

# Exploring our Economy Series

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## Volume 3: Exploring Canterbury

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### Abstract

This paper assesses the Canterbury economy with an analysis of employment and productivity, to highlight its significance within the national economy.

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## Executive summary

- Canterbury represents 13.5% of New Zealand employment in 2018, up from 13.3% in 2012.
- In 2018, the construction industry was the largest employer (17.8%) in Canterbury, followed by manufacturing (15.4%), transport and warehousing (14.8%), rental, hiring and real estate (14.5%), health (14.1%) and retail trade (14.1%).
- Productivity in several industries are amongst the highest within New Zealand including agriculture, construction, professional, scientific and technical services and healthcare services.
- The Canterbury economy consist of various territorial authorities of which Christchurch represent 71% of the Canterbury economy. An analysis of the economy for the rest of the Canterbury economy, excluding Christchurch reveal the importance of the agriculture and manufacturing industries.
- Positive employment and productivity growth are visible in all but five industries and its encouraging to find the large driving industries of agriculture and manufacturing continue to grow while supported by smaller industries such as accommodation and food services, transport and healthcare.
- The value-chain benefit of agriculture is a stand-out feature for the rest of Canterbury, supporting industries such as manufacturing and transport.
- The development of strategic and policy directives ought to consider the important role of agriculture and other driving industries in the region to encourage growth and development.

## Introduction

This report is the third in a series to assess the economy of Canterbury and Christchurch. The aim of this series of reports is to assess the Canterbury and Christchurch economies and understand their significance within the national economy. The series consist out of several stand-alone reports, each with a specific focus. The focus of **VOLUME 3: Exploring Canterbury** is to identify the importance of the Canterbury economy within the national context, particularly identifying industry changes that have taken place over time in economic productivity and employment. Understanding these trends will enable a targeted strategy and policy alignment with industry changes to identify opportunities for industries that will benefit the Canterbury region.

Providing an assessment of Canterbury offers an overview of the context in which the Christchurch economy operates. The purpose of 'Volume 1: Exploring our Industries' was to provide an analysis for the major industries within Christchurch, highlighting the potential industry drivers for the coming years while 'Volume 2: Exploring Christchurch growth opportunities' expanded the analysis by providing an analysis and identify growth opportunities on a sub-industry level.

The present analysis evaluates employment and productivity trends for Canterbury within the national economy. The data for employment is sourced from the Business Demographic Survey<sup>1</sup> from Statistics New Zealand (StatsNZ) while productivity is estimated based on gross domestic product data sourced from Ministry of Business, Innovation and Employment (MBIE) and work hours sourced from StatsNZ.

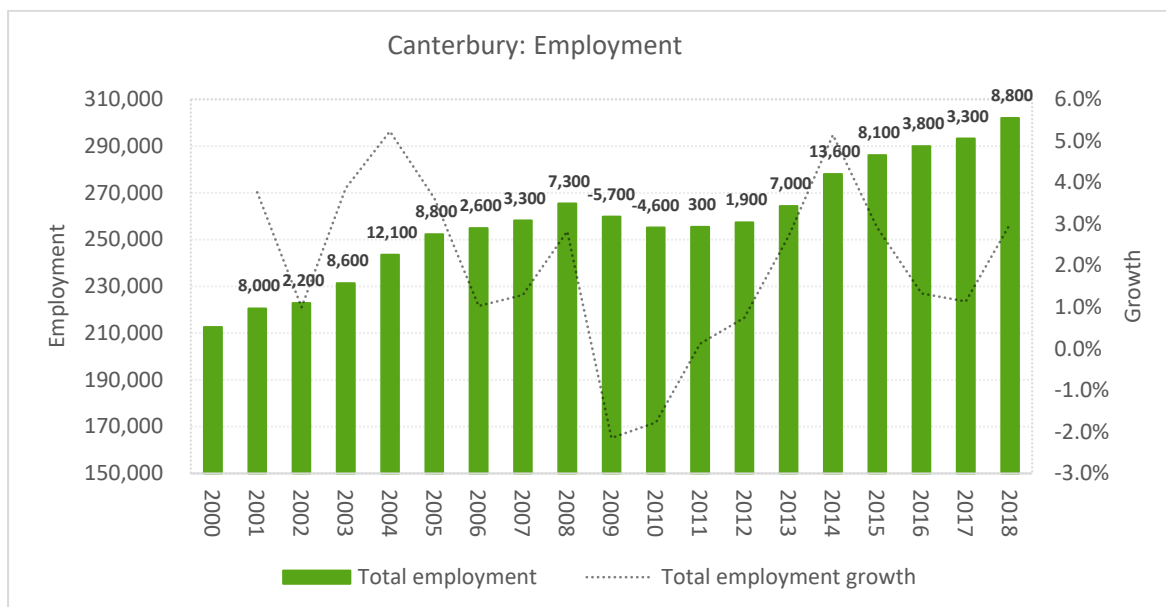
## Employment

Canterbury represents 13.5% of New Zealand employment, second only to Auckland with 35%. Employment in Canterbury has continually increased since 2010, after the global financial crisis. Figure 1 shows the total employment within Canterbury between 2000 and 2018 with the net difference shown for each year compared to the previous year.

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<sup>1</sup> 1 Business demography statistics give an annual snapshot (as at February) of the structure and characteristics of New Zealand businesses. From 2016 business demography series is based on the Statistic New Zealand Business Register (BR). Business demography statistics are limited to economically significant individual, private-sector and public-sector enterprises that are engaged in the production of goods and services in New Zealand. These enterprises are maintained on the Statistic NZ Business Register, which generally includes all employing units and those enterprises with GST turnover greater than \$30,000 per year.

**Figure 1: Canterbury Employment, 2000-2018**



Source: Statistics New Zealand, 2019

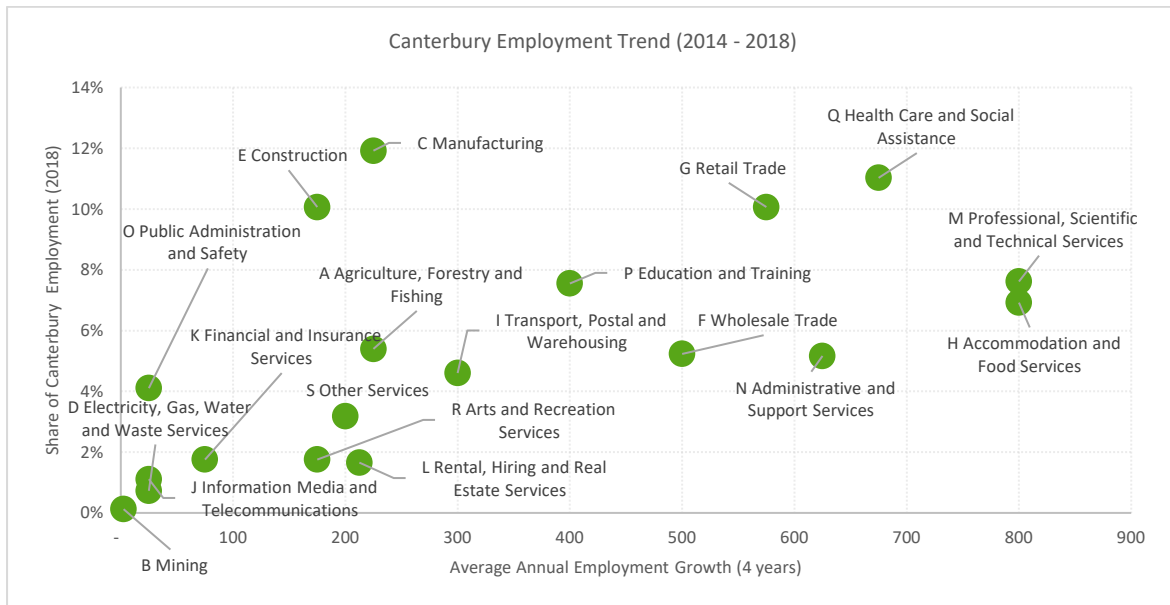
The employment trends indicate that the global financial crisis had a much larger negative effect on employment in the region than the 2011 earthquake, which supports the literature and states that natural disasters in major economies tend not to reduce output, but support growth through the replacement of capital (Horwich, 2000:524).

Employment varies on an industry level for Canterbury over time and is illustrated in Figure 2. The figure shows the average annual employment growth (horizontal axis) compared with the share of employment in the Canterbury economy (vertical axis) between 2014 and 2018.

The historical economic narrative for Canterbury has been the importance of agricultural activity and more recently of rebuilding after the earthquakes in Christchurch (2011) and Kaikoura (2016). Agriculture continues to be an important economic activity in the region creating on average 225 new jobs annually since 2014. The rebuild activity that followed the earthquakes has pushed-up construction employment, however, this is now past the peak of 2015, albeit but still higher than employment levels of 2014, hence the positive overall job creation of just under 200. The growth opportunities in construction will likely be limited as the rebuild activity in the region slows down.

Accommodation and food services, professional and technical services and the health care industries are more recent employment drivers in Canterbury and responsible for 600 plus new jobs annually in each of these industries. We will take an indepth look into the health and age care sector in paper 4 of thei series.

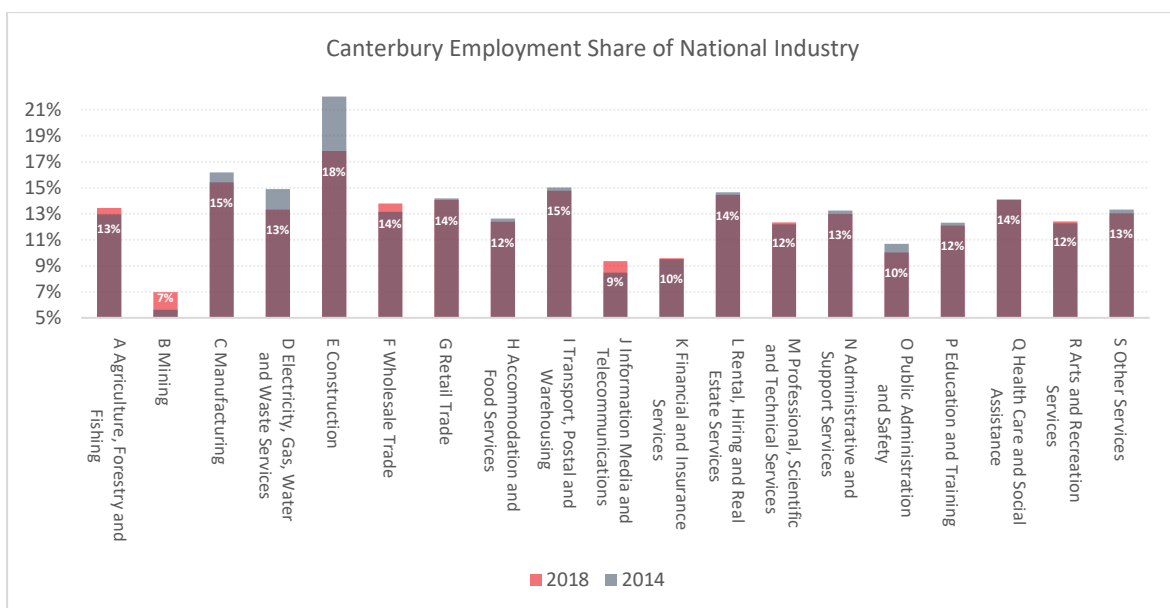
**Figure 2: Canterbury employment summary**



Source: Statistics New Zealand & ChristchurchNZ, 2019

Changes in employment similarly affect Canterbury’s share of the industry’s national employment. Figure 3 shows the industry share of employment for 2018 (red) and 2014 (grey) for Canterbury. When the red is visible at the top, it indicates that industry employment in Canterbury has increased its share of national employment for that industry and if it is grey, the share has fallen since 2014.

**Figure 3: Canterbury Industry Share, 2018**



Source: Statistics New Zealand & ChristchurchNZ, 2019

These changes in employment coupled by advances in productivity are discussed below to highlight the relative size of Canterbury industries within New Zealand.

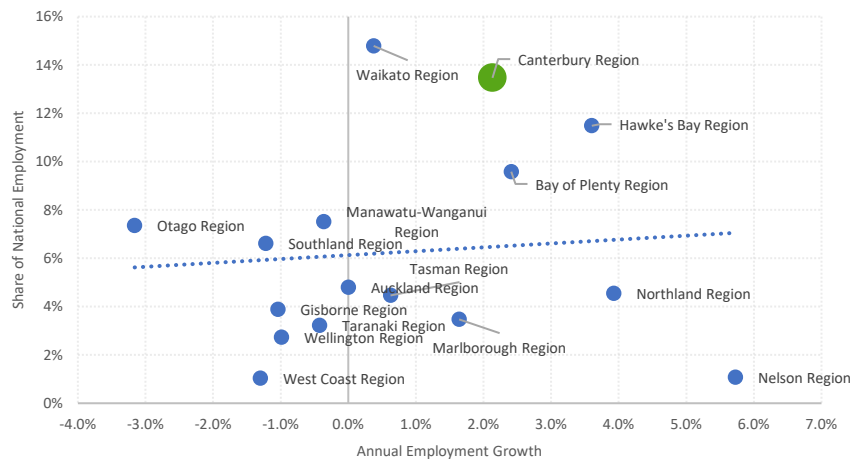
## **Canterbury industries in a comparative context**

The aim of this analysis is to observe the changes that have taken place within Canterbury over the past three years in employment and productivity and secondly to measure these changes against other regions. This will showcase how the region's economy has been performing over the past few years.

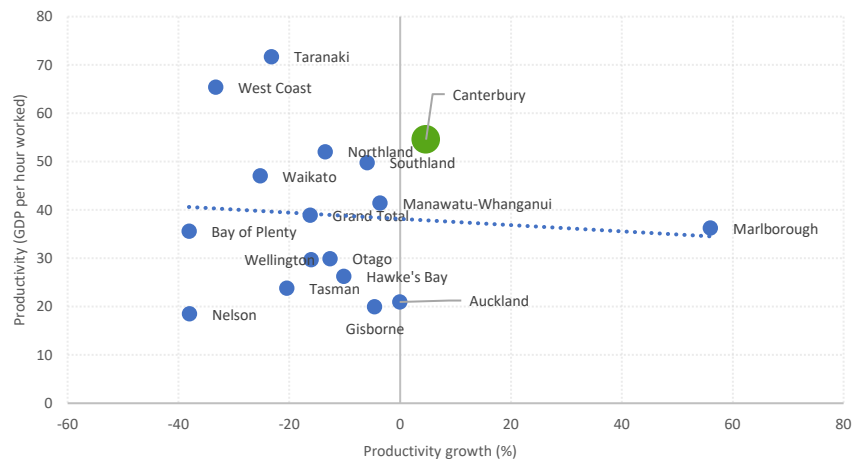


## Agriculture

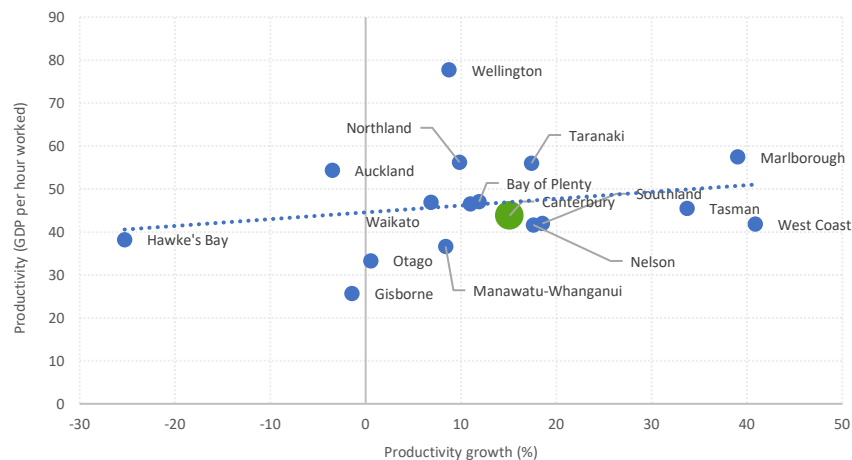
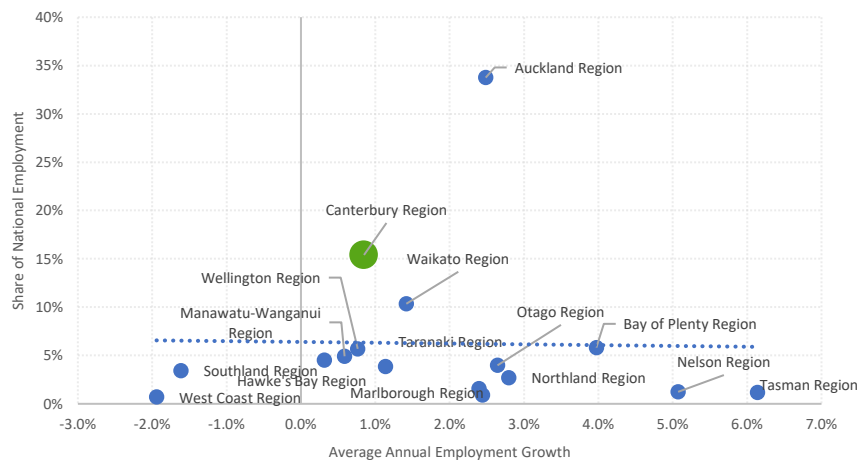
### Employment



### Productivity



## Manufacturing

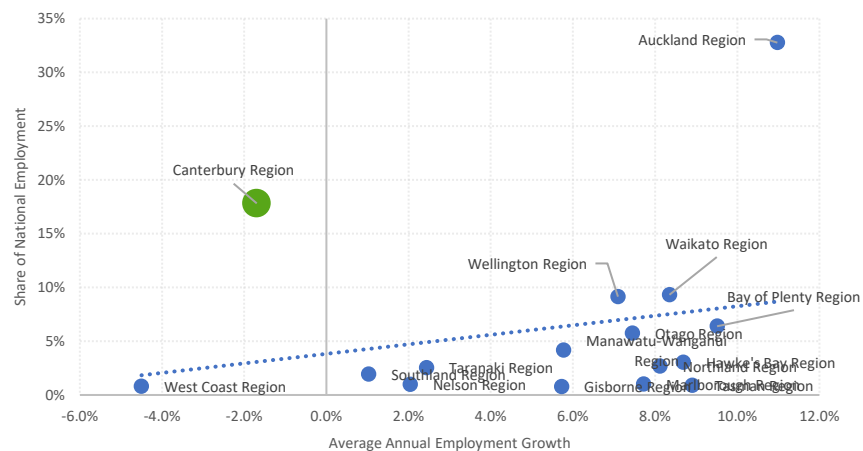




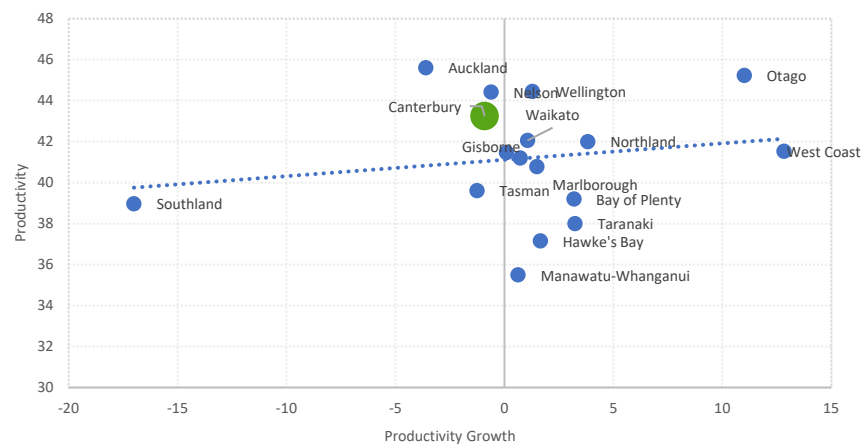


## Construction

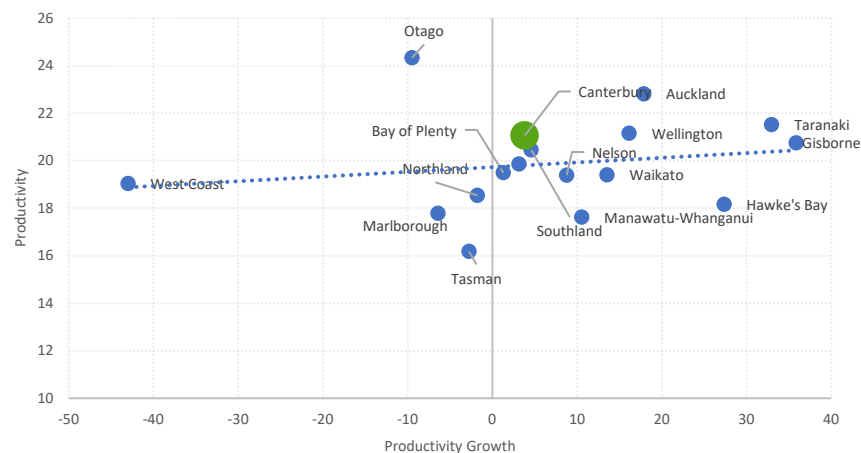
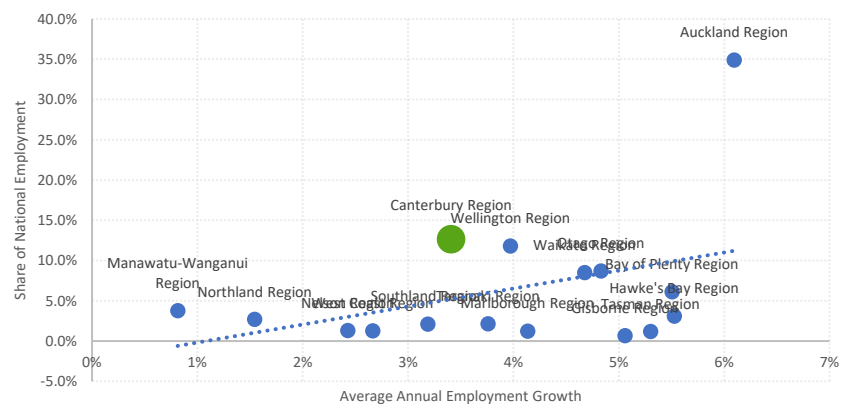
### Employment



### Productivity



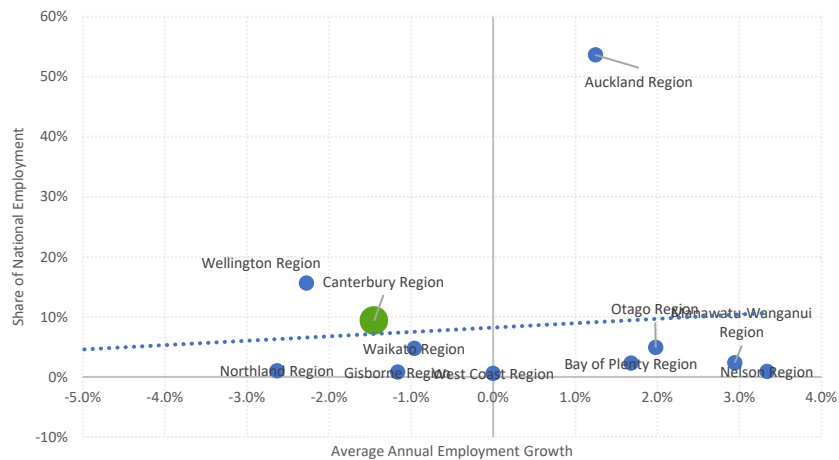
## Food & Beverage Services



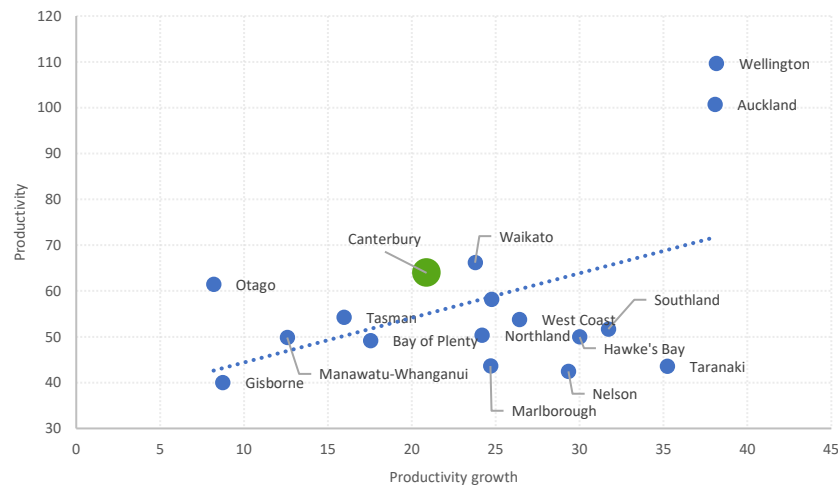


### Information Technology & Media

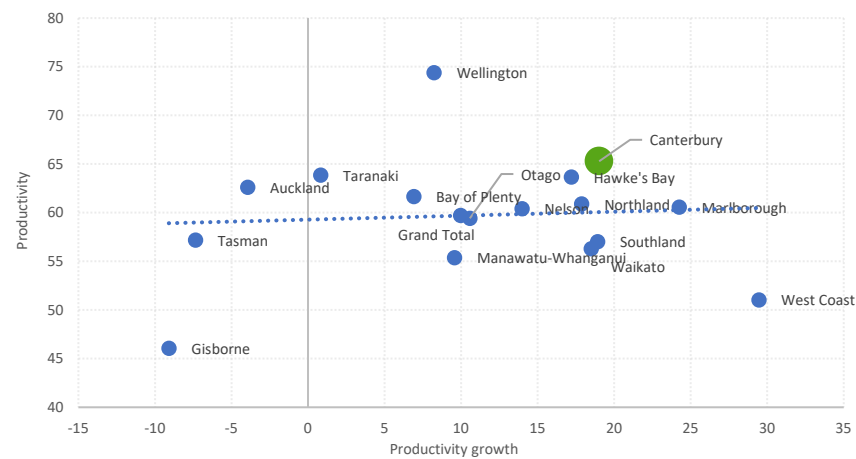
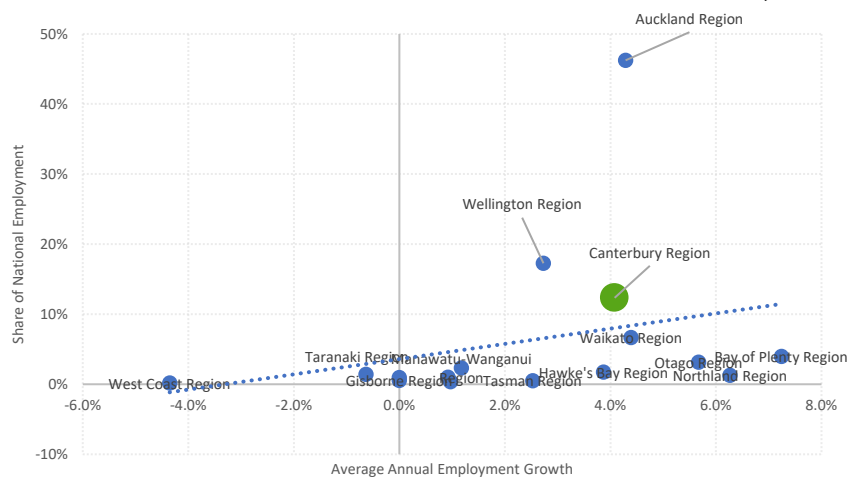
#### Employment



#### Productivity



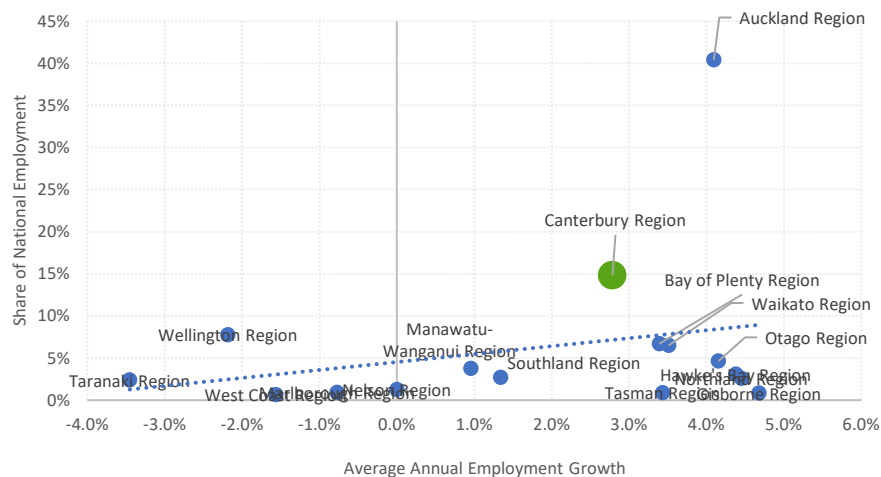
### Professional, Scientific & Technical Service



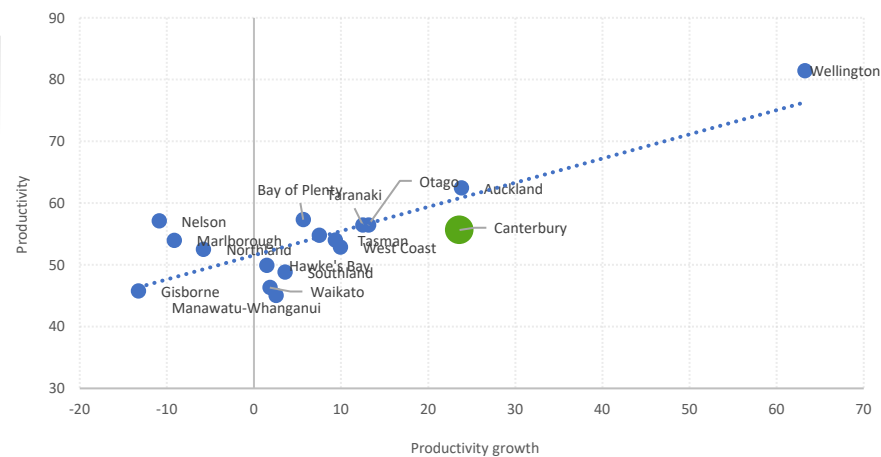


## Transport

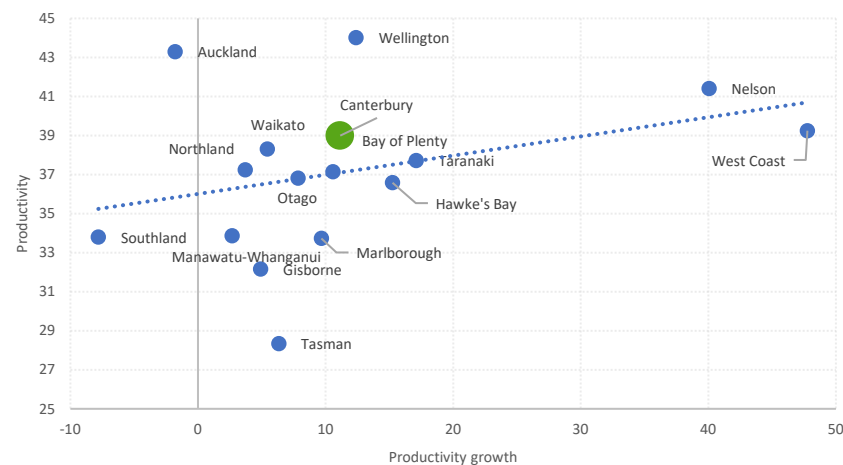
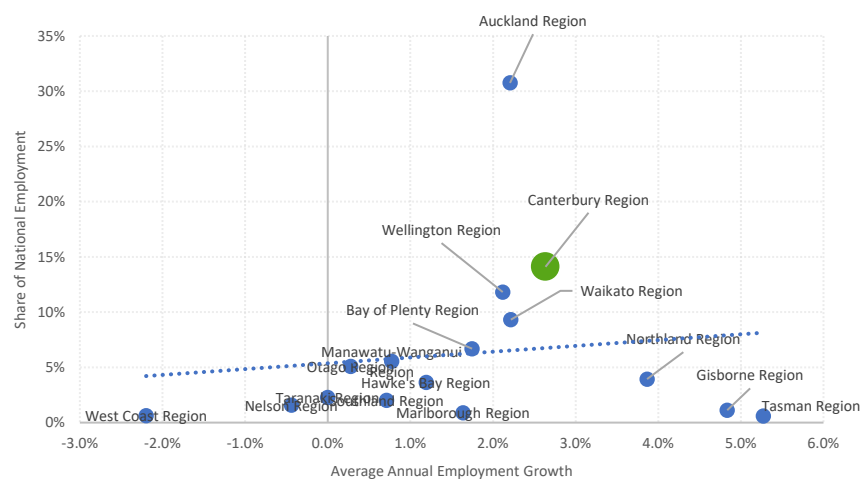
### Employment



### Productivity



## Healthcare and social services



## **Findings:**

### ***Agriculture:***

Employment growth in agriculture averaged at 2.1% over the past three years and generates 13% of total agriculture employment in New Zealand.

Agriculture productivity is one of only two regions that have increased while the industry in Canterbury remains highly competitive and productive.<sup>2</sup>

### ***Manufacturing:***

Positive employment growth for the region, creating approximately 300 new jobs per annum over the past three years and remains the second largest manufacturing hub in New Zealand.

Productivity is similar to the national average and growth continues at levels of 10%, better than the Auckland, with negative productivity growth and Wellington with growth just under 10%.

### ***Construction:***

The assessment period is during a time where the rebuild activity in Christchurch is decreasing and as a result, negative employment growth is evident. The region continues to be a major role-player in construction employment for New Zealand.

Growth in construction productivity is slightly negative and similar to Auckland, while the level of productivity is above the national trend.

### ***Food and beverage:***

Canterbury has a similar share of employment in this industry than Wellington and continues to grow at a positive rate, creating new jobs.

Productivity is slightly above the national trend line with growth but continues to lag Auckland and Wellington.

### ***Information Technology & Media:***

The industry is highly concentrated in Auckland with Wellington and Canterbury the only other regions with more than 10% of employment. Both Wellington and Canterbury have experienced negative employment growth while Auckland growing at just over 1% annually.

The level of productivity is above the national trend line, while productivity growth is high, not only for Canterbury but throughout the country.

### ***Professional, Scientific and Technical Services:***

The industry has experienced high employment growth (4%) from a large base, representing more than 10% of national industry employment in Canterbury.

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<sup>2</sup> Productivity figures in Agriculture are sensitive to international price movements

The industry productivity is high and only Wellington have higher productivity, while Canterbury productivity growth is close to 20%, significantly higher than Auckland and Wellington.

**Transport & Warehousing:**

Canterbury has the second-largest share of employment in the transport and warehousing industry while employment growth was positive.

Productivity growth in the industry was positive with productivity similar to the national average.

**Healthcare and social services:**

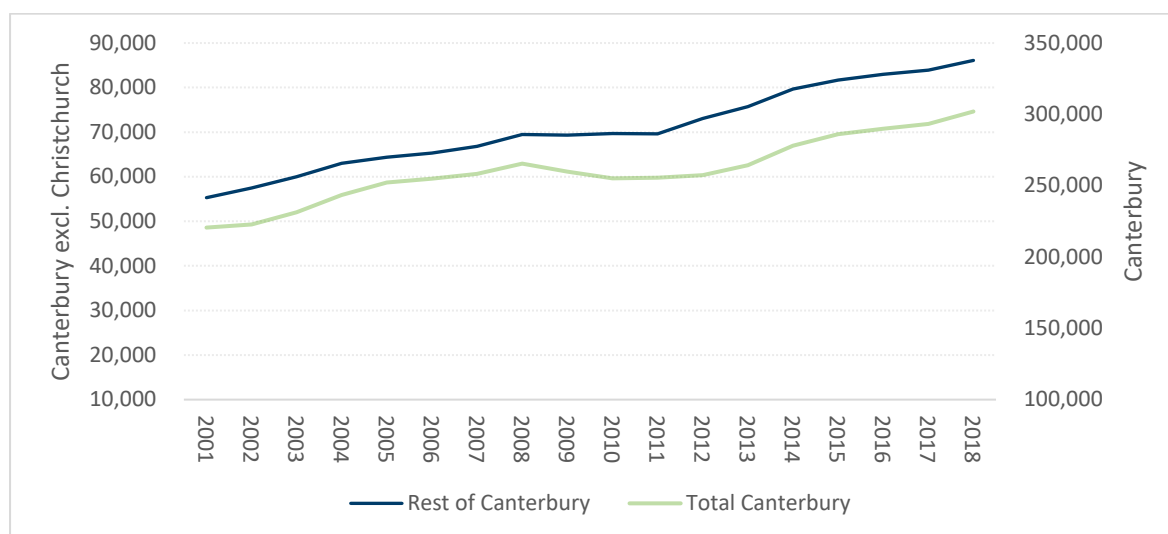
The healthcare industry in Canterbury continued to grow above Auckland and Wellington while its share of national industry employment is just under 15%.

Productivity and productivity growth are slightly above the national average and while it is lagging Auckland and Wellington in terms of productivity, it does show that there is potential for improvement in a growing industry.

## Canterbury excluding Christchurch

Christchurch is the major economic node within the Canterbury region, contributing as much as 71% of employment. Excluding Christchurch data from Canterbury showcase the industry trends within the remainder of Canterbury. Figure 4 shows the level of employment within the rest of Canterbury once Christchurch employment is excluded.

**Figure 4: Canterbury employment (excl. Christchurch).**

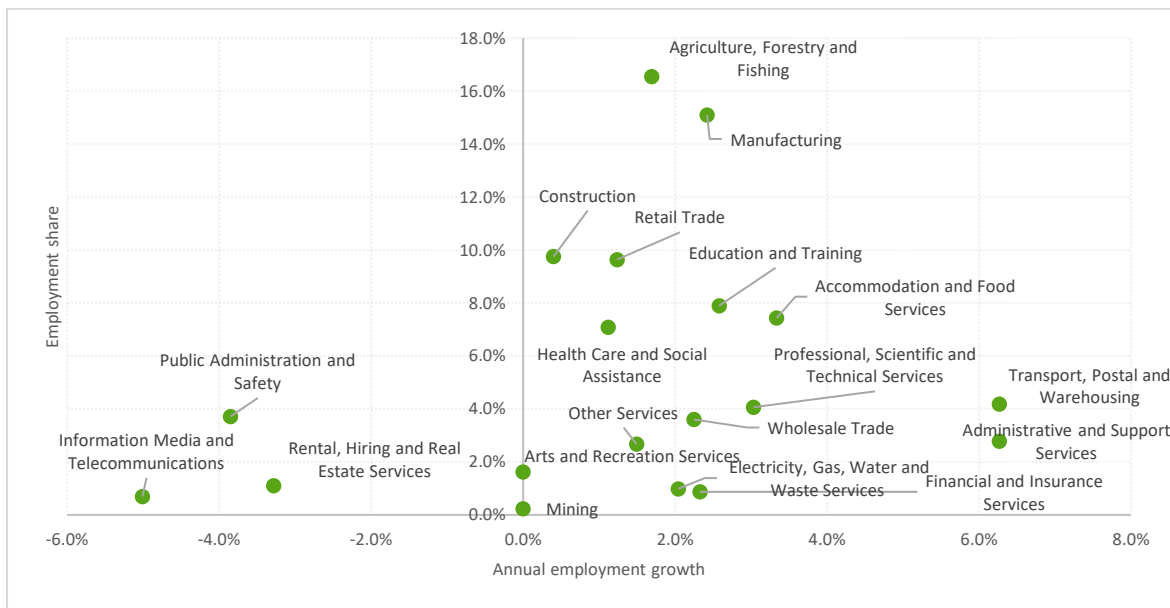


Source: Stats NZ & ChristchurchNZ

The employment in the rest of Canterbury has continued to increase since 2001 and even during the global financial crises in 2008/2009 when employment in Christchurch has decreased, the rest of Canterbury has kept stable and even increased jobs.

This section analyses the industry growth trends within the rest of the Canterbury region. Figure 5 shows the employment growth and employment share per industry while Figure 6 shows the productivity growth and GDP share per industry for the rest of Canterbury.

**Figure 5: Employment growth vs employment share - Rest of Canterbury**

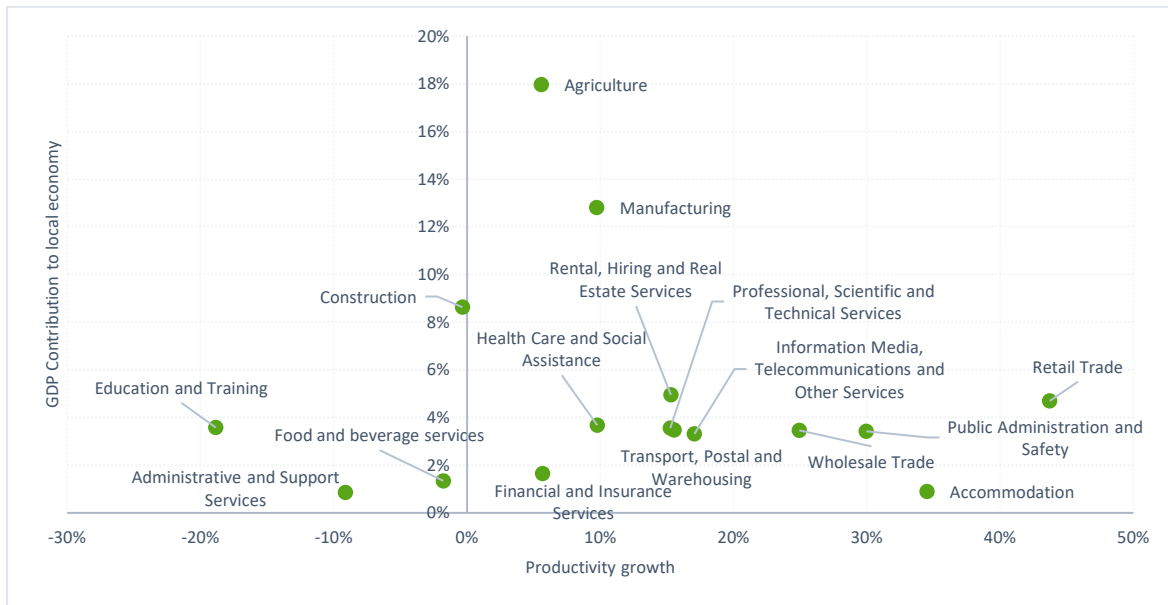


Source: Christchurch NZ

Agriculture and manufacturing are the largest economic activities within the rest of Canterbury and responsible for approximately 32% of employment, followed by construction (9.8%) and retail (9.6%). The industries on the right-hand side of the figure experienced positive employment growth over the past three years, while the three industries on the left had negative employment growth.

Figure 6 shows the productivity growth and economic size (GDP) for each industry.

**Figure 6: Productivity growth v contribution to economy – Rest of Canterbury**



Source: Christchurch NZ

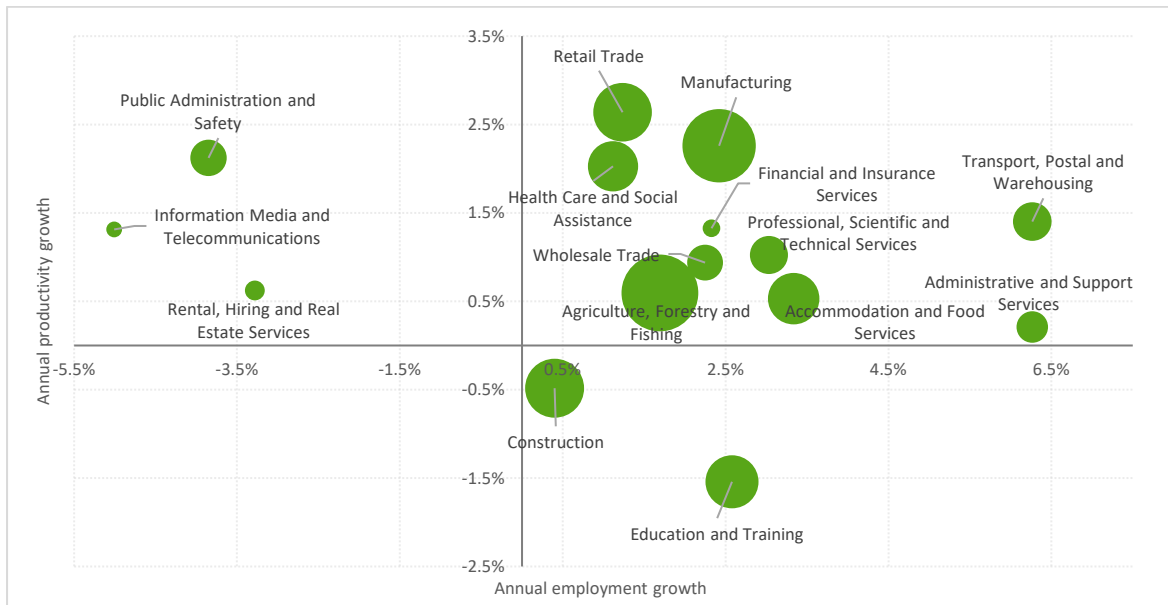
Agriculture contributes the largest share towards the economy (18%) and followed by manufacturing (12.8%) and both had positive productivity growth. Retail and accommodation had the highest productivity growth while education, food services and administrative services decreased in productivity.

## Linking trends with opportunity

Identifying the potential growth industries for the rest of Canterbury and excluding Christchurch is considered in this section. Christchurch is excluded to identify opportunities outside of the city since an analysis of overall Canterbury would likely provide overlapping results with Volume 1 and 2 of this series. Figure 7 shows thus annual employment growth and annual productivity growth for the rest of the Canterbury region. The industries in the top right quadrant represent industries that create employment and increase productivity and represent growth opportunity industries.

The size of the bubble represents the share of employment of the industry within the rest of Canterbury.

**Figure 7: Industries and growth opportunity**



Source: Christchurch NZ

The analysis in Figure 7 shows that the rest of the Canterbury economy (excl. Christchurch) shows positive trends in employment and productivity in most of the industries. It's particularly encouraging to see that the large driving industries continue to grow while supported by smaller industries such as accommodation and food services, transport and healthcare. The large industries of agriculture, manufacturing and retail show growth in employment and productivity growth within the rest of Canterbury economy. The strong growth of the transport industry especially road transport is most likely supported by the strong linkages with agriculture and manufacturing. The strong agriculture economy of Canterbury supports growth and development in the rest of the economy due to its forward and backward linkages with manufacturing and transport providing good examples of how the growing agriculture industry creates opportunities for other industries to prosper. The retail trade industry shows strong growth and could provide new growth opportunities. Given the large base of agriculture and manufacturing, the retail industry could potentially take advantage of new technology and consumer spending patterns, by encouraging online retail capabilities.

## Conclusion

The aim of this report was to identify the changes that have taken place within the Canterbury economy in both employment and production during the past decade. Agriculture, manufacturing, food and beverage services, transport and healthcare are standout-out performers of employment compared with other regions. In productivity, construction, food and beverage services and professional, scientific and technical services show high levels of productivity compared with other regions.



The result further confirm that the Canterbury economy is largely influenced by activity in Christchurch, as it contributes approximately 70% to the Canterbury economy. A separate analysis for the rest of Canterbury then highlighted the importance and potential growth of the retail, agriculture, manufacturing, healthcare and accommodation industries.

Considering the value-chain effect in the economy, the importance of the agriculture industry for the rest of Canterbury becomes apparent. This industry shows growth in employment and productivity, has strong linkages with manufacturing (also growing in production and employment) and transport (growing in employment and productivity). The development of strategic and policy directives ought to consider the important role of agriculture and other driving industries in the region to encourage growth and development.

## **Bibliography**

Statistics New Zealand. (2019).

<http://archive.stats.govt.nz/infoshare/Default.aspx?AspxAutoDetectCookieSupport=1>