrowding in the model used by Parkinson et al 2019). Indigeneity is also a more moderately significant factor in explaining overcrowding in the capital cities - though it is less important than other factors (Parkinson et al. 2019).

Large family size and single status are significantly associated with severe overcrowding

Large family size (six or more children) is significantly associated with increased severe and other overcrowding and homelessness. Conversely, rates of marriage (including de facto) per 10,000 are negatively associated with severe overcrowding and homelessness and positively associated to other overcrowding. However, the relative impact and statistical association are not strong. Even so, these are similar to the results by Parkinson et al. (2019) who find that homelessness is lower in areas with concentrations of married people.

5.3.3 Summary

The impact of high rents relative to income is a common factor in both severe overcrowding and homelessness. High rent alone is not the issue, as persons in overcrowding and homelessness cannot afford the most expensive areas. Rather it is the combination of high rents and low incomes that force households into overcrowding. Overcrowding is more prevalent in locations with higher unemployment and lower incomes levels. However, many of these locations appear to be changing and have improving labour markets with tightening housing markets.

Some demographic groups (e.g. Indigenous households) are at greater risk of experiencing overcrowding and homelessness. Some of the groups at risk of experiencing overcrowding—including migrants, tertiary students and large families—appear to be avoiding other forms of homelessness like rough sleeping. Understanding the causes of overcrowding and homelessness among migrants and Indigenous persons requires a better understanding of their life experiences as well as the protective factors or resources they might have in mediating the impacts of overcrowding. This issue is explored in more detail in Chapter 6.

6   What is the nature of overcrowding?

Overcrowding is precipitated by household circumstances such as family growth, the migration process, and high rates of temporary mobility (especially in Indigenous contexts). Economic drivers like low income, housing affordability pressures and landlord profit also play a significant role.

Households make a range of adaptations to manage overcrowding, including repurposing living space and garages for sleeping space, or sacrificing privacy in bedrooms. Household members, especially those with leasehold responsibilities, have differing capacity to cope with these adaptations, which affects their ability to cope with overcrowding.

Severe and persistent overcrowding is most problematic since this can lead to lack of householder control or ability to manage normal household functioning, reduced dwelling cleanliness, injury and property damage. It is also more likely to result in greater anxiety or stress, poorer health and child development outcomes, family conflict and forced mobility or homelessness.

There is some evidence that persistent overcrowding might be occurring among Indigenous households and refugees in Australia. The link between persistent overcrowding and homelessness is not well understood. While some groups experiencing overcrowding, like migrants and tertiary students do not experience high rates of homelessness, other such as Indigenous people, also experience both high rates of homelessness and overcrowding. It is possible that among the former, wider family resources and social networks formed through living with relatives and co-ethnic friends protect from homelessness. However, it is also possible migrants and students have trouble accessing homelessness services like supported housing.

6.1   Limited access to family sized accommodation

Most severely overcrowded dwellings are occupied by single or multiple family households. Large families (with 6 or more children) are especially likely to experience severe overcrowding.

While the evidence is scant, several factors are likely to contribute to the high rates of overcrowding among large family households:

→   Overcrowding in single family groups might be influenced by the unavailability or lack of affordability of larger private rental dwellings, which means families are constrained to take smaller dwellings.

→   Overcrowding in multiple family groups could reflect a choice of larger kinship groups seeking to live together for kinship reasons or to economise.

→   Overcrowding might be a response to an obligation (by a family member or some one of the same ethnicity) to take in a household that has recently migrated or has found themselves in need (e.g. has recently been evicted). In some cases

the sharing arrangement is arranged even before migration has occurred (Robinson et al. 2007).

→ Overcrowding might also occur because in response to the need to accommodate additional family members, the household is unable to move to larger accommodation either because they are financially constrained, it involved considerable inconvenience, or the household is wishes to remain in a particular location (e.g. to meet schooling needs).

The evidence base around the dynamics occurring in family groups living in overcrowded dwellings is limited. One study found that overcrowding among migrants in the United Kingdom was much higher in the private rental and owner occupied sectors than in social housing (Robinson et al. 2007). This was because many of the new migrants residing in the social housing sector were living in small (often single-person) households, and social landlords were able to transfer people to other housing when they were in overcrowded conditions. This did not happen in private tenures because those taking on leases could only afford smaller houses and those entering private tenures often did so by moving into established households (Robinson et al. 2007).

In Australia, there is evidence that Aboriginal families and some migrant families (e.g. African families) have large household sizes and this poses a problem for accessing housing suitable for their needs in the social and private rental market (Evans and Gavarotto 2010). Evidence on the circumstances of migrant and Aboriginal families in Australia, both of whom are disadvantaged in private rental markets and have high rates of overcrowding compared to the general population, are discussed in more detail in sections 6.1.3 and 6.1.4.

6.2 Room sharing helps tenants obtain affordable housing and boosts landlord profits

Overcrowding through room sharing may be a strategy used by tenants or landlords:

→ Landlords may actively seek more tenants or turn a blind eye to the number of actual occupants in the dwelling in order to let out properties or to maximise rents and profits (Nasreen and Ruming 2018).

→ In some cases, tenants are deceived about the number of people in the property and are paying more than what is fair (UNSW Human Rights Clinic, 2019).

→ A tenant may sub-let the dwelling to several other tenants to make a profit or reduce costs of the rental (McEvoy 2013; Parkinson et al. 2019).

It is not easy to quantify the prevalence of room sharing. Data in Table 9 (Chapter 4) suggest that 16 per cent of all severely overcrowded dwellings are occupied by group households. However, a study by Nasreen and Ruming (2018) argued that ABS data does not capture the extent of room sharing, because much room sharing is temporary, and the legal status of tenants is tenuous since they often do not have a written rental sub-contract. Their study of 1,018 Sydney room shares listed on gumtree in 2017 found that:

→ Most shared accommodation was in CBD locations (Sydney, Pyrmont, Haymarket, Ultimo, Chippendale and Bondi), or in places in Western Sydney like Auburn, Parramatta, Lakemba, Strathfield and Rockdale or lower north shore like

Chatswood (similar to the areas of severe overcrowding measured in the Census).

→ 27 per cent of residents living in shared rooms were in overcrowded dwellings (using the no more than 2 persons per room as the standard for overcrowding), with the rate as high as 40 per cent in the inner city.

→ Cheaper rent appeared to be a driving factor; in Haymarket where sharing 3 to a room is the average occupancy, rent was only $150 compared to the median rent for a private room in a two bedroom apartment ($455). Sharing also reduced the costs of utility bills.

→ Overcrowding results in higher profits for landlords; the weekly rent for a two bedroom apartment with shared bedrooms in Chatswood was $1,020, but the equivalent median rent in a non-shared two bedroom apartment was only $785 (this results in a premium of around 30% to the landlord).

6.3 Overseas migrants and the migration experience

High rates of overcrowding amongst overseas migrants are especially apparent in Sydney.

Several Australian studies have observed higher rates of overcrowding among refugees (Beer and Foley 2003; Flatau et al. 2014).

Further research is needed to understand the drivers of overcrowding among these groups. Some studies of the experience of refugees (Beer and Foley 2003; Flatau et al. 2014) and other migrants (Australian Survey Research Group 2011) have identified a number of housing issues migrants face in Australia, including:

→ low incomes (including due to lack of work or inability to access Centrelink payments because of waiting periods) and inability to accrue bonds or rent in advance

→ high cost of renting or purchase

→ discrimination in the private rental market[4]

→ issues in accessing suitable accommodation for female headed, extended or large families

→ language barriers

→ lack of familiarity with Australian housing and legal systems

→ high competition for accommodation

→ lack of rental history and difficulty in application processes

→ pre-existing disadvantage or disability related to refugee status.

Uncertainty over continued residency (e.g. for those on temporary visas) or illegal status as a migrant might also be relevant to overcrowding outcomes (Easthope et al. 2018). Temporary migration has become, over the last 20 years, the dominant form of

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[4] An AHURI scoping project on discrimination in the private rental market is presently on offer as part of its National Housing Research Agenda 2020 and may broach this issue.

migration to Australia. This form of migration has been associated with reduced rights in relation to work, and uncertain rights to permanent residency (Mares 2016).

Recent migrants are also over-represented in severe overcrowding in other countries like the United Kingdom (Shelter 2005). In some cases, migrants waiting to secure longer term residency status in the country were reliant on a string of temporary accommodations, which only changed to longer term accommodation when immigration status was resolved (Robinson et al, 2007).

In the United States, overcrowding is higher among foreign born non-US citizens (with the proportion of overcrowding ranging from 10 to 18% depending on the measure used) (Blake et al. 2007). In the United States, a study of overcrowding among Latinos in Los Angeles found that citizenship and nativity were not significantly related to residential overcrowding, but unauthorised non-citizen migrants were more crowded than authorised non-citizens and all other groups (McConnell 2015).

Some of these circumstances disproportionately affect particular groups and where they choose to live. There may also be unique characteristics of the experience of those groups that make them more likely to experience overcrowding.

6.3.1 Newly arrived overseas migrants are more likely to experience overcrowding

Newly arrived overseas migrants in Australia are more at risk of severe overcrowding than other groups, but for most migrants this risk diminishes over time (ABS 2013). This is consistent with the international evidence (Painter and Yu 2010; Teixeira 2014). Overcrowding amongst newly arrived migrants and refugees is also a lived reality in Sweden (Andersson et al. 2010). Robinson et al. (2007) found that overcrowding and poor living conditions are the two key concerns of new migrants in the United Kingdom. It is a particular problem among particular ethnic groups (over a quarter of the Pakistani population living in the United Kingdom was recorded as living in overcrowded accommodation in 2001).

6.3.2 Newly arrived migrants are attracted to gateway suburbs, but these are becoming more expensive

Many new migrants are attracted to 'gateway' suburbs in major cities, where many other migrants have settled. While some of these locations have been associated with low socio-economic demographics, Easthope et al. (2018) argue that these locations often have good access to services, enable those of similar languages and ethnic backgrounds to network, and have been, at least in the past, places which enable newly arrived migrants to pursue employment opportunities. They find, however that in recent times, these opportunities have been curtailed as services have been reduced, housing affordability has worsened, and as employment opportunities have shifted away from manufacturing to service based industries which require better language skills. They find that places like Auburn in Sydney (Auburn is perhaps the epicentre of severe overcrowding described in Chapter 3) remain important gateway suburbs, but that housing stress is curtailing these opportunities. Even so these locations remain choice locations for migrants of all kinds, including refugees.

6.3.3 Sharing with established members is a common strategy

An Australian study found that almost 90 per cent recently arrived migrants stayed with Australian residents (Beer and Foley 2003; Beer and Morphett 2002b). A similar trend was apparent for refugees and those on Temporary Protection Visas (TPVs): most

refugees (over 75%) had received assistance by family members or community groups in securing current accommodation (Beer and Foley 2003).

A study of Chinese students in Australia found that they were satisfied with their accommodation even when they occupied housing that was overcrowded by Western standards. Being able to live with friends and share the rent were important aspects contributing to their satisfaction (Gao and Liu 1998).

This pattern has also been documented in other migrant countries. Robinson et al. (2007) found that in the United Kingdom, most migrants (except refugees) accessed their initial accommodation through recommendations of relatives or co-ethnics.

In Canada, living in overcrowded dwellings is a common strategy for newly arrived migrants, who tend to share with co-ethnics or family members (often migrants themselves who are settled) after they arrive, though this is often seen as a short term strategy. Relatives play an important role as facilitators and contacts for the initial stage of settlement. They are an important conduit to social networks and local migrant communities. In this context, overcrowding is not necessarily seen as problematic since it is seen as a common cultural practice and it keeps the family together (Teixeira 2014).

6.3.4 Overcrowding reflects householder response to opportunities available

The international evidence on overcrowding for migrants suggests that overcrowded housing is the best option available in the face of constrained opportunities. For examples, some migrants in Sweden preferred to live in overcrowded conditions and were willing to trade off space to obtain proximity to opportunities like employment (Andersson et al. 2010). In the United Kingdom, migrant households exhibited high satisfaction with their housing conditions and overcrowding was not an immediate concern. At the same time, they perceived they were not able to resolve their overcrowding because of financial constraints (Robinson et al. 2007).

Overcrowding can result from cultural or family obligations. More settled migrants can also find themselves in crowded situations when they take responsibility for accommodating kin or other new migrants from their ethnic group.

Older migrants who have come to live with their children may also experience overcrowding; for example, a child might sponsor their parents to come to the country, in exchange for caring for grandchildren. Navigating in-law relationships can in some cases lead to family conflict. Parents may have sold their old house and used the proceeds to contribute to purchasing a larger shared house. This may ameliorate overcrowding to some degree, but their financial stake in the house can complicate a process of moving out if the relationships sour (Petersen et al. 2014).

6.3.5 Overseas tertiary students lack knowledge of their rights

As the data in Chapter 2 showed, overseas tertiary students are a key group affected by overcrowding in Australia. The experiences of overseas students reflect those of migrants more generally but students seem to be particularly vulnerable in not understanding their rights as a tenant.

An Australian study (Obeng-Odoom 2012) found that international students are likely to face difficulty finding adequate housing. They are unfamiliar with the local rental system, have limited finances and face time pressures to obtain housing. When they do obtain accommodation, they often lack secure tenancy as they not have a formal rental agreement and are at risk of eviction. Lack of privacy is an issue. Even so, using

informal networks and sharing rooms with others in unaffordable housing is seen as a coping strategy (Obeng-Odoom 2012). Lack of information and rights in the housing market for overseas students go hand in hand with poor wages and lack of rights in the labour market. High rates of overcrowding by students in high rise residential apartments has been highlighted following fires (Mares 2016).

These findings are similar to a study of international students in Canada (Calder et al. 2016). The study found that students often lived in substandard and overcrowded housing in which they lacked privacy. They lacked assistance in finding accommodation and had limited understanding of tenant rights and rental agreements. There was also a cultural gap in understanding local norms, for example, it took time for migrants to adapt to the norm that each child should have their own bedroom.

6.4   Indigenous overcrowding

The higher level of overcrowding among Indigenous households 'is associated with a number of factors, including cultural and social differences, higher levels of unmet demand for affordable housing, and lower income levels' (AIHW 2014).

6.4.1 Barriers to accessing private rental

Indigenous people face a number of barriers in the private rental market including:

→   large families and preferences to live in extended family units (this was a significant contributor to overcrowding from the analysis in Chapter 4)

→   potential discrimination in the private rental market directed towards those with larger families and low or vulnerable income and those from Indigenous backgrounds (Short et al. 2008).

6.4.2 Cultural practices contributing to overcrowding

Cultural factors that contribute to Indigenous overcrowding include:

→   cultural obligations to accommodate kin and other visitors

→   avoidance behaviours that determine the suitability of particular sleeping and other living arrangements based on complex kin relationships

→   strong emotional impact of household (or public) shaming for the violation of socio-spatial rules

→   preference for outdoor living among some groups (Memmott 2011).

Some overcrowding in remote communities stems from aboriginal kinship groups utilising rooms to house whole families. These sleeping arrangements approximate customary camp settings and are not relevant to overcrowding in more modern urban Aboriginal contexts (Memmott 2011).

Nevertheless, some overcrowding is generated through temporary cultural events like funerals, ceremonies and other cultural activities requiring community gatherings. Extensive kinship obligations within Indigenous communities mean that when households lose their housing (e.g. through eviction), other kin are obliged to accommodate them, sometimes for long periods (Birdsall-Jones and Corunna 2008; Birdsall-Jones and Shaw 2008).

6.4.3 Temporary mobility

High rates of temporary mobility in the Indigenous community and use of multiple dwellings is part of Indigenous self-identity and associated with visiting kin, cultural practices and autonomy are factors in Indigenous overcrowding (Habibis et al. 2010; Memmott et al. 2004). Much of this mobility is temporary, but puts households at risk of housing stress, undermines tenancy sustainability, creates overcrowding and increased conflict (Birdsall-Jones and Corunna 2008; Habibis et al. 2010; Memmott et al. 2006).

6.4.4 Inadequate housing

Insufficient and inadequate housing in remote settlements are key factors in Indigenous overcrowding. Social housing providers in remote settlements have problems providing and maintaining adequate and appropriate housing (partly due to high costs in access and due to changing policy trajectories) and in some cases, health hardware (toilets, kitchens bathrooms) are not functioning. This means that housing is inadequate and poor quality leading to overcrowding into those houses that are of more adequate quality (Habibis et al. 2016; Pholeros 2003).

Research has supported the idea that housing needs to facilitate cultural practices and should therefore be designed for that reason (Memmott et al. 2014). Housing design needs to be adapted to cultural practice and be appropriate to the climate. Buergelt et al. (2017:270) found that 'house designs used in remote communities are inappropriate for the tropical climate and for the Australian Indigenous culture and society. Additionally, the housing situation has culminated in overcrowding'. Indigenous houses may need to also be built to withstand greater wear and tear. Moran (2006:31) found that overcrowding is a shifting phenomenon related to mobility, and one Indigenous house may be doing the job of three or more houses as 'one household may occupy several houses simultaneously'.

6.5 How do households adapt to overcrowding?

There are only few detailed accounts of what it is like for those experiencing overcrowding. A United Kingdom study (Shelter 2005) interviewed people in overcrowded houses about how they experienced overcrowding. The study found that many households modified their dwellings or used the space in different ways to accommodate more people:

→ living and dining rooms and sometimes storage and garages were repurposed as sleeping areas

→ kitchen, bathroom and laundry facilities were exposed to increased usage

→ lack of space for storage like wardrobes led to household disorganisation and mess

→ children were deprived of free space to study

→ households had to dispose of excess furniture or other belongings or had to pay to put these in storage

→ occupants spent more time outside the house.

6.6 What are the immediate impacts of overcrowding?

Overcrowding can have a range of immediate impacts and also longer term impacts. The longer term impacts are explored in Chapter 7.

6.6.1 Increased use of informal housing and illegal dwellings leads to safety risks

The pressures driving overcrowding may be linked to the rise in informal dwellings—defined as 'those that are illegally constructed, converted or occupied dwellings as well as informal rental arrangements not subject to standard residential tenancy agreements, including share housing and room rentals' (Gurran et al. 2019:9).

Gurran et al. (2019) found an increase in the number of secondary dwellings in Sydney. These included legitimate kinds of dwellings like granny flats or caravans that can be occupied. However others are repurposed out of existing structures (like garages) for letting out and do not conform to building requirements for habitable dwellings. The researchers interviewed local government representatives including building inspectors responsible for investigating complaints. They found that across different local government areas, complaints about illegal dwellings ranged from around 10 per month (120 per year) to 80 per month (960 per year), with most complaints being found to be valid. According to interviewees, the rate of complaints had risen markedly over the last two years. Informal and illegal dwellings pose significant health and safety risks including:

→ inadequate light, ventilation, privacy and open space

→ damp and mould due to lack of damp proofing in places like garages or sheds

→ construction on flood prone land

→ inadequate storm water and sewerage provisions

→ hazards from non-residential building materials or inadequate electrical work

→ lack of smoke detectors

→ increased fire risk due to inadequate separation between structures and property boundaries.

The government through the State Environmental Planning Policy 2009 (Affordable Rental Housing) (ARHSEPP) have made it possible to create 'new generation boarding houses' and secondary dwellings like granny flats as a means to increase density and diversify supply, but even then many structures purposed legally under this framework to accommodate additional family members in extended family situations, are being used to house unrelated adults. This may not be appropriate because they do not afford sufficient privacy and space and in many cases, tenants have limited recourse in the case of a dispute (Gurran et al. 2019).

6.6.2 Poorer health and safety for occupants

Overcrowding can result in accidents and poorer health outcomes, inducing:

→ increased mess and collection of dust (from lack of appropriate storage), which impact adversely on respiratory health

→ mess and trip hazards, which give rise to accidents

→ increased anxiety over mess and family tensions, which lead to poorer mental health

→ children lacking a safe and free area for play, leading to accidents

→ increased usage of bathrooms, toilets and kitchens, resulting in breakdown of facilities and unclean spaces, increasing risk of spread of infectious diseases, infections and respiratory infections (Shelter 2005).

These types of problems have also been shown to occur in Aboriginal households experiencing overcrowding, with breakdown of health hardware in bathrooms and kitchens being a particular issue (Torzillo et al. 2008).

6.6.3 Reduction in privacy and freedom and control

Privacy is a key issue for those in overcrowded situations (Robinson et al. 2007; Shelter 2005). This manifested in the following ways:

→ lack of space to create separate adult and child spheres of activity, with children increasingly witnesses to the adult world

→ sharing of bedrooms with more people, but with this leading to loss of sleep and sleep disruptions and increased fatigue

→ children and adults needing to change in toilets to ensure a degree of privacy

→ increased sharing between adults and children or between teenagers of the opposite sex leading to embarrassment and conflict.

Lack of privacy can also adversely affect migrant families with religious practices or sensibilities due to (Shelter 2005):

→ lack of space for prayer

→ religious rules that prohibit adults in some cultures from sharing a bed in the same room as a child, which results in children sleeping with the mother and the father sleeping separately.

Share housing, and in particular unregistered or unregulated boarding or rooming houses, are often used by government agencies to house people exiting institutions such as prisons or hospitals. This can expose people in those dwellings to criminal behaviour or behaviours associated with mental health conditions, which undermine people's sense of control and safety (Dalton et al. 2015).

6.6.4 Poorer outcomes for children

A United Kingdom study by Shelter (2005) found that 71 per cent of interviewees agreed that overcrowding was damaging their children's education and development. For example, in some situations, newborn babies were sharing rooms with teenagers in high school, compromising their capacities to study or read (Shelter 2005).

6.6.5 Reduced sociability

Overcrowding affects family socialising and socialising with people outside the household. This occurs because people lack places for relaxation or social activities. The lack of appropriate recreational space makes it difficult or embarrassing for

children to invite other children to play or adults to host other friends or family (Shelter 2005).

6.6.6 Conflict, family relationship breakdown and domestic violence

Overcrowding often leads to conflict within the household as individuals find themselves sharing smaller spaces and also contributes to conflict with neighbours (Gurran et al. 2019).

Overcrowding can also impact negatively on family relationships. A United Kingdom study found that overcrowding was perceived as negatively affecting family relationships by 77 per cent of respondents and 81 per cent felt it led to fighting and arguing among children (Shelter 2005). The study provided anecdotal evidence that this can lead to family breakdown. In some cases, the lack of space led to householders telling family members they needed to leave the house, or young people deciding to leave the family household earlier than they otherwise would have.

While there is often higher tolerance for crowded conditions in Indigenous communities, Petersen et al (2014) found that the multi-generational or multi-family aspect of overcrowding can lead to tensions and abuse:

→ older Indigenous family members are called on to look after grandchildren during the day and also live with them at night, undermining their ability to get rest

→ financial and elder abuse can occur with children accessing money from pensions for use for their own purposes.

6.6.7 Tenure uncertainty and instability

Gurran et al outline a wide array of tenancy arrangements for households accessing private rental housing (ranging from co-tenancy, head tenancy, formal sub-tenancy, informal subtenancy, and lodging/boarding).

Many of those living in informal housing (which may or may not be overcrowded) face uncertain tenure arrangements because they are subleasing informally from other persons or lodging. This may be because they are in secondary dwellings (which have no separate title) or they are in boarding house style arrangements but the boarding house is not registered. While certain legal protections may still apply under the NSW Residential Tenancies Act 2010, the Boarding Houses Act 2012 and the Landlord and Tenant Act 1899, these protections are often poorly understood by tenants (Gurran et al. 2019).

A study of migrants in the United Kingdom found that most respondents in the study (34 out of 39) eventually achieved tenure stability (a secure longer term tenure), and when they had secured a long term tenure they were able to maintain housing. However, mobility rates were still more than double the national average. Overcrowding was cited as one of the drivers of mobility (along with household conflict) especially among those in social housing and owner occupied accommodation, and was a significant issue among new migrants (in the United Kingdom they are Polish and Pakistani populations). The most frequently cited reason for mobility was to improve living conditions (Robinson et al. 2007).

6.6.8 Positive impacts

Banfield (2013) highlighted potential positive outcomes of higher density households for families and kin such as:

- → maintaining family and community connections
- → sharing childcare
- → pooled budgeting
- → caring for others.

There is also evidence that children sharing spaces is also healthy for emotional and cognitive development, and this is anticipated in the current overcrowding measures including in areas of severe overcrowding (Dockery et al. 2013; Silburn et al. 2006).

6.7 How long do people experience severe or other overcrowding?

There is no good longitudinal Australian data on how long people stay in overcrowded situations.[5] This means it is difficult to know with reliability how long an individual stays in overcrowded conditions. However, the evidence indicates that the duration of overcrowding varies among ethnic groups.

There is suggestive evidence around overcrowding among migrants. A now dated study of recently arrived migrants in Australia found that 90 per cent of people who enter the country stayed with other family or co-ethnics. However, within 3.5 years, 83 per cent are either home owners or rent privately (Beer and Morphett 2002a).

Similarly, it appears that for migrants, overcrowding is experienced early on and diminishes over time. In 2011, the rate of severe overcrowding was 62 persons per 10,000 for those who arrived in Australia in the last five years, but only 16 persons per 10,000 for those who arrived more than five years ago. Even so, residing in Australia longer is increasingly less of a protective barrier—for migrants that had been in the country for more than five years, the rate of severe overcrowding increased between 2006 (when it was 9 persons per 10,000) to 2011 (16 persons per 10,000).

In general, ethnic groups which experience high rates of initial overcrowding are also more likely to be in long term overcrowded situations. For example, in 2011, recent migrants from Afghanistan and Iraq both experienced high rates of overcrowding (313 per 10,000 and 239 persons per 10,000). Migrants from those countries who had arrived more than 5 years ago also recorded high rates of overcrowding (126 persons per 10,000 and 78 persons per 10,000). However, this was not the case for some other ethnic groups. For example, Indian migrants experienced high rates of overcrowding for those that arrived in the first five years (148 persons per 10,000), but the incidence was much lower for those who had arrived more than five years ago (16 persons per 10,000). Furthermore, some countries that have high numbers in severe overcrowding among migrants who arrived more than five years ago (New Zealand and Vietnam) did not have especially high rates of overcrowding among recent migrants (ABS 2013).[6]

Similar patterns of moving out of overcrowding are evident overseas. A study of housing pathways of migrants in the United Kingdom found that the duration of living with relatives and co-ethnics ranged between one month and one year (Robinson et al.

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[5] It may be possible to analyse longitudinal sources such as HILDA, but the number of persons likely to be in severe overcrowding recorded in such surveys is likely to be so low as to make longitudinal analysis difficult.

[6] The more recent increases from 2011 to 2016 in overcrowding amongst groups from Asia, and China in (see Table 14) may require analysis of more recent figures.

2007). Evidence from the United States suggests that most migrants exit overcrowded situations, but the risk of overcrowding is still significantly raised for migrants after 20 years (Painter and Yu 2010).

In the United Kingdom, financial constraints appear to be an important factor in remaining in overcrowded situations. Shifting intentions in regards to duration of stay influences housing requirements (Robinson et al. 2007).

Those in social housing may face constraints which lead them to remain in overcrowded housing. A survey of overcrowded social housing households in the United Kingdom found that over half (52%) had been in overcrowded conditions for more than three years. Those from Black and Minority Ethnic backgrounds were more likely to say they were overcrowded for more than three years (66%). Those in London were more likely to indicate this (54%) compared to those outside of London (47%). Persistence of overcrowding was even greater among those in severe overcrowding (64%) compared to those in other forms of overcrowding (51%) (Shelter 2005).

This research was not able to identify any Australian evidence on persistence of overcrowding in social housing.

6.8   How do people exit overcrowding?

There are several pathways by which individuals and households exit overcrowding. Some exit into non-crowded accommodation, while others remain in overcrowded conditions for long durations; others exit overcrowding into other forms of homelessness.

6.8.1 What raises risk of overcrowded households entering more adverse forms of homelessness?

Overcrowding occurs at different levels of severity and some forms of moderate overcrowding may not pose immediate problems for a household. While the pathways between overcrowding and homelessness are not well understood, overcrowding may be a precursor for more adverse forms of homelessness, including rooflessness. Evidence on the pathways into homelessness among the general population is likely to be applicable to overcrowded households and is outlined below.

Family breakdown and conflict

Family breakdown and conflict contributes to a heightened risk of homelessness among the general population. The pressures arising from overcrowding increase this risk of conflict and family breakdown.

Family conflict or relationship breakdown is main reason for homelessness. Data from the General Social Survey shows that in 2014, 44 per cent of those who experienced homelessness in the last 10 years did so because of family, friend or relationship problems (ABS 2015c).

Johnson et al. (2015) found that experiences like recent violence increase the risk of homelessness. Since being in an overcrowded household raises the potential for conflict, this could also contribute to homelessness among persons living in overcrowded dwellings.

Petersen (2014) notes that overcrowding can occur when younger people bring their parents or elderly relatives to reside with them in order to care for them. These

intergenerational households can result in overcrowded situations which often lead to conflict, family breakdown, and the potential for homelessness:

> *In many cases an intention to assist older family members was demonstrated, but the living arrangement was unsustainable due to overcrowding or stressful circumstances. (Petersen et al. 2014)*

Conflict that led to relationship break down within families resulted in a number of outcomes:

→ Some people decided to remain with their families. These were difficult situations where individuals did not have anywhere else to go and resulted in stress and illness. Elder abuse is a risk when intergenerational housing arrangements are not handled well (Petersen et al. 2014).

→ Some people moved to their own accommodation, though for some (especially older) people forced to move into private rental this placed them in potentially insecure tenure, inappropriate housing for their needs, and reduced their sense of control. This situation often occurred in Indigenous households and some inter-generational migrant households where older people were involved (Petersen et al. 2014).

6.8.2 Why are some people in severe and other overcrowding protected from more adverse forms of homelessness?

Overcrowding does not automatically result in homelessness and several protective factors might prevent homelessness.

Some groups, like Indigenous people, experience both high rates of overcrowding and homelessness. However, other groups experiencing overcrowding are relatively absent from Australian homeless figures (when severe overcrowding is excluded from the definition). These groups include young and large families, tertiary students and migrants. The following discussion provides a description of these differences drawing on Census data, and seeks to understand why these differences might occur, in particular, protective factors that prevent households experiencing overcrowding from entering into other forms of homelessness, and barriers to accessing homelessness services.

Young and large families

High rates of overcrowding occur among families with children, but relatively few of this group end up in other forms of homelessness. However, the factors that protect this group from homelessness are not well understood. Further research is needed to understand why this is occurring, for example, whether parents with children have access to better tenure security, resources like welfare payments, support services or networks.

Tertiary students

Tertiary students do not have high rates of other homelessness. Parkinson et al. (2019) find anecdotal evidence that some tertiary students initially live in university accommodation but then choose cheaper, overcrowded accommodation as means of saving money, suggesting that their entry into overcrowded accommodation is a voluntary choice. The fact that overseas tertiary students have access to wider resources to afford their education (often from family sources) may form some protective layer against homelessness. If those protective layers fail, this may also

result in returning home overseas rather than remaining homeless in Australia. However, this is an area for further investigation.

Migrants

Social networks among ethnic groupings are an important protective factor for homelessness particularly for migrants from South Asian (Indian, Pakistani, Sri Lanka, Bangladesh) background, who appear high in overcrowding statistics but not in homelessness. Migrants from Oceania (New Zealanders and Pacific Islanders) and African and Middle Eastern countries are partially protected by networks but are also apparent in homelessness. An alternative hypothesis is that migrants are less able to access services because of language barriers, but homeless rates (excluding severe overcrowding) remain relatively low among those with and without good English.

This phenomenon has also been observed overseas, leading some to argue that immigrant communities might use overcrowding to enable co-ethnics to avoid having to use homeless shelters or sleep rough, and hence overcrowding is a hidden form of homelessness. However, a Canadian study found that the evidence for this was mixed, and the link between residential overcrowding and hidden homelessness was more apparent for Canadian born (Michael 2011).

6.9 What aspects of overcrowding are positive and what are problematic?

The Australian and overseas evidence on the experiences of overcrowding lacks depth, so the findings presented here are tentative.

There are positive dimensions of people living in close proximity. Informal social networks and linkages can be very valuable for helping new migrants navigate a new society, and cement kinship and family ties. This social capital is an important protective factor for homelessness. This may be a reason that some people experiencing overcrowding (e.g. in Aboriginal communities) appear to have developed a high tolerance for overcrowding as part of their culture and indicate they do not experience stress or annoyance from it (Memmott et al. 2012; Petersen et al. 2014).

For some people (especially migrants) living in overcrowded conditions provides access to economic opportunities, educational facilities or community resources and offers opportunity for the future. It is important to understand the relative value of these other opportunities to the householder relative to the inconvenience of overcrowding.

Even so, there is ample evidence that the combination of overcrowding and reliance on informal community relationships can be problematic. People in overcrowded households can find it difficult to complain to landlords about any matter (e.g. if there are breakages or inadequate facilities in their house) as this might mean they are forced to leave the house. Regulations against overcrowding might exacerbate this issue since householders might feel it is necessary to remain silent about their overcrowded dwelling.

Some forms of overcrowding are more problematic from a policy perspective as they involve not just inconvenience but have adverse implications for wider social, economic and health outcomes. These include:

→   overcrowding that persists over time for a person or household, or is cyclical

→   overcrowding with lack of rights to complain

→   overcrowding that results in severe or prolonged experiences of stress or anxiety

→ overcrowding that impedes child health, development or educational opportunity and the chances the child might be taken into child protection

→ overcrowding that undermines tenant safety and health

→ overcrowding that results in property damage or sub-standard dwelling conditions

→ overcrowding that results in family conflict, abuse or violence, relationship breakdown and dissolution of lease

→ overcrowding that leads on to other forms of homelessness.

The likelihood of these problems emerging may depend on the household type. Some households may have greater protections (social skills, social networks and access to family or other community resources), while others may experience a range of complex needs and incapacities that affect their ability to withstand or manage overcrowding. The higher prevalence of overcrowding among families with children, for example might be of particular concern to policy makers given the potential long term adverse effects on children's health, development and education (these issues are explored in greater detail in Chapter 7). Other vulnerable groups, like migrants and refugees or older persons are also of concern. The degree to which people can move out of overcrowding and whether overcrowding persists for individuals or households over time is also of clear policy concern.

All of these issues are not well understood in Australia and are matters which require further investigation.

7 What is the impact of overcrowding and severe overcrowding?

Overcrowding can affect individuals through a loss of privacy, reduced sociability, increase in conflict in the household and increased risk of forced exit into homelessness. It might also impact on property owners through property damage.

Overcrowding can have longer term adverse well-being impacts on people's health, childhood development and educational outcomes.

However, because living together confers a number of benefits such as pooled budgeting, reduced costs of accommodation and family and community connection, these positive impacts are often weighed up by individuals against the potential negative outcomes.

7.1 Overcrowding adversely affects physical health

A literature review of over 100 research studies found strong evidence of a relationship between poor housing conditions and children's health. There was some evidence that growing up in sub-standard housing affects children's performance at school (Lisa 2007).

A study of European evidence showed that less affluent population groups (i.e. social status and especially low income) are more often affected by inadequate housing conditions which impact negatively on health. Risks experienced within the dwelling included exposure to dampness, chemical contamination, noise, temperature problems and poor sanitation (Braubach and Fairburn 2010).

Dockery et al. (2010), in reviewing literature in Australia and overseas, found that overcrowding is associated with particular childhood diseases such as:

→ meningococcal meningitis

→ respiratory illnesses

→ stomach infections and

→ higher mortality rates.

Other International studies have shown the link between overcrowding and disease; a systematic review of evidence found that 'residential crowding has been associated with an increased risk of laboratory-confirmed respiratory syncytial virus hospitalization among high-risk infants and young children' (Colosia et al. 2012:95).

This may have significant long term health impacts on adults in later life. Britten et al. (1987) found that being a child experiencing overcrowding (2 persons per room) at the age of two was linked to respiratory problems amongst 36 year old men and women.

Poor child health outcomes in Australia are especially apparent in Indigenous communities. Common diseases among children in remote Indigenous communities include skin infections and infestations, respiratory, eye and ear infections, diarrhoeal diseases and rheumatic fever (ABS 2008). In relation to Indigenous health and self-assessed measures of health, overcrowding of adults appears to be associated with

worse health and explains approximately 30 per cent of the health gap between the Indigenous population living in remote areas and the non-Indigenous population (Booth and Carroll 2005).

Overcrowding may be a contributing factor for illnesses developing, even if it is not the direct cause. For example, while overcrowding may not necessarily cause adverse health outcomes in relation to acute viral infections if there are mediating factors. A study in Germany found that although overcrowding had increased among low urban parents with low education levels, there was no significant relationship between overcrowding and asthma, and only limited evidence of a relationship between overcrowding and coughs (Kutzora et al. 2019).

By contrast, McDonald et al. (2009) found that the combination of overcrowding and non-functioning essential household infrastructure and poor skills in hygiene led to high burdens in infection in children in remote Indigenous communities.

There is some evidence that overcrowding may undermine the capacity of householders to maintain a good house and adequate housing conditions. For example, a study of Indigenous households in remote communities in the Northern territory found 'a clear association between crowded household conditions and the functional state of house infrastructure, and the hygienic condition of houses' (Bailie 2008:59).

7.2 Overcrowding adversely affects mental health

Studies have linked overcrowding to psychological stress in adults (Ross et al. 2000), and mental illness (Mullins and Western 2001). This may be due to the prevalence of family conflict in overcrowded households.

There is some evidence that mental health is linked to overcrowding for those from refugee backgrounds; one systematic review found 'consistent relationships were found between physical aspects of housing and physical and mental health, with other aspects of housing such as safety and overcrowding linked to mental health' (Ziersch and Due 2018:199).

7.3 Overcrowding can negatively affect childhood development

Overcrowding may affect the health of pregnant mothers and their children. One British study has found that overcrowding was associated with low birthweight in children (Harville and Rabito 2018).

In neighbourhoods with increased overcrowding or commute time, early child development suffers. A 1-standard-deviation increase in overcrowding was associated with 0.064- and 0.084-point decreases in mean score for cognitive development and communication skills, respectively (Block et al. 2018).

The wellbeing of children, including their emotional and cognitive functioning, is linked to stability in housing. An Australian study found that secure housing gives individuals a sense of control and autonomy and contributes to residential stability (Taylor and Edwards 2012).

Household chaos (noise, clutter, disarray, lack of routines) among low income families has a clear impact on child development. Household chaos can affect maternal functioning, especially in low socioeconomic status households (Deater-Deckard et al.

2012). This may be exacerbated by overcrowding. There may be ways to moderate the risks and impact of such chaos. Studies have pointed to the benefit of teaching self-regulation skills to children as a means of reducing the impact of household chaos (Crespo et al. 2019).

Studies from both the United States and United Kingdom (Evans et al. 2010) have found that the association between overcrowding and cognitive development is mediated by maternal responsiveness. However, mothers in more crowded homes are less responsive to their children (Evans et al. 2010). Limited outdoor space and overcrowding is more likely to result in abuse due to the greater difficulty in evading potentially volatile situations (Bartlett 1997).

The impacts of overcrowding in childhood can have significant lifetime impacts. A United States panel study found that that several dimensions of children's wellbeing (academic achievement, behaviour, and health) suffer when exposed to crowded living conditions, particularly in Los Angeles, even after controlling for socioeconomic status. The study found that 'the negative effects on children raised in crowded homes can persist throughout life, affecting their future socioeconomic status and adult wellbeing' (Solari and Mare 2012:464).

While there are significant health issues with children in Indigenous communities, there may be social and emotional benefits of being near kin. A study of health outcomes among Aboriginal households in Western Australia found that children in overcrowded households were half as likely to be at risk of clinically significant emotional and behavioural difficulties as those in less crowded households (Silburn et al. 2006).

7.4 Older children's education and socio-economic outcomes can be adversely affected by overcrowding

A review of 100 studies found some evidence that growing up in sub-standard housing affects children's performance at school (Lisa 2007). Overcrowding may be connected to reduced attendance or absenteeism (Bridge et al. 2003). Poorer school attendance because of overcrowding may be linked to poorer health. Some studies have seen improvements in child school attendance because of improved child health (Free et al. 2010; Howden-Chapman et al. 2008). Australian evidence also shows that there is a negative impact of overcrowding on children's learning outcomes (Dockery et al. 2013).

Overcrowding also reduces the amount of dwelling space that can be allocated to study and this inhibits cognitive development and learning (Bridge et al. 2003; Phibbs and Young 2005b). A significant British longitudinal study of 16,000 children suggests that overcrowding results in children having less space to play, work and read (Davie et al. 1972). Children living in overcrowded housing may be more likely to experience broken sleep due to the conflicting sleep patterns of children of different ages with whom they shared bedrooms. The study found that overcrowding and basic amenity impacted on reading levels—equivalent to 9 months retardation in reading and 1.5 months in arithmetic.

There are potentially significant costs of not addressing overcrowding on future economic and social outcomes because of their impacts on children's educational outcomes:

→ A Latin American study found that 'overcrowding is a negative and statistically significant factor that even exceeds the impact of certain maternal education levels on a child's academic performance' (Contreras et al. 2019:1).

→ A US study found that household overcrowding during one's high school years 'is an engine of cumulative inequality over the life course' (Lopoo et al. 2016: 699).

→ A Swiss study of children aged 15–19 and young adults aged 20–24 found that density of residents in the dwelling is the only influential housing characteristic among a range of housing characteristics, including tenure, on educational outcomes. Overcrowding directly affects the outcomes of children aged 15–19 and presumably indirectly affects the outcomes of young adults given that admission to university study requires completion of high school. By contrast other categories such as home ownership are not significant (Bourassa et al. 2016).

→ An Australian study of longitudinal data on children and youth found residential overcrowding during childhood has an independent relationship with youths' criminal convictions (Blau et al. 2019).

Provision of better or larger housing may be an important means of addressing this issue. Phibbs and Young (2005a) found that provision of public housing led to reduced overcrowding and improved educational outcomes for children.

8 How can overcrowding and severe overcrowding be prevented or addressed?

Severe overcrowding affects around 16,800 persons in NSW and diverse groups are affected. Severe overcrowding should be addressed by working with key groups affected, such as migrants, Indigenous persons and tertiary students – and those that are well placed to represent their interests.

There is a need for more affordable and appropriately sized and designed housing that can cope with higher numbers of residents. This needs to be matched by additional social housing that meets the needs of households likely to be overcrowded. Holistic programs that integrate new housing with other capacity building processes, like the Housing for Health program in NSW, have been shown to improve housing and health outcomes for Indigenous groups and should be continued and might be extended into some urban contexts.

Most overcrowding is in rental accommodation. There is a need to educate newly arrived migrants and overseas students about tenancy rights. Increasing available choices in relation to affordable housing for these groups will help prevent unscrupulous landlords from capitalising on accommodation that is excessively crowded. A wider array of options might be generated through the provision of share options for tertiary students with other older residents in underutilised housing, or more dedicated affordable student housing.

Many people in overcrowded dwellings share housing for reasons of affordability and proximity to families or co-ethnic networks. Consequently, it will be necessary to look at the supply of larger family accommodation in private rental and social housing, as well as support programs that might help people navigate the housing market.

Regulation of housing is important in preventing dangerous situations in share rooming houses; reviewing the present rooming house regulation to effectively regulate more types of shared accommodation may be a way forward.

8.1 Working with key groups affected

8.1.1 Targeting to key groups experiencing overcrowding

A clear finding of this study is that overcrowding in NSW is concentrated among particular demographic groups, including migrants, tertiary students, large families and Indigenous communities. However, these groups are not homogenous and the impacts and trends in overcrowding differ among groups.

Although overcrowding is decreasing for Indigenous people over the last five years, it remains a significant issue. Overcrowding among migrants and tertiary students is increasing. There is a need for more in-depth research to understand the drivers and consequences of this.

While some issues are likely to be common to all groups (such as expensive housing or low income), each of these groups may have unique issues driving overcrowding, and different resources to draw on to cope with the experience. This means that strategies to address overcrowding will need to be nuanced and tailored to the needs of each group. This may include assistance to better understand the mechanisms of applying for housing and navigating the rental market, or assistance to overcome discrimination.

One suggestion around targeting is to set up migrant or refugee specific 'housing hubs' in locations like Western Sydney with bilingual and multi-lingual workers able to assist people around housing options, case management and advocacy (Evans and Gavarotto 2010).

8.1.2 Consultation and contracting with key groups affected

The literature points towards the importance of consultative approaches with key groups affected. Consultations could be undertaken either at a grass roots level, or with peak organisations (e.g. migrant welfare groups, universities) and might provide avenues for government to work with the community and contract with them if need be.

Davidson et al. (2010:6) found that 'the majority of work required to improve health and overcrowding outcomes in remote Aboriginal housing needs to be undertaken at a strategic design level with a heavy focus on grass-roots consultation with key stakeholders, typically those who are living in the household settings in which the house and related infrastructure are to be constructed.' They found that either providing lump sum amounts or alliance forms of contracting were best to effect change. Similar approaches may work in urban settings.

Dalton et al. (2015) argue that a state based consultative council on rooming houses would be useful to map the issues and coordinate policy development in this area. This would enable liaison between human services departments like DCJ and local governments who are key players in monitoring housing in this sector.

8.1.3 Working with and not against existing social networks

Many people living in overcrowded households do so with close or extended family members or co-ethnic friends or relatives. Overcrowding is often a response to poor housing affordability, a source of social capital and a way to cement kinship bonds. Policy responses that sever these bonds may undermine householders' agency and may contribute to homelessness rather than ameliorate it. However, without assistance overcrowding may erode these relationships to breaking point. Consideration needs to be given to whether additional resources, the provision of larger housing or additional housing in proximity to relatives and networks may sustain social and family relationships and alleviate overcrowding. Research affirms the value of neighbourly relationships as a protective and enabling factor for housing African migrant communities (Evans and Gavarotto 2010).

Area based approaches to ensure welfare supports are targeted to appropriate locations is another way to ensure existing positive social relationships can be sustained (Easthope et al. 2018).

8.1.4 Using culturally appropriate overcrowding measures to target interventions

Several key groups experiencing overcrowding may have cultural norms that differ from Western cultural norms about what constitutes overcrowding. Criteria for targeting

interventions to address overcrowding should consider cultural norms and weigh these against the risks associated with overcrowding.

Inappropriately targeted interventions could lead to negative outcomes for some key groups. For example, there are concerns in some Indigenous communities about contacting housing providers in case they force people to move to reduce overcrowding.

Similar concerns might arise in migrant communities. Policies which seek to relocate people should take into account location. For example, locations close to community or work opportunity are prized among some migrants, as is proximity to social networks. Consequently relocating people to locations far away would be counter-productive. Some people see overcrowded conditions as tolerable (at least for a period) in order to maintain those networks and location (Gao and Liu 1998; Robinson et al. 2007).

8.2 Improved access to housing

8.2.1 Reduce discrimination against migrant and Indigenous groups in the private rental market

Discrimination in the private rental market contributes to poor housing accessibility for groups with higher rates of overcrowding. Programs that reduce discrimination against these groups would contribute to alleviating overcrowding. Head leasing programs and programs that allow households to establish a rental history may also be of use.

8.2.2 Greater supply of social and affordable housing

Expensive housing markets drive overcrowding, especially in cities like Sydney. Increasing the supply of housing that is affordable and appropriate to overcrowded households is therefore a key intervention.

A study of overcrowding in Hong Kong advocated for improved land supply as a way to improve availability and affordability of housing in high density and urban contexts (Jayantha and Hui 2012).

One study which explored the housing problems of migrants recommended that established migrant communities be encouraged to invest into rental housing for recent arrivals (Robinson et al. 2007).

A recent Australian study on the geography of homelessness argued that policy interventions will need to focus on increasing stock and accessibility of housing to lowest income individuals and households, including single persons, particularly males, living in overcrowded conditions (Parkinson et al. 2019). The study also argued that new dwellings and housing assistance packages should enable people to remain within their communities and close to support (Parkinson et al. 2019).

Because many individuals and households will remain reliant on the private rental market, there may also be a need to explore flexible models to allow people to rent and purchase.

The concentration of overcrowding amongst migrants in Sydney (including foreign students) suggests this is a priority issue. One study, which surveyed 144 stakeholders, found that the creation of new stock was cited as the intervention most likely to reduce the incidence of severe overcrowding among newly arrived migrants (Banfield 2013). Provision of larger housing stock was the second most likely

intervention to assist new migrants. An improved supply of affordable student housing may be necessary.

Creating new housing stock was the second most cited as the intervention most likely to reduce overcrowding among Aboriginal people (Banfield 2013). Housing needs are in both urban and rural and remote areas (Memmott et al. 2014).

Additional social housing may be required to address overcrowding, especially among new migrants and Indigenous groups, as these face discrimination in the private rental market, low incomes and constrained capacity to build or fund their own housing (Banfield 2013; Wood 2018).

8.2.3 Better matching of housing with housing need

There is evidence of underutilisation of properties in many parts of Sydney, including in the central and south western areas, which are also locations of severe overcrowding are amongst those who are over 55 years of age. There is scope to improve matching of social housing and to introduce programs that to match up students or other migrants in need of accommodation with vacant or underutilized properties.

A large scale systematic review of housing and health outcomes found that good matching of housing to household needs was critical to ensuring good outcomes. It concluded that 'housing which is an appropriate size for the householders and is affordable to heat is linked to improved health and may promote improved social relationships within and beyond the household' (Thomson et al. 2013: 2).

In the United Kingdom, Shelter (2005) outlined possible ways governments might provide financial incentives to improve available housing supply by:

→   preventing private owners from leaving houses vacant for long periods of time (e.g. through taxation of vacant properties)

→   transferring households who are under-occupying public rental stock.

8.2.4 Better housing design or housing models

Many overcrowded dwellings are occupied by large or multi-family households. For some cohorts, rather than seeking to reduce occupant numbers, appropriately designed or co-located housing could alleviate overcrowding for, but needs to be considered in conjunction with social interventions.

Indigenous households

The lack of good technical design is contributing to overcrowding in Indigenous housing, but needs to be coupled with social and community interventions to be most effective (Bailie and Wayte 2006; Davidson et al. 2010). The design of housing for Indigenous households produces better outcomes if it takes into account social, cultural, health and environmental considerations and appropriately reflects household cultural norms and needs. This includes providing more bathrooms, larger kitchen facilities and outdoor living and sleeping spaces. It has been suggested that flexible internal spatial arrangements designed to accommodate fluctuations in household composition would produce a better fit and go some way towards reducing household stress and the wear and tear associated with inflexible living spaces modelled on non-Indigenous constructs of the family unit (Memmot et al. 2003; 2012; 2014). The National Indigenous Housing Guide (FACSIA 2007) sets out useful ways to design housing for Indigenous communities.

The Housing for Health program is directed at Aboriginal communities across a range of sites in NSW. The program adopts a holistic approach, including creating more housing, making improvements to housing design and building capacity amongst Indigenous communities to better maintain the dwellings. The program has embraced evidence based principles in guiding its expenditure priorities. It has focused much of its efforts on improving the resilience of health hardware (especially hot water systems and septic systems) to cope with large numbers of occupants as the key aspect of addressing negative effects of overcrowding, but also seeks to address healthy living practices, and includes community engagement and quality assurance processes. The most recent evaluation of this program found that the program had led to demonstrable improvements in the conditions of housing and improved health outcomes, including a reduction in hospital separations due to infectious diseases (NSW Department of Health 2010).

Migrant households

Issues of accommodating large numbers of kin and large families also extend to migrant communities. The availability of housing suitable for large families is a key issue. Planners and public housing asset managers might acquire larger housing suitable for larger households. Housing providers might adopt alternative housing models which can cope with these larger households (Evans and Gavarotto, 2010).

Accessing new housing in itself can have beneficial outcomes. There is international evidence to suggest that providing new housing as part of regeneration approaches and improved design can improve health. A Scottish study of a housing and regeneration program found that changes in dwelling type influenced key psychosocial processes such as control, with consequent impacts on well-being (Gibson et al. 2011).

8.2.5 Improving housing management

Improved housing management practices by private and social landlords and education campaigns could go a way towards addressing overcrowding. Presently, landlords and real estate agents have few resources to call on to address overcrowding; may not be motivated to change their practices; and may lack cross-cultural skills. Governments might assist by providing clearer expectations about the role of landlords and agents. Education campaigns for landlords and agents about cross-cultural issues, the nature and drivers of overcrowding and cross-cultural education may address this. Tenant education about their rights and responsibilities may inform and empower overcrowded residents to take action.

8.3   Programs and support for overcrowded households

8.3.1 Programs to help people avoid or transition out of overcrowded housing

Many overcrowded households in NSW rent privately. Governments might create new programs, or tailor existing private rental assistance programs to address the needs of those in overcrowded conditions, particularly for at risk groups like migrants, tertiary students and those in geographic areas with high incidence of overcrowding. This might involve targeted and culturally appropriate information campaigns to publicise the issues of overcrowding, and assist them to access suitable programs. For example:

→   Migrants could benefit from additional case management support to help chart their way through housing markets, including bonds or bond guarantees to assist migrants in accessing private rentals (Easthope et al. 2018).

→ Refugee families are already benefiting from current housing assistance, including rental bonds and guarantees, Centrepay, Commonwealth Rent Assistance. However, present programs could be extended over longer time periods, and head leasing programs might be used to access larger properties suitable for the needs of large families (Evans and Gavarotto 2010).

→ International students face difficulty escaping some leases because of difficulty in accessing their rental bonds, face unfair evictions and lack tenancy rights. They need better access to information and tenancy services so they can access better housing (UNSW Human Rights Clinic, 2019).

Social housing providers and private landlords could be incentivised to assist overcrowded households to obtain more appropriate housing. For example, governments might provide financial incentives to (Shelter 2005):

→ house overcrowded households (e.g. providing a one off bounty for housing large households)

→ enable people in social housing to transfer to areas of lower demand.

A study from the United Kingdom showed that some households take initiative to resolve overcrowding themselves by: trying to exchange the house for another (social housing transfer) (8%); trying to get people to leave the house (6%); using a choice based letting scheme (3%); and trying the private sector (2%). Only 1 per cent of overcrowded households considered moving out of the area (Shelter 2005).

8.3.2 Empower householders to improve household organisation

Household organisation and firm administration of household rules helps households to cope with overcrowding and can improve hygiene, health and child health outcomes (Bailie et al. 2011; Pholeros 2010). Household organisation includes family routines and limit setting around household chaos, overcrowding and the broad home environment. Programs which teach and empower householders to implement these skills may be helpful.

A critical factor in coping with large households in the Indigenous context was firm administration of house rules by the householder, rules in organising sleeping space in large households and sharing visitors among other family households (Memmott et al. 2014). Studies have also highlighted the dilemmas many Indigenous leaseholders face between accommodating kin (therefore potentially preventing homelessness), or rejecting them in order to reduce overcrowding and maintaining the lease.

Several studies indicate that improved housing infrastructure alone may not result in improved hygiene and child health outcomes, if not accompanied by an ecological approach to housing environments and suitable interventions to improve hygiene practices (Bailie et al. 2011; Pholeros 2010). They advocate for social, behavioural and community-wide environmental interventions to address these shortcomings (Bailie et al. 2012).

8.3.3 Provide homelessness related supports to overcrowded households

Many people in overcrowded accommodation may not able to access homelessness services due to geographic, cultural or language barriers. A review of existing

resourcing against emerging needs around overcrowding might be important step in NSW.

Recent research by Parkinson et al. (2019) shows that that homelessness services are not well aligned with the changing geography of homelessness and overcrowding and that 'most service capacity for accommodation and support is located in and around inner capital city areas with less capacity in regional and remote areas' (Parkinson et al. 2019:4).

Parkinson et al. (2019) find that there is a substantial mismatch in the distribution of homelessness and SHS and the incidence of homelessness. At a national level, almost half of all capacity in SHS accommodation capacity and 44 per cent of SHS support capacity would need to shift across SA3 boundaries to better align services with homelessness; this mismatch has been worsening in the major cities from 2011 to 2016, but has been improving in regional and rural areas.

There are some good examples of how homelessness programs have been tailored to the needs of particular groups which might be provide models or learnings for any new programs developed. For example, the Assistance with Care and Housing for the Aged (ACHA) program, is already providing assistance to elderly people in crowded or inappropriate housing to move into their own accommodation when their existing tenure or relationships were no longer suitable (Petersen et al. 2014).

There may also be ways to reorient resourcing towards further protecting those experiencing severe overcrowding. The *NSW Homelessness Strategy 2018–2023* already seeks to assist those in at-risk tenancies. It may be possible to direct more of this assistance towards overcrowded households to sustain their tenancies and work with them to resolve overcrowding issues.

8.3.4 Improving tenant knowledge about rights and providing support

A lack of knowledge about their rights is a key issue for tenants in some overcrowded and share housing. Working with landlords and tenants to engender trust and increase knowledge of rights would be an important first step to overcome problems of non-compliance. As part of this, Goodman et al. (2013) advocate for the provision of outreach services with case management support of renters at risk and those with special needs.

8.4 Regulation

8.4.1 Review residential tenancy laws, owners' corporation rules and building codes

NSW already has laws that aim to limit overcrowding in houses and apartments:

→ *Public Health Regulation 2012 NSW* specifies a minimum amount of sleeping space (5.5 square metres) per person in each house (Clause 46(a)).

→ The *NSW Residential Tenancies Act 2010* requires that the tenant inform the landlord if they intend to sub-let the property to another person and give the landlord the right to refuse consent if 'subletting would cause more persons to occupy the premises than are permitted by the tenancy agreement or any relevant development consent or approval' (section 75(3)(a)).

→ *Strata Schemes Management Regulation 2016* (NSW Department of Fair Trading 2019) provides model by-laws that can be adopted by owners' corporations to limit overcrowding, for example, a limit of 2 adults per bedroom. Owners' corporations can impose fines on owners breaching these by-laws.

→ *National Construction Code 2019* is Australia's primary set of technical construction provisions for buildings. The numbers of occupants in a dwelling are referenced in relation to a number of factors, including access and egress (e.g. Section D1.13 requires builders to estimate the 'number of persons accommodated in storey, room or mezzanine') and in relation to personal hygiene facilities (Section FP2.1 specifies that there be suitable sanitary facilities appropriate to the number and gender of the occupants and limits the number of persons that might be expected to share facilities like closet pans, wash basins and showers).

These laws and codes could be reviewed to see how they relate to overcrowding and if the limits and penalties they impose are relevant to address overcrowding. However, changes to existing laws, codes and rules will not in themselves be sufficient to address overcrowding:

→ There are problems in enforcing or monitoring overcrowding because some people can claim to be short term visitors or guests.

→ In some cases (e.g. owners corporations rules), the laws are voluntarily adopted so are not imposed, or they are not policed either by the owners corporation, landlords or the local council (Aston 2013). Matters relating to overcrowding can be brought to the NSW Civil and Administrative Tribunal. The efficacy of the Tribunal is presently being reviewed by the Department of Justice.

→ Regulations do not address fundamental drivers of overcrowding (such as rapid population increases or declining housing affordability) and may unintentionally inconvenience the most vulnerable, if housing presently available to renters is taken off the market. Regulations might result in discrimination against people from different cultural backgrounds as many operators of informal accommodation fly 'under the radar' (Goodman et al. 2013) and as a consequence councils are not aware of where they effectively operate. Occupants are often unwilling to report non-compliant operators and it is left to housing, health and legal and advocacy organisations to make complaints.

Even so, revision of laws and regulations to reduce overcrowding may be effective if done sensitively and in combination with other interventions that aim to address the underlying causes of overcrowding and measures to increase the availability of alternative accommodation.

8.4.2 Use planning laws to foster new affordable and safe forms of shared tenure like new generation boarding houses

Regulation can be used constructively to facilitate new forms of tenure that may meet the needs of those in overcrowded accommodation. Goodman et al. (2013) found there is scope to support new models that offer greater security of tenure, minimal standards for buildings, facilities and other services and enhanced autonomy of occupants, especially through processes that enhance governance.

One approach, raised by Nasreen and Ruming (2018), is to expand the availability of legal forms of shared accommodation which are nevertheless regulated. For example,

in the United Kingdom, private rental landlords can get a licence to allow multiple occupation (at least three people who are not from one household).[7] NSW has already introduced new planning laws to facilitate 'new generation boarding houses' and secondary dwellings under the ARHSEPP.

8.4.3 Better regulate registered and unregistered boarding and rooming houses

There is evidence that the increased formalisation of share housing (with more business moving from websites like Gumtree to real estate agents) and the closing of traditional boarding houses, is making it harder for those on low incomes to access share housing because of the need to provide rental histories and meet employment and income criteria (Gurran et al. 2019). There is a need to ensure that housing remains accessible to vulnerable groups, while also ensuring it is safe. Dalton et al. (2015) argue that a risk based approach should distinguish between the risks associated with buildings and the risks associated with housing vulnerable people. They argue that some segments of the market are lower risk and markets would work effectively, but others require more heavy regulation, and an inspection and compliance regime. The most vulnerable, for example ex-prisoners and those leaving hospital, require service interventions rather than just further prescriptive regulation of the rooming house sector.

There is a need for greater coordination and improved regulation of the rooming or boarding house sector if there is to be an improvement in the quality of housing and tenants have greater security around their tenure. Current regulation of rooming or boarding houses tends to focus only on safety and amenity of buildings, but improvements to the operation of those rooming houses is needed, including licencing and education of operators (Dalton et al. 2015). Researchers have advocated for:

→ training of managers/operators of marginal rental housing (to supplement licensing)

→ comprehensive (even nationally consistent) regulatory reform including compulsory registration

→ The need to enforce regulation at a local level by properly resourced staff (Dalton et al. 2015; Goodman et al. 2013).

In Victoria, there are explicit standards for rooming houses, but standards were not explored in NSW in the 2012 reforms. Victorian standards could be reviewed and used as a guide for NSW to improve safety and quality of life in rooming houses. There is also concern that local governments are stretched in their capacity to identify unregistered rooming houses and would require more resourcing to do so effectively (Dalton et al. 2015).

8.4.4 Strengthen compliance, complaints and remedies processes

Although the planning system in NSW has been already liberalised to allow for new generation boarding houses and secondary dwellings, illegal building works and

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[7] United Kingdom Government (2019) https://www.gov.uk/house-in-multiple-occupation-licence

boarding houses are still being built or created. This may reflect lack of knowledge about legislation or a lack of incentives to comply with existing law.

Often enforcement of legislation depends on complaints being made. At present, complaints can be made to the local council. This then requires the council to issue a notice to secure access for inspection to gather evidence. However by the time the notice is issued, evidence of the illegal use may have been removed making it hard to issue penalties or longer term remedies (Gurran et al. 2019).

Successful complaints can lead to fines for the landlord and orders for building to cease use as a residential dwelling. This can involve significant inconvenience to occupants and may require them to find alternative accommodation. While the legislation gives scope to provide retrospective approval for buildings following upgrade, it would be difficult to raise some existing structures to a habitable standard. Ongoing monitoring for compliance of particular properties can occur but the issues are widespread and council resources may need to be increased to deal with the scale of the problem (Gurran et al. 2019).

8.4.5 NSW legislation that covers overcrowding that could be amended

A list of areas of existing legislation that might be amended to address overcrowding issues is provided below:

→ **Boarding Houses Regulation 1993**. This legislation could be used as a model for registering houses presently unregistered especially for group households in migrant communities.

→ **SEPP Planning Codes (including ARHSEPP)**. The ARHSEPP has already facilitated new forms of shared tenure housing and second dwellings. This might be further reviewed for its effectiveness. SEPP legislation could mandate greater requirements for variety of dwelling types (e.g. in terms of numbers of bedrooms, facilities) suitable for needs of migrant and Indigenous communities.

→ **Strata Schemes Management Regulation 2016**. This regulation already provides model by-laws for owners' corporations to adopt in strata title properties that involve penalties for owners permitting overcrowding but these model by laws could be reviewed and fines strengthened. Owners' corporations also might be obliged to involve an outside organisation (e.g. specialist homelessness organisations) to assist those in severely overcrowded dwellings to move to more affordable or appropriate dwellings.

→ **Residential Tenancies Acts**. This legislation could be amended to include greater requirements for owners or landlords to ensure inspection of their dwellings to identify cases of severe overcrowding and give greater recourse by landlords to evict those sub-letting illegally. This could include more streamlined approaches to dealing with cases of overcrowding in residential tenancy tribunals and linkage to assistance for those displaced from the property.

→ **Social Housing Residential Tenancy Acts and policies**. Transfer policies presently prioritise those in moderate overcrowding. For example, in NSW, DCJ will allow additional occupants to occupy a house but not if it will result in severe overcrowding, and moderate overcrowding can be used as a reason for transfer to another property (NSW Family and Community Services, 2019; 2018).

There may be scope to reform Social Housing Tenancies Policies and their Allocations policies. For example, a requirement that overcrowded households be

given greater priority into social housing and/or if they are already in social housing that they be given greater priority to move to appropriate housing (and that the department be required to find accommodation in the private sector if none is available in their present stock holdings) could be included.

→ **Land Tax Management Act 1956**. There may be potential to increase taxation on underutilized properties, or to penalize over-occupied properties.

8.5 Better measurement of overcrowding, research and evaluation of housing and health programs

This study has identified significant gaps in the evidence base around overcrowding in Australia. These relate to:

→ how we make sense of the complicated cultural drivers of overcrowding

→ how overcrowding should be best measured

→ the lived experience of overcrowding, including how it starts, how it is experienced and how people move out of overcrowding

→ understanding the short and longer term impacts of overcrowding on health and wellbeing

→ understanding policy responses to overcrowding.

All of these are relevant to how policy makers respond to the overcrowding.

8.5.1 Need for different measures of overcrowding

There is a lack of good data on overcrowding and the extent of its impact. The widespread use of the CNOS enables comparisons across time and regions and provides a good starting point. Further research looking at NSW would require more in depth use of Census data to productively look at a range of topics such as the tenure and dwelling characteristics of overcrowded households.

While CNOS measures of overcrowding are useful, they only consider permanent residents and are founded on Western cultural norms, which may not be appropriate to all groups, since most overcrowding occurs among those with non-Western cultural backgrounds and in Indigenous communities. There is scope to refine overcrowding measures to account for Indigenous and non-Western cultural norms around dwelling adequacy and the impact of overcrowding.

Subjective stress measures could assist in understanding how different groups experience of overcrowding, what its impact is and how much intervention is needed. This is especially relevant to Indigenous groups which have different cultural practices and norms around accommodating kin and dwelling and bedrooms usage, but may also be relevant to migrant groups and foreign students. Reforming of statistical data collection on overcrowding is presently being discussed as part of the National Housing and Homelessness Data Improvement Plan.

8.5.2 Need for qualitative research on overcrowding

This study was not able to identify any Australian qualitative studies on the experiences of overcrowding. While some studies that have touched on the topic (e.g. studies on the housing careers of migrants), there is a clear need for more research in this area. Understanding the dynamics of household members in and out of overcrowding would

be beneficial, as would an understanding of the factors (like income and rents) that constrain exit from overcrowded situations. While AHURI is seeking a research project on overcrowding in the forthcoming 2020 National Housing Research Agenda, there is scope for more rapid bespoke research specific to NSW.

8.5.3 Need for Australian research on the impacts of overcrowding

This study found international evidence that overcrowding can have negative impacts on occupants both immediately (safety, household harmony) and in the longer term (health and child development outcomes). However, mediating factors such as family resources and networks can reduce these negative impacts. Understanding the interactions between these factors is important in any policy response. Establishing links between housing and other life outcomes can sometimes be difficult. However, there may be scope to exploit new techniques using data linkages between administrative data sets on housing conditions (including in relation to overcrowding) and health, education, justice, and service use data. These techniques have been shown to be feasible in other parts of the world such as New Zealand (Baker et al. 2016) and might be pursued in Australia.

Appendix A: Occupancy standards

Canadian National Occupancy Standard

The Canadian National Occupancy Standard (CNOS) assesses the bedroom requirements of a household based on the following criteria:

→ there should be no more than 2 persons per bedroom

→ children less than 5 years of age of different sexes may reasonably share a bedroom

→ children 5 years of age or older of opposite sex should have separate bedrooms

→ children less than 18 years of age and of the same sex may reasonably share a bedroom

→ single household members 18 years or older should have a separate bedroom, as should parents or couples.

Using this measure, households that require at least one additional bedroom are considered to experience some degree of overcrowding (AIHW 2017).

Source: AIHW (2017)

Proxy Occupancy Standard

The Proxy Occupancy Standard measures overcrowding in relation to the following criteria:

Household component	Dwelling size required
Single adult only	1 bedroom
Single adult (group)	1 bedroom (per adult)
Couple with no children	2 bedrooms
Sole parent or couple with 1 child	2 bedrooms
Sole parent or couple with 2 or 3 children	3 bedrooms
Sole parent or couple with 4 children	4 bedrooms

Households that require two or more additional bedrooms to meet the Proxy Occupancy Standard are considered to be overcrowded.

For sole parent or couple households with more than four children the dwelling size in terms of bedrooms should be the same value as the total number of children in the household.

Where more than one of the groups specified in the occupancy standard is present, the needs of the two or more groups should be added together. For example, a sole parent with one child living with the sole parent's parents (three generations) would require four bedrooms, that is, two bedrooms for the sole parent and child and 2 bedrooms for the married couple.

The appropriate size is not necessarily the current dwelling size. Only the usual residents of the household are included. Adults include children aged 16 or more.

Source: AIHW (2017)

Measuring overcrowding in social housing in NSW

DCJ NSW uses the following definition of overcrowding to the purposes of applying for social housing and for applying for transfers.

Severe overcrowding is where:

→   an adult or couple are sharing a bedroom with a person aged over 3 years; or

→   there are more than three children sharing a bedroom; or

→   there are more than two unrelated adults sharing a bedroom.

Severe overcrowding can also occur if children currently sharing a bedroom now need their own bedroom because of a specific need such as:

→   a disability or special medical need

→   severe behavioural problems

→   children of different sexes sharing a room and one of them reaches puberty.

When requesting a transfer, tenants are required to prove that the severe overcrowding is the result of one of the above reasons and explain why the current dwelling is unsuitable and provide documentation such as:

→   age of all household members

→   gender of all household members

→   marriage certificate

→   legal documents confirming family reunion

→   legal documents confirming placement of children\

→   legal documents confirming custody of children

→   Centrelink family payment income statement

→   court orders

→   immigration papers

→   medical assessment or report/letter from doctor or specialist confirming disability or special needs

→   letter or reports from support agencies confirming severe behavioural problems

→   reports or letters from Community Services\

→   letter or reports from health professionals, including mental health case managers.

Source: NSW Department of Family and Community Services (2018)

Bedroom Standard (United Kingdom)

The Bedroom Standard identifies that the following should have one bedroom:

→   married or cohabiting couples and single people 21 years old or over;

→   pairs of children under 10 years old, regardless of sex;

→ two adolescents aged 10 to 20 years old of the same sex.

Households that lack two or more bedrooms according to the Bedroom Standard are considered to be severely overcrowded.

Source: Shelter Legal England (2019)

European Union definition of overcrowding

The European Union definition considers a household to be overcrowded if it does not have a minimum number of rooms equal to:

→ one room for the household

→ one room per adult couple in the household

→ one room for each single person aged 18 and over

→ one room per pair of single persons of the same sex between 12 and 17 years of age

→ one room for each single person between 12 and 17 years of age and not included in the previous category

→ one room per pair of children under 12 years of age.

Source: Eurostat (2019)

Appendix B: Data sources

Table A1: Data sources

Survey	Agency	Sample and frequency	Advantages	Disadvantages
Cross-sectional data sets				
Housing Assistance data	Australian Institute of Health and Welfare	Administrative data. Annual (last publication 2018).	Publishes data on overcrowding using CNOS (household needs one or more additional bedrooms) and underutilisation.	Only collects data on persons that are presently in social housing.
Census	ABS	Whole population of Australia. Every five years (last survey 2016).	Publishes data on severe (CNOS +4) and other (CNOS 3) as part of homelessness estimates. Provides detailed spatial data.	Does not publish data on overcrowding where households needs 1 or 2 additional bedrooms.
Survey of Income and Housing (SIH)	ABS	N=17,768 households. Every two years (last survey 2016).	Provides detailed estimates of household income, wealth and household behaviour.	Overcrowding data is not published and is only available on request.
General Social Survey (GSS)	ABS	N= 12,932 dwellings. Last survey 2014.	Provides a multidimensional data on advantage and disadvantage of households.	Overcrowding data is not published and is only available on request.
National Aboriginal and Torres Strait Islander Social Survey (NATSISS)	ABS	All Aboriginal and Torres Strait Islander people who were usual residents of private dwellings in Australia. Every 6 years. (last survey 2014–15).	People usually resident in non-private dwellings, such as hotels, motels, hostels, hospitals, nursing homes, and short-stay caravan parks were not in scope.	Overcrowding data is not published and is only available on request.

Survey	Agency	Sample and frequency	Advantages	Disadvantages
Longitudinal data sets				
Household Income and Labour Dynamics Australia (HILDA)	Melbourne Institute	Over 17,000 individuals. Conducted annually.	Collects a wide range of economic, well-being, labour market and family variables and can track individuals over time.	No published estimates of overcrowding. Contains only a small sample of overcrowded households; may allow analysis of overcrowding nationally, but unlikely to be useful at the state level. Does not capture new migrants very well.
Journeys Home	Melbourne Institute	Approximately 1,700 individuals, who were homeless or at high risk of becoming homeless. Six-monthly intervals from September 2011 to May 2014.	Captures only those already homeless or at risk of homelessness.	No published estimates of overcrowding.
Longitudinal Study of Australian Children (LSAC)	Australian Institute of Family Studies (AIFS)	Data are collected from two cohorts every two years. The first cohort of 5,000 children was aged 0–1 years in 2003–04, and the second cohort of 5,000 children was aged 4–5 years in 2003–04. Wave 8 has been collected and available for year 2015-2017.	Has detailed information allowing for tracking but is difficult to generalize much around CNOS due to limited numbers in overcrowding due to sample size.	No published estimates of overcrowding.
Longitudinal Study of Indigenous Children (LSIC)	Department of Social Services (DSS)	National, representative, non-purposive sample of 1,680 original families, ongoing follow up with 1,200 families. Release 9 is now available covering year 2016.	Similar to LSAC but with a smaller sample.	No published estimates of overcrowding.
Building a new life in Australia (BNLA)	Australian Institute of Family Studies (AIFS)	Humanitarian arrivals in Australia, n= 1,500 migrating units (2,399) individuals. Done over five years, from 2013 until 2018.		Only 4 waves thus limits the tracking of individuals; small sample of 1,500 unit Australia wide.

Appendix C: Modelling results (2011–2016)

The following table includes results from three different models that were run on the different measures of overcrowding and homelessness at a SLA3 level. The measures consider the change in the rate per 10,000 of the population over the time period 2016 to 2011, with a positive outcome referring to an increase in the per 10,000 rate over the time period.

The housing and other variables are also the changeover the time period, with a positive outcome meaning an increase occurred, for example a positive vacancy rate measure, for an SLA3, means that the vacancy rate was higher in 2016 than 2011.

Thus the following models are about the change in overcrowding and homelessness rather than the level.

Table A2: Fixed effects estimates for changes in overcrowding and homelessness

SLA3	Severe overcrowding	Overcrowding (3)	Homelessness
Rent difference (2016–2011)	-1.5397***	0.2521	-1.1873***
	(0.4656)	(0.1717)	(0.3529)
Rent/income difference	1179.4760***	-118.3207	1027.1542***
	(435.6025)	(158.1598)	(322.0259)
Vacancy rate difference	4.1961	-165.6612**	244.2014*
	(197.3972)	(75.8670)	(141.7069)
Unemployment difference	-1.19e+03***	-245.8761**	-1.41e+03***
	(307.1164)	(120.9609)	(241.2538)
Public housing rate difference	1431.4947**	1034.9428***	1777.3311***
	(636.7050)	(227.4907)	(461.4579)
Cooperative housing difference	2259.9397**	1810.7667***	2548.6817***
	(940.1822)	(357.4311)	(723.7147)
Income difference	1.0387***	-0.1393*	0.7546***
	(0.2145)	(0.0749)	(0.1544)
Need for assistance difference	0.0877	-0.0500	0.0833
	(0.0872)	(0.0329)	(0.0630)
Age difference	-11.9999*	-7.9847***	-3.3933
	(6.5525)	(2.3406)	(4.3616)
Migration rate difference	0.0261***	0.0082***	0.0259***
	(0.0067)	(0.0026)	(0.0053)
Rate of year 12 difference	0.0863**	0.0027	0.0938***
	(0.0373)	(0.0128)	(0.0258)
Rate of no school difference	-0.1022	0.3132***	-0.1216
	(0.1825)	(0.0716)	(0.1460)
Rate of bachelor or above difference	-0.0092	0.0130	-0.0105
	(0.0438)	(0.0166)	(0.0326)
Rate of Indigenous people difference	0.1942***	0.1148***	0.2114***
	(0.0564)	(0.0198)	(0.0392)

SLA3	Severe overcrowding	Overcrowding (3)	Homelessness
Rate of family with >=6 children difference	2.00e+04***	5064.1367***	1.79e+04***
	(4541.0011)	(1694.8646)	(3367.6609)
Rate of family with <6 children difference	-386.8231	-430.8107***	-78.5315
	(277.3839)	(106.0467)	(211.0223)
Rate of married people difference	-0.0773*	0.0394**	-0.0729**
	(0.0427)	(0.0155)	(0.0292)
Victoria (base case)			
New South Wales	-9.6238	-2.0065	-8.8486
	(8.3572)	(3.0061)	(6.0649)
Queensland	13.5834	0.1471	10.6022*
	(8.6865)	(3.1290)	(6.1579)
South Australia	23.6765**	9.3240**	18.4391**
	(10.5247)	(3.9493)	(7.6447)
Western Australia	42.5986***	9.9203**	42.7567***
	(11.0302)	(4.1112)	(7.9989)
Tasmania	-4.7879	-5.1793	-7.8962
	(17.8908)	(5.1367)	(9.6207)
Northern Australia	-91.6082***	19.3977***	-39.3503***
	(19.2906)	(6.6930)	(13.8022)
ACT	2.0580	15.5022*	-8.9171
	(21.3838)	(8.0295)	(16.1403)
Constant	-44.2237**	15.3263**	-40.9561***
	(20.8781)	(7.4213)	(14.9546)
r2	0.7313	0.5028	0.6227
N	208	295	319

Source: ABS 2049.0 Census of Population and Housing, Estimating Homelessness, 2016, 2011. Modelling used data for all SLA3 in Australia. Statistically significant associations are reported, with three asterisks (***) denoting significance at 1 per cent level, two asterisks (**) denoting significance at the 5 per cent level and one asterisk (*) significance only at 10 per cent level.
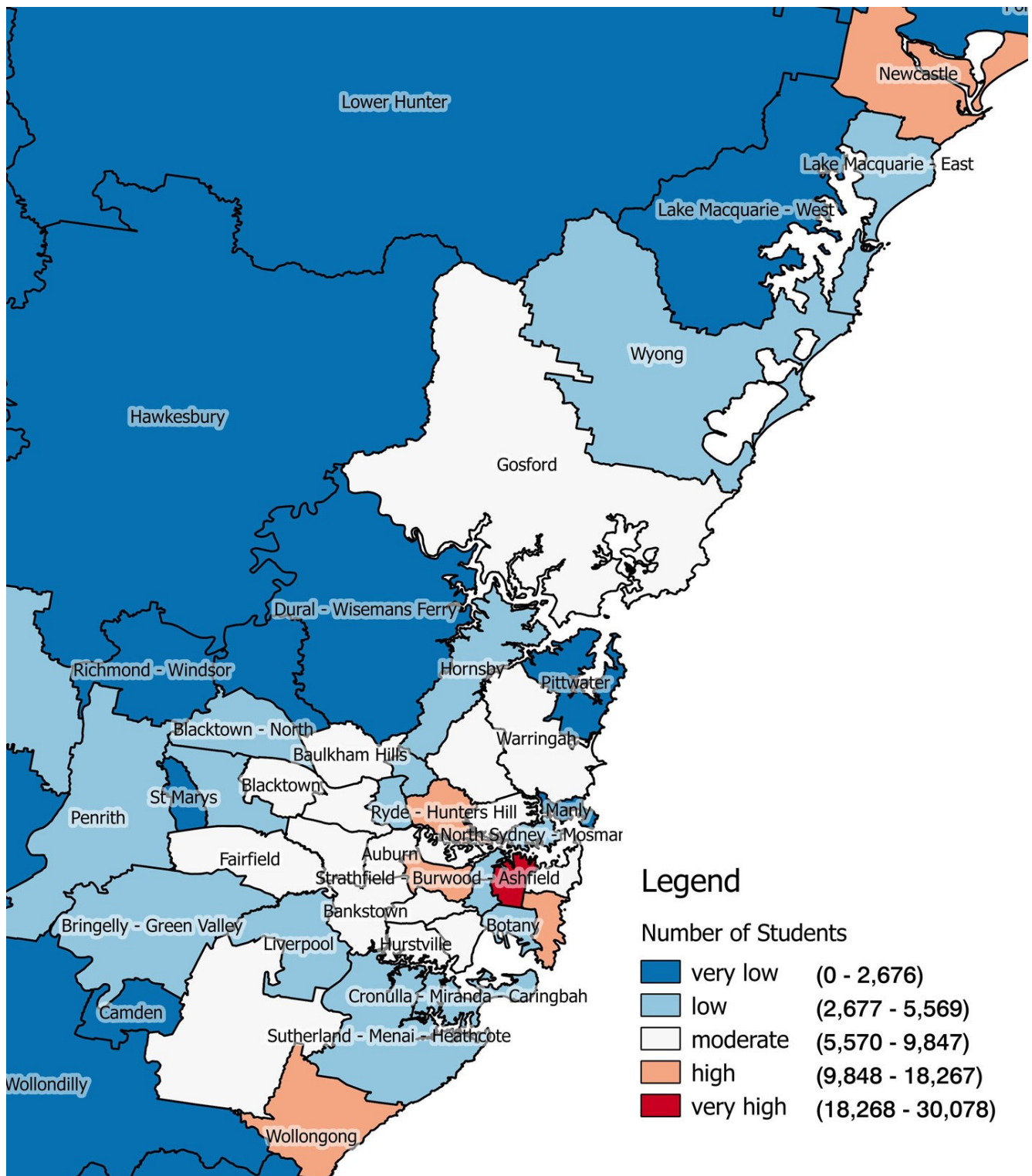
Appendix D: Key groups experiencing overcrowding

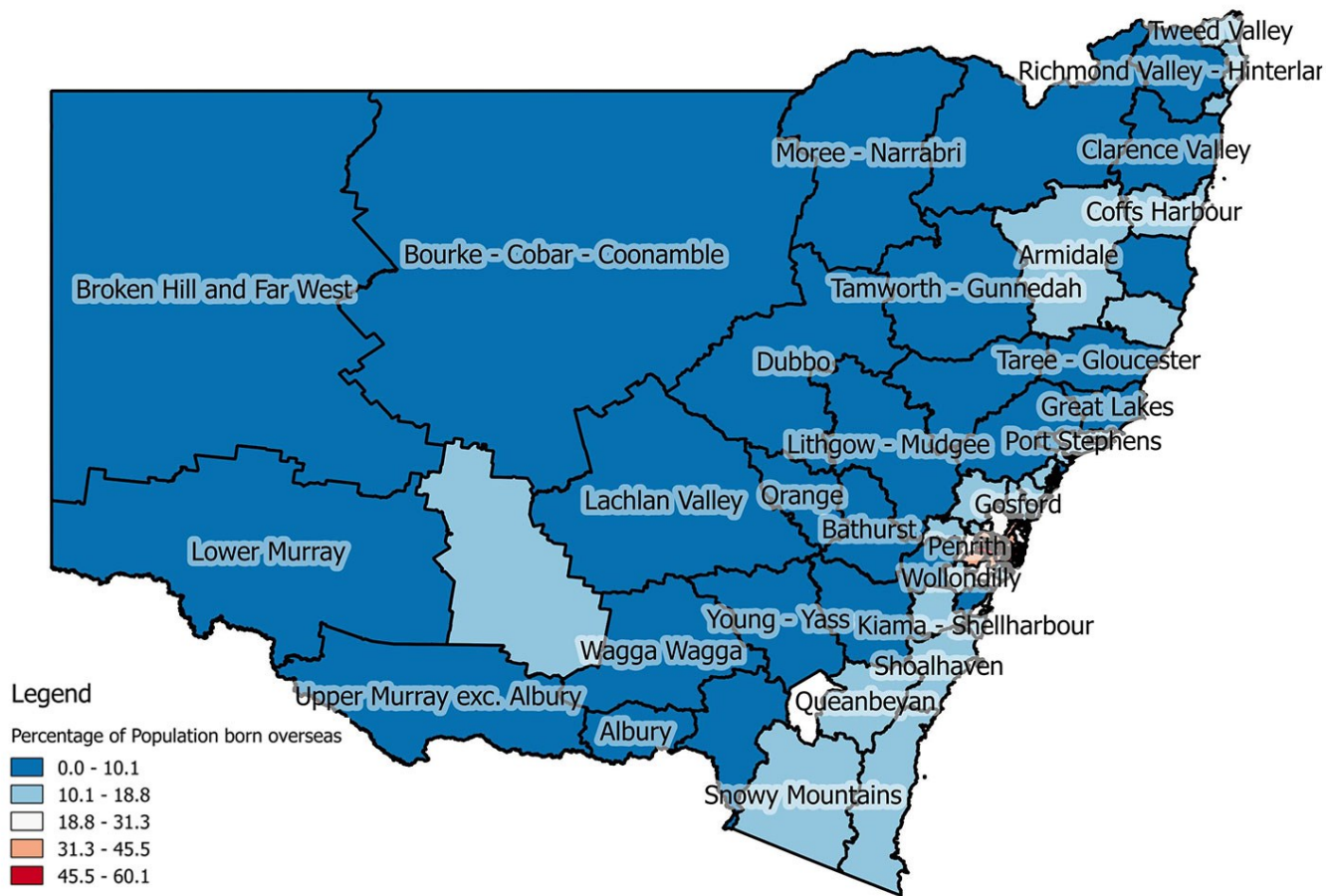**Figure A1: Number of students in NSW, 2016**
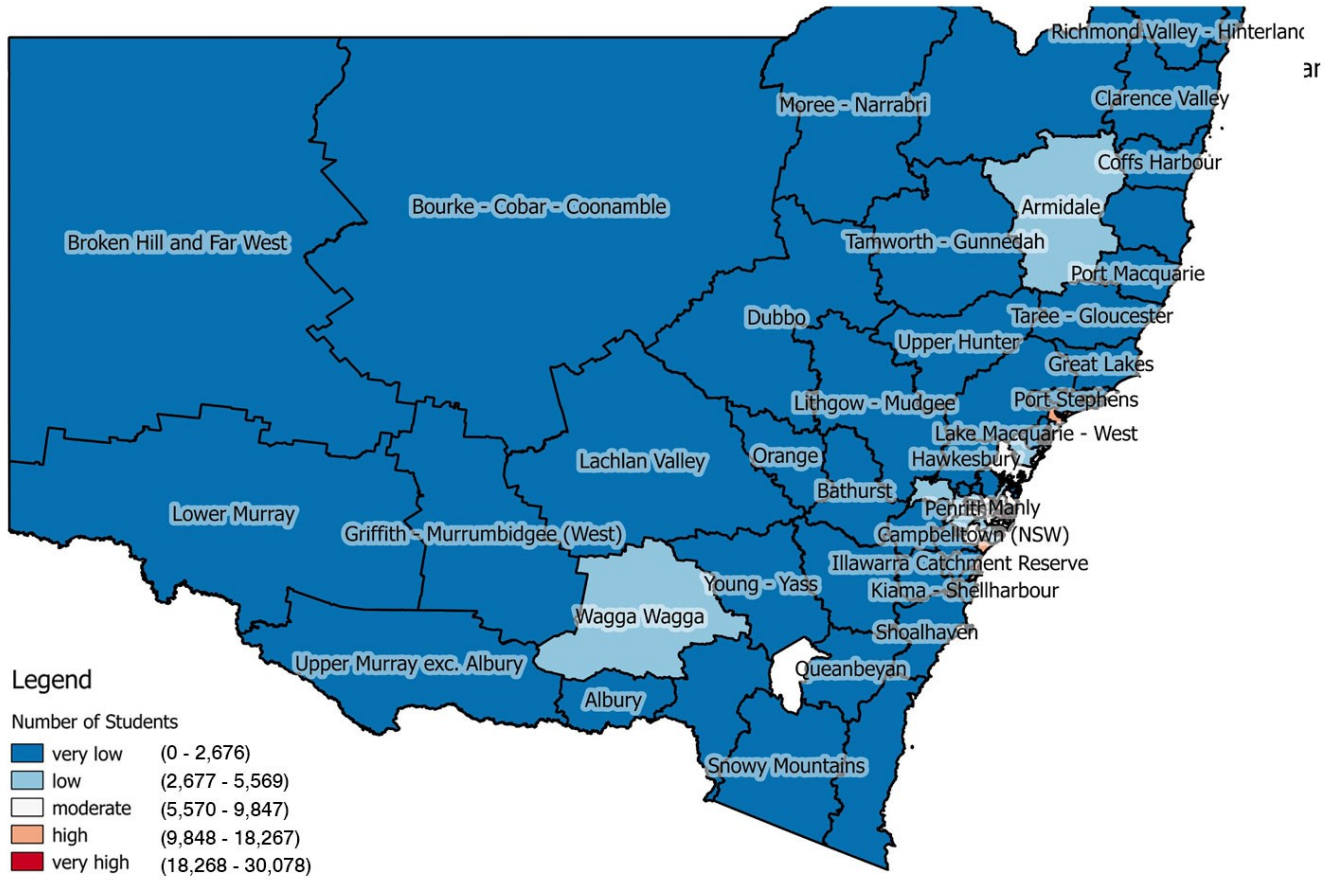
Source: ABS Census 2016a

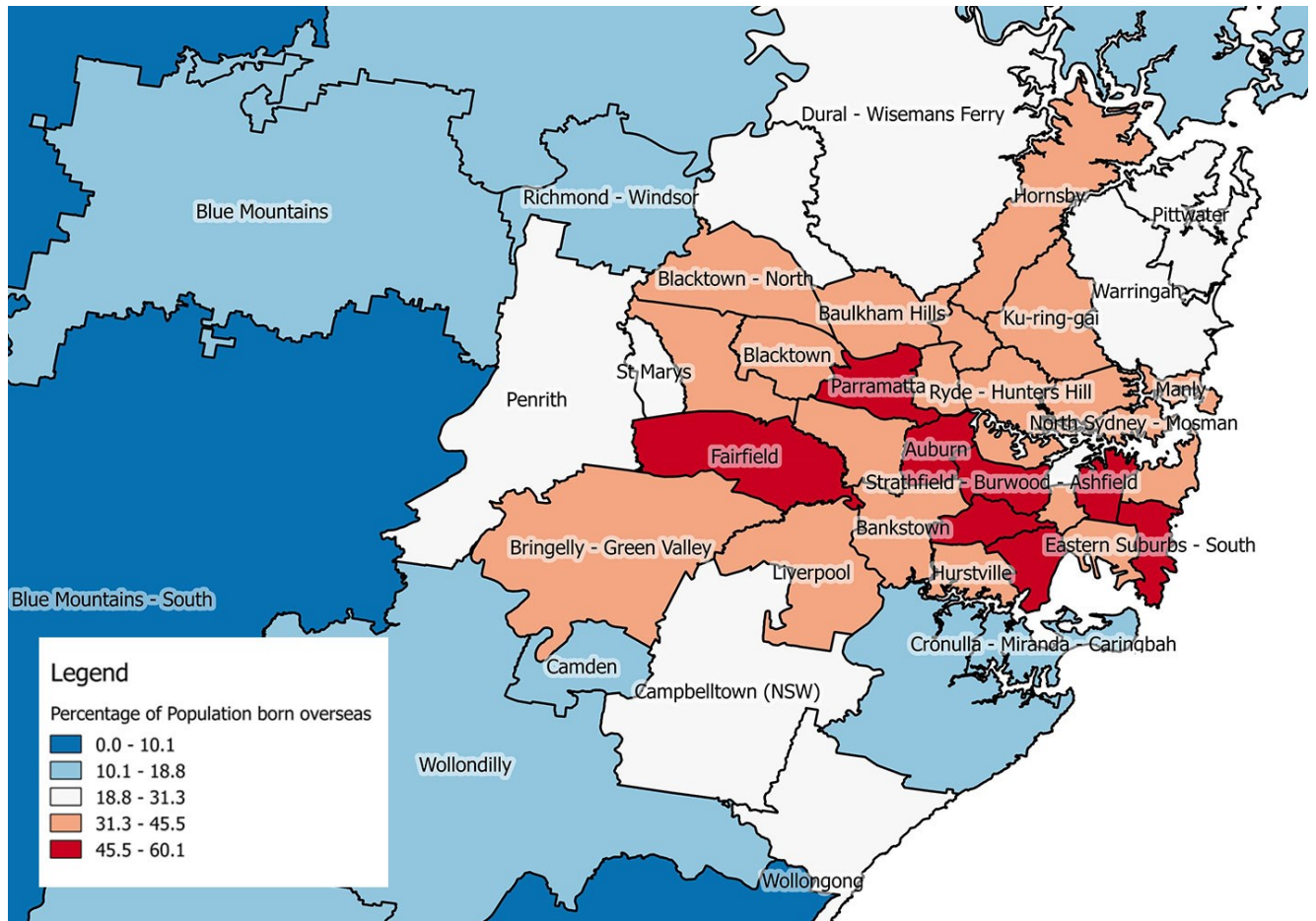**Figure A2: Number of students in Sydney and NSW East Coast, 2016**

Source: ABS Census 2016a

Figure A3: Percentage of NSW population born overseas, 2016

Source: ABS Census 2016a

Figure A4: Percentage of the population born overseas, Greater Sydney Area, 2016

Source: ABS Census 2016a

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