

Economic Significance of the
Property Industry to the
CANTERBURY
Economy

PREPARED FOR PROPERTY COUNCIL NEW ZEALAND

BY URBAN ECONOMICS

2016



CHRISTCHURCH CITY COUNCIL

Te Kounga

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ABOUT PROPERTY COUNCIL NEW ZEALAND



Property Council New Zealand is a member-led, not-for-profit organisation offering a collective voice for the commercial property industry. Working closely with local and central government, Property Council advocates for quality urban growth that supports strong national and local economies.

Our 730 member companies have an estimated \$50 billion investment in commercial property, ranging from leading institutional investors, property trusts and financial organisations to private investors and developers.

Through extensive research, policy development, advocacy, education, and networking event programmes nationally and regionally, Property Council is enabling a vibrant commercial property market and wealth for all New Zealanders.

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ABOUT URBAN ECONOMICS



AREAS OF EXPERTISE

Economic Analysis

Our work aims to bridge the gap between land-use planning and urban economics. Our focus is on the interaction between land markets, land-use regulations and urban development. We have developed a range of methodologies using a quantitative approach to analyse urban spatial structure and audit land-use regulations.

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We provide development planning and costing advisory services to support small and large scale developments.

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1. KEY POINTS

Economic Contribution

The Property Industry had a 'direct impact' of
\$5.5 Billion
on the Canterbury Economy in 2016



It also had 'flow-on impacts' of
\$9.9 Billion
from increased supplier activity and employee
spending

Share of Local and National Economy

The property industry is the **largest industry** in Canterbury and makes up
18% of economic activity in the Region

The Canterbury Property Industry makes up
18% of the National Property Industry

Value of Canterbury's Buildings



Canterbury's stock of residential buildings is valued at
\$60.5 Billion



The stock of commercial buildings is valued at
\$13.8 Billion

Income and Employment

The Property Industry employs
32,080 People



The average income in the Property Industry is
\$60,300 p.a.

2. ECONOMIC CONTRIBUTION

Urban Economics has used a multiplier analysis to examine the economic contribution of the Property Industry to the Canterbury Economy.

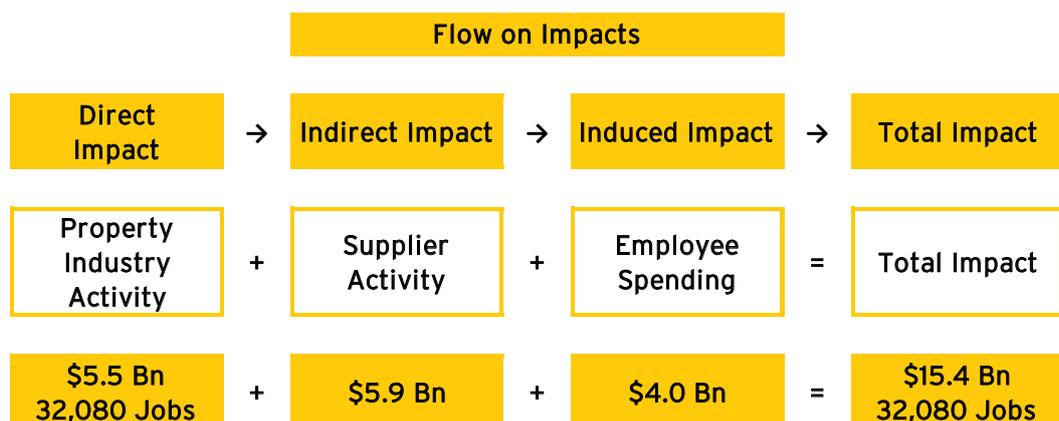
This analysis first examines the 'direct impact' of the industry's various sub-sectors (outlined in Appendix 1) to the Canterbury Regional Gross Domestic Product (GDP)¹.

The operation of the Property Industry also has a wider economic impact through two types of 'flow-on impacts'. The first type are 'indirect impacts' which result from the Property Industry purchasing goods and services from other industries (e.g. building materials suppliers). The second type are 'induced impacts' which result from employees of the Property Industry and supplier industries spending their wages or salaries on goods and services.

Based on Urban Economics' multiplier analysis, a \$1.00 contribution by the Property Industry to the Canterbury Regional GDP results in an additional \$1.81 of flow-on economic impacts.

In the year to March 2016, the Property Industry contributed \$15.4 billion to the Canterbury Economy. This includes a direct impact of \$5.5 billion and flow-on (indirect and induced) impacts of \$9.9 billion. It is important to note that this does not include capital gains from the appreciation of land and property values. In addition, 32,080 employees were directly employed in the Property Industry in March 2016, accounting for 12% of total employment in Canterbury.

Figure 1: Total Economic Contribution of the Property Industry Year Ended March 2016

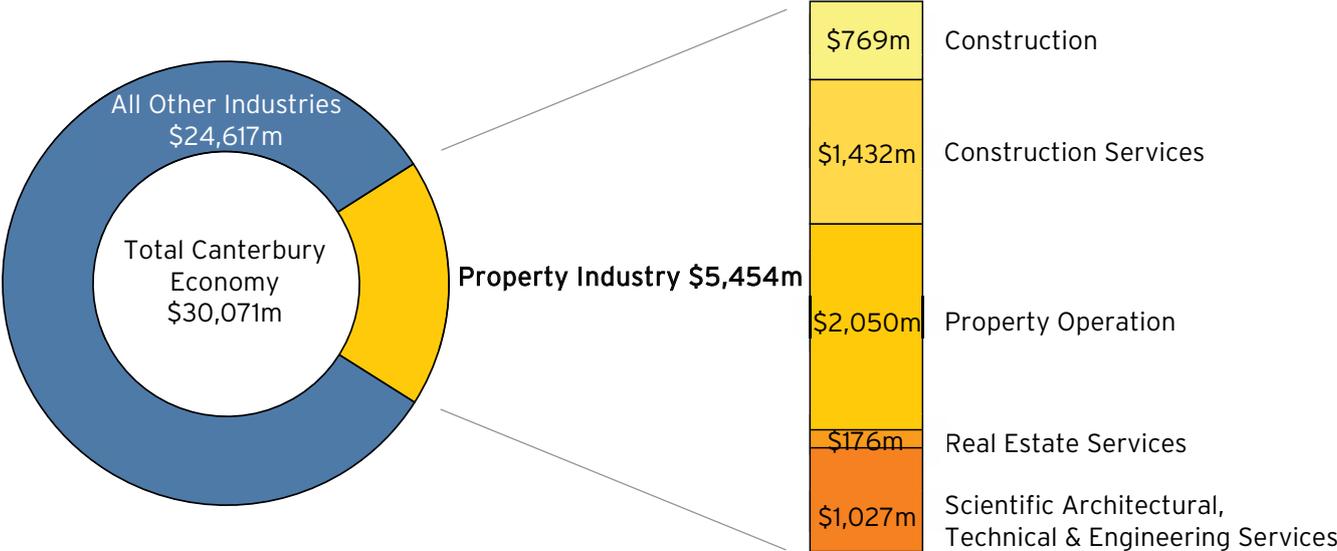


Source: Urban Economics

¹ For the purposes of this report GDP is measured in 'basic prices' which is price minus taxes but including subsidies.

The following figure shows the direct economic contribution of the Property Industry to the Canterbury economy. This is the difference between the value of inputs (labour, materials, etc.) and the value of outputs (dwellings, real estate services, etc.). In other words, it is the value added to the economy by the Property Industry.

Figure 2: Property Industry Economic Contribution (2016 \$m)²



Source: Statistics NZ, Urban Economics

² An explanation of the Property Industry Sub-Sectors is included in Appendix 1.

3. RELATIVE SIZE OF THE PROPERTY INDUSTRY

3.1. Contribution to the Canterbury Economy

The following table shows the direct contribution to GDP by industry for the year to March 2016. The Property Industry is the largest industry in Canterbury and has a direct contribution to GDP of \$5,454 million or 18% of total GDP³.

In comparison, the Property Industry's share of National GDP is 12%, which indicates the Property Industry makes up a much larger share of the Canterbury economy. This is primarily due to increased construction activity after the Christchurch earthquakes.

Table 1: Direct Contribution of the Property Industry to GDP (Year to March 2016)

Industry	\$Million	%
Property Industry	\$5,454	18%
Manufacturing	\$3,492	12%
Owner-Occupied Property Operation	\$2,576	9%
Health Care and Social Assistance	\$2,048	7%
Agriculture	\$1,854	6%
Retail Trade	\$1,526	5%
Transport, Postal and Warehousing	\$1,515	5%
Information Media, Telecommunications and Other Services	\$1,456	5%
Wholesale Trade	\$1,456	5%
Education and Training	\$1,371	5%
Electricity, Gas, Water, and Waste services	\$1,092	4%
Public Administration and Safety	\$987	3%
Financial and Insurance Services	\$932	3%
Accommodation and Food Services	\$616	2%
Forestry, Fishing, and Mining	\$584	2%
Administrative and Support Services	\$568	2%
Other	\$2,544	8%
Total	\$30,071	100%

Source: Statistics NZ, Urban Economics

³ The proportion of GDP contribution of each industry in 2016 is derived from the Statistics New Zealand National Accounts Input-Output Tables 2013.

3.2. Number of Employees

The Property Industry is currently the second largest employer in Canterbury. In March 2016, 32,080 people were directly employed in the Property Industry, which is 12% of all employees.

This is a higher percentage of employees than the National Property Industry, which is 8% of National employment.

Table 2: Employment by Industry March 2016

Industry	Employment	%
Manufacturing	33,460	13%
Property Industry	32,080	12%
Health Care and Social Assistance	28,580	11%
Retail Trade	27,610	10%
Education and Training	19,030	7%
Information Media, Telecommunications and Other Services	17,360	7%
Accommodation and Food Services	17,160	6%
Wholesale Trade	14,050	5%
Scientific and Professional Services	13,970	5%
Agriculture, Forestry, Fishing, and Mining	12,850	5%
Administrative and Support Services	12,650	5%
Transport, Postal and Warehousing	12,150	5%
Public Administration and Safety	11,020	4%
Heavy and Civil Engineering Construction	5,910	2%
Financial and Insurance Services	5,530	2%
Rental & Hiring Services	1,840	1%
Electricity, Gas, Water, and Waste services	1,800	1%
Total	267,050	100%

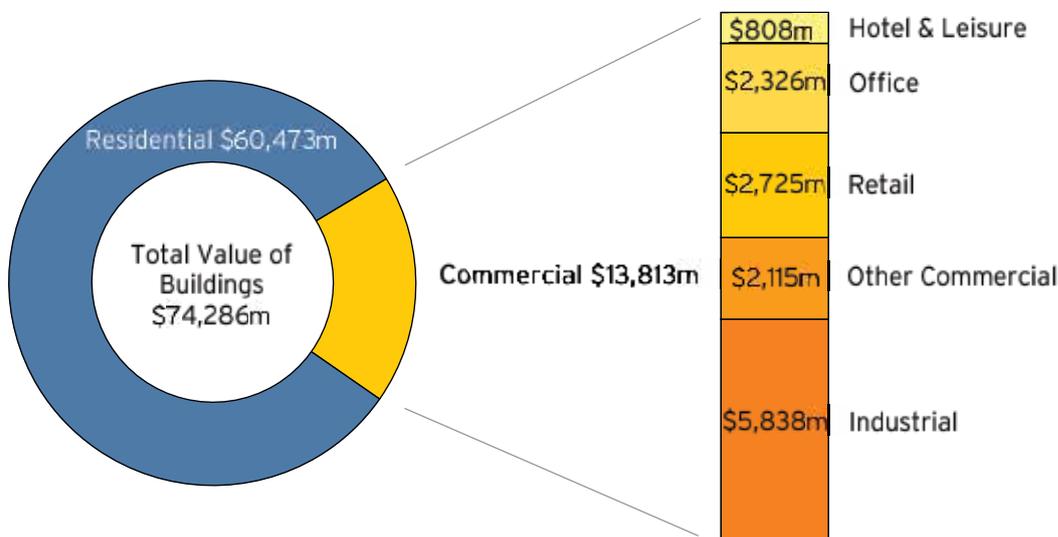
Source: Statistics NZ, Urban Economics

4. CANTERBURY PROPERTY ASSETS

The Canterbury Region's building stock is currently worth \$74.3 billion. Commercial buildings make up \$13.8 billion or 19% of the total building stock and residential buildings make up \$60.5 billion or 81%.

Commercial buildings in Canterbury make up a slightly smaller share of the total than the National building stock, with commercial buildings making up 20% of the total value of buildings Nationally, and residential buildings making up 80%.

Figure 3: Value of Residential and Commercial Buildings (\$m)



Source: Valocity

The value of buildings by type is shown in the following table for the sub-areas of the Canterbury Region. Christchurch City makes up 66% of the total value of buildings in the Canterbury Region with \$49.2 billion of buildings. Selwyn and Waimakariri both have in the order of 10% of building values with \$7.4 billion and \$7.2 billion respectively.

Table 3: Value of Buildings by Territorial Authority (\$ million)

	Christchurch City	Selwyn	Waimakariri	Timaru	Ashburton	Hurunui	Mackenzie	Kaikoura	Waimate	Canterbury Region
Residential	\$38,439	\$6,865	\$6,527	\$3,555	\$2,324	\$1,311	\$596	\$394	\$463	\$60,473
Office	\$2,197	\$19	\$30	\$52	\$20	\$3	\$3	\$1	\$2	\$2,326
Retail	\$2,253	\$63	\$163	\$112	\$68	\$40	\$8	\$14	\$4	\$2,725
Hotel & Leisure	\$561	\$14	\$16	\$47	\$29	\$37	\$61	\$42	\$1	\$808
Other Commercial	\$1,451	\$50	\$235	\$215	\$98	\$23	\$25	\$4	\$16	\$2,115
Industrial	\$4,296	\$416	\$181	\$604	\$251	\$10	\$9	\$9	\$61	\$5,838
Sub-Total Commercial	\$10,757	\$562	\$625	\$1,030	\$467	\$112	\$105	\$70	\$85	\$13,813
Total Value	\$49,197	\$7,427	\$7,152	\$4,585	\$2,791	\$1,422	\$701	\$464	\$548	\$74,286
Percentage	66%	10%	10%	6%	4%	2%	1%	1%	1%	100%

Source: Valocity

4.1. Commercial Building Floorspace

The following table and figure show commercial building floorspace in the Canterbury Region by sub-area and type. Within the Canterbury Region there is currently 12.6 million m² of commercial building floorspace. Christchurch City has 69% of the commercial floorspace in the region. Selwyn has a high proportion of Industrial floorspace.

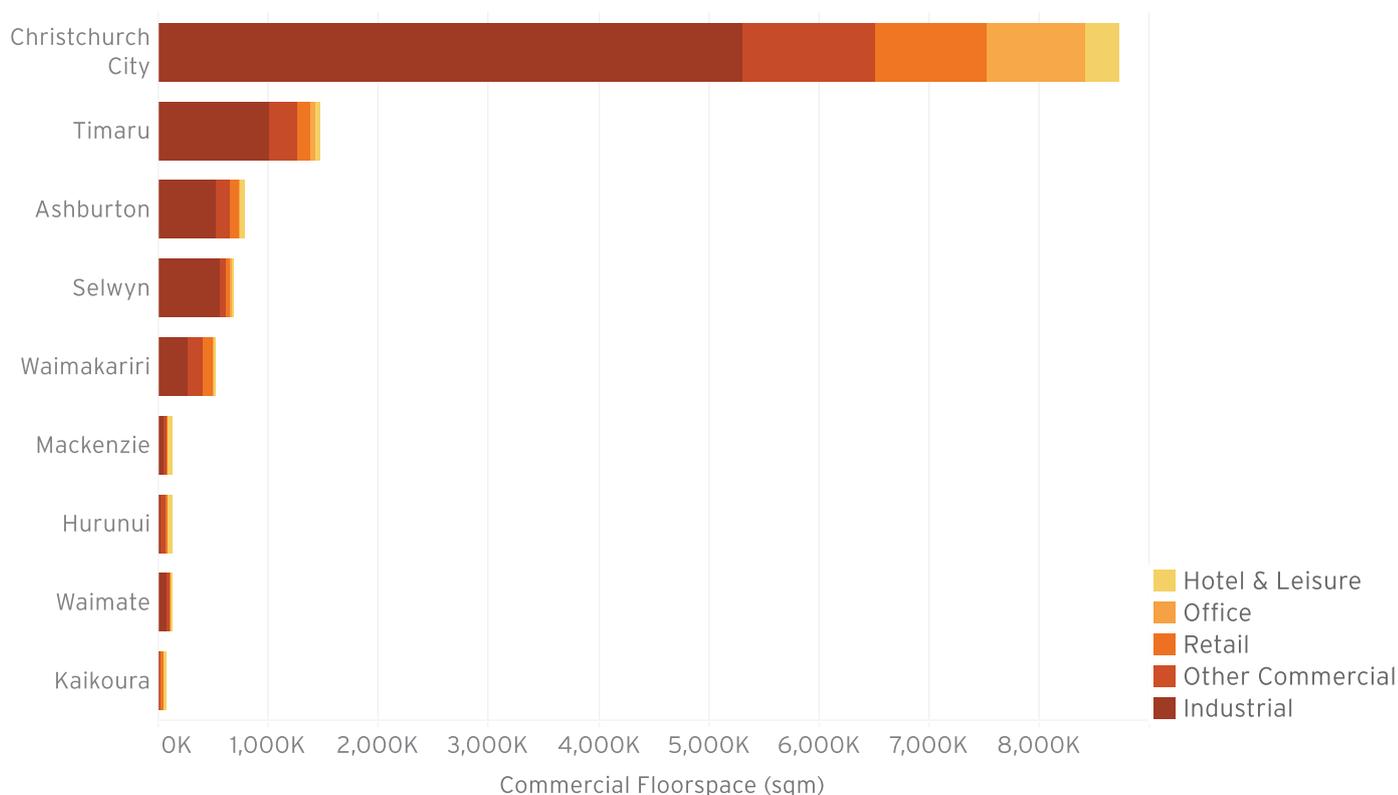
There is 95.5 million m² of commercial building floorspace Nationally. The Canterbury Region therefore has approximately 13% of all commercial building floorspace.

Table 4: Commercial Building Floorspace by Type (m²)

	Christchurch City	Timaru	Ashburton	Selwyn	Waimakariri	Mackenzie	Hurunui	Waimate	Kaikoura	Canterbury Region
Office	888,400	53,200	23,500	10,000	19,000	2,100	3,900	2,600	1,500	1,004,200
Other Commercial	1,202,200	249,600	129,400	55,300	127,500	34,900	34,700	31,700	12,300	1,877,600
Retail	1,020,500	125,900	73,900	40,500	93,100	11,800	33,400	7,000	17,300	1,423,400
Hotel & Leisure	301,200	30,000	35,300	12,000	11,100	38,700	27,800	1,300	29,100	486,500
Industrial	5,306,500	1,008,600	526,500	561,100	274,000	46,300	26,400	78,200	17,600	7,845,200
Total	8,718,700	1,467,300	788,500	678,900	524,700	133,900	126,100	120,700	77,800	12,636,600
Percentage	69%	12%	6%	5%	4%	1%	1%	1%	1%	100%

Source: Valocity

Figure 4: Commercial Floorspace by Territorial Authority



Source: Valocity

5. EMPLOYMENT AND INCOME IN THE PROPERTY INDUSTRY

Construction Services is the largest sub-sector of the Property Industry in Canterbury with 14,550 employees or 45% of all Property Industry employment. The second largest sub-sector is Architectural, Engineering and Technical Services with 7,180 employees (22%), followed by Residential Building Construction with 6,270 employees (20%).

The average earnings in the Property Industry are \$60,300 per annum. Within the Property Industry the Architectural, Engineering and Technical Services sub-sector has the highest earnings, at \$81,100 per annum.

The Canterbury Region has a higher proportion of Residential Building Construction employment than the National Property Industry. The average income of the Property Industry in Canterbury is slightly higher than the National average of \$60,200.

Table 5: Earnings and Employment by Property Industry Sub-Sector (March 2016)

	Employment	Employment %	Average Earnings
Residential Building Construction	6,270	20%	\$48,900
Commercial Building Construction	1,970	6%	\$71,700
Construction Services	14,550	45%	\$56,200
Property Operators	910	3%	\$58,300
Real Estate Services	1,220	4%	\$58,300
Architectural, Engineering and Technical Services	7,180	22%	\$81,100
Total Property Industry	32,080	100%	\$60,300

Source: Statistics NZ, Urban Economics

Table 6 shows average earnings and employment by age. The Canterbury Property Industry has similar average earnings across all age brackets as the New Zealand average. Earnings in Canterbury are highest for the 40-44 and 55-59 age brackets. The age profile of Property Industry workers in Canterbury is similar to the National average, however Canterbury has a slightly higher proportion of workers in the 15-24 and 25-29 age brackets, and corresponding lower proportions for the 50-54, 55-59, and 60+ age brackets.

Table 6: Earnings and Employment by Age (March 2016)

Age	Canterbury		New Zealand	
	Average Earnings	Percentage of Jobs	Average Earnings	Percentage of Jobs
15-24	\$41,100	20%	\$37,600	18%
25-29	\$58,000	17%	\$53,800	14%
30-34	\$65,600	12%	\$61,400	12%
35-39	\$67,300	10%	\$67,600	10%
40-44	\$71,900	11%	\$71,400	11%
45-49	\$70,700	10%	\$72,100	10%
50-54	\$71,900	8%	\$71,600	9%
55-59	\$76,300	6%	\$70,600	7%
60+	\$61,000	6%	\$60,700	9%

Source: Statistics NZ, Urban Economics

Table 7 shows earnings and employment by gender. In the order of 21% of employees in the Property Industry are female which is slightly less than the National average. Earnings for females and males are similar to the National average.

Table 7: Earnings and Employment by Gender (March 2016)

Gender	Canterbury		New Zealand	
	Average Earnings	Percentage of Jobs	Average Earnings	Percentage of Jobs
Female	\$45,700	21%	\$45,800	24%
Male	\$69,500	79%	\$69,200	76%

Source: Statistics NZ, Urban Economics

5.1. Employment by Territorial Authority

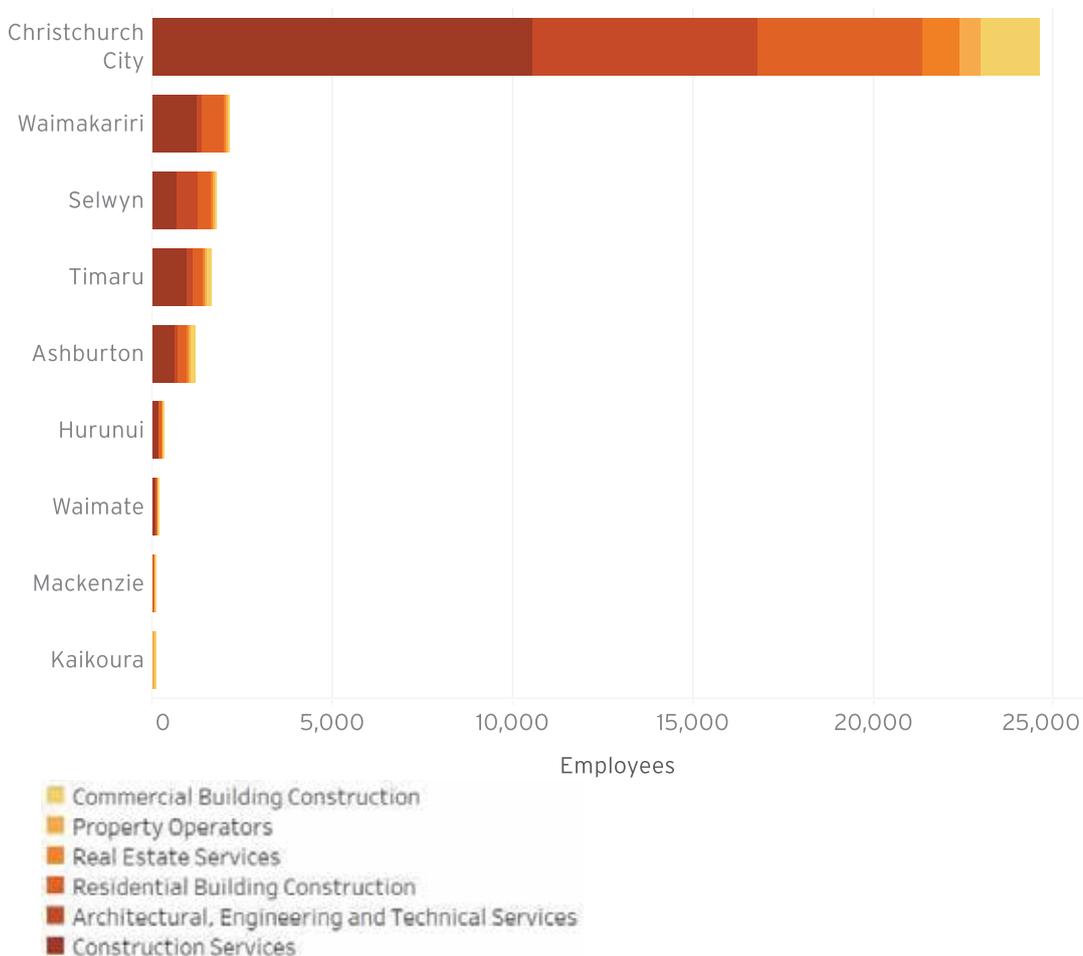
The following table and figure show employment in the Property Industry in Canterbury by sub-area and sub-sector. The majority of employees, 24,610 or 77% are based in Christchurch City, while the remaining 23% of employees are spread across the remaining 8 sub-areas. As shown in Figure 5, Construction Services is the largest sub-sector in all areas.

Table 8: Employment by Territorial Authority

	Employment	Percentage
Christchurch City	24,610	77%
Waimakariri	2,150	7%
Selwyn	1,800	6%
Timaru	1,640	5%
Ashburton	1,220	4%
Hurunui	330	1%
Waimate	160	0%
Mackenzie	100	0%
Kaikoura	70	0%
Canterbury Total	32,100	100%

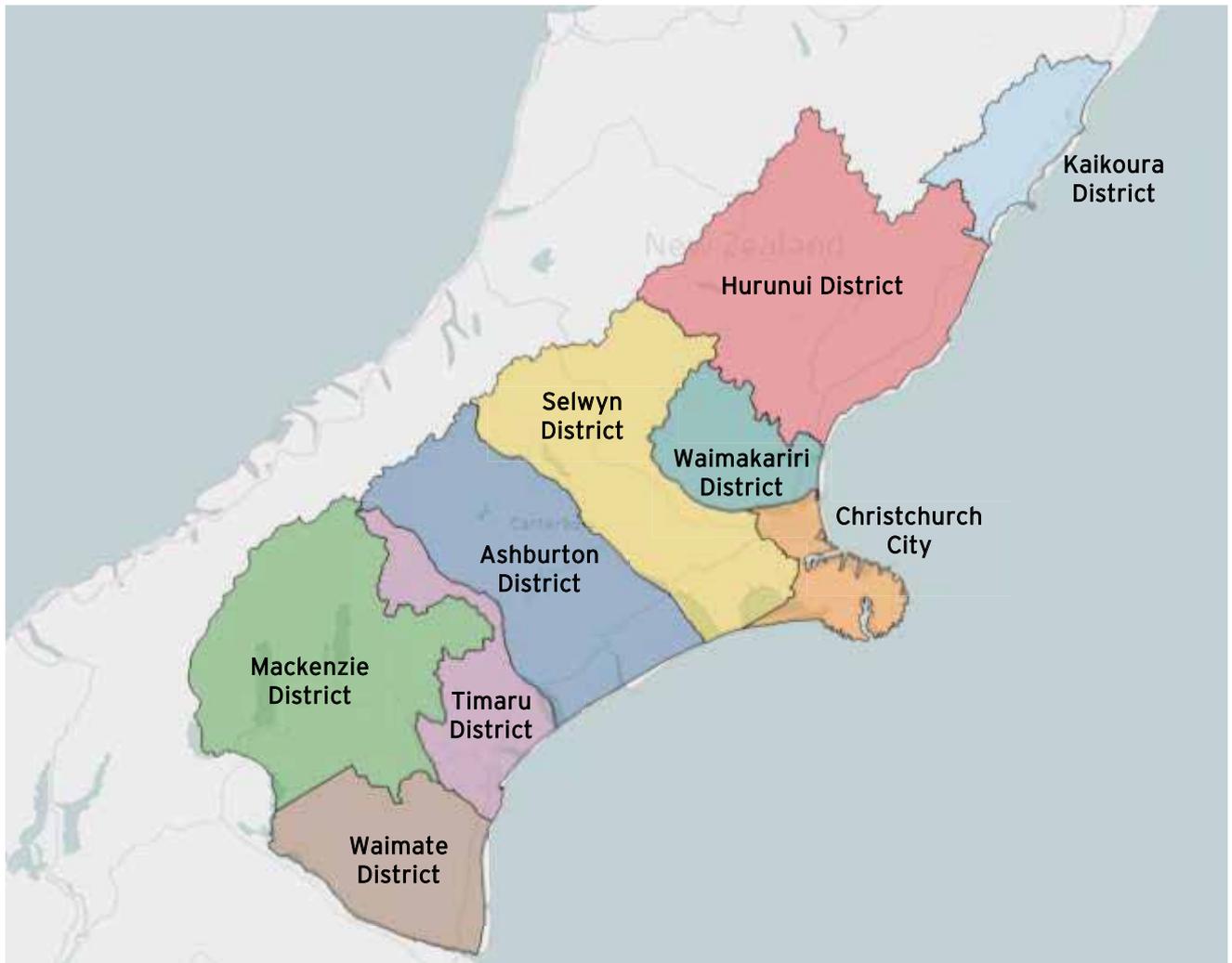
Source: Statistics NZ, Urban Economics

Figure 5: Employment by Sub-Sector and Territorial Authority



Source: Statistics NZ, Urban Economics

6. CANTERBURY OF PLENTY REGION



7. APPENDIX 2: DEFINITION OF THE PROPERTY INDUSTRY

7.1. Definition for Economic Contribution

The Property Industry has been defined to include the following sub-sectors for the analysis economic contribution to GDP (Sections 2 & 3.1):

<u>Sub-Sector</u>	<u>Explanation</u>
Residential Building Construction	Residential dwelling construction.
Commercial Building Construction	Commercial building construction including retail, office, industrial and other commercial buildings.
Construction Services	Other activities relating to construction, including for example plumbing, electrical, tiling, glazing, roofing and bricklaying services.
Residential Property Operation	Renting or leasing of residential property.
Commercial Property Operation	Renting or leasing of commercial property.
Real Estate Services	Purchase, sale, valuation and management of real estate.
Scientific, Architectural, Engineering and Technical Services	Architectural, surveying, engineering, scientific testing and other design services.

The Scientific, Architectural, Engineering and Technical Services sub-sector includes a small number of activities which are not related to the Property Industry. Therefore, including this sub-sector in the definition of the Property Industry slightly overestimates the size of the industry.

7.2. Definition for Employment and Income in the Property Industry

The definition of the Property Industry for employment and income figures (Sections 3.2 and 5) is the same as the above however it excludes the Scientific sub-sector. This is because employment and income data are available for a more detailed breakdown of industry sub-sectors.

8. APPENDIX 3: MULTIPLIER ANALYSIS ASSUMPTIONS

The key assumptions and limitations of Input-Output Multiplier Analysis are as follows:

No Supply Side Constraints

- Extra output can be produced in one industry without taking resources away from other industries.

Fixed Input Structure

- Each industry has only one production process which uses one mix of inputs to produce each unit of output.

Constant Returns to Scale

- The same quantity of inputs is needed per unit of output, regardless of the level of production. I.e. if output increases by 10% input requirements will also increase by 10%;

Fixed Output Production

- All products of an industry are identical or are made in fixed proportions to each other;

Absence of Budget Constraints

- Household and government consumption is not subject to budget constraints.

Despite these assumptions, Input-Output Multiplier Analysis provides a solid basis for examining the direct impact of an industry and the inter-relationships of industries (indicated by the flow-on effects). This analysis differs from an economic impact assessment, which considers an impact of a "stimulus" to an industry, for example from a new policy or project. Due the limiting assumptions outlined above, in particular the lack of supply-side constraints, Multiplier Analysis may overestimate the economic impact of a "stimulus".



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