



# Investigating housing:

## Case studies of housing in Auckland and greater Christchurch and a discussion of data sources

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Gen Economic Network October 2014

# Outline

## ⊙ Introduction

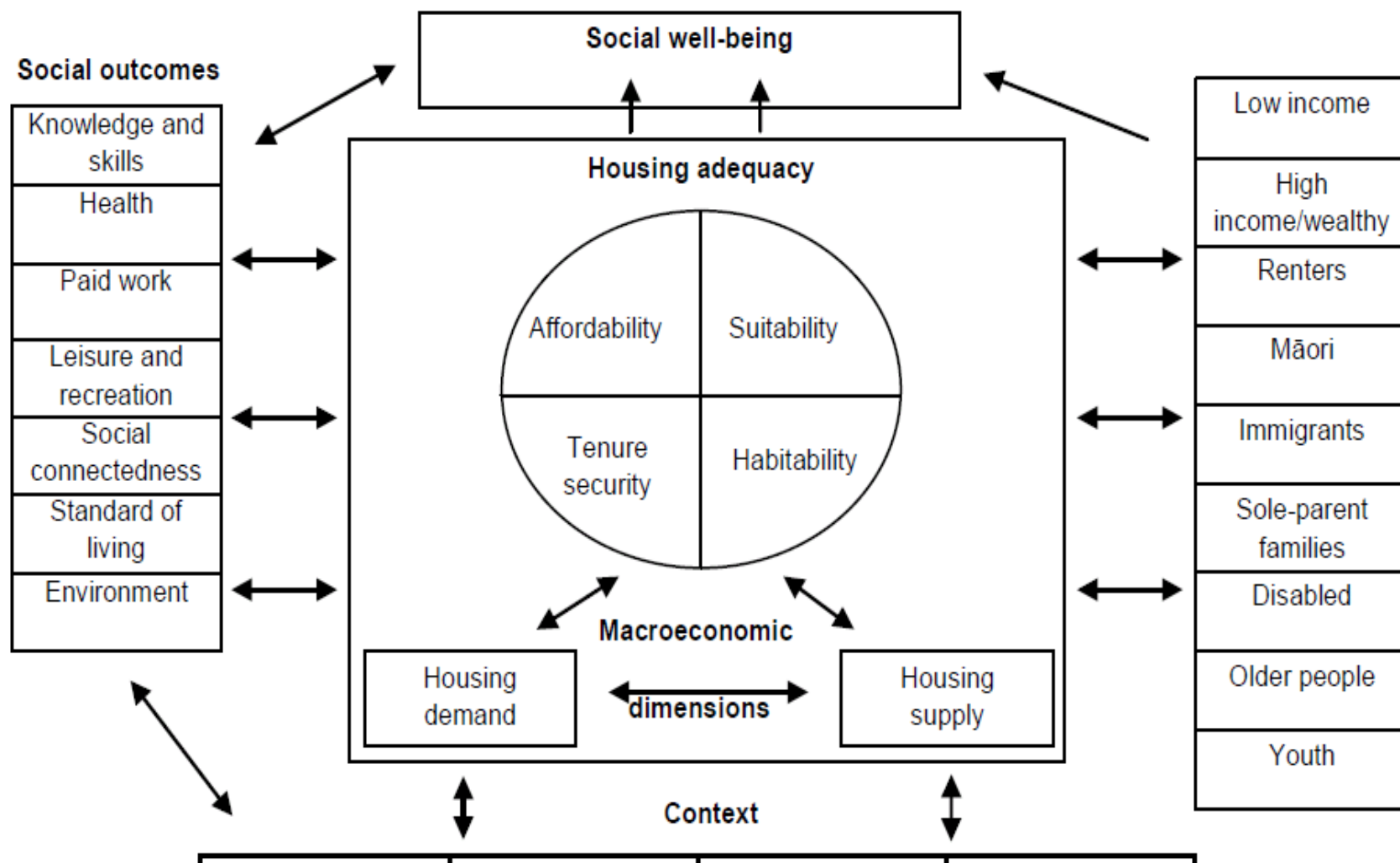
## ⊙ Research reports:

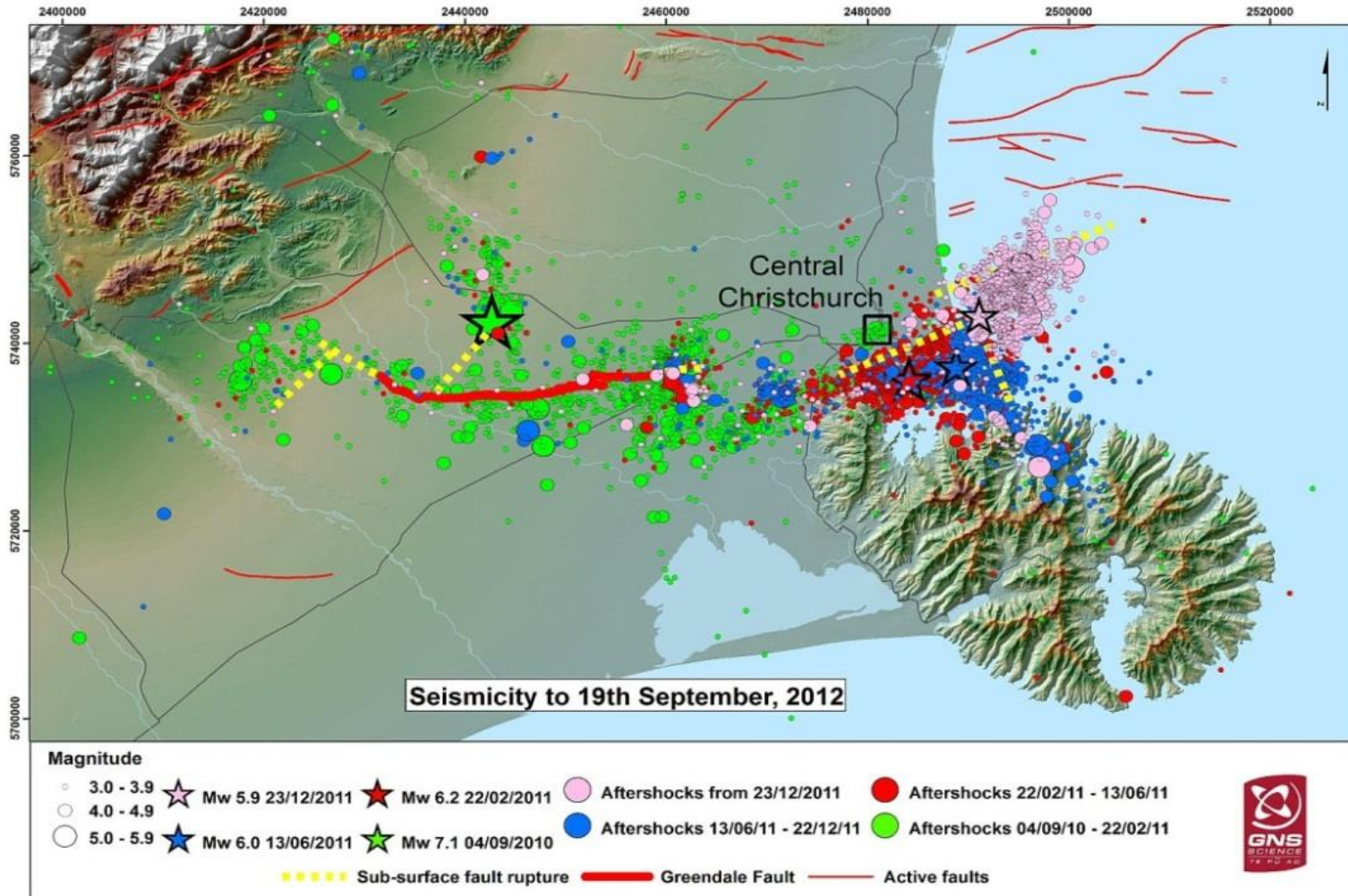
- To what extent did housing issues increase in greater Christchurch after the earthquakes?
- Trends in housing in Auckland, 1991 to 2014

## ⊙ Data sources for housing

- Existing sources
- Review of Housing Statistics 2009
- Proposal for housing indicators report
- Conclusion

## Housing Statistics Framework







Christchurch Press, Nisbet, Alastair, Census night in ChCh...5 March 2013



July 2014

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# Natural disasters and housing

- Quarantelli (1982, 1999) identified four phases of housing recovery in the aftermath of a disaster: emergency shelter, temporary shelter, temporary housing, and permanent housing.
- Research has shown that lower-income people tend to be the most affected by disasters and take longer to 'transition through the stages of housing, sometimes remaining for long periods of time in severely damaged homes.'
- Some US research has also shown that population and household incomes have grown faster in areas affected by disasters.



# Change in dwelling stock between 2006 and 2013

- ⊙ Understanding dwelling change is complex
- ⊙ Census counted an increase in residential dwelling stock in greater Christchurch between 2006 and 2013.
- ⊙ But Census count in 2013 included a 149 % increase in empty dwellings in Christchurch city (around 15,000)
- ⊙ At the time of the Census, Christchurch was still in a state of transition.
- ⊙ Red zone demolitions only partly complete.
  - Around 2,000 dwellings had been demolished by March 2013 further 6,000 demolitions were expected.
- ⊙ Pre-Census, MBIE estimated that a 6% decline in dwelling stock in Christchurch between mid 2010 and the last quarter of 2012.

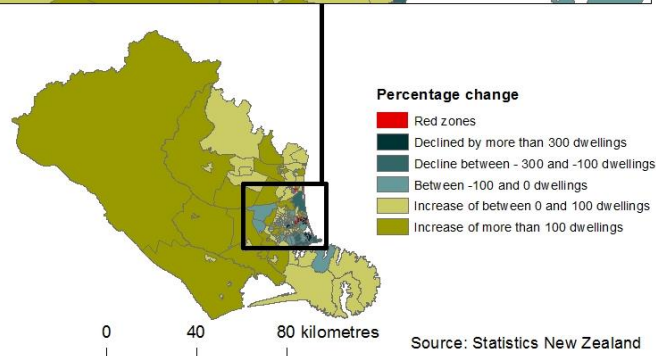
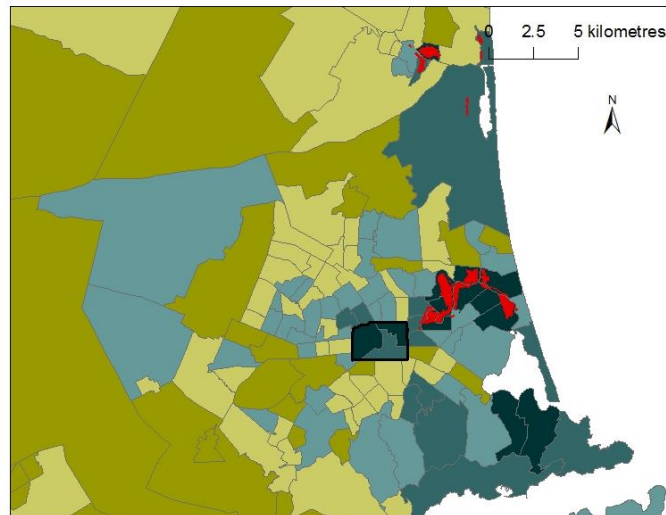




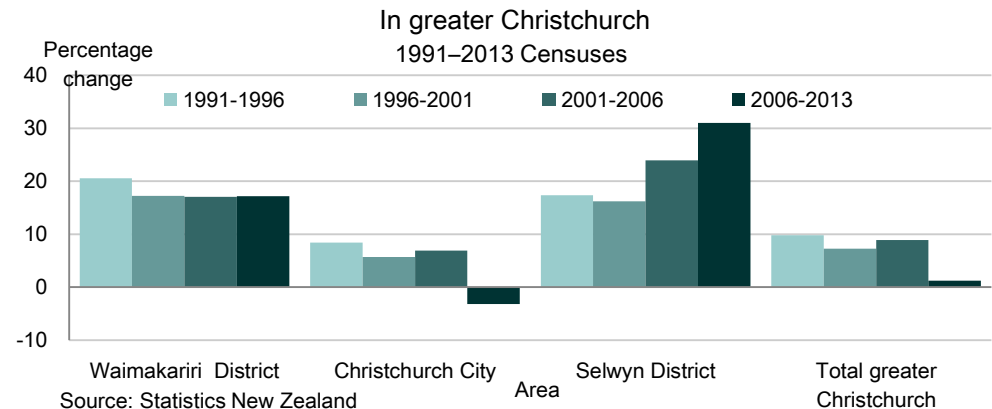


# Decline in number of private occupied dwellings in Christchurch city

Numerical change in occupied dwelling numbers  
For greater Christchurch, 2006 to 2013



## Percentage change in private occupied dwellings

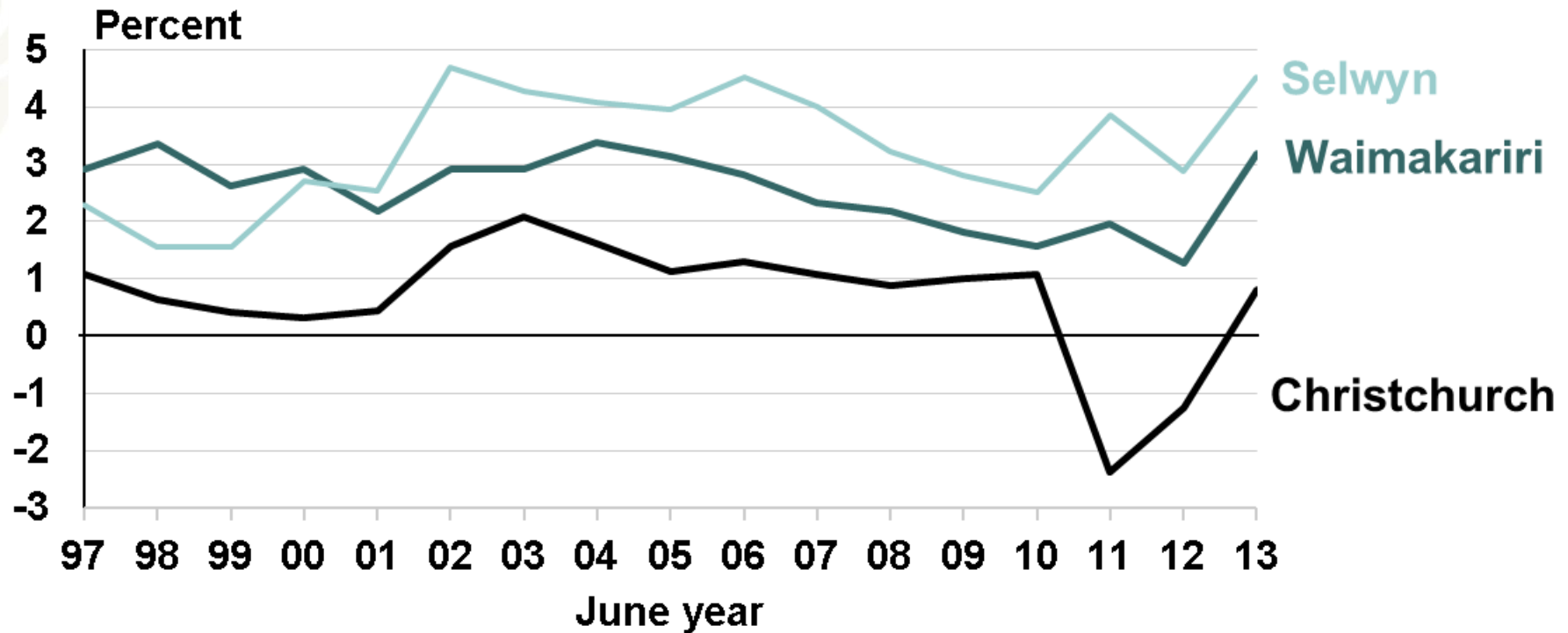


Number of apartments declines by almost two-thirds since 2006  
In 2006, there were 582 apartments\* in Christchurch city,  
with 993 people in households.  
In 2013, there were 201 apartments with 354 people.

\*two or more flats/units/townhouses/apartments/houses  
joined together in a four-or-more-storey building'

# Annual population growth

## Christchurch-Waimakariri-Selwyn



# Is there evidence of increased housing problems after the earthquakes?

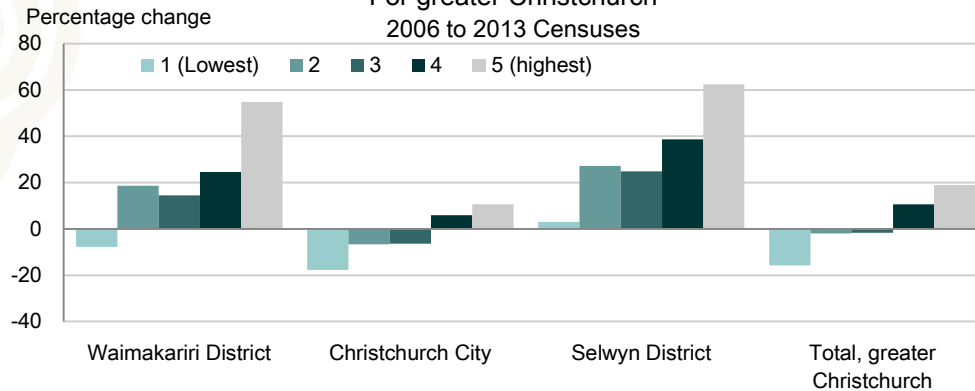
- ◎ For this we use framework of overseas research:
  - Use equivalised household income to look at distribution of low income population and see whether their housing situations had worsened
  - Cannot estimate homelessness as this is complicated
- ◎ Looks at indicators of housing deprivation such as crowding and types of housing associated with severe housing deprivation.
- ◎ Need to understand changes in population of greater Christchurch.

# Number of households in lowest income quintile households fell in greater Christchurch between 2006 and 2013

Percentage change in number of households in each JEAH

income quintile

For greater Christchurch  
2006 to 2013 Censuses



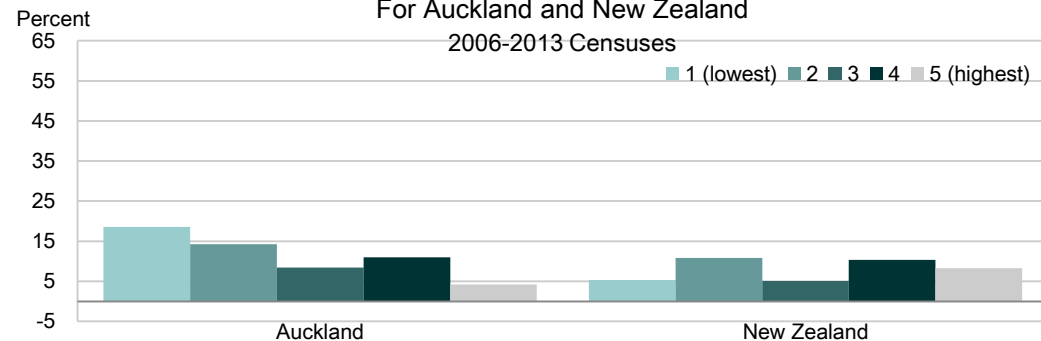
Source: Statistics New Zealand

Area

Percentage change in number of households in each JEAH income quintile

For Auckland and New Zealand

2006-2013 Censuses



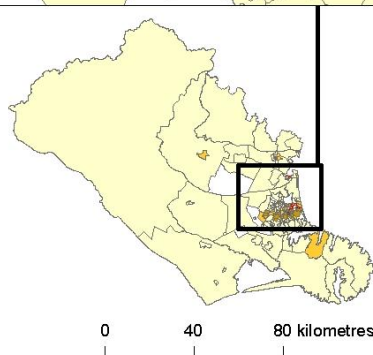
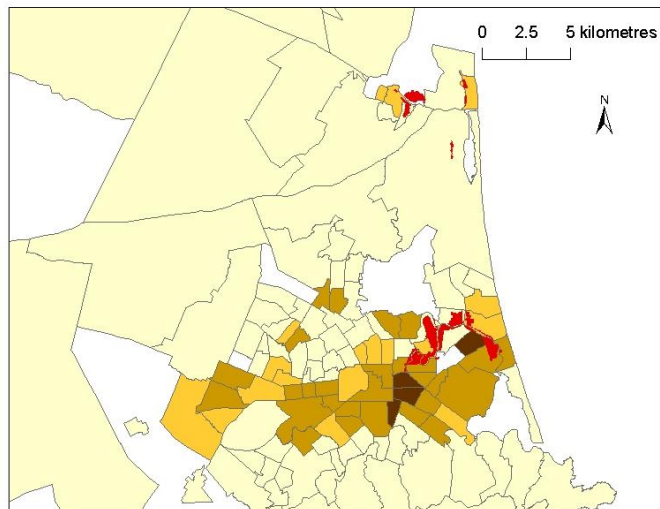
Source: Statistics New Zealand

JEAH income quintile



# Change in deprivation levels 06-13

New Zealand Deprivation Index 2006  
For greater Christchurch

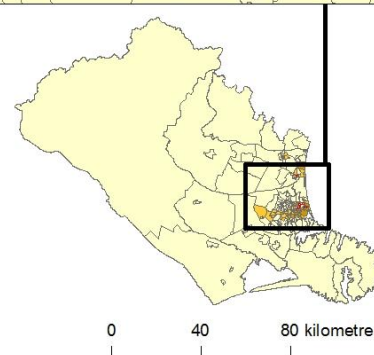
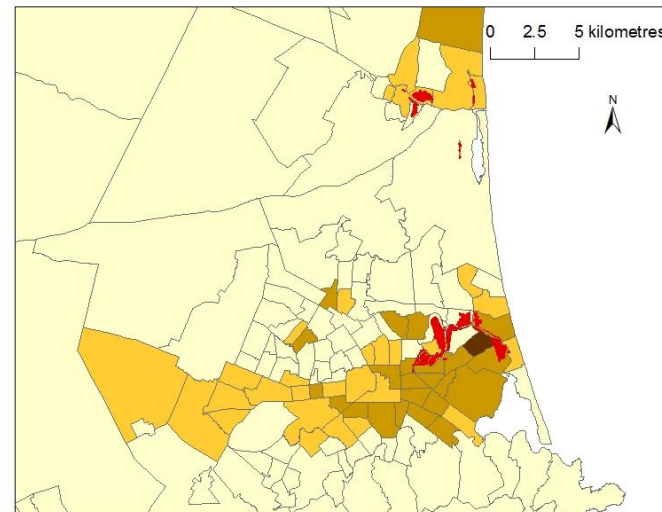


NZ Deprivation Index 2006

Red zones  
Under 6  
6 and 7  
8 and 9  
10

Source: Statistics New Zealand

New Zealand Deprivation Index 2013  
For greater Christchurch



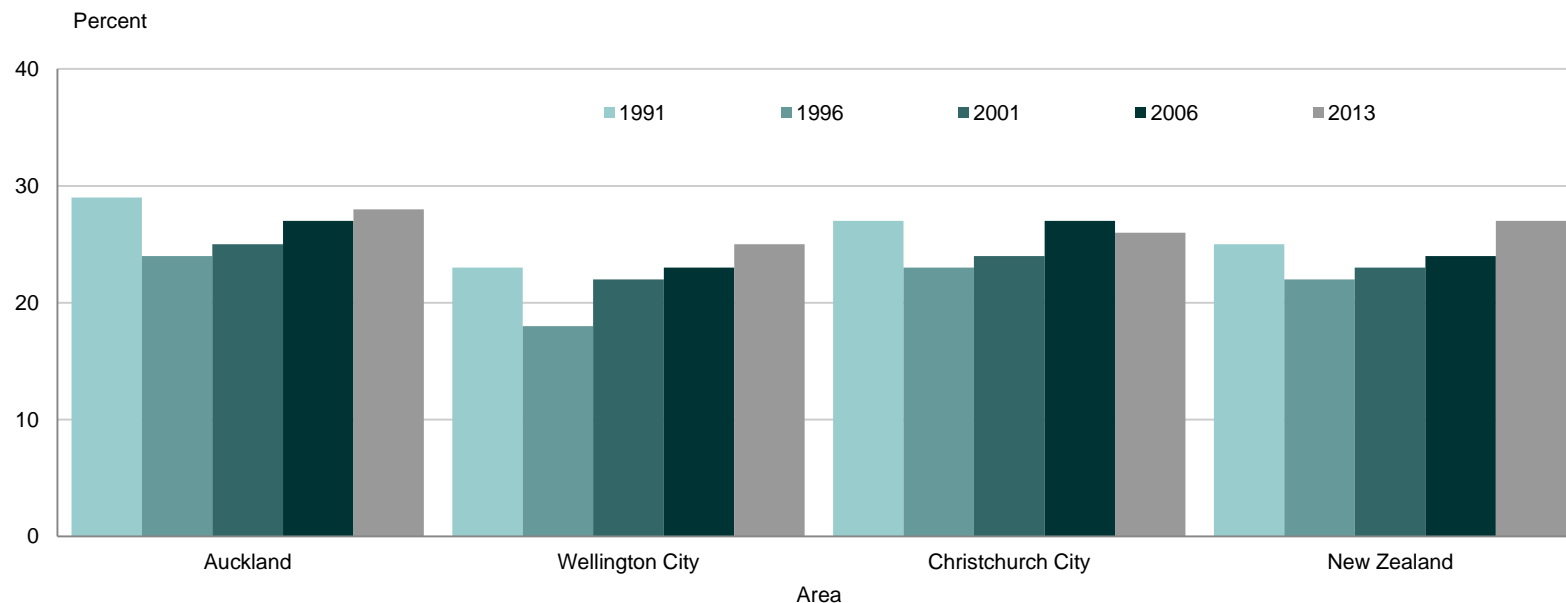
NZ Deprivation Index 2013

Red zones  
Nzdep  
Under 6  
6 and 7  
8 and 9  
10 (most deprived)

Source: Statistics New Zealand

# Rents in relation to household incomes

**Median weekly rent as a proportion of median gross weekly household income**  
For Auckland region, Wellington city, Christchurch city, and New Zealand  
1991 to 2013 Censuses



Source: Statistics New Zealand

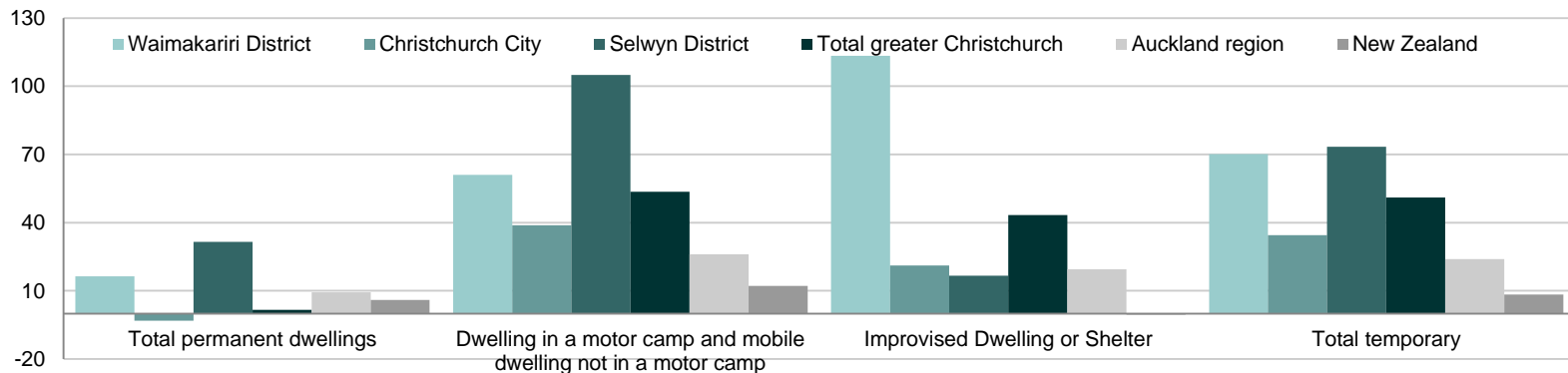
# Numbers of people in 'other' private dwellings increased

🎯 Around 2,200 people in 2013 Census

## Percentage change in numbers of people

By selected private occupied dwelling type for greater Christchurch, Auckland, and New Zealand  
2006–2013 Censuses

Percentage change



Dwelling type

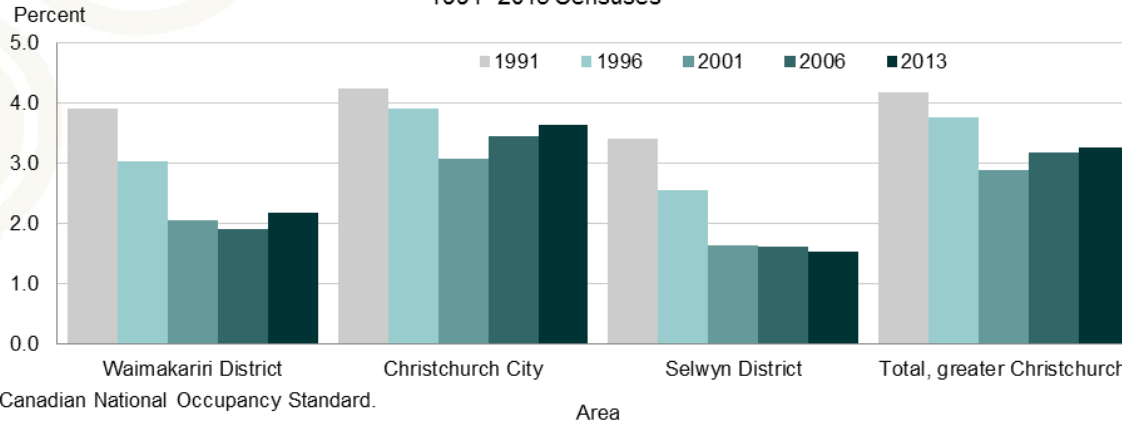
1. Mobile dwellings not in a motor camp and dwellings in a motor camp have been combined for time series purposes.

Note: this graph excludes occupied dwellings not further defined.

Source: Statistics New Zealand

# Crowding

Percentage of households that were crowded<sup>(1)</sup>  
(One or more extra bedrooms needed)  
1991–2013 Censuses



Source: Statistics New Zealand

- ⦿ The number of people living in crowded households went from 24,438 to 25,572 (6.1 to 6.3 percent of people in households).
- ⦿ Severe crowding highest since the 1990s, when unemployment was high.
- ⦿ When multivariate analysis techniques were applied to the data, the odds of being crowded increased by 10.5 percent (from 0.882 to 0.975) in greater Christchurch compared with the rest of New Zealand, after accounting for ethnicity. Ethnicity proved the most important factor in explaining differences in crowding.



# Main findings

- ◎ The Canterbury earthquake sequence resulted in an estimated loss of 6 percent of dwellings in Christchurch city (MBIE 2013)
- ◎ Christchurch city also experienced a population loss
- ◎ Surrounding areas experienced rapid growth in population and dwellings
- ◎ Timing of Census – 2 years after initial crisis period

# Some evidence of increase in housing issues from the Census

- ⊙ Number of people and households living in 'other' private dwellings increased
- ⊙ Small but important rise in crowding compared to rest of New Zealand - from 6.1 to 6.3 percent of people compared with a very small decline nationally
- ⊙ Crowding in greater Christchurch still below the national average of 5.0 percent for households and 10.1 percent of people nationally
- ⊙ At the time of the 2013 Census rent-to-household-income has not changed much, largely because the rise in household incomes offset increases in rents.

# Housing trends in Auckland

- ◎ Report to be published soon
- ◎ Will include crowding tables for both greater Christchurch and Auckland, plus crowding by TA and local board for 2006 and 2013
- ◎ Concentrates on change to dwelling stock, tenure change, housing costs in relation to household income and crowding

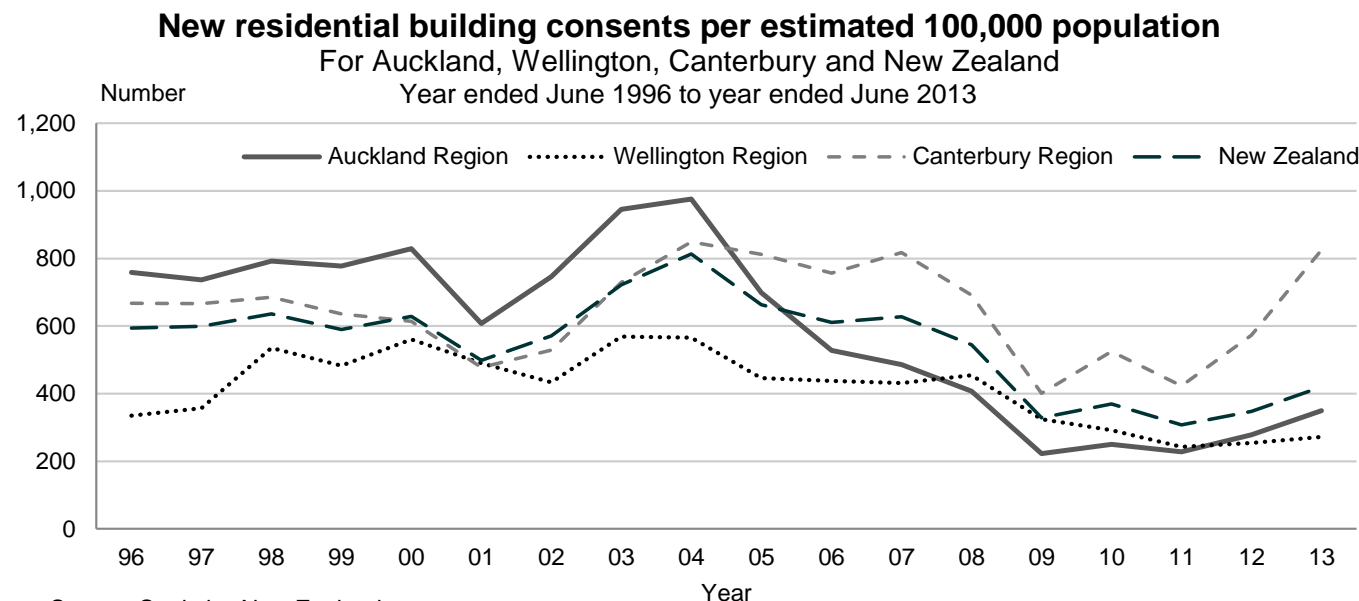
# Auckland's housing problems national news

- ◎ 2012 (Keown, *Sunday Star Times*, 2012) stated 'Auckland in grip of housing crisis', arguing that:
  - By best estimates the city is about 10,000 houses shy of what it needs and it's only likely to worsen. According to the Salvation Army, under current trends over the next 20 years Auckland will be short of 90,000 houses - more houses than were destroyed in the Christchurch earthquake.
- ◎ The Auckland Plan also describes the situation in Auckland as a 'housing crisis' because of a persistent under-supply of housing; a lack of housing choice; poor quality, unhealthy and overcrowded housing; and declining affordability and home ownership (Auckland Council, 2012).



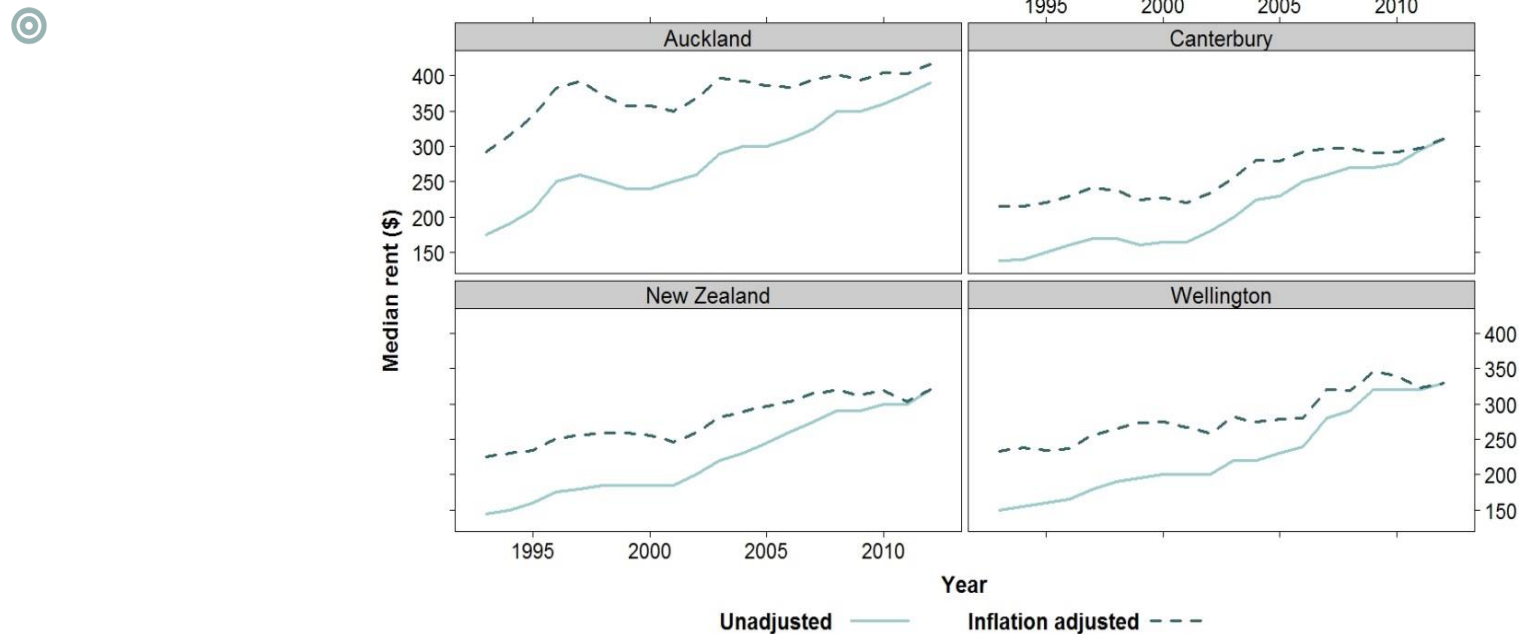
# Auckland is one of fastest growing urban areas

- Between 1991 and 2013, the equivalent of the populations of Christchurch and Palmerston North were added to Auckland's urban population
- Dwelling growth has not really kept pace with population growth, particularly since global financial crisis

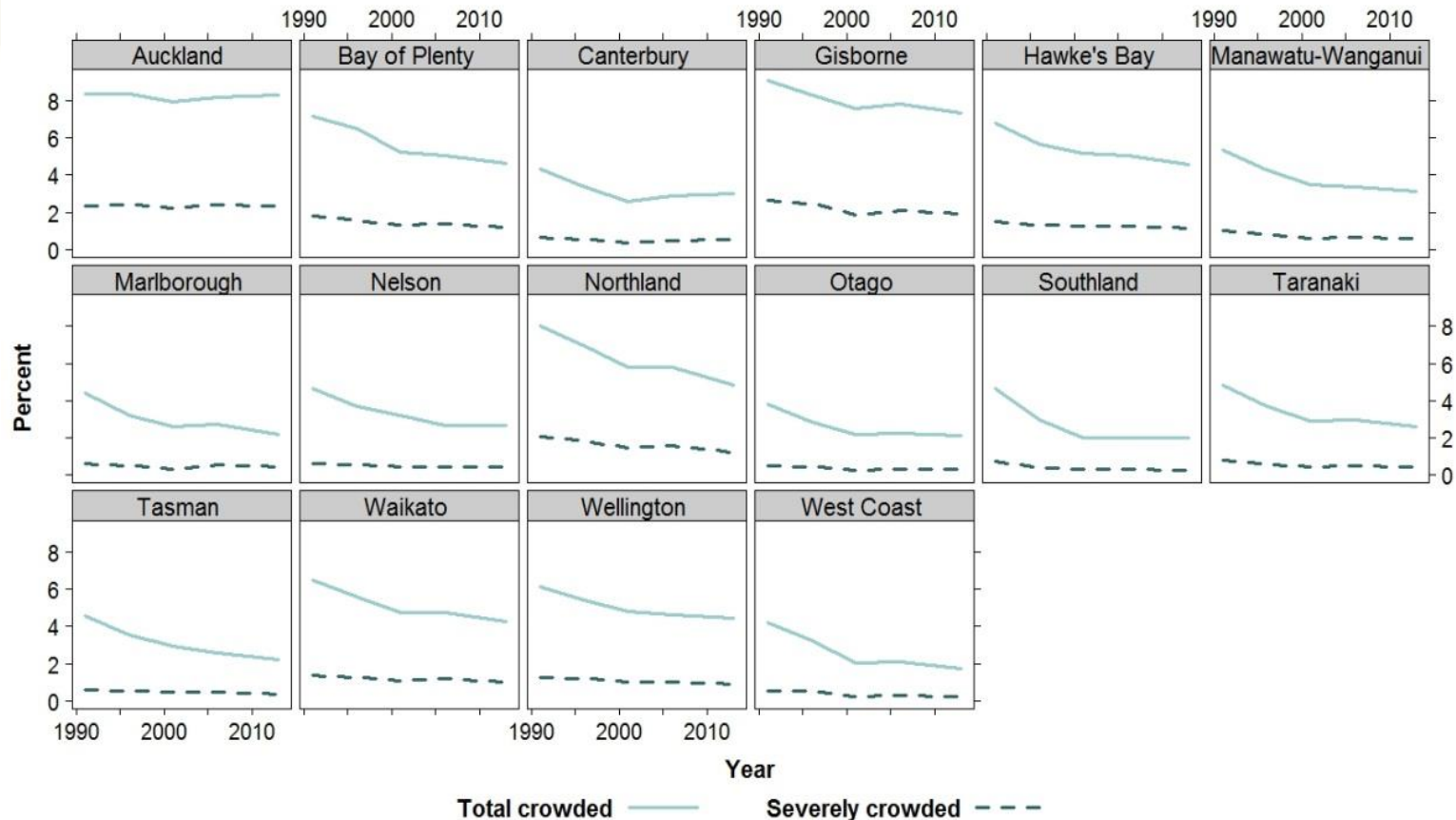


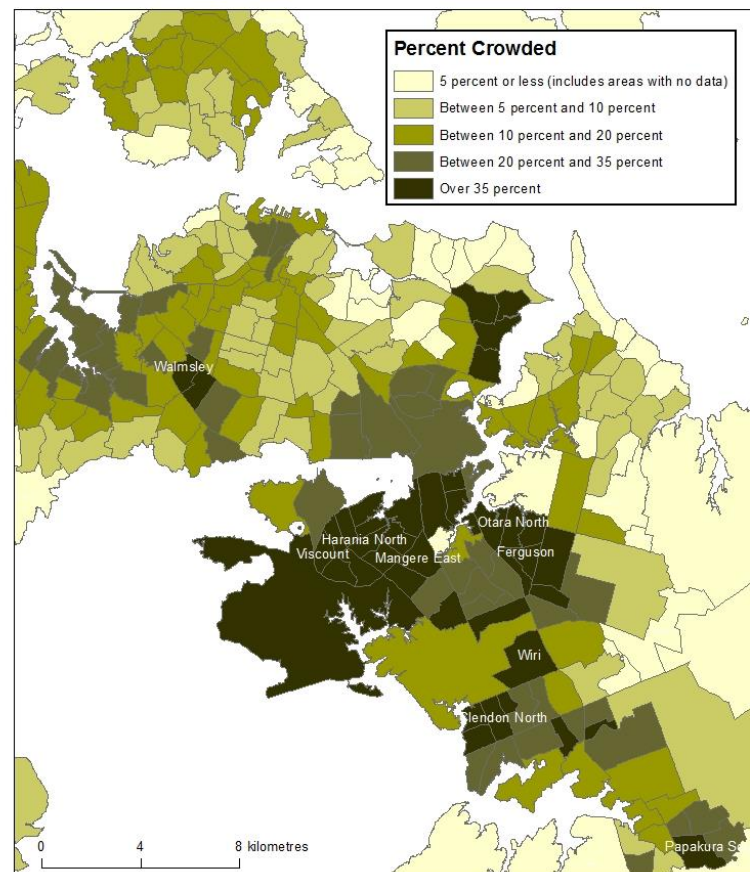
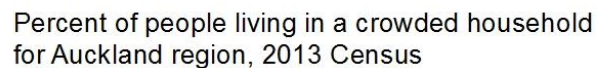
# Housing costs high in Auckland

- Mark Skidmore notes in a recent Treasury working paper that that similar US cities (with high amenities, growing populations, and physical constraints) also experienced high rates of housing price growth.



# Crowding has remained persistently high in Auckland





# Sources for housing data

- Currently there is a range of housing information across the Official Statistics system but no central portal
- Housing stats landing page is useful start

The screenshot shows the Statistics New Zealand website's 'Housing' landing page. The header includes the Statistics New Zealand logo, a search bar, and navigation links: Home, Browse for stats, Tools and services, Methods, Help for survey participants, and About us. The breadcrumb trail reads: Statistics NZ Home > Browse for statistics > People and communities > Housing.

## Housing

Statistics about housing give you information on physical dwellings, such as size and affordability, and the people who live in them, including their level of satisfaction with their house.

### Latest news

Insights from the NZ General Social Survey 2012 available in:

- [Social well-being in New Zealand 2012: Poster and brochure](#)
- [Social well-being in New Zealand 2012: Interactive tool](#)

### Related websites

- [Ministry of Business, Innovation and Employment](#) – formerly Department of Building and Housing
- [QV \(Quotable Value\)](#) – property information
- [Housing New Zealand](#) – state housing information



# Main sources for housing data

- ⊙ **Census of Population and Dwellings:** dwelling number and type, tenure, rents, occupancy including crowding, landlord type
- ⊙ **Household Economic Survey:** housing costs, affordability, maintenance
- ⊙ **Building consents issued:** Number, value, type
  - Residential Building Put in Place - indicator of the volume and value of residential building activity.
- ⊙ **General Social Survey:** some information re housing Quality
- ⊙ **CPI** - price changes for housing rentals and home ownership.



# Sources for housing data- other agencies

- ⊙ **Housing costs:** prices – Quotable Value, REINZ
- ⊙ **MBIE:** tenancy bonds
- ⊙ **Housing New Zealand:** numbers of social houses
- ⊙ **MSD** - Accommodation Supplement - housing assistance for low income groups, social housing - characteristics of people on housing waiting lists.
- ⊙ **Quotable Value NZ** - valuation and sales of residential properties.
- ⊙ **Reserve Bank** - housing values, net equity in housing, mortgage interest rates.
- ⊙ **Building and Research Association of NZ** Housing Condition Survey - physical condition of houses.



# All data sources and indicators have strengths and limitations

- ⦿ For example, tenancy bond data is only for dwellings where bonds are lodged so does not cover all rentals
- ⦿ Rent information won't include subsequent rises
- ⦿ Understanding issues such as affordability and housing quality requires understanding of different measures and their meaning
- ⦿ Crude measures, such as Demographia (median multiple) have been widely criticised by housing researchers

# Review of housing statistics 2009 identified major gaps in housing statistics

- ❖ Develop an official house-price index that measures the rate of change in the price of houses and land
- ❖ Understand non-demographic factors driving housing demand
- ❖ Develop data sources on the supply of land for housing
- ❖ Improve information on housing additions and demolitions
- ❖ Information on private rental availability at a regional level
- ❖ Develop a suite of housing affordability measures
- ❖ Improved information on the physical quality of the housing stock
- ❖ Information on the numbers and characteristics of households living in dwellings that do not meet their needs
- ❖ Information on changes in tenure status amongst different groups in the population.

# Progress

Topic area	Recommendation	Data sources/Agency	Status
<b>Demand</b>	1 categorise demand	Partly covered by Net worth survey	Underway
	2 characterise landlords(MBIE)	Tenancy bond data	Underway
	3 Tenure and location choices	CHRANZ	Complete
<b>Supply</b>	4 Land house price indexes	Research work – SNZ and Property IQ	Underway
	5 Data from QV	Costs discussion	Complete
	6 Land availability	Councils	Underway
	7 Building consents	Councils MBIE/SNZ	Underway
	8 Productivity information	MBIE	Underway
	9 Rental availability	Tenancy bonds MBIE/HNZC/SNZ	Underway
<b>Affordability</b>	10 Affordability measures	Census/Tenancy bonds	Underway
<b>Habitability</b>	11 Physical quality	BRANZ/MBIE	Little information
<b>Suitability</b>	12 Crowding/homelessness	SNZ/WSM/MBIE	Partially completed



# Housing trends portal proposal

- ⦿ That Statistics New Zealand produces a central portal for key housing indicators
- ⦿ Portal would utilise existing information

Example:



Christchurch City Council Earthquake  
Forum

# Example of proposed topics for the indicators

## Housing supply and demand

- Including new dwelling commencements and completions, and dwelling demolitions
- changes in population size and composition, population movements, changes in rates of household formation and dissolution, holiday homes/investment properties

## Housing habitability and suitability including

- physical condition of houses (objective and subjective measures)
- housing occupancy, including crowded dwellings
- homelessness

## Housing costs and affordability

- eg. home ownership affordability (for first home buyers and ability of households to meet ongoing mortgage commitments)
- rental affordability

# Questions



📧 Contact : [rosemary.goodyear@stats.govt.nz](mailto:rosemary.goodyear@stats.govt.nz)