

Economic Significance of the
Property Industry to the
BAY OF PLENTY
Economy

PREPARED FOR PROPERTY COUNCIL NEW ZEALAND

BY URBAN ECONOMICS

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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.

www.propertynz.co.nz.

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.


Property Research

We provide property and retail market research to assist with planning and marketing of new projects. This includes identification of new sites and market areas, assessments of market potential and positioning, and the evaluation of market-feasibility of specific projects.

Development Advisory

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

\$1.6 Billion

on the Bay of Plenty Economy in 2016



It also had 'flow-on impacts' of

\$1.9 Billion

from increased supplier activity and employee spending

Share of Local and National Economy

The property industry is the **largest industry** in the BOP and makes up **14% of economic activity** in the region

The BOP Property Industry makes up **5% of the National Property Industry**

Value of Bay of Plenty's Buildings



BOP's stock of residential buildings is valued at

\$25.3 Billion



The stock of commercial buildings is valued at

\$6.1 Billion

Income and Employment

The Property Industry employs **8,600 People**



The average income in the Property Industry is **\$54,500 p.a.**

2. ECONOMIC CONTRIBUTION

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

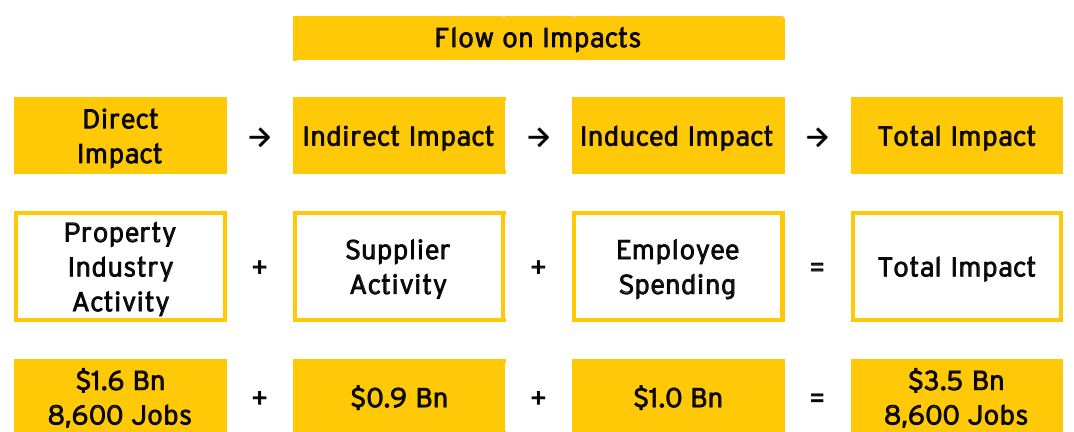
This analysis first examines the 'direct impact' of the industry's various sub-sectors (outlined in Appendix 1) to the Bay of Plenty Regional Gross Domestic Product (GDP)¹.

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 Bay of Plenty Regional GDP results in an additional \$1.22 of flow-on economic impacts.

In the year to March 2016, the Property Industry contributed \$3.5 billion to the Bay of Plenty Economy. This includes a direct impact of \$1.6 billion and flow-on (indirect and induced) impacts of \$1.9 billion. It is important to note that this does not include capital gains from the appreciation of land and property values. In addition, 8,600 employees were directly employed in the Property Industry in March 2016, accounting for 8% of total employment in the Bay of Plenty.

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

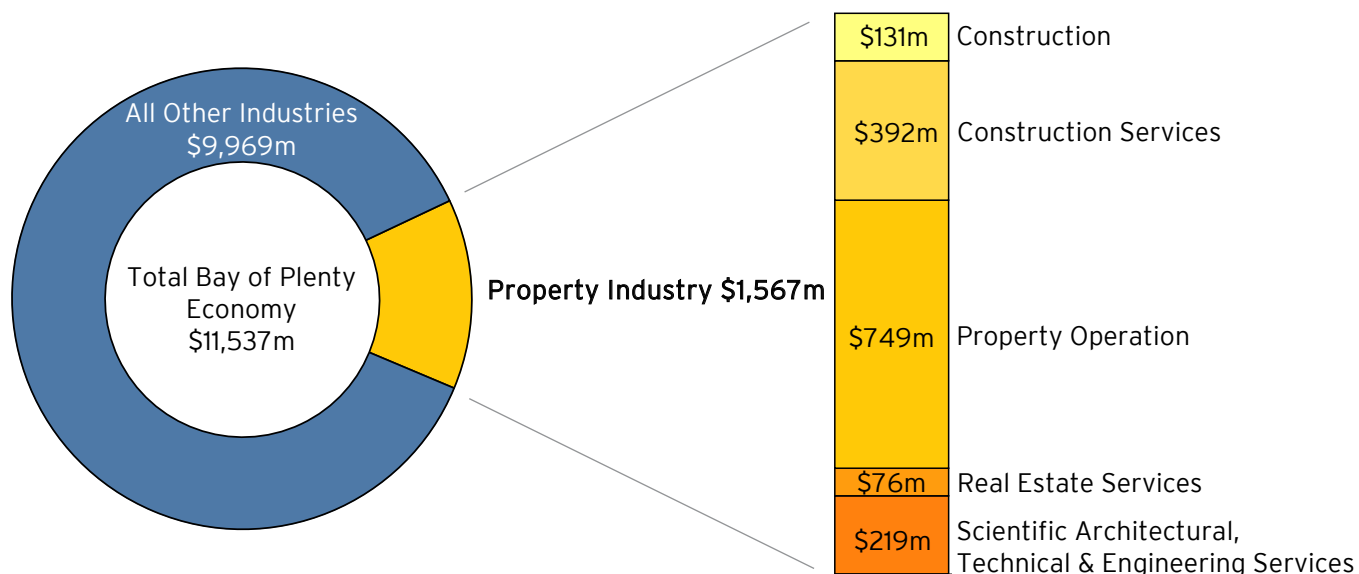


Source: Urban Economics

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 Bay of Plenty 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 Bay of Plenty 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 the Bay of Plenty with a direct contribution to GDP of \$1,567 million or 14% of total GDP³.

In comparison, the Property Industry's share of National GDP is 12%, which demonstrates that the Property Industry makes up a larger share of the economy in the Bay of Plenty.

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

Industry	\$Million	%
Property Industry	\$1,567	14%
Manufacturing	\$1,192	10%
Health Care and Social Assistance	\$988	9%
Owner-Occupied Property Operation	\$959	8%
Agriculture	\$731	6%
Forestry, Fishing, and Mining	\$666	6%
Transport, Postal and Warehousing	\$663	6%
Retail Trade	\$625	5%
Electricity, Gas, Water, and Waste services	\$598	5%
Education and Training	\$578	5%
Information Media, Telecommunications and Other Services	\$496	4%
Wholesale Trade	\$411	4%
Administrative and Support Services	\$367	3%
Public Administration and Safety	\$366	3%
Financial and Insurance Services	\$302	3%
Accommodation and Food Services	\$263	2%
Other	\$765	7%
Total	\$11,537	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 Bay of Plenty's sixth largest employer. In March 2016, 8,600 people were directly employed in the Property Industry, which is 8% of all employees.

This is the same percentage of employees as the National Property Industry.

Table 2: Employment by Industry March 2016

Industry	Employment	%
Health Care and Social Assistance	14,300	13%
Manufacturing	11,950	11%
Retail Trade	11,780	11%
Agriculture, Forestry, Fishing, and Mining	9,980	9%
Education and Training	9,190	8%
Property Industry	8,600	8%
Accommodation and Food Services	7,720	7%
Information Media, Telecommunications and Other Services	7,200	6%
Administrative and Support Services	6,140	5%
Transport, Postal and Warehousing	5,240	5%
Scientific and Professional Services	4,960	4%
Public Administration and Safety	4,510	4%
Wholesale Trade	4,420	4%
Heavy and Civil Engineering Construction	2,540	2%
Financial and Insurance Services	1,830	2%
Electricity, Gas, Water, and Waste services	770	1%
Rental & Hiring Services	550	0%
Total	111,680	100%

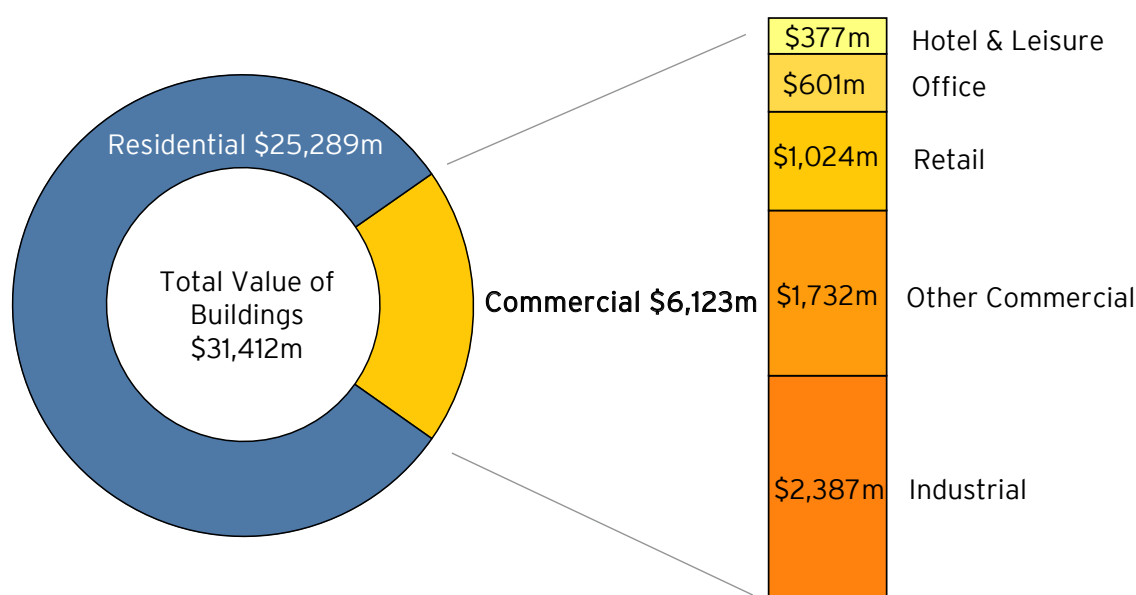
Source: Statistics NZ, Urban Economics

4. BAY OF PLENTY PROPERTY ASSETS

The Bay of Plenty's building stock is currently worth \$31.4 billion. Commercial buildings make up \$6.1 billion or 19% of the total building stock and residential buildings make up \$25.3 billion or 81%.

This is very similar to the National building stock, with commercial buildings making up 20% of the total value of buildings, and residential buildings making up 80%. The Bay of Plenty has a slightly higher proportion of Industrial and Other Commercial buildings than the New Zealand average, and a smaller proportion of Office and Retail buildings.

Figure 3: Value of Residential and Commercial Buildings



Source: Valocity

The value of buildings by type is shown in the following table for the sub-areas of the Bay of Plenty region. Tauranga makes up over half the total value of buildings in the Bay of Plenty with \$16.4 billion of buildings, while Western Bay of Plenty and Rotorua make up another 35% with \$5.9 billion and \$5.2 billion of buildings respectively.

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

	Tauranga	Western Bay of Plenty	Rotorua	Whakatane	Opotiki	Kawerau	Bay of Plenty
Residential	\$12,824	\$5,360	\$3,938	\$2,412	\$558	\$198	\$25,289
Office	\$367	\$17	\$164	\$43	\$7	\$3	\$600
Retail	\$627	\$65	\$187	\$127	\$12	\$6	\$1,025
Hotel & Leisure	\$59	\$25	\$251	\$33	\$7	\$2	\$377
Other Commercial	\$1,231	\$135	\$270	\$72	\$18	\$6	\$1,733
Industrial	\$1,336	\$298	\$339	\$193	\$19	\$202	\$2,388
Sub-Total Commercial	\$3,620	\$540	\$1,212	\$467	\$64	\$219	\$6,123
Total Value	\$16,444	\$5,900	\$5,150	\$2,879	\$622	\$417	\$31,412
Percentage	52%	19%	16%	9%	2%	1%	100%

Source: Valocity

4.1. Commercial Building Floorspace

The following table and figure show commercial building floorspace in the Bay of Plenty by sub-area and type. Within the Bay of Plenty there is currently 6.6 million m² of commercial building floorspace. Approximately half of this space is located in Tauranga, while another quarter is located in Rotorua.

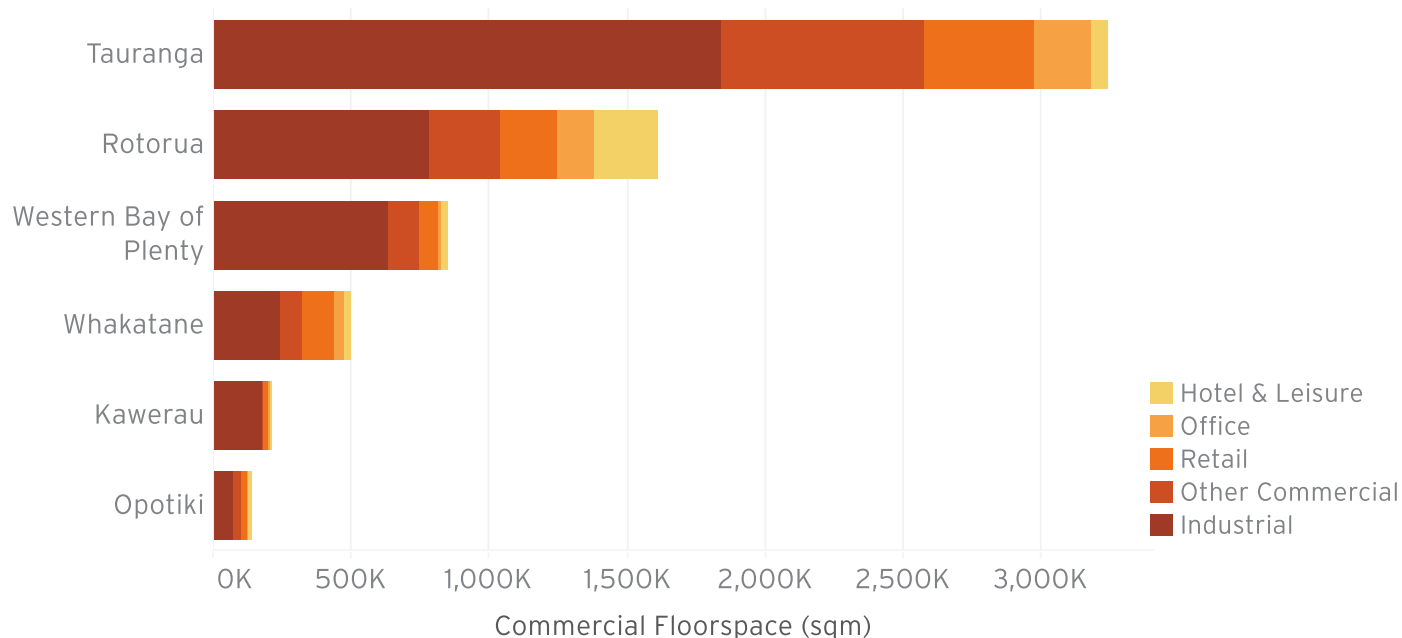
There is 95.5 million m² of commercial building floorspace Nationally. Bay of Plenty therefore has approximately 7% of all commercial building floorspace.

Table 4: Commercial Building Floorspace by Type (m²)

	Tauranga	Rotorua	Western Bay of Plenty	Whakatane	Opotiki	Kawerau	Bay of Plenty
Office	204,900	129,500	15,600	36,400	8,800	4,600	399,800
Retail	400,400	209,500	64,200	117,600	16,200	15,100	823,000
Hotel & Leisure	62,000	236,700	24,000	21,800	8,400	2,800	355,700
Other Commercial	733,600	253,900	112,700	80,800	30,700	10,800	1,222,500
Industrial	1,844,000	785,700	635,600	242,000	73,800	173,800	3,754,900
Total	3,244,900	1,615,300	852,100	498,600	137,900	207,100	6,555,900
Percentage	49%	25%	13%	8%	2%	3%	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 the Bay of Plenty with 4,560 employees or 53% of all Property Industry employment. The second largest sub-sector is Architectural, Engineering and Technical Services with 1,400 employees (16%), followed by Residential Building Construction with 1,300 employees (15%).

The average earnings in the Property Industry are \$54,500 per annum. Within the Property Industry the Architectural, Engineering and Technical Services sub-sector has the highest earnings, at \$67,100 per annum.

The Bay of Plenty Region has a higher percentage of employment in Construction Services and less employment in Architectural, Engineering and Technical Services than the National average. Average income of the Property Industry is lower than the National average of \$60,200. This is primarily due to the Architecture, Engineering and Technical Services sub-sector earning \$67,100 on average in the Bay of Plenty compared with \$77,500 Nationally.

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

	Employment	Employment %	Average Earnings
Residential Building Construction	1,300	15%	\$55,600
Commercial Building Construction	310	4%	\$57,400
Construction Services	4,560	53%	\$51,700
Property Operators	450	5%	\$46,500
Real Estate Services	590	7%	\$46,500
Architectural, Engineering and Technical Services	1,400	16%	\$67,100
Total Property Industry	8,610	100%	\$54,500

Source: Statistics NZ, Urban Economics

Table 6 shows average earnings and employment by age. The Bay of Plenty Property Industry has slightly lower average earnings across all age brackets than the New Zealand average. Earnings in Bay of Plenty peak at 45-49 years which is the same as the National average. The age profile of Property Industry workers in the Bay of Plenty is similar to the National average.

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

Age	Bay of Plenty		New Zealand	
	Average Earnings	Percentage of Jobs	Average Earnings	Percentage of Jobs
15-24	\$33,900	18%	\$37,600	18%
25-29	\$47,400	13%	\$53,800	14%
30-34	\$55,500	11%	\$61,400	12%
35-39	\$56,500	10%	\$67,600	10%
40-44	\$61,900	11%	\$71,400	11%
45-49	\$71,200	10%	\$72,100	10%
50-54	\$62,400	9%	\$71,600	9%
55-59	\$60,900	8%	\$70,600	7%
60+	\$51,300	10%	\$60,700	9%

Source: Statistics NZ, Urban Economics

Table 7 shows earnings and employment by gender. In the order of 24% of employees in the Property Industry are female which is the same as the National average. Earnings for females and males are slightly lower than the National average.

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

Gender	Bay of Plenty		New Zealand	
	Average Earnings	Percentage of Jobs	Average Earnings	Percentage of Jobs
Female	\$43,000	24%	\$45,800	24%
Male	\$61,800	76%	\$69,200	76%

Source: Statistics NZ, Urban Economics

5.1. Employment by Territorial Authority

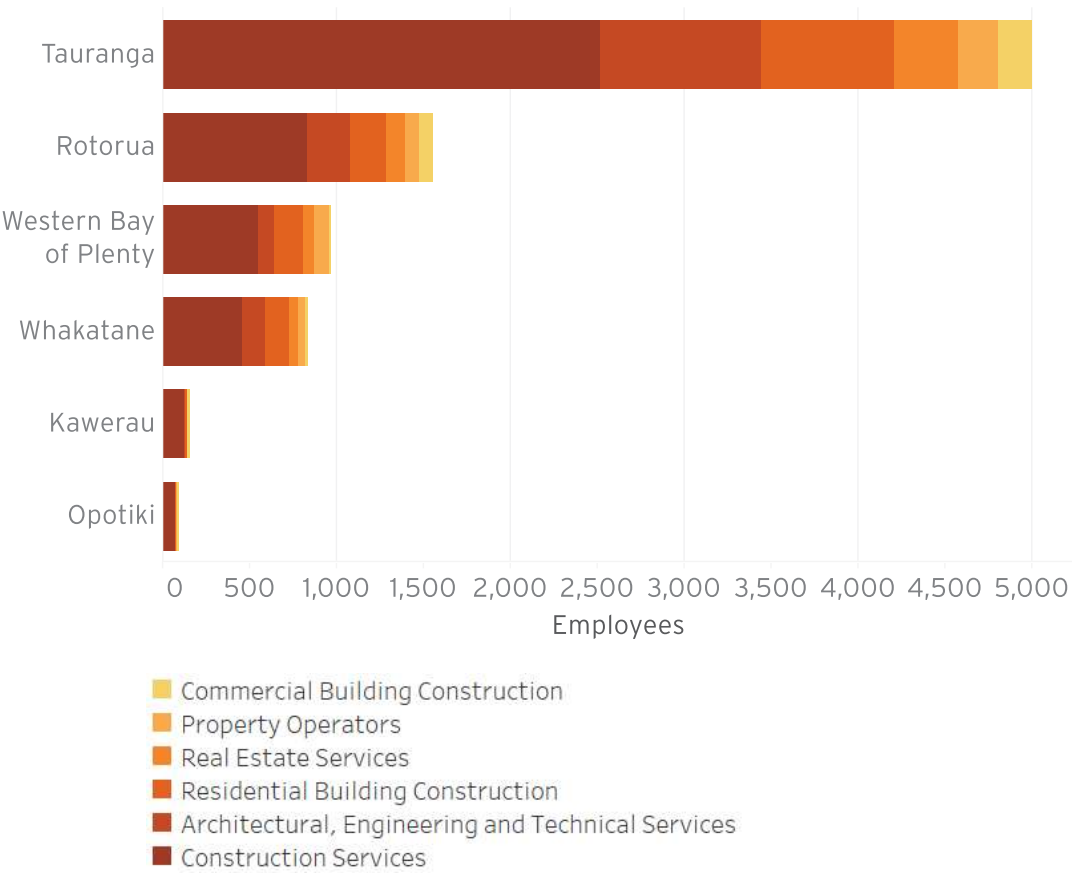
The following table and figure show employment in the Property Industry in the Bay of Plenty by sub-area and sub-sector. 5,000 employees or 58% are based in Tauranga, while Rotorua has 1,560 employees or 18% and Western Bay of Plenty has 970 or 11%. As shown in Figure 5, Construction Services is the largest sub-sector in all areas, followed by Architectural, Engineering and Technical Services and Residential Building Construction.

Table 8: Employment by Territorial Authority

	Employment	Percentage
Tauranga	5,000	58%
Western Bay of Plenty	970	11%
Rotorua	1,560	18%
Whakatane	830	10%
Kawerau	160	2%
Opotiki	90	1%
Bay of Plenty Total	8,610	100%

Source: Statistics NZ, Urban Economics

Figure 5: Employment by Sub-Sector and Territorial Authority



Source: Statistics NZ, Urban Economics

6. MAP OF BAY 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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