



Severe housing deprivation in Aotearoa New Zealand, 2018

July 2020

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HE K A I N G A O R A N G A

Acknowledgements

This research was funded by the Ministry of Housing and Urban Development, and has involved extensive collaboration with the Ministry of Housing and Urban Development and Stats NZ, especially with Miranda Devlin and Dr Rosemary Goodyear. Stats NZ have supported our work on this topic for over a decade, and funded the original research where we developed the definition and methodology. Associate Professor Nevil Pierse, June Atkinson, and Clare Aspinall at the University of Otago assisted in various ways. This report has benefited substantially from wide review. We thank the reviewers (in alphabetical order): Len Cook, Dr Susmita Das, Dr Robert Didham, Dr Bidy Livesey, Philip Lui, Dr Kay Saville-Smith, Andrew Sporle, Keriata Stewart, and Dr Kristy Udy. The authors remain solely responsible for the report's content.

Disclaimers

The results in this report are not official statistics. They have been created for research purposes from a number of sources: the Integrated Data Infrastructure (IDI) and a pre-release 2018 Census CURF managed by Stats NZ; a transitional housing dataset managed by the Ministry of Housing and Urban Development (HUD); and operational data sourced directly from providers of emergency and transitional housing. The opinions, findings, recommendations, and conclusions expressed in this report are those of the authors, not Stats NZ nor the Ministry of Housing and Urban Development.

Access to the Stats NZ-managed anonymised data used in this study was provided by Stats NZ under the security and confidentiality provisions of the Statistics Act 1975. Only people authorised by the Statistics Act 1975 are allowed to see data about a particular person, household, business, or organisation, and the results in this report have been confidentialised to protect these groups from identification and to keep their data safe. Careful consideration has been given to the privacy, security, and confidentiality issues associated with using administrative and survey data in the IDI. Further detail can be found in the Privacy impact assessment for the Integrated Data Infrastructure available from www.stats.govt.nz.

Ethical approval

Ethical approval for this study was granted by the University of Otago Human Research Ethics Committee.

ISBN 978-0-473-53123-2

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Key findings

- On Census night 2018, 41,644 people were identified as severely housing deprived, which is nearly 0.9 percent of the population. This should be regarded as a lower bound due to a range of challenges measuring this population.
- Note that this figure reflects the situation two years ago, and does not reflect the impact of more recent policies or COVID-19.
- Compared with 2013, the rate of severe housing deprivation in 2018 had increased by 0.7 per 10,000 people, an increase of about 4,400 people. This increase was largely due to more people sharing accommodation in severely crowded houses. There was a reduction of about 2,000 severely housing deprived people living in commercial accommodation (e.g. boarding houses and motels). These comparisons are indicative only, given a range of methodological limitations and differences in practice between censuses that limit meaningful comparison over time.
- As in previous years, the severely housing deprived population was disproportionately young, with nearly 50 percent aged under 25 years of age. Rates of severe housing deprivation are highest among Pacific and Māori young people.
- Similar numbers of males and females were severely housing deprived overall. Males were more likely to live without shelter and in dwellings such as boarding houses, while females were more likely to be sharing in severely crowded dwellings.
- The highest rates of severe housing deprivation were found in Northland, Auckland, and Gisborne; the lowest in Southland, Canterbury and Taranaki.
- Problems with the 2018 Census will have had a significant effect on the quality of information about severe housing deprivation, including a likely undercount of Māori and Pacific people experiencing severe housing deprivation. This underlines the importance of developing other sources of data to monitor severe housing deprivation – providing more regular data and allowing comparison with the findings from Census. It also signals the need for more consistent application of enumeration practices across New Zealand in the 2023 Census.
- Severe housing deprivation disproportionately affected ethnic minorities. Māori and Pacific people's severe housing deprivation prevalence rates were close to four and six times the European rate, respectively, and the true levels of inequity are probably greater.
- The 2018 severe housing deprivation estimate benefited from a number of methodological improvements, compared with previous years. These should be carried forward. Combined with improved data collection in the 2023 Census, these improvements will provide a strong base for monitoring severe housing deprivation in the future:
 - Targeted strategy to engage homeless populations in the Census;
 - Using administrative data for missing income;
 - Operational data from NGO emergency housing providers collated by government.

Introduction

This report presents estimates of the size and selected characteristics of the severely housing deprived (or 'homeless') population on Census night 2018 (March 6, 2018), based on analysis of Census and operational data from emergency and transitional housing providers. It builds on estimates previously produced for 2001, 2006 and 2013 using the same definition of severe housing deprivation (Amore, 2016; Amore et al., 2013).

Severe housing deprivation is synonymous with homelessness. It refers to people living in severely inadequate housing due to a lack of access to minimally adequate housing (Amore et al, 2013). This means not being able to access a private dwelling to rent or own that has all basic amenities. Housing that lacks at least two of the three core dimensions of housing adequacy – habitability, security of tenure, and privacy and control – is deemed severely inadequate.

We use the New Zealand Definition of Homelessness (a classification developed by government), to organise the severely housing deprived population into three groups: Without Shelter; Temporary Accommodation; and Sharing Accommodation. (Stats NZ, 2009). There is a fourth category – Uninhabitable Housing – which was measured for the first time in the 2018 Census. This new category will be the subject of a future publication. This present report focuses on the categories of homelessness that have been measured in previous years.

While our concept of severe housing deprivation has been consistent over time, we have improved the method of analysing census data for severe housing deprivation. We applied this improved method to the 2018 Census, and also reanalysed the 2013 Census using the same improved method, which saw the 2013 severe housing deprivation estimate revised downwards. However, comparing estimates of severe housing deprivation over time is not advised (see the Caveats section for more detail). It should also be noted that the results presented in this report cannot be meaningfully compared internationally, due to wide variation in definitions and methodologies used to measure homelessness in each country.

There were important improvements in the operational data about people in emergency and transitional housing. Unfortunately, this advance in coverage will have been offset by problems with the 2018 Census that meant people experiencing severe housing deprivation were significantly undercounted (see discussion in the Caveats section). It is difficult to judge the net effect of measurement improvements and shortfalls on the 2018 estimate of severe housing deprivation.

Despite its limitations, the Census of Population and Dwellings remains a vital source of data on severe housing deprivation, as it is the only national measure of people in all living situations. While the results published in this report will underestimate total severe housing deprivation, the analysis of those it does measure is invaluable in indicating where in the population severe housing deprivation is concentrated.

A number of policies intended to address homelessness were in place at the time of the 2018 Census, which may be reflected in our findings. These included support for transitional housing, Housing First pilots in Hamilton and Auckland, and Emergency Housing Special Needs Grants, which supported people

in crisis to stay in motels. More programmes have been implemented or expanded since, including expansion of Housing First and transitional housing, as well as further investment in social and affordable housing. Special efforts have recently been made to house people without shelter during the COVID-19 pandemic. The impact of these latter policies, including those enacted in response to COVID-19, will not be reflected in the 2018 severe housing deprivation estimate presented in this report.

Methodology

This section summarises the methodology applied in this study. We have previously published detailed formulations of the concept, classification, and operational definition of severe housing deprivation (Amore, 2019; Amore et al., 2013). These are summarised in Appendix 2.

Definition

We define a person as severely housing deprived (or 'homeless') if they are:

1. Living in severely inadequate housing (i.e. housing below a minimum adequacy standard), due to;
2. A lack of access to housing that meets the minimum adequacy standard (rather than living in such circumstances as a matter of choice).

Classification and data sources

The overall approach to measuring severe housing deprivation in this study was the same as that applied previously (Amore, 2016; Amore et al., 2013). The Census is the only source of national data for most categories of severe housing deprivation, but operational data were used to count people in emergency and transitional housing because these dwelling types cannot be reliably identified in the Census (Table 1).

Table 1 Data sources used to measure severe housing deprivation

Broad living situation (NZ Definition of Homelessness category)		Specific living situation (Types of severely inadequate housing)	Data source	
1	Without shelter	Roofless / rough sleeper	Census	
		Improvised dwelling		
		Mobile dwelling		
2	Temporary accomm.	Targeted to homeless people (Emergency and transitional housing)	Operational data from providers (via HUD ¹ & direct)	
		Not targeted to homeless people	Night shelter	
			Women's refuge	
	Other accommodation for homeless people			
	Sharing accommodation	Temporary resident in a severely crowded private dwelling	Institution not targeted to homeless people (e.g. 'overstaying' in hospital solely due to lack of housing)	No data available
			Camping ground / motor camp	Census
Boarding houses, hotels, motels, vessels				
		Marae ²		

Notes:

¹ HUD = Ministry of Housing and Urban Development.

² Although some marae provide services for homeless people (e.g. Te Puia Memorial Marae), people stay at marae for many reasons. Marae are therefore classified as 'not targeted to homeless people'.

Analysis

Non-government organisations' (NGO) operational data

All residents of emergency and transitional housing who appeared in the operational data were included as severely housing deprived. No other filters were applied, because their very residence in a dwelling targeted to homeless people establishes their status as severely housing deprived at the time of the 2018 Census.

Census

Figure 1 shows the algorithm applied to the 2018 Census to identify the severely housing deprived population. In the main, it is the same as that applied in previous years (Amore, 2016; Amore et al., 2013). Some methodological improvements have been made since, which are detailed in Appendix 1.

Key points about the algorithm:

1. The definition of severe housing deprivation was operationalised as follows:

A person was identified as severely housing deprived if they were:

- a. Living in severely inadequate housing, and;
- b. Had no other address, and;
- c. Had a low income (below a 60 percent of the median equivalised income threshold).

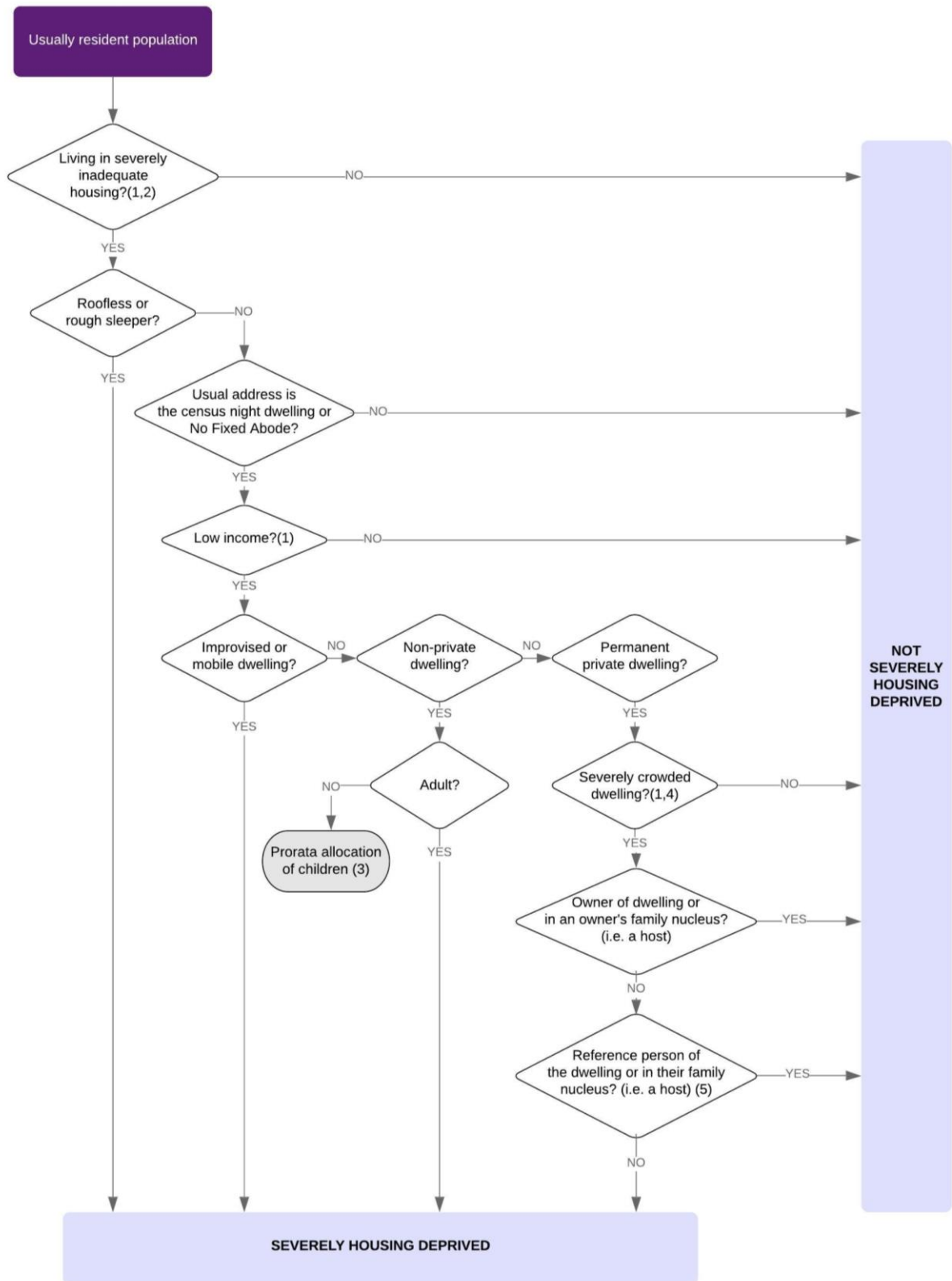
Criteria b. and c. are proxies for 'lacking access to minimally adequate housing' (i.e. lack of adequate housing options).

2. Extra filters were applied to people in permanent private dwellings:

- d. Severely crowded dwelling (deficit of two or more bedrooms using Canadian National Occupancy Standard) – an indicator of sharing by necessity, and;
- e. 'Hosts' were identified as being an owner of the dwelling, the reference person (i.e. the person who fills in the Census dwelling form), or in the family nucleus of an owner or reference person. These people were excluded. The other people in the dwelling were considered 'temporary residents' and classified as severely housing deprived if they met the other criteria listed above.

3. People in the 'Roofless or rough sleeper' category were automatically classified as severely housing deprived. Stats NZ made special efforts to ensure people in this category were correctly classified, thus we can be confident that they were severely housing deprived (personal communication, R Goodyear, May 2020). Most people in this category did not answer the income question, and thus would not be counted as severely housing deprived if the low-income criterion were applied.

Figure 1 Algorithm for identifying the severely housing deprived population in the 2018 Census



Notes for Figure 1:

- (1) People with no information for these variables were classified as 'Severe housing deprivation cannot be determined' (not shown).
- (2) Severely inadequate housing relates to the 'Specific living situations' in Table 1.
- (3) 'Prorata allocation of children' is a special filter applied to children in 'severely inadequate' non-private dwellings (NPDs), such as boarding houses. Children in NPDs are not linked to a family or household, so the low income filter could not be applied like it is to children in private dwellings (based on family or dwelling income). Hence, a proportion of the total children in each NPD were classified as 'Severely housing deprived', based on the proportion of adults in the same dwelling classified as such.
- (4) A severely crowded dwelling was defined as a dwelling with a deficit of two or more bedrooms, according to the Canadian National Occupancy Standard.
- (5) The reference person is the person in a dwelling who fills out the Census Dwelling Form. This person was assumed to be more likely to be a 'host' in the dwelling, rather than a temporary resident. This filter is required for rental dwellings in particular.

Caveats

There are a number of caveats to interpreting and using the results presented in this report. The 2018 severe housing deprivation count, like previous estimates, will have underestimated the true level of severe housing deprivation in New Zealand. Scope changes, census operational difficulties, and quality limitations inherent in surveying people experiencing homelessness mean comparisons over time are not recommended.

Here, we detail a range of factors that likely influenced the 2018 estimate of severe housing deprivation:

- As a vulnerable and hard-to-find population, we expect the severely housing deprived population to be undercounted in national censuses (and most data collections). However, we also recognise that a national census of population and dwellings is one of the best sources of information on severe housing deprivation at a national level. In preparation for the 2018 Census, Stats NZ developed a targeted strategy designed to better reach homeless people (Stats NZ, 2019a). This included a number of approaches:
 - Pre-engagement with community organisations;
 - Data collection over several nights (4 to 8 March 2018);
 - Assisted completion events – e.g. barbeques held with community organisations with Census staff on hand to help people complete forms;
 - Field-assisted response on an *ad hoc* basis, to help people complete their forms where they live;
 - Specific engagement with non-private dwellings such as night shelters.
- Discussion with homelessness service providers revealed that the targeted strategy did not go according to plan in some areas, which has also been noted in an independent review of the 2018 Census (Jack & Grazeadei 2019).
- The move to an online-first approach for the 2018 Census contributed to an undercount of severely housing deprived people living in private dwellings, likely due to limited availability of online access and variable computer literacy. The online-first approach also meant there were fewer staff ‘on the ground’ than for previous censuses, so fewer people living in situations classified as severely inadequate housing, such as cars, would have been identified and encouraged to participate.
- Extensive work has been undertaken on the 2018 Census to fill data gaps using administrative and imputed data. The extent to which this has improved coverage is not yet known – the final 2018 Census coverage rate is yet to be published. As with previous Censuses, people living without shelter and in non-private dwellings will be excluded from the post-enumeration survey, and hence the degree of undercount for these groups is not reflected in Census coverage rates.
- There was substantial variation in response rates by ethnicity for the 2018 Census, with Māori and Pacific people particularly affected. Census forms were completed by 71 percent of Māori and 68 percent of Pacific people, compared with 89 percent of people of European ethnicities. Through the

use of administrative enumeration, the coverage of Māori and Pacific peoples has improved to an estimated 96 percent (Stats NZ, 2019b). However, for variables where there were no alternative sources of data (e.g. basic amenities), the proportion of missing data will be greater for Māori and Pacific than for the total population. The main impact on the severe housing deprivation estimate is that around 330,000 people could be allocated to a small area (meshblock) but not to a household, and thus could not be included in the severe housing deprivation analysis because household and dwelling variables are integral to determining if a person is severely housing deprived. These 330,000 records 'missing' from the severe housing deprivation analysis are likely to particularly affect the 'sharing accommodation' category and underestimate severe housing deprivation among Māori and Pacific people (Stats NZ, 2020). Māori and Pacific make up almost half of the 330,000 people missing from households and they are more likely to share with family or friends when they cannot access a place of their own.

- Due to the use of additional data sources and imputation in the 2018 Census, every usual resident has an ethnicity. By comparison, in the 2013 Census, 5.4 percent of usual residents' ethnicity was not stated. This improved ethnicity data coverage may act to falsely reduce the reported prevalence rates of severe housing deprivation because the proportion of people whose ethnicity is known increased (the denominator), but data were not available for all of those people to assess them for severe housing deprivation (the numerator). Māori and Pacific people are likely to be disproportionately affected by this numerator/denominator bias because more of their data came from sources other than the 2018 Census forms, and they make up a greater proportion of people missing from households.
- For the first time, the Ministry of Housing and Urban Development (HUD) were able to supply data from their funded emergency and transitional housing for Census night 2018. HUD believe these data represent reporting of about 75 percent of clients (personal communication, M Devlin, 29 April 2020). This compares with response rate of approximately 50 percent in 2013, when we sought data from each individual provider or umbrella organisation regarding the number and characteristics of people they were supporting on Census night.
- Income data coverage was better in the 2018 Census because of the use of administrative data. In 2013, lack of income data was the most common reason people were excluded from the estimate of severe housing deprivation. This was likely a source of undercount of severe housing deprivation in 2013 because non-response to income questions was more common in deprived groups, including people not working (Suei, 2016).

Table 2 Likely effects of selected features of the 2018 Census and NGO operational data on the severe housing deprivation estimate, by category

			NGO data	2018 Census											
Broad living situation (NZ Definition of Homelessness category)		Specific living situation	Use of HUD data for transitional housing	Online-first	Targeted collection for homeless people	Addition of admin. data for ethnicity	Addition of admin. data for income	Addition of admin. data for dwelling type	330,000 people included in small areas, but not households						
1	Without shelter (Census data)	Roofless / rough sleeper	No change	Possible decrease	Increase	Increased count, reduced proportion	Increase	No change	Unknown						
		Improvised dwelling													
		Mobile dwelling													
2	Temporary accomm.	Emergency & transitional accomm. (Operational data)	Night shelter	No change	No change	No change	No change	No change	No change						
		Women's refuge													
		Other accommodation for homeless people	Likely increase												
		Commercial accomm. (Census data)	Camping ground / motor camp	No change						Possible decrease	Unknown	Unknown	Unknown	Unknown	Decrease
			Boarding houses, hotels, motels, vessels							Unknown	Unknown	Increased count, reduced proportion	Increase	Likely increase (boarding houses)	Decrease
Marae (Census data)	No change	Unknown	Unknown	Unknown	Unknown	No change	Unknown								
3	Sharing accommodation (Census data)	No change	Possible decrease	No change	Increased count, reduced proportion	Increase	No change	Likely decrease							
Overall effect on the total estimate of severe housing deprivation			Likely increase	Possible decrease	Increase	Increase	Increase	Increase	Decrease						

Results

Please note that all results tables in this report largely represent counts from Census data, so tests of significance are not applicable.

Table 3 shows the population identified as severely housing deprived on Census night 2018: 41,644 people, which is nearly 0.9 percent of the population. This should be regarded as a lower bound, as undercounting likely affects all categories.

Table 3 Severely housing deprived people by housing deprivation category, count and prevalence rate, 2018

Broad living situation (NZ Definition of Homelessness category)		Specific living situation	2018	
			No. people	Prevalence rate per 10,000 people ²
1	Without shelter	Roofless / rough sleeper	195	0.4
		Improvised dwelling	1,311	2.8
		Mobile dwelling	2,016	4.3
		Subtotal	3,522	7.5
2	Emergency and transitional accomm. (NGO-run)	Night shelter	69	0.1
		Women's refuge	96	0.2
		Other accommodation for homeless people	1,530	3.3
		Subtotal	1,695	3.6
	Commercial accomm. ¹	Camping ground / motor camp	1,431	3.0
		Boarding houses, hotels, motels, vessels	4,396	9.4
		Subtotal	5,827	12.4
	Marae ¹	45	0.1	
Subtotal (temporary accommodation)	7,567	16.1		
3	Sharing accommodation (temporary resident in a severely crowded private dwelling)	30,555	65.0	
Total severely housing deprived			41,644	88.6

Notes:

¹ Numbers of people in the 'Commercial accommodation' categories are counts random rounded to base three plus proportions of children living in that dwelling type ('Prorata allocation of children' - see Figure 1 and Amore et al., 2013 for rationale). As such, these values are not divisible by three.

² Denominator is the 2018 NZ usually resident population.

Sources: Data analysed here were sourced from Stats NZ, HUD, and emergency housing providers.

Table 4 shows key demographics of the population identified as severely housing deprived in 2018. Echoing findings in previous years: the population was predominantly young, with nearly 50 percent aged under 25 years; ethnic minorities were disproportionately affected; and similar numbers of males and females were severely housing deprived.

Table 4 Severely housing deprived people by housing deprivation type, sex, age, and ethnicity – count, percentage, and prevalence rate, 2018

Characteristic	Category	NZ Definition of Homelessness (NZDH) category						Total severely housing deprived ¹		
		Without shelter		Temporary accommodation ¹		Sharing accommodation		No. people	% of all severely housing deprived people	Prevalence rate per 10,000 people ⁴
		No. people	% of people without shelter	No. people	% of people in temporary accomm.	No. people	% of people sharing accomm.			
Sex	Male	1,926	54.7	3,942	54.8	14,604	47.8	20,472	49.6	88.3
	Female	1,599	45.4	3,252	45.2	15,948	52.2	20,799	50.4	87.4
Age (years)	<15	564	16.0	585	8.1	6,762	22.1	7,908	19.2	85.6
	15-24	303	8.6	1,353	18.8	10,086	33.0	11,745	28.5	189.7
	25-34	282	8.0	1,401	19.5	6,120	20.0	7,800	18.9	117.9
	35-44	369	10.5	882	12.3	2,340	7.7	3,588	8.7	61.2
	45-64	1,380	39.2	2,109	29.3	3,405	11.1	6,891	16.7	57.7
	65 +	627	17.8	861	12.0	1,845	6.0	3,333	8.1	46.6
Ethnicity ²	European	2,580	73.3	3,327	59.4	7,716	25.3	13,626	34.3	41.3
	Māori	903	25.6	978	17.5	10,938	35.8	12,819	32.3	165.2
	Pacific	228	6.5	495	8.8	8,952	29.3	9,675	24.4	253.5
	Asian	198	5.6	1,107	19.8	8,076	26.4	9,378	23.6	132.5
	MELAA ³	36	1.0	165	2.9	567	1.9	768	1.9	109.2
	Other	63	1.8	60	1.1	117	0.4	240	0.6	41.3

Notes:

¹ All data in this table does not include 'prorata' proportions of children in non-private dwellings. The ethnicity data also does not include people in Emergency and transitional accommodation. Therefore, the total severely housing deprived populations for this table vary by characteristic and are all less than in Table 3.

² People who reported more than one ethnic group are counted once in each group reported. This means that the total number of responses for all ethnic groups can be greater than the total number of people who stated their ethnicities.

³ MELAA = Middle Eastern, Latin American and African.

⁴ Denominator population is NZ usual residents in each category, e.g. top row ('Male' category) denominator is all NZ (usually resident) males.

Sources: Data analysed here were sourced from Stats NZ, HUD, and emergency housing providers.

Table 5 looks at severe housing deprivation by ethnicity. Most markedly, rates of 'Sharing accommodation' were much higher among non-European ethnicities, especially Pacific people and Māori. This reflects relative socioeconomic disadvantage and the influence of culture (including manaakitanga) on responses to housing need.

Table 5 Severely housing deprived people by housing deprivation category and ethnicity – count and prevalence rate, 2018

Characteristic	Category	Ethnicity ^{1,2}									
		European		Māori		Pacific peoples		Asian		MELAA ³	
		No. people	Prevalence rate per 10,000 European people ⁴	No. people	Prevalence rate per 10,000 Māori people ⁴	No. people	Prevalence rate per 10,000 Pacific people ⁴	No. people	Prevalence rate per 10,000 Asian people ⁴	No. people	Prevalence rate per 10,000 MELAA people ⁴
NZ Definition of Homelessness (NZDH) category	Without shelter	2,580	7.8	903	11.6	228	6.0	198	2.8	36	5.1
	Temporary accommodation	3,327	10.1	978	12.6	495	13.0	1,107	15.6	165	23.5
	Sharing accommodation	7,716	23.4	10,938	141.0	8,952	234.6	8,076	114.1	567	80.6
Total severely housing deprived		13,626	41.3	12,819	165.2	9,675	253.5	9,378	132.5	768	109.2

Notes:

¹ People who reported more than one ethnic group are counted once in each group reported. This means that the total number of responses for all ethnic groups can be greater than the total number of people who stated their ethnicities.

² Data in this table reflect only those severely housing deprived people identified in the 2018 Census. It does not include people in Emergency and transitional accommodation or 'prorata' proportions of children in non-private dwellings. Therefore, the total severely housing deprived population for this table is less than in Table 3.

³ MELAA = Middle Eastern, Latin American and African.

⁴ Denominator population is NZ usual residents of each ethnicity, e.g. right-most column (MELAA) denominator is all NZ usual residents who identify with a MELAA ethnicity.

Source: Data analysed here were sourced from Stats NZ.

Table 6 shows that severe housing deprivation was disproportionately experienced by young people, with 15-24 year olds having the highest rate of severe housing deprivation across all ethnic groups. People who identify as Māori or Pacific had high rates of severe housing deprivation across all age groups.

Table 6 Severely housing deprived people by sex and age – count and prevalence rate, 2018

		Ethnicity ^{1,2}									
		European		Māori		Pacific peoples		Asian		MELAA ³	
Characteristic	Category	No. people	Prevalence rate per 10,000 people ⁴	No. people	Prevalence rate per 10,000 people ⁴	No. people	Prevalence rate per 10,000 people ⁴	No. people	Prevalence rate per 10,000 people ⁴	No. people	Prevalence rate per 10,000 people ⁴
Sex	Male	6,960	43.1	5,925	154.7	4,491	234.7	4,887	140.0	378	105.9
	Female	6,669	39.6	6,891	175.4	5,181	272.3	4,491	125.2	390	112.5
Age (years)	0-14	2,328	37.5	4,038	162.3	3,021	235.7	726	50.5	102	58.9
	15-24	3,645	90.9	3,606	268.6	2,748	376.1	3,264	307.2	192	195.6
	25-34	1,941	49.6	2,001	188.0	1,557	283.0	2,643	162.8	276	166.7
	35-44	999	26.3	1,047	121.7	666	157.2	915	79.5	93	73.7
	45-64	3,096	34.8	1,689	111.0	1,068	170.1	1,125	83.5	81	71.2
	65+	1,620	26.4	438	90.8	612	302.5	699	153.8	21	79.6
Total severely housing deprived		13,626	-	12,819	-	9,675	-	9,378	-	768	-

Notes:

¹ People who reported more than one ethnic group are counted once in each group reported. This means that the total number of responses for all ethnic groups can be greater than the total number of people who stated their ethnicities.

² Data in this table reflect only those severely housing deprived people identified in the 2018 Census. It does not include people in Emergency and transitional accommodation or 'prorata' proportions of children in non-private dwellings. Therefore, the total severely housing deprived population for this table is less than in Table 3.

³ MELAA = Middle Eastern, Latin American and African.

⁴ Denominator population is NZ usual residents in each category, e.g. the denominator for the prevalence rate of severely housing deprived Pacific females is all NZ usually resident Pacific females.

Source: Data analysed here were sourced from Stats NZ.

Table 7 shows the geographic distribution of severe housing deprivation by regional council in 2018, with nearly half of the severely housing deprived population living in the Auckland region. The highest rates of severe housing deprivation were in Northland, Auckland, and Gisborne, while the lowest rates were in Southland, Canterbury, and Taranaki regional council areas. Northland and West Coast had the highest rates of people living without shelter; Tasman and Nelson had the highest rates of people living in temporary accommodation; and Auckland and Gisborne the highest rates of people sharing accommodation.

Table 7 Severely housing deprived population by housing deprivation type and regional council area – count, percentage, and prevalence rate, 2018

Regional council	NZ Definition of Homelessness (NZDH) category						Total severely housing deprived		
	Without shelter		Temporary accommodation		Sharing accommodation		No. people	% of all severely housing deprived people	Preval. rate per 10,000 people ¹
	No. people	Preval. rate per 10,000 people ¹	No. people	Preval. rate per 10,000 people ¹	No. people	Preval. rate per 10,000 people ¹	No. people	% of all severely housing deprived people	Preval. rate per 10,000 people ¹
Northland	759	42.4	471	26.3	1,416	79.1	2,646	6.4	147.8
Gisborne	42	8.8	75	15.8	450	94.7	567	1.4	119.3
Auckland	498	3.2	2,337	14.9	15,582	99.1	18,417	44.5	117.2
Hawke's Bay	111	6.7	354	21.3	1,278	76.8	1,740	4.2	104.6
Bay of Plenty	357	11.6	501	16.2	2,253	73.0	3,111	7.5	100.8
Tasman	123	23.5	201	38.4	174	33.2	495	1.2	94.5
Marlborough	72	15.2	177	37.4	168	35.5	414	1.0	87.5
Nelson	33	6.5	240	47.2	150	29.5	423	1.0	83.1
Waikato	486	10.6	390	8.5	2,706	59.1	3,582	9.0	78.2
West Coast	102	32.3	81	25.7	60	19.0	243	0.6	77.0
Wellington	210	4.1	828	16.3	2,217	43.7	3,258	7.9	64.3
Manawatu-Whanganui	162	6.8	279	11.7	993	41.6	1,431	3.5	59.9
Otago	123	5.5	432	19.2	780	34.6	1,335	3.2	59.3
Canterbury	318	5.3	735	12.3	1,767	29.5	2,820	6.8	47.0
Taranaki	78	6.6	90	7.7	357	30.4	528	1.3	44.9
Southland	51	5.2	117	12.0	192	19.7	357	0.9	36.6
Total severely housing deprived²							41,376	100	-

Notes:

¹ Denominator population is NZ usual residents in each category, e.g. top row (Northland) denominator is all NZ usual residents living in Northland.

² Data in this table does not include 'prorata' proportions of children in non-private dwellings. Therefore, the total severely housing deprived population for this table is less than in Table 3.

Sources: Data analysed here were sourced from Stats NZ, HUD, and emergency housing providers.

Tables 8 and 9 show the geographic distribution of severe housing deprivation by territorial authority in 2018, with the highest rates of severe housing deprivation seen in the rural areas of Kawerau, Far North, and Ōpōtiki. The lowest rates were in Selwyn, Timaru, and South Wairarapa. These tables should be used with caution, given the small numbers.

Table 8 Severely housing deprived population by housing deprivation type and territorial authority – count, percentage, and prevalence rate, 2018 (territorial authorities with higher prevalence rates)

Territorial authority ¹	NZ Definition of Homelessness (NZDH) category						Total severely housing deprived		
	Without shelter		Temporary accommodation		Sharing accommodation				
	No. people	Preval. rate per 10,000 people ²	No. people	Preval. rate per 10,000 people ²	No. people	Preval. rate per 10,000 people ²	No. people	% of total severely housing people in NZ	Preval. rate per 10,000 people ²
Kawerau	12	16.8	s ³	s	s	s	162	0.4	226.7
Far North	399	61.1	228	34.9	738	113.1	1,365	3.3	209.2
Ōpōtiki	42	45.3	15	16.2	132	142.3	189	0.5	203.7
Wairoa	21	25.1	6	7.2	105	125.5	135	0.3	161.3
Mackenzie	18	37.0	33	67.8	24	49.3	72	0.2	148.0
Whakatāne	48	13.4	66	18.5	369	103.4	483	1.2	135.3
Rotorua	48	6.7	141	19.6	729	101.4	924	2.2	128.6
Hastings	57	7.0	207	25.4	768	94.2	1,032	2.5	126.6
Gisborne	42	8.8	75	15.8	450	94.7	567	1.4	119.3
Auckland	501	3.2	2,334	14.8	15,582	99.1	18,417	44.5	117.2
Whangarei	246	27.0	213	23.4	594	65.3	1,053	2.5	115.8
Westland	33	38.2	36	41.7	30	34.7	99	0.2	114.5
Porirua	42	7.4	108	19.1	492	87.0	642	1.6	113.5
Hauraki	69	34.5	27	13.5	126	62.9	225	0.5	112.4
Ruapehu	9	7.3	21	17.1	93	75.6	123	0.3	100.0
Queenstown-Lakes	18	4.6	105	26.8	264	67.4	387	0.9	98.8
South Waikato	21	8.7	s	s	s	s	237	0.6	98.6
Kaipara	114	49.8	27	11.8	84	36.7	225	0.5	98.4
Tasman	120	22.9	198	37.8	174	33.2	495	1.2	94.5
Buller	45	46.9	27	28.2	18	18.8	90	0.2	93.8
Kaikōura	6	15.3	12	30.7	21	53.7	36	0.1	92.0
Hamilton	39	2.4	153	9.5	1,263	78.5	1,458	3.5	90.6
Waitomo	9	9.7	15	16.1	60	64.5	84	0.2	90.3
Marlborough	72	15.2	174	36.8	168	35.5	414	1.0	87.5
Western Bay of Plenty	105	20.5	78	15.2	258	50.3	441	1.1	85.9
Thames-Coromandel	96	32.1	72	24.1	84	28.1	252	0.6	84.3
Nelson	33	6.5	240	47.2	153	30.1	423	1.0	83.1
Waikato	132	17.5	39	5.2	444	58.7	615	1.5	81.3
Central Otago	33	15.3	78	36.2	60	27.8	171	0.4	79.3
Taupō	39	10.5	51	13.7	201	54.0	291	0.7	78.2

Notes:

¹ Data in this table does not include 'prorata' proportions of children in non-private dwellings. Therefore, the total severely housing deprived population for this table and Table 9 combined is less than in Table 3.

² Denominator population is NZ usual residents in each category, e.g. top row (Kawerau) denominator is all NZ usual residents living in Kawerau.

³ s = suppressed according to Stats NZ confidentiality rules.

Sources: Data analysed here were sourced from Stats NZ, HUD, and emergency housing providers.

Table 9 Severely housing deprived population by housing deprivation type and territorial authority – count, percentage, and prevalence rate, 2018 (territorial authorities with lower prevalence rates)

Territorial authority ¹	NZ Definition of Homelessness (NZDH) category						Total severely housing deprived		
	Without shelter		Temporary accommodation		Sharing accommodation		No. people	% of total severely housing people in NZ	Preval. rate per 10,000 people ²
No. people	Preval. rate per 10,000 people ²	No. people	Preval. rate per 10,000 people ²	No. people	Preval. rate per 10,000 people ²	No. people			
Napier	24	3.9	120	19.3	339	54.5	480	1.2	77.1
Horowhenua	33	9.9	21	6.3	186	55.9	243	0.6	73.1
Otorohanga	24	23.8	s ³	s	s	s	69	0.2	68.3
Tauranga	102	7.5	204	14.9	618	45.2	924	2.2	67.6
Lower Hutt	27	2.6	90	8.6	582	55.7	702	1.7	67.2
Central Hawke's Bay	12	8.5	18	12.7	66	46.7	93	0.2	65.8
Palmerston North	21	2.5	156	18.4	366	43.2	546	1.3	64.5
Wellington	84	4.1	411	20.3	792	39.1	1287	3.1	63.5
Tararua	27	15.0	24	13.4	51	28.4	99	0.2	55.2
Christchurch	132	3.6	471	12.8	1416	38.4	2019	4.9	54.7
Matamata-Piako	21	6.1	21	6.1	138	40.1	183	0.4	53.2
Dunedin	48	3.8	204	16.2	414	32.8	666	1.6	52.8
Masterton	s	s	21	8.2	111	43.4	132	0.3	51.6
Whanganui	27	6.0	24	5.3	174	38.4	225	0.5	49.7
Upper Hutt	9	2.0	87	19.8	120	27.3	213	0.5	48.4
New Plymouth	48	5.9	81	10.0	246	30.5	378	0.9	46.9
Waimate	9	11.5	12	15.4	12	15.4	36	0.1	46.1
Rangitikei	12	8.0	s	s	s	s	69	0.2	45.9
South Taranaki	24	8.7	s	s	s	s	126	0.3	45.8
Manawatu	33	10.9	27	9.0	69	22.9	126	0.3	41.8
Kāpiti Coast	21	3.9	93	17.3	108	20.1	219	0.5	40.8
Grey	24	18.0	18	13.5	15	11.2	54	0.1	40.5
Southland	30	9.7	42	13.6	51	16.5	123	0.3	39.9
Hurunui	18	14.3	18	14.3	9	7.2	48	0.1	38.2
Invercargill	18	3.3	66	12.2	123	22.7	204	0.5	37.6
Clutha	12	6.8	33	18.7	18	10.2	63	0.2	35.7
Ashburton	18	5.4	27	8.1	72	21.5	117	0.3	35.0
Waimakariri	60	10.1	72	12.1	72	12.1	204	0.5	34.3
Waitaki	15	6.7	18	8.1	39	17.5	75	0.2	33.6
Waipā	24	4.5	9	1.7	129	24.2	162	0.4	30.4
Carterton	12	13.0	s	s	s	s	27	0.1	29.4
Stratford	9	9.5	6	6.3	12	12.7	27	0.1	28.5
South Wairarapa	9	8.5	12	11.3	9	8.5	30	0.1	28.4
Timaru	18	3.9	54	11.7	54	11.7	123	0.3	26.6
Selwyn	36	5.9	24	4.0	78	12.9	141	0.3	23.3
Gore	s	s	s	s	s	s	s	s	s
Chatham Is.	s	s	s	s	s	s	s	s	s
Total severely housing deprived (for tables 8 and 9 combined)¹							41,376	100	-

Notes:

¹ Data in this table does not include 'prorata' proportions of children in non-private dwellings. Therefore, the total severely housing deprived population for this table and Table 8 combined is less than in Table 3.

² Denominator population is NZ usual residents in each category, e.g. top row (Central Otago) denominator is all NZ usual residents living in Central Otago.

³ s = suppressed according to Stats NZ confidentiality rules / small numbers.

Sources: Data analysed here were sourced from Stats NZ, HUD, and emergency housing providers.

Table 10 shows the breakdown of severe housing deprivation in Auckland across the Auckland local boards. Ōtara-Papatoetoe and Māngere-Ōtāhuhu had high rates of severe housing deprivation, which was driven by high rates of people sharing accommodation in severely crowded houses.

Table 10 Severely housing deprived population by housing deprivation category and Auckland local board – count, percentage, and prevalence rate, 2018

Local board	NZ Definition of Homelessness (NZDH) category						Total severely housing deprived people in Auckland		
	Without shelter		Temporary accommodation		Sharing accommodation		No. people	% of total severely housing people in Auckland	Preval. rate per 10,000 people ¹
	No. people	Preval. rate per 10,000 people ¹	No. people	Preval. rate per 10,000 people ¹	No. people	Preval. rate per 10,000 people ¹	No. people	% of total severely housing people in Auckland	Preval. rate per 10,000 people ¹
Ōtara-Papatoetoe	36	4.2	51	6.0	2,388	280.5	2,475	13.9	290.8
Māngere-Ōtāhuhu	36	4.6	246	31.4	1,806	230.2	2,085	11.7	265.8
Manurewa	33	3.4	27	2.8	1,932	201.9	1,992	11.2	208.2
Waitematā	48	5.8	474	57.2	1,134	136.8	1,653	9.3	199.5
Maungakiekie-Tāmaki	6	0.8	48	6.3	1,089	142.8	1,146	6.4	150.2
Whau	21	2.6	69	8.7	1,032	130.0	1,125	6.3	141.8
Papakura	9	1.6	48	8.3	699	121.3	756	4.3	131.2
Puketāpapa	s ²	s	s	s	666	115.7	729	4.1	126.7
Henderson-Massey	45	3.8	69	5.8	1,167	98.5	1,284	7.2	108.4
Albert-Eden	15	1.5	312	31.6	717	72.7	1,041	5.9	105.6
Waitākere Ranges	s	s	s	s	360	69.1	387	2.2	74.3
Kaipātiki	9	1.0	21	2.4	567	64.2	597	3.4	67.6
Upper Harbour	s	s	s	s	324	51.6	342	1.9	54.4
Howick	9	0.6	9	0.6	738	52.4	759	4.3	53.8
Franklin	30	4.0	33	4.4	276	36.9	339	1.9	45.3
Rodney	78	11.7	63	9.5	132	19.9	273	1.5	41.1
Ōrākei	s	s	s	s	213	25.3	294	1.7	34.9
Devonport-Takapuna	12	2.1	30	5.2	135	23.3	174	1.0	30.0
Hibiscus and Bays	18	1.7	33	3.2	168	16.2	219	1.2	21.1
Aotea / Great Barrier	s	s	s	s	s	s	s	s	s
Waiheke	s	s	s	s	s	s	s	s	s
Total severely housing deprived in Auckland³							17,769	100	-

Notes:

¹ Denominator population is NZ usual residents in each category, e.g. top row (Albert-Eden) denominator is all NZ usual residents living in the Albert-Eden local board area.

² s = suppressed according to Stats NZ confidentiality rules / small numbers.

³ Data in this table reflect only those severely housing deprived people identified in the 2018 Census. It does not include people in Emergency and transitional accommodation or 'prorata' proportions of children in non-private dwellings. Therefore, the total severely housing deprived population for this table is less than in Tables 3, 7, and 8.

Sources: Data analysed for this table were sourced from Stats NZ.

Table 11 shows counts and rates of severe housing deprivation in 2013 and 2018. This table should be used with caution, given the many factors limiting comparison over time, not least the small numbers in many of the categories. The 2013 figures reported here have been revised according to improvements to the analysis described in Appendix 1. These revisions do not capture the more extensive differences in Census methodologies in 2013 and 2018.

Table 11 Severely housing deprived population by housing deprivation category – count, prevalence rate, and change over time – 2013 and 2018

Broad living situation (NZ Definition of Homelessness category)		Specific living situation	2013 (revised)		2018		Change in no. of people	Absolute change in preval. rate per 10,000
			No. people	Preval. rate per 10,000 people ¹	No. people	Preval. rate per 10,000 people ¹		
1	Without shelter	Roofless / rough sleeper	30	0.1	195	0.4	+165	+0.3
		Improvised dwelling	1,425	3.4	1,311	2.8	-114	-0.6
		Mobile dwelling	2,667	6.3	2,016	4.3	-651	-2.0
		Subtotal	4,122	9.7	3,522	7.5	-600	-2.2
2	Emergency and transitional accomm. (NGO-run)	Night shelter	26	0.1	69	0.1	+43	0.0
		Women's refuge	30	0.1	96	0.2	+66	+0.1
		Other accomm. for homeless people	493	1.2	1,530	3.3	+1,037	+2.0
		Subtotal	549	1.3	1,695	3.6	+1,146	+2.3
	Commercial accomm.	Camping ground / motor camp	1,711	4.0	1,431	3.0	-280	-1.0
		Boarding houses, hotels, motels, vessels	6,144	14.5	4,396	9.4	-1,748	-5.1
		Subtotal	7,855	18.5	5,827	12.4	-2,028	-6.1
	Marae	43	0.1	45	0.1	+2	0.0	
	Subtotal (temporary accommodation)		8,447	19.9	7,567	16.1	-880	-3.8
	3	Sharing accommodation (temporary resident in a severely crowded private dwelling)		24,720	58.3	30,555	65.0	+5,835
Total severely housing deprived			37,289	87.9	41,644	88.6	+4,355	+0.7

Note: ¹ Denominator populations are NZ usual residents in the corresponding year.

Sources: Data analysed here were sourced from Stats NZ, HUD, and emergency housing providers.

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Appendix 1. Revisions to the 2013 severe housing deprivation estimate

While analysing the 2018 Census, we made a number of methodological improvements. We applied this improved method to the 2018 Census, and also reanalysed the 2013 Census using the same improved method, which saw the 2013 severe housing deprivation estimate revised downwards. Table A1 compares the revised 2013 values with the [previously published 2013 severe housing deprivation estimate](#) (Amore, 2016).

Table A1 Severely housing deprived people– revised vs previously published figures – count, prevalence rate, and change, 2013

Broad living situation (NZ Definition of Homelessness category)		Specific living situation	Revised		Previously published ¹		Change in no. of people	
			No. people	Preval. rate per 10,000 people	No. people	Preval. rate per 10,000 people		
1	Without shelter	Roofless / rough sleeper	30	0.1	15	0.04	+15	
		Improvised dwelling	1,425	3.4	1,398	3.3	+27	
		Mobile dwelling	2,667	6.3	2,784	6.6	-117	
		Subtotal	4,122	9.7	4,197	9.9	-75	
2	Emergency and transitional accomm. (NGO-run)	Night shelter	26	0.1	26	0.1	0	
		Women's refuge	30	0.1	30	0.1	0	
		Other accommodation for homeless people	493	1.2	493	1.2	0	
		Subtotal	549	1.3	549	1.3	0	
	Temporary accomm.	Commercial accomm.	Camping ground / motor camp	1,711	4.0	1,724	4.1	-13
			Boarding houses, hotels, motels, vessels	6,144	14.5	6,127	14.4	+17
			Subtotal	7,855	18.5	7,851	18.5	+4
		Marae	43	0.1	43	0.1	0	
	Subtotal (temporary accommodation)	8,447	19.9	8,443	19.9	+4		
3	Sharing accommodation (temporary resident in a severely crowded private dwelling)		24,720	58.3	28,563	67.3	-3,843	
Total severely housing deprived			37,289	87.9	41,207	97.1	-3,918	

Note: ¹ Amore, 2016.

Sources: Data analysed here were sourced from Stats NZ, Ministry of Housing and Urban Development, and emergency housing providers.

Improvements made to the Census analysis

1. Raw equivalised income values were compared with a raw poverty threshold.
 - This change is responsible for most of the difference in the revised 2013 severe housing deprivation estimate compared with the previously published figures.
 - Previously, we aggregated equivalised income values into income bands, then compared these bands with a poverty threshold that had also been rounded to the top of its income band.
 - This change better reflects how the low income population is identified in NZDep – the New Zealand Deprivation Index (Atkinson, et al., 2019). We have always sought to follow NZDep as closely as possible because their poverty thresholds were developed for application to Census data.
2. Crowding was calculated at the dwelling level for permanent private dwellings.
 - It was previously calculated at the household level, which is the standard unit of analysis for crowding analysis. However, this excluded people who report having ‘no fixed abode’, who should be included in an analysis of severe housing deprivation (homelessness).
3. Income was calculated at the dwelling level for improvised and mobile dwellings.
 - As per point 2, income was also previously calculated at the household level for improvised and mobile dwellings. However, this excluded people who report having ‘no fixed abode’, who should be included in this analysis.
4. All people in the ‘Roofless or rough sleeper’ category were classified as severely housing deprived.
 - This change was prompted by the improved quality of this category in the 2018 Census (see Methodology section for further discussion).
5. Absentees were included in the calculation of Jensen (1988) equivalised family income prior to applying the poverty threshold. They were previously excluded.
6. Dwelling-level benefit filter was applied.
 - This filter identifies residents of improvised and mobile dwellings as having low incomes if at least one of the dwelling residents receives a means-tested benefit.

Appendix 1 references

Amore, K. (2016). Severe housing deprivation in Aotearoa/New Zealand: 2001-2013. Retrieved from <http://www.healthyhousing.org.nz/wp-content/uploads/2016/08/Severe-housing-deprivation-in-Aotearoa-2001-2013-1.pdf>

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Appendix 2. Definition and methodology for measuring severe housing deprivation: A brief history

New Zealand Definition of Homelessness

The New Zealand Definition of Homelessness (NZDH) is the official statistical standard of homelessness. Its development started in 2008, when a government cross-agency working group was formed to develop a definition of homelessness for policy planning purposes (Stats NZ, 2009). This group developed a draft definition of homelessness, after consultation with a range of stakeholders from central and local government, as well as community organisations and researchers. Stats NZ published a draft definition in 2009, which was reviewed and finalised in 2015 with no change to the definition itself (Stats NZ, 2015). It states:

Homelessness is defined as living situations where people with no other options to acquire safe and secure housing: are without shelter, in temporary accommodation, sharing accommodation with a household or living in uninhabitable housing.

The NZDH is both a conceptual definition and classification, i.e. it sets out the criteria for homelessness and divides the homeless population into categories.

Amore et al.

Amore, Viggers, Baker, and Howden-Chapman (2013) reviewed the NZDH (and other definitions) and found some issues with its theoretical underpinning (see also Amore, 2019). With a view to measurement, they sought to develop and clarify the theory, classification, and operational definition of severe housing deprivation (homelessness). Some of this work was carried out as an [Official Statistics Research](#) project with support from Stats NZ.

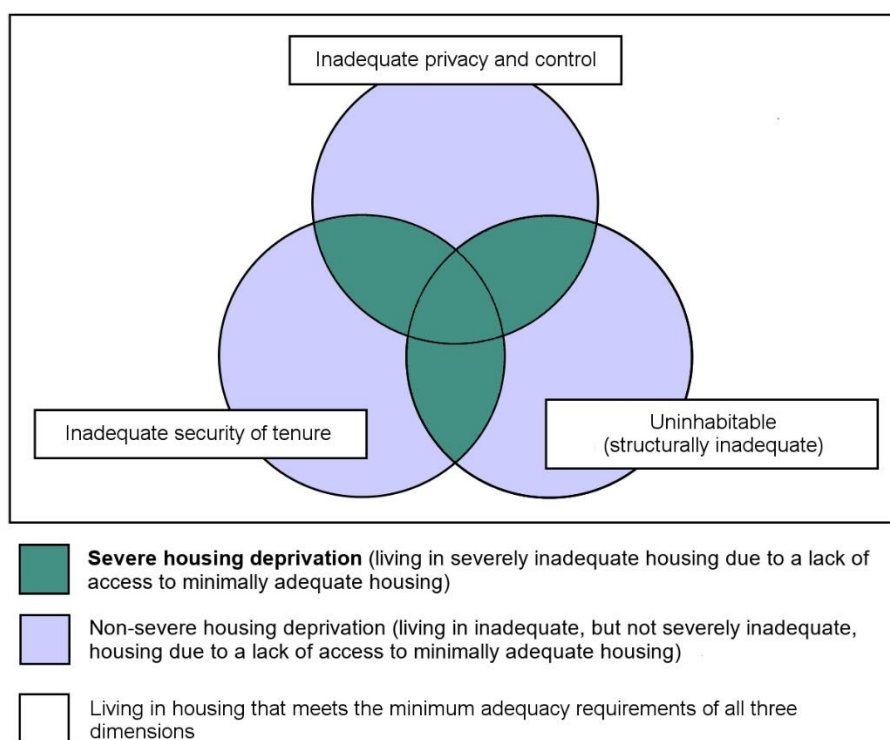
Definition

Amore et al. defined severe housing deprivation (homelessness) by two conceptual criteria:

1. A person is living in severely inadequate housing (that is, housing below a minimum adequacy standard), due to;
2. A lack of access to housing that meets the minimum adequacy standard (rather than living in such circumstances as a matter of choice).

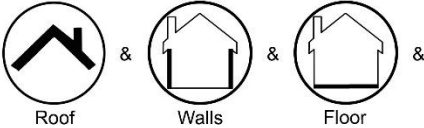

Unpacking Criterion 1, severely inadequate housing was defined as housing lacking in two or more of three core dimensions: habitability (structural features); privacy and control; and security of tenure (Figure A1). These dimensions were drawn from the European 'ETHOS' typology of homelessness (Edgar, 2009) and were the foundation of the NZDH. Amore et al. (2013) proposed definitions of these dimensions for New Zealand (Table A2). The proposed basic amenities will be reviewed in the future publication, given the introduction of a question about basic amenities in the 2018 Census.

Figure A1 Conceptual model of severe housing deprivation



Source: Amore et al. (2013, p.5), adapted from Edgar (2009).

Table A2 The three core dimensions of housing adequacy, broken down into the basic criteria for each dimension

Dimension	Basic requirements
Habitability (structural features)	<p>1 Enclosure</p>  <p>Roof & Walls & Floor</p> <p>2 Basic amenities</p>  <p>Drinkable water & Toilet & Bath or shower & Cooking facilities & Energy source</p>
Privacy and control	<p>1 The dwelling is enclosed (as per Habitability criterion 1); <i>and</i></p> <p>2 The dwelling has all basic amenities (as per Habitability criterion 2); <i>and</i></p> <p>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; <i>and</i></p> <p>4 The person is a permanent resident (not staying in the dwelling on a temporary basis).</p>
Security of tenure	Legal termination of tenancy rights are equal to the minimum provided to people living in private rental housing.

Source: Adapted from Amore et al. (2013, p.5).

Classification

Amore et al. developed a classification of severe housing deprivation by applying their criteria systematically to the United Nation's classification of housing (2008) (Table A3).

Table A3 Classification of severe housing deprivation

Broad living situation (NZ Definition of Homelessness category)		Specific living situation
1	Without shelter	Roofless / rough sleeper
		Improvised dwelling
		Mobile dwelling
2	Targeted to homeless people (Emergency and transitional housing)	Night shelter
		Women's refuge
		Other accommodation for homeless people
	Not targeted to homeless people	Institution not targeted to people who lack access to minimally adequate housing (e.g. 'overstaying' in hospital solely due to lack of housing)
		Camping ground / motor camp
		Boarding houses, hotels, motels, vessels
		Marae ²
3	Sharing accommodation	Temporary resident in a severely crowded private dwelling
4	Uninhabitable housing	Rented or owned private housing that lacks one or more basic amenities

Amore et al. applied this classification to routinely collected data – the Census of Population and Dwellings, supplemented with anonymous data collected from managers of accommodation targeted to homeless people. Using this information, estimates of severe housing deprivation were produced for 2001 and 2006 (Amore et al., 2013). Amore (2016) subsequently applied this same methodology to the 2013 Census. This present report applies the same concept and classification of severe housing deprivation to 2018 data, and provides a revised severe housing deprivation estimate for 2013, based on improvements made to the methodology (see Appendix 1).

Appendix 2 references

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