EVERYONE COUNTS

Defining and measuring severe housing deprivation (homelessness)

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ABSTRACT

Homelessness is widely regarded as a serious social issue, a severe form of deprivation, and a clear threat to health and wellbeing. There is little agreement, however, on a fundamental matter – what the word ‘homelessness’ refers to. Different definitions are used across the world, meaning homelessness statistics reflect quite different populations that are poorly comparable across nations and over time.

This thesis examines existing definitions of homelessness and seeks to develop a more conceptually rigorous approach. Building on an implicit consensus in the literature that homelessness refers to severe housing deprivation (or a lack of access to minimally adequate housing), this thesis develops a detailed conceptual definition and classification grounded in both human rights and an understanding of homelessness as a form of poverty. This definition promotes interchanging (or even replacing) the word ‘homelessness’ with ‘severe housing deprivation’ – the latter providing a more accurate, less evocative description of the phenomenon. An operational definition is developed for identifying severely housing deprived people in New Zealand Census and emergency housing provider data. It identifies people as homeless based on their housing type, low income, and – for people in private dwellings – severe household crowding. This definition was applied to 2001 and 2006 data to produce New Zealand’s first severe housing deprivation statistics.

The point prevalence of severe housing deprivation in New Zealand in 2006 was at least 84 per 10,000 people, or about one in every 120 New Zealanders, having increased by nine percent since 2001. Two-thirds of all severely housing deprived people were sharing in severely crowded private houses, usually with family. More than half the severely housing deprived population were younger than 25 years of age, and half of these were younger than 15. Reflecting the known distribution of disadvantage in New Zealand, severe housing deprivation was associated with non-European ethnicity, being a new migrant, high residential mobility, being unemployed, being out of the labour force, having an unskilled job, and having a low level of education. However, contrary to traditional portrayals of homeless people as idle, socially disaffiliated outsiders, almost half of all severely housing deprived adults were engaged in employment, study, or both. About a third of all severely housing deprived adults were employed, but did not have the resources to access minimally adequate housing. This serves as a reminder that severe housing deprivation reflects the dysfunction of, and gaps between, systems of housing, employment, and social security.

This study contributes a conceptually rigorous methodology for measuring severe housing deprivation, and addresses a gap in knowledge about severe housing need in New Zealand. Using
national, routinely collected data, it introduces a repeatable method for monitoring the issue in New Zealand, and a new benchmark for progress toward an internationally standardised measure of this important and poorly understood social issue.
PREFACE

The title of this thesis, *Everyone Counts*, comes from the theme of the 2010 World Population Day. The intention of this day was to highlight the importance of the 2010 round of national censuses, with the United Nations Secretary-General emphasising: “to be counted is to be visible” and “access to good data is a component of good governance, transparency, and accountability” (Ki-moon, 2010, n.p.). This thesis is concerned with counting people who are often invisible – statistically and politically – making the extent and nature of the problem visible to governments and societies.

I am grateful for the opportunity to undertake the research presented in this thesis, and the many privileges that brought me to this point. Over the course of this work, New Zealand’s housing crisis deepened. First and foremost, I acknowledge those who are severely housing deprived in Aotearoa New Zealand – unjustly so – and hope that this research, however insignificant in the grand scheme of things, contributes to positive change for those who cannot access the housing they should be able to expect.

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I am very lucky to have worked as part of He Kainga Oranga/Housing & Health Research Programme, in the Department of Public Health at the University of Otago, Wellington. It is an inspiring, exciting research group and department, full of people taking action to change New Zealand for the better. I have enjoyed the opportunity to learn and be angry about injustices and questionable policies across the wider housing and welfare realms. My supervisors, Professors Philippa Howden-Chapman and Michael Baker, have been extraordinarily patient and good to me. I cannot thank them enough for all the opportunities they have provided, for being such inspiring role models, and for their boundless over-confidence in my abilities.

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Corporation; Jonathon Boston of Victoria University of Wellington; and the providers of emergency accommodation services who went out of their way to provide data.

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STATEMENT OF CONTRIBUTION

This thesis represents my own work, but many others made important contributions. Michael Baker, Philippa Howden-Chapman, and Helen Viggers of University of Otago reviewed, commented on, and discussed drafts of the conceptual model, classification, and algorithm for identifying severely housing deprived people in census data. Esther Woodbury of University of Otago reviewed the conceptual model and eventually convinced me to reconsider the theoretical treatment of people living in institutions such as hospitals. In the Statistics New Zealand data laboratory, Helen Viggers and I worked together to further develop and test the algorithm. I made the final decisions on all of the steps in the algorithm, and take full responsibility for it. Kimberley O’Sullivan of University of Otago pre-tested the survey of emergency housing providers, and Shirlee Wilton, also of University of Otago, entered client data provided by these services. June Atkinson and Kristie Carter of University of Otago assisted with SAS and census data. Rosemary Goodyear and Angela Fabian of Statistics New Zealand reviewed and commented on multiple drafts of the algorithm and provided advice on using certain census variables. Rosemary and Angela also reviewed and commented on a report that summarises this thesis (Amore et al., 2013). Helen Viggers, Michael Baker, and Philippa Howden-Chapman also reviewed and commented on the report (and were co-authors); Jonathon Boston of Victoria University of Wellington provided external peer review; and Jan Schrader of Statistics New Zealand edited it. Many sections of this thesis are taken directly from the report, and comments made by these contributors also influenced my thinking about other aspects of the thesis. Amber Pearson of University of Otago produced the maps.
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ABBREVIATIONS

ABS  Australian Bureau of Statistics
AIHW  Australian Institute of Health and Welfare
CHRN  Canadian Homelessness Research Network
CMHC  Canada Mortgage and Housing Corporation
CNOS  Canadian National Occupancy Standard
ETHOS  European Typology on Homelessness and Housing Exclusion
Eurostat  Statistical Office of the European Communities
FEANTSA  European Federation of National Organisations Working with the Homeless
HNZC  Housing New Zealand Corporation
IDI  Integrated Data Infrastructure
JEAF  Jensen Equivalised Annual Family (income)
JEAH  Jensen Equivalised Annual Household (income)
JEAP  Jensen Equivalised Annual Personal (income)
LAMAH  Lack of access to minimally adequate housing
MBIE  Ministry of Business, Innovation and Employment
MELAA  Middle Eastern, Latin American, and African
MHCLG  Ministry of Housing, Communities & Local Government
MSD  Ministry of Social Development
NZDep  New Zealand deprivation index (small area level)
NZiDep  New Zealand deprivation index (individual level)
NZPC  New Zealand Productivity Commission
OECD  Organisation for Economic Co-operation and Development
TA  Territorial Authority
UN-Habitat  United Nations Human Settlements Programme
UNCESCR  United Nations Committee on Economic, Social, and Cultural Rights
UNDESA  United Nations Department of Economic and Social Affairs
UNDP  United Nations Development Programme
UNEC  United Nations Economic Commission for Europe
UNICEF  United Nations Children’s Fund
The housing crisis does not exist because the system isn't working. It exists because that's the way the system works.  

Peter Marcuse, in Martha Rosler’s *If You Lived Here*..., 1989

I’ve come to realise that homelessness is an equal opportunity offender; it doesn’t discriminate. It affects the young, the old, black and white, Christian, Muslim, Jew alike. It doesn’t care if you’re a Republican or a Democrat, or if you’re in Washington, D.C. or Los Angeles, California. But homelessness is an issue we can address, without having to wait for a scientist to develop a pill or discover a cure. It’s a crisis that we, in fact, can tackle.

Jon Bon Jovi  
Well-known rock star, little-known (if ill-informed\(^1\)) homelessness advocate  
World Habitat Day opening address  
October 5, 2009

\(^1\) Homelessness, like all forms of deprivation, is not an ‘equal opportunity offender’, as will be shown in this thesis.
CHAPTER ONE
INTRODUCTION

There exists in our minds a sort of ideal or typical tramp – a repulsive, rather dangerous creature, who would die rather than work or wash, and wants nothing but to beg, drink and rob henhouses. This tramp-monster is no truer to life than the sinister Chinaman of the magazine stories, but he is very hard to get rid of. The very word “tramp” evokes his image. And the belief in him obscures the real questions of vagrancy...Indeed, if one remembers that a tramp is only an Englishman out of work, forced by law to live as a vagabond, then the tramp-monster vanishes. I am not saying, of course, that most tramps are ideal characters; I am only saying that they are ordinary human beings, and that if they are worse than other people it is the result and not the cause of their way of life.

George Orwell, 1933, pp. 200-202

1.1 Introduction

Homelessness has an image problem. The word ‘homeless’ is so evocative of images of tramps, bums, bag ladies, hobos, vagrants, and beggars that it can be hard to think about the issue in any other way. Such portrayals are ubiquitous – featuring in literature, films, legislation, media reports, academic papers, and United Nations’ statistical guidelines. As observed by Orwell, these images tend to obscure the real questions about homelessness.

One of the factors these stereotypical pictures have in common is the notion that a homeless person is someone who lives rough or ‘on the streets’. This is a narrow framing of the issue, but a politically useful one – and it is one of the definitions challenged in this thesis. Of course, people do live on the streets in every country, and they are exceptionally vulnerable. This vulnerability was made tragically clear in the European winter of 2012, when hundreds of rough sleepers froze to death in extremely cold temperatures ("European cold snap death toll surpasses 300," 2012), and again last year in Manurewa, when Haami Manahi died sleeping on church steps in the cold (Harrowell, 2017). Rough sleepers are also at risk of violence, evidenced by the 2013 murders of two men who slept rough in central Auckland (Dougan & Theunissen, 2013). Acknowledging the plight of those living without even a modicum of adequate housing, our understanding of homelessness should not be blinkered by stereotype, or by the distressing sight of people sleeping rough.

Because the word ‘homelessness’ is evocative, its meaning unclear and conflicted, it is necessary to introduce the concept of homelessness proposed in this thesis at the very outset. This thesis argues that homelessness should be understood as ‘severe housing deprivation’, or, put another way, living in severely inadequate housing due to a ‘lack of access to minimally adequate housing’ (LAMAH). This definition will be developed over the ensuing chapters, but at this point I urge the reader to
proceed through this introductory chapter with the rather less familiar and less evocative term ‘severe housing deprivation’ as a reference point. This term is used preferentially throughout the thesis, but ‘homelessness’ is also used, particularly in the literature review when discussing extant approaches. ‘Severe housing deprivation’ and ‘homelessness’ are treated as synonyms.

This thesis seeks to go beyond popular perceptions of homelessness as living rough and critically consider two fundamental questions: how should homelessness (severe housing deprivation) be defined; and how should it be measured? Robust answers to these questions are vital if valid and comparable severe housing deprivation statistics are to be produced, if housing and welfare policy is to be well-informed and reflective of real need, and if more advanced questions about causes, consequences, and effective interventions are to be investigated in a rigorous manner. A valid definition is also needed to support ‘on the ground’ decision-making about managing individuals and families living in severe housing deprivation, such as allocating social housing and other government assistance.

This chapter is structured as follows. Firstly, the significance of severe housing deprivation is considered from a number of perspectives: rights, equity, health and wellbeing, and in relation to housing pressures in New Zealand. Secondly, the relevance of defining and measuring severe housing deprivation is examined. Thirdly, the goal and aims of the research are presented. Finally, this introductory chapter sets out the overall structure of the thesis.

1.2 Why severe housing deprivation matters

Adequate housing is fundamental to life

*Homelessness represents the most obvious and severe manifestation of the unfulfillment of the distinct human right to adequate housing.*

UN-Habitat, 1999, paragraph 30

At the most basic level, severe housing deprivation is important because it is incontrovertibly linked to suffering, threats to dignity, and people being unable to “lead the kind of lives they value – and have reason to value” (Sen, 1999, p. 18). A decent material standard of living is universally valued and central to a healthy and fulfilling life. Adequate housing is basic to life, in that its absence forecloses many other choices (UNDP, 2004). As such, adequate housing is a human right. The United Nations’ Istanbul Declaration on Human Settlements (1996), supported by 171 countries, reaffirmed the “commitment to the full and progressive realization of the right to adequate housing” (Article 8) originally set forth in the Universal Declaration of Human Rights. More recently, this
commitment was reaffirmed and renewed in the United Nations’ Declaration on Cities and Other Human Settlements in the New Millennium (2001).

Generally, homelessness is understood to relate to grossly inadequate living conditions, rather than to housing that has just any kind of inadequacy. Virtually all housing is inadequate in some way (by subjective if not objective assessment) in terms of cost, quality, size, suitability, sustainability, or location, for example. When homelessness is framed as severe housing deprivation – being severely disadvantaged in terms of housing in relation to the society in which one lives – it becomes clear that homelessness is a violation of human rights.

This research is grounded in an understanding of severe housing deprivation as a human rights issue. Human rights are universal and inalienable (United Nations General Assembly Official Record, 1948) – the ultimate bottom-line to which all governments and other institutions should be held. Every person in the world should be able to expect a decent standard of living, including adequate housing – and the global community has a duty to work toward realising this goal. This bottom-line is relevant now as ever, especially in light of evidence that austerity in public spending, including reduced spending on housing support, poses serious risks to health (Stuckler & Basu, 2013). Homelessness is one of the pathways through which austerity has been linked to declines in population health (Stuckler & Basu, 2013).

Health, wellbeing, and equity

Poverty took everything from my dad, including his home.

Growing up, one of the challenges that my parents faced was finding us a decent place to live. When my parents went out looking for a house to rent, they would always send my mother. My mother is Pākehā [New Zealander of European descent]. If my father went with her, we would not get the house, because he was Māori [Indigenous New Zealander]. One time when we were very small, my mother had managed to find us a good house. But over the next few days, the landlord came to visit and he met my dad, and within the week we had an eviction notice. We moved from that house into our car. We lived in our car for a period until we could find another home. We moved out into a house in the country. My family lived in a lot of country houses because my Dad could work on the surrounding farms and those houses were very cheap.

Housing remains a critical problem in this country. We have more than 10,000 families on the waiting list for a State home. We have exceptionally high rents. We have poor-quality rental properties. We have severe overcrowding. We have Third World rates of rheumatic fever that come from that overcrowding and cost our health system some $10 million a year. Poor housing costs lives—the lives of men and women in their prime.

Metiria Turei, 2011
Severe housing deprivation is at the historic core of public health. The public health discipline was borne out of concerns about the grossly inadequate and unhealthy living conditions of the poor. Housing is well established as a determinant of health and wellbeing, with various dimensions of housing inadequacy remaining pressing concerns today – from unaffordability to energy inefficiency, crowding to poor quality – and more recently in New Zealand, seismic resilience. From its earliest concern with housing, public health has grown into a discipline that covers an enormous range of factors that determine the health of populations, employs increasingly sophisticated methods, and plays a critical role advocating for social justice and equity. Living standards have improved greatly for much of the world’s population since the beginning of the public health movement, but this improvement has not been shared by all countries, or by all citizens within developed countries (Milanović, 2005). Grossly inadequate and unhealthy living conditions have remained a prevailing problem, and in some places, people who are severely housing deprived today will be living in very similar conditions to those experienced by the severely housing deprived a hundred years before. This research represents a new examination of one of the oldest public health problems.

Drawing on former Green Member of Parliament Metiria Turei’s dedication to her late father at the beginning of the section, severe housing deprivation is also significant as an indicator of inequity. Ms. Turei’s family experienced repeated difficulty accessing adequate housing, owing to their socioeconomic position and racism. Inequitable access to adequate housing (across the world, within countries, and within cities and towns) provides part of the explanation for socioeconomic and ethnic disparities across many health outcomes.²

Homelessness poses a serious risk to health and wellbeing. Homeless people in various living situations, including those living in shelters and hostels, have been shown to experience much higher rates of physical and mental illness, as well as substantially higher mortality, than the age-matched general population (Fazel et al., 2008; Hwang et al., 2009; Morrison, 2009; Nielsen et al., 2011). The link between homelessness and poor health is one of the most-studied aspects of homelessness, and is at the core of the public health community’s interest in the area. The evidence base on health effects of homelessness is compromised by methodological issues, including variation in who is defined as homeless. This thesis, however, takes a step back from examining outcomes, instead focusing on the fundamental issue of who we are (or should be) referring to when we use the word ‘homeless’. A clear understanding of the relationship between homelessness and health is predicated on a clear understanding of what defines homelessness. Future research should review and compare the health effects of different types of homelessness over time and location, with consideration to variation in

² On this view, I encourage Jon Bon Jovi, if he happens to be reading this thesis, to revise his framing of homelessness as an ‘equal opportunity offender’ (see p. xvii).
definitions of homelessness. Such analysis is not included in this thesis; the purpose here is to contribute to a more solid conceptual foundation for such research.

**Housing issues in New Zealand**

Severe housing deprivation may be an old problem, both here in New Zealand (Figure 1) and overseas, but it is a “visceral signifier of hard times” (Butler, 2011). In terms of housing affordability for people on low incomes, times have arguably never been harder, meaning we should be more concerned than ever about the scale of severe housing deprivation (Figure 2). There are many pressures on housing that are directly or indirectly related to severe housing deprivation; this section briefly discusses unaffordability, housing shortages, social housing, and crowding.

Housing unaffordability is recognised as a major problem, particularly for those on low incomes. Home ownership is at its lowest level in 60 years, lower quartile rents are rising faster than wages, there has been a decline in the stock of state houses, and the social housing waiting list has been steadily growing (Johnson, Howden-Chapman and Eaqub, 2018). The majority of new dwellings built in New Zealand are not targeted at the affordable end of the market, but bespoke and expensive. In 2010, just five percent of new dwellings were in the lower quartile of values of existing housing stock, down from around 30 to 35 percent in the early 1960s (NZPC, 2012). House building has not kept pace with demand, especially in Auckland, where the housing shortfall is estimated at 45,000 dwellings (MBIE, 2017).

There have been positive moves. Housing New Zealand have stepped up their investment in new builds and developments, adding about 1,000 dwellings in the last year (HNZC, 2018). The government Kiwibuild programme, which is aimed at middle-class first-home buyers, aims to build 100,000 new dwellings in 10 years. At a national level, MBIE (2018) has found that affordability has stabilised and even improved in recent years: the affordability of renting has been improving since 2014 and the affordability of buying has been essentially static for two years.
Figure 1 Demonstration to highlight the issue of homelessness in New Zealand, 1987

Source: Reid (1987)

Figure 2 An example of severe housing deprivation in New Zealand, 2014

Source: Stewart (2014)
The shape of the social housing sector has undergone considerable change in recent years. Social housing makes up a small percentage of New Zealand’s housing stock by international standards – about 4.5 percent – the vast majority of which is owned by the state (64,000 dwellings in 2018). Social housing is targeted at people who have low incomes and other vulnerabilities that put them at a significant disadvantage in the housing market. This housing is subsidised, and generally involves a greater level of support than a private rental (Howden-Chapman, 2004). Social housing has traditionally been seen as secure, supported housing that provides for better health, educational, and other social outcomes than private rentals (NZPC, 2012). Indeed, there is strong evidence that being placed in state housing improves one’s health, at least in the short term (Baker, Zhang, & Howden-Chapman, 2010).

The previous National-led Government reframed state housing as transitional housing, “help[ing] those in high need, for the duration of their need” (HNZC, 2012, p. 2). The reviewable tenancies policy saw people who had achieved stability evicted into the private rental market – a sector that is largely unregulated (CCEAG on Solutions to Child Poverty, 2012) and of poorer quality than other tenures (Buckett, Jones, & Marston, 2012). Poor quality and poor stability of housing are both linked with detrimental health and social outcomes (Jelleyman & Spencer, 2008; Thomson et al., 2013), and as such the Productivity Commission warned that “excessive reliance on the private rental market to accommodate former HNZC tenants may undermine the improvement in wellbeing that has been achieved for those tenants through state housing” (NZPC, 2012, p. 224). The current Labour-led Government paused the reviewable tenancies policy and committed to building 6,400 new state houses in four years. The waiting list for social housing continues to grow, however, with 9,500 households on the register in September 2018, up 63 percent in a year (MSD, 2018).

Household crowding is an important part of the New Zealand housing context, reflecting an intersection of deprivation and culture. Crowding is more prevalent in New Zealand than in other developed countries, such as Australia, England, and Canada (Goodyear & Fabian, 2012), and unaffordability of housing is a key driver (Widmer, 2006). Children and people of Māori or Pacific ethnicity are the most highly exposed to crowding (Baker et al., 2012), and this exposure poses serious risks to health and wellbeing. The strongest New Zealand evidence for the health effects of crowding is for increased risk of infectious disease (Baker et al., 2013).

This limited overview of key housing issues in New Zealand illustrates the broader context of housing need that severe housing deprivation is embedded within. These issues contribute to severe housing deprivation and influence the way it manifests. While this thesis is concerned with defining and measuring severe housing deprivation, it is important to recognise that the population deprived
of adequate housing – in terms of cost, quality, or space, for example – is much larger than just those at the extreme end of housing need.

1.3 Why measuring severe housing deprivation matters

Valid and accurate statistics on the size and characteristics of a population are important for good policymaking. Quality statistics are necessary for governments to make informed decisions about how much to invest in responding to severe housing deprivation, what interventions to put in place, and to evaluate the effectiveness of these interventions. Indeed, Statistics New Zealand’s (2009b, p. 29) Review of Housing Statistics identified information about homelessness as “the most pressing need” in the area of housing suitability. Severe housing deprivation statistics are useful, but they are also an international expectation, as pointed out by UN-Habitat (2007, p. 4):

Given that housing is treated as a human right under international human rights law, governments would be expected to accurately monitor the scale of housing deprivation as a first step towards the development of a more effective set of housing laws and policies that would actually result in a fully and adequately housed society.

The expectation that nations will measure severe housing deprivation is based on the International Covenant on Economic, Social and Cultural Rights:

Effective monitoring of the situation with respect to housing is another obligation of immediate effect. For a State party to satisfy its obligations under article 11(1) it must demonstrate, inter alia, that it has taken whatever steps are necessary, either alone or on the basis of international cooperation, to ascertain the full extent of homelessness and inadequate housing within its jurisdiction (UNCESCR, 1991, article 13).

A valid definition of severe housing deprivation is needed for two other reasons. Firstly, a valid definition and demographic profile of the population are necessary as a frame of reference for research. These should guide inclusion criteria for selecting severely housing deprived research participants and guide interpretation of results, including making assessments about their representativeness and generalisability. Secondly, a valid definition is needed ‘on the ground’ for agencies to identify people who are severely housing deprived and implement appropriate interventions, such as social housing or other support. The definition should be applied consistently across agencies.

Ideally, the way a problem is defined should be internationally standardised, so that clear guidelines for data collection and analysis can be devised, the magnitude of the problem can be systematically described across nations and over time, and policy interventions can be compared. This is Principle
9 of the fundamental principles of official statistics (United Nations Statistics Commission, 1994). A number of authors and agencies have drawn attention to the value that an internationally agreed, standardised definition of homelessness would hold, such as UN-Habitat (2001, p. 196):

There would be considerable merit in having an unambiguous definition of homelessness that applied uniformly, making possible consistent monitoring and comparative assessment of ameliorative approaches.

Springer (2000, p. 476) urged that a globally acceptable definition and classification of homelessness was "urgently required", and more recently the Australian Bureau of Statistics (ABS) also highlighted the need for international consistency:

Governments, researchers, statisticians, policy makers and service providers alike have recognised that the development of an agreed definition for statistical purposes that allows for consistent measurement of the scope and scale of homeless [sic] both within countries but also across countries [is needed] (ABS, 2012d, p. 9).

Most definitions of homelessness in use around the world are not conceptually grounded, which means that national homelessness statistics refer to different populations, and thus are poorly comparable (discussed in the literature review – Chapter Three). It also means that there are no rigorous international guidelines for collecting and reporting homelessness statistics, making it difficult to urge governments to improve their efforts in measuring the problem. The lack of a clear, conceptually valid, internationally agreed definition and classification of homelessness is a barrier to holding governments to account for their responses to the issue, or lack thereof.

Debate about the definition of homelessness in England and Wales illustrates its vulnerability to being redefined to suit the political agenda of the day, even in a place where homelessness legislation has existed for over 30 years. In 2010, Lord Freud, a welfare minister, signalled his intent to change the legislated definition of homelessness, claiming:

[W]e have found it very difficult to define homelessness in this country...The estimates go from a few thousand to hundreds of thousands depending on who you are talking to...It is immensely unhelpful when people and commentators stir up fears using somewhat arbitrary figures because it frightens people (Wintour, 2010, n.p.).

While Lord Freud’s comment was not necessarily grounded in methodological concern about the validity of homelessness definitions, his framing of homelessness figures as ‘somewhat arbitrary’ has some merit. Many definitions of homelessness in law, as well those advanced by advocates and academics, do not have a robust conceptual basis. Without a defensible international benchmark for homelessness, the issue is likely to remain relatively marginalised and vulnerable to political whim.
1.4 Goals and aims

Goal

The overall goal of this research is to develop a clear and robust methodology for measuring severe housing deprivation, which will contribute to establishment of an internationally agreed, standardised measure, and inform policy to end (or at least significantly reduce) severe housing deprivation in New Zealand and abroad.

Aims

This thesis has five aims:

1. Review existing definitions and classifications of homelessness;
2. Develop a conceptually valid and globally applicable definition and classification of severe housing deprivation;
3. Develop a method for applying this definition and classification to New Zealand data to produce statistics on the size and characteristics of the severely housing deprived population in 2001 and 2006;
4. Apply prominent international definitions of homelessness to New Zealand data and compare the results;
5. Identify ways to improve measurement of severe housing deprivation in New Zealand.

1.5 Thesis structure

The remainder of the thesis is structured as follows:

Chapter Two explains the critical realist perspective underlying the thesis, and Chapter Three reviews the literature on conceptualising and measuring homelessness. The literature review focuses on approaches that are conceptually based and explicitly intended for measurement.

Moving on to my own approach to conceptualising and measuring severe housing deprivation, Chapter Four proposes a globally-applicable conceptual definition of severe housing deprivation, and Chapter Five applies this definition to the most recent United Nations classification of living quarters, yielding what aims to be a globally-applicable classification of severe housing deprivation.

Chapters Six and Seven apply the conceptual definition and classification of severe housing deprivation to New Zealand. Chapter Six focuses on validating the conceptual definition for the New Zealand context, and Chapter Seven sets out the method applied to produce national severe housing
deprivation statistics. Chapter Seven discusses how data sources were identified, details the algorithm developed to identify severely housing deprived people in New Zealand census data, and explains the method used to identify and obtain data from emergency housing providers.

Chapter Eight is the main results chapter – describing the severely housing deprived population in New Zealand in 2001 and 2006. These populations are described in terms of their size, geographical distribution, demographic and socioeconomic characteristics, among other factors. The number of dwellings that would be required to house the severely housing deprived population is also estimated.

Chapter Nine applies international measures of homelessness to the same data used to derive the severe housing deprivation statistics presented in Chapter Eight. This chapter explains the process followed to assess which measures could be applied to New Zealand data, explains how the one eligible measure (ETHOS Light) was actually applied, presents the results of the analysis, and compares these results with those presented in Chapter Eight.

Chapter Ten summarises the thesis’ key findings and considers their implications. The key strengths and limitations of the study are detailed, and further research needs are identified. Recommendations are made for improving measurement and understanding of severe housing deprivation in New Zealand.

1.6 Conclusion

Severe housing deprivation (homelessness) is, and should be, a concern for any society that values dignity, equity, and prevention of suffering. It is recognised by the international community as a serious problem that ought to be remedied. Measurement of severe housing deprivation and its consequences is important for developing policy solutions and monitoring their effectiveness. Such measurement should be based on a demonstrably valid definition of the phenomenon, ideally one that is internationally standardised. This thesis aims to advance a conceptually valid definition and classification of severe housing deprivation, a method for measuring it, and presents New Zealand severe housing deprivation statistics for 2001 and 2006. The next chapter outlines the philosophical position that shaped the research.
CHAPTER TWO
PHILOSOPHICAL PERSPECTIVE

2.1 Introduction

This thesis presents methodological research, from critique of existing approaches through to development and application of a new approach to defining and measuring severe housing deprivation. Thus, rather than a discrete ‘methodology and methods’ chapter, the methodology and methods are spread over a number of chapters. This chapter begins at the epistemological underpinning of methodology, outlining the philosophical perspective that underlies the whole thesis – critical realism. This perspective informs the literature review in Chapter Three, as well as the development of my own approach in subsequent chapters.

2.2 Critical realism

Virtually all contemporary social science research that involves quantitative measurement is grounded, at least in part, in critical realist philosophy. Largely developed by Roy Bhaskar, critical realism holds that a reality exists independent of human thought, but this reality can never be completely understood because our observations are fallible (Philips, 1990). Critical realism is a form of post-positivism, which stands in contrast to positivism, the philosophy that underpinned early science. Positivism holds that there is an absolute truth that scientists can uncover and know with certainty. By contrast, critical realist inquiry seeks to provide the most truthful representation of reality, but holds that such an account is contextually contingent and revisable. What we currently know to be true (or close to the truth) is viewed as temporary – knowledge is not an end point but a “portal to further inquiry” (Boyles, 2006, p. 61).

Critical realism recognises that different people and different societies have different views about what is real or true, but holds that only one view, if any, can be completely valid (Marshall, 1990). Recognising that a completely valid account of reality is not attainable, we should still be seeking the most valid account possible. Critical realists acknowledge that social phenomena are socially defined, but claim there is a socially produced reality. Social phenomena are real if they have a causal effect – that is, “if [they] affect behaviour and make a difference” (Alvesson & Sköldberg, 2009, p. 41).
Critical realism calls for a scientific approach to research based on empirical observation and theory-informed interpretation. It assumes that objectivity of the researcher is essential and can be reasonably closely achieved:

The notion of objectivity, like the notion of truth, is a regulative ideal that underlies all inquiry...If we abandon such notions, it is not sensible to make inquiries at all. For if a sloppy inquiry is as acceptable as a careful one, and if an inquiry that is careless about evidence is as acceptable as an inquiry that has taken pains to be precise and unbiased, then there is no need to inquire – we might as well accept, without further fuss, any old view that tickles our fancy (Philips, 1990, p. 43).

Objectivity is approached by ‘coming clean’ about potential biases, requiring findings to be consistent with the best scientific knowledge available, and submitting findings to the judgment of peers in the ‘critical community’ (Guba, 1990). According to Campbell, the ‘critical’ in critical realism involves scientists “attending to each others’ arguments and illustrations, mutually monitoring and keeping each other honest until some working consensus emerges” (1986, as cited in Pawson, 2006, p. 20). Critique should not be limited to the ideas of scholars – all societal beliefs should be open to inquiry, and can be shown to be untrue (Marshall, 1990). Another important element of the ‘critical’ in critical realism is an emphasis on the positive application of knowledge to assist human progress: “what is important is not just to explain the world but also to change it” (Alvesson & Sköldberg, 2009, p. 39). This principle is highly relevant to this thesis, given the suffering and inequity that severe housing deprivation represents. As explained by Little (2013, n.p.):

Critical science is engaged science, committed science, emancipatory science. Critical science is committed to constructing bodies of knowledge that have substantial impact on the long term best interests of humanity.

Conceptualisation is an essential activity in realist social science: “concepts are the very key to knowledge about society” (Danermark et al., 2002, p. 35). Conceptualisation should acknowledge ‘everyday’ interpretations but always delve deeper:

[S]um[ming] up essential and decisive traits in the phenomena explored; they should endeavor to speak of the mechanisms that produce courses of events and go beyond more superficial and accidental circumstances, including ideologically conditioned understandings of various kinds (Danermark et al., 2002, p. 37).

A scientific approach requires identification and examination of social objects in a conscious, systematic way, rather than defaulting to ‘everyday’ or ‘commonsense’ ideas. Without venturing into the philosophy of justification, a ‘good’ concept is essentially one that is well justified, providing a cogent, rational explanation that is consistent with existing theories and evidence.
2.3 Conclusion

This brief chapter outlined the basic tenets of the critical realist perspective that underlies this thesis. The next chapter examines the validity of existing definitions and measures of homelessness. Subsequent chapters seek to build and improve upon existing approaches, with the aims of developing a comprehensive and logical concept of severe housing deprivation, and a valid method for measuring it. The overall aim is to position homelessness as a discrete, clearly described, measurable phenomenon – a legitimate object for scientific and political concern.
CHAPTER THREE
LITERATURE REVIEW

3.1 Introduction

Images and observations of contemporary homelessness abound but they cannot substitute for a thoroughgoing review of the subject.

Kim Hopper & Jill Hamberg, 1984, p. 7

This chapter reviews existing definitions and measures of homelessness as a prelude to the major contribution of this thesis, which is a conceptually-based model of severe housing deprivation, presented in the next chapter. A wide variety of definitions of homelessness exist in law, policy, and advocacy, but few are based on a cogent theory. This is not surprising, as such definitions tend to be political instruments, designed to act as rationing tools or claims to funding (Neale, 1997; Widdowfield, 1999). This chapter does not set out to examine all definitions of homelessness, rather it focuses on definitions that should be expected to be conceptually rigorous – those proposed by scholars, statistical agencies, and departments of the United Nations.

As set out over the previous two chapters, normative definitions of homelessness used for measurement and policy should have a robust theoretical basis. For social problems, rigorous conceptualisation and measurement is especially important. Labelling a population ‘homeless’ implies an unacceptable state of affairs, and a moral imperative to do something about it. If societies are to be compelled to do something about homelessness, the problem should be clearly defined and supported by a rational explanation for why a certain definition is more valid than others.

This chapter is intended as a thorough, critical examination of existing approaches. Some of the detail may seem pedantic, but definition and classification is an area where detail really matters – the substitution of ‘or’ for ‘and’, for example, makes a significant difference to a definition’s meaning, and to the statistics it produces.

The remainder of the chapter comprises eight sections. It begins with discussion of the problem of defining homelessness, before turning to an examination of existing definitions. Definitions have a number of layers, and these are addressed in turn, starting with broad conceptual definitions, then more detailed conceptual definitions, then classifications, and finally, operational definitions. In each of these sections, the different approaches are presented in chronological order. Following the discussion of definitions, methods that have been applied to measure homelessness are considered. These are described, and the prevalence statistics they yield are compared.
3.2 The seemingly intractable problem of defining homelessness

There is a long-standing, if tacit, assumption in the literature that a universal definition of homelessness is impossible. In part, this argument has been based on relativist philosophy, sometimes absolute relativism (Chamberlain & MacKenzie, 1992). More commonly, it reflects the vast range of meanings attributed to the word ‘homelessness’, making an agreed definition seem unachievable. As observed by Hopper and Baumohl (1996, p. 3):

Homelessness is at best an odd-job word, pressed into service to impose order on a hodgepodge of social dislocation, extreme poverty, seasonal or itinerant work, and unconventional ways of life.

While a robust theoretical definition of homelessness is generally viewed as ideal (UN-Habitat, 2001), it is also portrayed as unrealistic: “homelessness is highly ambiguous and intangible…[and] inseparable from other aspects of housing need” (Neale, 1997, p. 48). Defining homelessness has been framed as an exclusively political act, not a semantic or scientific exercise (Cooper, 1995, cited in UN-Habitat, 2000), and UN-Habitat observed that “[t]he definitions of and approaches to [addressing homelessness] are many, shaped by political ideologies as much a dispassionate analysis (2001, pp. 195-196).

With some notable exceptions, governments have tended to favour narrow definitions of homelessness that reflect popular understanding of the word, constraining the issue to its most visible manifestation – that is, living on the street. People living in shelters targeted at homeless people are sometimes recognised as homeless too. Such definitions are politically expedient, as governments can demonstrate that they are responding to ‘real need’ while limiting the scope of policy intervention and expenditure (Cloke, Milbourne, & Widdowfield, 2001). Williams (2005) observed that government rhetoric “has often been to deny a priori that there are large numbers of homeless people and then attempt to fit the narrowest definition” (p. 193, original emphasis). This practice has been applied in New Zealand, with Nick Smith, the former Minister of Housing arguing:

A common-sense definition that I take of homelessness is a person who does not have a roof over their head. We can put a whole lot of energy into arguing the definition, or we can do what this Government is doing and get on and build the homes that New Zealanders need (Smith, 2013a, n.p.).

Cloke and colleagues (2001, p. 271) argued that definitions limited to people living rough maintain perceptions that homeless people are different from the rest of the population, and:

[L]end support to individualistic explanations which explain homelessness as rooted in the irresponsibilities and/or inadequacies of the individual rather than stemming from wider
structural factors such as poverty, a lack of affordable housing and inadequate support networks for vulnerable groups... In this way, homeless people (rather than wider society) can be deemed responsible for their fate.

Researchers have also played a role in supporting narrow definitions of homelessness. Jacobs, Kemeny, and Manzi (1999, p. 23) highlighted that most homelessness research in the United Kingdom, funded by government or other agencies:

[A]dopted the narrow definition of homelessness that its policy-making funders wish to promote. There has been in general little attempt to widen the discussion to examine wider definitions of homelessness, for example by exploring the distinctions between ‘homelessness’ and ‘housing need’.

These authors also pointed out that governments and other agencies tend to fund practical research, rather than “theoretical or conceptual discussions of homelessness” (Jacobs et al., 1999, p. 14). This partially accounts for the paucity of detailed conceptual definitions in the literature, which will be discussed later in the chapter.

Much homelessness research published in academic journals originates from the United States, and usually defines homeless people as those who have no shelter at all, those sleeping in other places ‘not meant for human habitation’, and those sleeping in shelters (“Homelessness, Definitions and Estimates of,” 2004). The United States government has used this definition since the 1980s, and has applied it to produce national prevalence measures. Apart from a small increase in 2017, the prevalence of ‘street and shelter’ homelessness has been in decline since measurement began in 2007 (Henry et al., 2017). However, the definition excludes people who similarly lack access to housing of their own, but are not living in shelters or on the street – instead staying with relatives or in motels, for example. The main argument for excluding such families from the homeless population, according to the United States government and some academics, is the relatively small size of the government’s homelessness budget, and the ‘dilution’ of policy impact that would occur if the budget had to cover more people (Thornburgh, 2008). However, as many advocates have pointed out, defining homelessness to fit the homelessness budget neither makes for a valid definition, nor for a long-term solution to the real problem (Foscarinis, 2012; Thornburgh, 2008). Homelessness should be defined and measured in a conceptually rigorous manner, and the budget should be based on this measure – not the other way around.

The politics of definition are common to all social phenomena, but in the homelessness field, the political has tended to override the scientific. Cordray and Pion (1991), for example, argued: “it is impossible to make meaningful decisions about whom to count as homeless and how to derive that
estimate without a firm grasp of the concept that one intended to measure” (p. 74). Yet, these authors framed the pursuit of a ‘firm grasp of the concept’ as: “not productive…[t]here are simply too many political pushes and pulls associated with desires to expand or contract any definition” (p. 75). These authors recommended defining homelessness according to what can currently be measured, rather than what should be measured. Williams and Cheal went further, arguing that “there is no such thing as homelessness” (2001, p. 240), though they actually framed homelessness as a complex thing, rather than a non-entity.

Daly observed that decades of politically-influenced debate about the definition of homelessness has seen the concept become “mystified”, allowing it to be “denied or dismissed as unwieldy, abstract or diffuse, even intractable” (1996, p. 9). In spite of this context, or perhaps because of it, Firdion and colleagues pointed to the special responsibility of academics, and stressed that a scientific approach remains essential: “If numbers are political and only political, then we [as scientific researchers] have lost” (2008, p. 18, original parentheses, citing Wiegand, 1992). Acknowledging this responsibility, the next section starts at the beginning of the definition process, with a critical examination of the broad conceptual definitions of homelessness in the literature.

3.3 Broad conceptual definitions of homelessness

The definitions examined in this section distinguish the state of homelessness from the state of non-homelessness. Many definitions in the literature skip this step, instead defining by example, without elucidating why the examples qualify as homelessness. Some of these ‘definitions by example’ will be examined later in the chapter. This present section is intended as a comprehensive, but not exhaustive, examination of existing broad conceptual definitions of homelessness.

The dominant conceptual definition

Homelessness is often framed literally as lack of ‘home’, but virtually all definitions of homelessness actually pertain to housing. The concept of home is far more complex than mere housing (Mallett, 2004), but homelessness is usually defined according to objective housing variables. Table 1 shows a range of broad definitions in the literature, spanning 27 years, all of which speak to homelessness as a housing issue. They are presented in chronological order and will be discussed in turn.

The first two definitions in Table 1 – Coopers and Lybrand WD Scott (1985) and Rossi et al. (1987) – frame homelessness as a lack of access to adequate housing. In the Rossi et al. definition, the term ‘conventional dwelling or residence’ is used, which signifies housing that meets a minimum adequacy standard:
### Table 1 Broad definitions of homelessness and the concepts they relate to

<table>
<thead>
<tr>
<th>Author/s and date of publication</th>
<th>Definition of homelessness</th>
<th>Concept/s included in the definition</th>
<th>Lack of access to adequate housing</th>
<th>Living in inadequate housing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coopers &amp; Lybrand WD Scott (1985, p. 5)</td>
<td>The inability to effectively demand adequate housing</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Rossi, Wright, Fisher &amp; Willis (1987, p. 3)</td>
<td>Not having customary and regular access to a conventional dwelling or residence</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Bramley (1988, p. 241)</td>
<td>The lack of a right or access to one’s own secure and minimally adequate housing space</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Chamberlain &amp; MacKenzie (1992, p. 291)</td>
<td>Living below a minimum community standard of housing</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>UN-Habitat (2000, p. 150)</td>
<td>Not having an acceptable level of housing provision...including all states below what may be regarded as adequate for the reference society</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Brousse (2004, p. 6)(1)</td>
<td>Lacking access to accommodation which meets commonly agreed criteria for human habitation and which the person is entitled to occupy on a non-temporary basis</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Statistics New Zealand (2009a, pp. 4-6)</td>
<td>The absence of safe, secure and habitable housing...with no options to acquire safe and secure housing</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Australian Bureau of Statistics (2012d, p. 7)</td>
<td>Living in an arrangement that lacks one or more of the elements of ‘home’ when there are no suitable accommodation alternatives</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Canadian Homelessness Research Network (2012a, p. 1)</td>
<td>Being without stable, permanent, appropriate housing, or the immediate prospect, means and ability of acquiring it</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Busch-Geertsema, Culhane &amp; Fitzpatrick (2016)</td>
<td>Lacking access to minimally adequate housing</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** (1) The Brousse definition refers to ‘housing deprivation’ rather than ‘homelessness’.

**Key:** ✓ Criterion explicit in definition ✓ Criterion implicit in the definition
In a fundamental sense, a definition of homelessness is, ipso facto, a statement as to what should constitute the floor of housing adequacy below which no member of society should be permitted to fall (Rossi et al., 1987, p. 1336).

The notion that homelessness relates to a lack of access to housing of a minimum standard is carried through the next two definitions in Table 1 – Bramley’s and Chamberlain and MacKenzie’s. Bramley’s (1988) definition specifies that housing should be both secure and minimally adequate. It is not clear why security is listed as a separate criterion, as it would seem to be a component of housing adequacy, and thus would come under the ‘minimally adequate’ criterion. Chamberlain and MacKenzie (1992) defined homelessness as living below a minimum community standard of housing, but made no mention of access or choice. According to Chamberlain and MacKenzie’s definition, then, everyone living in housing below the minimum community standard qualifies as homeless, even if they are doing so by choice. However, these authors derived a number of operational definitions from their concept, all of which reveal that ‘lack of access’ (or lack of choice) is in fact an implicit criterion (Chamberlain, 1999; Chamberlain & MacKenzie, 2003, 2008). For example, people living in tents who were assumed to be on a camping holiday were excluded from the homeless population, presumably because they were staying in this form of substandard housing by choice.

The next definition, proposed by UN-Habitat (2000), refers to adequacy rather than minimum adequacy, and, like Chamberlain and MacKenzie’s version, does not mention access or choice. However, the supporting text again suggests that such a criterion is implied: “To classify someone as homeless indicates a state in which ‘something must be done’ for the victim of such circumstances” (UN-Habitat, 2000, p. 150). Framing homeless people as victims, and arguing that ‘something must be done’ speaks to a notion of homelessness as having no option but to live in inadequate housing.

The final five definitions in Table 1, which are the most recent ones – Brousse (2004), Statistics New Zealand (2009a), Australian Bureau of Statistics (ABS, 2012d), Canadian Homelessness Research Network (CHRN, 2012a), and Busch-Geertsema, Culhane and Fitzpatrick (2016) – all refer explicitly to homelessness as a lack of access to adequate housing. The Busch-Geertsema, Culhane and Fitzpatrick definition draws from papers published from this thesis (Amore, 2013; Amore, Baker, & Howden-Chapman, 2011). However, the Canadian definition is unclear. It joins the ‘inadequate housing’ and ‘lack of access’ criteria with ‘or’ – that is, homelessness relates to occupying inadequate housing or lacking the immediate prospect, means, and ability to acquire adequate housing. This conjunction makes the second clause redundant: if a person cannot acquire adequate housing, they must be occupying inadequate housing. Occupying inadequate housing, on its own, qualifies as
homelessness, according to the definition. However, the accompanying text suggests that the CHRN in fact intended to define homelessness as pertaining to people living in inadequate housing due to a lack of access to adequate housing:

[Homelessness] is the result of systemic or societal barriers, a lack of affordable and appropriate housing, the individual/household’s financial, mental, cognitive, behavioural or physical challenges, and/or racism and discrimination (CHRN, 2012a, p. 1).

This description frames homelessness as an issue of exclusion and barriers to access, rather than a category including every person living in substandard housing, even if by choice.

The broad definitions described thus far all refer (with varying degrees of precision) to homelessness as a lack of access to adequate housing. Not everyone living in substandard housing is considered homeless, only those who are forced to – that is, people who are not living in such housing by choice. The definitions from the 1980s and early 1990s specified minimally adequate housing as the benchmark, rather than adequate housing. This specification is not explicit in more recent definitions, though it seems to be implicit in all of them, and is supported by other authors, such as Springer: “[Homelessness] is in general part of the inadequate shelter situation, forming its bottom end” (2000, p. 482). The idea that not all kinds of housing inadequacy are homelessness becomes clear in the classifications derived from these broad definitions, which are reviewed later in the chapter. For example, it is rare to see people living in unaffordable housing classified as homeless, despite widespread recognition that unaffordable housing is inadequate (UNCESCR, 1991). Constructed in reference to a minimum adequacy standard, then, to be homeless is to be severely housing deprived.

Homelessness is often referred to as a ‘lack of housing’, ‘lack of shelter’, or ‘lack of a roof’ (for example, Edgar, 2010; Lee, Tyler, & Wright, 2010; UNDESA, 1997), but even these literal definitions speak to the same concept – a lack of access to minimally adequate housing. People living without shelter are deemed homeless because their living situation is severely inadequate, with the minimum adequacy standard set at a very basic level – having any shelter at all. It is worth noting that the term ‘literal homelessness’ usually refers to the most commonly used definition of homelessness in the United States, which includes people with no shelter at all, as well as people sleeping in cars, abandoned buildings, and in shelters ("Homelessness, Definitions and Estimates of,” 2004, p. 234). Many of these people have shelter, so the definition is not really literal at all.
Other concepts

There are two main concepts of homelessness that deviate substantially from those described above: spiritual homelessness; and a lack of an ‘upwards trajectory’. These concepts were proposed by Memmott et al. (2003) and Tipple and Speak (2006), respectively, and will be discussed in turn.

Spiritual homelessness is described as:

A state arising from either (a) separation from traditional land, (b) separation from family and kinship networks, or (c) a crisis of personal identity wherein one’s understanding or knowledge of how one relates to country, family and Aboriginal identity systems is confused (Memmott et al., 2003, p. 16).

This concept was developed in reference to Aboriginal Australians and Torres Strait Islanders, and regards dispossession of land and traditional culture, couched in an understanding of home as ‘country’ or ‘traditional estate’. People who are spiritually homeless “have an incomplete identity and only a set of unanswered questions about who one’s ancestors were and what the meaning of their country was” (Memmott et al., 2003, p. 14).

While the concept of spiritual homelessness speaks to important post-colonial phenomena and their felt consequences, the way it has been defined is problematic, for three main reasons. Firstly, spiritual homelessness is not actually defined, only what it arises from. For example, if a person is separated from their traditional land, are they automatically ‘spiritually homeless’ or does spiritual homelessness have to be felt? Secondly, Memmott et al. (2003) framed spiritual homelessness as a normative category of homelessness, in a classification that otherwise speaks to people’s physical living conditions. Spiritual homelessness is not just another category of homelessness as it pertains to housing, it is a different concept altogether, and conflating the two concepts is confusing. Thirdly, framing homelessness as the absence of ‘home’ is problematic for a number of reasons, which have been well described by Moore (2007). Home is a complex concept that relates to sense of place, and lacking a sense of home is not necessarily linked to a person’s housing status, nor is it necessarily a social problem that we could or should do something about. On the other hand, a person forced to live rough may come to feel ‘at home’ on the streets, but they remain severely housing deprived, and exposed to significant health risks. Feeling at home in severely inadequate housing does not negate the imperative for policy action to provide access to adequate housing.

Tipple and Speak (2005, p. 346) examined definitions of homelessness in nine developing countries, finding that they were typically narrow, “reflect[ing] the political climate rather than the reality of deprivation”. Framing homelessness as living on the street, under bridges, or in structures not designed for residence, these authors argued that the key difference between homelessness and
inadequate housing is: “whether or not the place allows its occupants to be on an improving trajectory” (Tipple & Speak, 2006, p. 57). This principle is described as follows:

People in informal settlements are quite likely to see themselves on an upwards housing trajectory, on which their shelters and the services provided are likely to improve over time. In most cases, street-homeless people do not perceive themselves to be on an upwards trajectory. In particular, as they live in almost constant fear of being moved on, they are most unlikely to invest in their dwellings (Tipple & Speak, 2006, pp. 79-80).

Just like feelings of being ‘at home’, subjective predictions of one’s housing trajectory will vary widely, and will not necessarily align with the actual outcome. However, Tipple and Speak’s description does point to structural adequacy and security of tenure as key dimensions for distinguishing homelessness from other types of housing inadequacy. It suggests that an ‘upwards trajectory’ is predicated on a certain (undefined) level of structural adequacy and security of tenure. On this view, Tipple and Speak’s concept of homelessness is actually defined by objective inadequacies, rather than residents’ perceptions. Feelings of pessimism about one’s housing future likely reflects these inadequacies.

### 3.4 Detailed conceptual definitions of homelessness

Moving from a broad conceptual statement of what homelessness means to applying it in the real world, a more detailed conceptual definition is an important intermediary step. For example, a detailed definition explains how ‘minimally adequate housing’ should be defined. Six such models were identified in the literature: Chamberlain and MacKenzie (1992); Brousse (2004); ETHOS (Edgar et al., 2004); Statistics New Zealand (2009a); ABS (2012d); and Busch-Geertsema et al (2016). These will be discussed in turn.

#### Chamberlain and MacKenzie

Chamberlain and MacKenzie (1992) framed homelessness as living in housing that falls below the ‘minimum community standard’, a standard “embodied in current housing practices” (p. 291). In the Australian context, they identified the standard as:

[A]t least a room to sleep in, a room to live in, kitchen and bathroom facilities of their own, and an element of security of tenure – because that is the minimum that most people achieve who rent in the private market, and it is significantly below the culturally desired option of an owner occupied house (Chamberlain & MacKenzie, 1992, p. 290).

Some elements of this standard are not adequately explained – notably, what qualifies as ‘an element of security of tenure’. In addition, as pointed out by the ABS, specifying a separate living room and
bedroom in the minimum community standard means that “a studio apartment [or ‘bedsit’] could be considered below the minimum standard” (2012d, p. 19, parentheses in original), which lacks face validity. The ABS Homelessness Statistics Reference Group also highlighted that:

[T]here has been no empirical validation of the Chamberlain and MacKenzie cultural definition in terms of its assumptions about a minimum shared community standard...[and]...views have evolved over the past 20 years or so, suggesting that this standard is historically contingent (ABS, 2012d, p. 29).

Chamberlain and MacKenzie (1992) did not explain why security of tenure and certain structural features (bedroom, living room, kitchen, and bathroom) are the only two criteria that feature in the minimum community standard. No evidence was used to support the argument that these features are the ‘minimum that most people achieve who rent in the private market’. Affordability, for example, is not included in the standard, which could be set at a threshold that most renters achieve.

Chamberlain and MacKenzie (1992) also argued that there are ‘culturally recognised exceptions’ to the minimum community standard – namely institutional settings. While people living in institutions “may not have accommodation that reaches the minimum community standard...it is inappropriate for the standard to be applied...[because] in cultural terms they would not be considered part of the homeless population” (Chamberlain & MacKenzie, 1992, p. 291). This explanation is insufficiently developed. It would seem that ‘cultural terms’ means ‘popular understanding’ here, and indeed, a person living in an institution (such as a prison) would not usually be thought of as homeless. However, Chamberlain and MacKenzie’s definition itself speaks to a much broader concept of homelessness than the popular notion. These authors also expressly rejected popular understandings of homelessness as a basis for defining the phenomenon (Chamberlain & MacKenzie, 1992). Therefore, excluding people living in institutions from the homeless population is not adequately justified, according to Chamberlain and MacKenzie’s own conceptual framework.

**Brousse**

In a study for the European Commission, Brousse (2004, p. 6) defined the minimum adequacy standard for housing as follows:

[M]eets commonly agreed criteria for human habitation...which he/she can occupy, whether this accommodation is legally their own property or whether the property is occupied under a tenancy agreement or occupied rent-free under licence or some contractual or other arrangement of a non-temporary nature (including provision by public sector or non-governmental organisations; provision by employers).
This definition stipulates that minimally adequate housing must be non-temporary, occupied legally, and meet the ‘criteria for human habitation’. These criteria are described as:

1. Structurally stable; free from serious disrepair, damp; with adequate lighting, heating, ventilation, piped wholesome water, satisfactory facilities for preparing and cooking food; suitable toilet, bath/shower for exclusive use with hot and cold water, effective drainage and sewage system.
2. With enough rooms to ensure that no two persons aged 10+ of opposite sex, not being man and wife, must sleep in the same room, and not more than two persons per room.
3. Free from excessive noise, air pollution (Brousse, 2004, p. 6).

These criteria relate to the structural features of the dwelling, with the exception of the second point, which pertains to household crowding. Crowding is not a feature of housing per se, but reflects a mismatch between the dwelling and the household using it. Brousse (2004) did not provide a theoretical explanation for why structural adequacy, security of tenure, permanence, and spatial adequacy should be the criteria that define housing as minimally adequate, excluding other housing adequacy factors.

**ETHOS**

The ETHOS conceptual model of homelessness was developed by Edgar, Doherty, and Meert (2004), and is arguably the most prominent concept of homelessness in use today. It has been described as “offer[ing] researchers in Europe (and abroad) a thoroughly well conceptualized definition of homelessness and residential instability” (Culhane & Byrne, 2010, p. 9), and a “strong conceptual framework” (CHRN, 2012b, p. 18). It has been recommended as the basis for measuring homelessness in Europe (Edgar et al., 2007; FEANTSA, 2008), and is “widely accepted and frequently quoted in almost all European countries” (Busch-Geertsema, 2010, p. 21). The Jury of the European Consensus Conference on Homelessness (2010) recommended that this definition be adopted as the official European Union definition of homelessness, and a number of countries have adjusted or refined their national definitions of homelessness to fit more closely with it (Busch-Geertsema, 2010). However, the validity of some aspects of the ETHOS definition has been called into question (Amore, 2013; Amore, Baker, & Howden-Chapman, 2011; Sahlin, 2012).

ETHOS is a definition of two linked phenomena – homelessness and housing exclusion. Homelessness relates to severe housing inadequacy, housing exclusion to less-severe inadequacy. In ETHOS, housing exclusion is the label for a particular conceptual category, which is separate to homelessness. Conceptualisation of housing exclusion will not be examined here – this chapter focuses solely on homelessness.
The authors of ETHOS did not articulate a broad concept of homelessness like those examined in Section 3.3. Rather, ETHOS begins with a detailed conceptual model. According to the model, homelessness is the lack of ‘a home’, with ‘home’ comprising three domains:

- Having a decent dwelling (or space) adequate to meet the needs of the person and his/her family (physical domain); being able to maintain privacy and enjoy social relations (social domain); and having exclusive possession, security of occupation and legal title (legal domain) (Edgar, 2009, p. 15).

These domains are said to relate to each other as per Figure 3. According to this model, a population is categorised into three groups: the homeless; the housing excluded; and people with a home.

**Figure 3 The ETHOS model for defining homelessness and housing exclusion according to physical, legal, and social domains**

Homelessness comprises two living situations, marked 1 and 2 in Figure 3. These situations have two features in common, which must be the criteria that define homelessness. They are:

- Not being able to maintain privacy or enjoy social relations within one’s housing (social domain); and
- Not having exclusive possession, or security of occupation, or legal title for the housing (legal domain).

The ETHOS model of homelessness has two main weaknesses: the selection of the three domains of home is not explained, and neither is the threshold between homelessness and housing exclusion. Firstly, at the core of the ETHOS model is the notion that only three domains are relevant for
determining if a particular living situation is ‘a home’ – physical, legal, and social. Like the Chamberlain and MacKenzie and Brousse approaches, no theoretical explanation is provided for why only three domains define ‘a home’, or why these three. The second weakness of the ETHOS definition is where the threshold is drawn between homelessness and housing exclusion. This seems to be arbitrary, but it should be meaningful and defensible. No explanation is provided for why homelessness is defined as exclusion from the legal and social domains of housing. Living in a physically adequate dwelling is framed as having lesser importance than having security of tenure or being able to maintain privacy and enjoy social relations. Intuitively, however, a basic level of physical adequacy is a precondition to being able to maintain privacy and enjoy social relations. Overall, the theoretical underpinning of the ETHOS definition is unclear.

**Statistics New Zealand**

The New Zealand Definition of Homelessness was developed by Statistics New Zealand, Housing New Zealand Corporation (HNZC), and the Ministry of Social Development (MSD), and published by Statistics New Zealand (2009a). It was “adapted from the European typology of homelessness and housing exclusion (ETHOS)” (Statistics New Zealand, 2009a, p. 4), but in fact defines homelessness quite differently. ETHOS’ ‘three domains of home’ are replicated, but “the intersections of the social, physical and legal domains within the housing domain are used as the basis for the conceptual framework” (Statistics New Zealand, 2009a, p. 4, emphasis added) (rather than just the intersection of the social and legal domains in ETHOS). Unlike ETHOS, Statistics New Zealand’s definition also includes a criterion that explicitly refers to a lack of access to adequate housing: “no other options to acquire safe and secure housing” (2009a, p. 6). Thus, according to the New Zealand Definition of Homelessness, homelessness means living in housing that is deficient in two or more of the three domains, with no options to acquire safe and secure housing (Figure 4). Comparing Figure 4 with the ETHOS definition (Figure 3) reveals that the New Zealand Definition of Homelessness relates to a wider range of living situations (areas 1, 2, 3 and 4 compared with ETHOS’ 1 and 2).

As per all three definitions previously discussed in this section, Statistics New Zealand’s definition does not explain why only the physical, legal, and social domains should be included in the minimum adequacy standard. The Statistics New Zealand definition of homelessness is quite different to

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3 New Zealand’s national statistical, social housing, and income support agencies, respectively.
4 In submissions regarding the development of this definition, my colleagues and I promoted ETHOS as an appropriate model to apply in New Zealand, mainly in the interest of international comparability. Admittedly, at that stage we had not rigorously examined the ETHOS approach, and given its now-apparent conceptual weaknesses, this recommendation should have been more carefully researched. We therefore bear some responsibility for Statistics New Zealand’s (2009a) definition being based on ETHOS.
ETHOS, but no theoretical explanation was provided for why this should be the case, only: “[T]he concepts have been modified to meet New Zealand’s conceptual requirements” (Statistics New Zealand, 2009a, p. 12). What constitutes ‘New Zealand’s conceptual requirements’ is unclear, as conceptual requirements are generally considered universal. No theoretical case was made for limiting homelessness to the living situations that fall within the intersections of the physical, legal, and social domains.

**Figure 4 Statistics New Zealand’s definition of homelessness applied to ETHOS’ domains of home**

![Diagram of homelessness domains](image)

**Note:** According to the Statistics New Zealand’s definition, people living in situations that fall within the shaded areas are only homeless if they have no options to acquire safe and secure housing.

**Source:** Adapted from Edgar, Meert, and Doherty (2004, p. 6) and Statistics New Zealand (2009a)

**Australian Bureau of Statistics**

The ABS’ (2012d) detailed conceptual definition of homelessness links to their broad concept of homelessness: living in housing that lacks one or more of the elements of ‘home’ when there are no suitable accommodation alternatives. Regarding the first criterion, housing that is ‘not a home’ is defined by three ‘elements’: structural inadequacy; inadequate security of tenure; and not having control of, or access to, space for social relations. The second criterion – lacking access to suitable accommodation alternatives – is described as a lack of access to accommodation that is “safe, adequate and provide[s] for social relations” (ABS, 2012d, p. 11). Accessing such accommodation is said to be contingent on “having each of the financial, physical, psychological, and personal means necessary to provide access to these alternatives (ABS, 2012d, p. 11, original emphases).
There are certain dwelling types that may qualify as 'not a home', but the residents of these dwellings are not regarded as homeless, even if they satisfy both criteria. These dwelling types are those:

- [in which people] are required by law to live in these circumstances; or
- are acceptable temporary living arrangements (such as student halls of residence); or
- [are] essential for [the residents’] broader health and wellbeing (ABS, 2012d, p. 13).

According to these three criteria, the following people are ‘specifically excluded’ from the homeless population:

- people confined in prisons, detention centres and other institutions such as juvenile correctional facilities and hospitals;
- students living in halls of residence; and
- members of religious orders such as monks and nuns living in seminaries and nunneries and similar establishments (ABS, 2012d, p. 13, original emphasis).

Each part of this model has conceptual issues, which will be discussed in turn.

**Not a home**

The ABS specified three criteria for housing to qualify as ‘not a home’: structural inadequacy; inadequate security of tenure; and not having control of, or access to, space for social relations. A living situation qualifies as ‘not a home’ if it possesses one or more of these elements. This definition would seem to set a minimum adequacy standard for housing, but the ABS expressly stated that it does not represent an accommodation standard – rather, it “includes the critical elements of home” (2012d, p. 19). It is unclear how a statement of ‘critical elements’ is different to a standard.

A longer list of ‘elements of home’ is also described: “a sense of security, stability, privacy, safety, and the ability to control living space” (2012d, p. 7). All of these appear in the definition of ‘not a home’ but one: safety. It would seem that safety is not considered a critical element of home, but no theoretical explanation is provided for how ‘critical’ elements of home were distinguished from ‘non-critical’ elements. In fact, the ABS recognised that people experiencing domestic violence “could be considered to lack control of and access to space for social relations” (2012d, p. 15), which, according to the ABS’ definition, would qualify as homelessness. Instead, living in an unsafe home environment was dismissed as a form of homelessness due to measurement difficulties, and classified as “being precarious or unstable and being at risk of homelessness” (ABS, 2012d, p. 15). When constructing a conceptual definition of a phenomenon, however, measurement issues are not relevant. A conceptual definition states what should be measured, not what can be measured with existing data.
The ABS stated that development of the ‘not a home’ concept drew "heavily on the European Typology of Homelessness and Housing Exclusion (ETHOS) and subsequent work by Statistics New Zealand" (2012d, p. 16). While the domains selected as ‘critical elements of home’ in the ABS’ definition replicate the ‘three domains of home’ used in ETHOS and the New Zealand Definition of Homelessness, the ABS’ definition is quite different to each of these earlier approaches. Figure 5 illustrates the ABS’ definition, in which all seven areas qualify as homelessness, provided a person living in such a situation lacks access to suitable accommodation alternatives. By contrast, the ETHOS definition of homelessness only relates to living situations that fall within the spaces marked 1 and 2 (Figure 3), and the New Zealand Definition of Homelessness only relates to living situations that fall within the spaces marked 1, 2, 3 and 4 (Figure 4). The ABS’ definition of homelessness is clearly much broader than both ETHOS and the New Zealand Definition of Homelessness.

Figure 5 The ABS' definition of homelessness applied to ETHOS' domains of home

![Figure 5 Diagram]

Note: According to the ABS’ definition, people living in situations that fall within the shaded areas are only homeless if they do not have access to suitable accommodation alternatives.

Source: Adapted from Edgar, Meert, and Doherty (2004, p. 6)

Like the other approaches examined in this section, there is no theoretical explanation for why the three ‘critical domains of home’ should define the minimum adequacy standard. However, the ABS did go beyond the other approaches by defining the ‘critical elements of home’ in detail. The definition of each of the three elements – structural adequacy, security of tenure, and space for social relations – will be discussed in turn.
Structural adequacy

Structural adequacy was defined as follows:

[W]hether the structure of the dwelling renders it fit for human habitation (including, for renters, that the building is used for the purpose for which it is zoned), and the dwelling has access to basic facilities (such as kitchen facilities and bathroom). For example, whether the dwelling satisfies building codes, does not have quit, improvement or control orders on it, has basic facilities and is not improvised (ABS, 2012d, p. 12).

Various concepts are introduced in this description, but not defined clearly. In the Australian context, what renders a dwelling 'fit for habitation'? What are regarded as basic amenities? (Examples are provided, but not a comprehensive list.) Should all dwellings have to satisfy building codes to be deemed structurally adequate, given that building codes typically only apply to new dwellings?

Security of tenure

Security of tenure was defined as:

[Having] rights…includ[ing] informal or verbal agreements ('contracts'), written agreements or evidentiary monetary exchange which establishes a right to occupy which can be enforced through common law and provides the holder with the same residual security of tenure that they would enjoy with a formal lease. This also includes a familial reflected security of tenure, for example, children living with their parents. The security of tenure dimension of this element may take into account the initial term of the lease agreement, or residual period remaining on a fixed term lease, or the notice period required to terminate a right to occupy. An industry standard period of 60 days notice may be sufficient to satisfy the right to occupy. In the case of mobile dwellings, the right to occupy is extended to the land / water site on which it is placed. Those people who have no tenure or tenure that is short and not extendable would be considered to be homeless if they also lack accommodation alternatives (ABS, 2012d, pp. 12-13).

The key issue with this description is that the definition of security of tenure is unclear, with at least two different meanings suggested. Security of tenure is initially referred to as having a formal lease or its informal equivalent. However, people on fixed-term leases are also regarded as lacking security of tenure, provided the initial term of the lease is ‘short’. What qualifies as ‘short’ is not explained. The description also suggests that tenants who are not given sufficient notice about termination of their tenancy are lacking security of tenure.

There is also a deeper issue here regarding the concept of security of tenure. The UNCESCR (1997) definition of security of tenure relates to people having state protection against unfair removal from one’s home, land, or both. On this view, evictions carried out in accordance with the law and human rights covenants are not a breach of security of tenure. The ABS’ description reflects the UNCESCR
concept, but also refers to security of tenure as a lack of a formal lease or being evicted without sufficient notice. The second definition speaks to a benchmark of permanent residence, rather than protection from unfair eviction. The overarching concept of security of tenure is unclear.

No access to, or control of, space for social relations

The ABS defined access to, and control of, space for social relations as:

[Having] control of and access to space so they are able to pursue social relations, have personal (or household) living space, maintain privacy and the household has exclusive access to kitchen facilities and a bathroom (ABS, 2012d, p. 13).

One issue with this description is that the concept of ‘living space’ is undefined. Should all housing without a living room, for instance, be regarded as ‘not a home’? The ABS criticised the Chamberlain and MacKenzie (1992) definition on this very point (as discussed in Section 3.4). Should people who have to share a bedroom, or who do not have access to a bedroom at all, be regarded as lacking ‘a home’ because they “do not have their own living space that enables them to maintain privacy” (ABS, 2012d, p. 13)?

No access to suitable accommodation alternatives

The second criterion of the ABS definition stipulates that people must lack access to ‘suitable accommodation alternatives’ to qualify as homeless. Suitable accommodation alternatives are described as “safe, adequate and provide for social relations” (ABS, 2012d, p. 11), but what qualifies as ‘safe’ and ‘adequate’ is not clear. As discussed earlier, safety is not one of the ‘critical’ elements that defines housing as ‘not a home’ (the first criterion of the ABS’ definition), so its appearance in this second criterion is incongruous. A person subject to violence in their home does not qualify as homeless, even if they meet the second criterion of lacking access to a suitable (safe) accommodation alternative. Logically, the elements included in the second criterion of homelessness should match the first.

Specific exclusions

The ABS treats certain dwelling types as exempt from application of the homelessness definition, and as such, none of the residents in such dwellings are classified as homeless. These dwellings are excluded for one of three reasons: people are required to live in them by law; they are acceptable temporary living arrangements; or they are essential for their residents' health and wellbeing. These rules are not explained. The implication is that people required to live in a certain type of housing by
law, for example, should not be able to expect structurally adequate housing, secure tenure, or access to, and control of, space for social relations. This seems unfair. The most questionable reason for exclusion is the middle one: people being excluded from the homeless population because they are living in 'acceptable temporary living arrangements'. What makes a dwelling an ‘acceptable temporary living arrangement’ is not explained. Student halls of residence are listed as an example, but it is not clear why such dwellings are ‘acceptable’, and others are not.

**Busch-Geertsema, Culhane and Fitzpatrick**

Busch-Geertsema, Culhane and Fitzpatrick (2016) proposed a conceptual framework “for defining and understanding homelessness at a global level” (p. 125), also known as ‘the IGH (Institute for Global Homelessness) Framework’. These authors frame homelessness using ETHOS’ ‘three domains of home’, but re-label the legal domain as ‘security domain’. Homelessness is defined as “a standard of housing that falls significantly short of the relevant adequacy threshold in one or more domains” (p. 125). This definition is broad, similar to the ABS’ in regard to the ETHOS domains (Figure 5).

A novel inclusion in this definition is housing affordability (under the security domain), because “inability to meet rental or mortgage costs is a key cause of housing insecurity” (p. 125). However, though ‘housing insecurity’ is considered a category of homelessness in this definition, there is no mention of people in rent or mortgage arrears (or unaffordable housing) in the subsequent classification of homelessness. Including people living in unaffordable housing in the homeless population marks a significant departure from other definitions, but the argument for its inclusion is very limited.

**Summary of the detailed conceptual definitions of homelessness**

This section examined six detailed conceptual definitions, all of which lack adequate theoretical justification for their key elements. The more recent approaches borrow from ETHOS, but each defines homelessness differently, and the reasons for these differences are not clear. The ABS’ definition goes furthest in describing the criteria that define homelessness, but even this relatively comprehensive approach needs clarification. Table 2 summarises the domains that comprise the minimum adequacy standard in each approach, with structural inadequacy and lack of security of tenure featuring consistently. The next section reviews classifications of homelessness, some of which were derived from the definitions discussed in this section.
Table 2 Detailed definitions of homelessness and their ‘minimum adequacy standard’ criteria

<table>
<thead>
<tr>
<th>Definition (Author/s)</th>
<th>Structural inadequacy</th>
<th>Lack of security of tenure</th>
<th>No access to and control of space for social relations</th>
<th>Non-permanence</th>
<th>Crowding</th>
<th>Unaffordability</th>
</tr>
</thead>
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<td>✓</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
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<td>X</td>
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</tr>
<tr>
<td>Busch-Geertsema, et al</td>
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<td>✓</td>
<td>✓</td>
<td>X</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

Key: ✓ Included in the definition ✗ Not included in the definition

3.5 Classifications of homelessness

Once a population has been defined, it can be divided into subgroups. Classifications (or typologies) “group and organize information meaningfully and systematically into a standard format that is useful for determining the similarity of ideas, events, objects or persons” (Hoffmann & Chamie, 1999, p. 2). Classifications of homelessness most commonly categorise the population by housing type. Because homelessness is a housing-based concept, such classifications are part of the definition process – they set out the specific housing types included in the definition. There are other classifications of homelessness that divide the population by factors such as duration of homelessness, recurrences, and household type, but they are not examined here. In this section, classifications of homelessness are assessed against the basic rules of classification: they must be systematic and exhaustive, comprising mutually exclusive and well-described categories (Hoffmann & Chamie, 1999). ‘Systematic’ means that every category of homelessness must be derived from consistent application of the criteria that make up the definition of homelessness. Each category must reflect application of all of the defining criteria, and only the criteria that appear in the definition should be applied. ‘Exhaustive’ means that the classification must applied to every person in the population. This means every individual is classified as homeless or non-homeless, and if classified
as homeless they are allocated to a category of homelessness. ‘Mutual exclusivity’ means that within a single classification, a person should fit into one, and only one, category of homelessness – lest they be double-counted. ‘Well described’ means that the classification contains all the information readers require to be able to apply it effectively and consistently. The classifications will now be considered in chronological order.

**Chamberlain and MacKenzie**

Chamberlain and MacKenzie’s (1992) classification reflects their definition of homelessness: living without security of tenure, or living without either a bedroom, a living room, a kitchen, or a bathroom (see Section 3.4). Applying this definition, Chamberlain and MacKenzie identified three categories of homelessness, which were later called primary, secondary, and tertiary homelessness, respectively (Chamberlain, 1999; Chamberlain & Johnson, 2001; Chamberlain & MacKenzie, 2003, 2008):

- People without conventional accommodation (living on the streets, in deserted buildings, railways carriages, under bridges, in parks etc.) [primary homelessness];
- People moving between various forms of temporary shelter including friends, emergency accommodation, youth refuges, hostels and boarding houses [secondary homelessness];

The Chamberlain and MacKenzie (1992) classification is neither systematic nor exhaustive, but the categories are mutually exclusive and well described. In regard to systematicity, the classification divides people by housing type and length of stay, but the latter variable is not applied consistently. Only people living in boarding houses are split into two categories by length of stay – people moving between boarding houses and other forms of temporary shelter in one category, and people living permanently in boarding houses in the other. If the classification were systematic, the variable would be applied to all housing types in the classification.

The classification is also non-exhaustive – it does not reflect comprehensive application of Chamberlain and MacKenzie’s (1992) definition of homelessness. For example, according to Chamberlain and MacKenzie’s definition, a person living in a caravan park without exclusive access to a kitchen qualifies as homeless. However, this situation does not appear in the classification, and no conceptual explanation was provided for its exclusion. In a later publication, Chamberlain and MacKenzie (2008, p. 4) argued that residents of caravan parks do not qualify as homeless because:
Cabins are the main type of accommodation in caravan parks. Cabins have significantly better facilities than the traditional caravan. Cabins usually have a separate room for eating and sleeping and an internal bathroom and kitchen.

In a more recent study of caravan parks in Victoria, Australia, Chamberlain and MacKenzie (2013) found that the proportion of caravans and cabins in caravan parks was actually relatively even, with caravans predominating in rural areas. Importantly, they found that “[n]o-one at any of the parks referred to their low income permanent residents as having access to their own bathroom or to having ‘en suite facilities’ (Chamberlain & Mackenzie, 2013, p. 30). The claim that most people living in caravan parks occupy cabins with internal bathrooms and kitchens is not supported.

It is also worth noting that ‘moving’ is a criterion of secondary homelessness in the classification, referring to people moving between various forms of temporary shelter. In later publications, this criterion became ‘frequent movement’: “Secondary homelessness includes people who move frequently from one form of temporary shelter to another” (Chamberlain & MacKenzie, 2008, p. 3). According to the classification, a person living in temporary accommodation only qualifies as homeless if they have been moving around frequently. Therefore, a person who has been living in the same shelter for a long period of time is excluded from the homeless population, while a person who has been living there for just one day but has a history of moving around is included. This distinction lacks face validity. Indeed, when Chamberlain and MacKenzie applied this classification, they included everyone living in temporary accommodation, with no exclusions based on residential mobility status. Some, perhaps even most, homeless people may be highly residentially mobile (Chamberlain & MacKenzie, 1992), but this is not a characteristic that defines homelessness (that is, distinguishes homeless from non-homeless people).

Springer

Sabine Springer (2000), writing for UN-Habitat, proposed a ‘global definition and classification’ of homelessness. This approach is notable for its intended global applicability, perhaps the first classification in the literature framed this way. According to Springer (2000, p. 480), a homeless person is:

i) Sleeping rough, which means in the street, in public places, or in any other place not meant for human habitation; or

ii) Sleeping in shelters provided by welfare or other institutions.

The classification was not linked to a conceptual definition of homelessness, so it acts as both a definition (by example) and a classification. The criteria that qualify these two categories as
homelessness are not stated, so the classification cannot satisfy the requirements of systematicity or exhaustiveness. However, the categories are mutually exclusive and well described.

The only explanation provided for identifying these living situations as homelessness is: “it should be acceptable to all countries” (Springer, 2000, p. 480). Framing homelessness in this way is said to avoid “the use of characteristics that may vary by regions like climatic conditions, cultural or traditional variables” (Springer, 2000, p. 480). However, the living situations included in the classification do vary by region. For example, areas with many ‘shelters provided by welfare and other institutions’ will presumably have higher levels of homelessness, compared with areas with few shelters or none at all (the so-called ‘service-statistics paradox’ (FEANTSA, 1999)). Another source of regional variation is that people are less likely to sleep on the streets in the freezing cold than in warm weather, so levels of rough sleeping will vary by climate. The meaning of ‘acceptable to all countries’ is also unclear. If ‘countries’ signifies governments, the argument is particularly problematic. Governments have a vested interest in defining the problem as narrowly as possible, in order to minimise their responsibility. Without a theoretical underpinning, it is difficult to make a strong case for its global adoption.

Distinct from the concept of homelessness (which Springer calls ‘houselessness’), Springer also proposed three categories of ‘inadequate shelter’: concealed houselessness; risk of houselessness; and substandard housing (Figure 6). These categories, which will be examined in turn, are said to be relevant because they “should be included in the study of houselessness” (Springer, 2000, p. 481).

‘Concealed houselessness’ refers to “people living with family members or friends because they cannot afford any shelter for themselves” (Springer, 2000, p. 480). On a semantic level, the term ‘concealed houselessness’ would suggest that it is a form of houselessness, but in Springer’s model, it is not. It is not clear why people in this situation are excluded from the houseless population.

‘Risk of houselessness’ refers to people “facing the risk of losing their shelter either by eviction or the expiry of the lease, with no other possibility of shelter in view”, and includes “prisoners or people living in other institutions facing their release and having no place to go to” (Springer, 2000, p. 480). As shown in Figure 6, ‘sleeping in a shelter’ is defined as a form of houselessness, so presumably the clause ‘no other possibility of shelter in view’ should be ‘no possibility of accommodation other than a shelter or sleeping rough in view’. While a shelter provided by a welfare organisation may not qualify as adequate housing, it is both a form of shelter and ‘a place to go’.
‘Substandard housing’ is not defined, but it probably refers to structurally inadequate housing. The stated rationale for including people living in substandard housing in ‘the study of houselessness’ is that it is “the population which feeds mostly the group of houseless, but which is also likely to receive them when they attempt to escape the situation” (Springer, 2000, p. 481). Structurally substandard housing is an important issue in its own right, and the population living in such situations should be measured. However, there is no evidence that most people who become homeless are living in physically substandard housing prior to homelessness, or that they are likely to move into physically substandard housing upon exit from homelessness. Regardless, if the main reason this category is included in the ‘study of houselessness’ is that people in such housing are at risk of houselessness, then this category should be subsumed under the previous category – risk of houselessness.

Springer (2000, p. 480) framed the connection between ‘houselessness’ and ‘inadequate shelter’ as mobility, arguing that houselessness is “characterised by a high mobility in time and place, and from one housing situation to another” (Figure 6). As discussed in relation to the Chamberlain and MacKenzie classification, framing high residential mobility as a defining characteristic of homelessness is problematic. According to Springer’s framework, a person who has been squatting in the same condemned building for a long period of time does not qualify as homeless because they have not been moving from one housing situation to another. Such an exclusion lacks face validity.
Brousse

Brousse’s (2004) classification of homelessness ostensibly reflects the corresponding definition outlined in Sections 3.3 and 3.4: lack of access to housing that meets the ‘commonly agreed criteria for human habitation’, provides security of tenure, and provides permanence. Brousse (2004, p. 6) divided the population meeting these criteria into four housing type categories:

1. outdoors or in buildings or other locations which were not designed for human habitation
2. in temporary, short-stay accommodation provided by a public body or non-governmental organisation, without a tenancy agreement, whether
   - in a dormitory, room or studio in a communal facility
   - in a hotel or guesthouse (including ‘Bed & Breakfast’ type lodgings)
   - in a separate housing unit
3. in temporary accommodation in a hotel or guesthouse (including Bed & Breakfast) for lack of a home of one’s own
4. in accommodation temporarily provided by friend or relative for lack of a home of one’s own.

The first category – living outdoors or in buildings or other locations not designed for human habitation – is unclear. Recall that Brousse’s criteria for human habitation are extensive:

1. Structurally stable; free from serious disrepair, damp; with adequate lighting, heating, ventilation, piped wholesome water, satisfactory facilities for preparing and cooking food; suitable toilet, bath/shower for exclusive use with hot and cold water, effective drainage and sewage system.
2. With enough rooms to ensure that no two persons aged 10+ of opposite sex, not being man and wife, must sleep in the same room, and not more than two persons per room.
3. Free from excessive noise, air pollution (Brousse, 2004, p. 6).

According to this definition, the first category will likely include a large number of people, as it includes everyone living in crowded dwellings, everyone subject to excessive noise or air pollution, and everyone subject to a range of other housing quality issues. However, Brousse’s guide to classifying homelessness (Table 3) suggests that the stated criteria for human habitation were not actually applied. The guide includes columns for stability and status of occupancy, but no column for housing quality. For example, according to Brousse’s definition of homelessness, households living in crowded conditions are homeless. Many of these households are likely to be renting, but the guideline indicates that tenants in ‘individual housing’ cannot be homeless. Thus, it would seem that the classification does not reflect systematic application of Brousse’s definition of homelessness. The ambiguity of the first category of the classification means that it also fails to satisfy the requirements of exhaustive and well-described categories.
Table 3 Brousse’s guide to classifying homelessness

<table>
<thead>
<tr>
<th>Status of occupancy</th>
<th>Type of habitat</th>
<th>Public or private places not designed for habitation</th>
<th>Room or dormitory in communal facility</th>
<th>Hotel room, guesthouse, B&amp;B</th>
</tr>
</thead>
<tbody>
<tr>
<td>School boarders, soldiers, prisoners, those in hospital</td>
<td>++</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Accommodated by an institution (except in boarding schools, barracks, prisons, hospitals)</td>
<td>++</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Tenant</td>
<td>++</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Occupied without contract</td>
<td>++</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Being accommodated for free</td>
<td>++</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Staying with private individual</td>
<td>++</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Sub-tenant</td>
<td>++</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Owner-occupier</td>
<td>++</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: Brousse (2004, p. 47)

In terms of mutual exclusivity, Brousse’s second and third categories of homelessness overlap – people living in hotels or guesthouses are included in both categories. Category 3 refers to all people living in hotels or guesthouses due to lack of a home of one’s own, and Category 2 refers to a subset of this population – those supplied with such accommodation by a public body or non-government organisation. As such, the classification does not satisfy the mutual exclusivity rule.

The ETHOS classification of homelessness

There are a number of classifications labeled ‘ETHOS’. The first, shown in Table 4, corresponds to the ETHOS conceptual model (Figure 3). This classification is often republished in the ETHOS literature, but is rarely discussed, so it will not be examined here. A more detailed classification, shown in Table 5, is usually presented as ‘the ETHOS typology’.
### Table 4 The ETHOS seven theoretical domains of homelessness and housing exclusion

<table>
<thead>
<tr>
<th>Conceptual category</th>
<th>Physical domain</th>
<th>Legal domain</th>
<th>Social domain</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Homelessness</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Rooflessness</td>
<td>No dwelling (roof)</td>
<td>No legal title to a space for exclusive possession</td>
<td>No private and safe personal space for social relations</td>
</tr>
<tr>
<td>2 Houselessness</td>
<td>Has a place to live, fit for habitation</td>
<td>No legal title to a space for exclusive possession</td>
<td>No private and safe personal space for social relations</td>
</tr>
<tr>
<td><strong>Housing exclusion</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Insecure and inadequate housing</td>
<td>Has a place to live (unfit for habitation but not secure)</td>
<td>No security of tenure</td>
<td>Has space for social relations</td>
</tr>
<tr>
<td>4 Inadequate housing and social isolation within a legally occupied dwelling</td>
<td>Inadequate dwelling (unfit for habitation)</td>
<td>Has legal title and/or security of tenure</td>
<td>No private and safe personal space for social relations</td>
</tr>
<tr>
<td>5 Inadequate housing (secure tenure)</td>
<td>Inadequate dwelling (unfit for habitation)</td>
<td>Has legal title and/or security of tenure</td>
<td>Has space for social relations</td>
</tr>
<tr>
<td>6 Insecure housing (adequate housing)</td>
<td>Has a place to live</td>
<td>No security of tenure</td>
<td>Has space for social relations</td>
</tr>
<tr>
<td>7 Social isolation within a secure and adequate context</td>
<td>Has a place to live</td>
<td>Has legal title and/or security of tenure</td>
<td>No private and safe personal space for social relations</td>
</tr>
</tbody>
</table>

**Source:** Adapted from Edgar, Meert, and Doherty (2004, p. 6)

In the latter classification (Table 5), homeless and housing excluded populations are first divided into four broad categories – roofless, houseless, insecure, and inadequate accommodation. The roofless and houseless categories together constitute homelessness; insecure and inadequate housing constitute housing exclusion. These four categories are then broken down 13 ‘operational categories’, and then broken down further again into 24 ‘living situations’. The present review focuses on the classification of homelessness only. Housing exclusion, as defined by ETHOS, is a related but distinct phenomenon. Examining the concept of housing exclusion is outside the scope of this thesis.

The categories that comprise the ETHOS typology of homelessness (Table 5) are mutually exclusive and well described, but the classification is neither systematic nor exhaustive.
<table>
<thead>
<tr>
<th>Broad conceptual category</th>
<th>Operational category</th>
<th>Living situation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roofless</td>
<td>1 People living rough</td>
<td>1.1 Public space or external space</td>
</tr>
<tr>
<td></td>
<td>2 People in emergency accommodation</td>
<td>2.1 Night shelter</td>
</tr>
<tr>
<td></td>
<td>3 People in accommodation for the homeless</td>
<td>3.1 Homeless hostel</td>
</tr>
<tr>
<td></td>
<td>4 People in women’s shelter</td>
<td>4.1 Women’s shelter accommodation</td>
</tr>
<tr>
<td></td>
<td>5 People in accommodation for immigrants</td>
<td>5.1 Temporary accommodation / reception centres</td>
</tr>
<tr>
<td></td>
<td>6 People due to be released from institutions</td>
<td>6.1 Penal institutions</td>
</tr>
<tr>
<td></td>
<td>7 People receiving longer-term support (due to homelessness)</td>
<td>7.1 Residential care for older homeless people</td>
</tr>
<tr>
<td></td>
<td>8 People living in insecure accommodation</td>
<td>8.1 Temporarily with family / friends</td>
</tr>
<tr>
<td></td>
<td>9 People living under threat of eviction</td>
<td>9.1 Legal order enforced (rented)</td>
</tr>
<tr>
<td></td>
<td>10 People living under threat of violence</td>
<td>10.1 Police recorded incidents</td>
</tr>
<tr>
<td>Houseless</td>
<td>11 People living in temporary / non-conventional structures</td>
<td>11.1 Mobile homes</td>
</tr>
<tr>
<td></td>
<td>12 People living in unfit housing</td>
<td>12.1 Occupied dwelling unfit for habitation</td>
</tr>
<tr>
<td></td>
<td>13 People living in extreme overcrowding</td>
<td>13.1 Highest national norm of overcrowding</td>
</tr>
</tbody>
</table>

**Source:** Adapted from FEANTSA (n.d., p. 1)
The classification is not exhaustive because a number of categories seem to be missing. Recall that according to the ETHOS definition, a person is homeless if their housing does not provide for enjoyment of social relations and privacy (social domain), and if they do not have exclusive possession, security of occupation, or legal title for their housing (legal domain). Many hostels and other types of guest accommodation are deficient in the social and legal domains, but they do not appear in the classification unless they are specifically targeted at homeless people, women fleeing domestic violence, or immigrants. People living in temporary or non-conventional structures, such as cars and other improvised dwellings, are also excluded from the classification of homelessness. They do appear in Category 11, a category of housing exclusion, because they are structurally inadequate. However, a person living in a car is also very unlikely to have security of tenure or ‘space for social relations’. Thus, it would seem that people forced to live in improvised dwellings should qualify as homeless.

The classification also appears to be non-systematic, with different categories referring to different reference periods. Category 6 refers to people due to be released from institutions, which relates to people being at risk of homelessness (or potential future homelessness), and Category 7 refers to people receiving longer-term support due to homelessness, which relates to past homelessness. Categories 1 to 5 relate to ‘current’ homelessness, or being homeless at the time of enumeration. In a classification, all categories should refer to the same reference period. Whether a person might become homeless in the future or was previously homeless is not relevant to defining the (currently) homeless population. Edgar et al. (2007, p. 68) conceded that people due to be released from institutions without a home to go to “are not actually homeless until the date of their release” (assuming adequate housing is not organised in the interim). However, Edgar (2012, p. 222) defended including people who are ‘not actually homeless’ in a classification of homelessness, arguing:

ETHOS is intended as a policy tool, and since homeless policy should be concerned with prevention as well as alleviation, there is a requirement to monitor those who are at risk of homelessness and those who have been re-housed due to homelessness.

The authors of ETHOS also linked the need for reference period inconsistency to the concept of ‘homelessness pathways’, which relates to understanding homelessness as “an episode or episodes in a person’s housing pathway” (Clapham, 2003, p. 123). The ‘homelessness pathway’ concept emphasises the need to consider the “factors that lead to homelessness, influence the nature of the experience, and enable some people to move out of it” (Clapham, 2003, p. 123). Edgar (2009, p. 22) argued that “ETHOS…was developed to reflect different pathways into homelessness and to emphasise the dynamic nature of the process of homelessness”. Understanding the factors that influence homelessness pathways is important, but these factors are not relevant to defining
homelessness. In order to identify an episode of homelessness in a person’s housing pathway, the definition of homelessness must be clear. The distinction between being ‘in’ and ‘out’ of the homeless population must be sharply drawn, however frequently people may cross these lines. The population at risk of homelessness and the formerly homeless population are relevant to homelessness policy and should be monitored, but they are not homeless, and are therefore misplaced in a classification of homelessness. It is possible (and valid) to define people at risk of homelessness as ‘at risk of homelessness’ and people formerly homeless as ‘formerly homeless’ and still make clear that they are important populations for policy and measurement. Moreover, clearly distinguishing these populations is useful for policymakers, because they require different types of policy intervention.

**UNECE**

The United Nations Economic Commission for Europe (UNECE) published *Conference for European Statisticians Recommendations for the 2020 Censuses of Population and Housing* in 2015. These recommendations set the framework for the European Union’s census programme. The classification of homelessness proposed by UNECE (2015) comprises two categories:

1. **Primary homeless (or roofless):** This category includes persons living in the streets without a shelter that would fall within the scope of living quarters.

2. **Secondary homeless (or houseless):** This category includes persons with no place of usual residence who make use of various types of accommodations (including dwellings, shelters, institutions for the homeless or other living quarters) and have a roof over their heads at the census reference time. This category includes persons living in conventional dwellings but who report having no usual address on their census form. Such people are to be regarded as usually resident at the address at which they are enumerated and as part of the household at that address (p. 164).

The categories are mutually exclusive and well described. However, the classification cannot be systematic or exhaustive because it is not linked to a stated concept of homelessness. Like the Springer approach, the classification represents a definition by example. The authors state that “‘homelessness’ is not a clearly defined characteristic for the purposes of international comparisons” (UNECE, 2015, p. 164), which is true, but arguably too passive for a publication designed to set the rules for defining and classifying population and housing data. How can statistical offices produce robust, comprehensive homelessness statistics if no clear definition is provided?
**ETHOS Light**

ETHOS Light, shown in Table 6, was developed by Edgar et al. (2007) as a classification of homelessness that ‘harmonises’ the ETHOS classification with an earlier and very similar version of the UNECE classification (UNECE/Eurostat, 2006). ETHOS Light differs to both ETHOS and the UNECE classifications, and is not linked to a conceptual definition of homelessness. As such, like the approaches it seeks to harmonise, ETHOS Light fails to satisfy the systematicity and exhaustiveness rules. However, the categories are well described and mutually exclusive.

**Table 6 ETHOS Light**

<table>
<thead>
<tr>
<th>Operational Category</th>
<th>Living Situation</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 People living rough</td>
<td>1 Public space / external space</td>
<td>Living in the streets or public spaces without a shelter that can be defined as living quarters</td>
</tr>
<tr>
<td>2 People in emergency accommodation</td>
<td>2 Overnight Shelters</td>
<td>People with no place of usual residence who move frequently between various types of accommodation</td>
</tr>
<tr>
<td>3 People living in accommodation for the homeless</td>
<td>3 Homeless Hostels</td>
<td>Where the period of stay is less than one year</td>
</tr>
<tr>
<td></td>
<td>4 Temporary Accommodation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5 Transitional Supported Accommodation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6 Women’s shelter or refuge accommodation</td>
<td></td>
</tr>
<tr>
<td>4 People living in institutions</td>
<td>7 Health care institutions</td>
<td>Stay longer than needed due to lack of housing</td>
</tr>
<tr>
<td></td>
<td>8 Penal institutions</td>
<td>No housing available prior to release</td>
</tr>
<tr>
<td>5 People living in non-conventional dwellings due to lack of housing</td>
<td>9 Mobile homes</td>
<td>Where the accommodation is used due to a lack of housing and is not the person’s usual place of residence</td>
</tr>
<tr>
<td></td>
<td>10 Non-conventional building</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11 Temporary structure</td>
<td></td>
</tr>
<tr>
<td>6 Homeless people living temporarily in conventional housing with family and friends (due to lack of housing)</td>
<td>12 Conventional housing, but not the person’s usual place of residence</td>
<td>Where the accommodation is used due to a lack of housing and is not the person’s usual place of residence</td>
</tr>
</tbody>
</table>

*Source: Edgar et al. (2007 p. 66)*

---

5 The 2015 UNECE classification was thus discussed out of chronological order so that the ETHOS Light discussion makes sense.
Many of the categories in ETHOS Light replicate those in the ETHOS and UNECE versions, and thus replicate weaknesses already discussed. A notable inclusion in ETHOS Light is Category 5 – people living in non-conventional dwellings due to a lack of housing. This category includes people living in mobile homes, non-conventional buildings, and temporary structures if these are not their usual place of residence. In ETHOS, people in such dwellings were excluded from the homeless population; in UNECE, they would be included as secondary homeless.

**Statistics New Zealand**

Statistics New Zealand (2009a) proposed a broad classification of homelessness comprising four categories: without shelter, temporary housing, sharing accommodation, and uninhabitable housing. Recall that Statistics New Zealand’s conceptual definition of homelessness is ‘living in housing that is deficient in two or more of the three domains, with no options to acquire safe and secure housing’ (see Section 3.4). The categories are well described and mutually exclusive, but the classification is neither systematic nor exhaustive.

As illustrated in Figure 4, Statistics New Zealand’s definition of homelessness relates to living in housing that falls within the intersections of the legal, social, and physical domains of home, with no options to acquire safe and secure housing. By contrast, Figure 7 shows how Statistics New Zealand’s classification of homelessness relates to the legal, social, and physical domains. The classification does not reflect the intersections rule: uninhabitable housing, for example, is only lacking in one domain, and hence should not qualify as a category of homelessness. In addition, the areas of intersection labeled 3 and 4 in Figure 7 have been excluded from the classification. This reflects a lack of systematicity and exhaustiveness.

**The Australian Bureau of Statistics**

The ABS’ classification of homelessness is reproduced in Table 7. Its categories are well described, but the classification is neither systematic nor exhaustive, nor does it comprise mutually exclusive categories. These criticisms will be explained in turn.

The most obvious sign that the ABS’ definition of homelessness has not been applied systematically is the blank ’structure of dwelling is inadequate’ column in Table 7. According to the ABS’ definition, a structurally inadequate dwelling is one that is not being used for the purpose for which it are zoned, does not satisfy building codes, or has quit, improvement, or control orders on it (see Section 3.4). The definition states that a person living in a structurally inadequate dwelling is homeless, provided
they lack access to suitable alternatives. All of these living situations should appear as categories of homelessness in Table 7.

**Figure 7 Statistics New Zealand’s classification of homelessness applied to ETHOS’ domains**

![Diagram showing the classification of homelessness]

**Note:** According to the Statistics New Zealand’s definition, people living in situations that fall within the shaded areas are only homeless if they have no options to acquire safe and secure housing.

**Source:** Adapted from Edgar, Meert, and Doherty (2004, p. 6) and Statistics New Zealand (2009a)

The ABS’ definition states that if only one ‘element of home’ (security of tenure, structural adequacy, or ‘control of, and access to, space for social relations’) is lacking, the living situation qualifies as ‘not a home’. Yet, all of the categories in the classification (Table 7) are lacking in two or more elements of home. Therefore, all living situations lacking just one of the elements are missing from the classification, which reflects a lack of exhaustiveness. Examples of the missing living situations include:

- People with no security of tenure in any type of private dwelling, whether that is a temporary situation or not;
- People whose tenure is short and non-extendable, in any type of private or non-private housing;
- People who have to share a kitchen or bathroom with other households, in any type of housing;
- People living in dwellings that are crowded by any degree, given that household crowding indicates a bedroom deficit (according to the Canadian National Occupancy Standard, which is the crowding measure used by the ABS (2012d, p. 32)).
## Table 7 The ABS’ classification of homelessness

<table>
<thead>
<tr>
<th>Homeless Operational Groups</th>
<th>Criterion 1 Not a home</th>
<th>Criterion 2 Access to adequate alternative</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Security of tenure in the dwelling</td>
<td>Adequacy of the dwelling</td>
</tr>
<tr>
<td></td>
<td>No tenure</td>
<td>Initial tenure short &amp; not extendable</td>
</tr>
<tr>
<td>1  Improvised dwellings, tents, sleepers out</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Rough sleepers</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>2 Persons in supported accommodation for the homeless</td>
<td>Persons in supported accommodation for the homeless</td>
<td>✓</td>
</tr>
<tr>
<td>Some transitional housing</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>3 Persons staying temporarily with other households</td>
<td>Persons staying temporarily with friends or relatives</td>
<td>✓</td>
</tr>
<tr>
<td>Persons staying temporarily in visitor only households</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>4 Persons staying in boarding houses</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>5 Persons staying in other temporary lodging</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>6 Severe crowding</td>
<td>Those who own/have the lease etc.</td>
<td>✓</td>
</tr>
<tr>
<td>Those who do not own/have the lease</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

- ✓: Yes
- ?: Unknown
A bedroom deficit means that bedrooms have to be shared 'inappropriately', or people have to sleep in lounge rooms or other non-private spaces. In such circumstances, ‘access to, and control of, space for social relations’ is compromised for all people living in the dwelling, and as such they should all qualify as homeless, according to the ABS’ definition of homelessness. Severely crowded dwellings are included in the classification because the residents are considered to be as lacking access to, and control of, space for social relations. However, no theoretical explanation is provided for why people in crowded, but not severely crowded, dwellings are excluded.

The classification also fails the mutually exclusivity requirement. There is an overlap between Category 3 and Category 6, with Category 3 referring to people staying temporarily with other households, and Category 6 referring to people living in severely crowded dwellings. A person staying temporarily in a severely crowded dwelling would fit into both categories, and thus potentially be counted twice.

**Canadian Homelessness Research Network**

The CHRN’s (2012a) classification of homelessness is linked to their broad conceptual definition, discussed in Section 3.3. The definition is not entirely clear, but it seems to frame homelessness as a lack of access to stable, permanent, appropriate housing. The terms ‘stable’, ‘permanent’, and ‘appropriate’ are not defined, and have many possible interpretations. It is not clear why ‘stable’ and ‘permanent’ are listed separately to ‘appropriate’, as they would both seem to fall under the banner of ‘appropriateness’. The CHRN’s classification of homelessness comprises four broad categories, broken down into 12 more-specific categories (Table 8). Because the definition of homelessness is unclear, the classification cannot be said to be systematic or exhaustive. The categories are also not mutually exclusive, though they are well described. These criticisms will be discussed in turn.

In terms of systematicity, the fourth category – at risk of homelessness – stands out as problematic. The authors themselves point out that the ‘at risk of homelessness’ category “refer[s] to people who are not homeless” (CHRN, 2012a, p. 1), yet classify them homeless anyway. The conflation of homelessness and risk of homelessness seems to be motivated by the following argument:

> [Homelessness] is not simply an easily bounded and measurable ‘category’ of persons, as the boundary between the experience of homelessness and not being homelessness is in many ways quite fluid (CHRN, 2012b, p. 1).

This echoes an argument made by the authors of ETHOS. There is no doubt that defining the boundaries of homelessness, or any social issue, is challenging. However, the very point of defining a population is to produce a ‘bounded and measurable category of persons’. There will be
commonalities between people classified as ‘homeless’ and ‘non-homeless’, but the point of a definition is to articulate what distinguishes these states.

Table 8 Canadian Homelessness Research Network’s classification of homelessness

<table>
<thead>
<tr>
<th>Broad categories</th>
<th>Specific categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Unsheltered</td>
<td>1.1 People living in public or private spaces without consent or contract</td>
</tr>
<tr>
<td></td>
<td>1.2 People living in places not intended for permanent human habitation</td>
</tr>
<tr>
<td>2 Emergency sheltered</td>
<td>2.1 Emergency overnight shelters for people who are homeless</td>
</tr>
<tr>
<td></td>
<td>2.2 Shelters for individuals/families impacted by family violence</td>
</tr>
<tr>
<td></td>
<td>2.3 Emergency shelter for people fleeing a natural disaster or destruction of accommodation due to fires, floods, etc.</td>
</tr>
<tr>
<td>3 Provisionally accommodated</td>
<td>3.1 Interim housing for people who are homeless</td>
</tr>
<tr>
<td></td>
<td>3.2 People living temporarily with others, but without guarantee of continued residency or immediate prospects for accessing permanent housing</td>
</tr>
<tr>
<td></td>
<td>3.3 People accessing short term, temporary rental accommodations without security of tenure</td>
</tr>
<tr>
<td></td>
<td>3.4 People in institutional care who lack permanent housing arrangements</td>
</tr>
<tr>
<td></td>
<td>3.5 Accommodation / reception centres for recently arrived immigrants and refugees</td>
</tr>
<tr>
<td>4 At risk of homelessness</td>
<td>4.1 People at imminent risk of homelessness</td>
</tr>
<tr>
<td></td>
<td>4.2 Individuals and families who are precariously housed</td>
</tr>
</tbody>
</table>

Source: CHRN (2012a, pp. 2-5)

Another indication that the classification is not systematic is the description of the ‘at risk of homelessness’ category. This category is described as “includ[ing] individuals or families whose current housing situations are dangerously lacking security or stability” (CHRN, 2012a, p. 4, emphasis added). A person may also be included in this category due to “the inappropriateness of [their] current housing (which may be overcrowded or does not meet public health and safety standards)” (CHRN, 2012a, p. 4, emphasis added). According to the definition of homelessness that the classification is ostensibly derived from, people without access to stable or appropriate housing qualify as homeless. Hence, a person living in housing that is ‘dangerously lacking in stability’, ‘overcrowded’, or which ‘fails to meet public health and safety standards’ should qualify as homeless, not be relegated to the ‘at risk of homelessness’ category.
Category 3.4 in Table 8 indicates that the classification is not mutually exclusive. This category relates to people in institutional care who lack permanent housing arrangements, and is described as follows:

Individuals are considered to be provisionally accommodated and ‘at risk’ of homelessness if there are no arrangements in place to ensure they move into safe, permanent housing upon release from institutional care (CHRN, 2012a, p. 3, emphasis added).

This statement indicates that Category 3.4 actually fits into two broad categories – ‘provisionally accommodated’ (Category 3) and ‘at risk of homelessness’ (Category 4). Hence, these categories are not mutually exclusive.

United Nations Department of Economic and Social Affairs

Another United Nations classification was published in *Principles and Recommendations for Population and Housing Censuses, Revision 3* (UNDESA, 2017). It is similar to the UNECE (2015) classification, but has a few important differences. According to UNDESA (2017, p. 38), homelessness is classified as follows:

(a) Primary homelessness (or rooflessness). This category includes persons living in streets or without a shelter that would fall within the scope of living quarters;
(b) Secondary homelessness. This category may include the following groups:
   (i) Persons with no place of usual residence who move frequently between various types of accommodation (including dwellings, shelters or other living quarters);
   (ii) Persons usually resident in long-term (also called “transitional”) shelters or similar arrangements for the homeless.

The categories in this classification are mutually exclusive and well described, but again, the classification is not linked to a conceptual definition of homelessness, and as such fails the systematicity and exhaustiveness rules. In this classification, people are variously identified as homeless based on lack of shelter, having no usual residence, and being residentially mobile. The residential mobility or ‘frequent movement’ criterion draws from Chamberlain and MacKenzie (1992), and has been critiqued earlier in Section 3.5. However, none of these three criteria apply to the final category – ‘persons usually resident in long-term shelters for the homeless’. It is not clear from the classification why shelters are so inadequate that the residents continue to be considered homeless, despite having a usual residence. This is an example of non-systematicity.
Summary of classifications

Table 9 summarises the classifications reviewed in this section according to the classification rules they were assessed against. A classification must meet these four core requirements to be considered valid. Every classification failed at least two of the four requirements, with insufficient description of either the underlying concept or key terms being the main reasons for falling short, though some classifications contain more substantial conceptual flaws. The next section explores how two of the classifications reviewed here were translated into operational definitions for application to census data.

Table 9 Reviewed classifications of homelessness and the rules they satisfy and fail

<table>
<thead>
<tr>
<th>Classification (Author and year published)</th>
<th>Systematic</th>
<th>Exhaustive</th>
<th>Mutually exclusive categories</th>
<th>Well described categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Springer (2000)</td>
<td>X</td>
<td>X</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Brousse (2004)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>✓</td>
</tr>
<tr>
<td>Edgar et al. (2004) – ETHOS</td>
<td>X</td>
<td>X</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>UNECE (2015)</td>
<td>X</td>
<td>X</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Edgar et al. (2007)</td>
<td>X</td>
<td>X</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Statistics New Zealand et al. (2009a)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>✓</td>
</tr>
<tr>
<td>Australian Bureau of Statistics (2012d)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>✓</td>
</tr>
<tr>
<td>Canadian Homelessness Research Network (2012a)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>✓</td>
</tr>
<tr>
<td>UNDESA (2017)</td>
<td>X</td>
<td>X</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

Note: (1) As per Hoffman and Chamilie (1999).

Key: ✓ Satisfies rule   X Fails rule
3.6 Operational definitions of homelessness

Defining and classifying a phenomenon conceptually sets the framework for development of an operational (or case) definition. An operational definition sets out how a concept should be applied in the real world – that is, within the limitations of data collection instruments or datasets. Operational definitions often involve applying proxies and setting thresholds for continuous variables. Selection of these proxies and thresholds should be clearly explained and defensible.

This section examines two operational definitions of homelessness: ETHOS Light and the ABS’ definition. Both of these were developed for application to census data. The analysis is restricted to these two approaches because they are applied to populations that are broader than just those living rough and living in shelters for homeless people. Other methods are more straightforward, using administrative data from services targeted at homeless people, or asking such services to prospectively count the number of homeless people they serve over a specified period of time. Counts of people living on the street within defined geographical areas are also commonly performed. Statistics New Zealand have not produced an operational definition.

ETHOS Light

ETHOS Light, developed by Edgar et al. (2007) and discussed in Section 3.5, was developed specifically for application to the 2010 round of European censuses. It incorporates key elements of the UNDESA and UNECE classifications (see Section 3.5), so the criticisms of ETHOS Light made here also apply to these other approaches. For reference, ETHOS Light is reproduced again in Table 10.

Some categories of ETHOS Light include everyone living in a particular type of housing, such as Operational Categories 1 and 3. Other Operational Categories (5 and 6) stipulate that a person living in either conventional or non-conventional housing only qualifies as homeless if they ‘lack access to housing’ and it is not their usual place of residence. This latter set of categories are effectively restricted to people who report having ‘no usual address’ (also termed ‘no fixed abode’). Operational Category 2 is the most restrictive – it relates to people living in overnight shelters who have no place of usual residence, and who move frequently between various types of accommodation. The inconsistency in the criteria applied across the classification suggests that ETHOS Light does not reflect systematic application of a definition of homelessness, as discussed in Section 3.5. Here, the more technical aspects of the criteria relating to ‘usual residence’ will be considered.
Table 10 ETHOS Light

<table>
<thead>
<tr>
<th>Operational category</th>
<th>Living situation</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 People living rough</td>
<td>Public space / external space</td>
<td>Living in the streets or public spaces without a shelter that can be defined as living quarters</td>
</tr>
<tr>
<td>2 People in emergency accommodation</td>
<td>Overnight Shelters</td>
<td>People with no place of usual residence who move frequently between various types of accommodation</td>
</tr>
<tr>
<td>3 People living in accommodation for the homeless</td>
<td>Homeless Hostels</td>
<td>Where the period of stay is less than one year</td>
</tr>
<tr>
<td></td>
<td>Temporary Accommodation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Transitional Supported Accommodation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Women’s shelter or refuge accommodation</td>
<td></td>
</tr>
<tr>
<td>4 People living in institutions</td>
<td>Health care institutions</td>
<td>Stay longer than needed due to lack of housing</td>
</tr>
<tr>
<td></td>
<td>Penal institutions</td>
<td>No housing available prior to release</td>
</tr>
<tr>
<td>5 People living in non-conventional dwellings due to lack of housing</td>
<td>Mobile homes</td>
<td>Where the accommodation is used due to a lack of housing and is not the person’s usual place of residence</td>
</tr>
<tr>
<td></td>
<td>Non-conventional building</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Temporary structure</td>
<td></td>
</tr>
<tr>
<td>6 Homeless people living temporarily in conventional housing with family and friends (due to lack of housing)</td>
<td>Conventional housing, but not the person’s usual place of residence</td>
<td>Where the accommodation is used due to a lack of housing and is not the person’s usual place of residence</td>
</tr>
</tbody>
</table>

Source: Edgar et al. (2007, p. 66)

Operational Categories 2, 5, and 6 in ETHOS Light stipulate that a person is not homeless if the conventional, non-conventional, or overnight shelter they are occupying is their usual residence. As ETHOS Light was designed for application to census data, we need to look to the international census guidelines to understand the concept of ‘usual residence’.

According to both the UNECE (2015) and UNDESA (2017) census guidelines, ‘usual residence’ is “the place at which the person lives at the time of the census, and has been there for some time, or intends to stay there for some time” (UNDESA, 2017, p. 40). ‘Some time’ is defined in various ways, but six or twelve months are the usual reference periods:
(a) The place at which the person has lived continuously for most of the last 12 months (that is, for at least six months and one day), not including temporary absences for holidays or work assignments, or intends to live for at least six months; or

(b) The place at which the person has lived continuously for at least the last 12 months, not including temporary absences for holidays or work assignments, or intends to live for at least 12 months (UNDESA, 2017, p. 40).

These rules for reporting usual residence apply to all people in all living situations. This means that if a person has been living in their car for a year because they cannot access any other housing, they should report the car as their usual address. Likewise, if they have been living in their car for just one day, but believe they will be living there for at least the next six months, they should report the car as their usual address. ETHOS Light excludes both of these car-dwellers from the homeless population, thus excluding people who have been living in the same grossly inadequate housing for long periods of time, as well as those who are pessimistic about the chances of their situation changing.

Reporting ‘no place of usual residence’ or ‘no fixed abode’ relates to residential mobility, not housing inadequacy. According to the UNDESA definition, a person with no place of usual residence simply has not been living at their current address for six months, and does not intend to live there for another six months. This situation applies to people in a range of situations, as the ABS (2012e, p. 19) explained:

There are a very wide range of reasons why a person may not have stayed, or be intending to stay, at a particular address for 6 months or more in a particular Census year...People will have moved from a former usual address for many reasons, for example, moving for study or work, or upon retirement. Some of these movers may be temporarily accommodated in their new city or town, and at the time of the Census cannot report a future address of the home that they have not yet rented or bought.

In countries where residential mobility among the general population is high, such as New Zealand (Statistics New Zealand, 2013a), we would expect a considerable proportion of the population to report having ‘no fixed abode’. Therefore, no fixed abode, on its own, is a poor proxy for ‘lacking access to minimally adequate housing’, which is the way it is used in the ETHOS Light, UNECE, and UNDESA approaches.

In New Zealand, reporting ‘no fixed abode’ is actually very uncommon (0.03 percent of the 2013 census night population), even though 22 percent of New Zealanders had been living at their address for less than a year at the time of the census (Statistics New Zealand, 2013a). It would seem that people are unlikely to follow the formal rules for reporting ‘no fixed abode’, though it should be noted that the New Zealand census leaves the meaning of ‘usual residence’ up to respondents’
interpretation, except in a few specific living situations. Even in countries where census respondents are instructed to answer the usual address question according to the United Nations’ formal rules, such as Australia, they are unlikely to do so. As observed by the ABS (2012e, p. 19):

People who moved in July or August, just before the Census, might report their former home as the place they had lived for at least 6 months, but may consider it odd to report this old address as their ‘usual’ address. It is considered unlikely that people report a former usual address as their current usual address after they have permanently left that address, or left it on a long term basis. The design of the Census ‘usual address’ question for reporting on mobility, and for supporting population measures, would be undermined if people did report their old usual addresses to which they would not be returning, or not returning for quite some time.

There are three main factors that are likely to discourage a person from reporting ‘no fixed abode’, irrespective of the formal rules. Firstly, linking to the ABS’ argument, it is likely that people will state the place they are currently living as their usual address, even if they have not been living there for six months, nor intend to live there for six months. This is the intuitive response to a question about usual address – reporting the address at which you are currently staying, or, if you have been moving around, the address at which you have been spending most of your time. Secondly, the terms ‘no usual residence’ and ‘no fixed abode’ are associated with homelessness, a stigmatised identity that people will likely be reluctant to identify with. Thirdly, reporting ‘no usual address’ may be inconsistent with certain cultural frames of reference. In cultural contexts where sharing accommodation with family members is expected, particularly at times of need, the distinction between your home/my home may be ambiguous. In these cultures, if a person is staying with family because they cannot access adequate housing of their own, reporting ‘no usual address’ might be considered a sign of disrespect toward the hosts, or might not be considered as a response at all. Australian scholars have highlighted the high risk of ‘no usual address’ underreporting among Indigenous Australians because their ‘usual residence’ may relate to a number of dwellings within their home region rather than a particular address (Morphy, 2007 in ABS, 2011; Chamberlain & MacKenzie, 2008). This issue is not exclusive to Australia: strong kinship obligations regarding hosting and accommodation sharing exist among the Indigenous people of New Zealand (Māori), Pacific peoples, and other cultures.

The factors that discourage reporting ‘no fixed abode’ are likely to apply to both homeless and non-homeless people. In an Australian study, Jenkins (2011) found that clients of a homelessness service were very unlikely to report having no usual address. Only four percent selected the ‘no usual address’ option on their census form, with 70 percent reporting that they usually lived at their census night address. This low level of no usual address reporting occurred despite a targeted promotion campaign run by the ABS, encouraging homeless people to report ‘no usual address’ (ABS, 2012c).
Similarly, according to my own analysis of New Zealand census data, no more than six percent of night shelter residents reported having no fixed abode in both 2013 and 2006, and none in 2001. Night shelters are specifically targeted at homeless people, and it is reasonable to assume that if any part of the homeless population were to identify as having ‘no fixed abode’, night shelter residents would be among them. These findings support the contention that no fixed abode, on its own, is a poor proxy for ‘lacking access to minimally adequate housing’.

To summarise, there are three main problems with ETHOS Light’s use of ‘no fixed abode’ to identify homeless people. Firstly, people who have been forced to live in the same severely inadequate housing for relatively long periods of time, who therefore report it as their usual address, are excluded from the homeless population. This lacks face validity, and is likely to create a misleading picture of homelessness as a short-term problem. Secondly, ‘no fixed abode’ relates to residential mobility, and as people may be residentially mobile for a variety of reasons, it lacks precision as a proxy for housing deprivation. Thirdly, a number of factors are likely to discourage homeless people from reporting that they have ‘no fixed abode’. To borrow from the ABS (2011, p. 8), definitions of homelessness that rely on a homeless person declaring ‘no fixed abode’ demonstrate an “overreliance…on a literal interpretation of this variable”.

The Australian Bureau of Statistics

In 2012, the ABS published a conceptual definition and classification of homelessness (reviewed in Sections 3.3, 3.4, and 3.5), laying the theoretical foundation for their subsequent operational definition for measuring homelessness using the Australian census (ABS, 2012e). The definition is long and complicated, and is detailed in the next 10 tables (Tables 11 to 20). These tables present the 2012 analysis; the 2016 version is unchanged, apart from the thresholds for the monetary variables (ABS, 2018). These tables are included here (rather than in an appendix) so that all the operational definitions reviewed in this thesis are in the same place.

The major issue with the method overall is that it identifies people who are not homeless, rather than identifying people who are homeless. Homelessness is treated as a residual category, rather than a positively identified one. This approach may falsely inflate the size of the homeless population with census respondents who did not answer enough key questions to be credibly identified as homeless, according to the ABS’ own conceptual definition. For example, the incomes of many people identified as homeless are unknown – this was the case for 15 percent of the adults identified as homeless in 2011 (ABS, 2012c). ‘Financial means’ is one of the criteria specified in the ABS’ definition of homelessness (Section 3.4), and a low-income criterion is applied to some categories,
but not others. The ABS’ ‘homeless by default’ approach is novel, and if possible, it would be interesting to validate it using other data course.

Income poverty statistics provide a useful comparison. Households in which an adult was absent at the time of enumeration or in which an adult did not report their income are excluded from poverty statistics. A series of assumptions could be applied to impute the missing incomes and thus estimate the household’s income, but instead the household is simply excluded because key data were not reported. This makes the method more straightforward, transparent, replicable, and credible. Income poverty statistics do not represent everyone with a low income, but we can have confidence that every person counted as income-poor was actually income-poor (leaving aside issues of misreporting and coding error). With the ABS’ approach of treating homelessness as a default category, however, we can be less confident that every person classified as homeless was actually homeless.

The ABS’ operational definition is not systematic, with rules applied inconsistently across different dwelling types. For example, a person who is employed, has a high income, and reports that they usually live elsewhere in Australia (not at their census night address) may be classified as homeless if they are living in a non-private dwelling of unknown type, depending on the characteristics of other people in the dwelling (Table 16). However, if this person were living in a dwelling classified as a boarding house, they would always be categorised as ‘not homeless’ on the basis of their usual address being elsewhere in Australia (Table 13). The two main issues here are a lack of consistency, and, for people living in non-private dwellings, the analysis is predominately at the dwelling level, which means that people are not assessed by their own means, but the overall profile of residents in the dwelling. Thus, even if a person reports that their usual address is elsewhere and that they have ample financial resources to access to ‘alternative accommodation’, they may still be classified as homeless, which is contrary to the ABS’ conceptual definition of homelessness.

A large number of variables are used in the algorithm. The variables used as proxies for ‘financial means’ include income, mortgage repayments, rent payments, and labour force status. It is unclear why more distant proxies for financial means (mortgage repayments, rent payments, and labour force status) are used rather than consistent application of an income threshold. A number of filters rely on the assumption that homeless people are not in paid employment. However, Jenkins (2011) applied the ABS’ conceptual definition of homelessness to the clients of a homelessness service in Australia, and found that about a third of the homeless were in paid employment. Across all specialist homelessness services in Australia, 11 percent of homeless adults are in paid employment (AIHW, 2017), though it is not known how representative this population is of the wider homeless population. Assuming that homeless people are not working introduces an important bias, reducing the likelihood
of identifying the homeless working poor. People who are employed are not necessarily earning enough income to access minimally adequate housing.

Table 11 The ABS’ method for identifying homeless people in improvised homes, tents, or sleeping out in census data

<table>
<thead>
<tr>
<th>Step</th>
<th>Unit of analysis</th>
<th>Main variable/s</th>
<th>Filter</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dwelling</td>
<td>Imputed record</td>
<td>If the record was imputed</td>
<td>then Not homeless</td>
</tr>
<tr>
<td>2</td>
<td>Individual</td>
<td>Usual address</td>
<td>Else if Usual address is elsewhere in Australia OR overseas</td>
<td>then Not homeless</td>
</tr>
<tr>
<td>3</td>
<td>Dwelling</td>
<td>Labour force status, tenure</td>
<td>Else if At least one person in the dwelling on census night who reports it as their usual address or has no usual address is employed full-time AND (the dwelling is owned outright OR owned with a mortgage OR being purchased under a rent/buy scheme OR being rented OR being occupied under a life tenure scheme)</td>
<td>then Not homeless (everyone in the dwelling)</td>
</tr>
<tr>
<td>4</td>
<td>Dwelling</td>
<td>Labour force status, tenure, household income</td>
<td>Else if At least one person in the dwelling on census night who reports it as their usual address or has no usual address is employed full-time AND (the dwelling is occupied rent free OR ‘other’ tenure OR the tenure is not stated) AND household income (not equivalised) is ≥ $2,000/week</td>
<td>then Not homeless (everyone in the dwelling)</td>
</tr>
<tr>
<td>5</td>
<td>Dwelling</td>
<td>Labour force status, tenure, mortgage repayments</td>
<td>Else if No one in the dwelling on census night who reports it as their usual address or has no usual address is employed full-time AND the dwelling is owned with a mortgage AND the mortgage repayments are ≥ $1,050/month (~$242.49/week)</td>
<td>then Not homeless (everyone in the dwelling)</td>
</tr>
<tr>
<td>6</td>
<td>Dwelling</td>
<td>Labour force status, tenure, rent payments</td>
<td>Else if No one in the dwelling on census night who reports it as their usual address or has no usual address is employed full-time AND the dwelling is being rented AND rent payments made by the household are ≥ $300/week</td>
<td>then Not homeless (everyone in the dwelling)</td>
</tr>
<tr>
<td>7</td>
<td>Dwelling &amp; Individual</td>
<td>Labour force status, tenure, usual address</td>
<td>Else if No one in the dwelling on census night who reports it as their usual address or has no usual address is employed full-time AND the dwelling is owned outright AND the person’s usual address is the same as their census night address</td>
<td>then Not homeless (only those who report the dwelling as their usual address)</td>
</tr>
</tbody>
</table>

The remaining people occupying improvised homes, tents, or sleeping out on census night are homeless.

**Data source:** ABS (2012e, pp. 29-49)
Table 12 The ABS’ method for identifying homeless people in supported accommodation in census data

Subject population: All persons in a hostel for the homeless OR night shelter OR refuge OR supported accommodation for the homeless on census night

<table>
<thead>
<tr>
<th>Step</th>
<th>Unit of analysis</th>
<th>Variable</th>
<th>Filter</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Individual</td>
<td>Residential status</td>
<td>If residential status is ‘owner, proprietor, staff and family’ OR overseas visitor then</td>
<td>Not homeless</td>
</tr>
</tbody>
</table>

The remaining people occupying hostels for the homeless, night shelters, refuges, and supported accommodation for the homeless on census night are homeless

Data source: ABS (2012e, pp. 29-49)

Table 13 The ABS’ method for identifying homeless people in boarding houses in census data

Subject population: All persons in boarding houses or private hotels on census night

<table>
<thead>
<tr>
<th>Step</th>
<th>Unit of analysis</th>
<th>Main variable/s</th>
<th>Filter</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Individual</td>
<td>Residential status</td>
<td>If residential status is ‘owner, proprietor, staff and family’ OR overseas visitor then</td>
<td>Not homeless</td>
</tr>
<tr>
<td>10</td>
<td>Individual</td>
<td>Usual address</td>
<td>Else if Usual address is elsewhere in Australia then</td>
<td>Not homeless</td>
</tr>
<tr>
<td>11</td>
<td>Dwelling</td>
<td>Income</td>
<td>Else if ≥ 60% of people in the dwelling on census night who report (being a ‘guest, patient, inmate or other resident’ OR don’t state their residential status) AND (whose usual address is same as census night OR no usual address) have an income of ≥ $600/week</td>
<td>Not homeless (everyone in the dwelling)</td>
</tr>
<tr>
<td>12</td>
<td>Dwelling</td>
<td>Labour force status</td>
<td>Else if ≥ 60% of people in the dwelling on census night who report (being a ‘guest, patient, inmate or other resident’ OR don’t state their residential status) AND (whose usual address is same as census night OR no usual address) are employed</td>
<td>Not homeless (everyone in the dwelling)</td>
</tr>
<tr>
<td>13</td>
<td>Dwelling</td>
<td>Student status</td>
<td>Else if ≥ 60% of people in the dwelling on census night who report (being a ‘guest, patient, inmate or other resident’ OR don’t state their residential status) AND (whose usual address as same as census night OR no usual address) are full-time students</td>
<td>Not homeless (everyone in the dwelling)</td>
</tr>
</tbody>
</table>

The remaining people occupying boarding houses or private hotels on census night are homeless

Data source: ABS (2012e, pp. 29-49)
Table 14 The ABS’ method for identifying homeless people in hotels, motels, or bed and breakfasts in census data

Subject population: All persons in hotels, motels, and bed and breakfasts on census night

<table>
<thead>
<tr>
<th>Step</th>
<th>Unit of analysis</th>
<th>Main variable/s</th>
<th>Filter</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>Dwelling &amp; Individual</td>
<td></td>
<td>If (&lt; 75% of people in the dwelling on census night have an income of &lt; $600/week) AND (their usual address is same as census night OR income ≥ $400/week or not stated OR employed or labour force status unknown OR full-time student)</td>
<td>Not homeless (everyone in the dwelling)</td>
</tr>
<tr>
<td>15</td>
<td>Dwelling &amp; Individual</td>
<td>Usual address, income, labour force status, student status</td>
<td>Else if (&lt; 75% of people in the dwelling on census night are unemployed or not in the labour force) AND (their usual address is same as census night OR income ≥ $400/week or not stated OR employed or labour force status unknown OR full-time student)</td>
<td>Not homeless (everyone in the dwelling)</td>
</tr>
<tr>
<td>16</td>
<td>Dwelling &amp; Individual</td>
<td></td>
<td>Else if (&lt; 20% of people in the dwelling on census night report it as their usual address) AND (usual address is same as census night OR income ≥ $400/week or not stated OR employed or labour force status unknown OR full-time student)</td>
<td>Not homeless (everyone in the dwelling)</td>
</tr>
<tr>
<td>17</td>
<td>Dwelling &amp; Individual</td>
<td></td>
<td>Else if (&gt; 25% of people in the dwelling on census night are full-time students) AND (usual address is same as census night OR income ≥ $400/week or not stated OR employed or labour force status unknown OR full-time student)</td>
<td>Not homeless (everyone in the dwelling)</td>
</tr>
<tr>
<td>18</td>
<td>Individual</td>
<td>Residential status</td>
<td>Else if Residential status is ‘owner, proprietor, staff and family’ OR overseas visitor</td>
<td>Not homeless</td>
</tr>
</tbody>
</table>

The remaining people occupying hotels, motels and bed and breakfasts on census night are homeless

**Data source:** ABS (2012e, pp. 29-49)
Table 15 The ABS’ method for identifying homeless people in staff quarters in census data

Subject population: All persons in staff quarters on census night

<table>
<thead>
<tr>
<th>Step</th>
<th>Unit of analysis</th>
<th>Main variable/s</th>
<th>Filter</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>Dwelling</td>
<td>Income</td>
<td>If &lt; 60% of people in the dwelling on census night have an income of &lt; $600/week then</td>
<td>Not homeless (everyone in the dwelling)</td>
</tr>
<tr>
<td>20</td>
<td>Dwelling</td>
<td>Labour force status</td>
<td>Else if ≥ 60% of people in the dwelling on census night are employed then</td>
<td>Not homeless (everyone in the dwelling)</td>
</tr>
<tr>
<td>21</td>
<td>Dwelling</td>
<td>Student status</td>
<td>Else if ≥ 60% of people in the dwelling on census night are full-time students then</td>
<td>Not homeless (everyone in the dwelling)</td>
</tr>
<tr>
<td>22</td>
<td>Individual</td>
<td>Residential status</td>
<td>Else if Residential status is ‘owner, proprietor, staff and family’ OR overseas visitor then</td>
<td>Not homeless</td>
</tr>
</tbody>
</table>

The remaining people occupying staff quarters on census night are homeless

**Data source:** ABS (2012e, pp. 29-49)
Table 16 The ABS’ method for identifying homeless people in ‘other and not classifiable’ and ‘not stated’ non-private dwelling types in census data

Subject population: All persons in non-private dwellings on census night classified as ‘other and not classifiable' or ‘not stated’

<table>
<thead>
<tr>
<th>Step</th>
<th>Unit of analysis</th>
<th>Main variable/s</th>
<th>Filter</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>23</td>
<td>Individual</td>
<td>Residential status</td>
<td>If residential status is ‘owner, proprietor, staff and family’ OR overseas visitor</td>
<td>then Not homeless</td>
</tr>
<tr>
<td>24</td>
<td>Dwelling</td>
<td>Age, usual address</td>
<td>Else if ≥ 90% of people in the dwelling who report being a guest, patient, inmate or other resident OR don’t state their residential status are: aged &lt; 20 years AND (their usual address is same as census night OR no usual address)</td>
<td>then Not homeless (everyone in the dwelling)</td>
</tr>
<tr>
<td>25</td>
<td>Dwelling</td>
<td>Educational institution attendance, usual address</td>
<td>Else if ≥ 85% of people in the dwelling who report (being a guest, patient, inmate or other resident OR don’t state their residential status) AND (attending an educational institution OR not attending an educational institution) are: attending an educational institution AND (their usual address is same as census night OR no usual address)</td>
<td>then Not homeless (everyone in the dwelling)</td>
</tr>
<tr>
<td>26</td>
<td>Dwelling</td>
<td>Religious belief, usual address</td>
<td>Else if ≥ 90% of people in the dwelling who report being a guest, patient, inmate or other resident OR don’t state their residential status: report a religious belief AND (their usual address is same as census night OR no usual address)</td>
<td>then Not homeless (everyone in the dwelling)</td>
</tr>
<tr>
<td>27</td>
<td>Dwelling</td>
<td>Labour force status, usual address</td>
<td>Else if ≥ 50% of people in the dwelling who report being a guest, patient, inmate or other resident OR don’t state their residential status are: employed AND (their usual address is same as census night OR no usual address)</td>
<td>then Not homeless (everyone in the dwelling)</td>
</tr>
<tr>
<td>28</td>
<td>Dwelling</td>
<td>Labour force status, usual address</td>
<td>Else if ≥ 85% of people in the dwelling who report being a guest, patient, inmate or other resident OR don’t state their residential status are: aged ≥ 65 years AND (their usual address is same as census night OR no usual address)</td>
<td>then Not homeless (everyone in the dwelling)</td>
</tr>
</tbody>
</table>

The remaining people occupying ‘other and not classifiable’ and ‘not stated’ types of non-private dwellings on census night are homeless

Data source: ABS (2012e, pp. 29-49)
Table 17 The ABS’ method for identifying homeless people in private dwellings in census data (one of four tables)

Subject population: All persons in a private dwelling on census night that is not: an improvised home OR tent OR sleeping out OR supported accommodation for the homeless

<table>
<thead>
<tr>
<th>Step</th>
<th>Unit of analysis</th>
<th>Main variable/s</th>
<th>Filter</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>29</td>
<td>Individual</td>
<td>Imputed record</td>
<td>If the record was imputed then</td>
<td>Not homeless</td>
</tr>
<tr>
<td>30</td>
<td>Individual</td>
<td>Usual address</td>
<td>Else if Usual address is same as census night OR elsewhere in Australia OR overseas then</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>Dwelling</td>
<td>Dwelling type, age, usual address, labour force status</td>
<td>Else if The dwelling is a caravan, cabin or houseboat AND all persons in the dwelling on census night are aged 55+ AND all persons in the dwelling on census night have no usual address AND all persons in the dwelling on census night are not in the labour force then</td>
<td>Potentially not homeless This population is further filtered through the algorithm in Table 18</td>
</tr>
<tr>
<td>32</td>
<td>Dwelling</td>
<td>Dwelling type, usual address, dwelling location, tenure, rent payments</td>
<td>Else if The dwelling is a caravan, cabin or houseboat AND it is a visitor only household AND (the dwelling is in a retirement village (self-contained) OR manufactured home estate OR marina OR other location OR the dwelling is fully owned OR being purchased OR being purchased under a rent/buy scheme OR being occupied under a life tenure scheme OR the tenure not stated OR (the dwelling is rented AND the rental payment amount is stated)) then</td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>Dwelling</td>
<td>Dwelling type, tenure</td>
<td>Else if The dwelling is a separate house OR semi-detached, row or terrace house, townhouse etc. OR flat, unit or apartment OR house or flat attached to a shop, office etc. AND the dwelling is fully owned OR owned with a mortgage OR being rented then</td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>Individual</td>
<td>Place of birth, year of arrival</td>
<td>Else if Born overseas AND place of birth was NOT one of the top 10 countries for humanitarian settlers in Australia at the time of the census AND arrived in Australia in the calendar year of the census then</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>Individual</td>
<td>Place of birth, usual address one year ago</td>
<td>Else if Born in Australia AND was overseas one year before the census then</td>
<td></td>
</tr>
</tbody>
</table>

The remaining people are homeless (staying temporarily with other households)

Data source: ABS (2012e, pp. 29-49)
### Table 18 The ABS’ method for identifying homeless people in private dwellings in census data (two of four tables)

Subject population: All persons in a private dwelling on census night who have not been classified as homeless persons living in: an improvised home OR tent OR sleeping out OR supported accommodation for the homeless OR staying temporarily with other households

<table>
<thead>
<tr>
<th>Step</th>
<th>Unit of analysis</th>
<th>Main variable/s</th>
<th>Filter</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>36</td>
<td>Dwelling</td>
<td>Age</td>
<td>If anyone in the dwelling whose usual address is same as census night is aged under 15</td>
<td>then</td>
</tr>
<tr>
<td>37</td>
<td>Dwelling</td>
<td>Household composition</td>
<td>Else if Anyone in the dwelling whose usual address is same as census night is in a couple with anyone else in the dwelling whose usual address is same as census night OR anyone in the dwelling whose usual address is same as census night is in a 'blood relationship' with anyone else in the dwelling whose usual address is same as census night OR it is a visitor only household OR the household composition in not classifiable</td>
<td>then</td>
</tr>
<tr>
<td>38</td>
<td>Dwelling</td>
<td>No. bedrooms</td>
<td>Else if The dwelling has &lt; 4 bedrooms</td>
<td>then</td>
</tr>
<tr>
<td>39</td>
<td>Dwelling</td>
<td>No. usual residents</td>
<td>Else if The dwelling has &lt; 5 usual residents</td>
<td>then</td>
</tr>
<tr>
<td>40</td>
<td>Dwelling</td>
<td>Income</td>
<td>Else if ≥ 60% of people in the dwelling whose usual address is same as census night have an income of ≥ $600/week</td>
<td>then</td>
</tr>
<tr>
<td>41</td>
<td>Dwelling</td>
<td>Labour force status</td>
<td>Else if ≥ 60% of people in the dwelling whose usual address is same as census night are employed</td>
<td>then</td>
</tr>
<tr>
<td>42</td>
<td>Dwelling</td>
<td>Educational institution attendance, labour force status</td>
<td>Else if ≥ 60% of people in the dwelling whose usual address is same as census night are attending an educational institution above primary level OR employed full-time</td>
<td>then</td>
</tr>
<tr>
<td>43</td>
<td>Dwelling</td>
<td>Need for assistance with core activities</td>
<td>Else if ≥ 60% of people in the dwelling whose usual address is same as census night have a need for assistance with core activities</td>
<td>then</td>
</tr>
<tr>
<td>44</td>
<td>Dwelling</td>
<td>Landlord</td>
<td>Else if The landlord of the dwelling is a real estate agent OR state or territory housing authority OR person not in the same household-parent/other relative OR employer-government (includes Defence Housing Authority)</td>
<td>then</td>
</tr>
<tr>
<td>45</td>
<td>Dwelling</td>
<td>Tenure</td>
<td>Else if The dwelling is fully owned OR owned with a mortgage OR being purchased under a rent/buy scheme</td>
<td>then</td>
</tr>
</tbody>
</table>

The remaining people are potentially homeless – this series of filters continues in Table 19
Table 19 The ABS’ method for identifying homeless people in private dwellings in census data (three of four tables)

<table>
<thead>
<tr>
<th>Step</th>
<th>Unit of analysis</th>
<th>Main variable/s</th>
<th>Filter</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>46</td>
<td>Dwelling</td>
<td>Dwelling location</td>
<td>Else if The dwelling is located in a caravan/residential park or camping ground OR marina OR manufactured home estate OR retirement village (self-contained) then</td>
<td></td>
</tr>
<tr>
<td>47</td>
<td>Dwelling</td>
<td>Dwelling type</td>
<td>Else if The dwelling is a caravan, cabin, or houseboat then</td>
<td></td>
</tr>
<tr>
<td>48</td>
<td>Dwelling</td>
<td>Student status, labour force status</td>
<td>Else if ≥ 60% of people in the dwelling whose usual address is same as census night are students OR employed full-time then</td>
<td></td>
</tr>
<tr>
<td>49</td>
<td>Dwelling</td>
<td>No. census night residents</td>
<td>Else if There are &lt; 3 people occupying the dwelling on census night then</td>
<td>Potentially not homeless</td>
</tr>
<tr>
<td>50</td>
<td>Dwelling</td>
<td>Volunteer status</td>
<td>Else if All people in the dwelling on census night are volunteers then</td>
<td>This population is further filtered through the algorithm in Table 20</td>
</tr>
<tr>
<td>51</td>
<td>Dwelling</td>
<td>Religious belief</td>
<td>Else if ≥ 90% of people in the dwelling report a religious belief then</td>
<td></td>
</tr>
<tr>
<td>52</td>
<td>Dwelling</td>
<td>Usual address, usual address 5 years ago</td>
<td>Else if (All people in the dwelling on census night are overseas visitors OR were overseas 5 years ago OR their usual address 5 years ago is not stated) AND (at least 1 person in the dwelling on census night is an overseas visitor OR was overseas 5 years ago) then</td>
<td></td>
</tr>
<tr>
<td>53</td>
<td>Dwelling</td>
<td>Income, labour force status, educational institution attendance, need for assistance with core activities, no. bedrooms</td>
<td>Else if Every person in the dwelling on census night does not state their income AND does not state their labour force status AND does not state whether they are attending an educational institution AND does not state their need for assistance with core activities AND the number of bedrooms in the dwelling is unstated then</td>
<td></td>
</tr>
</tbody>
</table>

The remaining people occupying private dwellings on census night are homeless (living in misclassified boarding houses)

Data source: ABS (2012e, pp. 29-49)
Table 20 The ABS’ method for identifying homeless people in private dwellings in census data (four of four tables)

Subject population: All persons in a private dwelling on census night who have not been classified as homeless persons living in: an improvised home OR tent OR sleeping out OR supported accommodation for the homeless OR staying temporarily with other households OR misclassified boarding house

<table>
<thead>
<tr>
<th>Step</th>
<th>Unit of analysis</th>
<th>Variable</th>
<th>Filter</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>54</td>
<td>Dwelling</td>
<td>Crowding (using CNOS)</td>
<td>If the dwelling has a bedroom deficit of &lt; 4 bedrooms OR the bedroom deficit is unknown</td>
<td>Not homeless</td>
</tr>
<tr>
<td>55</td>
<td>Individual</td>
<td>Usual address</td>
<td>Else if Usual address is elsewhere in Australia OR overseas OR no usual address</td>
<td>Not homeless</td>
</tr>
</tbody>
</table>

The remaining people occupying private dwellings on census night are homeless

Data source: ABS (2012e, pp. 29-49)

Table 21 shows the cut-offs for the various monetary filters used in the algorithm to identify people as ‘not homeless’. Two different individual income cut-offs are used to identify ‘not homeless’ people in different types of non-private dwellings. The reason for this difference is not explained. The household income cut-off was set at $2000 per week in 2006, which seems a very high threshold, considering the median household income in 2005-2006 was just $1027 per week (ABS, 2007). Household income was not equivalised, meaning no adjustment was made for household size or composition. The implication is that a household containing 10 children with a $2000 weekly income was assumed to have the same ‘financial means to access accommodation alternatives’ as a single-person household with a $2000 weekly income. The disposable incomes of these households are likely to be very different, which is why equivalisation of household incomes is commonly applied.

In terms of mortgage and rent payments, it was assumed that having relatively high housing costs means a person has enough disposable income to be able to access accommodation alternatives. This is questionable: people may still be making mortgage repayments on housing they have been forced to leave, or may be spending virtually all of their income on rent. The justification provided for the various cut-offs is insufficient, particularly for the income cut-offs:

> [A]long with other characteristics of the person or household, the ABS felt [the selected income threshold] was evidence that the households were most likely to have, on balance, accommodation alternatives (ABS, 2012e, p. 58).

This is essentially a statement as to why an income threshold was set, rather than an explanation as to why the thresholds were set at $600, $400, and $2000 per week.
### Table 21 Monetary variables included in the ABS algorithm, their 2006 cut-offs, and the population each was applied to

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cut-off</th>
<th>Applied to</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual income (applied at the dwelling level)</td>
<td>≥ $600/week</td>
<td>People in boarding houses, hotels, motels, bed and breakfasts, staff quarters, and permanent private dwellings (Tables 13, 14, 15, 18)</td>
</tr>
<tr>
<td></td>
<td>≥ $400/week</td>
<td>People in hotels, motels, and bed or bed and breakfasts (Table 14)</td>
</tr>
<tr>
<td>Household income (not equivalised)</td>
<td>≥ $2,000/week</td>
<td></td>
</tr>
<tr>
<td>Mortgage repayments</td>
<td>≥ $1,050/month (~$242.49/week)</td>
<td>People in improvised dwellings, tents, or sleeping out (Table 11)</td>
</tr>
<tr>
<td>Rent payments</td>
<td>≥ $300/week</td>
<td></td>
</tr>
</tbody>
</table>

**Data source:** ABS (2012e, pp. 29-49)

### 3.7 Point prevalence measures

Considering the numbers produced by different definitions can aid understanding of the definitions themselves. This section presents a selection of national point prevalence statistics within a two year period (Table 22), which are not intended for direct comparison (given the definitional issues discussed in this chapter) but to illustrate how definitional and other methodological issues manifest in the reported statistics.

The measured prevalence of homeless individuals varies widely – from 0.9 per 10,000 people in England through to 50 per 10,000 in Australia. In part, the difference is attributable to the very different definitions of homelessness used, but even when the same categories of homelessness are compared, the rates differ substantially. For example, focusing on people living with no shelter at all or in improvised dwellings, the Australian prevalence is 3.5 per 10,000 people, nearly four times the English figure (ABS, 2018). It is not clear how much of this difference is real, and how much is attributable to the different methods applied. More generally, Table 22 shows the variety of living situations included in different definitions of homelessness, demonstrating why the prevalence figures are poorly comparable – they reflect quite different populations.
Table 22 also highlights the variety of methods used to measure homelessness. Australia uses national census data, which, in theory, is the best possible data source for measuring homelessness, as censuses are intended to count all people in a country. However, Baptista et al. (2012) examined measurement of homelessness across the European Union in the 2010 round of censuses, assessing how well the official guidance on defining and measuring this population (UNECE/Eurostat’s recommendations) had been applied. In spite of concerted efforts to encourage consistency, Baptista et al. (2012, p. 11) found the resultant measures to be “inconsistent, limited or flawed”. They highlighted issues with register-based censuses, which are used in some Northern European countries, and are based on home or institutional addresses, thus excluding everyone without a fixed address. These issues have broader relevance because register-based censuses are likely to become more widespread (Baptista et al., 2012), including potentially in New Zealand (Statistics New Zealand, 2012b).

The Netherlands’ national statistical office used a novel approach for estimating the homeless population: a capture-recapture analysis. Capture-recapture uses the overlap between multiple datasets to estimate the total population, including the unobserved. Capture-recapture methods have been used to estimate homelessness in specific geographical areas (Fisher et al., 1994; Gurgel et al., 2004; Shaw et al., 1996; Williams & Cheal, 2002), but Statistics Netherlands is the only agency to have applied this method at a national level. While capture-recapture studies have the advantage of statistical elegance, they also have a number of limitations, the most important of which is probably sample heterogeneity (Bloor, 2005). The Netherlands study, for example, used information from a national register of people living in night shelters, people flagged as homeless in social security data, and people flagged as homeless in a national alcohol and drug information system (Centraal Bureau voor de Statistiek, 2016). It is unlikely that these datasets are representative of the wider homeless population, particularly because night shelters and drug and alcohol services are targeted at specific demographic groups. This limitation is demonstrated by the Netherlands point prevalence figure, which only represents people aged 18 to 65. In an earlier study using the same method, the ‘typical’ Dutch homeless person was said to be a 40-year-old unmarried male (Coumans et al., 2010). The exclusion of children and young people from this measure is especially problematic because this group is likely to make up a substantial proportion of the homeless population. For example, children (aged under 18) make up a quarter of the homeless population in Australia (ABS, 2018) and 21 percent of the homeless population in the US (Henry et al., 2017).
Table 22 Point prevalence of homelessness (homeless individuals) in selected countries, and the housing types included

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Prevalence (per 10,000 pop)</th>
<th>Data source/s</th>
<th>Housing types included in homelessness figure</th>
</tr>
</thead>
<tbody>
<tr>
<td>England&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>2017</td>
<td>0.9</td>
<td>Street counts &amp; estimates by local authorities</td>
<td>No shelter at all</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Improvised dwellings</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Emergency shelters</td>
</tr>
<tr>
<td>Norway</td>
<td>2016</td>
<td>8</td>
<td>Survey</td>
<td>Other temporary accommodation targeted at homeless people</td>
</tr>
<tr>
<td>United States</td>
<td>2017</td>
<td>17</td>
<td>Administrative data from accommodation providers &amp; street counts</td>
<td>Staying with other households in private dwellings</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Boarding houses and other temporary lodging</td>
</tr>
<tr>
<td>Netherlands</td>
<td>2016</td>
<td>18</td>
<td>Administrative data from a national register &amp; social security system &amp; an alcohol and drug system</td>
<td>Severely crowded dwellings</td>
</tr>
<tr>
<td>Sweden</td>
<td>2017</td>
<td>32</td>
<td>Survey</td>
<td>Institutions not targeted at homeless people</td>
</tr>
<tr>
<td>Australia</td>
<td>2016</td>
<td>50</td>
<td>Census</td>
<td>Long-term social housing</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Short-term renting in private dwellings</td>
</tr>
</tbody>
</table>

**Note:** (1) Other people are accepted as homeless in England but they are only reported as households. Individual-level point prevalence figures are only available for rough sleepers.

3.8 Conclusion

This chapter sought to comprehensively review the literature on defining and measuring homelessness, from the broadest concept of homelessness to point prevalence measures. There is relatively widespread agreement on the broad concept of homelessness, but approaches diverge from that point on, usually not guided by a conceptual framework.

There are two major problems with existing conceptualisations of homelessness. Firstly, a number of approaches do not relate to a conceptual model of homelessness, simply defining the phenomenon by example. If this approach were applied to income poverty, the income brackets that represent being ‘income-poor’ would be listed, but no explanation would be provided as to why people with such incomes are ruled in, and others ruled out. Secondly, all of the reviewed classifications of homelessness failed at least two of the four core requirements of classifications. These shortcomings largely reflect insufficient description of either the underlying concept or key terms in the classification, but some approaches also exhibit more substantial conceptual flaws. Delving deeper into the more technical aspects of operational definitions, this chapter also assessed two methods for identifying homelessness people in national census data. These were found to involve a number of assumptions of questionable validity, as well as important biases.

These layers of definitional issues, in addition to the different methods used to measure homelessness, have resulted in widely varying, incomparable homelessness prevalence figures, where they exist. The state of the literature points to the need for a careful, rigorous approach to conceptualising homelessness from broad concept through to operational definition, with a view to global application. Addressing this task is the aim of this thesis. The next chapter begins the process by developing a new conceptual model of homelessness. The practical obstacles to measuring homelessness are prominent and formidable, but “the more vexed and contentious issues are conceptual—and, finally, political—in nature” (Hopper, 1995, p. 340). A conceptually valid definition of homelessness is at the core of accurate measurement.
CHAPTER FOUR
A CONCEPTUAL DEFINITION OF SEVERE HOUSING DEPRIVATION

Definitions matter because arguments about numbers are otherwise pointless.

Kim Hopper, 1995, p. 340

4.1 Introduction

This chapter develops a definition of severe housing deprivation that aims to be both conceptually robust and globally applicable. Drawing from human rights principles, as well as poverty and deprivation theory, this definition builds upon the ‘agreed’ broad concept of homelessness identified in the literature review: homelessness as a lack of access to minimally adequate housing. This chapter seeks to develop this idea into a clear, detailed conceptual model.

The core argument underpinning this chapter is that a definition of severe housing deprivation can and should be theoretically valid, globally applicable, and sensitive to regional variation. The definition presented here aims to fulfill all of these requirements, and in doing so, aims to provide a new reference point for discussion about internationally standardised measurement of homelessness. The chapter begins by adopting the agreed concept of homelessness, and locating it within a broader conceptual framework. The two criteria that make up this concept – living in severely inadequate housing and a lack of access to minimally adequate housing (LAMAH) – are then developed into measurable indicators, linking to established indicators in related fields.

4.2 Labelling and locating the concept

The dominant concept of homelessness in the literature, as found in Chapter Three, is ‘severe housing deprivation’ or living in severely inadequate housing due to a lack of access to minimally adequate housing. Three important points underlie this concept.

Firstly, homelessness is predominantly understood as a housing issue – an objectively defined state pertaining to people’s material living conditions. While homelessness is discussed in terms of other aspects of ‘home’, such as a sense of place and belonging, these are generally not framed as criteria that define homelessness. For example, there is no suggestion in the literature that people living on the street should be excluded from the homeless population if they report feeling ‘at home’ on the pavement. In the same way, subjective perceptions of one’s housing being inadequate or not fulfilling individual expectations of ‘a home’ generally do not form the basis of homelessness definitions.
Secondly, homelessness is generally understood as pertaining to living conditions that are severely inadequate (falling below a minimum adequacy standard) rather than housing that has just any kind of inadequacy. Other manifestations of housing deprivation, such living in cold, damp, or unaffordable housing are not usually considered examples of homelessness. Homelessness is framed as a severe form of deprivation, if not the most severe form. This is reflected in the academic literature, in government policies, and in popular conceptions of homelessness (informed, though they may be, by the stereotype of homelessness as rough sleeping).

Thirdly, homelessness is generally framed as an issue of ‘lack of access’ or ‘lack of choice’. Not everyone living in substandard housing is considered homeless, only those who are forced to – that is, people who are not living in such housing by choice. Homelessness speaks to housing deprivation, which relates not only to the type of housing that people are living in, but also their reason for living in it. Choice and access are linked - thinking about choice must be set in the context of the adequacy of housing a person realistically has access to. There will be cases where a person has access to adequate housing but prefers to live on the street, due to habit, community, or mental health issues. This person would be considered living rough but not severely housing deprived. This distinction seems like splitting hairs, but the principle that applies to the whole population is respect of agency.

An understanding that homelessness relates to these three factors – material conditions, housing that falls below a minimum adequacy standard, and lack of choice – locates the issue in the poverty domain. Poverty is having “a day-to-day standard of living or access to resources that fall[s] below a minimum acceptable community standard” (Perry, 2013, p. 4). The concept of poverty includes both resource and outcomes elements – not having enough resources to meet basic human needs, and living in a situation where basic human needs are not being met. Commonly, the first element, having inadequate resources, is referred to as ‘poverty’, with income usually used as the measure of resources. The second element, living without access to basic human needs, is commonly termed ‘deprivation’ or ‘hardship’. Homelessness is an example this second element – a form of deprivation and hardship.

Homelessness is frequently linked to poverty in the literature, though almost always in its ‘lack of resources’ sense: “Homelessness is perhaps the most extreme example of poverty and social exclusion in society today, both as symptom and as cause” (Brousse, 2004, p. 4). Homelessness is indeed a symptom of a lack of financial resources, and is likely to be a cause of further poverty of financial resources, but it is also a form of poverty in its own right (in the deprivation sense). This is an important point, as it links the issue of defining homelessness to a wealth of theory about defining poverty and deprivation.
While the word ‘homelessness’ has the heuristic advantage of being easily recognised by the public and politicians, its disadvantage for policy and measurement may outweigh this relatively superficial benefit. As a first step toward conceptual rigour, we should consider interchanging (or even replacing) the term ‘homelessness’ with ‘severe housing deprivation’. The word homelessness is burdened by stereotype and stigma, being associated with begging, vagrancy, alcoholism, mentally illness, and crime. ‘Home’ is also a complex, idealised concept, and literal interpretations of homelessness as the absence of home lead to portrayals of homeless people as passive victims, representing a “totalising condition of lack” (Robinson, 2002). As Moore (2007, p. 150) pointed out, “it is possible to be homeless and at home at the same time, as home has more to do with state of mind and an emotional engagement than it has to be with a fixed place”.

Other terms have been proposed as replacements for homelessness – most notably ‘houselessness’ (Springer, 2000) – but this term offers little improvement upon the original. Understanding ‘house’ as “a building for human habitation” (“house,” n.d.), ‘the houseless’ should be those who lack a building for human habitation. However, even narrow definitions of homelessness, such as Springer’s (2000), tend to include people living in shelters. These people are not ‘houseless’ – they are occupying a building for habitation – but they are severely housing deprived, living in housing that does not meet the minimum adequacy standard. Of the terms ‘homelessness’, ‘houselessness’, and ‘severe housing deprivation’, the latter offers the most accurate description of the phenomenon.

As revealed in the literature review, the prevailing view is that a universal definition of severe housing deprivation is impossible because homelessness is a relative phenomenon:

The definition of the homeless can vary from country to country because homelessness is essentially a cultural definition based on concepts such as “adequate housing”, “minimum community housing standard”, or “security of tenure”, which can be perceived in different ways by different communities (UNDESA, 2017, p. 38).

Here, there is a lesson to the learned from the poverty literature, where the debate about whether poverty is an absolute or relative phenomenon has largely been resolved. There is wide acceptance that poverty is relative to societal norms, but also speaks to an ‘absolutist core’ (Sen, 1983) – a set of basic human needs that are reasonably universal. The way these needs are met varies across time and countries. As explained by Lister (2004, p. 29):

What one is able to do or be is a question of universal absolutes, whereas the goods needed to translate this ability into actual being and doing take us into the sphere of relativities, because the things that people need to do or be vary according to cultural and historical context.
Poverty is linked to human rights, which are “foundational ethical commitments to the recognition of human dignity” (Lister, 2013, p. 112). Setting poverty within a human rights framework emphasises why low income and poor living standards matter. Living in poverty is a shameful situation, “corrosive of human dignity and flourishing” (Lister, 2013, p. 112), and freedom from poverty does not mean “having equal shame as others, but just not being ashamed, absolutely” (Sen, 1983, p. 161).

If severe housing deprivation is a form of poverty, and poverty is linked to human rights, then human rights covenants are important reference points for identifying which dimensions of housing are relevant to defining homelessness. The next section draws from human rights principles to develop a minimum adequacy standard for housing.

4.3 Criterion One: Living in severely inadequate housing

Housing rights provide clear and consistent criteria against which the actions, policies, practices and legislation of states can be judged.

UN-Habitat, 2001, p. 192

This section develops a minimum adequacy standard for housing, the central task in defining severely inadequate housing. There are many factors that contribute to housing adequacy (and inadequacy). The most authoritative concept of adequate housing is the United Nations Committee of Economic, Social, and Cultural Rights’ (UNCESCR) General Comment No. 4 on the Right to Adequate Housing (1991), which lists seven factors as central to housing adequacy in all contexts: legal security of tenure; availability of services, materials, facilities and infrastructure; affordability; habitability; accessibility; location; and cultural adequacy. To determine which adequacy factors are relevant to constructing a minimum adequacy standard, we can consider two living situations that are generally regarded as types of homelessness: living rough (‘on the street’), and living in a night shelter. Both of these types of housing are generally affordable (free or low-cost), well located (often inner-city), and physically accessible (especially living rough). These housing types could be said to satisfy a number of adequacy factors. Intuitively, however, living on the street or in a night shelter does not constitute adequate housing, regardless of affordability, location, or accessibility. Indeed, framing these situations as adequate housing is meaningless because they fail to meet more basic adequacy requirements. People living rough lack the structural aspects of housing that make it habitable in the most basic sense – a structure that encloses them and has basic amenities; and people living rough or in night shelters have limited, if any, security of tenure, as well as a lack of privacy and control, compared with those living in private, conventional dwellings.
Thus, there are primary (or ‘core’) and secondary dimensions of housing adequacy. Secondary dimensions, such as affordability, are only meaningful if applied to housing that satisfies the core adequacy requirements. Only the core dimensions of housing adequacy are relevant for defining the minimum adequacy standard. These core dimensions – habitability (structural features), privacy and control, and security of tenure – should be applied consistently to all living situations.

Criteria for each of these three dimensions are proposed Table 23. This is the basic set of conditions that housing should satisfy to be regarded as minimally adequate. These criteria should be internationally applicable because they are grounded in human rights and poverty principles. Extra criteria may be added to each of the dimensions in societies where minimum expectations of housing are higher, but none of the criteria listed in Table 23 should be taken away. The definition of habitability, for example, depends on the environment: in an extremely cold environment, insulation may be considered vital for a dwelling to be habitable; in a warm environment, it is unlikely to be (unless it is needed to prevent the dwelling becoming excessively hot). In both environments, however, enclosure and basic amenities are necessary for housing to provide a basic level of privacy and dignity (or ‘avoidance of shame’). Local housing practices will also determine how each criterion is interpreted: what qualifies as an adequate toilet in Uganda, for example, will not be the same as in Japan. The basic requirements of each dimension will now be discussed.

**Habitability (structural features)**

Enclosure and basic amenities are essential for privacy and protecting residents’ dignity. Enclosure is necessary to separate private from public space, and basic amenities are necessary to allow basic needs to be fulfilled in private. The latter requirement is clear in the UNCESCR’s General Comment No. 4:

> All beneficiaries of the right to adequate housing should have sustainable access to natural and common resources, safe drinking water, energy for cooking, heating and lighting, sanitation and washing facilities (1991, Article 8).

The enclosure and basic amenities criteria are consistent with those used as poverty indicators in the Multidimensional Poverty Index (Alkire & Santos, 2010), which is reported in the United Nations Development Programme’s annual Human Development Report (UNDP, 2018). The criteria are also consistent with the definition of a ‘dwelling with basic facilities’ in the UNDESA (2017) guidelines for population and housing censuses.
Table 23 The three core dimensions of housing adequacy, broken down into the basic criteria for each dimension

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Basic requirements</th>
</tr>
</thead>
</table>
| Habitability (structural features) | 1 Enclosure  &  Roof  &  Walls  &  Floor  
2 Basic amenities  &  Drivable water  &  Toilet  &  Bath or shower  &  Cooking facilities  &  Energy source |
| Privacy and control             | 1 The dwelling is enclosed (as per Habitability criterion 1); and  
2 The dwelling has all basic amenities (as per Habitability criterion 2); and  
3 The dwelling is managed by the resident/s on a day-to-day basis (not by an external party) – that is, it is a private dwelling; and  
4 The person is a permanent resident (not staying in the dwelling on a temporary basis). |
| Security of tenure              | Legal termination of tenancy rights are equal to the minimum provided to people living in private rental housing. |

**Privacy and control**

Privacy, “a state in which one is not observed or disturbed by other people” ("privacy," n.d.), is central to housing practices in virtually all cultures. While it manifests in different ways, the concept of a ‘private dwelling’ is at its core – that is, a dwelling in which one can fulfill basic human needs without having to go into public space, and a dwelling that the residents have day-to-day control over (inasmuch as they are not observed or disturbed by other people). Private housing allows people to socialise with others in their own space, with control over who is invited into their space. This dimension is labeled ‘privacy and control’ to emphasise the ‘control’ element of privacy. There are four basic elements of housing that allow a basic level of privacy and control to be achieved:

**Enclosure and amenities**

The first two requirements of the privacy and control dimension are the same as the two criteria of the habitability dimension: enclosure and basic amenities. The necessity of each of these for privacy has already been discussed. Including these criteria in both the habitability and the privacy and
control dimensions means they are ascribed double weighting, which seems reasonable given their fundamental nature.

**Dwelling managed by the residents**

The third criterion of the privacy and control dimension is residents managing their own dwelling, rather than it being managed by an external party. Dwellings that do not meet this criterion are usually referred to as ‘non-private dwellings’, and include institutions such as supported housing, hospitals, and prisons, as well as non-institutional dwellings such as hotels. Non-private dwellings are so called because they offer a diminished level of privacy and control (that is, freedom from observation and disruption) compared with private dwellings. They do not offer ‘a space of one’s own’ in the same way that a private dwelling does, where the residents have control over what happens within the dwelling, including who is invited to visit or live there. The majority of the world’s population (about 97 percent) live in private dwellings (United Nations Statistics Division, 2018). Non-private dwellings are regarded as places people occupy for short periods of time, so diminished levels of privacy and control are considered acceptable because the living situation is expected to be time-limited. The universal norm is for people to have access to housing they manage themselves.

**Being a permanent resident**

The fourth and final privacy and control criterion is being a permanent resident of the dwelling. When a person is staying in a dwelling on a temporary basis (as a visitor), the dwelling does not represent a ‘space of one’s own’ over which they have control (to the extent they would if they were staying in the dwelling on a permanent basis). The terms ‘temporary’ and ‘permanent’ do not refer to a specific length of stay, but to different levels of control in a dwelling. Being a visitor is not contingent on the person having another residence elsewhere, or the length of time they stay; rather, being a visitor relates to an expectation that the living situation will not be long-term and that the length of stay is ultimately controlled by those who live there permanently. Being a permanent resident (as opposed to a visitor) should be, but is not always, linked to security of tenure.

It should be noted that the levels of control among permanent residents will not be consistent, particularly in situations of domestic violence. Acknowledging the many issues around relationships between permanent residents of a household, this criterion only speaks to the basic distinction between temporary and permanent residents.
Security of tenure

Security of tenure refers to the guarantee of “legal protection against forced eviction, harassment and other threats” (UNCESCR, 1997, para 1), which should be afforded to all persons, “notwithstanding the type of tenure” (UNCESCR, 1991, para 8a), which “includ[es] rental (public and private) accommodation, cooperative housing, lease, owner-occupation, emergency housing and informal settlements, including occupation of land or property” (UNCESCR, 1991, para 8a). Forced eviction means:

[P]ermanent or temporary removal against their will of individuals, families and/or communities from the homes and/or land which they occupy, without the provision of, and access to, appropriate forms of legal and other protection (UNCESCR, 1997, para 3).

As discussed in Chapter Three, the United Nations definition of security of tenure refers to people being protected from forced (unfair) eviction, not to a guarantee of long-term residence in a particular dwelling. The term ‘security of tenure’ is often used in this latter sense, but in setting the minimum adequacy standard for housing, security of tenure should be understood in its more basic sense. Protection from unfair eviction is a human right, perhaps the most fundamental housing right:

Of all elements of the right to housing, it is the right to security of tenure (and increasingly the ‘right to security of place’) that forms the most indispensable core element (UN-Habitat, 2001, p. 204).

The benchmark for security of tenure should be set at the minimum level of legal protection from eviction afforded to people living in conventional rental accommodation, which will vary by country. If a dwelling is offered as long-term accommodation, the residents should be able to expect the same basic level of protection from eviction, regardless of the form the dwelling takes. On this view, residents of social rentals, private rentals, collective dwellings, institutions, and caravans in caravan parks should all enjoy the same level of security of tenure, provided the accommodation is offered as a long-term residence – a place to live, not just stay. In New Zealand, a periodic tenancy, which is a tenancy without a fixed term, is the minimum level of security of tenure provided to people living in conventional rental accommodation, so this is New Zealand’s benchmark for minimally adequate security of tenure. Termination of tenancy notice periods for periodic tenancies depend on the circumstances, but in standard situations, the landlord must provide 90 days’ notice (Residential Tenancies Act, 1986, s 51). Access to a dispute resolution service (such as the Tenancy Tribunal in New Zealand) is also an important aspect of security of tenure.
4.4 Criterion Two: Lack of access to minimally adequate housing

All concepts of deprivation and poverty include the notion of ‘lack of access’ (or ‘enforced lack’) – in other words, having no choice but to live in a situation that is lacking in necessities (Mack & Lansley, 1985; Perry, 2013). As found in Chapter Three, most definitions of homelessness include a ‘lack of access’ criterion, though it is not always explicitly stated.

People living severely inadequate housing are not necessarily severely housing deprived. People may choose to live, for short or long periods of time, in housing that deviates from societal norms, but the very fact that they have the capacity to choose such housing over more adequate housing means they should not be considered deprived. For example, a person who chooses to live in a tent because they are travelling around New Zealand is living in severely inadequate housing, but they are not severely housing deprived. However, if a person is living in a tent because they cannot access any conventional housing, such as a private or social rental, they are severely housing deprived. This criterion recognises that not everyone chooses to live in a conventional dwelling – such an expectation would be a denial of agency. The point of establishing a minimum adequacy standard is not to dictate that every person must live in a particular way, but to make clear that every person should have the opportunity to access minimally adequacy housing (and reject it if they wish to).

4.5 Putting the criteria together

Figure 8 illustrates how the severely housing deprived population should be identified, conceptually. Severely inadequate housing exists in the intersections of the ‘Habitability (structural features)’, ‘Privacy and control’, and ‘Security of tenure’ dimensions – that is, in the areas that represent housing lacking in two or more of these three dimensions. It is logical that severely inadequate housing should be lacking in multiple core adequacy dimensions. Among those living in severely inadequate housing, the severely housing deprived population is limited to those who are living in such housing due to a lack of access to minimally adequate housing.

Defining severely inadequate housing as housing that lacks multiple basic dimensions of adequate housing is consistent with the approach taken to define other similar concepts, such as the New Zealand government’s ‘material hardship’ index (Perry, 2009), Eurostat’s (2011) ‘severely materially deprived persons’ index, and the Multidimensional Poverty Index (Alkire & Santos, 2010) used by the United Nations Development Programme. Eurostat’s indicator, for example, frames severe material deprivation as: “enforced lack of at least four out of nine material deprivation items in the ‘economic strain and durables’ dimension” (Eurostat, 2011, p. 1). New Zealand’s ‘material
hardship’ indicator is similar. Compared with these indexes, the criteria in the proposed definition of severe housing deprivation do seem to reflect an ‘absolutist core’ of housing needs. The European and New Zealand definitions of ‘severe material deprivation’ and ‘material hardship’, respectively, include criteria such as not being able to afford an annual holiday away from home, not being able to afford a car, and not being able to afford frequent meals with meat (Eurostat, 2011; Perry, 2009). The Multidimensional Poverty Index, designed for developing countries, includes all of the criteria in the ‘Habitability (structural features)’ dimension, with the exception of roof and walls, which are probably assumed.

**Figure 8 Conceptual model of severe housing deprivation**

![Conceptual model of severe housing deprivation](image)

Source: Adapted from Edgar (2009, p. 16).

### 4.6 Conclusion

The conceptual definition of severe housing deprivation proposed in this chapter rests on four main arguments. Firstly, severe housing deprivation (or homelessness) means a lack of access to minimally adequate housing, which is the dominant broad conceptual definition of homelessness in the literature. Secondly, homelessness should be more explicitly framed as a form of poverty or deprivation. As such, severe housing deprivation may be a better term for the phenomenon, rather than ‘homelessness’ or ‘houselessness’. Thirdly, there are three core dimensions of adequate housing...
– habitability (structural features), privacy and control, and security of tenure. A living situation that lacks basic features in two or more of these three core dimensions should be regarded as severely inadequate – people forced to live in such settings are severely housing deprived. Finally, this conceptual definition should be globally applicable because it is grounded in human rights principles and is consistent with established concepts from the poverty and deprivation field. The next chapter develops the definition into a classification of severe housing deprivation.
CHAPTER FIVE
A CLASSIFICATION OF SEVERE HOUSING DEPRIVATION

[T]axonomy is associated with both the construction and the stabilization of social order; with the production of a common language allowing individual acts to be coordinated; and last, with a specific and transmissible knowledge employing this language in descriptive and explanatory systems (especially statistics) capable of orienting and triggering action.

Alain Desrosières, 1998, p. 248

5.1 Introduction

Once a population has been defined, it can be classified into subgroups. A classification is the meaningful and systematic organisation of a population into subgroups according to a selected characteristic/s (Hoffmann & Chamie, 1999). This chapter presents a classification that organises the severely housing deprived population, defined in Chapter Four, into meaningful categories. As discussed in Chapter Three, the classification should be demonstrably systematic and exhaustive, and the categories should be well described and mutually exclusive (Hoffmann & Chamie, 1999). Based on the view that the proposed definition of severe housing deprivation is globally applicable, a classification developed through systematic and exhaustive application of its criteria should be universally applicable too.

Classifications of homelessness typically divide the population by housing type (see Chapter Three). The classification developed in this chapter follows this approach. This chapter is organised into two sections. In the first, the proposed definition of severe housing deprivation is applied systematically and exhaustively to the most recent United Nations classification of living quarters. The second section presents the product of this process: a classification of severe housing deprivation comprising mutually exclusive and globally applicable categories.

5.2 Applying the definition

As discovered in the literature review, no existing classification of severe housing deprivation has been developed through demonstrable systematic and exhaustive application of a definition to all living situations. To demonstrate such a process here, the definition of severe housing deprivation from Chapter Four is applied to arguably the most comprehensive, globally applicable classification of living situations available – that published in Principles and Recommendations for Population and Housing Censuses (UNDESA, 2017). Given the intention of national population and housing
Censuses is to collect data about all persons in a country at a specified time, the United Nations’ classification can be assumed to be exhaustive.

Figure 9 shows the UNDESA (2017) classification of living quarters, with some modifications. This classification does not list every type of housing in every country, but demonstrates the criteria that should be applied to every type of housing to produce an internationally consistent classification. Places of habitation can be divided into two main groups – living quarters, and no living quarters. The latter category refers to people living rough with no shelter at all. Living quarters, in turn, are divided into two major groups: housing units, and collective living quarters. The key difference between these is that housing units are “intended for habitation by a single household” (UNDESA, 2017, p. 249), and collective living quarters are intended for “large groups of individuals or several households” (UNDESA, 2017, p. 254). This distinction is erroneous: in fact, the major division between living quarters is between those managed by the resident/s (‘private’), and those managed by an external party (‘non-private’). Some institutions, a subset of ‘collective living quarters’ in the UNDESA classification, do not involve collective living, such as certain types of temporary accommodation targeted at homeless families (sometimes called ‘transitional housing’). The key distinction between private and non-private dwellings is the residents’ levels of privacy and control.

Housing units and ‘other’ living quarters are private housing, managed by the resident/s on a day-to-day basis. A housing unit is a “separate and independent place of abode intended for habitation by a single household, or one not intended for habitation but occupied as living quarters by a household at the time of the census” (UNDESA, 2008, p. 192). ‘Other’ living quarters is a residual category that falls under collective living quarters in Figure 9. UNDESA explain that this category should contain multi-household dwellings that are constructed or converted for this purpose, “such as the Malaysian long house (sarawak) and the kibbutz (Israel)” (2008, p. 197, original emphases). A household, a concept that features in both the ‘housing unit’ and ‘other living quarters’ definitions, is a person or group of people who together make arrangements for “providing themselves with food and other essentials for living” (UNDESA, 2008, p. 100). This is also known as the ‘housekeeping concept’ of a household.

Non-private living quarters are dwellings managed by external parties. They include institutions and other non-private accommodation (the latter is often commercial). Institutions are dwellings intended to accommodate people “bound by either a common public objective or a common personal interest” (UNDESA, 2017, p. 254).
Tables 24 and 25 show the definition of severe housing deprivation applied to private housing and non-private housing, respectively. Table 24 also includes people with no living quarters. Recall that housing qualifies as severely inadequate if it lacks basic features in two or more of the three core dimensions of adequate housing. Each category shown in the tables will be discussed in turn. The tables and discussion focus on the first criterion of severe housing deprivation (living in severely inadequate housing) – explaining which living situations qualify as severely inadequate, and which do not.

**Note:** The first two boxes – ‘Place of habitation’ and ‘No living quarters’ have been added.

**Source:** Adapted from UNDESA (2017, p.250).
Table 24 Applying the definition of severe housing deprivation to people without shelter or in private living quarters

<table>
<thead>
<tr>
<th>Living situation(1)</th>
<th>Three core dimensions of adequate housing(2)</th>
<th>Are people occupying this living situation severely housing deprived?(3)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Habitability (structural features)</td>
<td>Privacy and control</td>
</tr>
<tr>
<td></td>
<td>Enclosure</td>
<td>Basic amenities</td>
</tr>
<tr>
<td>No living quarters (no shelter)</td>
<td>No</td>
<td>-</td>
</tr>
<tr>
<td>Conventional dwellings</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Semi-permanent housing units</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Mobile housing units</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>‘Other’ living quarters – multi-household dwellings</td>
<td>No</td>
<td>-</td>
</tr>
<tr>
<td>Informal housing units</td>
<td>Improvised housing units</td>
<td>No(4)</td>
</tr>
<tr>
<td>Housing units in permanent buildings not intended for habitation</td>
<td>No(4)</td>
<td>-</td>
</tr>
<tr>
<td>Other informal housing units (e.g. caves)</td>
<td>No(4)</td>
<td>-</td>
</tr>
</tbody>
</table>

Notes: (1) ‘Living situation’ refers to an individual’s living situation. This depends on their status in their household (whether they are a permanent resident or not), as well as the features of the housing that affect everyone living in it (such as the presence or absence of basic amenities).

(2) The criteria were applied as they appear across the page, left to right, from enclosure (under habitability) to security of tenure. To keep the table concise, if a living situation fails one of the criteria of a dimension, the other criteria in that dimension were not applied, as represented by ‘–’.

(3) Provided they are in this particular living situation due to a lack of access to minimally adequate housing.

(4) Informal housing units lack one or more basic amenity by definition.

Key: ✓ Satisfies criterion  X Fails criterion  ✓/X May satisfy or fail criterion, depending on the type of structure / local law
- Criterion not applicable because the housing type has already failed a criterion in the same dimension
<table>
<thead>
<tr>
<th>Living situation(^{(1)})</th>
<th>Housing type</th>
<th>Basic amenities</th>
<th>Enclosure</th>
<th>Basic amenities</th>
<th>Enclosure</th>
<th>Basic amenities</th>
<th>Dwelling managed by residents</th>
<th>Permanent resident</th>
<th>Are people occupying this living situation severely housing deprived?(^{(2)})</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Institutions</td>
<td>Yes</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>X</td>
<td>-</td>
<td>✓/✓</td>
</tr>
<tr>
<td></td>
<td>All institutions targeted at people who LAMAH (e.g. refugee camps, night shelters) &amp; All institutions not targeted at people who LAMAH (e.g. military camps, workers’ camps, hospitals)</td>
<td>No</td>
<td>✓</td>
<td>X</td>
<td>✓</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>✓/✓</td>
</tr>
<tr>
<td></td>
<td>Non-institutions</td>
<td>Yes</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>X</td>
<td>-</td>
<td>✓/✓</td>
</tr>
<tr>
<td></td>
<td>Commercial non-private dwellings (e.g. hotels, rooming houses, other lodging houses, dwellings in camping grounds) &amp; Non-commercial dwellings (e.g. marae in New Zealand)</td>
<td>No</td>
<td>✓</td>
<td>X</td>
<td>✓</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>✓/✓</td>
</tr>
</tbody>
</table>

**Notes:**

(1) Living situation refers to individuals. A person’s living situation depends on their status in the housing (whether they are a permanent resident or not), as well as the features of the housing that affect everyone living in it.

(2) The criteria are applied as they appear across the page, left to right, from Enclosure (under Habitability) to Security of tenure. To keep the table concise, if a living situation fails one of the criteria of a dimension, the other criteria in that dimension are not applied, as represented by ‘-’.

(3) Provided they are in this particular living situation due to a lack of access to minimally adequate housing.

**Key:**

✓ Satisfies criterion  
✗ Fails criterion  
✓/✗ May satisfy or fail criterion, depending on the type of structure / local law  
- Criterion not applicable because the housing type has already failed a criterion in the same dimension
Without shelter and private living quarters

No living quarters

People living without any shelter at all clearly lack minimally adequate housing. Their place of habitation is deficient in all three core dimensions of housing adequacy, failing at the most basic level (Table 24). People living in such situations lack enclosure, which is a criterion of the habitability and private and control dimensions. They also lack security of tenure.

Conventional, semi-permanent, mobile, and ‘other’ living quarter dwellings

The second category in Table 24 includes conventional, semi-permanent, mobile, and ‘other’ dwellings. These dwelling types are defined as follows. A conventional dwelling is a room or suite of rooms, located in a permanent building, with separate access to a street or common space, intended to be occupied by only one household (UNDESA, 2017, p. 249). A ‘permanent building’ is one that is not intended to be moved, and is expected to maintain its stability – with a threshold of 15 years or more suggested as the definition of ‘stability’ (UNDESA, 2017, p. 251). In more economically developed countries, most people would be expected to fall into this category – living as permanent residents in conventional housing. A semi-permanent housing unit has the main features of conventional dwellings, except that it is “not expected to maintain its durability for as long a period of time” (UNDESA, 2017, p. 251). A mobile housing unit is housing that “has been produced to be transported...or is a moving unit...occupied as living quarters at the time of the census” (UNDESA, 2017, p. 252). The ‘other’ category includes dwellings designed for multiple households that are managed by the resident/s on a day-to-day basis.

Within these dwelling types, certain living situations qualify as severely inadequate housing. People living as temporary residents in such dwellings qualify as living in severely inadequate housing because they lack privacy, control, and security of tenure. By contrast, people living as permanent residents in dwellings that are ‘habitable’ do not qualify as severely housing deprived because their housing could only possibly be lacking in one dimension – security of tenure. Dwellings that lack basic amenities qualify as severely inadequate housing, whether the residents have minimally adequate security of tenure or not. This means that people who own or rent a dwelling that is lacking one or more basic amenity are living in housing that qualifies as severely inadequate.

Informal housing units

The third category in Table 24, informal housing, lacks basic amenities by definition. Some types of informal housing may also fail the enclosure criterion, such as caves, which are classified as informal
housing units, and generally lack enclosing walls and flooring. Informal housing lacks basic structural features, but the residents are also unlikely to enjoy termination of tenancy rights equal to the minimum provided to people living in private rental housing. As such they are likely to be lacking all three core dimensions of housing adequacy.

**Non-private dwellings**

**Institutions**

The first category of Table 25, institutions, relates to dwellings that accommodate people bound by a common objective or interest, and which are not managed by the residents. While the term ‘institution’ is generally understood as applying to public buildings such as state residential care facilities, many other dwellings types are technically institutions, including staff quarters, military camps, and refugee camps. Like all other types of housing, an institution that lacks one or more basic amenity qualifies as severely inadequate. If an institution possesses all basic amenities, whether it qualifies as severely inadequate or not depends on residents’ security of tenure.

In Table 25, institutions are split into those targeted at people who lack access to minimally adequate housing (LAMAH), and those that are not. Institutions targeted at people who LAMAH can be classified into three categories: night shelter, women’s refuge, and other accommodation targeted at people who LAMAH. Following Edgar et al.’s (2007) recommendations, these categories are distinguished by access factors: when residents can use the dwelling; and which groups of people can access the dwelling (Table 26).

**Table 26 Distinguishing types of accommodation targeted at people who LAMAH**

<table>
<thead>
<tr>
<th>Type of accommodation targeted at people who LAMAH</th>
<th>Distinguishing feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Night shelter</td>
<td>Residents lack 24-hour access to the dwelling</td>
</tr>
<tr>
<td>Women's refuge</td>
<td>i) Residents have 24-hour access to the dwelling; and&lt;br&gt;ii) Targeted specifically to victims of domestic violence, sexual abuse, or both.(^{(1)})</td>
</tr>
<tr>
<td>Other accommodation targeted at people who LAMAH</td>
<td>i) Residents have 24-hour access to the dwelling; and&lt;br&gt;ii) Not a women's refuge.</td>
</tr>
</tbody>
</table>

**Note:** There are also accommodation services targeted at perpetrators of domestic violence, which should be included in this category. However, the vast majority of refuges are for victims.
Not all types of accommodation listed in Table 26 exist in all countries, and the ‘other’ category may need to be further differentiated in some contexts. Creating separate categories for night shelters and women’s refuges is influenced by a number of classifications, particularly ETHOS (Edgar et al., 2004). Camps targeted at people who LAMAH (for example, refugee camps) are likely to be more prevalent in developing countries; in wealthier countries, institutions targeted to the same group are more likely to be stand-alone dwellings rather than camps. Some accommodation targeted at people who LAMAH is aimed at a specific subgroup, such as only women threatened with or experiencing violence who cannot safely access their home, only single men, or only families with children. As long as the primary criterion for accessing the accommodation is a LAMAH, such housing should be considered an institution targeted at people who LAMAH. If an institution is designed to provide long-term accommodation for people who LAMAH (such as long-term supported housing), and provides minimally adequate security of tenure, it does not qualify as severely inadequate housing. Assuming it has all basic amenities, residents will only be lacking in one dimension: the dwelling not being managed by the residents. Such external management may be necessary for the residents to achieve housing stability.

The fact that people in long-term supported housing with security of tenure do not qualify as severely housing deprived supports the face validity of the definition. It would be illogical if people living in accommodation specifically designed as a long-term exit from severe housing deprivation continued to be classified as part of the severely housing deprived population.

**Non-institutions**

The second category of non-private dwellings, non-institutions, includes commercial and non-commercial dwellings. This is where international variation in security of tenure provision is most likely to be reflected in variation in the living situations that qualify as severe housing deprivation in each country. If a dwelling in this category possesses all basic amenities, it will only certainly be lacking in the privacy and control dimension (not being managed by the resident/s). Whether residents of the dwelling are provided security of tenure equal to the minimum provided to residents of private rental housing depends on tenancy law in each jurisdiction.

In New Zealand, for example, residents of boarding houses receive lesser protection from forced eviction than people who rent conventional dwellings. People living in boarding houses can be immediately evicted without the landlord applying to the Tenancy Tribunal, whereas to evict a tenant of a conventional dwelling on exactly the same grounds, the landlord must receive approval from the Tribunal. All notice periods for eviction are significantly shorter for boarding house tenants compared with tenants of conventional dwellings: 48 hours versus 21 days for eviction due to rent
arrears; and 21 days versus 90 days for eviction without stated reason (Residential Tenancies Amendment Act, 2010, s 66U). As argued in Chapter Four, from a human rights perspective, if a dwelling is offered as long-term accommodation, the same basic level of protection from eviction should be expected, regardless of the form of the dwelling. Taking this view, boarding houses in New Zealand qualify as severely inadequate housing, because the legal security of tenure provided to boarding house residents is inadequate (and discriminatory) compared with the benchmark of periodic tenancies in conventional rental dwellings.

Not all non-private, non-institutional residential dwellings are commercial. Using New Zealand as an example again, marae (Māori meeting houses) are classified under this category. These too qualify as severely inadequate housing because residents lack privacy, control, and security of tenure.

**Summary**

There are three important observations to be drawn from this section. Firstly, severely housing deprived people may be living in a wide range of living situations. The only living situation that definitely does not relate to severe housing deprivation is living as a permanent resident in a habitable private dwelling. In more economically developed countries, this situation likely accounts for most of the population. Secondly, if severe housing deprivation is classified by housing type (living situation), some of the specific housing types included should be relatively consistent internationally, and others will vary depending on local tenancy law. Thirdly, the presence of basic amenities is a key criterion – if any type of housing lacks basic amenities it automatically qualifies as severely inadequate.

**5.3 A globally applicable classification of severe housing deprivation**

Drawing from Tables 24 and 25, Table 27 sets out a globally applicable classification of severe housing deprivation. Table 28 then explains how each category in Table 27 qualifies as a category of severe housing deprivation. Tables 29 and 30 define the housing types in each severe housing deprivation category, demonstrating their mutual exclusivity. Looking at these four tables, it is important to note that severe housing deprivation covers a range of living situations, representing varying types and depths of deprivation. Living situations are identified as severely inadequate on theoretical grounds, but individual experiences of deprivation will vary within the classification and within categories. The concept of severe housing deprivation does not cover all types of housing deprivation, and there will be many people outside this classification who are experiencing serious hardship in regard to their housing.
Table 27 Classification of severe housing deprivation by broad and specific living situation

<table>
<thead>
<tr>
<th>Broad living situation</th>
<th>Specific living situation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Living without habitable accommodation due to a LAMAH(^{(1)})</td>
<td>a. Living rough (not in an enclosed structure)</td>
</tr>
<tr>
<td></td>
<td>b. Living in housing that is enclosed but lacks one or more basic amenity (in which residents lack minimally adequate security of tenure)</td>
</tr>
<tr>
<td></td>
<td>c. Living in housing that lacks one or more basic amenity (with minimally adequate security of tenure)</td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Living in a non-private dwelling due to a LAMAH</td>
<td>d. Living in a night shelter</td>
</tr>
<tr>
<td></td>
<td>e. Living in a women’s refuge</td>
</tr>
<tr>
<td></td>
<td>f. Living in other accommodation targeted at people who LAMAH</td>
</tr>
<tr>
<td>Not targeted at people who LAMAH</td>
<td>g. Living in an institution that is not targeted at people who LAMAH</td>
</tr>
<tr>
<td></td>
<td>h. Living in a camping ground or motor camp</td>
</tr>
<tr>
<td></td>
<td>i. Living in other commercial accommodation</td>
</tr>
<tr>
<td></td>
<td>j. Living in other non-private accommodation</td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Living as a temporary resident(^{(2)}) in a private dwelling due to a LAMAH</td>
<td>k. Living as a temporary resident in a private dwelling that has all basic amenities</td>
</tr>
</tbody>
</table>

Notes: (1) People in all categories except 1c lack minimally adequate security of tenure. As per Table 23, the minimum adequacy standard is legal termination of tenancy rights equal to a periodic tenancy in private housing.

(2) At the conceptual level, being a temporary resident is not defined by a certain length of stay. Rather, temporary residency is based on expectations that the living situation will not be long term, and that the length of stay is ultimately controlled by those who live in the dwelling permanently.

Household crowding is an important example of housing deprivation that does not qualify as severe housing deprivation. Household crowding means that the volume of space in a dwelling is not sufficient for the size and composition of the residing household. Residents of crowded dwellings will be lacking privacy, as compared with people living in dwellings with adequate space. However, residents of crowded dwellings do not necessarily fail the habitability or security of tenure criteria, and as such, do not automatically qualify as severely housing deprived.
### Table 28 How each housing type qualifies as severely inadequate housing

<table>
<thead>
<tr>
<th>Specific living situation (1)</th>
<th>Three core dimensions of housing adequacy and criteria for minimal adequacy</th>
<th>Security of tenure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Habitability (structural features)</td>
<td>Privacy and control</td>
</tr>
<tr>
<td></td>
<td>Enclosure</td>
<td>Basic amenities</td>
</tr>
<tr>
<td>a. Living rough (not in an enclosed structure)</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>b. Living in housing that is enclosed but lacks one or more basic amenity (in which residents lack minimally adequate security of tenure)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>c. Living in housing that lacks one or more basic amenity (with minimally adequate security of tenure)</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>d. Living in a night shelter</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>e. Living in a women’s refuge</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>f. Living in other accommodation targeted at people who LAMAH</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>g. Living in an institution that is not targeted at people who LAMAH</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>h. Living in a camping ground or motor camp</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>i. Living in other commercial accommodation</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>j. Living in other non-private accommodation</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>k. Living as a temporary resident in a private dwelling that has all basic amenities</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

**Note:** (1) Not everyone living in these housing types qualifies as severely housing deprived – only those doing so due to a LAMAH.

**Key:**
- ✓ Satisfies criterion
- ✗ Fails criterion
- ✓/✗ May satisfy or fail criterion, depending on the type of structure
- - Criterion not applicable because the housing type has already failed a criterion in the same dimension
It is also important to note that the classification is not intended as a scale of deprivation. While people living without habitable accommodation due to a LAMAH are, theoretically, the most severely deprived because their living situations are lacking in all three core dimensions of housing adequacy, the order in which the other living situations are listed should not be interpreted as an order of deprivation severity.

One combination is not shown in Table 28 – living in a situation that is inadequate in both the habitability and security of tenure dimensions, but adequate in privacy and control. It is not shown because it is theoretically impossible: if a component of the habitability dimension is lacking (enclosure or a basic amenity) the living situation will automatically fail to satisfy two dimensions (habitability and privacy and control). If, however, in a particular national context, certain other structural characteristic/s were considered essential for housing to be minimally adequate but did not influence the privacy and control of the residents (such as insulation), then the missing combination would be theoretically possible, and should be added to the classification. The classification shown here, however, is based on the minimum set of requirements that should apply in every country, as per Chapter Four.

Tables 29 and 30 on the following pages define the housing types in each severe housing deprivation category.

5.4 Conclusion

This chapter has developed a globally applicable classification of severe housing deprivation through systematic and exhaustive application of the definition proposed in Chapter Four. The categories have also been shown to be mutually exclusive. The next chapter assesses the validity of the proposed conceptual definition in the New Zealand context. It begins an exploration of whether the proposed global conceptual definition and classification can be applied at a national level to produce meaningful statistics.
Table 29 Definitions of the housing types in each severe housing deprivation category (categories a – f)

<table>
<thead>
<tr>
<th>Housing type</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Living rough</td>
<td>i) Living without an enclosed structure</td>
</tr>
</tbody>
</table>
| b. Housing that is enclosed but lacks one or more basic amenity (and in which residents lack minimally adequate security of tenure) | i) Living quarters enclosed but lacking one or more of the following amenities – drinkable water, toilet, bath or shower, cooking facilities, energy source; and  
   ii) Managed by the residents (that is, private); and  
   iii) Legal termination of tenancy rights are inferior to the minimum provided to people living in private housing. |
| c. Housing that lacks one or more basic amenity (with minimally adequate security of tenure) | i) Dwelling is managed by the residents (that is, private); and  
   ii) The dwelling is lacking at one or more of the following amenities – drinkable water, toilet, bath or shower, cooking facilities, energy source; and  
   iii) Legal termination of tenancy rights are equal to the minimum provided to people living in private housing. |
| d. Night shelter                                  | i) Targeted at people who LAMAH; and  
   ii) Dwelling not managed by the residents (that is, non-private); and  
   iii) Legal termination of tenancy rights are inferior to the minimum provided to people living in private housing; and  
   iv) Provides services to residents that are over and above accommodation; and  
   v) Residents lack 24-hour access to the dwelling. |
| e. Women’s refuge                                 | i) Targeted at people who LAMAH – specifically to victims of domestic violence, sexual abuse, or both; and  
   ii) Dwelling not managed by the residents (that is, non-private); and  
   iii) Legal termination of tenancy rights are inferior to the minimum provided to people living in private housing; and  
   iv) Provides services to residents that are over and above accommodation; and  
   v) Residents have 24-hour access to the dwelling. |
| f. Other accommodation targeted at people who LAMAH | i) Targeted at people who LAMAH; and  
   ii) Dwelling not managed by the residents (that is, non-private); and  
   iii) Legal termination of tenancy rights are inferior to the minimum provided to people living in private housing; and  
   iv) Provides services to residents that are over and above accommodation; and  
   v) Residents have 24-hour access to the dwelling; and  
   vi) Is not a women’s refuge. |
Table 30 Definitions of the housing types in each severe housing deprivation category (categories g – k)

<table>
<thead>
<tr>
<th>Housing type</th>
<th>Definition</th>
</tr>
</thead>
</table>
| g. Institution that is not targeted at people who LAMAH | i) Not targeted at people who LAMAH; and  
  ii) Dwelling not managed by the residents (that is, non-private); and  
  iii) Legal termination of tenancy rights are inferior to the minimum provided to people living in private housing; and  
  iv) Provides services to residents that are over and above accommodation. |
| h. Camping ground / motor camp                       | i) Dwelling not managed by the residents (that is, non-private); and  
  ii) Legal termination of tenancy rights are inferior to the minimum provided to people living in private housing; and  
  iii) Dwelling is not included in any of the ‘emergency accommodation’ categories (d, e, f); and  
  iv) Dwelling is located in a camping ground or motor camp. |
| i. Other commercial accommodation                    | i) Dwelling not managed by the residents (that is, non-private); and  
  ii) Legal termination of tenancy rights are inferior to the minimum provided to people living in private housing; and  
  iii) Dwelling is not included in any of the ‘emergency accommodation’ categories (d, e, f); and  
  iv) Dwelling is not in a camping ground or motor camp (category h); and  
  v) Provided on a for-profit basis. |
| j. Other non-private accommodation                    | i) Dwelling not managed by the residents (that is, non-private); and  
  ii) Legal termination of tenancy rights are inferior to the minimum provided to people living in private housing; and  
  iii) Dwelling is not included in any of the ‘emergency accommodation’ categories (d, e, f); and  
  iv) Dwelling is not in a camping ground or motor camp (category h); and  
  v) Dwelling is not provided on a for-profit basis (category i). |
| k. Private dwelling that has all basic amenities       | i) Dwelling has all basic amenities — drinkable water, toilet, bath or shower, cooking facilities, energy source; and  
  ii) Is managed by the residents (that is, private). |
CHAPTER SIX
APPLYING THE CONCEPT OF SEVERE HOUSING DEPRIVATION TO NEW ZEALAND

6.1 Introduction
In order to measure a phenomenon in a particular national context, a conceptual model must be translated in a way that takes local conditions into account. This chapter seeks to apply and validate the proposed definition and classification of severe housing deprivation for the New Zealand context. New Zealand legislation, research, and a statistical standard are examined, as well as information about the living conditions and rights afforded to most New Zealanders.

6.2 Validating the appropriateness of minimally adequate housing criteria
The first step in applying the definition of severe housing deprivation to New Zealand is to assess the validity of the proposed criteria for minimally adequate housing in the New Zealand context. In particular, this involves considering whether minimum adequacy standards are higher in New Zealand, meaning extra criteria should be added. To make this assessment, this section compares the basic requirements of the core dimensions of adequate housing (Table 23) with New Zealand legislation (which ideally reflects societal expectations), a statistical standard, and research.

Habitability (structural features)
The structural features regarded as minimum requirements for habitable housing in New Zealand are enclosure and basic amenities, which is in line with the globally applicable minimum standard of habitability set out in Table 23. This New Zealand standard is evidenced by the inclusion of enclosure and basic amenities in the ‘minimum standard of fitness for houses’ in the Housing Improvement Regulations (1947), which are the only quality standards that apply to all New Zealand housing, under the Health Act (1956). The Statistical Standard for Occupied Dwelling Type (Statistics New Zealand, 2009c), which is the standard for classifying types of housing in New Zealand, also identifies housing as ‘not fit for human habitation’ if the housing is either: not enclosed; or lacking “some or all of the usual household amenities such as electric lighting, piped water, bathroom, toilet, and kitchen/cooking facilities” (p.3). The Housing Improvement Regulations (1947) also reflect the amenities classed as ‘basic’ or ‘essential’ in the proposed definition of severe housing deprivation (Table 31).
Table 31 Basic amenities included in the definition of severe housing deprivation and corresponding clauses in the Housing Improvement Regulations 1947

<table>
<thead>
<tr>
<th>Basic amenities included as criteria in the definition of severe housing deprivation</th>
<th>Housing Improvement Regulations clause</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Drinking water" /> <img src="image2" alt="Cooking facilities" /></td>
<td>“A kitchen or kitchenette” (s 5) with a “sink with a tap connected to an adequate supply of potable water, as well as adequate means of preparing food and of cooking food, both by boiling and by baking” (s 7)</td>
</tr>
<tr>
<td><img src="image3" alt="Bath or shower" /></td>
<td>“A bathroom” (s 5) containing a “bath or shower with an adequate supply of wholesome water. Adequate means of heating water shall be provided” (s 9)</td>
</tr>
<tr>
<td><img src="image4" alt="Toilet" /></td>
<td>“A water-closet...for the exclusive use of the occupants of the house” (s 5)</td>
</tr>
<tr>
<td><img src="image5" alt="Energy source" /></td>
<td>Energy source(s) for the purposes of cooking and heating water...as well as for heating (s. 6) and lighting “sufficient to illuminate adequately every habitable room, kitchen, kitchenette, bathroom, water-closet, passage, and stairway” (s 13)</td>
</tr>
</tbody>
</table>

There are a number of other requirements in the Housing Improvement Regulations (1947), such as floor-space, height of rooms, ventilation, and number of fireplaces or chimneys, but Bierre (2007) showed that the effective minimum quality standard is much more rudimentary than that prescribed in legislation. Enforcement agencies viewed the minimum housing quality standard as ‘very basic’:

[Y]ou know, things like running water, having a toilet that works, and a hand basin, basic sanitary facilities, basic structural soundness...we are talking about just the absolute basic minimum here, you know if you want to start talking about energy efficiency that is something over and above the basic sort of thing…(Interview 9 in Bierre, 2007, pp. 179-180).

The effective minimum standard described here reflects the criteria of enclosure and basic amenities. It should be noted that the standards for newly built housing in New Zealand, set out in the Building Act (2004) and the associated Building Code (Building Regulations 1992, Schedule 1), would be inappropriate reference points for determining the minimum physical adequacy standard that applies to all housing. Contemporary building standards (such as the requirement for new houses to be insulated) do not reflect the minimum conditions that most people are able to expect for their housing. Ideally, existing dwellings should be subject to mandatory upgrades to bring them up to, or at least closer to, modern standards, but this is not currently the case in New Zealand (Rogers, 2013). The
Building Act (2004) does state that dangerous or insanitary buildings are an offence, which applies to existing dwellings as well as new ones (s 121). Insanitary buildings are either: offensive or injurious to health; not weather-tight; do not have a supply of potable water; or do not have sanitary facilities (Building Act, 2004, s 123). Notwithstanding the vague ‘offensive or injurious to health’ clause, these requirements further support those identified in the proposed definition of severe housing deprivation.

The finding that enclosure and basic amenities qualify housing as minimally habitable in New Zealand is also supported by the Camping-Grounds Regulations (1985). These regulations stipulate that for a dwelling in a camping ground to be considered suitable for long-term habitation, it must be: “completely self-contained in respect of domestic equipment and facilities” (s 2). In addition, the government’s response to homelessness caused by a major earthquake in Christchurch in 2011 confirmed that having amenities within one’s dwelling is considered part of the minimum standard of habitability, even in regard to temporary housing. Phil Heatley, then-Minister of Housing specified:

Temporary housing must be highly portable and easily erected, with self-contained sewerage and waste systems. Independent units with dedicated cooking and laundry facilities are preferable ("Christchurch Earthquake: Caravans for homeless people," 2011).

**Privacy and control**

The four privacy and control criteria in the definition of severe housing deprivation are all relevant to New Zealand. The importance of the first two privacy and control criteria – enclosure and basic amenities – was discussed in the previous section. In addition, research focusing on residents of improvised (‘informal’) dwellings in the Coromandel and Auckland regions found that a lack of basic amenities was perceived as one of the greatest problems of living in this type of housing, even among residents who expressed high levels of satisfaction with their living situation (Carroll, 2010).

The third privacy and control criterion – the dwelling being managed by the resident/s on a day-to-day basis, rather than by an external party – is a societal expectation in New Zealand. This claim is supported by the observation that the vast majority of New Zealanders live in permanent private dwellings that are managed by the resident/s on a day-to-day basis – 98 percent of the 2013 Census usually resident population.

The fourth and final privacy and control criterion – being a permanent resident – is particularly relevant in New Zealand, where sharing accommodation or ‘doubling up’ is a common response to
housing need, particularly among Pacific and Māori people (Milne & Kearns, 1999; Pene et al., 2009; Widmer, 2006). Extending hospitality is central to the customary obligations of these cultures. The Māori word ‘mana-ā-kiūtanga’ embodies the concept of unconditional offering of hospitality, love, and support for others; the responsibility of the host is to ensure the mana (which loosely translates to ‘prestige’) of the guest is upheld (Mead, 2003). Although sharing accommodation in response to housing need has strong cultural associations and can have positive aspects, the underlying housing need should not be ignored. Being a guest in someone else’s house is not an adequate or desirable long-term situation in any culture. The basic expectation that a person should have access to accommodation they have some control over, and where they are able to put down roots, applies to all New Zealanders.

**Security of tenure**

The security of tenure criterion relates to legislated termination of tenancy rights being at least equal to the minimum provided to people living in private housing. In New Zealand, the minimum provided to people living in private housing is a periodic tenancy in a rented dwelling. As mentioned in the previous section, 98 percent of New Zealanders live in permanent private dwellings, the vast majority of whom have security of tenure that meets or exceeds the provisions of a periodic tenancy.

Boarding houses are an example of a housing type in New Zealand in which residents’ termination of tenancy rights are far inferior to people living under periodic tenancy agreements in permanent private dwellings. Camping grounds are another example – residents of camping grounds and motor camps have no security of tenure at all.

**6.3 Conclusion**

The criteria proposed as requirements for minimally adequate housing, and hence as criteria for severe housing deprivation, are consistent with New Zealand norms. To apply the definition to New Zealand, no extra criteria need to be added under any of the three core dimensions of housing adequacy. The next chapter describes how the definition and classification were operationalised to measure severe housing deprivation in New Zealand.
CHAPTER SEVEN
MEASURING SEVERE HOUSING DEPRIVATION IN NEW
ZEALAND

[The job of a “measure” or an “index” is to distill what is particularly relevant for our purpose, and then to focus specifically on that... The central issues in devising an index relate to systematic assessment of importance. Measurement has to be integrated with evaluation. This is not an easy task.]

Amartya Sen, 1989 in Alkire & Foster, 2011, p. 290

7.1 Introduction

Building on the conceptual definition and classification developed over the previous three chapters, this chapter explains how these were applied to measure severe housing deprivation in New Zealand in 2001 and 2006. Census\textsuperscript{6} data were analysed, as well as administrative data from providers of accommodation targeted at people who lack access to minimally adequate housing (LAMAH) (hereafter referred to as ‘emergency accommodation’ for brevity, acknowledging that this is a less-accurate term). The first part of the chapter explains why these data sources were selected. The remainder of the chapter explains the analysis: first, the analysis of census data; and second, the methods used to obtain and analyse client data from emergency accommodation providers.

7.2 Data sources

In New Zealand, as in many countries, the national census is the only source of data on all people\textsuperscript{7} living in all places of habitation. This includes people living in non-private dwellings and those living without habitable accommodation. As such, the census is the key dataset for measuring severe housing deprivation. Most severe housing deprivation categories can be identified in the \textit{Statistical Standard for Occupied Dwelling Type} (Statistics New Zealand, 2009c). The census classifies the housing that people are living in on census night according to this statistical standard, so it was possible to measure most categories of severe housing deprivation using census data. However, it was not possible to identify the following five categories:

1. People living in night shelters;
2. People living in women’s refuges;
3. People living in other accommodation targeted at people who LAMAH;

\textsuperscript{6} Throughout this chapter, the New Zealand Census of Population and Dwellings is abbreviated to ‘census’.

\textsuperscript{7} Approximately 98 percent of New Zealanders (Statistics New Zealand, 2014).
4. People living in institutions not targeted at people who LAMAH;
5. People living in housing lacking one or more basic amenity (with minimally adequate security of tenure).

It was possible to measure the first three categories using administrative data, but the final two could not be measured at all. The reasons these five categories were not identifiable in census data are explained below. The data sources used to measure each category of severe housing deprivation are summarised in Table 32.

**Night shelters**

Night shelters are emergency accommodation targeted at people who LAMAH, where the residents do not have 24-hour access to the accommodation. In other words, residents cannot access the accommodation during the day (see Table 29 for a full definition). The *Statistical Standard for Occupied Dwelling Type* has a category for night shelters, defining them as:

> Establishments that provide low-cost or free emergency accommodation for people who do not have a usual residence. Accommodation is short term and on a night-by-night basis (Statistics New Zealand, 2009c).

This description does not specify the ‘no access during the day’ criterion that distinguishes night shelters from other kinds of emergency accommodation. It is therefore unsurprising that the census ‘night shelter’ category includes a greater number of dwellings than the number identified in a comprehensive survey of emergency accommodation, which is discussed later in the chapter. In 2006, the number of dwellings in the census night shelter category was twice the number identified in the survey; in 2001, the ratio was 4.5:1.

The characteristics of many people in the census ‘night shelter’ category also suggest that many of the dwellings in the category were not night shelters. In 2001 and 2006, night shelters in New Zealand typically only accommodated adult men, but there were relatively high percentages of women and children in the census ‘night shelter’ category in both years. These women and children are much more likely to have been living in other types of emergency accommodation, rather than true night shelters. Indeed, the aforementioned survey showed that women and children are the target group for many emergency accommodation services.

To summarise, the population in the census ‘night shelter’ category seems to reflect a broader population than just those living in actual night shelters. The night shelter population was therefore measured using client data routinely collected by night shelters.
Table 32 Classification of severe housing deprivation, corresponding housing types for which data were available, and data sources

<table>
<thead>
<tr>
<th>Broad living situation</th>
<th>Specific living situation</th>
<th>Corresponding housing types for which data were available</th>
<th>Data source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Living without habitable accommodation due to a LAMAH</td>
<td>a. Living rough (not in an enclosed structure)</td>
<td>Census</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. Living in housing that is enclosed but lacks one or more basic amenity (in which residents lack minimally adequate security of tenure)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>c. Living in housing that lacks one or more basic amenity (with minimally adequate security of tenure)</td>
<td>Not available</td>
</tr>
<tr>
<td>2</td>
<td>Living in a non-private dwelling due to a LAMAH</td>
<td>d. Living in a night shelter</td>
<td>Emergency housing providers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>e. Living in a women’s refuge</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>f. Living in other accommodation targeted at people who LAMAH</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>g. Living in an institution not targeted at people who LAMAH</td>
<td>Not available</td>
</tr>
<tr>
<td></td>
<td></td>
<td>h. Living in a camping ground or motor camp</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>i. Living in other commercial accommodation</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>j. Living in other non-private accommodation</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Living as a temporary resident in a private dwelling due to a LAMAH</td>
<td>k. Living as a temporary resident in a private dwelling that has all basic amenities</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>l. Permanent private dwellings (no data on amenities – assumed to have all basic amenities)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>m. Other accommodation targeted at people who lack access to minimally adequate housing</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

Not targeted at people who LAMAH
Women’s refuges and other accommodation targeted at people who LAMAH

In the *Statistical Standard for Occupied Dwelling Type* (Statistics New Zealand, 2009c), there are no dwelling categories for women’s refuges or other accommodation targeted at people who LAMAH. The census treats women’s refuges as private dwellings for confidentiality reasons. Other accommodation targeted at people who LAMAH probably falls under a number of different dwelling types, such as ‘night shelter’ and ‘welfare institution’. However, these categories also include other types of dwellings. The women’s refuge population and the ‘other accommodation targeted at people who LAMAH’ population were therefore measured using client data collected by these services.

Institutions not targeted at people who LAMAH

Many institutions qualify as severely inadequate housing because their residents have substandard privacy, control, and security of tenure compared with people living in conventional housing. Accordingly, institutions are generally considered inappropriate for long-term housing, unless a person continues to require the service the institution provides.

However, identifying severely housing deprived people in these institutions means specifically identifying the people living there due to a LAMAH. For example, a person in hospital for treatment is not severely housing deprived. A hospital may be severely inadequate housing, but the person is in hospital due to their need for treatment, not due to their LAMAH. However, if they stay if hospital after their treatment has been completed because there is no minimally adequate housing to discharge them to, then they qualify as severely housing deprived. They are severely housing deprived at this stage because they are staying in the hospital due to a LAMAH.

In census data, it is possible to identify institutions not targeted at people who LAMAH (for example, hospitals, nursing homes, prisons, and student accommodation), but it is not possible to identify people living in these institutions due to a LAMAH. For this reason, all residents of institutions were removed from the subject population for analysis (see Section 7.3).

Housing lacking one or more basic amenity

In 2001 and 2006, the census did not systematically collect information on basic amenities. This was introduced in the 2018 Census.
7.3 Applying the definition of severe housing deprivation to census data

In developing the algorithm, the approach was to be conservative and to only use variables that are well established as indicators of deprivation. This approach is intended to defend against possible responses to this measure as being too broad or exaggerating the problem. In keeping with conservatism, no imputation was involved in this study (though Statistic New Zealand do impute some age and sex census data). Individuals with missing data about their deprivation status were allocated to an ‘unknown’ category (‘Housing deprivation status cannot be determined’). For example, for people in permanent private dwellings (‘normal’ houses and apartments), the whole household was allocated to the ‘unknown’ category if the number of bedrooms or composition of the household (ages, sexes, some relationships) was unknown. These missing data mean household crowding cannot be calculated, which is a variable used in this analysis, and a widely-used measure of deprivation. We should expect a significant population whose housing deprivation status cannot be determined, in keeping with unknown populations in measures of household income poverty and household crowding. The compromise of conservatism is not exploring how large the estimates of severe housing deprivation may be if more relaxed assumptions are made, which should be a subject of future research. However, a conservative approach is arguably the most defensible, given the limits of existing knowledge about homeless populations and limited variables available in the census. It means people are only classified as severely housing deprived if we have a reasonable amount of information about them that they themselves have reported. It is also consistent with approaches to measuring income poverty and household crowding in New Zealand.

The algorithm explained in this section was developed in the Statistics New Zealand data laboratory using SAS and Microsoft Excel software.

Subject populations

The subject populations are the 2001 and 2006 census night populations, excluding four groups: absentees\(^8\) (because including them would result in double counting); residents of night shelters (who were counted using administrative data); residents of other institutions, including camps (because people staying in institutions due to a LAMAH cannot be identified in census data); and residents of misclassified student accommodation (because student accommodation is a type of institution not targeted to people who LAMAH).

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\(^8\) An absentee is “a person who is identified on the census dwelling form as usually living in a particular dwelling but who did not complete a census individual form at that dwelling because they were elsewhere in New Zealand or overseas at the time of the census. A person listed as an absentee on a census dwelling form may complete a census individual form elsewhere in New Zealand” (Statistics New Zealand, 2006b, p. 2).
The usually resident population (people who live in New Zealand, excluding overseas visitors) is the typical subject population for research on the characteristics of New Zealanders. In this research, the census night population (all people in New Zealand on census night) was used instead, because one of the steps in the analysis is identifying misclassified student accommodation. Many residents of student accommodation report that their usual address is overseas, despite tertiary students being instructed to report the student accommodation as their usual address (Statistics New Zealand, 2006b). Many of these ‘overseas visitor’ residents also answer the study participation question. It was important that these residents were not excluded when deciding whether a dwelling was student accommodation or not. In many cases, excluding them would have meant basing the assessment of the nature of the dwelling on the characteristics of only a small minority of its residents. At a later stage in the analysis, people who usually live overseas are identified as ‘not severely housing deprived’, thus they are not included in the severe housing deprivation statistics (see Figure 11). In Chapter Eight, the severely housing deprived population is compared with the New Zealand usually resident population.

*Identifying misclassified student accommodation and excluding it from the subject population*

One housing type that corresponds to the ‘living in other commercial accommodation’ category of severe housing deprivation is ‘boarding house’ (Table 33, Category i). The *Statistical Standard for Occupied Dwelling Type* describes this category as: “Boarding houses, including establishments hosting foreign students” (Statistics New Zealand, 2009c, p. 5). This description signals that some student accommodation (a type of institution) might have been misclassified as boarding houses (a type of non-institutional, non-private accommodation) in census data.

Institutions are non-private dwellings designed to house groups of people who are bound by “either a common public objective or a common personal interest” (UNDESA, 2017, p. 254). Student accommodation is a type of institution because it is targeted at a particular group (students), with the intent of providing support (a public objective). The support services provided to residents of student accommodation are “over and above the services that a landlord must provide” (Residential Tenancies Amendment Act, 2010, s 5B).

In student accommodation, as elsewhere, only those who LAMAH qualify as severely housing deprived. However, in census data, it is not possible to distinguish these people from people living in student accommodation by choice. Thus, like other types of institutions not targeted at people who LAMAH, student accommodation (including misclassified student accommodation) has to be excluded from the subject population.
The 2001 and 2006 census boarding house categories contain dwellings with a high proportion of students – these seem likely to be student accommodation. The other types of ‘other commercial accommodation’ (hotel, motels, guest accommodation, and commercial vessels) were tested, and they too were found to include dwellings with a high proportion of students. Thus, the method for identifying student accommodation was applied consistently to all types of ‘other commercial accommodation’. The rule applied to identify student accommodation is: if at least 75 percent of the census night population in a dwelling classified as ‘other commercial accommodation’ are full-time students, the dwelling is student accommodation. Residents of dwellings so identified were removed from the subject population (Figure 10).

Study participation is the sole identifier of student accommodation in the rule. This has strong face validity – naturally, most residents of student accommodation should be students. Various other rules were tested using typical student age ranges, but these posed too great a threat to the precision of the definition. Not all young people living in commercial accommodation are students. Thus, if a young-age rule were used to identify student accommodation, youth hostels may have been misclassified as student accommodation, wrongly excluding them from further analysis. It was assumed that students living in student accommodation were likely to be full-time students, supported by the finding that in the ‘educational institution’ category, the vast majority of people who reported being students were full-time students (97 percent in 2006; 84 percent in 2001). The threshold for full-time students as a proportion of all census night residents in a dwelling was set at 75 percent to allow for managers (including residential assistants) and visitors.

**Figure 10 Identifying student accommodation misclassified as other commercial accommodation**

![Flowchart diagram](chart.png)

**Note:** Unit of analysis is the dwelling.
Identifying and excluding residents of student accommodation from the subject population is an important part of this analysis. Students tend to have low incomes, and low income is one of the filters used to identify severely housing deprived people (see Figure 11). If misclassified student accommodation were not identified and excluded, it is likely that many students would have been wrongly classified as severely housing deprived. These dwellings can be large, sometimes with hundreds of residents, so these students would likely falsely inflate the severely housing deprived population.

Admittedly, it is difficult to clearly distinguish institutional student accommodation (where supervision and personal development services are provided) from commercial accommodation that targets the student market. Thus, this step may have wrongly excluded some residents of commercial accommodation from the subject population. However, the risk of falsely inflating the severely housing deprived population with students living in student accommodation is likely to be greater than the risk of excluding severely housing deprived people living in non-private dwellings that have high proportions of students.

**Identifying the ‘severely housing deprived’, ‘not severely housing deprived’, and ‘housing deprivation status cannot be determined’ populations**

Figure 11 shows the algorithm for dividing the subject population into three categories: severely housing deprived; not severely housing deprived; and housing deprivation status cannot be determined. This algorithm translates the two conceptual criteria of severe housing deprivation – 1) living in severely inadequate housing, due to 2) a lack of access to minimally adequate housing – into four operational criteria:

1. Living in severely inadequate housing
2a. Having no other place to live
2b. Having a low income
2c. Living in a severely crowded dwelling (applied only to temporary residents in conventional dwellings)

The algorithm also includes a step for proportionally allocating children living in non-private dwellings into each of the three categories. A more detailed version is included as Appendix One, the code is included as Appendix Two, and the algorithm is explained in the following sections.

**Criterion One: Living in severely inadequate housing**

Six categories of severely inadequate housing were identifiable in census data. Table 33 shows the census dwelling types that correspond to each of these six categories. The census dwelling types do
not perfectly match the categories of severe housing deprivation. This section outlines the assumptions involved in analysing some of the dwelling types listed in Table 33. The extra filter applied to permanent private dwellings to restrict the population to people living in severely inadequate housing is also discussed.

**Assumptions**

Housing Types b and k (Table 33) rely on information about basic amenities. Type b relates to housing lacking one or more basic amenity, and Type k to housing that has all basic amenities. Information on basic amenities is lacking in 2001 and 2006 census data, so dwellings classified as ‘Improvised dwelling or shelter’ or ‘Mobile dwelling not in a motor camp’ were assumed to be lacking at least one basic amenity. Improvised dwellings are lacking at least one basic amenity by definition (Statistics New Zealand, 2009c), but the mobile dwelling category likely includes some dwellings that have all basic amenities.

**Table 33 Housing types in which severely housing deprived people can be identified using census data, and the corresponding census dwelling types**

<table>
<thead>
<tr>
<th>Housing type</th>
<th>Census dwelling type</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Living rough (not in an enclosed structure) &amp; b. Housing that is enclosed but lacks one or more basic amenity (in which residents lack minimally adequate security of tenure)</td>
<td>1314 Roofless or rough sleeper 1313 Improvised dwelling or shelter 1312 Mobile dwelling not in a motor camp</td>
</tr>
<tr>
<td>h. Camping ground or motor camp</td>
<td>1311 Dwelling in a motor camp 2213 Motor camp/camping ground</td>
</tr>
<tr>
<td>i. Other commercial accommodation</td>
<td>2211 Hotel, motel, or guest accommodation 2212 Boarding house 2217 Commercial vessel</td>
</tr>
<tr>
<td>j. Other non-private accommodation</td>
<td>2218 Marae complex</td>
</tr>
<tr>
<td>k. (Temporary resident in a) private dwelling that has all basic amenities</td>
<td>10 Occupied private dwelling, not further defined 11 Separate house 12 Two or more flats / units / townhouses / apartments / houses joined together</td>
</tr>
</tbody>
</table>

**Data source:** Census dwelling types from Statistics New Zealand (2009c)

It should also be noted that Housing Types a and b are combined into the same category in Table 33. It is not possible to separately identify people living rough (type a) in 2006 census data, because collectors were instructed to classify them as living in “makeshift accommodation” (type b) (Statistics New Zealand, 2006a). The very small number of people identified as living rough in 2001
census data suggests a similar practice was followed in that year. ‘Roofless or rough sleeper’ and ‘Improvised dwelling or shelter’ were thus analysed as a single category for both 2001 and 2006 census data.

Housing Type k concerns permanent private dwellings, which are Dwelling Types 11 and 12 in census data. Census Dwelling Type 10 (Occupied private dwelling, not further defined) was also assumed to be permanent private dwellings, based on the description of this category as: “includ[ing] vague responses (eg state house) that could not be classified as separate or joined dwellings, as well as dwellings joined to businesses or shops, and baches, cribs and other holiday homes” (Statistics New Zealand, n.d.-b).

**Identifying temporary residents in permanent private dwellings**

Housing Type k (Table 33) relates to temporary residents in permanent private dwellings. Unlike permanent residents, temporary residents do not have adequate privacy, control, or security of tenure, and therefore qualify as living in severely inadequate housing.

In census data, the best variables for distinguishing temporary residents (guests) from permanent residents (hosts) are those that relate to tenure status. In both 2001 and 2006, the census included a question asking adults if they own the dwelling they live in. In the algorithm for identifying severe housing deprivation, people who reported owning the dwelling they were living in are assumed to be permanent residents. The nuclear family of the owner (partner and/or children) are assumed to be permanent residents too (provided they live in the same dwelling).

There is no equivalent variable to identify tenure holders in rented dwellings, so the reference person (the person who fills out the census dwelling form) is assumed to be the tenure holder, and thus a permanent resident. The nuclear family of the reference person are assumed to be permanent residents too (provided they live in the same dwelling). These assumptions are based on the notion that a permanent resident (a person who rents or owns the dwelling) is more likely to fill out the census dwelling form than a guest. This is supported by the finding that in owner-occupied permanent private dwellings, the reference person is usually an owner or in an owner’s nuclear family (in 88 percent of cases in 2006, and 87 percent in 2001). The main limitation of this proxy is that many people can be tenure holders in rented dwellings (such as flats), but only one can be the reference person. This means that many people were likely falsely identified as temporary residents. However,

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*The following dwellings were excluded from this calculation: dwellings in which the residents were certain to be the owner or in owner’s nuclear family (one-person and one-family owner-occupied households); and dwellings in which the residents were certain to not be the owner or in the owner’s nuclear family (visitor-only dwellings).*
Figure 11 Algorithm for dividing the subject population into ‘severely housing deprived’, ‘not severely housing deprived’, and ‘housing deprivation status cannot be determined’ categories

Notes:
(1) The ‘Living in severely inadequate housing?’ filter appears twice in the algorithm: at the beginning, to separate people not living in severely inadequate housing from everyone else; and at the end, to separate people who are living in severely inadequate housing from those whose housing deprivation status is unknown.

(2) The ‘Living in a severely crowded dwelling?’ filter applies only to temporary residents of permanent private dwellings. A temporary resident is operationally defined as a person who is neither an owner nor the reference person of a dwelling, and they are not in the nuclear family of an owner or the reference person (see Figure 12 and discussion later in the chapter).

(3) The ‘Pro rata allocation of children’ filter only applies to children (people younger than 15 years) in non-private dwellings.
most of these people were excluded from the potentially severely housing deprived population later in the algorithm, at the severe crowding filter (because most flats and other rental dwellings are not severely crowded).

To summarise, temporary residents in permanent private dwellings are operationally defined as people who are:

- not an owner of the dwelling or in an owner’s nuclear family; and
- not the reference person or in the reference person’s nuclear family (Figure 12).

**Figure 12 Process for identifying temporary residents in permanent private dwellings**

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**Criterion Two: Lacking access to minimally adequate housing**

Some data collections could include a direct question about why a person is living in severely inadequate housing. However, national censuses are very unlikely to contain such a question, so proxies for ‘a LAMAH’ had to be applied. Even living without a dwelling at all or living without
ready access to basic amenities (in a tent, for example) does not in and of itself equate to severe housing deprivation. Assuming so would mean that everyone living in a tent at the time of enumeration should be considered severely housing deprived, without any consideration of their circumstances.

Using census data, the best proxies for ‘a LAMAH’ are: 2a) having no other place to live; and 2b) having a low income. Another proxy is also applied to people identified as temporary residents in permanent private dwellings: 2c) living in a severely crowded dwelling. These proxies are explained in turn in the following sections.

**2a) Having no other place to live**

Once the population living in severely inadequate housing has been identified, the population is restricted to those with no other address – that is, they reported their usual address as ‘same as census night address’ or ‘no fixed abode’.

If a person living in severely inadequate housing reports that it is their usual residence, or that they have no fixed abode, it is reasonable to assume they have no other place to live except the severely inadequate housing. The corollary is that if a person reports having a usual address elsewhere (whether in the same country or overseas), two assumptions are made: they have access to that place; and the housing meets the minimum adequacy standard. Both these assumptions have face validity, but are unlikely to be verifiable using most data sources.

‘Having no other place to live’ is not sufficient to identify people who LAMAH. Such an assumption would see many people who choose to live in non-conventional housing (such as house-buses) classified as severely housing deprived. It would reflect an expectation that everyone should be living in conventional housing, which is unrealistic. People may choose a house-bus or a boarding house as their usual accommodation to suit their needs and desires at the time. A single person may live in a boarding house because it offers an independent style of living and is close to their work; a person who has just moved to an area may share with friends or relatives while looking for a house of their own. Therefore, another proxy for LAMAH – low income – is applied to identify people living in severely inadequate housing by necessity.

**2b) Having a low income**

The amount of money a person has to spend on housing is a major determinant of their access to adequate housing. Many other factors may act as barriers to adequate housing, such as discrimination
on the basis of age, ethnicity, or disability – but even in the face of discrimination, having more money to spend usually gives people more housing options, whether renting or buying. For people who have left their usual accommodation to escape domestic violence, lack of access to their usual housing is not a matter of finances, but money is an important determinant of their access to alternative permanent housing. Economic deprivation, or having a low level of disposable income in reference to the society in which one lives, is therefore a key element of a proxy for a LAMAH.

Internationally, the most widely used proxy for economic deprivation is ‘low income’ or ‘income poverty’ – that is, having a disposable income, adjusted for household size and composition, under a ‘poverty line’.10 A low level of income in relation to one’s own society indicates a lack of access to a “minimum acceptable way of life” (Perry, 2013, p. 97). As Perry (2013, p. 91) observed:

The growing acceptability of ‘poverty’ language…is reflected in recent OECD and UNICEF publications of international comparisons of poverty rates, and in decisions by the European Union to regularly publish income-based poverty indicators as part of a wider social reporting by Eurostat.

In New Zealand, a major inquiry into child poverty (CCEAG on Solutions to Child Poverty, 2012) and work on inequality (Rashbrooke, 2013) helped draw particular attention to income poverty, and child poverty reduction is now a government target.

While income is one of the variables most commonly used to measure deprivation, it has well-known limitations. Many other factors contribute to a person’s (or household’s) financial position, such as: wealth (financial and physical assets); non-monetary assistance from friends, family, or agencies; special costs, such as medical costs or debt repayments; geographical variation in costs; and varying budgeting skills. Due to these unmeasured factors, the mismatch between inadequate living standards measured by income and inadequate living standards measured by more direct, non-monetary variables is commonly found to be of the order of 50 to 60 percent (Perry, 2002).

In this measure of severe housing deprivation however, low income is used as a proxy for LAMAH, not as a proxy for inadequate living conditions per se. The low-income filter is applied to people already identified as living in severely inadequate housing with no other place to live. Used in this more straightforward sense, and as part of a composite measure, low income should be a relatively accurate proxy for severe housing deprivation. It is generally accepted that materially deprived people are economically deprived, and people with low reported incomes who do not LAMAH (for

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10 ‘Poverty line’, ‘poverty threshold’, and ‘low-income threshold’ tend to be used interchangeably. ‘Low-income threshold’ is used in this thesis, unless referring to a text in which the word ‘poverty’ is used.
example, retirees with wealth or people evading tax) are unlikely to be living in severely inadequate housing.

New Zealand does not have an official poverty measure, though the Child Poverty Reduction Bill is progressing through the House. The most commonly used thresholds are 50 or 60 percent of the median equivalised annual disposable household income, before or after deducting housing costs. The ‘60 percent – before housing costs’ low-income threshold was used in this thesis to measure severe housing deprivation, influenced largely by NZDep, a widely-used area-based index of deprivation (Salmond, Crampton, & Atkinson, 2007).

The NZDep low-income threshold is based on the work of Stephens and Waldegrave (as part of the New Zealand Poverty Measurement Project), whereby realistic poverty thresholds were determined through focus group research with a range of low-income householders (Stephens & Waldegrave, 2001). Over the 1990s, these focus groups consistently identified the minimum household expenditure necessary to live independently, without either going into debt or having to use a food bank or special food grant, to be about 60 to 66 percent of the median disposable JEAH income, before housing costs. Applied to the 1998 Household Economic Survey, this equated to 15 percent of individuals being below the poverty threshold.

Using 2001 census income data, Salmond, Crampton, and Kirkpatrick (2004) determined the income threshold that would identify the same poorest proportion of the population, meaning the poverty threshold was set at a value equivalent to 60 percent of the median disposable JEAH income, before housing costs. Working upwards from the lowest JEAH income values, $17,699 was found to be the cut-off point – identifying the poorest 15 percent of people with household income values. In 2006, the same rule was applied, yielding a threshold of $23,797 (Salmond et al., 2007). This method translates the poverty thresholds derived from the Household Economic Survey (which collects disposable income information) to the census (which collects gross income data). It assumes the same 15 percent of the population with household income data would fall below the poverty line, whether their gross or disposable income is being assessed.

In the context of identifying severely housing deprived people, a ‘before housing costs’ measure is more appropriate than an ‘after housing costs’ low income measure. Some severely housing deprived people have no housing costs, or do not have housing costs that are comparable to households living in their own private homes. A ‘before housing costs’ measure indicates the “adequacy of market and

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11 JEAH income stands for Jensen Equivalised Annual Household income. This refers to household incomes equivalised according to the size and composition of the households using the Revised Jensen Index (Jensen, 1988), which is the standard equivalisation index used in New Zealand. Income equivalisation is explained further in Appendix Three.
social assistance incomes for delivering [or permitting access to] a minimum acceptable standard of living” (Perry, 2013, p. 33), which reflects the intent of using low income as a proxy for ‘a LAMAH’.

Census income data are collected in income bands, thus JEAH income categories are also income bands. For this reason, the ‘poverty thresholds’ established by Salmond et al. have to be rounded. For 2001 and 2006, the thresholds are rounded up to the lower limit of the next JEAH income band: the 2001 threshold rounded up from $17,699 to $20,001; the 2006 threshold rounded up from $23,797 to $25,001. These same low-income thresholds were used in the NZDep indexes. These low-income thresholds are also consistent Carter and Gunasekara’s (2012) research on income and deprivation in New Zealand using the Survey of Family, Income and Employment (SOFIE).

Income poverty measures usually use household income information. This poses two problems for this study. Firstly, household income data cannot be used for temporary residents in permanent private dwellings because they reflect the incomes of both the temporary residents (potentially severely housing deprived) and the permanent residents (the hosts – not severely housing deprived). Secondly, household income data are not available for many people in the subject population, because they either live in non-private dwellings (where no household data are collected) or are part of households whose income is unknown. If one adult household member does not report their individual income, a household income value will not be available for that household, except if the combined income of the other household members is in the top income band (that is, more than $100,000) (Statistics New Zealand, n.d.-c). The personal income question has a high overall level of non-response relative to other census questions – 10 percent in 2006; 11 percent in 2001 (Errington et al., 2008), but the level of non-response is even higher among the potentially severely housing deprived population: 24 percent in 2006; and 28 percent in 2001.12 This supports extant knowledge that people who are socioeconomically deprived are less likely to report their income (Statistics New Zealand, 2008).

In order to overcome these challenges, I developed a composite low-income measure, which permits assessment of the subject population’s incomes against thresholds approximating the ‘60 percent of the median disposable JEAH income, before housing costs’ poverty line. The composite low-income measure comprises four variables:

- Jensen Equivalised Annual (gross) Household income (JEAH income) < poverty line
- Jensen Equivalised Annual (gross) Family income (JEAF income) < poverty line

12 The ‘potentially severely housing deprived population’ refers to people who satisfy criteria 1 and 2a (that is, they are living in severely inadequate housing and have no other place to live).
• Jensen Equivalised Annual (gross) Personal income (JEAP income) < poverty line
• Receiving a means-tested benefit.

Table 34 shows which living situations each of these indicators are applied to. ‘JEAF income’ and ‘JEAP income’ are both abbreviations developed for this thesis, not established terms. These terms indicate that Jensen equivalisation has been applied to different economic units – family (JEAF) and individuals (JEAP – personal income). In certain living situations, families and individuals are effectively treated as households so that their incomes can be assessed against the standard household-level low-income threshold (Table 34).

Means-tested benefit receipt is used as a low-income proxy for households, families, and individuals with unknown incomes. The following means-tested benefits are included: sickness benefit; domestic purposes benefit; invalid’s benefit; unemployment benefit; and student allowance. The ‘receiving a means-tested benefit’ rule is: if at least one person in the economic unit (household, family, or individual, as appropriate – see Table 34) is receiving a means-tested benefit, the economic unit has a low income.

Table 34 Units of analysis and low-income indicators by housing type

<table>
<thead>
<tr>
<th>Housing type</th>
<th>Unit of analysis (economic unit)</th>
<th>Low-income indicators applied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Living rough, improvised dwelling, mobile dwelling, or private dwelling in a camping ground – part of a household</td>
<td>Household</td>
<td>JEAH income &lt; poverty line Means-tested benefit</td>
</tr>
<tr>
<td>Living rough, improvised dwelling, mobile dwelling, or private dwelling in a camping ground – not part of a household or family</td>
<td>Individual</td>
<td>JEAP income &lt; poverty line Means-tested benefit</td>
</tr>
<tr>
<td>(Temporary resident in a) permanent private dwelling – accompanied by family</td>
<td>Family</td>
<td>JEAF income &lt; poverty line Means-tested benefit</td>
</tr>
<tr>
<td>(Temporary resident in a) permanent private dwelling – not accompanied by family</td>
<td>Individual</td>
<td>JEAP income &lt; poverty line Means-tested benefit</td>
</tr>
<tr>
<td>Non-private dwelling</td>
<td>Individual</td>
<td>JEAP income &lt; poverty line Means-tested benefit</td>
</tr>
</tbody>
</table>

Using ‘receiving a means-tested benefit’ as a proxy for low income is supported by three observations. Firstly, means testing for these benefits is not only based on the means (income and assets) of an individual but on the means of their economic unit (usually family). To qualify for a
means-tested benefit, a person’s economic unit must have limited economic resources. Secondly, at the times of the 2001 and 2006 censuses, the values of the selected means-tested benefits were all below the low-income thresholds used in this analysis. For each means-tested benefit used in the algorithm, the maximum amount an unaccompanied individual could have been receiving is shown in Table 35. The value of each of these benefits varies according to a person’s relationship status and whether or not there are dependent children in their family. However, the amounts shown in Table 35 are indicative of the relatively low incomes of all recipients of such benefits. Thirdly, receipt of a means-tested benefit is an established indicator of deprivation. It is used in the NZDep area-level deprivation index (Atkinson, Salmond & Crampton, 2014), the NZiDep individual-level deprivation index (Salmond et al., 2006), and the New Zealand Index of Multiple Deprivation (IMD) (Exeter et al., 2017).

Table 35 Maximum gross benefit rates (actual and equivalised) for adults not accompanied by family, by means-tested benefit type, as at the dates of the 2001 and 2006 censuses

<table>
<thead>
<tr>
<th>Benefit type</th>
<th>2001</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Actual</td>
<td>Equivalised(1)</td>
</tr>
<tr>
<td>Unemployment Benefit</td>
<td>$9,093.24</td>
<td>$13,989.60</td>
</tr>
<tr>
<td>Sickness Benefit</td>
<td>$9,093.24</td>
<td>$13,989.60</td>
</tr>
<tr>
<td>Invalids Benefit</td>
<td>$11,507.60</td>
<td>$17,704.00</td>
</tr>
<tr>
<td>Domestic Purposes Benefit(2)</td>
<td>$9,471.80</td>
<td>$14,572.00</td>
</tr>
<tr>
<td>Student Allowance</td>
<td>$9,093.24</td>
<td>$13,989.60</td>
</tr>
</tbody>
</table>

Notes: (1) Values in the ‘equivalised’ columns are the ‘actual’ benefit rates equivalised using the Jensen index, assuming that the recipient is living in a single-adult household. These ‘equivalised’ benefit values are all below the low-income thresholds used in the severe housing deprivation analysis ($20,001 in 2001; $25,001 in 2006), supporting the use of ‘receipt of a means-tested benefit’ as a proxy for low-income status. (2) ‘Women alone’ rates.


2c) Living in a severely crowded dwelling

For people identified as temporary residents in permanent private dwellings with no other place to live and a low income, it is necessary to apply another filter to identify people in this situation due to a LAMAH. Without an extra filter, a large proportion of low-income people in rented accommodation would be classified as severely housing deprived (including many students in student flats).
Severe household crowding is the best available proxy for ‘sharing by necessity’. Selection of this variable is underpinned by the assumption that if people were living together out of unconstrained choice, there would be an appropriate number of bedrooms for the number of residents, and thus the dwelling would not be crowded. Household crowding is a widely-recognised form of housing inadequacy, particularly in terms of its association with infectious disease (Baker et al., 2013). UNICEF (2010, p. 7) used living space within one’s house as one of three indicators of child material wellbeing in the world’s rich countries, measuring living space using a crowding index, and emphasising that space in the home is “a constant and important factor in young people’s lives”. Empirical research in New Zealand supports this argument. In a study of Pacific teenagers, sharing housing with extended family was found to have both benefits and problems, with crowding, particularly bedroom sharing, being a particularly stressful aspect of these living situations (Pene et al., 2009).

The preferred measure of crowding in New Zealand is the Canadian National Occupancy Standard or CNOS (Goodyear, Fabian, & Hay, 2011). This index is also used in Canada (CMHC, 2010) and Australia (ABS, 2016). Using CNOS, crowding is expressed in terms of ‘bedroom deficit’, and the categories commonly used are one-bedroom deficit (crowded) and two-or-more-bedroom deficit (severely crowded). CNOS considers the number of bedrooms in relation to the number of people in the household, their ages, and sexes. CNOS stipulates that there should be no more than two people per bedroom. Having enough bedrooms for the occupants means having one bedroom for:

- Each cohabiting adult couple;
- Each unattached household member 18 years of age and over;
- Each same-sex pair of children under age 18;
- Each additional boy or girl in the family, unless there are two opposite sex children under five years of age, in which case they are expected to share a bedroom;
- A household of one individual can occupy a bachelor unit (i.e. a unit with no bedroom) (CMHC, 2010).

For the severe housing deprivation algorithm, only people living in severely crowded dwellings (two-or-more-bedroom deficit) are assumed to LAMAH. Dwellings with a one-bedroom deficit are excluded because such a deficit is a relatively insensitive indicator of deprivation. For example, a five-year-old boy and four-year-old girl sharing a bedroom is a one-bedroom deficit, if all other bedrooms in the dwelling are being used. This situation does not breach societal expectations in New Zealand.

CNOS takes account of social norms regarding bedroom sharing. While it does not necessarily reflect norms in all cultures, it is based on ideas of privacy, as well as appropriate gender and age mixing. CNOS has been criticised as reflecting Western norms (Memmott, Birdsell-Jones, & Greenop, 2012),
but across most cultures, notions of appropriate sleeping arrangements are influenced by privacy and safety concerns, particularly in relation to young people. For example, in Pacific households in New Zealand, male family members are typically allowed to sleep in sleep-outs, but female family members, especially young girls and teenagers, are typically accommodated inside, separate from the males (HNZC, 2002).

**Pro rata allocation of unallocated children in non-private dwellings**

Once the two major criteria of severe housing deprivation have been applied to census data, there remains a significant number of unallocated children in non-private dwellings. These children (people younger than 15 years of age) are living in severely inadequate housing and have no other place to live. However, the low-income filter cannot be applied because income and income source data are not collected from children. In non-private dwellings, household and family data are not collected, so even if these children are living with their parents, they are not linked to their parents in census data (and thus are not linked to their parents’ incomes).

People operating commercial accommodation are unlikely to accommodate unaccompanied minors under the age of 15 – adults would be accompanying most of these children. Thus, the unallocated children are allocated into the ‘severely housing deprived’, ‘not severely housing deprived’, and ‘housing deprivation status cannot be determined’ categories according to how adults in the same dwelling have been categorised. In Figure 11, this filter is called ‘pro rata allocation of children’.

The importance of this step can be illustrated by the hypothetical example of a boarding house containing 20 people – 10 adults and 10 children – all reporting that they usually live there. Without the pro rata filter, all 10 children would be categorised as ‘housing deprivation status cannot be determined’, even if all 10 adults were severely housing deprived. Applying the pro rata allocation rule, the 10 children, like the 10 adults, would be categorised as severely housing deprived. The equations that make up this step are included in Appendix One.

**7.4 Applying the definition of severe housing deprivation to administrative data**

Three types of housing are identified as ‘accommodation targeted at people who LAMAH’ (or emergency accommodation): night shelters; women’s refuges; and other accommodation targeted at people who LAMAH (Table 27). Table 29 lists the definition of each of these housing types. This section explains how the providers of these types of accommodation were identified and their data obtained.
**Identifying providers**

Government and non-government agencies were questioned about the existence of a comprehensive register of emergency accommodation, but none existed. It was therefore necessary to identify providers of such accommodation so that their administrative data could be requested. This part of the research was conducted with ethical approval from the Department of Public Health, University of Otago, Wellington.

Figure 13 describes the process followed. An initial list of possible services was identified based on my knowledge of the sector, plus 16 other sources that are listed in Table 36. The identified agencies were screened by reviewing their website. If the agency did not have a website, or the website was unclear about the nature of the service provided, a brief telephone interview was conducted with the manager. HNZC regional project managers and a HNZC housing access manager from each region then reviewed the refined list, both to check the identified agencies met the inclusion criteria, and to identify any missing agencies. The three inclusion criteria were: 1. Accommodation targeted to people who have nowhere else to live; 2. Operated by a non-profit agency; 3. Provides temporary accommodation. For-profit accommodation was excluded as it belongs in a different category (commercial accommodation). Managers of all accommodation on the now-further-refined list were surveyed about their agency and asked to provide anonymised client data. Each manager was given a list of providers in their area and asked to identify any missing ones; newly identified providers were added to the survey frame.

Steps were taken to determine the status of providers that appeared on the initial list but could not be screened because they had neither websites nor working phone numbers. The Ministry of Economic Development’s online register of societies and trusts ([www.societies.govt.nz](http://www.societies.govt.nz)) was searched for these agencies. Some no longer existed and were excluded. Three agencies did not appear on the register, so local Citizens Advice Bureaux were asked if they had any knowledge of them, which they did not. It is reasonable to assume these providers no longer existed, though they may have been open in 2001 or 2006, and may have met the inclusion criteria.

Every service identified as emergency accommodation had restrictions on who they accommodated, and many were not ‘emergency’ accommodation in the sense of taking referrals ‘24/7’ or accommodating people on the day they sought help. However, the term ‘emergency accommodation’ is used preferentially in this thesis, rather than ‘non-private accommodation targeted at people who LAMAH’, because it is concise and familiar. All the services identified as emergency accommodation provided temporary accommodation targeted at people who LAMAH.
### Table 36 Resources used to construct initial survey frame of emergency accommodation providers

<table>
<thead>
<tr>
<th>Resource type</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Print directories of services for people on low incomes</td>
<td>No Fixed Abode &amp; Support Services (Christchurch City Council, 2009)</td>
</tr>
<tr>
<td>National online directories of services</td>
<td><a href="http://www.2cu.co.nz">www.2cu.co.nz</a></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.youthline.co.nz">www.youthline.co.nz</a></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.refuge.org.nz">www.refuge.org.nz</a></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.salvationarmy.org.nz">www.salvationarmy.org.nz</a></td>
</tr>
<tr>
<td>Local online directories of services</td>
<td><a href="http://www.supportline.co.nz">www.supportline.co.nz</a> (Auckland)</td>
</tr>
<tr>
<td></td>
<td><a href="http://www.nelsonhousing.org.nz">www.nelsonhousing.org.nz</a> (Nelson)</td>
</tr>
<tr>
<td></td>
<td><a href="http://www.waimarieham.wainet.org">www.waimarieham.wainet.org</a> (Hamilton)</td>
</tr>
<tr>
<td>Lists of emergency accommodation used by support agencies</td>
<td>Lifewise’s list (courtesy of Corey Haddock)</td>
</tr>
<tr>
<td></td>
<td>Monte Cecilia’s list (courtesy of David Zussman)</td>
</tr>
<tr>
<td></td>
<td>HNZC’s list (compiled for research purposes, courtesy of Sherry Carne)</td>
</tr>
<tr>
<td>Research reports</td>
<td>Emergency Accommodation Scope in Porirua City (Ben-Tovin, 2009)</td>
</tr>
<tr>
<td></td>
<td>Feasibility Study: Emergency housing shelter for Whangerei</td>
</tr>
<tr>
<td></td>
<td>(Kent Consulting (New Zealand) Ltd., 2005)</td>
</tr>
<tr>
<td></td>
<td>Social Housing Mapping of the Wellington Region (Aspinall, n.d)</td>
</tr>
</tbody>
</table>

### Obtaining data from providers

Managers were surveyed about their agencies by telephone, email, or post (the mode determined by their preference). The questionnaire was pretested with a colleague in the Department of Public Health, and then piloted with three services – Wellington Night Shelter, Easy Access Housing, and Wellington Women’s Boarding House. All providers were asked to supply anonymised client data for the 2001 and 2006 census nights, as well as October 1, 2009, a randomly selected weekday in the recent past at the time of the survey. The most recent date was included to assess the providers’ ability to provide more recent records, informing recommendations about future use of data from these providers.
For services that were part of national organisations – namely The Salvation Army and the National Collective of Independent Women’s Refuges – client data were supplied by the national organisation. Seven variables were requested from all services: sex; age; ethnicity; employment; study participation; means-tested benefit receipt; and family status (household type).
Figure 13 Process for identifying and obtaining data from emergency housing providers

**IDENTIFYING PROVIDERS**

- **Initial list**
  Derived from the author's knowledge of the sector plus 10 other sources

- **Websites**
  Every provider was assessed for inclusion based on their website.

- **Brief telephone interview**
  Agencies were telephoned and the manager asked three questions:
  1. Is your service targeted at people who have nowhere else to live?
  2. Are you a non-profit agency?
  3. Do you provide temporary accommodation?

- **IHIZC review**
  Review by IHIZC officers who checked the providers in their region against the inclusion criteria, and identified missing ones. Three missing providers were identified; none were excluded.

- **Societies register**
  MED’s online register of societies and trusts (www.societies.gov.uk) was searched for the remaining agencies.

- **Citizens Advice Bureaux**
  Local bureaux were asked about the three agencies on the initial list for which no contact details could be found.

**DATA COLLECTION**

- **Survey of providers**
  The survey included asking each provider if they knew of any other providers in their area that had not been identified.

- **Administrative data**
  At the time of the interview, each provider was asked to supply client data for three dates:
  - 6 March 2001 (census night 2001);
  - 7 March 2006 (census night 2006);
  - 1 October 2009.
**Analysis**

Given that emergency accommodation, as defined in this study, is targeted at people who LAMAH, all residents were assumed to be residing in such accommodation because they lacked access to minimally adequate housing, and hence met the criteria for severe housing deprivation.

The data were triple-entered into Microsoft Excel – twice by the author, and once by a colleague in the Department of Public Health. To align the administrative data with census data from the same year, each emergency accommodation site was allocated to its territorial authority, regional council area, and urban or rural area, using Statistics New Zealand’s Interactive Boundary Maps (Statistics New Zealand, n.d.-d) and Urban Area Classifications (Statistics New Zealand, n.d.-f). For safe houses (that is, accommodation with secret locations, including women’s refuges), only the area was known, not the exact address.

In terms of response rates, most services were unable to provide 2001 data, but the proportion of services that provided data was higher for the 2006 date (62 percent overall) and higher again for the 2009 date (72 percent overall) (Table 37). Only sex, age, ethnicity, and family type information were analysed. Employment, study participation, and mean-tested benefit data were not analysed due to lack of clarity about how these variables were defined by providers, and wide variation in how they were reported.

### Table 37 Number and percentage of emergency accommodation providers that provided client data, by accommodation type and year

<table>
<thead>
<tr>
<th>Accommodation type</th>
<th>2001</th>
<th>2006</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Night shelter</td>
<td>5/7 (71%)</td>
<td>6/8 (75%)</td>
<td>7/8 (88%)</td>
</tr>
<tr>
<td>Women’s refuge</td>
<td>7/63 (11%)</td>
<td>43/64 (67%)</td>
<td>44/65 (68%)</td>
</tr>
<tr>
<td>Other accommodation targeted at people who LAMAH</td>
<td>11/31 (35%)</td>
<td>24/45 (53%)</td>
<td>37/49 (76%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>23/101 (23%)</td>
<td>73/117 (62%)</td>
<td>88/122 (72%)</td>
</tr>
</tbody>
</table>

The profile of people living in emergency accommodation in 2006 (by sex, age, ethnicity, and family type) is reported in the next chapter. This profile was similar to 2009, despite a lower overall response in 2006 than 2009 (Appendix Four). Therefore, the population in this type of accommodation for
whom data were available is likely to be broadly representative of the wider population in this accommodation. Appendix Four also shows how much data were missing from the emergency accommodation data, by variable.

7.5 Conclusion

This chapter translated the conceptual definition and classification into a method for identifying severely housing deprived people in routinely collected data (census and administrative). The method was designed to be conservative and as consistent as possible with measures of deprivation commonly used in New Zealand and overseas, incorporating established measures of income poverty and household crowding. The variable JEAF income (Jensen Equivalised Annual Family Income) was developed for this thesis due to the special characteristics of this population. Arguably, it is the variable that most challenges the principle of external consistency, and should be subject to special critique. In terms of administrative data, the response rates were very different between years, which compromises analysis of trends over time, though the effect on the overall estimates will be modest because the numbers involved are small. Table 38 summarises the method, describing the operational definition of each severe housing deprivation category. The next chapter presents the results of this analysis.
<table>
<thead>
<tr>
<th>Severe housing deprivation category</th>
<th>Operational definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong> Living without habitable accommodation due to a LAMAH</td>
<td><strong>Census data</strong>&lt;br&gt;1. Living rough, in an improvised dwelling, or in a mobile dwelling not in a motor camp; and&lt;br&gt;2. Usual address is ‘same as census night’ or ‘no fixed abode’; and&lt;br&gt;3. Low income (household-level, or individual-level if not part of a household); or&lt;br&gt;4. Income unknown and receiving a means-tested benefit (household-level, or individual-level if not part of a household).</td>
</tr>
<tr>
<td><strong>2</strong> Living in a non-private dwelling due to a LAMAH</td>
<td><strong>Census data</strong>&lt;br&gt;1. Living in a camping ground, motor camp, boarding house, hotel, motel, guest accommodation, commercial vessel, or marae; and&lt;br&gt;2. The dwelling is not misclassified student accommodation (i.e. &lt;75% of census night residents in the dwelling are studying full-time); and&lt;br&gt;3. Usual address is ‘same as census night’ or ‘no fixed abode’; and&lt;br&gt;4. Low income (household-level (people in ‘private’ dwellings in camping grounds) or individual-level (people in all other dwellings)); or&lt;br&gt;5. Income unknown and receiving a means-tested benefit (household-level (people in ‘private’ dwellings in camping grounds) or individual-level (people in all other dwellings)).&lt;br&gt;<strong>PLUS</strong>&lt;br&gt;6. Children identified at the pro rata step:&lt;br&gt;   By non-private dwelling (those specified in step 1):&lt;br&gt;     No. children who satisfied steps 1–3 multiplied by&lt;br&gt;     (No. adults who satisfied steps 1–5 divided by no. adults who satisfied steps 1–3)&lt;br&gt;     [Totalled across all non-private dwellings specified in step 1]</td>
</tr>
<tr>
<td><strong>3</strong> Living as a temporary resident in a private dwelling due to a LAMAH</td>
<td><strong>Census data</strong>&lt;br&gt;1. Living in a permanent private dwelling; and&lt;br&gt;2. Not an owner of that dwelling or in an owner’s nuclear family; and&lt;br&gt;3. Not the reference person or in the reference person’s nuclear family; and&lt;br&gt;4. Usual address is ‘same as census night’ or ‘no fixed abode’; and&lt;br&gt;5. Low income (family-level if accompanied by family, individual-level if not); and&lt;br&gt;6. The dwelling is severely crowded (CNOS 2+ bedroom deficit).</td>
</tr>
</tbody>
</table>
CHAPTER EIGHT
SIZE AND CHARACTERISTICS OF THE SEVERELY HOUSING DEPRIVED POPULATION

8.1 Introduction

This chapter presents the results of the analysis of census and administrative data for 2001 and 2006, and is structured as follows. The first section describes how many people were identified as ‘severely housing deprived’, ‘not severely housing deprived’, and ‘housing status cannot be determined’. The second section describes the following aspects of severe housing deprivation: national count and prevalence; geographical distribution; demographic characteristics; residential mobility; socioeconomic characteristics; place of birth and migration characteristics; and tenure of the permanent private dwellings occupied by the severely housing deprived. The third section discusses how many dwellings would be required to house the identified severely housing deprived population.

The statistics presented in this chapter are intended to serve multiple needs. From a public health perspective, it is important to know which population groups are at greatest risk of severe housing deprivation, so that prevention policies can be properly targeted. In terms of responding to severe housing deprivation ‘on the ground’, service providers and policymakers are more interested in the composition and characteristics of the severely housing deprived population. This includes knowing how many people are severely housing deprived in a particular area, what living situations they are occupying, and their age profile. The chapter includes both types of figures, with more detailed tables in appendices.

There are three important caveats about the statistics in this chapter. Firstly, according to Statistics New Zealand confidentiality protocols, all numbers in the tables and figures derived from the census have been random rounded to base three. Children in non-private dwellings identified at the pro rata filter were then added to the appropriate categories. These latter figures were not rounded because they are proportions, not counts of individuals (see Table 38 for calculation). Unrounded figures from the administrative data were also added to the census figures, though not all variables were available in the administrative data. Due to rounding, percentages may not total 100 percent. Secondly, as these statistics were largely derived from the national census, levels of uncertainty were not calculated. Thirdly, the number of children identified as severely housing deprived in non-private dwellings at the pro rata filter contributed to the size of the severely housing deprived population. However, as this number does not represent actual individuals, it did not contribute to any of the results regarding characteristics of the population. These children accounted for one percent of the severely housing deprived population.
8.2 Severely housing deprived, not severely housing deprived, and housing deprivation status cannot be determined

The proportions of the subject population identified as ‘severely housing deprived’, ‘not severely housing deprived’, and ‘housing deprivation status cannot be determined’ were consistent from 2001 to 2006 (Table 39). The vast majority of the population were not severely housing deprived (97 percent in both years), which fits with expectation. In a developed country such as New Zealand, we should expect most of the population to not be severely housing deprived. The percentage of people whose housing deprivation status could not be determined was a consistent two percent, more than double the level of severe housing deprivation. This was mainly due to high levels of unknown income status (24 percent in 2006; 28 percent in 2001), despite both means-tested benefit status and reported income being used to identify people with low incomes.

Table 39 Count and proportion of the census subject population identified as severely housing deprived, not severely housing deprived, and housing deprivation status cannot be determined, 2001 and 2006

<table>
<thead>
<tr>
<th>Category</th>
<th>2001</th>
<th></th>
<th>2006</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count</td>
<td>%</td>
<td>Count</td>
<td>%</td>
</tr>
<tr>
<td>Severely housing deprived</td>
<td>28,649</td>
<td>0.8</td>
<td>33,295</td>
<td>0.8</td>
</tr>
<tr>
<td>Not severely housing deprived</td>
<td>3,639,845</td>
<td>97.2</td>
<td>3,942,626</td>
<td>97.1</td>
</tr>
<tr>
<td>Housing deprivation status cannot be determined</td>
<td>76,038</td>
<td>2.0</td>
<td>83,953</td>
<td>2.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3,744,534</strong></td>
<td><strong>100.0</strong></td>
<td><strong>4,059,876</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Note: (1) This table relates to the census subject population only. For the total severely housing deprived population (including administrative data), see Table 41.

Data source: Statistics New Zealand

Table 39 categorises the census subject population, which is the census night population, excluding absentees and residents of institutions. If, instead, the denominator were the usually resident population (people who live in New Zealand, excluding overseas visitors), there would be negligible change to the percentage of people in each category. People who usually live overseas make up less than three percent of the census night population (2.8 percent in 2006) – some of these were excluded from the subject population because they were in institutions, and the rest made up a very small proportion of the ‘not severely housing deprived’ category.
Table 40 shows the percentages of the census subject population identified as severely housing deprived by housing type. As might be expected, out of all people in a specific housing type, the percentage of severely housing deprived people was highest in housing types generally considered ‘last resorts’: living rough or in improvised dwellings; mobile dwellings; dwellings in camping grounds or motor camps; and boarding houses. The lowest proportion of severely housing deprived people was in permanent private dwellings – the vast majority of people in such dwellings were likely living as permanent residents in their own private homes. Again, this fits with expectation.

Table 40 Proportion of the census subject population identified as severely housing deprived by housing type, 2001 & 2006

<table>
<thead>
<tr>
<th>Housing type</th>
<th>2001</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Living rough / improvised dwelling</td>
<td>36</td>
<td>29</td>
</tr>
<tr>
<td>Mobile dwelling</td>
<td>23</td>
<td>32</td>
</tr>
<tr>
<td>All dwellings in camping grounds</td>
<td>13</td>
<td>10</td>
</tr>
<tr>
<td>Private dwelling in a camping ground</td>
<td>40</td>
<td>28</td>
</tr>
<tr>
<td>Non-private dwelling in a camping ground</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>All commercial accommodation</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Boarding house</td>
<td>33</td>
<td>34</td>
</tr>
<tr>
<td>Hotel, motel, guest accommodation</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Commercial vessel</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Marae</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Permanent private dwellings</td>
<td>0.5</td>
<td>0.6</td>
</tr>
</tbody>
</table>

Data source: Statistics New Zealand

8.3 National count and prevalence

The next section presents the national count and prevalence of severe housing deprivation in 2001 and 2006. The sections following that show the characteristics of the 2006 severely housing deprived population only. The profile of the severely housing deprived population in 2006 was similar to 2001 (Appendix Five).

Size of the severely housing deprived population and its categories

On census night 2006, 33,946 people were identified as severely housing deprived, representing a point prevalence of 84 per 10,000 people, or about one in every 120 New Zealanders. The prevalence
of severe housing deprivation in 2006 was nine percent higher than 2001, when 77 per 10,000 people (28,917 people) were severely housing deprived (Table 41). However, as noted in Table 41, many more emergency housing providers provided data in 2006 than in 2001 – this difference accounts for one percent of the reported increase in the prevalence of severe housing deprivation between 2001 and 2006.

Table 41 Severe housing deprivation by broad living situation – count, proportions, and prevalence, 2001 and 2006

<table>
<thead>
<tr>
<th>Broad living situation</th>
<th>2001</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. people</td>
<td>% of severely housing deprived pop’n</td>
</tr>
<tr>
<td>1</td>
<td>1,296</td>
<td>5</td>
</tr>
<tr>
<td>Living without habitable accommodation due to a LAMAH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>267</td>
<td>1</td>
</tr>
<tr>
<td>Living in a non-private dwelling due to a LAMAH</td>
<td>Emergency accomm.</td>
<td>8,073</td>
</tr>
<tr>
<td></td>
<td>and marae</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>19,284</td>
<td>67</td>
</tr>
<tr>
<td>Living as a temporary resident in a severely crowded, permanent private dwelling due to a LAMAH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>28,917</td>
<td>101</td>
</tr>
</tbody>
</table>

Note: (1) Figures in the emergency accommodation category were derived from administrative data. The number of services that provided 2006 data was nearly three times higher than provided 2001 data, so the difference between the 2001 and 2006 figures should not be interpreted as growth.

Data sources: Statistics New Zealand and emergency accommodation providers

There were both consistencies and changes in the types of housing occupied by severely housing deprived people in 2001 and 2006 (Figure 14). In terms of the consistencies, two-thirds of the severely housing deprived population were living as temporary residents in severely crowded permanent private dwellings in both 2001 and 2006. Most of these severely housing deprived people were sharing with extended family (64 percent in 2001; 75 percent in 2006), most often in dwellings containing at least three generations of extended family. In both years, a very small percentage of the overall severely housing deprived population was living in emergency accommodation.
On the other hand, there was considerable change in prevalence of living ‘without habitable accommodation’, almost tripling between 2001 and 2006. Conversely, the prevalence of living in ‘commercial accommodation or marae due to LAMAH’ decreased by about 30 percent. Over this period, the number of severely housing deprived people increased in all housing types that make up the without habitable accommodation category (particularly mobile dwellings), and decreased in all housing types that make up the commercial accommodation and marae category (particularly camping grounds and motor camps) (see Appendix Six). Statistics New Zealand staff have examined the coding of these dwelling types, and believe that the ‘without habitable accommodation’ increase is partially due to an error in how mobile dwellings were classified (Rosemary Goodyear, personal communication, October 2013). There may have also been real differences, such as a reduction in the number of camping grounds, boarding houses, and other non-private accommodation through gentrification between 2001 and 2006, or a reduction in the willingness of these types of accommodation to accept people who are disadvantaged – but the cause of the change cannot be ascertained here. Figure 15 shows the distribution of severe housing deprivation by specific housing type in 2006.
8.4 Geographical distribution

This section describes the distribution of severe housing deprivation in New Zealand, by territorial authority (TA), regional council area, and urban/rural area.

Severe housing deprivation by territorial authority and regional council areas

The TAs with the highest prevalence of severe housing deprivation were generally outside the main urban centres: the five highest in 2006 were Opotiki, Manukau, Kaikoura, Whakatane, and the Far North (see Table A5, Appendix Seven). Figure 16 shows the prevalence of severe housing deprivation by regional council area in 2006, highlighting the areas where there was considerable change from 2001. Levels of severe housing deprivation were consistently highest in the Northland, Auckland, and Gisborne regions, and they increased in all regions of New Zealand over the period, except Tasman and Nelson, where its prevalence declined by 18 percent and 14 percent, respectively. The greatest increases in severe housing deprivation prevalence were in Southland (71 percent), Taranaki (41 percent), Canterbury (38 percent), and Manawatu-Wanganui (31 percent). It should be
noted that the number of severely housing deprived people per region was relatively small (less than
300 in a number of regions) so there is considerable risk that data collection differences between
2001 and 2006 influenced the magnitude of the observed changes.

In terms of absolute numbers, most severely housing deprived people were living in the upper North
Island, particularly in Auckland (Figure 17). Of all severely housing deprived people, 68 percent
lived in regions in the upper North Island (Northland, Auckland, Waikato, Bay of Plenty, Gisborne),
with 44 percent living in the area now governed by Auckland Council. The two TAs with the greatest
numbers of severely housing deprived people were Manukau City (18 percent of the severely housing
deprived population) and Auckland City (16 percent). Christchurch City had the third-highest
number, with six percent of the severely housing deprived population (note that this figure is for
2006, years before the Canterbury earthquakes).

Figures 18, 19, and 20 show the counts of the measurable severe housing deprivation categories by
TA. Severely housing deprived people living without habitable accommodation were widely
distributed, with the highest counts in the Far North, Whangarei, Manukau, Western Bay of Plenty,
Tasman, and Christchurch (Figure 18). Those living in non-private dwellings were concentrated in
major cities (Figure 19), and people sharing with others as ‘temporary residents in severely crowded
permanent private dwellings’ were mainly located in the upper North Island, particularly in Auckland
(Figure 20).

Severe housing deprivation by urban and rural area

Most severely housing deprived people were living in urban areas. Three-quarters of all severely
housing deprived people were located in main urban areas,¹³ and the urban:rural ratio was about 6:1
in both 2001 and 2006. However, the prevalence of severe housing deprivation was relatively
consistent across urban and rural areas. Figure 21 shows that the prevalence of severe housing
depprivation was highest in rural centres (areas with 300 to 999 people) and lowest in secondary urban
areas (with 10,000 to 29,999 people). An important caveat here is that one of the categories of severe
housing deprivation likely to be most prevalent in rural areas – living in housing lacking one or more
basic amenity (with minimally adequate security of tenure) due to a LAMAH – could not be
measured.

¹³ Main urban area – minimum population 30,000 people; secondary urban area – population of 10,000 to 29,999 people;
minor urban area – population of 1,000 to 9,000 people; rural centre – population of 300 to 999 people; other rural –
residual category, includes inlets, islands, inland waters, and oceanic waters outside urban areas and rural centres
(Statistics New Zealand, 2006b).
Figure 16 Prevalence of severe housing deprivation per 10,000 people by regional council area, 2006, and percentage change since 2001

Figure 17 Count of severely housing deprived people by territorial authority area, 2006

Note: The position of the Chatham Islands is not geographically correct

Data sources: Statistics New Zealand and emergency accommodation providers (for Figures 16 and 17)
Figure 18 Count of severely housing deprived people living without habitable accommodation, by TA, 2006

Figure 19 Count of severely housing deprived people living in non-private dwellings, by TA, 2006

Figure 20 Count of severely housing deprived people living as temporary residents in severely crowded permanent private dwellings, by TA, 2006

Note: The position of the Chatham Islands is not geographically correct

Data sources: Statistics New Zealand and emergency accommodation providers (for Figures 18, 19 and 20)
Figure 21 Prevalence of severe housing deprivation by urban/rural area, 2006

Figure 21 shows that most of the urban/rural difference in severe housing deprivation relates to the ‘without habitable accommodation’ and ‘temporary resident in severely crowded permanent private dwelling’ categories. Though the typical image of a rough sleeper is in an urban setting, in fact rural areas have a far greater prevalence of people living without habitable accommodation. Ethnicity and age differences among the severely housing deprived populations in these different areas may explain some of the pattern. Note too that emergency accommodation, where it exists, is concentrated in urban areas.

8.5 Demographic characteristics

This section presents a profile of the severely housing deprived population in terms of sex, age, ethnicity, iwi affiliation, family status, and relationship status (Table 42).
### Table 42 Severe housing deprivation by sex, age, ethnicity, family status and relationship status, 2006

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Category</th>
<th>No. people</th>
<th>% of severely housing deprived pop’n</th>
<th>Prevalence (per 1000 population)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>16974</td>
<td>50.6</td>
<td>8.2</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>16578</td>
<td>49.4</td>
<td>8.4</td>
</tr>
<tr>
<td><strong>Age group (years)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>&lt;15</td>
<td>8437</td>
<td>25.2</td>
<td>9.7</td>
</tr>
<tr>
<td></td>
<td>15-24</td>
<td>9008</td>
<td>26.9</td>
<td>15.8</td>
</tr>
<tr>
<td></td>
<td>25-34</td>
<td>4881</td>
<td>14.6</td>
<td>9.4</td>
</tr>
<tr>
<td></td>
<td>35-44</td>
<td>3370</td>
<td>10.1</td>
<td>5.5</td>
</tr>
<tr>
<td></td>
<td>45-54</td>
<td>2633</td>
<td>7.9</td>
<td>4.8</td>
</tr>
<tr>
<td></td>
<td>55-64</td>
<td>2546</td>
<td>7.6</td>
<td>6.2</td>
</tr>
<tr>
<td></td>
<td>65+</td>
<td>2578</td>
<td>7.7</td>
<td>5.2</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>European / Other(1)</td>
<td>11864</td>
<td>36.0</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>Māori</td>
<td>11358</td>
<td>34.5</td>
<td>20.1</td>
</tr>
<tr>
<td></td>
<td>Pacific</td>
<td>8223</td>
<td>25.0</td>
<td>30.9</td>
</tr>
<tr>
<td></td>
<td>Asian</td>
<td>5449</td>
<td>16.6</td>
<td>15.4</td>
</tr>
<tr>
<td></td>
<td>Middle Eastern, Latin American, African (MELAA)</td>
<td>462</td>
<td>1.4</td>
<td>13.3</td>
</tr>
<tr>
<td><strong>Iwi affiliation among Māori</strong></td>
<td></td>
<td>8733</td>
<td>80</td>
<td>-</td>
</tr>
<tr>
<td><strong>Family status</strong>(3,4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sole parent with dependent child/ren</td>
<td>10792</td>
<td>38.2</td>
<td>26.5</td>
</tr>
<tr>
<td></td>
<td>Adult not accompanied by family</td>
<td>9759</td>
<td>34.5</td>
<td>12.1</td>
</tr>
<tr>
<td></td>
<td>Sole parent with adult child/ren (no dependents)</td>
<td>674</td>
<td>2.4</td>
<td>6.8</td>
</tr>
<tr>
<td></td>
<td>Couple with dependent child/ren</td>
<td>4293</td>
<td>15.2</td>
<td>2.9</td>
</tr>
<tr>
<td></td>
<td>Couple without children</td>
<td>2339</td>
<td>8.3</td>
<td>2.8</td>
</tr>
<tr>
<td></td>
<td>Couple with adult child/ren (no dependents)</td>
<td>411</td>
<td>1.5</td>
<td>1.7</td>
</tr>
<tr>
<td><strong>Relationship status</strong>(5,6)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not partnered</td>
<td>15450</td>
<td>70.0</td>
<td>13.5</td>
</tr>
<tr>
<td></td>
<td>Partnered</td>
<td>6636</td>
<td>30.1</td>
<td>3.7</td>
</tr>
</tbody>
</table>

**Notes:**
(1) Other includes New Zealander.
(2) This table presents total response ethnicity data. If a person reported more than one ethnicity, they are included in each ethnic group.
(3) Family status, like all other variables in this chapter, is an individual-level variable. Thus, the percentages in this table relate to how many people were in each family status category, not how many families.
(4) Family status data were not available for people living in non-private dwellings (16 percent of the severely housing deprived population).
(5) Relates to adults only (people aged 15 or older).
(6) Relationship status data not available for people living in emergency accommodation.

**Data sources:** Statistics New Zealand and emergency accommodation providers
Sex

The number of males and females in the severely housing deprived population was almost even. Compared with males, females were more likely to be staying with friends or family (Figure 22). In part, this is due to the high prevalence of sole-parent families in the severely housing deprived population. Women headed most of these families, and they were mostly staying with friends or family in severely crowded permanent private dwellings.

Figure 22 Prevalence of severe housing deprivation by sex and living situation, 2006

Age

The severely housing deprived population was relatively young. The median age group was 20–24 years in both 2001 and 2006, compared with a median age of about 35 years for the general population (Statistics New Zealand, 2007a, n.d.-a). More than half the severely housing deprived population were younger than 25 years of age, and half of these were children under 15 years of age (despite likely underestimation of severe housing deprivation among children – see Section 7.3). The risk of severe housing deprivation is greatest for young people aged 15-24, affecting about 1 in every 60 people in this age group (Figure 23).

Figure 23 shows that younger severely housing deprived people were more likely to sharing with friends or family in severely crowded permanent private dwellings. Many young adults in this group were parents accompanied by dependent children. It is conceivable that the willingness of friends
and family to take people in is influenced by the presence of dependent children. It is also conceivable that the vulnerability of dependent children impels their parent/s to stay with family or friends. Older severely housing deprived people were more likely to be living without habitable accommodation, in commercial accommodation, or marae.

**Figure 23 Prevalence of severe housing deprivation by age and living situation, 2006**

While cultural expectations are likely to play a significant role in people's responses to housing need, age is also likely to be an important factor. Compared with younger people, older people may be less likely to approach family and friends for accommodation, as there is a societal expectation that older people should be independent and look after themselves, at least among Europeans. Older people may also have fewer family and friends to approach, as lifestyle change over time may have weakened social connections. The older age groups would also include people who have been severely housing deprived for long periods of time.

**Data sources:** Statistics New Zealand and emergency accommodation providers
Ethnicity

All ethnic minorities are overrepresented in the severely housing deprived population, particularly Pacific and Māori. Compared with people in the European/Other ethnic group, Māori are five times more likely to be severely housing deprived, and Pacific eight times more likely. In terms of the ethnic composition of the severely housing deprived population, the most commonly identified ethnicities were European/Other and Māori, each accounting for about a third of the population, then Pacific, accounting for a quarter of the population.

The types of housing occupied by severely housing deprived people varied considerably by ethnicity (Figure 24). Most severely housing deprived people who identified with an ethnicity other than European/Other were living with friends or family in severely crowded permanent private dwellings. Of all severely housing deprived people who identified with a Pacific ethnicity, 91 percent were sharing with others. This was also the case for 78 percent of Māori, 79 percent of Asian, and 69 percent of Middle Eastern, Latin American, and African people (MELAA).

Figure 24 Prevalence of severe housing deprivation by ethnicity and living situation, 2006

By contrast, severely housing deprived people who identified with a European/Other ethnicity were living in more varied situations: about one-third in each of the ‘without habitable accommodation’, ‘commercial accommodation and marae’, and ‘permanent private dwelling’ categories. It is not
surprising that levels of sharing with friends or family were high in cultures with strong kinship obligations. Of all severely housing deprived people in permanent private dwellings, 75 percent were sharing with extended family, which supports the idea that kinship obligation plays an important role in determining where people stay when they cannot access housing of their own. Most of these people (78 percent) were in dwellings containing at least three generations of family. It is clear that a person's culture influences their response to housing need.

Figure 25 provides more detail about the distribution of severe housing deprivation by age and ethnicity. It reveals that the peak in prevalence for young adults shown in Figure 23 largely relates to young adults in the 20-24 year age group who identify with a minority ethnic group. There is also a peak for Māori and Pacific children under five years of age. Elderly Pacific people have the highest prevalence of severe housing, the vast majority of whom (95 percent) were sharing with others in severely crowded permanent private dwellings. This reflects the propensity of Pacific families to respond to housing need by sharing a dwelling with multiple generations. It may also reflect that older Pacific people may have poorer English skills than their children or grandchildren, so they are unlikely to fill in the census forms even if they are the tenure holder, and hence are disproportionately likely to be identified as ‘temporary residents’ if they are living in a severely crowded rental dwelling (see Section 7.3).

Iwi affiliation

Among severely housing deprived people identifying as Māori, 80 percent identified with at least one iwi (tribal group). In 2006, severely housing deprived Māori were five percent more likely to identify with an iwi than the general population reporting Māori descent.

Family status

Most severely housing deprived people were either part of sole-parent families with dependent children, or adults not accompanied by family, both of which were overrepresented compared with the general population. Being in a couple (with or without children) seems to be protective against severe housing deprivation; for example, a person in ‘sole parent with dependent child/ren’ family is nine times more likely to be severely housing deprived than a person in a ‘couple with dependent child/ren’ family.
Figure 25 Prevalence of severe housing deprivation by age and ethnicity, 2006

![Graph showing prevalence of severe housing deprivation by age and ethnicity](image)

**Data sources:** Statistics New Zealand and emergency accommodation providers

Figure 26 shows the severely housing deprived population by family status and the proportion in each living situation. Most families with dependent children were sharing with family or friends in permanent private dwellings; on the other hand, couples without children made up the greatest proportion of people living without habitable accommodation. Figure 26 also shows that emergency accommodation is targeted at specific types of households. Overall, this sector mainly accommodates families with dependent children and adults on their own. Given that these household types make up most of the severely housing deprived population, these services seem appropriately targeted, despite only providing accommodation for a small percentage of those in need.

**Relationship status**

Echoing the family status findings, people without partners are about four times more likely to be severely housing deprived than people with partners. People without partners may be more likely to become severely housing deprived because they have less security. If they lose their job and can no longer afford to live in their home, for example, they lack the security of partner who may still have a job or other links to resources that would allow them to stay in their home. In some cases, the end
of a relationship (such as being widowed, separation, divorce, or fleeing domestic violence) may be part of the reason a person is severely housing deprived.

**Figure 26 Severely housing deprived population by family status and living situation, 2006**

<table>
<thead>
<tr>
<th>Family status</th>
<th>Prevalence (per 10,000 people)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sole parent with dependent child/ren</td>
<td>250</td>
</tr>
<tr>
<td>Adult not accompanied by family</td>
<td>200</td>
</tr>
<tr>
<td>Sole parent with adult child/ren (no dependents)</td>
<td>150</td>
</tr>
<tr>
<td>Couple with dependent child/ren</td>
<td>100</td>
</tr>
<tr>
<td>Couple without children</td>
<td>50</td>
</tr>
<tr>
<td>Couple with adult child/ren (no dependents)</td>
<td>0</td>
</tr>
</tbody>
</table>

*Data sources: Statistics New Zealand and emergency accommodation providers*

**8.6 Residential mobility**

Severely housing deprived people are more residentially mobile than the general population, with almost half having moved in the previous year (Table 43). It is worth noting that a quarter of the severely housing deprived population had been living in the same severely inadequate housing for a long period of time – five or more years. As shown in Figure 27, among people living in the same severely inadequate living situation for longer periods of time, a greater proportion lived in the most deprived conditions (without habitable accommodation), compared with severely housing deprived people who had moved in the previous year.
Table 43 Severe housing deprivation by residential mobility, 2006

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Category</th>
<th>No. people</th>
<th>% of severely housing deprived pop’n</th>
<th>Prevalence (per 1000 population)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years at address(^{(1)})</td>
<td>&lt;1</td>
<td>14661</td>
<td>47.7</td>
<td>15.7</td>
</tr>
<tr>
<td></td>
<td>1–4</td>
<td>8829</td>
<td>28.7</td>
<td>7.1</td>
</tr>
<tr>
<td></td>
<td>5–9</td>
<td>3948</td>
<td>12.8</td>
<td>6.0</td>
</tr>
<tr>
<td></td>
<td>10+</td>
<td>3303</td>
<td>10.7</td>
<td>3.5</td>
</tr>
</tbody>
</table>

Note: (1) Residential mobility data not available for people living in emergency accommodation.

Data source: Statistics New Zealand

Figure 27 Severely housing deprived population by years at address and living situation, 2006

Prevalence (per 1000 people)

Data source: Statistics New Zealand
8.7 Socioeconomic characteristics

This section reports the socioeconomic characteristics of the severely housing deprived population, in terms of work and study participation, occupation, and level of formal education. These characteristics are summarised in Table 44 and discussed in turn.

Table 44 Severe housing deprivation by work and study participation, occupation and level of qualification, 2006

<table>
<thead>
<tr>
<th>Characteristic(1,2)</th>
<th>Category</th>
<th>No. people</th>
<th>% of severely housing deprived pop’n</th>
<th>Prevalence (per 1000 people)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working, studying, or both</td>
<td></td>
<td>12147</td>
<td>49.4</td>
<td>-</td>
</tr>
<tr>
<td>Work (paid employment)</td>
<td>Employed full-time</td>
<td>4638</td>
<td>18.8</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>Employed part-time</td>
<td>3342</td>
<td>13.6</td>
<td>7.3</td>
</tr>
<tr>
<td></td>
<td>Not in the labour force</td>
<td>13686</td>
<td>55.6</td>
<td>14.2</td>
</tr>
<tr>
<td></td>
<td>Unemployed</td>
<td>2940</td>
<td>11.9</td>
<td>27.6</td>
</tr>
<tr>
<td>Study</td>
<td>Not studying</td>
<td>16596</td>
<td>73.5</td>
<td>7.0</td>
</tr>
<tr>
<td></td>
<td>Part-time study</td>
<td>1095</td>
<td>4.8</td>
<td>7.1</td>
</tr>
<tr>
<td></td>
<td>Full-time study(3)</td>
<td>4902</td>
<td>21.7</td>
<td>16.3</td>
</tr>
<tr>
<td>Occupation among those employed(4)</td>
<td>Professionals</td>
<td>738</td>
<td>9.2</td>
<td>1.4</td>
</tr>
<tr>
<td></td>
<td>Legislators, administrators, managers</td>
<td>519</td>
<td>6.5</td>
<td>1.8</td>
</tr>
<tr>
<td></td>
<td>Trades workers, plant &amp; machinery operators, &amp; assemblers</td>
<td>1224</td>
<td>15.3</td>
<td>3.8</td>
</tr>
<tr>
<td></td>
<td>Clerks, service, &amp; sales workers</td>
<td>2271</td>
<td>28.5</td>
<td>4.7</td>
</tr>
<tr>
<td></td>
<td>Agriculture &amp; fishery workers</td>
<td>717</td>
<td>9.0</td>
<td>5.5</td>
</tr>
<tr>
<td></td>
<td>Elementary occupations(5)</td>
<td>2511</td>
<td>31.5</td>
<td>10.7</td>
</tr>
<tr>
<td>Highest qualification gained</td>
<td>Bachelor’s degree or higher</td>
<td>1368</td>
<td>6.2</td>
<td>3.1</td>
</tr>
<tr>
<td></td>
<td>Certificate or diploma</td>
<td>2298</td>
<td>10.4</td>
<td>4.1</td>
</tr>
<tr>
<td></td>
<td>High school</td>
<td>9060</td>
<td>40.9</td>
<td>8.1</td>
</tr>
<tr>
<td></td>
<td>No qualification</td>
<td>9414</td>
<td>42.5</td>
<td>13.3</td>
</tr>
</tbody>
</table>

Notes: (1) All variables in this table relate to adults (people aged 15 years or older). (2) None of the variables in this table were available for people living in emergency accommodation. (3) Full-time study includes two census categories: full-time study; and full-time and part time study. (4) Occupation is reported according to the NZSCO99 classification (Statistics New Zealand, 2001), which is the only occupation classification applied to both the 2001 and 2006 Censuses. (5) The ‘elementary occupations’ category should be used with caution as it includes residuals, i.e. employed individuals whose occupation was unknown.

Data source: Statistics New Zealand
Work and study

Almost half the adult severely housing deprived population were working in paid employment, studying, or both. This figure includes about a third of severely housing deprived adults who were among the working poor – in employment, but lacking enough resources to be able to obtain a minimally adequate home for themselves or their family. Many had unskilled or manual jobs, such as clerks, labourers, or service workers. In terms of risk of severe housing deprivation, however, people who are unemployed or not in the labour force are much more likely to be severely housing deprived than those who are employed.

Looking at study participation on its own, just over a quarter of severely housing deprived adults were students, with full-time students being more than twice as likely to be severely housing deprived than adults who were not studying. This is surprising. Misclassification may be contributing to the association: students are at risk of being misclassified as severely housing deprived because they usually have low incomes, but this low income may not reflect their actual level of resources if they receive in-kind support from family, for example. On the other hand, the association may be real. Severe housing deprivation does not relate to living in a typical student flat. Two-thirds of severely housing deprived students were living in severely crowded dwellings, just over a quarter in commercial accommodation or marae, and seven percent were living without habitable accommodation. These are not standard living situations, and students may very well be occupying them due to a LAMAH.

Level of education

Severely housing deprived adults had a low level of education compared with the general population, with people who had not finished high school (no qualification) particularly overrepresented. It should be noted that Table 44 relates to people aged 15 years or older, who may be in the process of getting a high school qualification. However, among people aged 25 and older, severely housing deprived people remain almost twice as likely to have no qualification compared with the general population (Table 45).

---

14 The number of people performing elementary jobs such as laboring or cleaning could not be determined in this study. As mentioned in a footnote of Table 44, the ‘elementary occupations’ category of the NZSCO99 classification includes both people in elementary jobs and people whose occupation was unknown (residuals). This is unusual: residuals usually have their own category, and I was not aware of this feature of the occupation classification when performing the analysis. Elementary jobs can be separated from residuals at the more detailed levels of this classification, which I will perform for future publication.
Table 45 Highest qualification among people aged 25 and older, 2006

<table>
<thead>
<tr>
<th>Highest qualification gained</th>
<th>Severely housing deprived population</th>
<th>Usually resident population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor's degree or higher</td>
<td>7</td>
<td>18</td>
</tr>
<tr>
<td>Certificate or diploma</td>
<td>12</td>
<td>22</td>
</tr>
<tr>
<td>High school</td>
<td>33</td>
<td>35</td>
</tr>
<tr>
<td>No qualification</td>
<td>48</td>
<td>25</td>
</tr>
</tbody>
</table>

Data source: Statistics New Zealand

8.8 Place of birth and migration characteristics

This section presents the profile of severely housing deprived people in terms of their place of birth, and, if born overseas, how long they had been living in New Zealand. These characteristics are summarised in Table 46 and discussed below.

Table 46 Severe housing deprivation by place of birth and years in New Zealand, 2006

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Category</th>
<th>No. people</th>
<th>% of severely housing deprived pop’n</th>
<th>Prevalence (per 1000 people)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Place of birth</td>
<td>Overseas</td>
<td>10704</td>
<td>33.3</td>
<td>12.2</td>
</tr>
<tr>
<td></td>
<td>New Zealand</td>
<td>21420</td>
<td>66.7</td>
<td>7.2</td>
</tr>
<tr>
<td>Place of birth among people born overseas</td>
<td>Pacific</td>
<td>3930</td>
<td>36.7</td>
<td>28.9</td>
</tr>
<tr>
<td></td>
<td>Northeast Asia</td>
<td>3084</td>
<td>28.8</td>
<td>22.8</td>
</tr>
<tr>
<td></td>
<td>Southeast Asia</td>
<td>921</td>
<td>8.6</td>
<td>15.8</td>
</tr>
<tr>
<td></td>
<td>South-central Asia</td>
<td>642</td>
<td>6.0</td>
<td>11.1</td>
</tr>
<tr>
<td></td>
<td>North Africa / Middle East</td>
<td>141</td>
<td>1.3</td>
<td>8.5</td>
</tr>
<tr>
<td></td>
<td>Americas</td>
<td>243</td>
<td>2.3</td>
<td>7.1</td>
</tr>
<tr>
<td></td>
<td>Australia</td>
<td>384</td>
<td>3.6</td>
<td>6.1</td>
</tr>
<tr>
<td></td>
<td>Sub-Saharan Africa</td>
<td>324</td>
<td>3.0</td>
<td>5.5</td>
</tr>
<tr>
<td></td>
<td>Europe</td>
<td>1035</td>
<td>9.7</td>
<td>3.2</td>
</tr>
<tr>
<td>Years in NZ among people born overseas</td>
<td>&lt;1</td>
<td>1737</td>
<td>17.5</td>
<td>29.4</td>
</tr>
<tr>
<td></td>
<td>1–4</td>
<td>3639</td>
<td>36.7</td>
<td>17.1</td>
</tr>
<tr>
<td></td>
<td>5+</td>
<td>4539</td>
<td>45.8</td>
<td>8.0</td>
</tr>
</tbody>
</table>

Note: None of the variables in this table were available for people living in emergency accommodation.

Data source: Statistics New Zealand
Place of birth

Two-thirds of severely housing deprived people were born in New Zealand. However, people born overseas are 70 percent more likely to be severely housing deprived, particularly people from the Pacific and Northeast Asia, who together accounted for about two-thirds of severely housing deprived migrants. Compared with New Zealand-born severely housing deprived people, severely housing deprived migrants were more likely to be living with friends or family in severely crowded permanent private dwellings, and less likely to be living without habitable accommodation. This fits with the pattern of severe housing deprivation by ethnicity.

Years in New Zealand

New migrants (those in New Zealand for less than a year) are at the highest risk of being severely housing deprived – nearly four times more likely than migrants who have lived in New Zealand for five years of more. Among severely housing deprived migrants, most had been living in New Zealand for over a year, with nearly half having lived in New Zealand for five years or more. Among those who had been living in New Zealand for five years or more, a greater proportion were living without habitable accommodation, compared with recent migrants (Figure 28). This pattern may reflect family and friends being more willing to host people who are relatively new to the country, especially those who moved to New Zealand through chain migration (that is, migration arranged through family or friends who migrated earlier). Another explanation may be that migrants who have been in the country for longer are more likely to be living away from extended family and thus do not have access to them when they have a housing crisis.
8.9 Housing tenure

This variable relates to the tenure of housing occupied, reflecting the circumstances of those who were hosting severely deprived people. It only applies to severely crowded permanent private dwellings that contain temporary residents.

Severely housing deprived people are particularly likely to be staying in HNZC housing (state social housing), which mostly accommodates people who are socioeconomically deprived (Table 47). This indicates that many people who are poor themselves take in people who are in housing need, signalling their strength of care, and in many cases, the strength of kinship obligation. In some cases, taking in people in housing need (to the point where the dwelling becomes severely crowded) may be necessary for the hosts to be able to manage their housing costs. Compared with owner-occupied housing, HNZC properties are twelve times more likely to contain severely housing deprived people, and private rentals twice as likely.
Table 47 Severely housing deprived people in permanent private dwellings by housing tenure, 2006

<table>
<thead>
<tr>
<th>Tenure</th>
<th>Population in permanent private dwellings</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. people</td>
<td>% of</td>
<td>% of</td>
<td>Prevalence</td>
</tr>
<tr>
<td></td>
<td></td>
<td>severely</td>
<td>severely</td>
<td>(per 1000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>housing</td>
<td>housing</td>
<td>people)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>pop’n</td>
<td>pop’n</td>
<td></td>
</tr>
<tr>
<td>HNZC(1)</td>
<td>5451</td>
<td>25.9</td>
<td>32.7</td>
<td></td>
</tr>
<tr>
<td>Other not owned</td>
<td>2190</td>
<td>10.4</td>
<td>10.7</td>
<td></td>
</tr>
<tr>
<td>Other government</td>
<td>189</td>
<td>0.9</td>
<td>10.7</td>
<td></td>
</tr>
<tr>
<td>Private rental</td>
<td>6021</td>
<td>28.6</td>
<td>7.3</td>
<td></td>
</tr>
<tr>
<td>Council</td>
<td>102</td>
<td>0.5</td>
<td>6.6</td>
<td></td>
</tr>
<tr>
<td>Owned</td>
<td>5925</td>
<td>28.1</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>Family trust</td>
<td>1206</td>
<td>5.7</td>
<td>2.7</td>
<td></td>
</tr>
</tbody>
</table>

Note: (1) There is a considerable census undercount of households renting through HNZC, so these percentages are indicative only.

Data source: Statistics New Zealand

8.10 Number of dwellings needed to house the 2006 severely housing deprived population

It is not possible to calculate exactly how many dwellings would be required to house the 2006 severely housing deprived population, because the relationships between severely housing deprived people in the same dwelling were often unknown. Instead, lower and upper bounds are estimated: 12,900 to 21,100 dwellings.

The lower bound – 12,900 dwellings – is based on an assumption that every severely housing deprived person living in the same dwelling could be housed together. This figure likely underestimates the required number of dwellings, because people living in dwellings that accommodate multiple households (such as boarding houses) are grouped together. If multiple severely housing deprived families were sharing with others in a permanent private dwelling, they are also grouped together.

The upper bound – 21,100 dwellings – is based on an assumption that every severely housing deprived family would require their own dwelling, and every severely housing deprived person not accompanied by a family would also require their own dwelling. This figure likely overestimates the required number of dwellings because it assumes people not accompanied by family were on their
own, when in fact many would have been accompanied by other people, who they may want to be housed with. All severely housing deprived people in non-private dwellings are also considered to be on their own because information about the relationships between people in non-private dwellings is not collected in the census.

8.11 Conclusion

This chapter presented statistics on the size and characteristics of the severely housing deprived population, and estimated how many dwellings would be required to house this population. The next chapter applies a different measure of homelessness to the same data, and compares the findings with those presented here.
CHAPTER NINE
APPLYING OTHER MEASURES OF HOMELESSNESS TO NEW ZEALAND DATA

9.1 Introduction

The methodology for measuring severe housing deprivation proposed in this thesis is new and quite different to other methodologies for measuring homelessness. Thus, it is not possible to directly compare the severely housing deprived population identified in Chapter Eight with those identified as homeless in other countries. However, it is possible to apply different definitions to the same dataset, facilitating comparison of the definitions themselves. That is the aim of this chapter.

A useful way to examine the strengths and weaknesses of a methodology is to compare the results it produces with the results of other approaches applied to the same data. This provides an opportunity to go beyond the abstract and directly compare the face validity of the numbers they produce. This chapter applies one of the measures of homelessness discussed in the literature review – ETHOS Light – to the same data used to derive the statistics reported in Chapter Eight. Comparing the numbers produced by these two definitions may help to temper the common problem of reification, which is to “confuse the index with the phenomenon it purports to measure and, as a result, forget that an index is only a proxy or partial measure” (Carr-Hill & Chalmers-Dixon, 2002 in Salmond et al., 2007, p. 16). As discussed in the literature review, there has been little rigorous analysis of the various methods for measuring homelessness – both in terms of their theoretical basis and their technical aspects. This makes reification a real risk for the field.

9.2 Methods considered

Five international methods for measuring homelessness were considered: ETHOS Light (Edgar et al., 2007); ABS (2012e); Chamberlain (1999); Chamberlain and MacKenzie (2003); and Chamberlain and MacKenzie (2008). These five were selected because they are the only measures that are both based on conceptual models of homelessness and applicable to the data sources used in this thesis.\(^\text{15}\)

The ABS (2012e), Chamberlain (1999), and Chamberlain and MacKenzie (2003; 2008) methods cannot be applied to New Zealand census data. The ABS method involves applying a number of

\(^{15}\text{It is worth noting that Statistics New Zealand’s (2009a) New Zealand Definition of Homelessness could not be applied because it is a conceptual definition – it does not set out an operational definition for measurement.}\)
variables that are not part of the New Zealand census – residential status, type of educational institution attending, landlord type (real estate agent), and need for assistance with core activities. In addition, the ABS also does not provide guidance as to how the various income, mortgage, and rent payment thresholds should be set. There are similar barriers to applying the Chamberlain and Chamberlain and MacKenzie methods. ETHOS Light is the only method of the five that could be applied to New Zealand data.

9.3 Applying ETHOS Light to New Zealand data

The ETHOS Light classification of homelessness comprises 12 living situation categories (see Chapter Three for the full definition – Table 6). Table 48 lists the data sources used to measure each category, and describes the operational definitions applied. It also includes the categories that could not be measured using New Zealand data.

The ETHOS Light method involves identifying people living in certain housing types, then restricting this population to those who report having no place of usual residence (Edgar et al., 2007). Note that ‘no place of usual residence’ is termed ‘no fixed abode’ in the New Zealand census (Table 48). For data derived from emergency accommodation, however, all residents were included as homeless – no restriction was applied.

9.4 Size of the homeless population in New Zealand, according to ETHOS Light

The number of people identified as homeless in New Zealand in 2001 and 2006, according to ETHOS Light definition, is shown in Table 49. In both years, the size of the homeless population identified by ETHOS Light was much smaller than the population identified as severely housing deprived in Chapter Eight. In 2001, the ETHOS Light population was about 15 times smaller; in 2006, 17 times smaller.

The first category of Table 49 – people living rough, in non-conventional buildings, or temporary structures – is perhaps the most useful to compare with the results presented in Chapter Eight (Table 41). According to the approach proposed in this thesis, as described in Chapter Seven, people living in these types of housing were identified as severely housing deprived if they reported having no other address and a low income. By contrast, ETHOS Light identifies people living in the same housing types as homeless only if they reported having no fixed abode.
Table 48 ETHOS Light categories of homelessness, the data sources used to measure them, and the operational definitions applied

<table>
<thead>
<tr>
<th>Living situation</th>
<th>Data source</th>
<th>Operational definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Public space / external space</td>
<td>Census</td>
</tr>
<tr>
<td>2</td>
<td>Overnight shelters</td>
<td>Client data from emergency accommodation providers</td>
</tr>
<tr>
<td>3</td>
<td>Homeless hostels</td>
<td>All people living in 'other accommodation targeted at people who LAMAH'(^2) on census night for whom data were available</td>
</tr>
<tr>
<td>4</td>
<td>Temporary accommodation</td>
<td>N/A</td>
</tr>
<tr>
<td>5</td>
<td>Transitional supported accommodation</td>
<td>N/A</td>
</tr>
<tr>
<td>6</td>
<td>Women’s shelter or refuge accommodation</td>
<td>Client data from women’s refuges</td>
</tr>
<tr>
<td>7</td>
<td>Health care institutions</td>
<td>N/A</td>
</tr>
<tr>
<td>8</td>
<td>Penal institutions</td>
<td>N/A</td>
</tr>
<tr>
<td>9</td>
<td>Mobile homes</td>
<td>1. Living in a mobile dwelling, not in a motor camp; and 2. Usual address is no fixed abode</td>
</tr>
<tr>
<td>10</td>
<td>Non-conventional building</td>
<td>Census</td>
</tr>
<tr>
<td>11</td>
<td>Temporary structure</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Conventional housing, but not the person’s usual place of residence</td>
<td>1. Living in a permanent private dwelling; and 2. Usual address is no fixed abode</td>
</tr>
</tbody>
</table>

Notes: (1) In New Zealand census data, it is not possible to separately identify people living rough (Living situation 1) from people living in non-conventional buildings (Living Situation 10) or people living in temporary structures (Living Situation 11). See explanation in Section 7.3. These categories were analysed as a single category.
(2) These housing types are defined in Table 29.
Source: Living situations from Edgar et al. (2007)
Table 49 Number of homeless people in New Zealand according to ETHOS Light, by living situation, 2001 and 2006

<table>
<thead>
<tr>
<th>Living situation</th>
<th>2001</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 &amp; 10 &amp; 11 People living rough, in non-conventional</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>buildings, or temporary structures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Overnight shelters</td>
<td>47</td>
<td>49</td>
</tr>
<tr>
<td>3 Homeless hostels</td>
<td>190</td>
<td>342</td>
</tr>
<tr>
<td>6 Women’s shelter or refuge accommodation</td>
<td>30</td>
<td>260</td>
</tr>
<tr>
<td>9 Mobile homes</td>
<td>159</td>
<td>234</td>
</tr>
<tr>
<td>12 Conventional housing</td>
<td>1,461</td>
<td>993</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1,893</td>
<td>1,881</td>
</tr>
</tbody>
</table>

The weakness of ‘no fixed abode' as a proxy for homelessness was discussed in Section 3.6. Here, comparing the ETHOS Light approach with the approach proposed in this thesis illustrates those arguments. Living out in the open or in an improvised structure is the most uncontroversial types of homelessness – most people would agree that people living in such situations are homeless, provided they are living there due to a LAMAH. It is also plausible that out of all severe housing deprivation, people living in such situations are the most likely to recognise themselves as homeless, and thus are probably the most likely to report having no fixed abode, a term often treated as synonymous with homelessness. However, the results show that this is not the case. Out of all the people identified as living rough or in improvised dwellings on census night, only six people identified themselves as having no fixed abode in 2001, and three people in 2006. Compared with the population in these housing types identified as severely housing deprived using the method proposed in this thesis (660 people in 2001; 1,464 people in 2006 – see Appendix Six), the ETHOS Light figures are about 100 times smaller in 2001, and about 500 times smaller in 2006. Clearly, the definitions yield very different results when applied to the same data. Though it is not possible to know the true number of homeless people in these living situations on the 2001 and 2006 census nights, the ETHOS Light figures seem extraordinarily low. This finding further supports the argument made in the literature review that ‘no fixed abode’, on its own, is not a valid proxy for ‘lack of access to minimally adequate housing’.

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16 Note these figures are random rounded to base three, as per Statistics New Zealand’s confidentiality requirements.
9.5 Conclusion

This chapter applied an international measure of homelessness, ETHOS Light, to New Zealand data, yielding homelessness estimates at least 15 times smaller than the severe housing deprivation estimates presented in Chapter Eight. This difference demonstrates how seemingly minor variances in homelessness definitions can lead to very different results. This chapter illustrates why international homelessness statistics derived from different definitions are poorly comparable, supporting the need for a conceptually valid, internationally standardised definition and classification of severe housing deprivation. The next chapter draws together the thesis’ findings, and makes conclusions regarding theory, policy, and measurement.
CHAPTER TEN
DISCUSSION AND CONCLUSIONS

10.1 Introduction

This chapter summarises the key findings of the thesis and considers their implications. The main strengths and limitations of the study are then discussed, and further research needs are identified. Finally, eleven recommendations are made for improving measurement and understanding of severe housing deprivation.

10.2 Key findings

This thesis sought to develop a conceptual definition, classification, and operational definition of severe housing deprivation with strong conceptual validity, addressing a gap in the literature. The new approach was found to be workable in the New Zealand context: it was possible to apply it to New Zealand census and administrative data to measure most categories of severe housing deprivation.

At the broad conceptual level, there is wide agreement that homelessness relates to severe housing deprivation (lacking access to minimally adequate housing). At more detailed levels of definition and classification, however, existing approaches diverge considerably. This thesis sought to develop an approach that can be applied globally, achieved through grounding the methodology in globally-applicable human rights and poverty principles. This thesis developed the ‘agreed’ concept of homelessness into a detailed conceptual definition of severe housing deprivation, based on deprivation of ‘core’ elements of housing adequacy – habitability, privacy and control, and security of tenure. The term ‘severe housing deprivation’ is recommended as an alternative to ‘homelessness’ as it more accurately describes the phenomenon of lacking access to minimally adequate housing, and avoids the stigma and stereotype that burden the word homelessness. The proposed definition frames severe housing deprivation as an issue of multiple deprivations – being forced to live in housing that is lacking in multiple core dimensions of housing adequacy. The homelessness literature is replete with definitions specifying who should be identified as homeless, but almost all of them are insufficiently supported by theory. This thesis sought to present a clear and well-justified account of who should be identified as severely housing deprived.

The proposed methodology involves identifying severely housing deprived people based on the type of housing they are occupying on census night, their access to other accommodation, and their
socioeconomic position. The filters used to identify severely housing deprived people in New Zealand census data are: having no other place to live; low income; and, for temporary residents in permanent private dwellings – living in a severely crowded dwelling. It is important to note that the population identified as severely housing deprived have low incomes by definition, which reflects an assumption that poor housing affordability is one of the main reasons people are forced to live in severely inadequate housing.

Applied to New Zealand, at least 34,000 people were severely housing deprived in 2006, which equals 84 per 10,000 people, or about one in every 120 New Zealanders. This result is much higher than reported prevalence of homelessness in other nations, but the figures are poorly comparable, even between New Zealand and Australia. The prevalence of severe housing deprivation increased by eight percent between 2001 and 2006. This was a period of economic growth in New Zealand, with declines in poverty (Perry, 2013) and unemployment (Statistics New Zealand, 2013b), but housing affordability and shortages worsened (particularly in Auckland), and fewer and fewer houses were being built at the ‘affordable’ end of the market (NZPC, 2012). A modest number of dwellings were added to the supply of social housing, with HNZC largely focusing on backlogged maintenance and programmes to improve the quality of state houses and their surrounds (Johnson, 2007). The increase in severe housing deprivation from 2001 to 2006 is consistent with an increase in severe household crowding over the period (Baker et al., 2012).

Two-thirds of severely housing deprived people were sharing with others, usually family, in severely crowded dwellings; 18 percent were living in commercial accommodation or marae; 15 percent were living on the street or in improvised or mobile dwellings; and just two percent were living in emergency accommodation, such as night shelters or women’s refuges. The finding that most severely housing deprived people were living with family or friends signals New Zealanders’ compassion and generosity, even when sharing their home puts their own health at risk through increased crowding. Without such acts of generosity, many more people would be living in more extreme and visible forms of severe housing deprivation. It is not surprising that most people who cannot access a dwelling of their own seek to stay with family and friends, rather than living rough or in a night shelter. Their need for decent, affordable housing is no less real than the more visible need of people living on the street. Less than five percent of the severely housing deprived population were living on the street or in improvised dwellings, which highlights a key weakness of narrow definitions of homelessness; they grossly underestimate the true level of unmet housing need. It is also important to note that the types of housing severely housing deprived people occupied was patterned by ethnicity and age, with people belonging to minority ethnic groups, children, and young people being much more likely to be sharing with others. As such, measures of homelessness that
exclude the ‘sharing’ population are likely to produce a whiter and older picture of homelessness than is the reality.

Most severely housing deprived people were living in main urban areas, particularly in the upper North Island, and especially Auckland. A high number of severely housing deprived people in Auckland is to be expected, as it was home to one in every three New Zealanders in 2006 (Statistics New Zealand, n.d.-e), and is the site of severe housing affordability problems (NZPC, 2012). However, the prevalence of severe housing deprivation was found to be relatively consistent across urban and rural areas. Homelessness is generally thought of as an urban issue, but urban and rural homelessness is often poorly comparable because there are few dedicated homelessness services in rural areas to collect data, or because homelessness is operationally defined in different ways by authorities (Milbourne & Cloke, 2006; Robertson et al., 2007). Research from the United States also found a similar level of homelessness per capita across urban and rural areas, when measured in a comparable manner (Robertson et al., 2007). The way severe housing deprivation manifests varies across urban and rural areas: compared with their urban counterparts, people in rural areas are more likely to be living without habitable accommodation. Seasonal workers in orchards and vineyards may account for some of the population living without habitable accommodation in rural areas: there are well-known issues around supply and quality of seasonal workers’ housing (Collins, 2008).

Children and young adults were found to be at greatest risk of severe housing deprivation, which is consistent household crowding statistics (Baker et al., 2012). As might be expected (based on patterns of deprivation in New Zealand), severely housing deprived people largely identified with non-European ethnicities, and were mainly part of sole-parent families or not accompanied by family. Severe housing deprivation was associated with being a new migrant to New Zealand, particularly from the Pacific or North Asia, high residential mobility, being unemployed, being out of the labour force, having an unskilled job, and having a low level of education. Almost half of all severely housing deprived adults were engaged in employment or study, or both. A third of severely housing deprived adults were employed, but did not have resources to be able to access minimally adequate housing.

The number of dwellings required to house the 2006 severely housing deprived population was estimated at 12,900 to 21,100 dwellings. At the same time, only 5,000 households were included in the top priority categories of the state housing waiting list for the whole of New Zealand, and only 150 households recognised as being in severe and persistent housing need (Category A) (MBIE, 2012).
10.3 Implications

This new measure addresses an important gap in knowledge about unmet housing need in New Zealand. Information about this population has been lacking in New Zealand, with the government tending to rely on the HNZC waiting list (Smith, 2013a). This waiting list has never been a comprehensive measure of severe housing deprivation because it is a rationing and political tool, rather than a measuring one. The previous National-led government removed two categories from the waiting list, changed the eligibility criteria, and significantly changed the application process. The methodology for measuring severe housing deprivation proposed in this thesis provides a comprehensive, meaningful measure of severe housing need using national, routinely-collected official and administrative data.

The finding that at least 34,000 people were severely housing deprived in 2006, and that up to 21,000 dwellings would be needed to address the problem, adds to the evidence that significant investment is needed in quality housing that is affordable for people on low incomes. Insofar as New Zealand governments have responded to housing affordability, the focus has tended to be on home ownership, with insufficient attention to the affordability of rentals, the supply of social and other forms of housing with higher levels of support (Johnson, 2013), and meeting the housing needs of different cultural groups. The severe housing deprivation figures reflect only the most deprived in regard to housing, and do not account for those living in poor quality or unaffordable housing, whose needs are also serious concerns. While severe housing deprivation has been found to affect about one percent of the population, serious housing needs are far more widespread in New Zealand. The market has not provided affordable housing for those with modest incomes, and even for those with above-average incomes in some areas. In this state of demonstrable market failure, there is a strong argument for government intervention and leadership.

Severe housing deprivation is very likely to have negative health, social, and economic consequences. The best New Zealand evidence for detrimental effects of severe housing deprivation relates to living in a crowded dwelling. Household crowding in New Zealand causes at least 1300 hospital admissions a year for severe infectious diseases, such as pneumonia, meningococcal disease, and gastroenteritis (Baker et al., 2013). The more crowded a house, the higher the risk of these diseases (Baker et al., 2013), which is relevant here because much of the severely housing deprived population identified in this thesis were living in severely crowded dwellings. New Zealand evidence on the health risks of other types of severe housing deprivation is not available – further research is needed.
Almost half of the severely housing deprived population were children and young adults, which raises concerns about the impact on development and learning, and long-term, flow-on effects on their lives (CCEAG on Solutions to Child Poverty, 2012). A decent standard of living is fundamental if young New Zealanders (who are disproportionately non-European) are to go on to reach their full potential. This includes participating and thriving in the workforce, which will provide dividends not only for themselves and their families, but also for the growing older portion of New Zealand’s population. According to Jackson (2011), “New Zealand’s ability to respond to its ageing population depends very much on its investment in its youthful population” (p. 24, original emphasis).

This thesis has argued that the way homelessness is labelled and measured should be standardised. Among homelessness academics, advocates, and service providers, it tends to be understood that people who cannot access any housing to rent live in a much broader range of situations than just on the street. This understanding has also been reflected in the New Zealand media, which has featured many stories illustrating the range of living situations people are forced to occupy due to barriers to affordable housing. Increasingly, this type of story is framed as homelessness, including examples of individuals and families forced to live in tents ("Family falls through the gaps," 2013), camping grounds ("High rents force families into campground," 2008), boarding houses (Chapman, 2011; Rashbrooke, 2012), vehicles ("Families in caravans, cars as Housing NZ gets tough," 2012; Gillies, 2012; Selwyn, 2013), and staying with friends or family in crowded dwellings (Bazley, 2016; "Housing crisis in Napier reflects national picture," 2012; Owen, 2012). The term ‘homelessness’ has come into greater use, but the idea of homelessness as rough sleeping continues to dominate (and minimise) the issue. Consistently framing the issue as severe housing deprivation, at least in the literature, may aid progress toward an internationally standardised definition. It may help integrate perspectives from less- and more-developed countries, as severe housing deprivation is undeniably a global issue, but perception of the homelessness label as “grossly insulting” (UN-Habitat, 2000, p. 150) limits its application. The deprivations that homelessness/severe housing deprivation reflect (lack of access to habitable housing, lack of security of tenure, and a lack of privacy and control) are too important to be dismissed on semantic grounds. Like income poverty and other forms of deprivation, scholars should be leading rather than being led by political and popular constructions – we should be at the forefront of establishing and implementing meaningful definitions of social issues.
10.4 Strengths and limitations

Strengths

The first strength of the definition and classification of severe housing deprivation proposed in this thesis is its conceptual validity, including satisfying the core requirements of statistical classification. It develops a concept of homelessness that is already well established in the literature, and is intended to be globally applicable, with the potential for producing comparable statistics that are sensitive to regional variation. This approach is not constrained by differences in what locals think the word ‘homelessness’ means; instead, it draws global applicability from its grounding in human rights and established constructs of poverty and deprivation. This thesis contributes a theoretical perspective to an area that has had inadequate theoretical attention, and such work is crucial if we are to realise international agreement on what should be measured as severe housing deprivation. The Institute of Global Homelessness have adopted the broad concept of homelessness proposed in this thesis, but not the more detailed model or classification (Busch-Geertsema, Culhane and Fitzpatrick, 2016).

The second strength of the approach proposed in this thesis is that it can be applied to routinely collected data to measure most categories of severe housing deprivation in New Zealand. Access to national census unit record data and administrative data collected by emergency housing providers nationwide means the statistics are more accurate than a sample would permit. Because this study does not solely depend on people accessing a homelessness service or local authority to be counted as severely housing deprived, it avoids some of the selection bias that afflicts some other measures. It identifies severely disadvantaged people who are usually statistically invisible because they are not living in permanent private dwellings and thus are excluded from most official data collections. These people do not appear in poverty, unemployment, or living standards statistics.

Compared with other methods for identifying severely housing deprived people in census data, the approach proposed here is relatively straightforward, with the major criteria applied consistently to all people in all living situations. According to UNDESA (2017), the variables included in the algorithm are core variables, so in theory it should be applicable to other national censuses. In practice however, many censuses do not include all the recommended core variables. The Australian Census seems to be the only one that this method could be easily applied to – a comparison study would be worthwhile. With more national censuses making use of administrative data, there is greater potential for wider international application of the method, because the variables included in the algorithm are more likely to be available. Data availability is highly variable between countries however. At this stage, global applicability of the approach proposed in this thesis is largely at the conceptual level rather than being able to produce comparable statistics. The enduring importance of
pursuing an internationally consistent homelessness definition and statistics was underlined by headlines reporting ‘NZ’s homelessness the worst in OECD – by far’ (Satherley, 2017). This was a response to a table published by the OECD that compared homelessness statistics across 30 countries, most of which referred to different populations and were not comparable (OECD, 2017).

**Limitations**

This section discusses the main limitations of this study, which relate to data collection, classification, and the assumptions applied.

**Not captured by data collection processes (operational limitations)**

It is likely that many severely housing deprived people did not fill out census forms, either because they did not come into contact with a census collector or because they refused to complete one. Among the ‘refusals’ are those who have so much trouble completing the form that they abandon their effort. This data gap likely affects all categories of severe housing deprivation measured using census data. People living without habitable accommodation were probably least likely to come into contact with a census collector, but people living in severely crowded housing may have been especially reluctant to fill out a form if they were ‘overstayers’ or did not want to reveal the true level of crowding in their house. Although the New Zealand census is the most comprehensive source of data on the whole population, some people are not counted. It is not possible to calculate the number of uncounted severely housing deprived people. The census post-enumeration survey, which estimates the size of the undercount of the New Zealand population, only includes people living in permanent private dwellings.

It was not possible to measure two categories of severe housing deprivation because the necessary identifying information was not collected in the census: people living in institutions not targeted at people who LAMAH; and people living in housing that lacks one or more basic amenity (with minimally adequate security of tenure). It was also impossible to determine the housing deprivation status of two percent of the New Zealand population because key census questions were not answered. Income questions are central in this approach, and both socioeconomically disadvantaged people and those living in crowded households are less likely to answer census income questions, so the prevalence of severe housing deprivation is likely to be underestimated. In addition, it was not possible to assess the housing deprivation status of children (people aged under 15 years) who were not living with their nuclear family, because income and income source data are not collected from children. Thus, severe housing deprivation among children is likely to be underestimated. It is also
likely that many ‘independent’ children living in precarious situations would not have completed census forms.

Measuring the severely housing deprived population living in emergency housing was limited by the availability of administrative data. The more historical the data, the greater the problem of data unavailability. It was not possible to obtain data from 77 percent of known providers in 2001, 38 percent in 2006, and 28 percent in 2009. All surveyed providers reported collecting basic demographic data, and obtaining these data is likely to be less of a problem for future monitoring. Some providers are very small, with limited resources and considerable pressure on their time, so they are likely to need support if they are to provide data to contribute to future severe housing deprivation statistics.

**Potentially misclassified dwellings in census data**

Some forms of commercial accommodation are difficult for census collectors to correctly identify. This is especially true for boarding houses, which can be suburban houses with no signage (Aspinall, 2013). Misclassification of boarding houses as private dwellings would contribute to underestimation of severe housing deprivation – a problem highlighted by Chamberlain (2012) in the Australian context. However, in New Zealand (and most parts of Australia) there are no alternative sources of data on the number of boarding house or the characteristics of their residents, so it is not possible to calculate the magnitude of any boarding house misclassification, or its effect on severe housing deprivation estimates.

**Assumptions applied in the census analysis**

**Low income**

The algorithm for identifying severely housing deprived people in census data used low income as a proxy for having a low level of financial resource, and in turn as a proxy for LAMAH. As discussed in Chapter Seven, income is an imperfect proxy for a person’s economic resources, as they may in fact have considerable wealth. However, the risk of false positives was minimised through application of multiple deprivation proxies. A person with a low income also had to be living in severely inadequate housing to qualify as severely housing deprived, and people with wealth are unlikely to be living in such situations.

The ABS (2012d) developed a special set of filters designed to remove ‘grey nomads’ (retirees travelling in mobile dwellings for an extended period of time) from the homeless population. The
method proposed in this thesis avoids the need to apply different criteria to different age groups. People living in mobile dwellings whose only source of income was New Zealand Super\textsuperscript{17} would have been classified as severely housing deprived, as their income would fall just below the ‘before housing costs poverty threshold’ used in this study (Perry, 2013). However, a household on such a low income is unlikely to be able to afford a voluntary grey nomad lifestyle. People with wealth are likely to be receiving income from their investments, which would put their reported income over the low-income threshold.

The low-income threshold applied to identify severely housing deprived people is consistent with that used in New Zealand poverty research. However, people who reported higher incomes and were excluded may have indeed lacked access to minimally adequate housing, for reasons such as high rents in an area, lack of supply of minimally adequate housing (such as following the Canterbury earthquakes), discrimination, or requiring a specific type of dwelling that is difficult to access (suitable for a person with a disability or a large family, for example). Applying an income threshold as a proxy for access to housing assumes a consistent national housing market, which is far from the reality.

Low income was one of the criteria used to distinguish people living in severely inadequate housing by necessity from those living in such housing by choice. To an extent, this is an artificial construction: in an individual case, the lines between choice and necessity are often blurred. Assuming that a person with a low income living in a van is in that situation through lack of choice fails to take account of agency: they may have ready access to rental housing but prefer a van-based lifestyle. This limitation is shared with other measures of poverty and deprivation – it is difficult to account for people adopting alternative lifestyles that involve foregoing ‘necessities’ by choice. However, Carroll’s (2010) qualitative research on people living in informal housing (including public spaces, cars, sheds, and garages) in Coromandel and Auckland showed that people living permanently in mobile dwellings, even those in holiday areas such as Coromandel, should not be assumed to be living in that situation by choice. A person with a low income may be living in a van purely because they prefer van-living, but having a low income will still limit their ability to access more adequate housing if their circumstances change. Setting a minimum adequacy standard for housing does not imply that everyone should be living in conventional housing at all times. Rather, it implies that no one should be deprived of access to private, secure, and healthy housing.

In the aftermath of natural and other humanitarian disasters, where the supply of minimally adequate housing in severely restricted, low income will be a poor proxy for LAMAH. This issue is particularly

\textsuperscript{17} Universal income support benefit for people aged 65 years or older.
relevant for New Zealand, in light of the series of earthquakes that struck Canterbury, leaving many people severely housing deprived. The proposed method for measuring severe housing deprivation would not provide accurate statistics in the atypical conditions of natural or other humanitarian disasters, though most commonly-used indicators of deprivation will also have limited validity at these times, when lack of access to resources is more equal than usual. Even so, having more disposable income provides people with more options for accessing alternative accommodation, including relocating away from the disaster area. A household's economic resources still has a strong influence on their ability to access adequate housing, even in times of disaster.

**Severe household crowding**

Severe household crowding was used as a proxy for LAMAH in the algorithm, meaning that severely housing deprived people staying in non-severely crowded private dwellings were excluded from the population. As with ‘low income’, this criterion uses a specific threshold value (deficit of two or more bedrooms) that is open to debate.

**Temporary residents**

Individual tenure status was used to distinguish temporary residents from permanent residents of a dwelling. This information is not available for people in rented dwellings, so the reference person and their nuclear family were assumed to be permanent residents, and everyone else in the dwelling temporary residents. It is likely that more people would have been permanent residents in rental dwellings than just the reference person and their family, so severe housing deprivation may have been overestimated. However, to qualify as severely housing deprived, the ‘temporary residents’ also had to be living in severely crowded dwelling, and have a low income, which reduces the risk of misclassification. Severely crowded housing in particular is likely to involve complex household arrangements with varying levels of permanence among the residents. The permanent/temporary distinction may not reflect this complexity, but provides a simple, repeatable filter for looking at the different units of people within these households.

**10.5 Further research**

This thesis is one of only a handful of quantitative studies on homelessness in New Zealand, and is the first to examine the issue at a national level. I have since been supported by Lottery Health

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18 Note that the statistics presented in this thesis predate the earthquakes.
Research Committee and Ministry of Social Development to produce 2013 and 2018 homelessness statistics, respectively.

The focus of this thesis was devising a robust concept and approach to measuring severe housing deprivation. The approach was conservative, meaning the figures produced likely underestimate the severely housing deprived population. Levels of uncertainty for the estimates were not calculated in this thesis because the data are largely derived from the national census, but it should be explored. More work is needed on sensitivity analyses and calculating margins of error. The IDI (Integrated Data Infrastructure), which links individuals’ census and other government data, provides new opportunities to estimate the true size of the severely housing deprived population. At the time of writing, we have such a project underway, funded by Ministry of Social Development.

The validity of the definition proposed in this thesis should also be tested through application to large-scale administrative or survey data. Work and Income New Zealand (New Zealand’s income support agency) now has responsibility for both social housing and income support clients, providing an ideal opportunity to apply the severe housing deprivation classification. Australian research has highlighted the great potential of government income support agencies instituting a ‘homelessness flag’ in their client data system (Wooden et al., 2012), serving as tool for service delivery, policy, and a sampling frame for research. The definition could be applied to other datasets, such as health and corrections data, to test whether the population identified as severely housing deprived are actually disadvantaged in these realms, as we would expect. We are currently exploring this in the IDI project mentioned above. There is also scope to utilise administrative data collected by community agencies that serve people with housing issues.

There are many questions about severe housing deprivation in New Zealand to be investigated, including its risk factors, duration, recurrences, lifetime prevalence, social and health outcomes, lived experience, and effective interventions. There is potential to develop the New Zealand Health Survey and the General Social Survey to answer some of these questions. Lifetime prevalence of homelessness has been investigated using the Australian General Social Survey (ABS, 2012a) and the Scottish Household Survey (Scottish Government, 2009), as well as from randomised telephone surveys (Toro et al., 2007). Morbidity and mortality among the severely housing deprived population could be investigated in the IDI. Using Canadian linked census and mortality data, Hwang et al. (2009) showed that living in a shelter, boarding house, or hotel was associated with much higher mortality than expected on the basis of low income alone.
There is a need for further research and discussion on defining and measuring severe housing deprivation. In particular there is a need for greater engagement in theory, and cross-country examination of how a more standardised approach to measuring severe housing deprivation could be practically achieved.

10.6 Recommendations

Monitoring

1. Government monitoring

Like many other social indicators, measuring and reporting on severe housing deprivation should be an ongoing government activity. The most fitting agencies to perform is role would be the Ministry of Housing and Urban Development and Statistics New Zealand.

Applying the definition

2. Include a severe housing deprivation category in operational social welfare service delivery

Work and Income New Zealand, an agency of the Ministry of Social Development, has responsibility for assessing and managing both social housing and income support clients. Housing status data should be collected from potential and existing clients of this agency. This should align with the definition and classification of severe housing deprivation proposed in this thesis, which in turn reflects, and adds detail to, the official New Zealand Definition of Homelessness. This information would be useful for allocation processes, policy, and research. Assessments for social housing already collect data on housing need that could be aligned with the severe housing deprivation framework (Work and Income New Zealand, n.d.-k).

3. Community agencies should include a severe housing deprivation category in their operational work

Community agencies that provide services to severely housing deprived people should be supported to collect and report standardised information on severe housing deprivation among their clients. Standardised collection of food bank data provides a successful model of such an initiative instituted by the agencies concerned. Government funders could make such reporting a requirements, but should also support agencies to collect this information well.
Improving measurement

4. Establish ongoing measurement of housing quality, including basic amenities

Measurement of housing quality should be comprehensive. Housing quality is an important Tier 1 statistic (that is, “essential to critical decision-making” and “of high public interest” (Statistics New Zealand, 2013c, p. 1)), for which a large-scale national survey has not been conducted since 1935. Positive steps have been made. The 2018 Census includes questions on dampness and mould, and the 2018 General Social Survey includes a Housing and Physical Environment supplement. BRANZ conduct a five-yearly housing conditions survey, but the sample is small and only includes owner-occupied and private rental housing (Buckett, Jones, & Marston, 2012). A regular, systematic, national housing survey should be considered to provide data on the quality of New Zealand housing, covering all tenure types.

An ‘access to basic amenities’ question was reintroduced into the Census in 2018, influenced in part by our recommendation in Amore et al. (2013). This will permit measurement of a severe housing deprivation category that has heretofore been unmeasurable (Category c in Table 32).

5. Make households in non-private dwellings identifiable

Families and groups living as economic units in non-private dwellings should be able to be identified in census data and other household surveys. This is particularly relevant for non-private dwellings that provide long-term accommodation, such as boarding houses. UNDESA (2017, p. 39) recommended that: “persons living in hotel or boarding houses should be distinguished as members of one- or multi-person households, on the basis of the arrangements that they make for providing themselves with the essentials for living”.

6. Introduce a census question/s on individuals’ tenure in rental housing

This information would provide useful detail about the living arrangements within households, allowing for more accurate identification of temporary residents, thus improving the accuracy of severe housing deprivation estimates.

7. Continue to improve the reach of the census to people living without habitable accommodation

Statistics New Zealand should continue to build partnerships with key agencies that serve severely housing deprived people. A special strategy was enacted in the 2018 Census for reaching people living rough or in cars, including target events that were held in conjunction with social services. The evaluation is pending. With appropriate support and coordination, social services could play a greater
role promoting and facilitate census participation among their clients. However, census collectors should be independent from the services, and it should be made clear to clients that receipt of services does not depend on their participation in the census. A wider programme of service-based support for people filling in their census forms would likely improve participation rates and data quality, especially among more vulnerable population groups. However, a new system would be required so that people could complete forms even if they had not brought along the ones delivered to their home address. This recommendation draws from my experience working as a Special District Supervisor focused on people living without habitable accommodation for the 2013 Census.

8. Invest in outreach services

Outreach services work on the streets with people living without habitable accommodation and are able to produce the most accurate, comprehensive, regular information about this population. An important feature of such services is their service delivery focus. Ethically, if investment is to be made in locating extremely vulnerable, hard-to-find people, it should be more than a research exercise. Methodologically, outreach produces the best data. The benefits of data collection through outreach are that staff are trained to work with this population, the clients may be more willing to engage and share information because they receive an immediate benefit (support, access to services), and the data directly inform practice. A few small, poorly-funded outreach services exist in New Zealand, but a national system is needed.

Research

9. Include questions on severe housing deprivation in regular household surveys

New Zealand has several regular household surveys (such as the New Zealand Health Survey and General Social Survey) that could be used to investigate various aspects of severe housing deprivation.

10. Examine emergency housing outcomes

Contrary to best practice, the last few years have seen significant government expenditure on emergency housing, including buying motels. Auckland’s Homeless Count on 7 September, 2018 counted 1027 people in such Ministry of Social Development-funded housing (Housing First Auckland, 2018). The outcomes of people in such housing should be explored, investigating whether it actually provides a pathway to permanent housing. The money may be better invested in better support services and building or converting dwellings into permanent housing.
11. Establish a register of boarding houses for quality monitoring and research

Many boarding houses house vulnerable people in poor physical conditions (Aspinall, 2013). Little is known about this population due to challenges in accurately identifying boarding houses during census collection, and exclusion of boarding house residents from population surveys. A comprehensive register would provide a robust sampling frame for research and could be used to improve accurate identification of boarding houses in the census. Such a register exists in Victoria, Australia.
REFERENCES


Carroll, P. (2010). *Capturing realities of informal housing in Aotearoa/New Zealand.* (Unpublished doctoral thesis), University of Otago, Dunedin, NZ.


APPENDIX ONE
Detailed algorithm for identifying severely housing deprived people in New Zealand census data

Figure A1 Detailed algorithm for identifying severely housing deprived people in New Zealand census data (runs over eight pages)
SECTION 3: Criterion 2a (no other place to live)

Living in severely inadequate housing or housing of unknown adequacy

No other address?

No

Usual_residt_code = 2 Elsewhere in NZ OR 3 Overseas

Not severely housing deprived (B)

Yes

Usual_residt_code = 1 Same as census night OR 4 No fixed abode

Living rough, or in an improvised or mobile dwelling?

GO TO SECTION 7

Living in a non-private dwelling?

GO TO SECTION 5

Living in a permanent private dwelling?

GO TO SECTION 8

Living in housing of unknown adequacy?

GO TO SECTION 9
SECTION 4: Criteria 3b (low income) - living rough, or in an improvised or mobile dwelling

Living rough, or in an improvised or mobile dwelling with no other address

Is the person part of a household?

Yes: The person has a JEAH value

No: The person does not have a JEAH value

Low JEAH Income?

Yes: No

No: Unknown

2006: JEAH = $25,001 (Jeap_bands = 08 to 14)
2001: JEAH = $20,001 (Jeap_bands = 07 to 13)

2006: JEAH ≤ $25,001 (Jeap_bands = 01 to 07)
2001: JEAH ≤ $20,001 (Jeap_bands = 01 to 09)

Unknown

2006: Jeap_bands = 99
2001: Jeap_bands = 99

Recieving a means-tested benefit (household level)?

Yes: No/unknown

No: Low JEAH income?

Yes: Not severely housing deprived

No: Recieving a means-tested benefit (indiv level)?

Yes: Codes as per household-level filter

No: Unknown

2006: Jeap_bands = 99 or missing
2001: Jeap_bands = 99 or missing

Severely housing deprived

Housing deprivation status cannot be determined

Severely housing deprived

Housing deprivation status cannot be determined
SECTION 5: Criterion 2b (low income) - permanent private dwellings

Living as a temporary resident in a permanent private dwelling with no other address

Is the person accompanied by family?

No
The person does not have a JEAF value

Yes
The person has a JEAF value

Low JEAF Income?

No
2006: JEAF < $25,001 (JEAF bands = 01 to 07)
2001: JEAF < $20,001 (JEAF bands = 01 to 06)

No
2006: JEAF >= $25,001 (JEAF bands = 08 to 14)
2001: JEAF >= $20,001 (JEAF bands = 07 to 13)

Low JEAF Income?

No
Unknown Codes as per section 4

Yes
2006: JEAF bands = 99 Not stated
2001: JEAF bands = 99 Not stated

Yes
Receiving a means-tested benefit? (family level)

No/Unknown
Unknown / not applicable Codes as per section 4

Yes
Income_src7_family_code = 07 OR! Income_src8_family_code = 08 OR! Income_src9_family_code = 09 OR! Income_src10_family_code = 10 OR! Income_src11_family_code = 11

Low Income
GO TO SECTION 7

Income status unknown
GO TO SECTION 8

Low Income
GO TO SECTION 7

Income status unknown
GO TO SECTION 8
SECTION 7: Criterion 2c (severe crowding) - permanent private dwellings

Living as a temporary resident in a permanent private dwelling with no other address and either low income or income status unknown

Is the dwelling severely crowded?

No

CNOS_indicator =
2 One extra bedroom required - crowded OR
3 No extra bedrooms required OR
4 One bedroom spare OR
5 Two or more bedrooms spare

Not severely housing deprived (L)

Yes

CNOS_indicator = 1 Two or more extra bedroom required - severely crowded

Low income?

Yes

Severely housing deprived (M)

No

Unknown

CNOS_indication = 9 Unknown OR missing

As per section 6

Housing deprivation status cannot be determined (N)
SECTION 8: Criterion 2b (low income) and pro rata step - housing of unknown adequacy

Living in housing of unknown adequacy with no other address

Low JEAP income?
- No: Codes as per section 4
- Yes/unknown: Codes as per section 4

Is the person a child?
- No: Codes as per section 5
- Yes: Codes as per section 5

Pro rata allocation of children
As per section 5

Housing deprivation status cannot be determined (P)

Not severely housing deprived (O)

Total severely housing deprived population
= D + F + I + M

Total not severely housing deprived population
= A + B + C + H + K + L + O

Total housing deprivation status cannot be determined population
= E + G + J + N + P
APPENDIX TWO
SAS programme for the severe housing deprivation analysis

Variables required for algorithm (2006 names)

Census night population

Household income band midpoints
Id_dwell
Id_family
Id_hhld
Id_person
reln_to_occupier_L1
tenure_holder_code
single_yr_age_grp_code
total_income_family_code
total_income_code
jeah_Bands
income_srce7_family_code
income_srce8_family_code
income_srce9_family_code
income_srce10_family_code
income_srce11_family_code
dwell_type_code
dwell_type_code_L2
study_lgth_code
individual_rec_type_code
cnos_indicator
usual_resdnt_code

/**** Programme ****/

/* CONFIDENTIALITY: Random rounding to base 3 */

%macro randomround3
(roundedvarname, unroundedvarname, roundeddatasetname,
unroundeddatasetname);
data work.&roundeddatasetname;
set work.&unroundeddatasetname;
myrand=rand('uniform');
closestround=round(&unroundedvarname,3);
if (closestround=&unroundedvarname or myrand<2/3)
   then &roundedvarname=closestround;
else &roundedvarname=closestround+3*sign(&unroundedvarname-
closestround);
myrand=0;
closestround=0;
percent=0;
%mend;

/** Link reference person to their nuclear family by id_family
(closesttoref) and owners to their nuclear family by id_family
(closesttoown) **/

proc sort data=work.start;
by id_family;
run;

data work.start;
set work.start;
myrefperson= reln_to_occupier_L1;
if myrefperson=. then myrefperson=999;
myown= tenure_holder_code;
if myown=. then myown=999;
run;

data work.familyrefown;
set work.start;
retain closesttoref closesttoown;
by id_family;
if first.Id_family then do;
closesttoref=999;
closesttoown=999;
end;
if myrefperson<closesttoref then closesttoref=myrefperson;
if myown<closesttoown then closesttoown=myown;
if last.Id_family then output;
keep id_family closesttoref closesttoown;
run;

data work.start;
merge work.start work.familyrefown;
by id_family;
run;

data work.start;
set work.start;
if id_family=. then do;
closesttoref= reln_to_occupier_L1;
closesttoown= tenure_holder_code;
if closesttoref=. then closesttoref=999;
if closesttoown=. then closesttoown=999;
end;
run;

/** 'Equivalise' family and personal income (apply Jensen index to make
them comparable with household income) - these midpoint values relate to
the midpoints of 2006 census household income bands **/

%macro midpoint(hhinc);
select(&hhinc);
when('01') mid=-6998;
when('02') mid=0;
when('03') mid=1604;
when('04') mid=7840;
when('05') mid=12345;
when('06') mid=17084;
when('07') mid=22201;
when('08') mid=27203;
when('09') mid=32119;
when('10') mid=37131;
when('11') mid=44168;
when('12') mid=57514;
when('13') mid=80725;
when('14') mid=135007;
otherwise abort;
end;
%mend;

/** JEAF (Jensen Equivalised Annual Family income) **/

data work.jeaf (keep= id_family total_income_family_code JEAF_income);
set work.start;
by id_family;
length numchld numadlt chldages 3 JEAF_income mid 4;
retain chldages numchld numadlt;
if first.id_family then do;
  chldages=0;
  numchld=0;
  numadlt=0;
end;
if '00' le five_yr_age_grp_code le '04' then do;
  chldages=chldages+5*(five_yr_age_grp_code-1)+2;
  numchld=numchld+1;
end;
else numadlt+1;

/* Note five_yr_age_grp_code was used as single_yr_age_grp_code was not available for confidentiality reasons. Thus, 19 yr olds were treated as children, though only people aged under 19 are classified as children in the Jensen index. The single_yr_age_grp_code should be used here if possible and children defined as per the Jensen index */

if last.id_family then do;
  if '01' le total_income_family_code le '14' then do;
    %midpoint(total_income_family_code);
    jensen=(numadlt+(numchld*0.460697)+(0.0283848*chldages))**0.621488/2**0.621488;
    jeninc=mid/jensen;
  end;
  else jeninc=.;
  JEAF_income=round(jeninc);
output;
end;
run;

data  work.jeaf;
set  work.jeaf;
length jeaf_bands $2;
if (JEAF_Income=. and total_income_family_code=99) then JEAF_bands='99 '
else if JEAF_Income=.
  then JEAF_bands='.';
else if JEAF_Income<0
  then JEAF_bands='01';
else if JEAF_Income=0
  then JEAF_bands='02';
else if JEAF_Income<=5000 then JEAF_bands='03';
else if JEAF_Income<=10000 then JEAF_bands='04';
else if JEAF_Income<=15000 then JEAF_bands='05';
else if JEAF_Income<=20000 then JEAF_bands='06';
else if JEAF_Income<=25000 then JEAF_bands='07';
else if JEAF_Income<=30000 then JEAF_bands='08';
else if JEAF_Income<=35000 then JEAF_bands='09';
else if JEAF_Income<=40000 then JEAF_bands='10';
else if JEAF_Income<=50000 then JEAF_bands='11';
else if JEAF_Income<=70000 then JEAF_bands='12';
else if JEAF_Income<=100000 then JEAF_bands='13';
else if JEAF_Income>=100001 then JEAF_bands='14';
else if JEAF_Income<=100000 then JEAF_bands='13';
else if JEAF_Income=100001 then JEAF_bands='14';
else
  JEAF_bands='PROBLEM';
run;

data work.jeaf_done;
merge work.start work.jeaf;
by id_family;
run;

/** JEAP (Jensen Equivalised Annual Personal income) **/
data work.jeap;
set work.jeaf_done;
if '01' le total_income_code le '14' then do;
  %midpoint(total_income_code);
  jeninc=mid/0.65;
end;
else jeninc=.;
JEAP_income=round(jeninc);
run;

data work.jeap;
set work.jeap;
length jeap_bands $2;
if (JEAP_Income = . and total_income_code=99)
  then JEAP_bands = '99 ';
else if JEAP_Income = .
  then JEAP_bands = '.';
else if JEAP_Income < 0
  then JEAP_bands = '01';
else if JEAP_Income = 0
  then JEAP_bands = '02';
else if JEAP_Income <= 5000
  then JEAP_bands = '03';
else if JEAP_Income <= 10000
  then JEAP_bands = '04';
else if JEAP_Income <= 15000
  then JEAP_bands = '05';
else if JEAP_Income <= 20000
  then JEAP_bands = '06';
else if JEAP_Income <= 25000
  then JEAP_bands = '07';
else if JEAP_Income <= 30000
  then JEAP_bands = '08';
else if JEAP_Income <= 35000
  then JEAP_bands = '09';
else if JEAP_Income <= 40000
  then JEAP_bands = '10';
else if JEAP_Income <= 50000
  then JEAP_bands = '11';
else if JEAP_Income <= 70000
  then JEAP_bands = '12';
else if JEAP_Income <= 100000
  then JEAP_bands = '13';
else if JEAP_Income >= 100001
  then JEAP_bands = '14';
else
  JEAP_bands = 'PROBLEM';
run;
/** Income poverty thresholds (applied later in analysis) **/

%let highestJEAHforSHD06=7; /* Equivalised household income */
%let highestJEAFforSHD06=7; /* Equivalised family income */
%let highestJEAPforSHD06=7; /* Equivalised personal income */

data work.incomes;
set work.jeap;

/* Household income */
If jeah_bands^=. then do;
if (jeah_bands>=0 and jeah_bands<=&highestJEAHforSHD06)
    then JEAH_filter="lowincome   ";
else if (jeah_bands>&highestJEAHforSHD06 and jeah_bands<99)
    then JEAH_filter="notlowincome";
else if jeah_bands=99
    then JEAH_filter="unknown";
else
    JEAH_filter="PROBLEM";
end;

/* Family income */
If jeaf_bands^=. then do;
if (jeaf_bands>=0 and jeaf_bands<=&highestJEAFforSHD06)
    then JEAF_filter="lowincome   ";
else if (jeaf_bands>&highestJEAFforSHD06 and jeaf_bands<99)
    then JEAF_filter="notlowincome";
else if jeaf_bands=99
    then JEAF_filter="unknown";
else
    JEAF_filter="PROBLEM";
end;

/* Personal income */
If (JEAP_bands>=0 and JEAP_bands<=&highestJEAPforSHD06)
    then JEAP_filter="lowincome   ";
else if (JEAP_bands>&highestJEAPforSHD06 and JEAP_bands<99)
    then JEAP_filter="notlowincome";
else if JEAP_bands=99 or JEAP_bands=. then JEAP_filter="unknown_NA";
else
    JEAP_filter="PROBLEM";

/* Family-level means-tested benefit */
If income_srce7_family_code=7 or income_srce8_family_code=8 or
    income_srce9_family_code=9 or income_srce10_family_code=10 or
    income_srce11_family_code=11 then BENEFIT_filter_family="lowincome";
else
    BENEFIT_filter_family="CBD";

/* Individual-level means-tested benefit */
If income_srce7_code=7 or income_srce8_code=8 or income_srce9_code=9 or
    income_srce10_code=10 or income_srce11_code=11
    then BENEFIT_filter_indiv="lowincome"
else
    BENEFIT_filter_indiv="CBD";
run;
/* Household-level benefit */

proc sort data=work.incomes;
by id_hhld;
run;

data work.hhldbenefit;
set work.incomes;
if id_hhld ^= . then do;
retain benefit;
by id_hhld;
if first.id_hhld then do;
benefit = 0;
end;
if income_srce7_code = 7 or income_srce8_code = 8 or income_srce9_code = 9 or income_srce10_code = 10 or income_srce11_code = 11 then benefit = benefit + 1;
if benefit > 0 then BENEFIT_filter_hhld = "lowincome";
else BENEFIT_filter_hhld = "CBD";
if last.Id_hhld then output;
keep id_hhld benefit BENEFIT_filter_hhld;
end;
run;

data work.incomes2;
merge work.incomes work.hhldbenefit;
by id_hhld;
run;

/* Identify 'misclassified' student accommodation – used in SECTION 2*/

proc sort data=work.incomes2;
by id_dwell;
run;

data work.studentaccomm;
set work.incomes2;
if (dwell_type_code = 2212 or dwell_type_code = 2211 or dwell_type_code = 2217) then do;
retain allresidents fulltimestudy;
by id_dwell;
if first.Id_dwell then do;
allresidents = 0; fulltimestudy = 0;
end;
allresidents = allresidents + 1;
if (study_lgth_code = 1 or study_lgth_code = 3) then fulltimestudy = fulltimestudy + 1;
if allresidents > 0 then propFTS_allres = fulltimestudy / allresidents;
if propFTS_allres > 0.75 then studentaccomm = "Y";
else studentaccomm = "N";
if last.Id_dwell then output;

keep id_dwell dwell_type_code fulltimestudy allresidents propFTS_allres studentaccomm;
end;
run;

data work.studentaccomm2;
merge work.incomes2 work.studentaccomm;
by id_dwell;
run;

/**********************************************************
/** Start of analysis to identify 'Severely housing deprived' (SHD), 'Not severely housing deprived' (NotSHD), and 'Housing deprivation status cannot be determined' (CBD) groups **/

/* Restrict to subject population - exclude absentees, residents of night shelters, and residents of institutions that are not targeted at people who LAMAH */
data work.subjectpop;
set work.studentaccomm2;
if individual_rec_type_code=1 then delete;
if ((dwell_type_code=2212 and studentaccomm="Y") or (dwell_type_code=2211 and studentaccomm="Y") or (dwell_type_code=2217 and studentaccomm="Y") or dwell_type_code_L2=21 or dwell_type_code=2000 or dwell_type_code=2214 or dwell_type_code=2215 or dwell_type_code=2216) then delete;
run;

/* Order dwelling types as per SHD classification */
data work.criterion1;
set work.subjectpop;

If (dwell_type_code=1314 or dwell_type_code=1313) then dwell="AB_roofless_improvised";
else if dwell_type_code=1312 then dwell="C_mobile";
else if dwell_type_code=1311 then dwell="D_mcamppriv ";
else if dwell_type_code=2213 then dwell="E_mcampnonpriv";
else if (dwell_type_code=2212 and studenthostel="N") then dwell="F_boardinghouse";
else if (dwell_type_code=2211 and studenthostel="N") then dwell="G_hotel";
else if (dwell_type_code=2217 and studenthostel="N") then dwell="H_vessel";
else if dwell_type_code=2218 then dwell="I_marae";
else if (dwell_type_code_L2=10 or dwell_type_code_L2=11 or dwell_type_code_L2=12) then dwell="permprivate";
develop="PROBLEM";

if dwell="permprivate" then do;
If closesttoown=1 then OWN_filter="possSHD ";
else if closesttoown=1 then OWN_filter="NotSHD_OWN";
develop="PROBLEM";
end;
If OWN_filter="possSHD" then do;
If closesttoref=1 then REF_filter="J_temp_permp";
else if closesttoref=1 then REF_filter="NotSHD_REF";
else REF_filter="PROBLEM";
end;

/* Criterion 1: Minimum adequacy standard filter */
If OWN_filter="NotSHD_OWN" or REF_FILTER="NotSHD_REF" then MAS_filter="atorabove";
else if (dwell="AB_roofless_improvised" or dwell="C_mobile" or
dwell="D_mcamppriv" or dwell="E_mcampnonpriv" or
dwell="F_boardinghouse" or dwell="G_hotel" or dwell="H_vessel" or
dwell="I_marae" or REF_filter="J_temp_permp") then MAS_filter="below";
else MAS_filter="PROBLEM";

/* Broad severe housing deprivation categories */
if (dwell="AB_roofless_improvised" or dwell="C_mobile") then Broad_cat="A_withoutaccom";
if (dwell="D_mcamppriv" or dwell="E_mcampnonpriv" or
dwell="F_boardinghouse" or dwell="G_hotel" or dwell="H_vessel" or
dwell="I_marae") then Broad_cat="B_nonprivaccom";
if REF_filter="J_temp_permp" then Broad_cat="C_permprivaccom";

/* Camping grounds and commercial accommodation categories */
if (dwell="D_mcamppriv" or dwell="E_mcampnonpriv") then camp_comm="camping   ";
if (dwell="G_hotel" or dwell="F_boardinghouse" or dwell="H_vessel") then camp_comm="commaccomm";
run;

/* Criterion 2: Usual address filter */
data work.criteria2and3;
set work.criterion1;
If MAS_filter="atorabove" then delete;
If usual_resdnt_code=2 or usual_resdnt_code=3 then USRES_filter="NotSHD ";
else if usual_resdnt_code=1 or usual_resdnt_code=4 then USRES_filter="possSHD";
else USRES_filter="PROBLEM";

/* Low income filter - roofless, improvised, mobile, private dwellings in campgrounds*/
If ((dwell= "AB_roofless_improvised" or dwell="C_mobile" or
dwell="D_mcamppriv") and USRES_filter="possSHD") then do;
/* Household level */

If jeah_bands^= . then do;
  If JEH_filter="notlowincome" then JEH_filter2="NotSHD ";
  else if JEH_filter="lowincome" then JEH_filter2="SHD"
    JEH_filter2="PROBLEM";
end;

/* Individual level */

If jeah_bands=. then do;
  If JEAP_filter="notlowincome" then JEAP_filter2="NotSHD";
  else if JEAP_filter="lowincome" then JEAP_filter2="SHD"
    JEAP_filter2="PROBLEM";
If JEAP_filter2="possSHD" then
  if BENEFIT_filter_indiv="lowincome" then BENEFIT_filter_indiv2="SHD      ";
  else if BENEFIT_filter_indiv="CBD" then BENEFIT_filter_indiv2="CBD_final";
  else BENEFIT_filter_indiv2="PROBLEM";
end;

/* Low income filter - non-private dwellings */

If ((dwell="E_mcampnonpriv" or dwell="I_marae" or dwell="F_boardinghouse" or dwell="G_hotel" or dwell="H_vessel") and USRES_filter="possSHD") then do;
  If JEAP_filter="notlowincome" then JEAP_filter2="NotSHD ";
  else if JEAP_filter="lowincome" then JEAP_filter2="SHD"
    JEAP_filter2="PROBLEM";
  If JEAP_filter2="possSHD" then
    if BENEFIT_filter_indiv="lowincome"
      then BENEFIT_filter_indiv2="SHD      ";
    else if BENEFIT_filter_indiv="CBD"
      then BENEFIT_filter_indiv2="CBD_final";
    else BENEFIT_filter_indiv2="PROBLEM";
end;

/* Low income filter - permanent private dwellings */

If (REF_filter="J_temp_permp" and USRES_filter="possSHD") then do;
  If jeaf_bands=. then do;
    If JEAF_filter="notlowincome" then JEAF_filter2="NotSHD ";
    else if JEAF_filter="lowincome" then JEAF_filter2="possSHD"
      JEAF_filter2="PROBLEM";
    If jeaf_filter2="unknown" then
      if BENEFIT_filter_family="lowincome"
        then BENEFIT_filter_family2="possSHD";
      else if BENEFIT_filter_family="CBD"
        then BENEFIT_filter_family2="CBD";
else

BENEFIT_filter_family2="PROBLEM";
end;

If jeaf_bands=. then do;
If JEAP_filter="notlowincome" then JEAP_filter2="NotSHD ";
else if JEAP_filter="lowincome" then JEAP_filter2="possSHD";
else if JEAP_filter="unknown NA" then JEAP_filter2="unknown NA";

JEAP_filter2="PROBLEM";
end;

If JEAP_filter2="unknown NA" then
if BENEFIT_filter_indiv="lowincome" then
BENEFIT_filter_indiv2="possSHD";
else if BENEFIT_filter_indiv="CBD" then
BENEFIT_filter_indiv2="CBD";
else
BENEFIT_filter_indiv2="PROBLEM";
end;

/* Crowding filter (only applied to permanent private dwellings) */

If (JEAF_filter2="possSHD" or BENEFIT_filter_family2="possSHD" or JEAP_filter2="possSHD" or BENEFIT_filter_indiv2="possSHD") then do;
If (cnos_indicator=2 or cnos_indicator=3 or cnos_indicator=4 or cnos_indicator=5) then crowd_filter="NotSHD ";
else if cnos_indicator=1 then crowd_filter="SHD ";
else if (cnos_indicator=9 or cnos_indicator=.) then crowd_filter="CBD_final";
else

crowd_filter="PROBLEM";
end;

If (BENEFIT_filter_family2="CBD" or BENEFIT_filter_indiv2="CBD") then do;
If (cnos_indicator=2 or cnos_indicator=3 or cnos_indicator=4 or cnos_indicator=5) then crowd_filter="NotSHD ";
else if (cnos_indicator=1 or cnos_indicator=9 or cnos_indicator=.) then crowd_filter="CBD_final";
else
crowd_filter="PROBLEM";
end;

run;

/* Aggregate categories, pre-pro rata */

data work.aggregated;
set work.criteria2and3;

If (JEAH_filter2="SHD" or BENEFIT_filter_hhld2="SHD" or JEAP_filter2="SHD" or BENEFIT_filter_indiv2="SHD" or CROWD_filter="SHD") then agg="SHD ";
else if (USRES_filter="NotSHD" or JEAH_filter2="NotSHD" or JEAP_filter2="NotSHD" or BENEFIT_filter_hhld2="NotSHD" or CROWD_filter="NotSHD") then agg="NotSHD";
else if (individual_rec_type_code=4 and (BENEFIT_filter_hhld2="CBD_final" or JEAP_filter2="CBD_final" or BENEFIT_filter_family2="CBD_final" or CROWD_filter="CBD_final" or BENEFIT_filter_indiv2="CBD_preProRata" or JEAP_filter2="CBD_final"))
then agg="CBD_kid";
else if (individual_rec_type_code\=3 and (BENEFIT_filter_hhld2="CBD_final" or BENEFIT_filter_family2="CBD_final" or CROWD_filter="CBD_final" or BENEFIT_filter_indiv2="CBD_preProRata" or JEAP_filter2="CBD_preProRata")) then agg="CBD_adult";
else
  agg="PROBLEM";
run;

/** PRO RATA FILTER */
data work.prorata;
set work.aggregated;
if (dwell="E_mcamppnonpriv" or dwell="F_boardinghouse" or dwell="G_hotel" or dwell="H_vessel" or dwell="I_marae") then do;
  retain allres CBD_kid CBD_adult NotSHD_usres NotSHD_jeap SHD;
  by id_dwell;
  if first.id_dwell then do;
    allres=0; CBD_kid=0; CBD_adult=0; NotSHD_usres=0; NotSHD_jeap=0; SHD=0;
  end;
  allres=allres+1;
  
  If agg="CBD_kid" then CBD_kid=CBD_kid+1;
else if agg="CBD_adult" then CBD_adult=CBD_adult+1;
else if USRES_filter="NotSHD" then NotSHD_usres=NotSHD_usres+1;
else if JEAP_filter2="NotSHD" then NotSHD_jeap=NotSHD_jeap+1;
else if BENEFIT_filter_indiv2="SHD" or JEAP_filter2="SHD" then SHD=SHD+1;
if (CBD_kid^=0 and CBD_kid^=.) then do;
  denom = SHD + NotSHD_usres + NotSHD_jeap + CBD_adult;
if denom=0 then PR_CBD_kid=CBD_kid;
if denom>0 then do;
  PR_SHD_kid   = CBD_kid*(SHD/denom);
  PR_NotSHD_kid = CBD_kid*((NotSHD_usres + NotSHD_JEAP)/denom);
  PR_CBD_kid   = CBD_kid*(CBD_adult/denom);
end;
Final_PR_SHD_kid   = PR_SHD_kid/allres;
Final_PR_NotSHD_kid = PR_NotSHD_kid/allres;
Final_PR_CBD_kid   = PR_CBD_kid/allres;
end;
if last.Id_dwell then output;
keep Id_dwell dwell allres CBD_kid CBD_adult NotSHD_usres NotSHD_jeap SHD denom PR_SHD_kid PR_NotSHD_kid PR_CBD_kid Final_PR_SHD_kid Final_PR_NotSHD_kid Final_PR_CBD_kid;
run;

data work.penultimate;
merge work.aggregated work.prorata;
by id_dwell;
run;
proc sort data=work.penultimate;
by id_person;
run;

proc sort data=work.criterion1;
by id_person;
run;
data work.finalpop;
merge work.criterion1 work.penultimate;
by id_person;
run;
/** Final populations **/
data work.finalpop;
set work.finalpop;
If MAS_filter="atorabove" then total="NotSHD";
else if agg="SHD" then total="SHD";
else if agg="NotSHD" then total="NotSHD";
else if agg="CBD_adult" then total="CBD";
else if ((dwell= "AB_roofless_improvised" or dwell="C_mobile" or dwell="D_mcamppriv" or dwell="permprivate") and agg="CBD_kid")
    then total="CBD";
else if ((dwell="E_mcampnonpriv" or dwell="F_boardinghouse" or dwell="G_hotel" or dwell="H_vessel" or dwell="I_marae") and agg="CBD_kid")
    then total="PRORATA";
else total="PROBLEM";
run;
/**** END 2006 PROGRAMME *****/
/*********************/
/**** OUTPUT ****/
/** Totals in each category (add pro rata figures to SHD, NotSHD, and CBD categories **/
proc summary data=work.finalpop chartype missing;
class broad_cat camp_comm dwell total;
ways 0 1 2;
output out=work.finalpop_out sum(final_PR_SHD_kid)=PR_SHD_kid
sum(final_PR_NotSHD_kid)=PR_NotSHD_kid sum(final_PR_cbd_kid)=PR_cbd_kid;
%randomround3(_freq_, _freq_, finalpop_out, finalpop_out);
run;
/*********************/
APPENDIX THREE

Income equivalisation

Equivalised household and family incomes were discussed in Chapter Seven in relation to identifying people with low incomes in census data. This appendix provides more detail about the meaning of income equivalisation. Equivalisation means that the combined incomes of all members of the economic unit (usually the household) are adjusted to reflect the size and composition of the unit. Equivalisation is necessary for meaningful comparison of households, for two main reasons:

1) A larger household needs more income than a smaller household for the two household to have similar standards of living (all else being equal); and
2) There are economies of scale as household size increases (Perry, 2013, p. 29).

No equivalence scale is universally accepted. The scale most commonly used in New Zealand is the 1988 Revised Jensen Equivalence Scale (Jensen, 1988), which recognises that adults make greater demands on household income than children, and that the older a child, the greater the demand they make on household income. This scale is used by Statistics New Zealand and Ministry of Social Development, and, according to Perry (2013, p. 29), “is very close to what has come to be known as ‘the modified OECD scale’, which is now used by Eurostat, Australia, the United Kingdom and others”. The Revised Jensen Equivalence Scale assigns equivalences to combinations of adults and children (defined as people aged under 19) using the following formula:

\[ I_{ac} = \left((a + (0.730348 \ast c) + (0.0283848 \ast \text{child’s age}))^{0.621488} / 2^{0.621488} \right) \]

\( I_{ac} \) is the income equivalence of a household of \( a \) adults and \( c \) children. The ‘reference household’ (with an equivalence value of 1) is defined as a household comprising two adults without children. It should be noted that the actual code applied by Statistics New Zealand to equivalise census household income data contains two different definitions of ‘child’ (aged under 18 years and aged under 19 years), making it inconsistent both internally and with the Revised Jensen Scale. However, the effect of this error should be negligible.

In Chapter Seven, equivalised *family* income was calculated to assess the resources of families staying with friends or family – these families were effectively treated as separate households. Single-year age data are usually used to calculate equivalence values, according to the Revised Jensen Equivalence Scale, but only aggregated ages (in five-year bands) were available for this study for confidentiality reasons. Mid-points of each age band were thus used in place of children’s actual ages. For each child, the maximum variance between equivalence values calculated using five-year age band data compared with single-age data was two percent. Naturally, the more children a family
had, the greater the error in the equivalence value. However, the maximum variance for each child is small enough to mean that it would have only rarely moved a family into a different equivalised income band. Nonetheless, single-year age data should be used to measure severe housing deprivation in the future, if possible.
APPENDIX FOUR
Emergency accommodation data: supporting information

Table A1 shows the degree of missing data among the client data obtained from emergency accommodation providers, which was similar over the three dates. Most missing information was for accompanying children. All surveyed providers reported collecting information about accompanying children, but some only provided information about the ‘head of household’. The number of accommodation providers that provided data was reported in Table 37.

Table A1 Missing data in emergency accommodation data, by variable

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>2001</th>
<th>2006</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td>12</td>
<td>7</td>
<td>18</td>
</tr>
<tr>
<td>Age</td>
<td>35</td>
<td>23</td>
<td>30</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>32</td>
<td>20</td>
<td>27</td>
</tr>
<tr>
<td>Family status</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Data source: Emergency accommodation providers

Table A2 shows the demographic profile of the severely housing deprived population living in emergency accommodation in 2001, 2006, and 2009. The profile of the population was broadly similar in each year, despite large differences in the proportion of providers who were able to provide data for each year (23 percent in 2001, 62 percent in 2006, 72 percent in 2009). This finding suggests that the known severely housing deprived population in emergency accommodation 2001 and 2006 reflected the actual population in this type of housing.
Table A2 Sex, median age, ethnicity, and family status of the severely housing deprived population living in emergency accommodation, 2001, 2006 & 2009

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Category</th>
<th>2001</th>
<th>2006</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median age (years)</td>
<td></td>
<td>23</td>
<td>28</td>
<td>27</td>
</tr>
<tr>
<td>Sex</td>
<td>Female (%)</td>
<td>55</td>
<td>55</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>Male (%)</td>
<td>45</td>
<td>45</td>
<td>50</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>European (%)</td>
<td>38</td>
<td>42</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>Māori (%)</td>
<td>41</td>
<td>44</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>Pacific (%)</td>
<td>27</td>
<td>16</td>
<td>17</td>
</tr>
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<td></td>
<td>Asian (%)</td>
<td>2</td>
<td>2</td>
<td>2</td>
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<tr>
<td></td>
<td>MELAA (%)</td>
<td>0</td>
<td>5</td>
<td>4</td>
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<tr>
<td>Family status</td>
<td>Sole parent with dependent child/ren (%)</td>
<td>28</td>
<td>39</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>Adult not accompanied by family (%)</td>
<td>31</td>
<td>39</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>Couple with dependent child/ren (%)</td>
<td>18</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Couple without children (%)</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Sole parent with adult child/ren (no dependents) (%)</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Couple with adult child/ren (no dependents) (%)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Family with children of unknown dependency status (%)</td>
<td>23</td>
<td>14</td>
<td>26</td>
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</table>

**Data source:** Emergency accommodation providers
## APPENDIX FIVE
Severely housing deprived population, 2001

Table A3 Demographic characteristics of the severely housing deprived population, 2001 and 2006

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Category</th>
<th>2001</th>
<th>2006</th>
<th>Percentage change in prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>No. persons</td>
<td>Prevalence per 1000 people</td>
<td>No. persons</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>13992</td>
<td>7.3</td>
<td>16974</td>
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<tr>
<td></td>
<td>Male</td>
<td>14391</td>
<td>7.9</td>
<td>16578</td>
</tr>
<tr>
<td><strong>Age group (years)</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;15</td>
<td></td>
<td>6966</td>
<td>8.2</td>
<td>8437</td>
</tr>
<tr>
<td>15-24</td>
<td></td>
<td>7548</td>
<td>14.9</td>
<td>9008</td>
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<td>25-34</td>
<td></td>
<td>4465</td>
<td>8.5</td>
<td>4881</td>
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<td>35-44</td>
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<td>3004</td>
<td>5.2</td>
<td>3370</td>
</tr>
<tr>
<td>45-54</td>
<td></td>
<td>2208</td>
<td>4.5</td>
<td>2633</td>
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<tr>
<td>55-64</td>
<td></td>
<td>1901</td>
<td>5.6</td>
<td>2546</td>
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<td></td>
<td>2236</td>
<td>5.0</td>
<td>2578</td>
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<td><strong>Ethnicity</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>European / Other(1)</td>
<td>11067</td>
<td>3.8</td>
<td>11864</td>
</tr>
<tr>
<td></td>
<td>Māori</td>
<td>10083</td>
<td>19.2</td>
<td>11358</td>
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<tr>
<td></td>
<td>Pacific</td>
<td>7091</td>
<td>30.6</td>
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<td>Asian</td>
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<td>14.0</td>
<td>5449</td>
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<tr>
<td></td>
<td>Middle Eastern, Latin American, African (MELAA)</td>
<td>n/a(2)</td>
<td>n/a</td>
<td>462</td>
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</table>

**Notes:** (1) Other includes New Zealander.  
(2) The MELAA ethnic category did not exist in the 2001 census.  

**Data sources:** Statistics New Zealand and emergency accommodation providers
## APPENDIX SIX
Severe housing deprivation by specific living situation

Table A4 Severe housing deprivation by specific living situation – count, proportions, and prevalence – 2001 and 2006

<table>
<thead>
<tr>
<th>Broad living situation</th>
<th>Specific living situation</th>
<th>2001</th>
<th>2006</th>
<th>2001</th>
<th>2006</th>
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<tbody>
<tr>
<td>1</td>
<td>Living without habitable accommodation due to a LAMAH</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Living rough / improvised dwelling</td>
<td>660</td>
<td>2.3</td>
<td>1.8</td>
<td>1464</td>
</tr>
<tr>
<td></td>
<td>Mobile dwelling</td>
<td>633</td>
<td>2.2</td>
<td>1.7</td>
<td>3567</td>
</tr>
<tr>
<td>2</td>
<td>Living in a non-private dwelling due to a LAMAH</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Emergency accommodation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Night shelter</td>
<td>47</td>
<td>0.2</td>
<td>0.1</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>Women’s refuge</td>
<td>43</td>
<td>0.1</td>
<td>0.1</td>
<td>260</td>
</tr>
<tr>
<td></td>
<td>Other accomm. targeted at people who LAMAH</td>
<td>177</td>
<td>0.6</td>
<td>0.5</td>
<td>342</td>
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<tr>
<td></td>
<td>Commercial accommodation and marae</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Camping ground / motor camp</td>
<td>2494</td>
<td>8.6</td>
<td>6.7</td>
<td>1144</td>
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<tr>
<td></td>
<td>Other commercial accommodation (boarding houses, hotels, etc.)</td>
<td>5486</td>
<td>19.0</td>
<td>14.7</td>
<td>5089</td>
</tr>
<tr>
<td></td>
<td>Marae</td>
<td>92</td>
<td>0.3</td>
<td>0.2</td>
<td>26</td>
</tr>
<tr>
<td>3</td>
<td>Living as a temporary resident in a severely crowded, permanent private dwelling due to a LAMAH</td>
<td>19284</td>
<td>66.7</td>
<td>51.6</td>
<td>22005</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>28917</td>
<td>100</td>
<td>77.4</td>
<td>33946</td>
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**Data sources:** Statistics New Zealand and emergency accommodation providers
# APPENDIX SEVEN
Severe housing deprivation by territorial authority area

Table A5 Count and prevalence of severe housing deprivation, by territorial authority area and living situation (Far North to Ruapehu), 2006

<table>
<thead>
<tr>
<th>Territorial authority area</th>
<th>Without accommodation</th>
<th>Non-private accommodation</th>
<th>Temporary resident in a severely crowded permanent private dwelling</th>
<th>Total severely deprived</th>
<th>Prevalence of severe housing deprivation per 10,000 people</th>
</tr>
</thead>
<tbody>
<tr>
<td>Far North district</td>
<td>414</td>
<td>102</td>
<td>432</td>
<td>951</td>
<td>170</td>
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<tr>
<td>Whangarei district</td>
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<td>167</td>
<td>369</td>
<td>749</td>
<td>101</td>
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<tr>
<td>Kaipara district</td>
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<td>18</td>
<td>54</td>
<td>162</td>
<td>89</td>
</tr>
<tr>
<td>Rodney district</td>
<td>138</td>
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<td>87</td>
<td>313</td>
<td>35</td>
</tr>
<tr>
<td>North Shore city</td>
<td>33</td>
<td>77</td>
<td>651</td>
<td>761</td>
<td>37</td>
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<tr>
<td>Waitakere city</td>
<td>72</td>
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<td>1347</td>
<td>1506</td>
<td>81</td>
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<tr>
<td>Auckland city</td>
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<td>1382</td>
<td>3669</td>
<td>5222</td>
<td>129</td>
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<tr>
<td>Manukau city</td>
<td>231</td>
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<td>5661</td>
<td>6152</td>
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<tr>
<td>Papakura district</td>
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<td>66</td>
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<td>648</td>
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<td>78</td>
<td>24</td>
<td>222</td>
<td>324</td>
<td>55</td>
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<tr>
<td>Thames-Coromandel district</td>
<td>174</td>
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<td>45</td>
<td>279</td>
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<tr>
<td>Hauraki district</td>
<td>72</td>
<td>9</td>
<td>51</td>
<td>132</td>
<td>77</td>
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<td>267</td>
<td>363</td>
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<td>18</td>
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<td>150</td>
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<td>1132</td>
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<td>45</td>
<td>87</td>
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<td>Otorohanga district</td>
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<td>24</td>
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<td>126</td>
<td>134</td>
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<td>301</td>
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<td>672</td>
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<td>75</td>
<td>381</td>
<td>558</td>
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<td>54</td>
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Data sources: Statistics New Zealand and emergency accommodation providers
Table A6 Count and prevalence of severe housing deprivation, by territorial authority area and living situation (Wanganui to Invercargill), 2006

<table>
<thead>
<tr>
<th>Territorial authority area</th>
<th>Living situation</th>
<th>Total severely housed deprived</th>
<th>Prevalence of severe housing deprivation per 10,000 people</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Without accom-</td>
<td>Temporary resident in a severely crowded permanent private dwelling</td>
<td></td>
</tr>
<tr>
<td></td>
<td>modation</td>
<td>Non-private accommodation</td>
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</tr>
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<td>162</td>
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<td>69</td>
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<td>70 Queenstown-Lakes district</td>
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<td>54</td>
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<td>324</td>
<td>168</td>
</tr>
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<td>15</td>
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<td>3</td>
</tr>
<tr>
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<td>21</td>
</tr>
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<td>74 Gore district</td>
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<td>10</td>
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<td>99</td>
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APPENDIX EIGHT
Publications from this thesis


