

Canterbury: the rebuild by the numbers





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Canterbury: the rebuild by the numbers

During 2010 and 2011, Canterbury was struck by a series of devastating earthquakes. This included a magnitude 6.3 earthquake on 22 February 2011, which led to a loss of life and has severely affected Canterbury communities and families since then.

This article explores Canterbury's rebuild seven years on, through the lens of data.

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Immediate increases in new homes being consented, and building activity after the earthquakes, indicated a region beginning a long journey to rebuild. From 2010 to 2015, the cost of building a new home increased at a faster rate in Canterbury than in the rest of the country, as did rental prices. The labour market was badly affected, but started to bounce back after September 2012. This fostered healthy growth in the construction, retail trade, and accommodation industries.

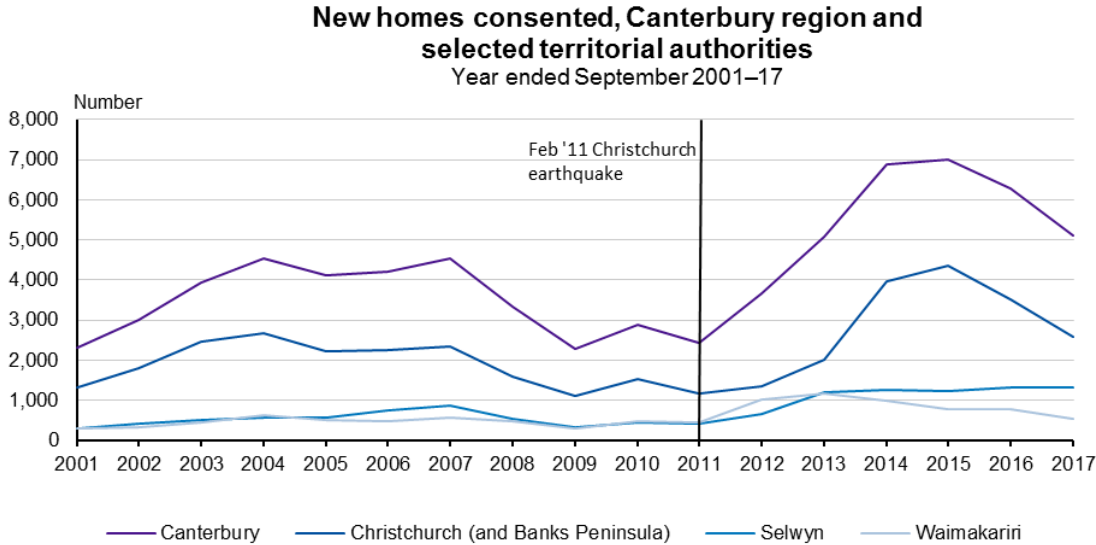
Canterbury's usual resident population and its tourism declined after the earthquakes but both have steadily climbed back to pre-earthquake levels. **The region's gross domestic product** increased significantly after the earthquakes, to replace the assets lost, but has since returned towards the national average.

A new era for Canterbury construction

The 2010/11 earthquakes caused vast structural damage to many buildings, both commercial and residential. This led to a wave of construction activity – both demolition and rebuilding – across the region. The value of building activity in Canterbury rose strongly after the earthquakes but decreased in 2017. The cost to build a new dwelling (excluding land), as well as rental prices, in Canterbury also rose markedly following the earthquakes.

In the seven years to September 2017, 36,431 new homes were consented in Canterbury. This was up more than 10,000 when compared with the seven years pre-earthquakes, when 25,913 homes were consented.

Figure 1



Source: Building consents issued, Stats NZ

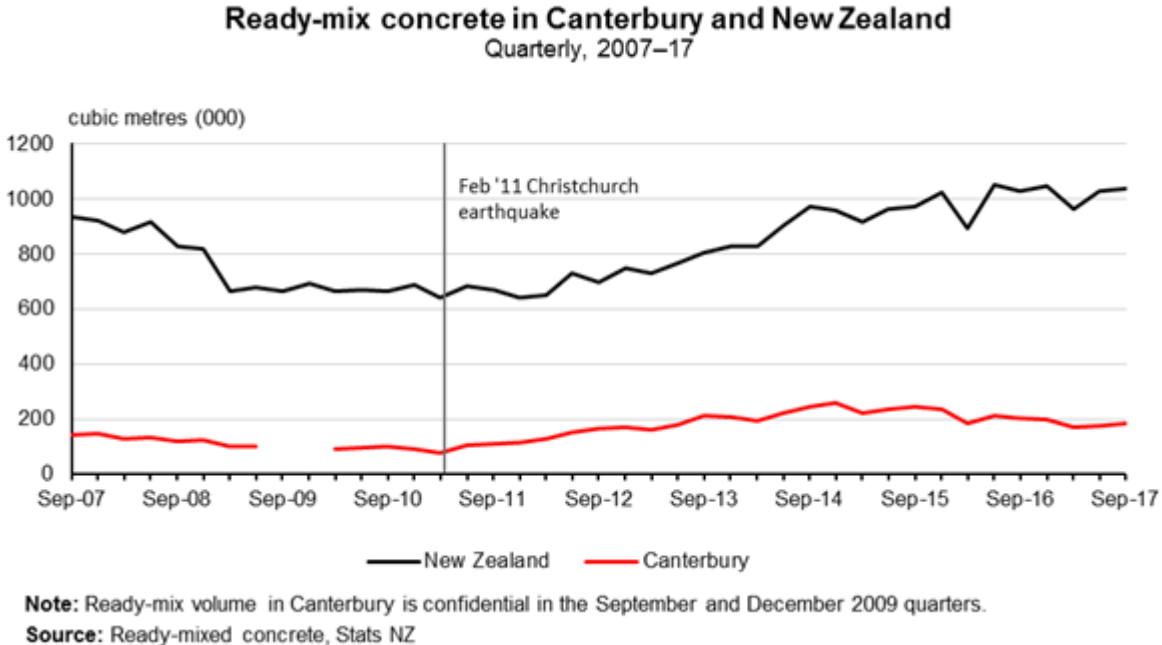
Consents for new homes in Canterbury rose strongly between September 2012 and September 2014. The Waimakariri district had its strongest annual growth in 2012; the Selwyn district in 2013; and Christchurch city in 2014. Consents have since fallen sharply in Christchurch and Waimakariri, but have maintained their high level in Selwyn.

One product often used in construction is ready-mix concrete, which helps build roads, high-rise buildings, and the foundations for houses.

The volume of ready-mix concrete produced in Canterbury slumped in the March 2011 quarter, following the February 2011 earthquake. It subsequently grew nearly every quarter for the next three years, peaking at 257,000 cubic metres in the December 2014 quarter. That amount is equivalent to just over a hundred Olympic-sized swimming pools full of ready-mix concrete.

While the volume of ready-mix concrete in Canterbury decreased in 2016 and 2017, the average 190,000 cubic metres produced each quarter was still nearly 50 percent higher than quarterly averages during the previous construction boom in the mid-2000s.

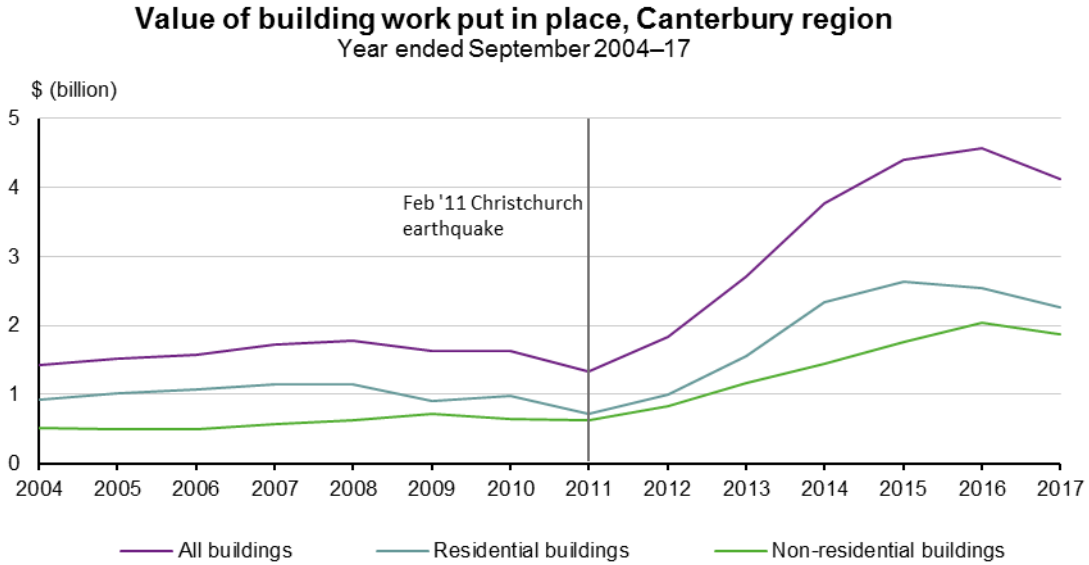
Figure 2



The value of building activity in Canterbury rose each year between September 2012 and September 2016, but fell for the September 2017 year. The strong rises largely reflected an increasing volume of building activity in the region, but also an increase in construction costs.

Residential building work peaked at \$2.6 billion in the year ended September 2015, while non-residential building work peaked at \$2.0 billion in the September 2016 year. The latter reflects \$596 million for office and public transport buildings and \$327 million for schools and universities.

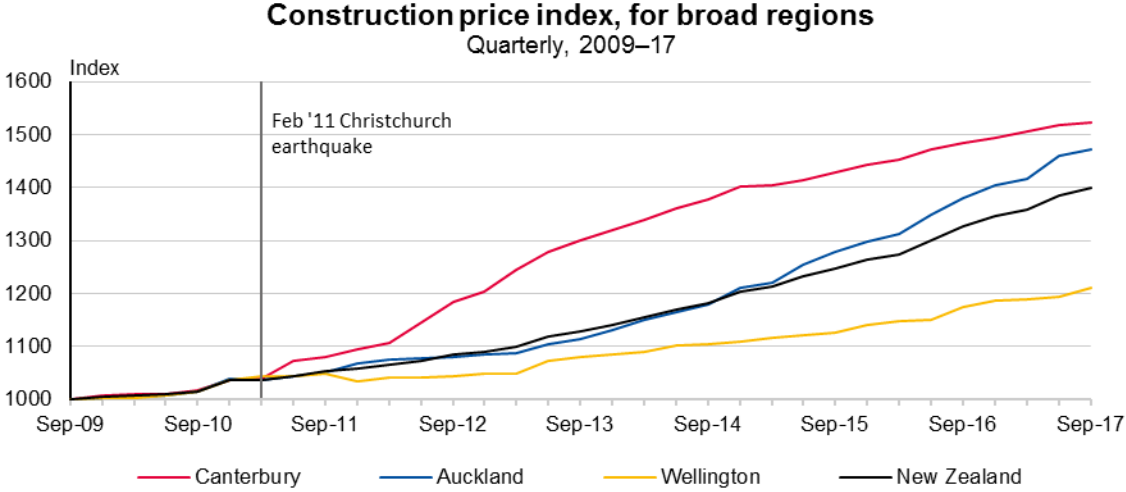
Figure 3



The cost of building a new home (excluding land) in Canterbury increased by just over half (52 percent) in the eight years to September 2017. In comparison, prices rose 40 percent nationally; 47 percent in Auckland; and 21 percent in Wellington.

From September 2010 to December 2014, prices for building a new home in Canterbury increased faster than elsewhere in New Zealand. For this period, the annual average price change in Canterbury was 7.8 percent – double that of Auckland and New Zealand overall, and three times that of Wellington.

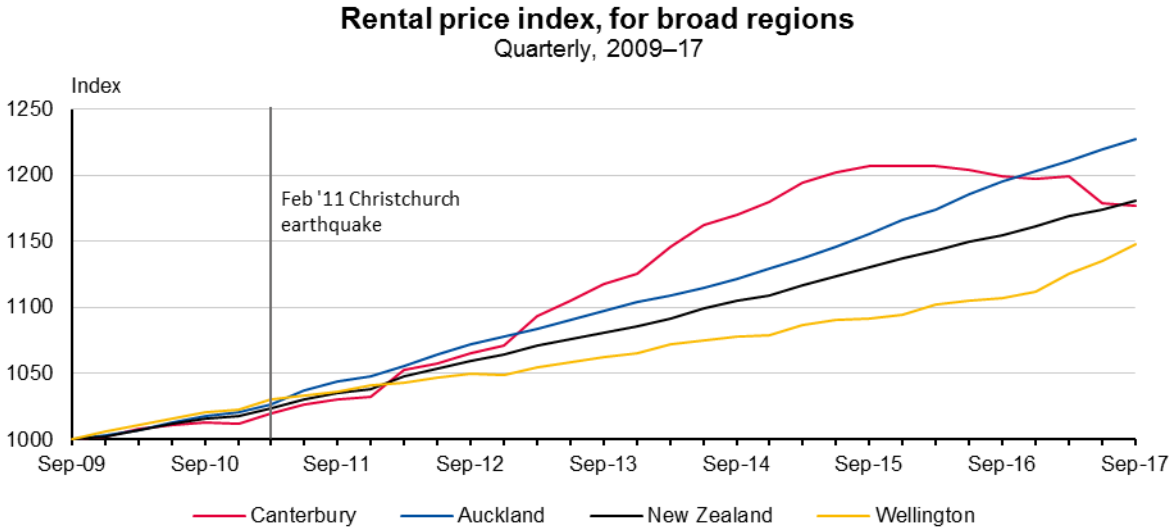
Figure 4



The annual price change in construction costs in Canterbury was 1.5 percent in 2009, but rose to a peak of 10 percent in 2012 and 2013. In comparison, since 2015, construction price growth has slowed in Canterbury, while it has picked up pace in Auckland and nationally.

Canterbury rental prices increased 18 percent in the eight years to September 2017. Nationally they rose 18 percent, 23 percent in Auckland, and 15 percent in Wellington. From September 2010 to March 2015, rental prices in Canterbury increased faster than elsewhere in New Zealand. For this period, the annual average price change in Canterbury was 3.7 percent – compared with 2.5 percent in Auckland and 1.4 percent in Wellington. After the peak in 2015, rental prices slowed then began decreasing in 2016 as prices elsewhere in New Zealand continued to rise.

Figure 5



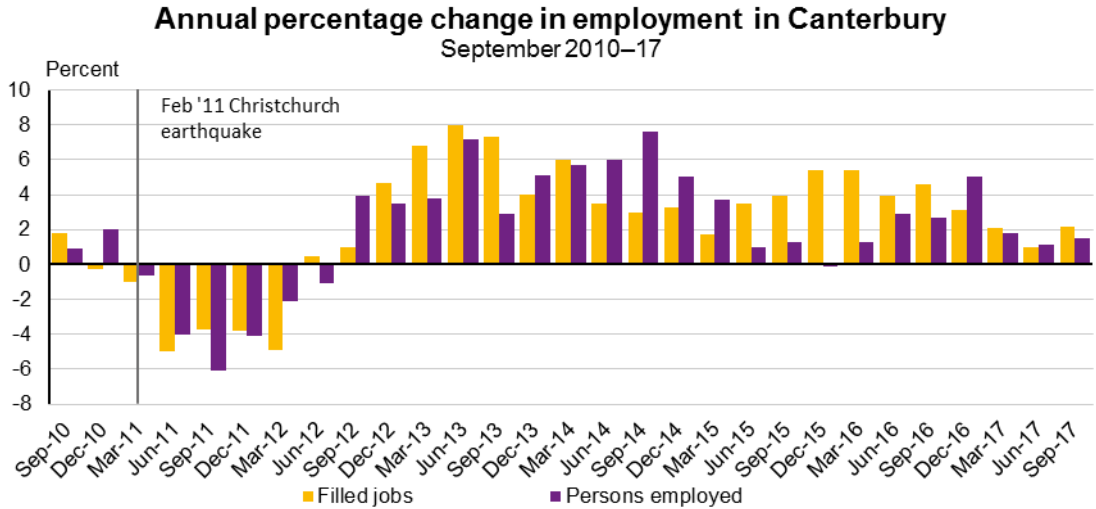
Source: Consumer price index, Stats NZ

Labour market builds in Canterbury

Following the 2010/11 Christchurch earthquakes, the number of filled jobs (measured by the Quarterly Employment Survey) fell. The number of people employed (measured by the Household Labour Force Survey), including those self-employed, also fell.

For the year ended March 2012, there were 4.9 percent fewer filled jobs, while 2.1 percent fewer people were employed. This was followed by a period of strong growth as the Canterbury rebuild gathered pace. From September 2012 to September 2017, 17 percent more people were employed and there were 23 percent more filled jobs.

Figure 6



Source: Labour market statistics, Stats NZ

The retail trade and accommodation, and construction industries were the main contributors to rising employment for the five years to September 2017.

Between September 2012 and September 2017:

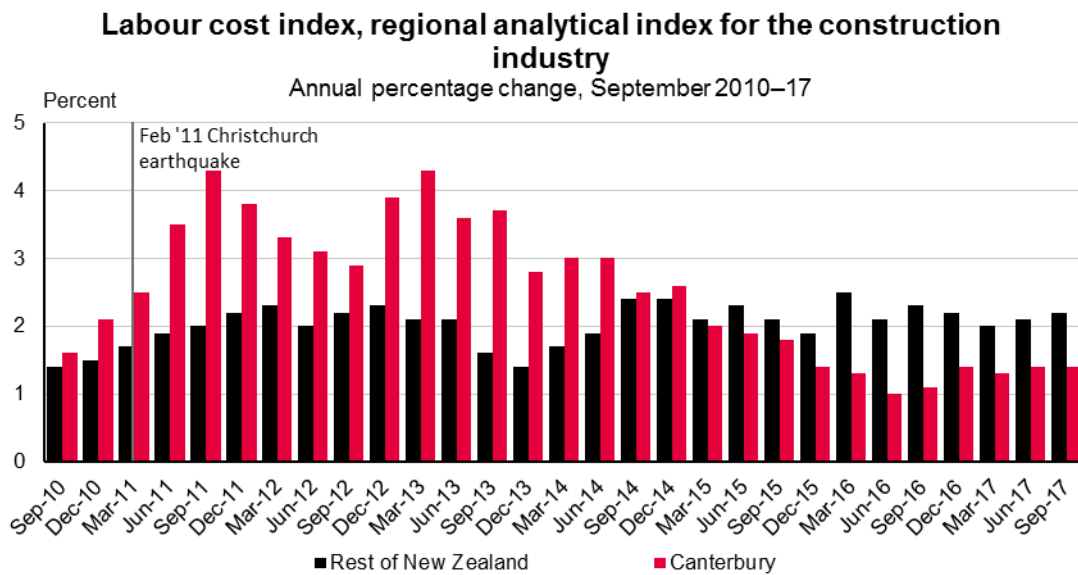
- retail trade and accommodation had 17,500 more workers (up 46 percent)
- construction had 13,700 more workers (up 46 percent)

By 30 September 2017, four of five employees in Canterbury’s construction industry were men; three of five employees in the retail trade and accommodation industry were women.

While employment trended upward during the five years, unemployment did not fall. There were 2,000 fewer unemployed people in Canterbury during the five years, compared with just under 50,000 who gained employment. The labour force grew 15 percent through this period.

In the construction industry, Canterbury’s labour costs increased at a higher rate annually than for the rest of New Zealand – from September 2010 to December 2015. In the year ended September 2011, labour costs in Canterbury’s construction industry rose 4.3 percent. At the same time, labour costs for the rest of New Zealand rose 2.0 percent.

Figure 7



Source: Labour market statistics, Stats NZ

From September 2009 until September 2017 the cost of labour in the construction industry increased 21 percent, while for the rest of New Zealand it was up 17 percent.

From December 2015, Canterbury construction labour costs rose at a slower rate than for the rest of New Zealand. In the September 2017 quarter, Canterbury construction industry rose 1.4 percent, while the rest of New Zealand rose 2.1 percent.

Income growth for Canterbury outstrips rest of New Zealand

The median annual income for Canterbury increased from \$34,000 in 2010 to \$42,800 in 2016, up almost 26 percent (figures from income estimates). Canterbury’s median income was nearly 5

percent higher than the New Zealand median, which increased from \$34,600 to \$40,800 (18 percent) in the same period.

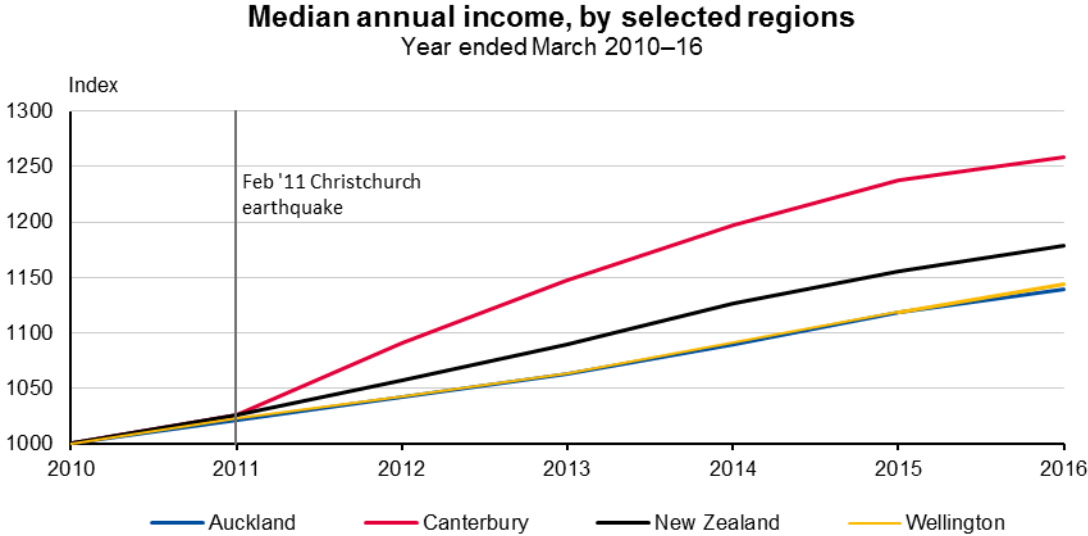
Canterbury’s largest increase in income was right after the February 2011 earthquakes.

More information

[Income growth for Canterbury outstrips rest of New Zealand.](#)

[Experimental estimates of income from linked administrative data.](#)

Figure 8



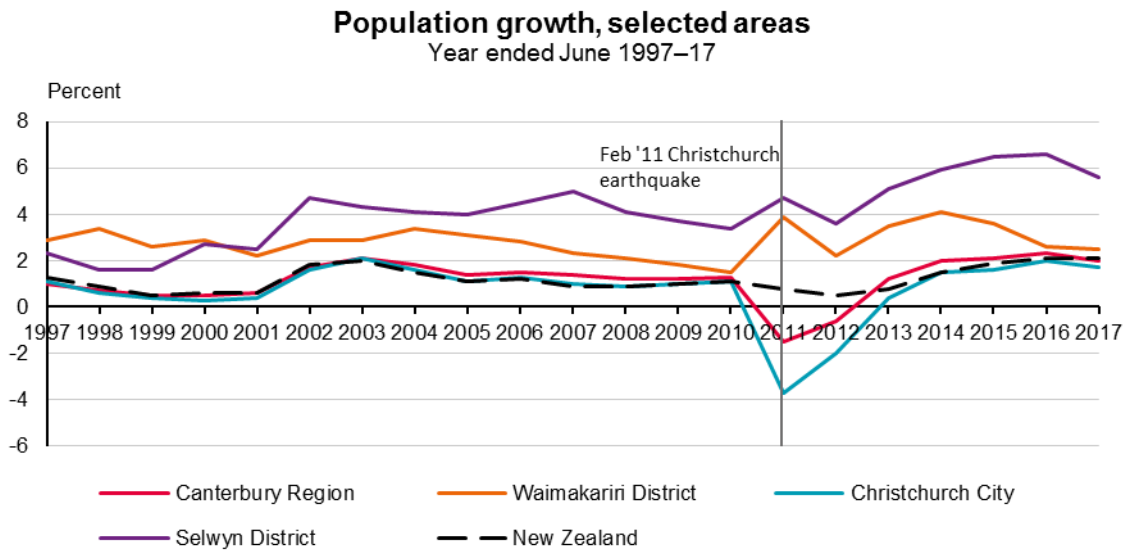
Source: Experimental estimates of income from linked administrative data, Stats NZ

The people of Canterbury

In the year ended June 2011, Canterbury's estimated resident population is estimated to have fallen by more than 8,000; it fell a further 3,000 the next year. From 2012, the region's population resumed growth.

Population changes in Canterbury after the earthquakes mainly reflected changes for Christchurch city and the neighbouring Selwyn and Waimakariri districts.

Figure 9



Source: Subnational population estimates, Stats NZ

Christchurch city, where around two-thirds of Cantabrians live, was the only district to experience net population loss immediately after the earthquakes. In the two years to June 2012, Christchurch city’s usually resident population fell by over 20,000. This is like a sold out crowd to an All Blacks test match at AMI stadium leaving and migrating elsewhere. It was 2017 before the city’s population only just exceeded the pre-quake level.

The Waimakariri and Selwyn districts had different experiences in the recovery period. While both districts have historically grown faster than the national average, in 2011 their populations spiked by approximately 4 and 5 percent, respectively.

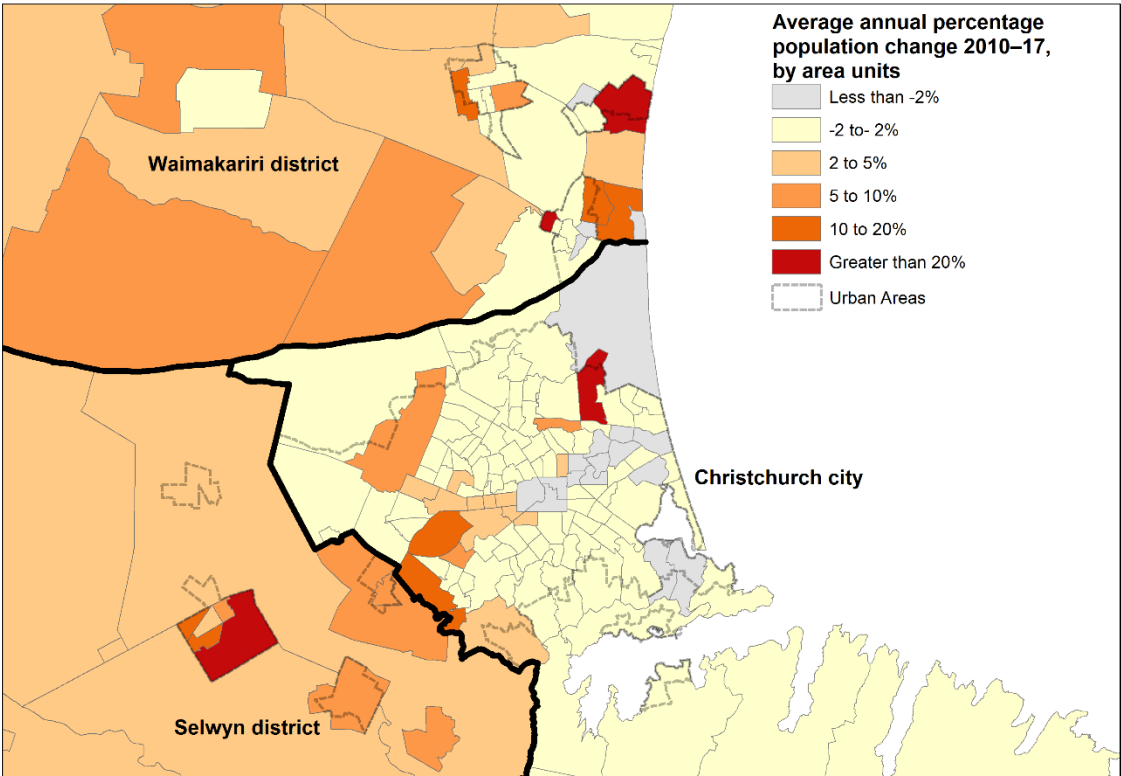
In the short term, high growth in the Waimakariri and Selwyn districts reflects some relocation of people from Christchurch city to elsewhere in Canterbury. Later in the recovery period, New Zealand has experienced population growth more broadly and these districts have been gaining migrants from Christchurch and elsewhere.

Of the people who lived in the greater Christchurch area in 2008, nearly 90 percent still lived there five years later. Most people who left the area before 2013 headed for Auckland, Wellington, and Dunedin. A mere 15 percent went elsewhere in Canterbury. People movements from greater Christchurch to the three cities were all greater than they were in the period 2001–06.

Population changes across the greater Christchurch area

While Christchurch city’s population has grown steadily since the initial shock of the 2010/11 earthquakes, there’s considerable variation across the greater Christchurch area.

Figure 10
Average annual percentage population change 2010–17, by area unit



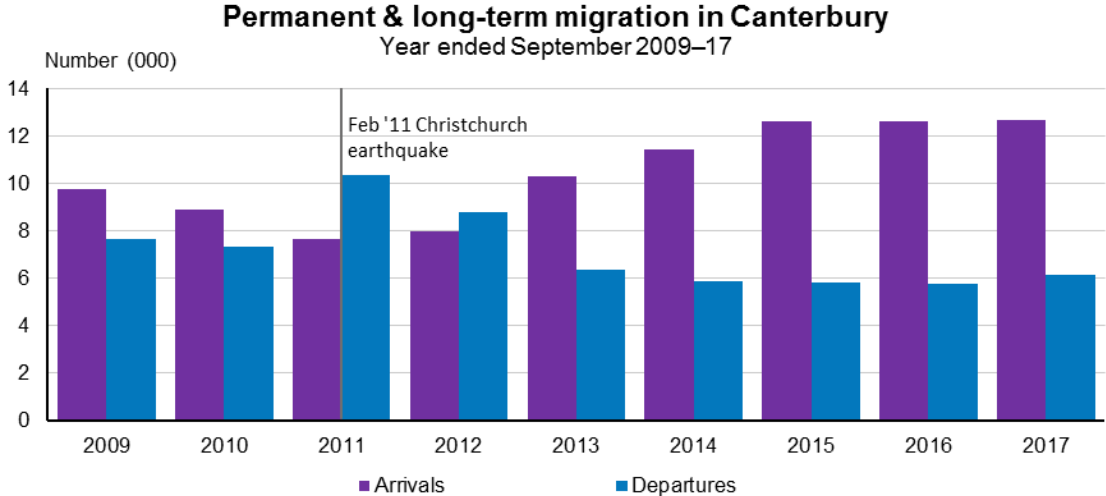
Broadly, there has been a westward redistribution of population in greater Christchurch. Eastern suburbs were hit hard by liquefaction in the aftermath, and a considerable amount of land was red-zoned. At the same time, developments in Rolleston, Halswell, and Wigram sprang up and attracted growth. Riccarton's growth reflects the increased importance of suburban hubs while the central city was difficult to access.

More migrants settle in Canterbury

The number of migrant arrivals into Canterbury fell in 2010 and remained at lower levels throughout 2011. From the September 2012 year, the number of arrivals began to rise again, and continued to do so until September 2015.

Unsurprisingly, there was a spike in departures from Canterbury in the September 2011 year. This outward movement fell during 2012 and 2013, and has remained relatively flat since.

Figure 11



Source: International travel and migration, Stats NZ

Influx of work visa migrants aid rebuild

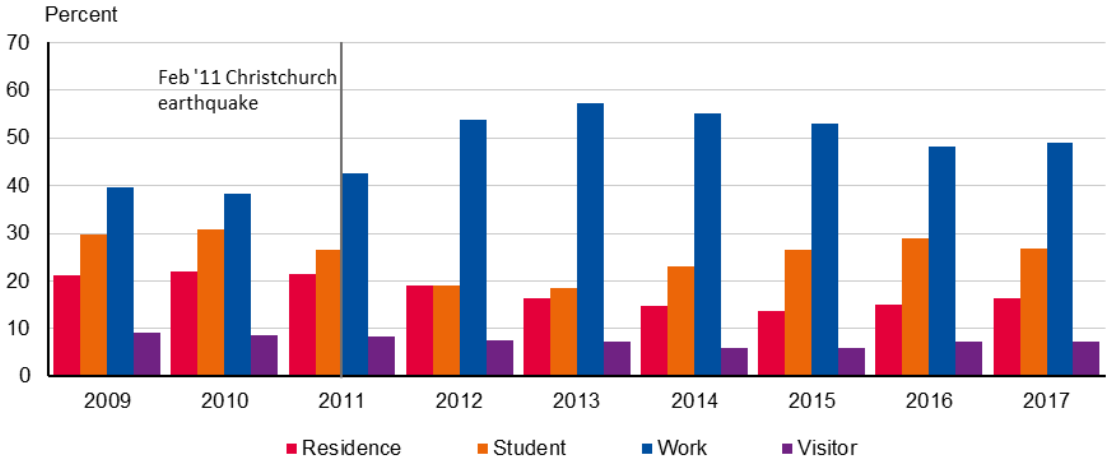
In the year ended September 2009, about 3 in 10 migrants arriving to live in Canterbury were New Zealand citizens; 1 in 20 were Australian citizens. In comparison, in the September 2017 year, just over 1 in 4 arrivals were New Zealand citizens. None of these travellers need a visa to stay in New Zealand.

Other migrants arriving in Canterbury were most likely to have a work visa, particularly citizens from the United Kingdom, the Philippines, and Ireland. The overall number of work visas fell after the 2010 earthquake, but began climbing in the year ended September 2012 as the rebuild kicked into gear; more migrants were working in construction and building-related occupations, and in the hospitality and food trades.

The number of migrants arriving in Canterbury on student visas fell from 1,773 in the year ended September 2009 (30 percent of all visa types) to 981 in the September 2012 year (19 percent of all visas). In the September 2017 year, 2,311 migrants arrived on student visas (27 percent of all visas).

Figure 12

Permanent and long-term arrivals to Canterbury, by visa type Year ended September 2009–17



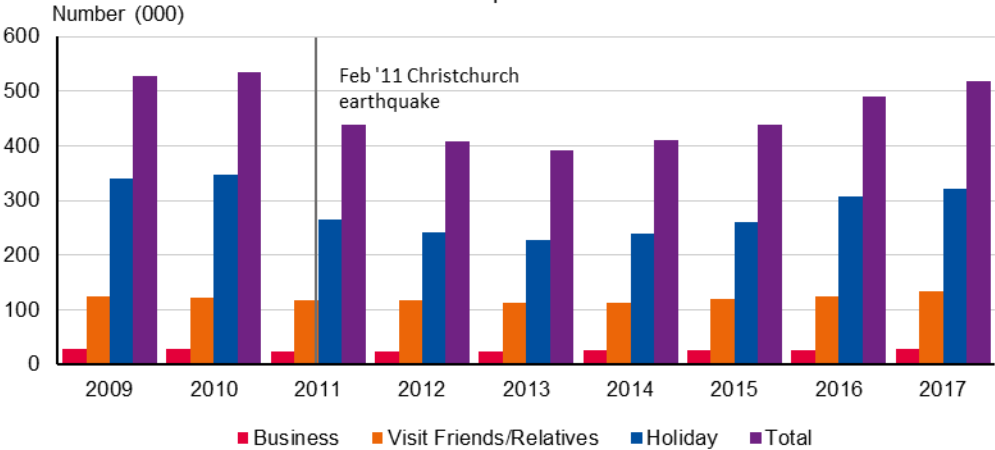
Source: International travel and migration, Stats NZ

Visitors return to the garden city

For the year ended September 2011 the number of overseas visitors to Christchurch fell from the September 2010 year, and continued to fall for the next two years. Since then, overseas visitor numbers have recovered and are almost back to pre-earthquake levels.

Figure 13

Travel purpose of visitors arriving at Christchurch airport Year ended September 2009–17



Source: International travel and migration, Stats NZ

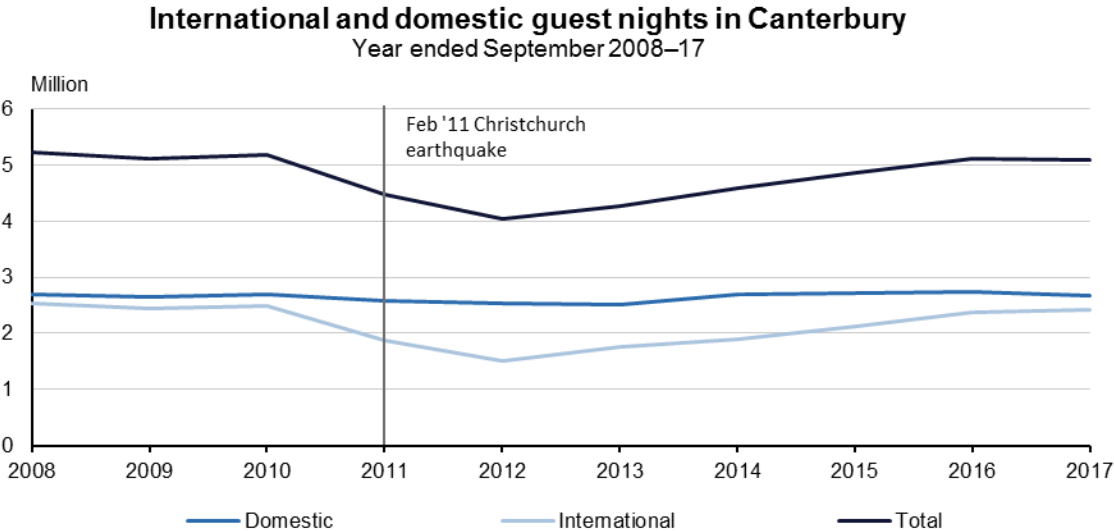
Over 60 percent of visitors who arrived in the September 2017 year were here for a holiday. With normality returning to Canterbury, the tourists have come back. Visiting friends and relatives was the next most-common purpose for travelling to Canterbury.

International guests staying over slowly return

The number of guest nights fell 14 percent in the year ended September 2011, reflecting fewer international visitors using Canterbury’s short-term commercial accommodation. The fall worsened in 2012, to be 22 percent below the pre-earthquake levels of the year ended September 2010. Guest nights spent in Canterbury accommodation started to show signs of recovery in the year ended September 2013, as international guests returned to Canterbury.

Domestic guest nights remained fairly steady between 2011 and 2017 September years, possibly aided by construction workers and Christchurch residents using motel accommodation during the rebuild. The average length of stay in motels and other accommodation types remained relatively unchanged throughout.

Figure 14

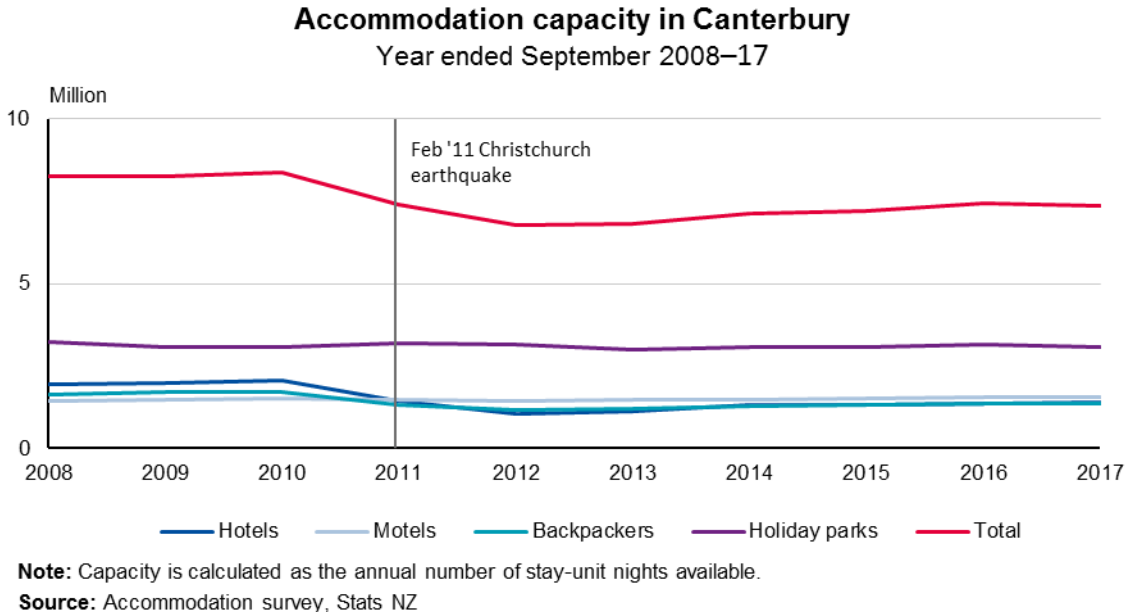


Source: Accommodation survey, Stats NZ

Accommodation capacity still below pre-earthquake levels

Following earthquake damage many accommodation providers closed for repairs or demolition. Accommodation survey statistics show that capacity decreased 11 percent in the September 2011 year from the September 2010 year, and a further 8.5 percent in the September 2012 year, compared with September 2011 year. The decreases were driven mainly by hotels and backpackers in central Christchurch closing, while motel capacity remained fairly stable. Capacity has increased steadily since the initial decreases, but is still 12 percent lower than the pre-earthquake levels.

Figure 15

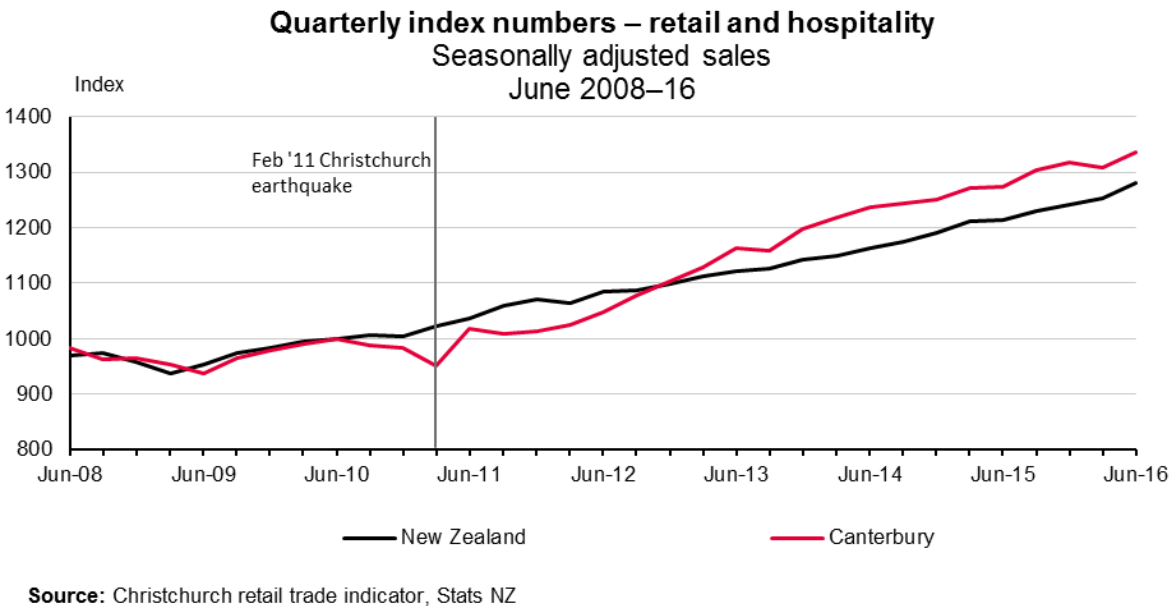


Christchurch city retailing moves from recovery to rebuild mode

Before the 2010 earthquake, retail trade in Christchurch showed similar growth to the national level. It then fell in the two years immediately after the first major earthquake in September 2010. Christchurch city has since shown a gradual recovery, starting from early 2013 when new retail and office precincts opened. Hotel and restaurant projects have been underway in more recent years.

Retail and hospitality growth in Christchurch surged ahead of the national growth from early 2013. It maintained this gap through to June 2016.

Figure 16



In the six years to June 2016 retail and hospitality sales in Christchurch increased 34 percent. This compares with a 28 percent increase for New Zealand overall – for the same period.

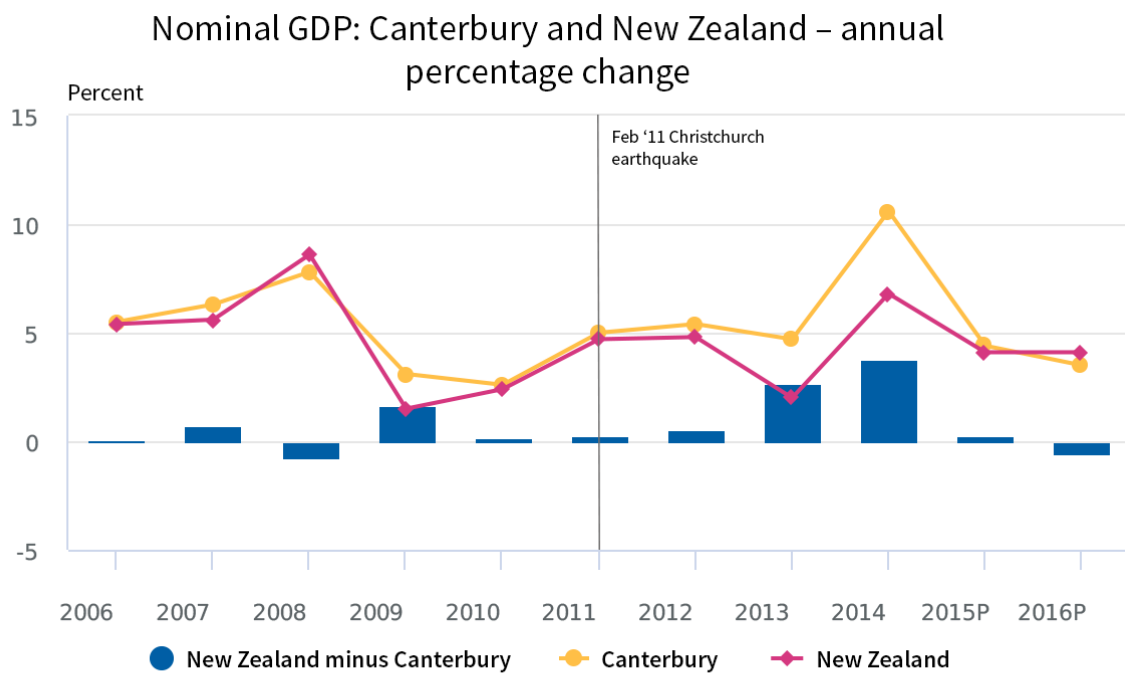
The trend for the Christchurch retail trade industry fell in the second half of 2010, then gradually rose from early 2011 to June 2016, when records ceased. The retail industry trend increased 36 percent over the six years.

However, the hospitality industry took longer to pick-up; the trend declined for almost two years between September 2010 and March 2012, before increasing through to June 2016. The hospitality industry trend increased 22 percent over the six years to June 2016.

Canterbury’s gross domestic product growth eases back towards the national average

Between March 2011 and March 2016, GDP for the Canterbury economy increased 32 percent (\$8.0 billion). In comparison, the national economy increased 24 percent. The gap between the Canterbury and New Zealand growth rates peaked in 2014. Since then growth has declined, to the extent that in 2016 – for the first time since 2008 – growth in the national economy exceeded that of Canterbury.

Figure 17



P on the x-axis labels represents provisional data.

Source: Regional GDP, Stats NZ

It is important to note that while the growth in Canterbury’s economy represented by GDP looks to be a positive side-effect from the natural disasters, GDP fails to represent the significant loss of assets in the Canterbury region.

A significant factor behind the better-than-average GDP growth since March 2011 was the **Christchurch rebuild**. The construction sector, as a proportion of Canterbury’s economy, grew from 5.9 percent (near the national average of 5.8 percent) in 2011 to more than 10 percent in

March 2015. In comparison, in March 2015, the Auckland construction sector represented around **4.8 percent of Auckland's economy.**

However, construction was not the only significant driver of the Canterbury economy over this time. Agriculture, particularly dairy farming, is also important and can have a significant impact **on the region's GDP.**

The year ended March 2013 was affected **by drought, with the value of the region's agricultural** production falling below its 2011 level. However, high prices for milk products in the March 2014 year **saw Canterbury's agricultural production soar 48 percent in value,** then plunge in 2015 as the price of milk products fell.